

USE AND MAINTENANCE MANUAL

MAGISTER³

**MODELS: MAGISTER³ MANUAL, MAGISTER³ ELECTRIC,
MAGISTER³ AUTOMATIC, MAGISTER³ AUTOMATIC ROTAX**



ATTENTION

A copy of the following manual must always remain on the machine and available to the operator.

ORIGINAL INSTRUCTIONS IN ENGLISH



MUM-MAG3 IT | v. 1.0 0326

Download the manual/
Access the Magister repository³:



www.feda.it/repository/magister3



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THE DIVISIONS OF FAITH:



TECHNOLOGY AND SECURITY
AT THE SERVICE OF THE
CEMETERY



LIFTING AND SAFETY
AT THE SERVICE OF PROFESSIONALS

Esteemed Client,

We would like to thank you for choosing an elevating work platform **MAGISTER³**.

This Operation and Maintenance Manual has been written to allow you to thoroughly understand the machine and fully appreciate its technical features, performance, and design solutions. We invite you to read it carefully in its entirety before using the lift for the first time.

Inside the manual you will find information, operating instructions and fundamental warnings for the correct and safe use of the machine, as well as for its correct maintenance and for maintaining its efficiency and reliability over time.

Compliance with the instructions contained in this document is an integral part of the intended use of the machine and is an essential condition for ensuring the safety of operators, people present in the work area and the surrounding environment.

The staff of **FEDA S.r.l.** remains at your disposal for any further information, technical support or clarification and wishes you good work, certain that **MAGISTER³** will be able to respond to your operational needs with effectiveness, safety and reliability.

Best regards

The Management

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Glossary

In this manual, the terms listed below have the meanings indicated. The glossary is provided for ease of reference and to ensure consistency.

Magister³ / Serie Magister³

Family of stabilized elevating work platforms, available in Manual, Electric, Automatic and Automatic Rotax versions.

Versione (Manual / Electric / Automatic/ Automatic Rotax)

Identifies the functional configuration of the machine (lifting drive mode and presence of electric traction and, for the Automatic Rotax version, motorized rotation).

Factory configuration (SB / DB)

Indicates the machine's predisposition for the installation of side operator stations. SB: predisposition for a single side basket. DB: predisposition for two side baskets.

Ground worker

Person present on the ground during operations at height, responsible for monitoring the work area, assisting with operations, preventing access by third parties, and implementing the emergency procedures provided in the manual (e.g., emergency stop, emergency descent, securing the area, and calling for help). The ground worker must be trained and instructed in the machine's emergency procedures.

Technically competent and qualified staff

A person with adequate training, experience, and technical knowledge to perform routine periodic checks and periodic chain inspections according to the procedures in this manual, as well as to assess when the machine should be taken out of service and handed over to FEDA or a person authorized by FEDA.

FEDA Authorized Center/Personnel

Structure or technician expressly authorized by FEDA S.r.l. to carry out the interventions that this manual reserves for the manufacturer, including CHECK, REVISION, extraordinary maintenance, repairs and extraordinary checks before putting the machine back into service.

Periodic chain checks

Scheduled check of lifting chains and their tensioning, carried out with the frequency indicated by the manufacturer and according to the procedure in §10.2.3.

Detailed scheduled check (CHECK)

Scheduled in-depth machine inspection, corresponding to the FEDA commercial service called CHECK, aimed at structural and functional diagnosis, registration of the lifting unit and issuing the intervention report.

Scheduled review (REVISION)

Scheduled in-depth maintenance and technical overhaul of the machine, corresponding to the FEDA commercial service called REVISION, also including the CHECK in the year in which it is performed.

Lifting cycle

Complete lifting and lowering sequence of the lifting unit, detected by the on-board system where present or noted according to the methods provided by the manufacturer.

Intervention report

Document issued by FEDA or by an authorized FEDA entity at the end of the CHECK, REVISION, or other confidential technical intervention, containing at least the activities performed, results, any anomalies detected, and the next expiry date.

Protected display functions

Software functions reserved for recording maintenance interventions, updating related deadlines, and the system's technical service functions. Access is permitted only to authorized personnel using credentials issued by FEDA according to internal procedures.

Operator stations

Set of positions envisaged by the manufacturer for carrying out manoeuvres and operational activities: ground position and position(s) at height (side baskets or Higher upper platform).

Ground station

Ground-level operating position from which the operator performs maneuvers and checks (e.g., travel, loading/unloading, stabilization), as provided in the manual. Under certain conditions (reduced visibility, maneuvering in confined spaces, movements involving risk of collision/runover), the presence of a dedicated ground operator may be required for assistance.

High altitude position

Raised operating position provided by the manufacturer (side basket or Higher upper platform), to be used exclusively in the permitted configurations and according to the operating limits set out in paragraphs 14.3.1 and 14.3.2.

Side basket (single operator)

Operator station installed to the side of the lifting unit. It is a single-operator workstation and is used as an alternative to the Higher upper platform.

Main / secondary side basket

In the DB case, the primary basket is the one installed on the "main" side (the right side when looking at the machine from the tiller end). The secondary basket, if installed, is mounted on the opposite side. The two baskets are identical; only the installation position changes.

Higher upper platform

Upper two-person operator station, can be installed above the upper loading platform. In the Higher configuration, the side baskets must be removed.

Lifting part / lifting group

Telescopic structural assembly that allows the vertical ascent/descent of the elevating part (aluminium columns, guides/slides, return chains, hydraulic cylinder and safety devices).

Upper loading platform (base)

Element integral with the lifting unit intended to support materials/equipment when the machine operates with side baskets and to act as a base for attaching the Higher platform when installed.

Equipment line (Coffin lifts / Professional)

Configuration of the upper loading platform and related accessories based on the intended use (Coffin lift: roller platform and dedicated accessories; Professional: closed platform and material preparation/accessories). The set-up line is managed via dedicated addendums.

Support plate

This accessory, supplied by FEDA, is to be placed under the stabilizing foot to increase the support area and distribute the load on the ground. Use when necessary (for example, on sloping, uneven, or soft ground, or where there is a risk of marking), considering that the stabilizing foot has a diameter of 80 mm.

Side loading system

Accessory that can be installed on the upper level, designed to support and handle materials at height (e.g., sheet lifters/glass lifters). It can be supplied by FEDA in standard versions or custom-made; any future standardized systems may also be retrofitted if authorized by FEDA. It does not constitute an operator station.

Telediagnosi

Functionality (if provided) that allows the collection and transmission of machine operating/diagnostic information via a specific form and dedicated documentation.

Geolocation

Functionality (if provided) that allows the location of the machine via a specific form and dedicated documentation.

PLE

Elevating work platform

Stabilization system / stabilizers

Set of four stabilizers inserted into the seats of the base frame, with lateral extension and screw height adjustment, used to stabilize and level the machine before lifting.

Timone (Manual / Electric)

"T" handle connected to the steering fork, used for manual movement of the machine on the ground.

Control head (Automatic / Rotax)

Control unit at the tiller that integrates the traction controls (forward/reverse) and speed regulation in the electric traction versions.

Hydraulic power unit / electric pump (Electric / Automatic / Rotax)

Electro-hydraulic unit that powers the hydraulic circuit for lifting. It is equipped with circuit safety valves; it does not constitute a load sensing system in itself.

Manual pump (Manual)

Manually operated hydraulic pump installed in the base frame and repositionable at the ends of the machine via quick couplings and dedicated hydraulic connections.

Configuration interlocks (powered versions)

Electrical/electronic devices that verify the correct installed configuration (for example, presence/absence of side baskets when the Higher platform is installed), enabling or inhibiting functions according to safety logic.

1. About the manual

1.1. Purpose of the manual

The present **Use and Maintenance Manual** provides the information necessary for the correct use, safe operation, maintenance and management over time of the elevating work platforms of the series **MAGISTER³**.

The manual was written by the manufacturer **FEDA s.r.l.** in accordance with the requirements of the **Machinery Directive 2006/42/EC** and of the harmonized standard **UNI EN 280-1:2022** in its current version, as well as any other applicable technical standards.

The manual covers the following **type versions** from the **MAGISTER** series³:

- ☒ Magister³ Manual
- ☒ Magister³ Electric
- ☒ Magister³ Automatic
- ☒ Magister³ Automatic Rotax

and relative **construction configurations**:

- ☒ Single Basket (SB)
- ☒ Double Basket (DB)

as well as the **set-up lines**:

- ☒ Linea Montaferetri (MF)
- ☒ Professional Line (PF)

For each chapter and paragraph, the applicability to individual versions or configurations is indicated, where necessary.

This manual is an integral part of the machine and must be carefully kept near it, made available to operators and personnel responsible for maintenance and periodic checks.

Before commissioning and using Magister³ it is mandatory to read the manual in its entirety, understand its contents, and follow the instructions and safety regulations. If you have any doubts or questions, contact the manufacturer.

The manual must accompany the machine for its entire operational life and must be handed over if it is sold to third parties. If the machine is lost, damaged, or requires a technical update, request an updated copy from the manufacturer, indicating the model, serial number, and version.

This manual is written in Italian (original language). Any translations should be considered translations of the original manual.

The manual must be accompanied by a cover and/or identifying documentation showing at least: model, model code, serial number and technical specifications sheet of the machine supplied.

The images and diagrams contained in the manual are for illustrative purposes only: they may represent configurations, components or details that are not identical to the machine supplied, without this modifying the safety regulations or procedures.

The manufacturer reserves the right to make modifications and updates to the machine and documentation without obligation to update existing machines and manuals, except as required by law. Any unauthorized modification to the machine or safety devices voids compliance and the warranty.



WARNING

This manual is an integral part of the machine. Its use is mandatory to ensure safe operating conditions and compliance with current regulations.



USE

If you have any doubts about the correct interpretation of the instructions, contact the Manufacturer for any necessary clarifications.



1.2. Target audience and required skills

This manual is intended for:

- ☒ operators responsible for using the machine;
- ☒ safety managers and officials;
- ☒ technically competent and qualified personnel responsible for daily checks, routine periodic checks and periodic checks of the chains referred to in §10.2.3;
- ☒ FEDA S.r.l. personnel or a center/personnel expressly authorized by FEDA responsible for the in-depth scheduled check (CHECK), the scheduled inspection (REVISION), extraordinary checks before putting the equipment back into service, extraordinary maintenance and repairs;
- ☒ personnel responsible for the mandatory periodic checks required by the legislation in force in the country of use.

Operators must:

- ☒ be of legal age;
- ☒ have received adequate information, training and instruction on the use of MEWPs and the risks associated with working at height;
- ☒ be authorized to use MEWPs/MEWPs in accordance with the legislation in force in the territory of use; for Italy, the operator in charge must be authorized to use MEWPs with stabilisers, in accordance with the legislation in force;
- ☒ be physically fit to carry out the required tasks, including activities at height, and not present conditions incompatible with such activities;

- ☒ know emergency procedures, including emergency stop, emergency descent, operator recovery and requesting help.

The PLE qualification does not replace specific information, training and instruction on the Magister machine³, on its configurations, on its operating limits, on foreseeable anomalous situations and on emergency procedures.

FEDA can directly provide information, training and specific training courses on Magister³. FEDA can also facilitate, directly or through qualified/authorized partners, access to the courses required to obtain or update the MEWP qualification, which remains separate and independent from the machine training course.

Attendance at FEDA machine training courses does not automatically discharge the employer's obligations regarding information, training, instruction, and work organization, which in any case remain the employer's responsibility in accordance with applicable legislation.

Interventions involving the load-bearing structure, safety-critical lifting devices, safety devices, hydraulic circuit, traction/braking, CHECK, REVISION, extraordinary checks before putting the machine back into service, extraordinary maintenance, and repairs must be performed exclusively by FEDA S.r.l. or by a center/personnel expressly authorized by FEDA.

The periodic inspection of the chains and their tensioning as per §10.2.3 can be performed by technically competent and qualified personnel, trained in the procedure in this manual. The Customer may, in any case, entrust this inspection to FEDA or an authorized FEDA center.



USE

The user/owner must ensure that the mandatory periodic checks required by the legislation in force in the country of use are carried out; for Italy, see §10.6.1 and the inspection, maintenance, and inspection register referred to in §14.5. These checks remain separate from the manufacturer's scheduled maintenance program.

1.3. User Responsibility

The user is responsible for:

- ☒ read and understand this manual carefully before using the machine;
- ☒ follow the instructions, warnings and operating limitations provided;
- ☒ ensure that the machine is used exclusively for its intended purpose;
- ☒ ensure that the machine is maintained in efficient and safe conditions;
- ☒ ensure that daily checks, routine periodic checks, periodic chain checks, in-depth scheduled checks (CHECK), scheduled inspections (REVISION), extraordinary checks before putting the vehicle back into service and mandatory periodic checks by law are carried out on time;
- ☒ ensure that each intervention is carried out by the competent person provided for in this manual;
- ☒ ensure the compilation, updating and storage of the pre-use and function test checklist referred to in §14.4, the control/maintenance/inspection register referred

to in §14.5 and the anomaly/decommissioning/recommissioning register referred to in §14.5.1;

- ☒ immediately put the machine out of service in the event of an anomaly, damage, non-compliant check results or doubts about the maintenance of safety conditions.

The machine is intended for professional use and must be used exclusively in the context of work activities by authorised, trained, instructed and, where required by applicable legislation, authorised personnel.

The user/employer is responsible for verifying that the operators in charge possess the required qualifications, that they have received specific training on Magister3 and that there is always a ground operator trained in emergency procedures present.

The user/employer remains responsible for the implementation of commissioning, periodic checks, mandatory inspections, registrations, and storage of technical and maintenance documentation.

Any improper use, unauthorized modification, failure to perform the prescribed checks/maintenance, intervention carried out by an unauthorized person or use of non-original or unapproved spare parts may result in:

- ☒ risks to operator safety;
- ☒ forfeiture of the conventional guarantee and any applicable accessory/extension services;
- ☒ loss of conformity of the machine;
- ☒ possible effects on applicable insurance and contractual coverage, as provided for in Chapter 12.

Failure to comply with the instructions for use, control, verification, maintenance and replacement of components provided for in this manual may compromise the safety of the machine and result in the user being held liable for damages causally attributable to such omissions, without prejudice to any mandatory legal responsibilities for any original defects of the product.

Using the machine in conditions other than those intended by the manufacturer, failing to follow the instructions in this manual, or using it in unauthorized configurations will result in the user being fully responsible for any damage to people, property, or the machine itself.

1.4. Symbols and graphic conventions

This manual uses **warning levels, symbols and graphic conventions** to highlight safety information and operating instructions.

The warning levels (**danger, warning, Attention, use**) are used to indicate the severity of the risk or the importance of the information.

	DANGER	Indicates a situation of imminent danger which, if not avoided, may cause serious or fatal injury to persons.
	WARNING	Indicates a potentially dangerous situation which, if not avoided, may cause injury to persons.
	ATTENTION	Indicates a situation which, if not avoided, may cause minor injury to people and/or damage to the machine or property.
	USE	It provides useful information , operational clarifications or additional technical indications.

Graphical indications, arrows and colour highlights are used to facilitate understanding of the operating procedures.

Where necessary, the manual also reports **safety pictograms** (prohibition, obligation, warning) compliant with standard signs (ISO 7010), in a manner consistent with the signs applied on the machine.

The complete list of the labels applied on the machine (sticker codes, associated pictograms, texts and positions) is reported in the **Chapter 14.6**. The table below shows some key pictograms:

Cod.	Pictogram	Description
M002		Mandatory – Read the instruction manual Obligation to read and understand the instruction manual before use.
W012		Warning – Electrical Hazard Electrical Hazard: Risk of electrocution/electric shock.
P020		Prohibition of moving with the lifting part raised

P021		Prohibition – Passing or standing under the elevated platform/structure
P003		Prohibition – Open flames prohibited The use of open flames and ignition sources is prohibited.
M018		Mandatory – Fall arrest harness It is mandatory to wear a fall arrest harness and connect to the designated anchor point.
M021		Mandatory – Connection to the intended anchor point

1.5. Maintaining, updating and replacing the manual

This manual must:

- ☒ be kept in good condition;
- ☒ always remain available to operators;
- ☒ accompany the machine throughout its operating life, even in the event of transfer to third parties.

In case of:

- ☒ loss;
- ☒ damage;
- ☒ technical updates of the machine;

It is necessary to request an updated copy of the manual from the manufacturer, indicating:

- ☒ model;
- ☒ serial number;
- ☒ version of the machine.

Furthermore, the machine must be used exclusively for its intended purpose and only in the configurations permitted by the manufacturer (see Chapter 4).

1.6. Manual Revision Log

Version	Data	Major changes
MUM-MAG3-IT v. 1.0	03/2026	First issue

1.7. Line addendum and complementary documentation

For some specific configurations of the MAGISTER series³, this manual may be integrated with line addendums, which describe dedicated set-ups, accessories and operating modes.

The addendums, where supplied with the machine:

- ☒ do not modify the safety, stability and basic functioning characteristics of the machine;
- ☒ should be consulted in conjunction with this manual where applicable.

The technical documentation included in this manual (Chapter 14) constitutes an integral part of it.

Chapter 14 contains the reference technical data, the operating limits, the control/maintenance document templates, the index of the signs applied to the machine and the conformity/delivery documents relating to the machine.

In addition to the line addenda, additional documents may be provided, such as:

- ☒ maintenance and component replacement manual (for maintenance/assistance personnel);
- ☒ Accessory/optional manuals (if supplied with the machine).

Addendums and supplementary documents do not replace this manual and should be consulted in conjunction with them when applicable.

They may also constitute complementary documentation for the machine, where provided and applicable:

- ☒ line addendum (Montaferetri Line / Professional Line);
- ☒ manuals and technical data sheets of installed accessories and options;
- ☒ summary table of scheduled replacements of components subject to periodic replacement;
- ☒ technical documentation for maintenance and component replacement for technical/assistance personnel;
- ☒ documentation of FEDA scheduled maintenance services and plans, where contractually applicable;
- ☒ documentation supporting display/diagnostics/protected maintenance functions, where applicable.

This documentation supplements this manual for aspects of scheduled maintenance, periodic replacements, accessories, protected system functions and after-sales services, without replacing it.

For the Magister series³, FEDA makes available a **repository documentale** available at the address www.feda.it/repository/magister3, from which the user can download, where applicable, this manual, any line addendums, accessory/optional manuals, operating sheets and other support documentation relating to the machine.

Available documents may include, for example:

- ☒ Check-list pre-use function test;
- ☒ Register of periodic checks, maintenance and inspections;
- ☒ Fault log / decommissioning / recommissioning;
- ☒ manuals and technical data sheets for accessories, optional extras and complementary documents.

The availability of documents in the repository does not replace the obligation to keep and consult the machine documentation actually applicable to the specific serial number and configuration.

2. Machine identification and classification

APPLICABILITY OF CHAPTER 2.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

Any construction or functional differences are indicated in the dedicated paragraphs or in the following chapters.

2.1. General description of the Magister series³

The series **Magister³** includes self-propelled elevating work platforms designed for vertical lifting of operators and materials, in compliance with the essential safety requirements set forth by current legislation.

All versions of the series share:

- ☒ same basic structural architecture;
- ☒ common stabilization criteria;
- ☒ equivalent safety systems;
- ☒ consistent operating philosophy.

The differences between the versions concern exclusively:

- ☒ drive mode;
- ☒ command and control systems;
- ☒ version-specific auxiliary devices.

2.2. Official and commercial name

The elevating work platform which is the subject of this manual belongs to the series **MAGISTER³** and is produced by **FEDA S.r.l.**

For the purposes of the **marking THIS**, of the technical documentation and of this instruction for use and maintenance, the machine is identified by a **name official**, unique and consistent with the type certification.

In addition to the official name, the manufacturer uses a **name commercial**, used exclusively for price list, catalogue and commercial communication purposes.

The commercial name **it has no certification value** and does not in any way replace the official name shown on the CE marking and the CE declaration of conformity. The commercial name may include references to the trim line and SB/DB configuration, but has no certification value.

Scope	Name
Official name (EC)	Magister³ Manual Magister³ Electric Magister³ Automatic Magister³ Automatic Rotax

Scope	Name
Commercial name	Magister³ Manual SB - Linea Professional Magister³ Manual DB - Linea Professional Magister³ Electric SB - Linea Professional Magister³ Electric DB - Linea Professional Magister³ Automatic SB - Linea Professional Magister³ Automatic DB - Linea Professional Magister³ Automatic Rotax SB - Linea Professional Magister³ Automatic Rotax DB - Linea Professional Magister³ Manual SB - Linea Montafereetri Magister³ Manual DB - Linea Montafereetri Magister³ Electric SB - Linea Montafereetri Magister³ Electric DB - Linea Montafereetri Magister³ Automatic SB - Linea Montafereetri Magister³ Automatic DB - Linea Montafereetri Magister³ Automatic Rotax SB - Linea Montafereetri Magister³ Automatic Rotax DB - Linea Montafereetri

2.3. Certified versions

The series **Magister³** is designed and certified in compliance with the **UNI EN 280-1:2022** in the following **type versions**, each of which constitutes a distinct functional configuration for the purposes of use and maintenance.

2.3.1. Magister Models³

The certified versions covered by this manual are:

- ☒ **Magister³ Manual**
- ☒ **Magister³ Electric**
- ☒ **Magister³ Automatic**
- ☒ **Magister³ Automatic Rotax**

This manual provides instructions for all versions listed above.

For each chapter and paragraph, the applicability to the specific version is indicated, where necessary.

2.3.2. Configurations Single Basket (SB) e Double Basket (DB)

Each type version can be made in the following **factory construction configurations**:

- ☒ **Single Basket (SB):**
machine equipped with a single side basket.
- ☒ **Double Basket (DB):**
Machine designed for the installation of two side baskets.
The standard supply includes only one side basket.
The second side basket is available as an optional and can also be installed subsequently (retrofit), exclusively on machines supplied in the DB version.
Machines supplied in the Single Basket (SB) version are not compatible with the installation of the second basket.

The configurations **SB** and **DB** are defined **under construction** and reported on the CE plate.



WARNING

Conversion of a machine supplied in a Single Basket (SB) configuration to a Double Basket (DB) configuration through unauthorized modifications or retrofits is prohibited. Any structural or safety device modifications must be performed exclusively by the manufacturer or by personnel authorized by the manufacturer.

A machine in configuration **DB** can also operate with only the main basket, in compliance with the operating instructions and limits indicated in this manual.

2.4. Set-up lines

The machines of the Magister series³ they can be supplied with different set-up lines, aimed at specific application areas.

The available trim lines are:

- ☒ **Coffin Lift Line**
- ☒ **Professional Line**

The set-up lines:

- ☒ **they do not modify** the load-bearing structure, safety devices or certified performance of the machine;
- ☒ are managed through **Dedicated to be added**, supplied with the machine;
- ☒ must be considered an integral part of the instructions for use.



USE

The line addenda are referenced in Chapter 1 and should be read in conjunction with this manual.

2.5. Correlation between the supplied model and the supplied documentation

2.5.1. Model table → Basic manual

This manual constitutes the **basic manual** valid for all Magister versions³.

2.5.2. Model table → Setup addendum

Depending on the set-up line, one or more specific addendums may be associated with the machine.

The addenda do not replace this manual and do not change its general safety content.



USE

Depending on the accessories and options applicable to the machine, specific reference manuals and/or technical data sheets may also be provided, which should be read in conjunction with this manual.

2.6. Machine classification (UNI EN 280-1:2022)

Magister³ it is classified, pursuant to UNI EN 280-1:2022, as MEWP Group A – Type 1 (stabilised machine; work at height without translation with raised position at height).

2.7. Applicable rules and directives

The MAGISTER series³ It is designed and manufactured in compliance with the following regulations and directives (non-exhaustive list):

- ☒ Legislative Decree 17/2010 (Italy) – Implementation of Machinery Directive 2006/42/EC.
- ☒ UNI EN 280-1:2022 – Elevating work platforms (MEWPs).
- ☒ EN ISO 12100 – General principles for design – Risk assessment and reduction.
- ☒ EN 60204-1 – Safety of machinery – Electrical equipment of machines (for powered versions).
- ☒ Directive 2014/30/EU – Electromagnetic compatibility (for powered versions).
- ☒ EN ISO 13849-1 / EN ISO 13849-2 – Safety of parts of control systems (for powered versions)
- ☒ EN 61000-6-2 / EN 61000-6-4 – EMC: Immunity / Emission (for powered versions)
- ☒ EN ISO 2631:2014 – Whole-body vibration (exposure assessment).
- ☒ EN ISO 5349-1/2:2014 – Hand-arm vibration (exposure assessment).
- ☒ EN ISO 3744:2010 – Noise emission (determination of sound power).

Compliance with current national regulations on workplace safety (e.g. Legislative Decree 81/08 for Italy) remains the responsibility of the user.

2.8. Plates, markings and identification data

Each machine is equipped with **CE identification plate and capacity** affixed in a visible and permanent position, with indelible markings.

The plate is bilingual (IT/EN) and contains at least the following data (in accordance with the marking requirements of UNI EN 280-1:2022):

- ☒ **Company name and full address of the manufacturer.**
- ☒ **Machine model and designation**(MAGISTER³) with indication of the **version** (Manual / Electric / Automatic / Automatic Rotax), della **SB/DB construction configuration** and **commercial setup** (Professional Line / Coffin Lift Line).
- ☒ **Freshman** / serial number.
- ☒ **Year of construction** (year of completion of the manufacturing process).
- ☒ **Machine classification** according to UNI EN 280-1:2022 (MEWP/PLE – **Group A / Type 1**, reported on the plate as Type-Group 1-A).
- ☒ Reference to the **UNI EN 280-1:2022 standard** and **CE marking**.
- ☒ **Empty mass of the care** expressed in kg.
- ☒ **Rated load and maximum number of people allowed**, with indication of the values **for each intended usage configuration** and any limitations/load conditions shown on the plate.
- ☒ **Maximum allowable manual force** (N).
- ☒ **Maximum permitted wind speed** (m/s).
- ☒ **Maximum permitted frame inclinations**, with specification for the main operating conditions reported on the plate:
 - Lift tilt (all axes)
 - Transport tilt – front
 - Transport tilt – lateral.



WARNING

It is forbidden to remove, alter or make illegible the machine's plates and markings. Tampering with plates and markings may compromise the safety of the machine and its compliance with current regulations.

The following figure shows a FAC-SIMILE of the CE plate/marking valid as a general example for the Magister series³ The fields shown in square brackets [] or with variable acronyms must be filled in in the final issue based on the specific serial number, version, configuration and set-up line of the machine.

MAGISTER³

Manufacturer: FEDA s.r.l.
Via Mario Corrieri 16, 05100 Terni (TR) – Italy
Type-Group / Type-Group: 1-A (MEWP/PLE)
Name / Designation: Mobile elevating work platform (MEWP)
Norma / Standard: UNI EN 280-1:2022
Notified Body / NB: 1878 (VERICERT)





info@feda.it
Tel. +39 0744 407351

Model / Model: MAGISTER [MODEL]
Configuration: [SINGLE BASKET (SB) / DOUBLE BASKET (DB)]
Line / Line: [Montaferetri] / [Professional]
Serial Number: M3[M/E/A/R]YY###
Anno / Year: YYYY
Voltage: [24 V DC / N.A.]
Base unladen mass / Base unladen mass (kg): [###]

Configuration data:

#	WORKSTATION / PLATFORM	PERSON / PERSONS (N)	LIMITI / LIMITS (KG) Total = people + tools/materials / Total = persons + tools/materials	EMPTY MASS / UNLADEN (KG)
A	1 basket + loading surface / 1 side basket + load deck	1	TOTAL 330 (●) Loading plan / Load deck max. 250 (included in total)	[###]
B	2 baskets + loading surface / 2 side baskets + load deck (solo conf. DB / DB only)	2	TOTAL 410 (●●) Loading plan / Load deck max. 250 (included in total)	[###]
C	Upper platform / Upper platform (Higher)	1-2	TOTAL 120 (●) - 200 (●●) Tools (in piattaforma / on platform): max. 40 (included in total)	[###]
D	Upper platform (Higher) + side loading system / Upper platform (Higher) + side-load system	1-2	TOTAL 220 (●) - 300 (●●) Tools (in piattaforma / on platform): max. 40 (included in total) Materials (su sistema laterale / on side-load system): max. 100 (included in total)	[###]

Manual force / Manual force (max.): 200 N (●) – 400 N (●●)
Wind speed / Wind speed (max.): 12,5 m/s
Tire pressure(pneumatic wheels only) / **Tire pressure** (only with pneumatic tires): 2,00 bar

Max. chassis inclination:

	Lifting		Front transport / Transport front		Lateral transport / Transport lateral
	3rd (all axes)		18°		6°

MADE IN ITALY by FEDA s.r.l.

CE marking for identification and scope

2.8.1. Markings of removable components and replaceable platforms

FEDA adopts two distinct marking formats, permanent, clearly legible and applied in a visible position, depending on the type of component.

Removable components for operational reasons

Components that can be detached for functional reasons, such as stabilizers, are identified by a marking that includes at least:

- ☒ name of the manufacturer or supplier;
- ☒ PLE/MEWP model;
- ☒ serial or manufacturing number of the PLE/MEWP.

FEDA s.r.l. – Italy
PLE/MEWP: MAGISTER³
PLE/MEWP S/N: _____
COMP.: _____

Marking of removable components

Interchangeable/replaceable work platforms

Interchangeable or replaceable work platforms, such as side baskets and the Higher upper platform, are identified by a marking that reports at least:

- ☒ name of the manufacturer or supplier;
- ☒ platform model;
- ☒ Interchangeable work platform serial number

FEDA s.r.l. – Italy
PLE/MEWP: MAGISTER³
MODEL: _____
S/N: _____

Marking of side baskets and upper platform Higher



WARNING

It is prohibited to install or use components marked for a different machine or without legible markings.
In case of replacement or retrofit, use only original FEDA components and follow the manufacturer's procedures.

3. General description and components

APPLICABILITY OF CHAPTER 3.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

The differences between versions are indicated in the dedicated paragraphs.

3.1. General description and usage configurations

Magister³ It is a stabilized elevating work platform designed to operate in various configurations. When used at height, the machine requires the presence of at least one operator in the workstation provided for by the installed configuration, without prejudice to the provisions for ground maneuvers and emergency procedures described in this manual. The same machine can be used in various configurations provided by the manufacturer, depending on the installed operator station and the accessories applied.

The operating configurations are based on alternative operator positions, consisting of single-operator side baskets or the Higher two-operator upper platform. The upper loading platform is an integral part of the lifting unit and serves as a support for materials/equipment when operating with side baskets and, when the Higher platform is installed, forms the attachment base for the same.

The configuration lines (Coffin Lifts / Professional) define the configuration of the upper loading platform and related accessories according to the intended uses. The specific line instructions are provided in the dedicated addendums referred to in Chapter 1.

3.1.1. Allowed configurations



USE

The flow rates and combinations below describe the expected operating configurations. Certification values and operating limit tables are provided in Chapter 14.

Operator station(s)	Installed components	People admitted	Permitted loads/materials	Operational notes and constraints
1 side basket (main)	1 side basket + top loading shelf	1	total configuration max 330 kg (people + materials/tools); max load capacity 250 kg (included in total).	materials/equipment on the loading platform; single-operator side basket
2 side baskets (DB)	2 side baskets + top loading shelf	2	total configuration max 410 kg (people + materials/tools); max load capacity 250 kg (included in total).	Applicable only to DB (Double Basket) machines; the 2nd basket is optional but can only be installed on DB

Operator station(s)	Installed components	People admitted	Permitted loads/materials	Operational notes and constraints
Higher	Higher platform + loading platform (as a docking base)	1 or 2	total configuration max 120 kg (1 person)/ 200 kg (2 people) ; platform equipment max 40 kg (included in total)	with Higher installed the side baskets must be removed; on powered versions configuration interlocks
Higher + side loading system	Higher + lateral system (e.g. slab lifter)	1 or 2	total configuration max 220 kg (1 person) / 300 kg (2 people) ; platform equipment max 40 kg (included in total); materials on lateral system max 100 kg (included in total)	configuration allowed only with Higher; the lateral system occupies a position equivalent to the "secondary side"

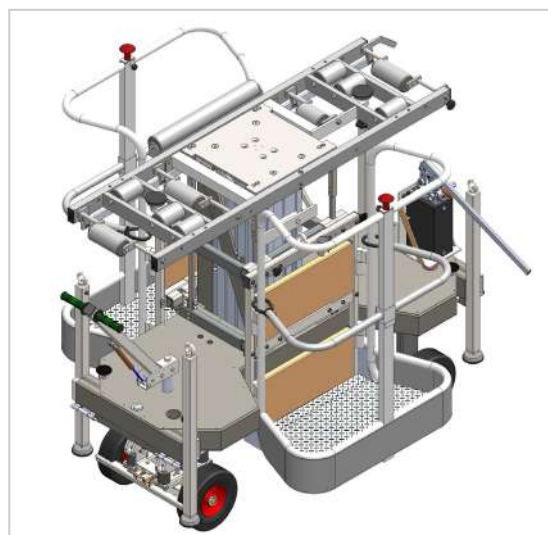


USE

Local limits for the loading platform, the Higher platform, and any lateral loading systems are always included in the total permitted load value for the configuration. These local limits must not be added to the total configuration load.



Magister Manual SB with 1 side basket



Magister Manual DB with 2 side baskets



Magister Manual SB/DB con Higher



Magister Manual SB/DB with Higher + side loading system

3.2. Main components

The figures and tables shown in the following paragraphs illustrate the main components of the machine in the different versions of the Magister series³: **Manual, Electric, Automatic e Automatic Rotax.**

All versions share a common construction base, consisting in particular of:

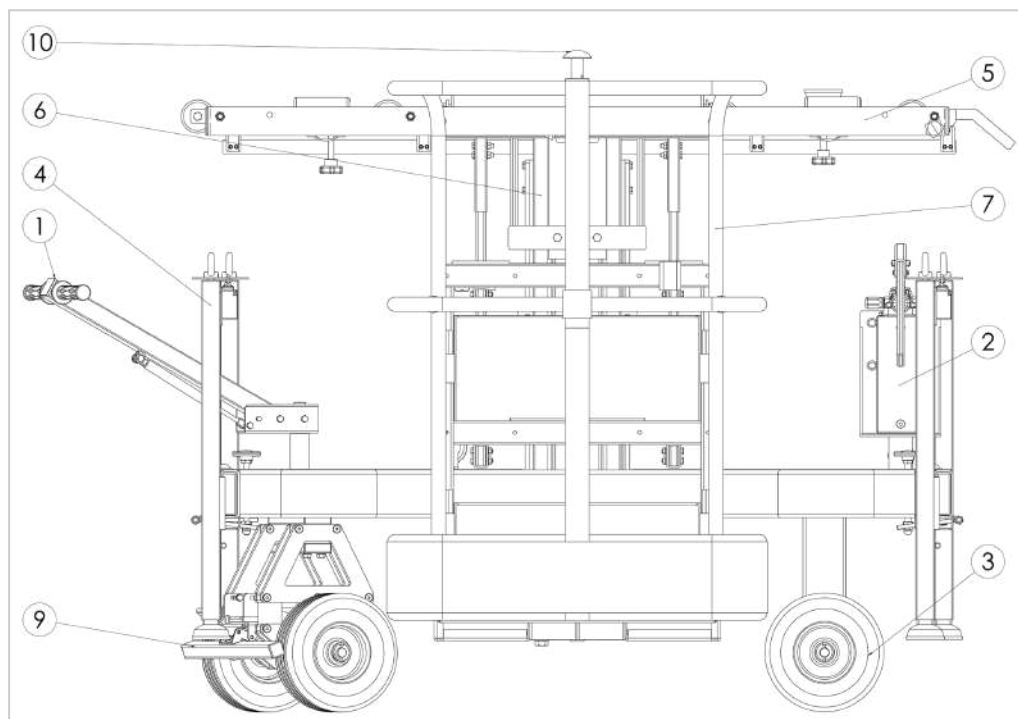
- ☒ **load-bearing frame;**
- ☒ **lifting group;**
- ☒ **upper loading platform;**
- ☒ **stabilization system with four stabilizers;**
- ☒ **operator stations,** depending on the installed configuration;
- ☒ **ground movement organs.**

In addition to these common elements, there are also specific components for each version, such as:

- ☒ **manual pump,** in the Manual version;
- ☒ **control unit/electric pump, batteries, display and keypad,** in the powered versions;
- ☒ **control head and electric traction system,** in the Automatic and Automatic Rotax versions;
- ☒ **fifth wheel and rotation gearmotor,** in the Automatic Rotax version.

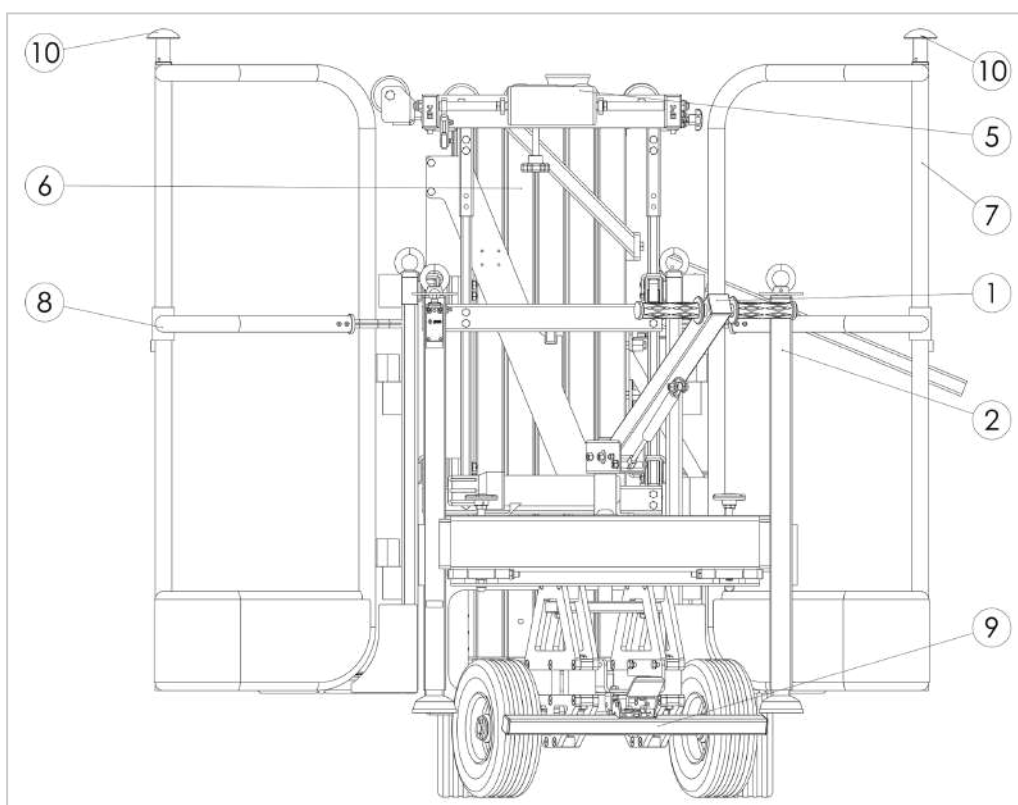
In the following paragraphs the components are then represented and identified **separately for each model**, through illustrative views and related reference tables.

3.2.1. Components Magister Manual



Right side view Magister Manual

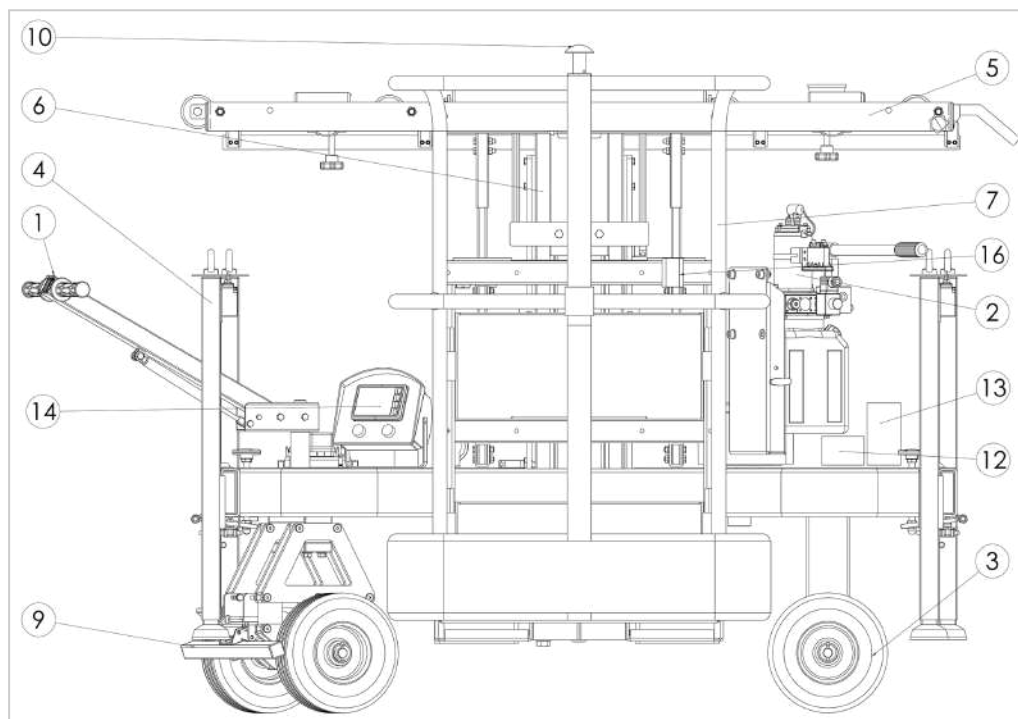
1	Rudder	6	Lifting Group
2	Manual pump	7	Basket/Side Basket 1
3	Rear axle	9	Brake
4	Stabilizers	10	Height indicator
5	Upper floor		



Magister Manual DB (Double Basket) front side view

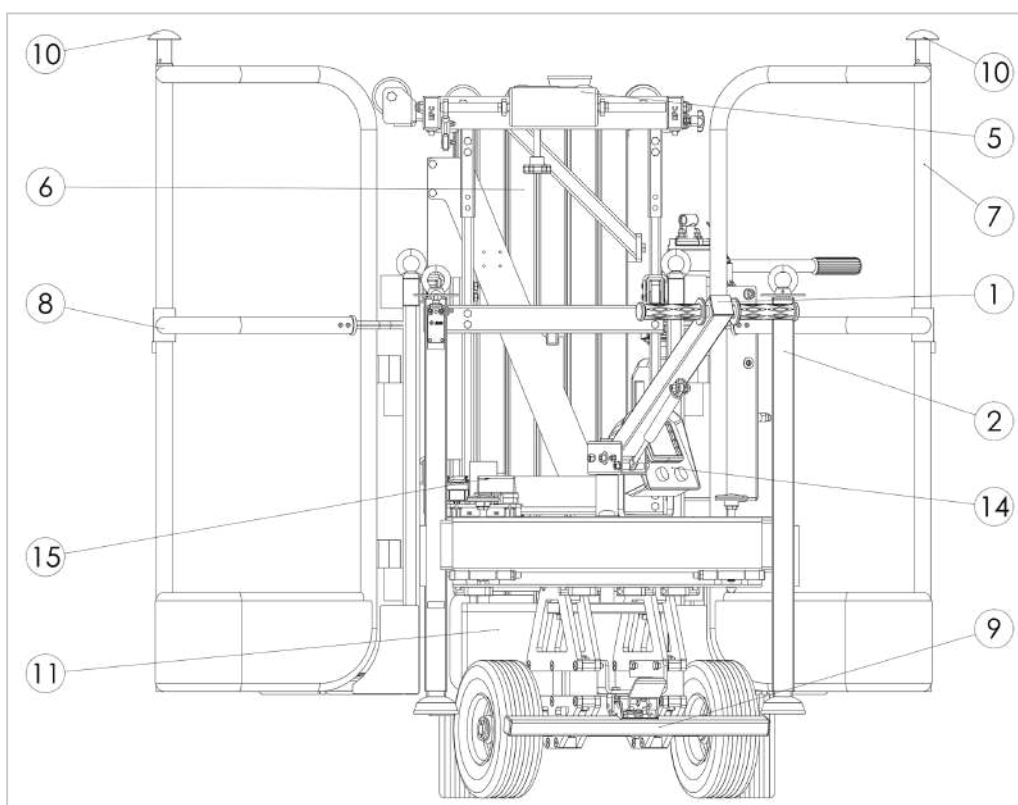
1	Rudder	7	Basket/Side Basket 1
2	Manual pump	8	Basket/side basket 2
4	Stabilizers	9	Brake
5	Upper floor	10	Height indicator
6	Lifting Group		

3.2.2. Magister Electric Components



Magister Electric right side view

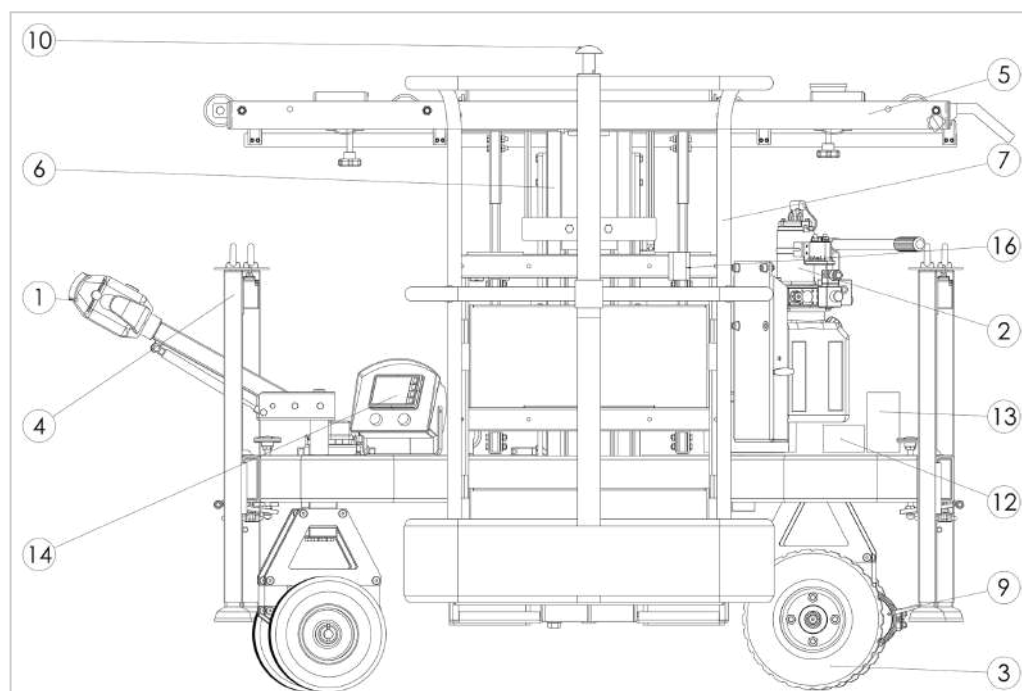
1	Rudder	9	Brake
2	Electric pump	10	Height indicator
3	Rear axle	12	Power supply
4	Stabilizers	13	Battery switch
5	Upper floor	14	Display
6	Lifting Group	16	Keypad
7	Basket/Side Basket 1		



Magister Electric DB (Double Basket) front side view

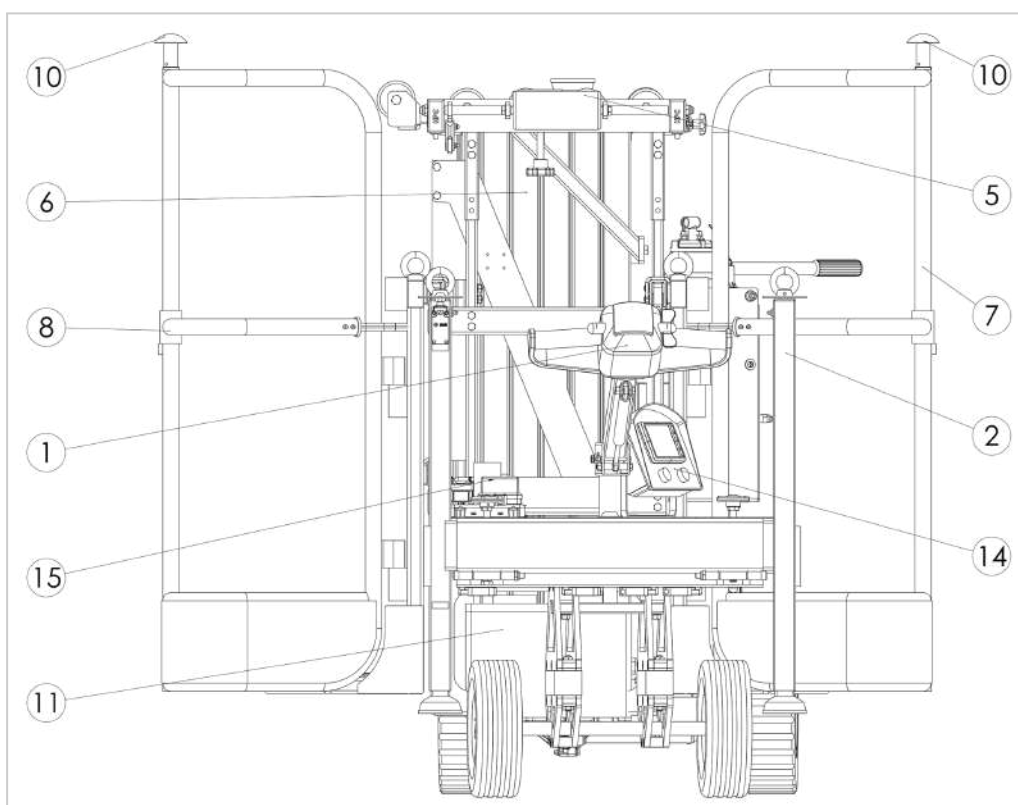
1 Rudder	9 Brake
2 Electric pump	10 Height indicator
5 Upper floor	11 Battery
6 Lifting Group	14 Display
7 Basket/Side Basket 1	15 Fuse holder
8 Basket/side basket 2	16 Keypad

3.2.3. Magister Automatic Components



Magister Automatic right side view

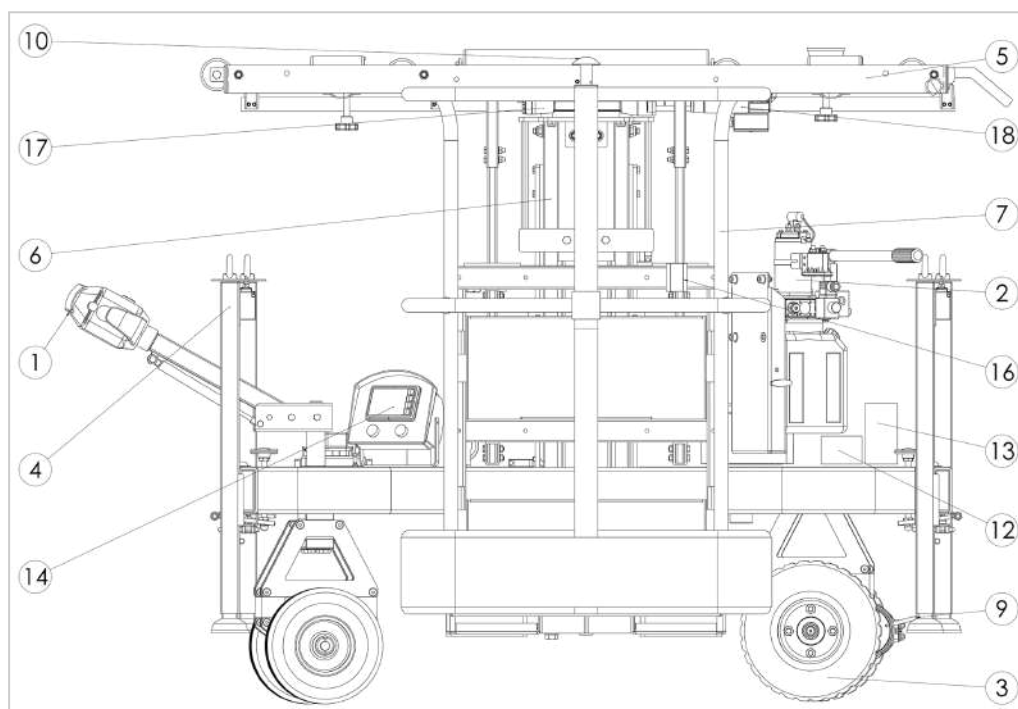
1	Rudder	9	Electric brake
2	Electric pump	10	Height indicator
3	Rear axle	12	Power supply
4	Stabilizers	13	Battery switch
5	Upper floor	14	Display
6	Lifting Group	16	Keypad
7	Basket/Side Basket 1		



Magister Automatic DB (Double Basket) front side view

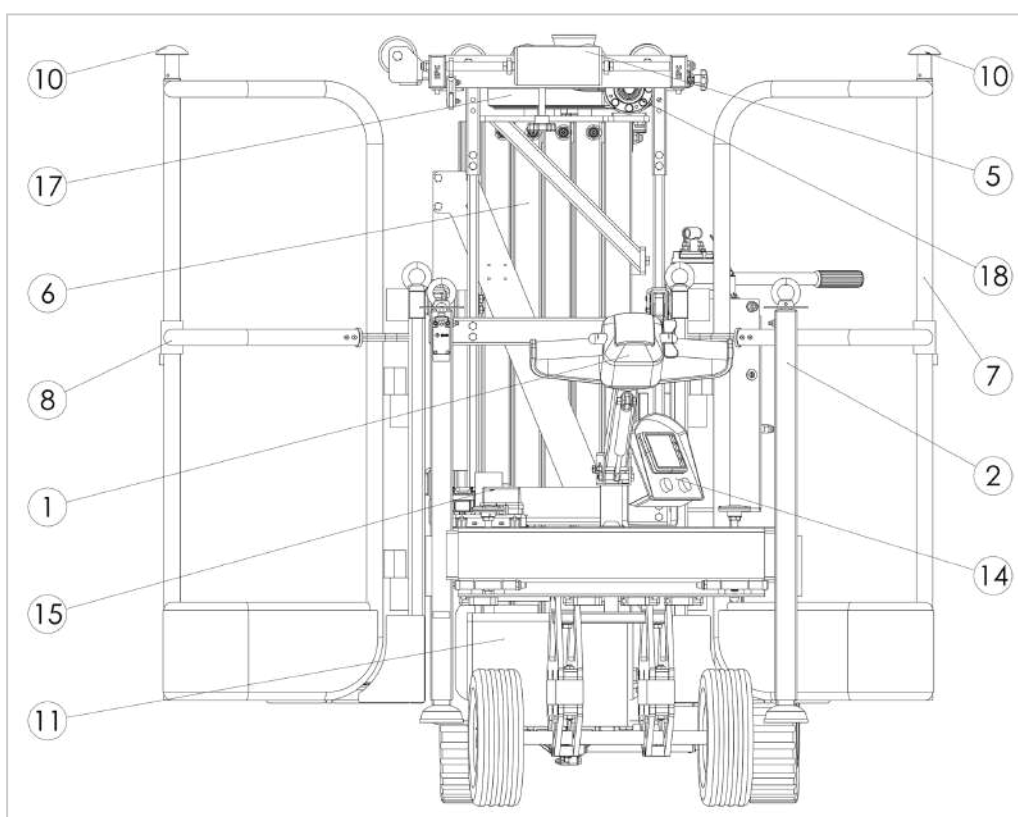
1	Rudder	8	Basket/Side Basket 2
2	Electric pump	10	Height indicator
5	Upper floor	11	Battery
6	Lifting Group	14	Display
7	Basket/Side Basket 1	15	Fuse holder

3.2.4. Rotax Automatic Master Components



Right side view of the Magister Automatic Rotax

1 Rudder	10 Height indicator
2 Electric pump	12 Power supply
3 Rear axle	13 Battery switch
4 Stabilizers	14 Display
5 Upper floor	16 Keypad
6 Lifting Group	17 Grate
7 Basket/Side Basket 1	18 Gearmotor
9 Electric brake	



Magister Automatic Rotax DB (Double Basket) front side view

1	Rudder	10	Height indicator
2	Electric pump	11	Battery
5	Upper floor	14	Display
6	Lifting Group	15	Fuse holder
7	Basket/Side Basket 1	17	Grate
8	Basket/side basket 2	18	Gearmotor

3.3. Lifting group

The lifting unit features an extendable aluminum column structure and sliding guide rails. Vertical extension is achieved by a hydraulic cylinder and a chain transmission system, which transfers movement to the subsequent columns until the maximum height is reached.

The hydraulic circuit incorporates safety devices to prevent uncontrolled descent and to secure the load, including anti-fall elements and dedicated check valves. Details of the hydraulic circuit's safety devices are covered in the chapters on safety devices, use, and maintenance.

3.4. Lifting operation

3.4.1. Manual Version – Repositionable manual pump

APPLICABILITY

☒ **Manual** ☐ **Electric** ☐ **Automatic** ☐ **Automatic Rotax**

In the Manual version, the hydraulic system of the lifting unit is powered by a manual pump installed in the base frame. The pump can be repositioned at either end of the machine and adjusted to different angles. Repositioning is accomplished by changing the housing and reconnecting the hydraulic hoses using quick couplings in the designated locations.

In this version, lifting operations are carried out by an operator on the ground, according to the procedures indicated in the chapters dedicated to use.



Magister Manual hand pump

N°	Element
1	Maneuvering rod
2	Oil drain hole
3	Oil tank
4	Mode selector

3.4.2. Powered versions – Hydraulic power unit/electric pump

APPLICABILITY

□ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

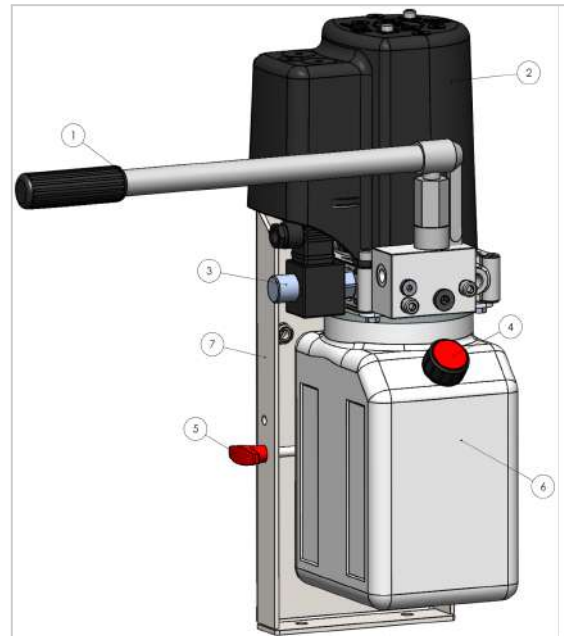
In the powered versions, the hydraulic system of the lifting unit is powered by an electro-hydraulic power unit (electric pump) controlled via a push-button panel and/or control interface, depending on the configuration. Powered versions incorporate circuit safety devices (safety valves, check valves, and fall arrest components) and the control logic provided for the version.



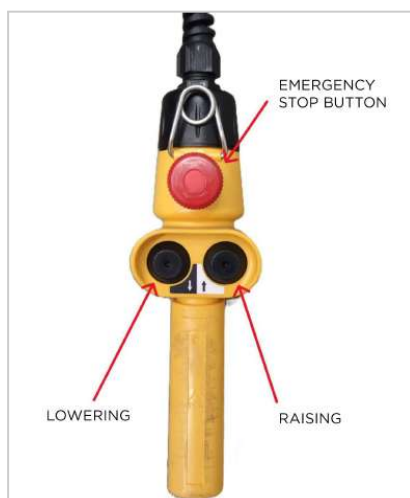
USE

The hydraulic circuit's pressure relief valves do not perform a load sensing function; the load limits are defined by the nominal flow rate and the operating conditions envisaged by the manufacturer.

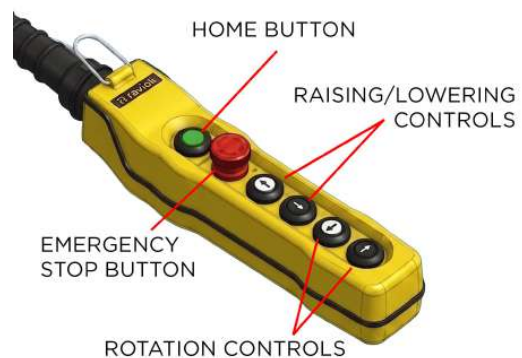
N°	Element
1	Maneuvering rod
2	Carter pump
3	Emergency descent valve
4	Oil cap
5	Emergency descent handle
6	Oil tank
7	Pump support



Hydraulic power unit



Magister Electric/Automatic lifting control pendant



Magister Rotax lifting control pendant

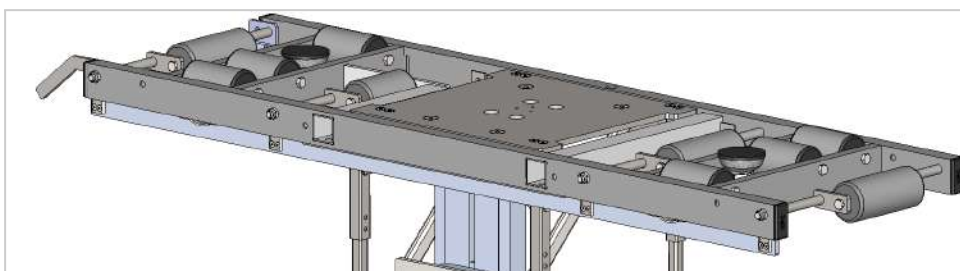
3.5. Upper loading platform (base) and platform variants

The upper loading platform is the element integral with the elevating part designed to support loads/materials within the foreseen limits when the machine operates with the side baskets and to act as a base for the Higher platform when installed.

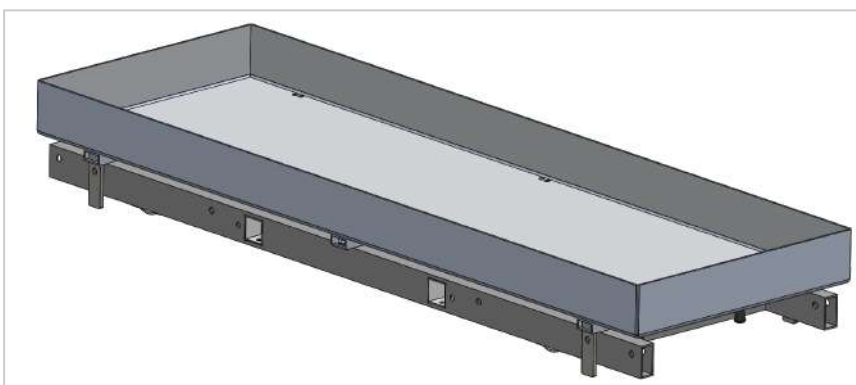
In the Coffin Lift line, the loading platform consists of a roller platform with two sets of rollers that can be selected via a manual mechanism, in order to allow the coffin to be moved according to the operating mode (head-on insertion or side-on/bottom-on insertion), in accordance with the procedures and constraints reported in the line addendum.

In the Professional line, the loading platform is designed as a closed ("floor-mounted") surface and can be configured with accessories dedicated to the handling of specific materials, in compliance with the expected load and size limits.

Also available for the Montafereetri line is a closed shell/table that can be installed above the roller table to allow the loading of different materials when the machine operates with side baskets.



Roller loading platform



Loading platform with storage compartment

3.6. Operator stations

The Magister³ It is a multi-configuration MEWP. The machine features alternative operator positions:

- ☒ **side basket** (SB configuration with one basket; DB configuration with one or two baskets), or
- ☒ **Higher upper platform**, installed on the upper floor.

The installed configuration determines: available stations, permitted operating configurations, load distribution and operating limits reported in paragraphs 14.3.1 and 14.3.2.



WARNING

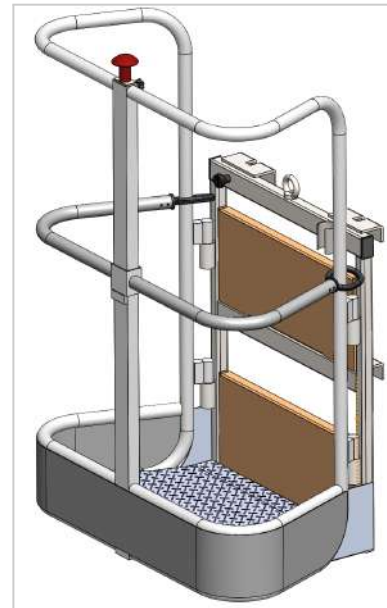
The configurations with side baskets and the configuration with the Higher upper platform cannot be combined. It is forbidden to use the machine with the Higher installed and one or more side baskets installed, and it is forbidden to install or leave the side baskets installed when the machine is configured for use with the Higher.

3.6.1. Operator stations – Side baskets (single operator)

The side baskets are single-operator stations installed laterally with respect to the lifting unit.

In the SB version, the machine operates with only one side basket installed in the main position. In the DB version, the machine is designed for the installation of two side baskets on opposite sides; operation can also take place with only the main side basket installed.

When supplying the DB version, the second side basket can be provided as an optional extra; installation of the second basket is permitted exclusively on machines supplied in the DB version and according to the procedures set out in this manual. See also Chapter 7, §7.11 “Assembly and use of side baskets (SB/DB)”, with particular reference to §7.11.3 “DB configuration (second basket)”.



Single-operator side basket

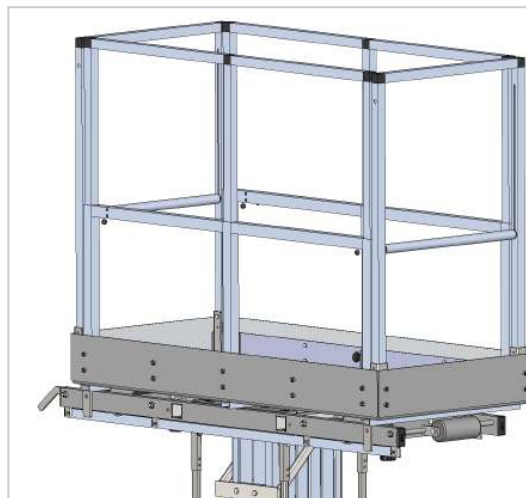


USE

It is not permitted to transport or lift equipment or materials in the side baskets; materials must be placed on the upper level within the designated limits.

3.6.2. Operator station: upper platform Higher

The Higher is a dual-operator platform that can be installed on the upper deck. In the Higher configuration, the side baskets are not usable and must be removed. The powered versions (Electric, Automatic, Automatic Rotax) feature configuration interlocks that manage the trim and allow functions only when the correct configuration is present.



Higher upper platform

3.7. Stabilization system

The machine is equipped with four stabilizers inserted into the base frame, two on each short end. Each stabilizer has a laterally extendable arm and a foot with height adjustment via a nut and a crank-operated nut. This system allows the machine to be leveled before lifting.

The powered versions feature control devices (microswitches/sensors) that verify the correct extraction and ground support positions and a flatness sensor to check the levelling.



View of the outriggers extended with removable screw cranks

3.8. Ground handling: rudder and traction

3.8.1. Rudder and manual movement

APPLICABILITY
☒ **Manual** ☒ **Electric** ☐ **Automatic** ☐ **Automatic Rotax**

In the Manual and Electric versions, the machine is moved on the ground via a T-handle steering handle connected to the steering fork. The parking brake is a mechanical pedal-operated brake located on the fork, depending on the configuration.

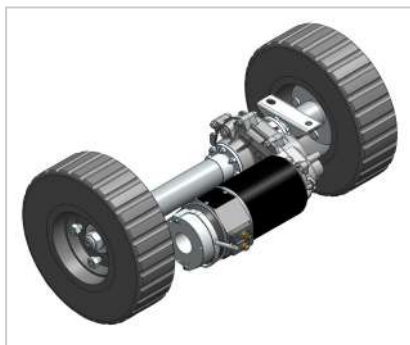


Rudder with fork and Magister Manual/Electric foot brake

3.8.2. Electric traction and control head

APPLICABILITY
☐ **Manual** ☐ **Electric** ☒ **Automatic** ☒ **Automatic Rotax**

In the Automatic and Automatic Rotax versions, the machine is equipped with electric traction and forward/reverse controls integrated into the control head. Speed is regulated via proportional control. The traction system uses a rear axle with differential and an electric brake that keeps the machine braked when the travel controls are not activated. Brake system release functions and procedures are provided as indicated in the use and emergency chapters.



Drive axle bridge with differential and electric brake



Rudder with fork and Magister Automatic / Automatic Rotax control head

3.9. Control panel and display

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

Depending on the version, Magister³ It is equipped with command and control interfaces on the ground and at altitude, including keypads and a display for managing functions and signals. The details of the commands, symbols, menus and messages are described in the **Chapter 8**.



Control panel and display

3.10. Rotation system

APPLICABILITY

☐ Manual ☐ Electric ☐ Automatic ☒ Automatic Rotax

The Automatic Rotax version is equipped with a lifting section rotation system, integrated between the lifting structure and the operating superstructure. The system allows controlled rotation during operational maneuvers according to the methods established by the controls and safety logic. Related controls, authorizations, limitations, and alarms are described in Chapter 8; operating instructions and prohibited use are described in Chapter 7.

3.11. Power supply, batteries and charging system

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

The Electric, Automatic, and Automatic Rotax versions are battery-powered. The system includes batteries, protection devices, a battery charger, and a battery isolator. Battery use, charging, and maintenance are described in the chapters dedicated to use and maintenance.

Charging occurs by connecting the integrated charger/power supply to a 220 V mains socket. Once charged, the charger automatically maintains the charge level (maintenance function). Charging must be carried out in a suitable, well-ventilated environment, in compliance with the safety requirements in Chapter 10.5.



USE

The indicative charging times and the specifications of the charger (degree of protection, operating modes) are given in the technical documentation of the machine (Chapter 14).

3.12. Load capacities and load distribution

Magister³ Depending on the configuration, it allows the transport of materials and equipment at height on the loading platform or on systems authorized by the manufacturer. The load limits, the maximum number of people, the load distribution,

and the local limits of the various workstations are indicated on the machine's plate and markings and are summarized in paragraph 14.3.2.

Configurations with side baskets (SB/DB)

In configurations with side baskets, the baskets are intended for operators. Materials and equipment must be positioned on the loading platform in compliance with the limits indicated on the plate and in paragraph 14.3.2:

- ☒ total configuration limit (people + materials/tools);
- ☒ local load plan limit (max 250 kg, included in the total).



USE

The load on the loading platform (max 250 kg) is part of the total configuration load and is not added to it. In the presence of heavy operators, the load of materials/tools on the loading platform must be reduced accordingly, always remaining within the limits indicated on the machine and in paragraph 14.3.2.

Configurations with Higher platform (with or without lateral loading system)

In the Higher configuration, tools and materials are intended for the Higher platform within the applicable limits. Where applicable, a manufacturer-authorized lateral loading system (e.g., a plate lift, window lift, or other approved supports) may be installed, subject to the dedicated limits and total configuration load indicated on the plate and in paragraph 14.3.2.



WARNING

Always respect the capacities and maximum number of people indicated on the machine and in paragraph 14.3.2.
In configurations with side baskets, it is prohibited to transport materials/equipment in the baskets.
It is forbidden to use configurations/accessories not foreseen by the manufacturer.

4. Safety, intended use and prohibited uses

APPLICABILITY OF CHAPTER 4.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

(Any differences or limitations are indicated in the dedicated paragraphs)

4.1. Intended use

The Magister elevating work platform³It is designed for use in outdoor and indoor environments and is intended for lifting people to carry out activities at height using the side basket (SB/DB configurations) or using the Higher upper platform.

Use is reserved for trained and authorized personnel.

The machine is intended exclusively for professional use in a workplace and is not intended for domestic or private use.

Use presupposes compliance with the legal obligations applicable in the country of use regarding information, training, instruction, operator qualification, and equipment checks and inspections.

For specific machine training services, scheduled maintenance services and documentary/organizational support related to applicable requirements, please refer to paragraph 12.5.

When the Higher upper platform is not installed, the upper deck (loading deck) can be used for the elevated transport of equipment and materials within the operating limits indicated in paragraphs 14.3.1, 14.3.2 and 14.3.3 and on the machine markings. The intended use includes exclusively the permitted configurations indicated in Chapter 3 and paragraph 14.3.1.

For the Magister Manual version, lifting operations are controlled by an operator on the ground. For the Magister Electric, Automatic, and Automatic Rotax versions, the controls are operated from the elevated position as described in Chapters 8 and 7.

The machine is not intended for transporting people between levels or for general lifting of materials. Use is limited to activities at height in the configurations intended by the manufacturer.



WARNING

During operations at height, the presence of a ground operator, trained and instructed in the emergency procedures provided for in this manual, is mandatory. The lack of presence or preparation of the ground operator during operations at height constitutes a condition of non-compliant use.



WARNING

Use of the machine without this manual or with an outdated manual is not permitted.


ATTENTION

Use the machine exclusively for the functions for which it was designed and only in the configurations permitted by the manufacturer.

4.2. Prohibited uses

The following uses, by way of example and not limited to, are prohibited.

Prohibited use	Residual risk
Unauthorized use and access prohibited / Use permitted only to trained and authorized personnel.	misuse, impact/collision, injury.
Using the Higher upper platform with one or more side baskets installed, or using side baskets with Higher installed.	instability, interference, impact/crushing. Interlocks present only on powered versions.
Use of side baskets that are not correctly assembled/hooked or with unlocked fastening and safety catches.	operator falls and serious injuries.
Use of the Higher upper platform not correctly assembled/secured or with guardrails/stops not locked and/or with safety connectors/microswitches not connected (powered versions).	falls, impacts, instability and serious injuries.
Use of the manual pumping element integrated into the control unit (powered versions) for ordinary operations: reserved for emergency operations only.	misuse and loss of control.
Carry out ordinary lifting/lowering maneuvers outside the operating conditions envisaged by the installed configuration, except in cases of ground control and the emergency procedures expressly provided for in this manual.	improper use and uncontrolled operating conditions.
Moving/translating the machine with a raised position at height or with lifted loads.	rollover, collision/runover.
Lifting and maneuvering at height without proper stabilization (outriggers not fully supported; non-compliant extraction; machine not level; use on non-load-bearing ground).	rollover, crushing and damage.
Exceeding the total configuration limit and/or the load plan limit and/or the dedicated limits.	instability and subsidence.
Transport materials/equipment in side baskets.	instability, impact and falling materials.
Use on non-bearing/soft ground, on slopes beyond permitted limits or in incompatible weather conditions.	slip, overturn, fall.
Charging batteries in unsuitable environments (closed rooms without ventilation; presence of flames/sparks/smoke; presence of flammable materials) or without following the established procedures.	ignition/explosion (battery gas).
Use near overhead power lines without respecting safety distances.	lightning strike.
Removal, tampering with, or bypassing of safety devices, microswitches, limit switches, sensors, or signals.	serious accident.
Unauthorized interventions on structural components, plumbing, or electrical systems, including valve bypasses and unintended	collapse and loss of control.

Prohibited use	Residual risk
adjustments.	
Carrying out extraordinary maintenance/repair activities without the manufacturer's qualification and authorization, or without making the machine safe (energy isolation, stabilization, restricted area).	serious accident.
Installation/use of accessories, additional components or modifications not authorized by the manufacturer.	loss of control, instability, and decay of conformity.
Any unauthorized modification to the safety devices, control systems or structure of the machine is prohibited and will result in the loss of CE conformity.	loss of safety; uncontrolled operation; serious accident.
Release of electric brake/electric train (Automatic/Rotax versions) outside of emergency conditions or without applying the expected procedure.	collision/runover and loss of control.
Releasing the foot brake (Manual/Electric versions) outside of emergency conditions or without applying the expected procedure.	collision/runover and loss of control.
Use of the machine for purposes other than those intended by the manufacturer.	serious accident and loss of conformity.
Use in potentially explosive atmospheres (non-ATEX machine).	explosion.
Resuming use after an accident or near-accident without a technical inspection/extraordinary check and restoring safe conditions.	serious accident due to unverified conditions.
Perform rotation (Rotax version) below the minimum safety altitude (110 cm).	collision/interference and injury.
Remove/alter safety plates, markings and labels.	misuse and serious accident.
Maintenance/repair/adjustment work on hydraulic/electrical structures by unqualified personnel is prohibited.	serious accident and injuries.
Perform emergency or recovery maneuvers in incompatible environmental conditions (wind, visibility, uncontrolled obstacles).	loss of control; collision/runover; rollover; serious injuries

For tabular details see 4.12 Prohibited configurations.



WARNING

Improper use of the machine can cause serious injury to people and damage to property.



ATTENTION

Using the machine in conditions or configurations not foreseen by the manufacturer will result in the invalidation of the conformity and warranty.



4.3. Residual risks

Despite the application of technical and design measures, residual risks related to the use of the machine and its operating conditions remain. The user must adopt the indicated preventive measures.

4.3.1. Residual risks table

n.	Residual risk	Possible consequences	Preventive measures required from the user
1	crushing of hands/limbs between parapets/workstation and surrounding structures	injuries, bruises, fractures	keep limbs within the guardrails; maneuver slowly; check for clear spaces
2	crushing/shearing during ascent/descent of the lifting unit	crushing, abrasions	keep a safe distance; do not lean out; obey signs
3	entrapment between machine and walls/obstacles in small spaces	compressions, trauma	assess the work area; delimit the area; presence of a ground worker
4	operator falls from the station (basket/Higher) or from access surfaces	even serious traumas	Properly installed guardrails; three-point access; clean/dry surface; use fall arrest PPE in a restraint configuration, connected to the designated anchor points.
5	operator slipping (mud/ice/wet in the work area or at the workstation)	bruises, sprains	Non-slip footwear; clean the area; suspend activity in critical conditions
6	fall while accessing/exiting the workstation	falls, sprains	three support points; no jumping; beware of steps/surfaces
7	overturning due to uneven ground, irregularities, subsidence or poor load-bearing capacity	overturning, crushing, damage	correct stabilization; check load-bearing capacity; use support plates when necessary; respect operating limits and markings (see "Environmental and Operational Limitations", "Stabilization and Interlocks" and Chapter 14); check full support and leveling (see Chapter 7 – Stabilization).

n.	Residual risk	Possible consequences	Preventive measures required from the user
8	overturning due to exceeding the permitted levelling/inclination limits	overturning, falling load	discontinue use; restore conditions; comply with warnings and procedures
9	overturning due to wind exceeding the permitted limit	machine overturning	Discontinue use; adhere to stated operating limits (see "Wind and Weather" and Chapter 14); assess local effects (gusts/canyons).
10	impact of the load/materials against structures during maneuvers	damage to property, risk to people	slow maneuver; presence of operator on the ground; free path
11	loss/fall of materials due to incorrect positioning or instability	injuries, damages	correct positioning; compliance with load/material distribution; compliance with limits and markings (see "Load control and overload prevention" and Chapter 14).
12	impacts during translation due to reduced visibility/limited spaces	injuries, damages	evaluate the route; presence of a ground attendant; reduced speed
13	person hit on the ground during handling	serious injuries	delimit area; Ground worker; respect signs/warnings present
14	loss of control on slopes or slippery surfaces	crashes, overturning	Respect limits; avoid slippery surfaces; suspend activities if necessary
15	electrical risk due to proximity to overhead power lines	lightning strike	respect minimum distances; report/isolate; Ground worker
16	Electrical risk due to humidity/condensation on controls and electrical parts (powered versions)	electric shock	Avoid use in unsuitable conditions; pre-use checks; recharge in a suitable environment
17	Battery gas emission during charging (powered versions)	explosion, burns	Charge in a ventilated area (no closed rooms); prohibit flames/sparks; follow the charging procedure (see "Batteries and charging – risks and requirements", "Battery charging" and "Battery maintenance and inspection"); do not use damaged/swollen/leaking batteries; charger compatible with battery technology (configuration by authorized personnel only); when working on batteries: wear suitable PPE (gloves, eye protection); avoid short circuits (do not place metal tools on the terminals).
18	hydraulic oil leaks (pipes/joints)	slipping, environmental hazard, possible subcutaneous injection (serious injuries)	Regular maintenance; spill management; immediate cleanup; dispose of oils, greases, used batteries, and contaminated materials in accordance with current regulations (see "Maintenance and Inspections" and "Disposal of Batteries and Fluids"); do not search for leaks by hand; use cardboard/wood; in case of suspected subcutaneous injection: seek emergency medical attention.

n.	Residual risk	Possible consequences	Preventive measures required from the user
19	unexpected descent/failure (hydraulic failure/circuit anomaly)	impacts/crushing	scheduled maintenance and periodic checks (see Chapter 10); do not stand in dangerous areas (see "Dangerous Areas"); do not tamper with/bypass hydraulic fall arrest devices and block valves (see "Safety and Control Devices" and Chapter 10); follow the emergency procedures provided (see Chapter 9 – Emergency Descent); after a breakdown/accident/near miss/abnormal conditions: immediately take the machine out of service (see Chapter 9 – Behaviour in the event of an accident or near miss and Chapter 11 – Conditions requiring immediate machine shutdown).
20	hot parts (components that heat up during prolonged use)	burns	avoid contact; wait for cooling before intervening
21	reduced visibility due to insufficient lighting	bumps, stumbles	adequate lighting; Ground attendant; suspend if unsafe
22	undetected height obstacles (protrusions/lamps/structures)	impacts, damages	preventive inspection; slow maneuvers; Ground attendant
23	repetitive movements/incorrect postures (stabilizers and manual operations)	microtraumas	alternating operators; correct postures; breaks
24	Acoustic risk in closed environments: in the presence of high sound levels or prolonged stay in reverberant rooms	hearing disorders	hearing protection; limit exposure
25	Electric brake/electric train release (only Automatic, Automatic Rotax) with possible loss of control	collision/investment	Emergency only; follow the prescribed procedure (see Chapter 9 – Brake release and emergency movement); clear and restricted area; Operator on the ground; delimit the area; avoid slopes; re-engage the brake at the end of the maneuver; 2-person operation (1 at the release device, 1 at the tiller/push).
26	movement/translation with raised group or position at height	overturning, impacts	prohibition; stabilize/lower before moving (see Chapter 7 – Manual movement / Powered movement and Chapter 4 – Stabilization and interlocks); prohibited area (see Danger zones).
27	Invalid configuration (Higher ↔ side baskets) or tampering with interlocks	instability, shock/entrapment	respect permitted and prohibited configurations (see Chapter 3 – Permitted Configurations and Chapter 4 – Prohibited Configurations); do not tamper with interlocks; perform pre-use checks and function tests (see Chapter 7 and Chapter 14).

n.	Residual risk	Possible consequences	Preventive measures required from the user
28	Failure to fully assemble the side basket (fixing lock not completed)	Fall of the basket and/or operator; impacts; serious injury or death	Follow the assembly procedure; check that the pins/pins are fully inserted and locked correctly; perform a retention test and function test; do not operate if the basket is not correctly assembled; use fall protection PPE when required.
29	Failure to fully assemble the Higher platform (fixing blocks not inserted; guardrails not in place; safety connectors not connected)	Operator fall and/or loss of stability of the workstation; impacts; serious injury or death	Follow the assembly procedure (see Chapter 7 – Higher assembly procedure); check that the blocks/pins and correct locking; check guardrails/stops; check connector/safety microswitch connections (powered versions); perform a restraint test and function test (see Chapter 14); do not operate if Higher is not correctly assembled; use fall arrest PPE when required.
30	Incorrect/incomplete stabilization (incorrect extraction/support/leveling of stabilizers)	instability, overturning, impact/crushing	Observe MIN/MAX markings and operating limits; check full support and leveling; area prohibited during stabilization; in powered versions, check display consents/interlocks (see “Stabilization and interlocks”, Chapter 7 – Stabilization, Chapter 8 – Displays/indicators and Chapter 14).
31	Foot brake release for emergency movement (Manual/Electric only) with possible loss of control	collision/runover; loss of control on slopes; damage	In emergencies only; follow the prescribed procedure (see Chapter 9 – Manual / Electric Versions – foot brake); clear and restricted area; Operator on the ground; avoid slopes; move at a walking pace; re-engage the brake as soon as the maneuver is completed; 2-person operation.
32	Handling/transport with incorrect gripping/anchoring points and/or non-prohibited area	crushing/impact; falling load; damage to equipment; serious injuries	Use designated gripping/anchoring points (see Chapter 5 – Lifting with a crane, Lifting with a forklift, Anchoring to the vehicle); do not use side baskets/Higher baskets/lateral loading systems as anchoring or restraint points; do not use hydraulic pipes, electrical wiring, or non-structural parts; position straps/devices avoiding interference; delimit the area; do not stand in the maneuvering area or under suspended loads; remove unsecured materials; check straps/restraint devices.

n.	Residual risk	Possible consequences	Preventive measures required from the user
33	Unauthorized use / unintentional starting or maneuvering while stationary	collision/impact; improper use of the machine; injuries	When parked/abandoned: rest position; controls deactivated; parking on a flat, stable area; prohibit access to unauthorized personnel (see Chapter 4 – General rules for using and parking the lift and Chapter 7 – End of work and safe parking); remove key (powered versions) / reset manual pump lock and safeguard the key (Manual); protected functions/adjustments: access only to authorized personnel (see Chapter 8 – Menus / protected functions).
34	Use of the machine in the presence of anomalies/malfunctions of the control and safety systems (display; sensors; alarms)	Improper or uncontrolled maneuvers; loss of safety conditions; even serious injuries	Stop use; secure the machine; close off the area; if the operator is at height, perform an emergency descent from the ground (see Chapter 9 – Display and/or safety sensor fault / Emergency descent); contact assistance/qualified personnel; do not reuse until the machine has been reset and functionally checked (see Chapter 11).
35	Using the machine in the presence of faults/damage that compromise safety (e.g. cracked/leaking hydraulic lines; deformations; ineffective brakes; non-functioning safety devices; SafeState)	Collapses; loss of control; crushing/impact; even serious injuries	Immediately remove from service; stop operations; secure; close off the area; contact assistance/qualified personnel; do not reuse until repaired and functionally checked (see Chapter 9 – Behaviour in the event of an accident or near-miss; Chapter 11 – Conditions requiring immediate machine shutdown; Chapter 13 – Temporary removal from service).
36	Maintenance with lifting part supported by relying solely on hydraulic pressure	Sudden lowering; crushing; serious injury	Do not rely solely on hydraulic pressure; secure with mechanical supports/devices; release pressure; activity reserved for qualified personnel (see Chapter 10 – General safety instructions for maintenance / Safety lock for maintenance with lifting unit raised).
37	High-pressure hydraulic leak detection (contact with jets; subcutaneous injection)	Serious injuries; subcutaneous injection; risk of infection/complications	Do not search for leaks by hand; use cardboard/wood; depressurize the circuit; provide suitable PPE; provide immediate first aid (see Chapter 10 – General safety instructions for maintenance / Hydraulic system maintenance).
38	Manual pump operation error (orange lever position changed during operation)	Uncontrolled maneuver; impact/crushing; injuries	Do not move the orange lever while operating the pumping lever; perform the maneuvers in a slow and controlled manner (see Chapter 3 – Manual Version / Repositionable Manual Pump and Chapter 9 – Emergency Descent Manual Version).

4.4. Safety and control devices

Device / function	Manual	Electric	Automatic	Automatic Rotax	Note
Enabling the use of the Manual version via a manual pump lock	✓	—	—	—	Cap. 7.7 / 8.5.1
Enabling the electrical/electronic system via key switch	—	✓	✓	✓	Cap. 7.7 / 8
Battery switch for electrical isolation	—	✓	✓	✓	Cap. 8
Stabilization: min/max lateral extraction + max vertical extraction markings	✓	✓	✓	✓	Cap. 4.9 / 7
Stabilization: min/max lateral extraction interlocks/consents	—	✓	✓	✓	Cap. 4.9 / 7 / 8
Tilt control + inhibition of functions above threshold	—	✓	✓	✓	Cap. 4.8.3 / 8
Emergency stop (mushroom) on pendant pushbutton panel	—	✓	✓	✓	Cap. 9
Emergency stop (mushroom) on display/panel side	—	✓	✓	✓	Cap. 9
Interlocking configuration of high-level stations and fixing (baskets/Higher)	—	✓	✓	✓	Cap. 7 / 8
Higher Interlock (open parapets)	—	✓	✓	✓	Only Higher for powered versions; Ch. 7 / 8
Hydraulic fall arrest device (parachute valve)	✓	✓	✓	✓	Lifting circuit safety
Load blocking/holding valves (beyond parachute)	✓	✓	✓	✓	Lifting circuit safety
Maximum pressure valve (system protection)	✓	✓	✓	✓	It is not a load sensor; Ch. 4.10
Mechanical limit switch for lifting stroke	✓	✓	✓	✓	Travel limitation
Mechanical foot-operated parking brake	✓	✓	—	—	Cap. 3.8.1 / 7.5.1
Traction: traction inhibition with lifting unit not completely lowered	—	—	✓	✓	Chapter 7.5.2 / 8. Function implemented via control logic on the Automatic / Automatic Rotax versions: traction is only permitted with the lifting unit completely lowered and safety conditions verified.

Traction: anti-collision device on the head (reversing behavior)	—	—	✓	✓	7.5.2 / 8. When reversing, if the device is engaged, the machine reverses direction until it is released; when released, travel stops.
Traction: electric brake (automatic traction brake)	—	—	✓	✓	Cap. 7 / 9
Mechanical electric brake release (emergency)	—	—	✓	✓	Cap. 9
Brake unlocking/locking via display (ordinary)	—	—	✓	✓	Cap. 7.6.3 / 8
Rotax: rotation permitted only above minimum altitude	—	—	—	✓	Height 110 cm; Chapter 7.10 / 8 / 14
Rotax: angle sensor / rotation limitation $\pm 90^\circ$	—	—	—	✓	Cap. 7.10 / 8
Rotax: Home restriction for descent below threshold	—	—	—	✓	Chapter 7.10 / 8. Descent below the minimum rotation height is permitted only with the structure returned to the Home position (0°), according to the control logic.
Rotax: acoustic warning during descent when minimum rotation altitude is reached with structure not in Home position	—	—	—	✓	Chapter 7 / 8. In the Automatic Rotax version, when descending, upon reaching the minimum rotation altitude, if the structure is not in the Home position (0°), an acoustic warning is activated; descent below the threshold is permitted only after returning to the Home position, according to the control logic.
Audible warning during lifting	—	—	✓	✓	Chapter 8. An acoustic warning (buzzer) accompanies the lifting maneuvers (ascent/descent)

Interlocks and automatic inhibitions

The machine incorporates safety features that automatically inhibit unauthorized movements. Specifically, where applicable based on the model and installed configuration:

- ☒ movements of the aerial part are permitted only with stabilizers in the positions intended by the manufacturer;
- ☒ the movements of the aerial part are inhibited if the movable handrails/parapets are not closed and correctly fixed;
- ☒ the movements of the aerial part are inhibited if the installed work platform (e.g. side basket or Higher) is not correctly inserted, fixed and recognised by the system;
- ☒ only one command position can be active at a time;
- ☒ in machines equipped with motorized translation, translation is permitted only under the conditions foreseen by the manufacturer;

- ☒ activating the emergency stop immediately inhibits the movements affected by the safety circuit.

If a safety feature prevents the required movement, do not force the controls and check that the machine is correctly configured, that the handrails are closed, that the installed platform is correctly secured, and that the emergency devices are positioned.

4.5. Dangerous areas

Dangerous areas include the stabilization area, the working area of the high-altitude station and the machine transit/manoeuvre areas.

4.5.1. Stabilization area and prohibited area

By stabilization area we mean the support polygon defined by the ground contact points of the four stabilizers, in the position actually adopted (lateral extractions and vertical adjustments).

The prohibited area is the area surrounding the machine, including the stabilization area and a safety zone, which must be kept clear of people not involved in the operations.

The restricted area must also be maintained during emergency maneuvers, including emergency descents and movements with the brake released.



DANGER

It is forbidden to stop or pass through the restricted area during stabilization, lifting, and handling operations at height: risk of crushing/running and falling objects.



4.5.2. Crushing and shearing zones

The main crushing/shearing areas are located near the moving parts of the lifting unit, the articulation/engagement points of the overhead workstations and the interfaces between the machine and surrounding structures.

During the movements of the lifting unit, there is a risk of crushing hands, even for people who are not operating the controls; maintain a safe distance from the cutting areas and do not grasp/hold moving parts during maneuvers (see ISO 7010 W024 pictogram and signs applied to the machine; Chapter 14.6).



4.5.3. Entanglement and impact zones

There are areas where there is a risk of entanglement with protruding elements and moving parts, as well as the risk of impact with obstacles at a height or from the side.

4.6. Safety signs

The machine is equipped with safety labels and pictograms applied in specific locations. The complete list, contents, and locations of the signs applied to the machine are given in paragraph 14.6.



WARNING

It is forbidden to remove, alter or make illegible the machine's plates, markings and safety labels.



USE

The complete list of labels, pictograms and their positions is given in Chapter 14.6.



4.7. General rules for using and parking the elevator

Before use, perform preliminary checks and functional tests according to Chapter 7 and the checklist in Chapter 14.4. During use, keep the work area delimited and controlled, avoid sudden maneuvers, and always respect the operating limits. When finished, return the machine to its rest position, deactivate the controls according to version, and secure the machine against involuntary movements.

4.8. Environmental and operational limitations

Use is intended for outdoor and indoor environments, in compliance with the conditions of this paragraph.

4.8.1. Lighting and visibility

The work area must be adequately lit. The lighting must comply with the values required by the legislation and technical standards in force in the place of use.

It is prohibited to use the machine in conditions of darkness or poor visibility.

4.8.2. Wind and weather conditions

Use is permitted only within the wind limits and environmental conditions of use indicated in paragraph 14.3.3. In the event of gusts or adverse conditions, discontinue use and secure the machine.

4.8.3. Slopes and soil characteristics

Use is permitted only on load-bearing, even ground. Do not use on slippery surfaces or with slopes exceeding the operating limits indicated in paragraph 14.3.3. Always use support plates when required by ground conditions.

Slope limits for positioning and stabilization

The positioning of the machine for stabilization is permitted within a maximum ground slope of 10°, both in the transverse direction (between the long sides: A–B / C–D) and in the longitudinal direction (between the short sides: D–A / B–C).

For operational reference: 10° transverse corresponds to approximately 11 cm of difference in height on the A–B (or C–D) axis; 10° longitudinal corresponds to approximately 21.9 cm of difference in height on the D–A (or B–C) axis.

The applicable limits of use are given in paragraph 14.3.3; the geometric stabilization references and the overall dimensions in plan are given in paragraph 14.3.4.



WARNING

Before stabilizing the machine, check the load-bearing capacity and ground conditions. Use the manufacturer's supplied support plates when necessary to distribute the load on the ground and ensure stable support, especially on sloped, uneven, or soft ground, or on terrain where the stabilizing feet may leave marks.



4.8.4. Presence of obstacles and power lines

Inspect the work area and maintain safe distances from obstacles and power lines. Do not operate if minimum safety distances cannot be guaranteed.



DANGER

Contact with or proximity to power lines can cause electrocution and death. Maintain minimum safety distances and follow the procedures established by your employer and applicable regulations.

AD 47




 DANGER	
0 - 300 V	
300V - 50kV	3m - 10ft
50kV - 200kV	5m - 15ft
200kV - 350kV	6m - 20ft
350kV - 500kV	8m - 25ft
500kV - 750kV	11m - 35ft
750kV - 1000kV	14m - 45ft

FEDA Srl






4.8.5. Batteries and charging – risks and requirements

APPLICABILITY

☐ Manual
 ☒ Electric
 ☒ Automatic
 ☒ Automatic Rotax

For the Electric, Automatic and Automatic Rotax versions, battery charging must be carried out in a suitable, ventilated area, away from open flames and sources of ignition.

Recharging is prohibited in closed/unventilated areas or in the presence of open flames, sparks or other sources of ignition.

Do not use or charge damaged, swollen, or leaking batteries.

In case of battery replacement or variation of the storage technology compared to the standard configuration of the machine, the compatibility check and any configuration of the charger must be carried out exclusively by authorised personnel.

When working on batteries, wear appropriate PPE (gloves and eye protection), avoid short circuits, and do not place metal tools on the terminals. If electrolyte leaks, neutralize the leak according to the manufacturer's instructions and company safety procedures.

The operating instructions for charging are given in Chapter 7; the safety and battery maintenance instructions are given in Chapter 10.



DANGER

While charging, batteries may emit flammable gases: smoking and sparks are prohibited; ensure ventilation and avoid the accumulation of gases.



USE

Do not recharge in closed or poorly ventilated areas.



4.9. Stabilization and interlocks

4.9.1. General provisions

The machine must be stabilized using the four outriggers before any overhead work. Stabilization includes lateral extension and vertical adjustment of the machine's support on the ground, until the machine is level. Stabilization must be performed in compliance with the markings on the machine and the stabilization limits and overall dimensions indicated in paragraph 14.3.4, verifying the ground's bearing capacity and adopting the necessary measures to ensure stable support.

Where possible, use the widest allowable stabilization to increase the stability margin.

4.9.2. Lateral and vertical extraction limits

The lateral extraction limits of the stabilisers and the permitted conditions of use are defined by the markings on the machine and by the operating limits tables reported in paragraph 14.3.4.

Maximum lateral extension is common to all stabilizers. Minimum lateral extension limits may vary depending on the version and configuration.

The Manual version does not have any interlocks to verify minimum extraction. In the powered versions (Electric, Automatic, Automatic Rotax), correct lateral extraction is verified by control/interlock devices and the condition is indicated on the display.

The maximum vertical extension of the stabilizing foot is indicated by a specific marking on the component and is not verified by interlocks: the operator must not exceed the marked limit.



ATTENTION

It is forbidden to exceed the maximum vertical extraction limit of the stabilizing foot indicated by the marking on the stabilizer.



WARNING

Incomplete or incorrect stabilization (insufficient lateral extraction, failure to fully support the feet, failure to level the machine) can compromise the stability of the machine and cause it to overturn, crash, or be crushed.

During stabilization, the area must be kept off-limits to unauthorized personnel. If in doubt as to the correct configuration, discontinue use and fully restore stability before proceeding with the lift.


USE

The geometric representation of the stabilization areas for the different configurations and the related dimensional data are reported in Chapter 14.

4.10. Load control and overload prevention

The machine is designed to operate exclusively within the permitted configurations and load limits indicated in paragraphs 14.3.1 and 14.3.2 and on the machine markings.

It is mandatory to comply with the load limits, maximum number of people, load distribution, and local limits for the various workstations indicated in paragraph 14.3.2 and on the machine markings. Exceeding these limits is prohibited.


WARNING

Overloading and incorrect load distribution can compromise stability and cause materials to tip over or fall. It is mandatory to check the installed configuration (Chapter 3) and comply with the permitted configurations, load capacities, and applicable limits reported in paragraphs 14.3.1 and 14.3.2.


USE

Do not rely on hydraulic system relief valves as a load limiting device.

4.11. Interventions reserved for qualified personnel

Adjustment, repair and maintenance activities on structural components, hydraulic system and electrical system must be carried out exclusively by qualified and authorised personnel, as indicated in Chapter 10.

4.12. Prohibited configurations

Prohibited configuration / condition	Reason for the ban (risk)	Note operative
Higher upper platform installed with one or two side baskets mounted	instability, impact, interference, risk of falling	Remove side baskets before installing/using Higher
One or two side baskets mounted with Higher installed	as above (mirroring prohibited)	prohibition expressed in both directions
Using DB with second basket mounted on non-DB machines	non-compliant configuration	allowed only if machine purchased/certified by DB
Translation/maneuvering with machine raised	crash, overturn, crushing/runover	return to a safe altitude and follow Chapter 7
Use beyond environmental and soil limits (wind, incompatible weather, heavy rain, ice/mud, slippery surfaces, non-bearing/soft ground, slopes beyond limits)	rollover, loss of control	suspend activities, secure
Approaching power lines without minimum distances	lightning strike	apply minimum procedures and distances
Unlocking the electric brake/traction system in an emergency or without a	loss of control, collision/impact	only in emergency, according to Chapter 9

Prohibited configuration / condition	Reason for the ban (risk)	Note operative
procedure		
Installation of unauthorized accessories/modifications	non-conformity, structural risk/stability	only accessories approved by the manufacturer
Use in potentially explosive atmospheres	explosion	non-ATEX machine

5. Transport, handling and commissioning

APPLICABILITY OF CHAPTER 5.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

Any construction or functional differences are indicated in the dedicated paragraphs or in the following chapters.

5.1. Purpose and scope

This chapter describes the transport, handling and packaging methods of the Magister elevating work platform.³, including loading/unloading operations and securing onto vehicles (trucks, vans, porters, Piaggio Ape or equivalent vehicles equipped with a loading platform).

Operations must be carried out by trained personnel and in compliance with company procedures and current regulations regarding the handling and transport of machinery.

5.2. General safety requirements for transport and handling



WARNING

During transport and handling, it is forbidden to remain in the maneuvering area or under suspended loads. Cordon off the area and ensure the presence of a ground operator.



ATTENTION

Before transporting, remove materials and equipment from the upper deck and operator stations. Ensure that installed accessories are secured and cannot move or collide during transport.



USE

The simultaneous presence of accessories is permitted only for transport; use at height remains regulated by chapters 3 and 4.



ATTENTION

Do not use hydraulic lines, electrical wiring, or non-structural components as gripping, support, or restraint points.



ATTENTION

Avoid loading/unloading and handling operations on ramps in heavy rain, snow, ice, or mud unless adequate grip and safe control of the vehicle and machine are guaranteed. In critical weather conditions, suspend operations and restore safe conditions.



5.3. Configuring the machine for transport

Before any transport by vehicle:

1. bring the machine to the lowered position, with the lifting unit completely retracted;
2. check that the configuration is suitable for transport and that there are no loose components;
3. Secure any moving parts or accessories that could swing or interfere with straps and handling equipment.



USE

For the sole purpose of transport and ground handling (ordinary handling, loading/unloading on ramps, remaining on the loading platform), it is permitted to leave the accessories installed even together, including the basket(s), the Higher upper platform, and, if applicable, the lateral loading system. The accessories must not be used as gripping or anchoring points.

5.4. Ground handling

The machine can be moved on the ground using the methods provided for the specific version (manual traction or motorized traction, depending on the machine version). For safe ground movement operations, refer to the operating procedures in the chapter dedicated to handling and use (Chap. 7).



ATTENTION

It is forbidden to move the machine with the lifting unit raised or with raised positions at height.



5.5. Loading and unloading via ramps

When the machine is loaded/unloaded via ramps:

- ☒ use ramps suitable for their capacity and size;
- ☒ check the stability, anchoring and anti-slip properties of the ramps;
- ☒ proceed at reduced speed;
- ☒ avoid impacts and sudden maneuvers.


ATTENTION

Ensure that straps or restraints do not interfere with hydraulic lines, electrical wiring, or non-structural components.


ATTENTION

Do not load/unload on ramps in conditions of poor grip (heavy rain, ice, mud) unless suitable measures are adopted to ensure anti-slip and controlled movement.


ATTENTION

Ensure that the ramps are secured to the floor and cannot slip or move during the maneuver; check that the ramp surface is non-slip and clean.


USE

Ramps must be suitable for load-bearing capacity and geometry. If there are two ramps, each ramp must be ≥ 40 cm wide; if there is a single ramp, the width must be ≥ 80 cm.


USE

Select ramps of a length appropriate to the height of the vehicle bed, maintaining the slope within the permitted limits for pedestrian travel. Ramps must also be suitable for load-bearing capacity, width, stability, and fastening methods. Refer to the operating limits listed in Chapters 7 and 14.


USE

FEDA can supply suitable loading ramps; availability is indicated among the machine's optional accessories.



5.6. Lifting with cranes or suspended systems

Lifting with cranes or suspended systems must be carried out using the four lifting eyebolts located at the top of each stabilizing leg.

While lifting:

- ☒ use suitable and certified lifting accessories (slings, spreader bars, four-leg slings);
- ☒ check the integrity and correct installation of the lifting devices;
- ☒ Strictly follow the instructions for the designated lifting accessories regarding positioning, harnessing and permitted load limits.
- ☒ keep the load stable and avoid oscillations.

For powered versions (**Electric, Automatic, Automatic Rotax**), the machine must be switched off during transport; remove the key from the control panel. When transport is entrusted to unauthorized third parties, the key must not be left on board.



ATTENTION

To avoid interference with the tie rods, it is recommended to remove the upper floor of the machine and tighten the knobs that lock the stabilizers in place.



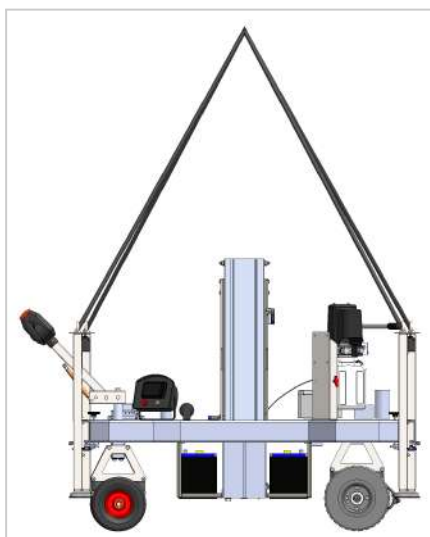
DANGER

It is forbidden to stand under the machine during lifting.



DANGER

It is forbidden to lift the machine by grabbing or tying down the side baskets, guardrails, Higher platform or accessories: these are not lifting points and may be damaged or cause loss of control of the load.



5.7. Lifting with forklift (forklift)

5.7.1. Forklift points

When the machine is moved with a forklift:

- ☒ insert the forks into the machine under the battery compartments, in correspondence with the parts of the carpentry that protrude most downwards and are suitable for supporting the load;
- ☒ use straps to secure the machine to the forks of the forklift;

- ☒ keep the machine as low as possible during movement and proceed at a reduced speed.


WARNING

The restraint straps must be positioned so as not to touch hydraulic pipes, electrical wiring and non-structural parts (hydraulic power unit, electrical system components, manual pump and similar).


ATTENTION

It is forbidden to hold/secure the load to the forks by acting on baskets, guardrails, Higher or accessories: use only suitable structural elements.

5.8. Positioning on the vehicle loading platform

Place the machine on the loading platform in a stable manner, avoiding contact with sides or structures that could damage components.

Before anchoring:

- ☒ make sure the machine is in the lowered position;
- ☒ check that there are no loose materials or equipment;
- ☒ prepare the anchoring straps/chains.


USE

On the loading platform, the machine can be further stabilized using its own stabilizers, in addition to anchoring with straps/chains. Anchoring to the vehicle remains mandatory.


USE

Position the machine as aligned as possible and in such a way as to limit imbalances on the platform, maintaining a load distribution consistent with the vehicle and transporter's requirements.


ATTENTION

In the Manual and Electric versions, engage the foot parking brake during transport.

5.9. Anchoring to the vehicle using straps or chains

"Anchoring to the vehicle" means securing the machine to the loading platform using anchoring straps, chains or equivalent devices, in order to prevent it from moving during transport.

Anchoring must be carried out:

- ☒ using suitable devices (capacity, conditions and certifications) and in compliance with the carrier's procedures;
- ☒ connecting exclusively to structural parts of the machine.

The following are considered suitable anchor points:

- ☒ steel load-bearing frame;
- ☒ lifting group (structural elements).



DANGER

It is prohibited to use hydraulic pipes, electrical wiring and all non-structural parts of the machine as anchoring points or as support/pressure surfaces for the straps. It is also forbidden to use side baskets, Higher platforms and side loading systems as anchoring points: they may become damaged and do not guarantee adequate load retention.



ATTENTION

Before use, check the integrity of the belts/chains, the absence of cuts, abrasions and deformations, and the suitability of the ratchets/tensioner. Where the belt runs over edges or frame surfaces, use edge guards or equivalent protection to prevent belt damage and loss of retention.



WARNING

It is prohibited to use the side baskets, the Higher upper platform, the lateral loading systems, the hydraulic pipes, the electrical wiring and any other non-structural part of the machine as gripping, anchoring or holding points.

Straps and restraints must be positioned so as not to interfere with piping, wiring, sensors, markings, and removable components.

5.10. Packaging and shipping via carriers

For shipments via couriers/carriers/transporters, we recommend using wooden crates with a pallet underneath and protective walls.

When FEDA ships the machine, it uses this type of packaging; we recommend keeping it for any future transportation needs via intermediaries.

As an indication:

- ☒ Box for Magister³ : 1800x750x1500h mm
- ☒ side basket case: 1000x600x1600h



USE

In addition to retaining the original packaging, where applicable, FEDA can subsequently provide dedicated wooden crates for transport and reshipping the machine and accessories.

The Higher upper platform, if purchased together with the machine, can be supplied already mounted on the upper deck (foldable guardrails), to improve protection and optimize shipping volumes.

The crates can be assembled using wood screws and/or nails.



USE

Wooden crates can be moved using pallet trucks and forklifts, always checking the load's capacity and stability.

5.11. Transport safety (powered versions)

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax



ATTENTION

During vehicle transport, the machine must be kept switched off. Before entrusting transport to unauthorized third parties, remove the key from the control panel and store it in a safe place.

Verify that the controls are not operable and that there are no active power sources

5.12. Masses and dimensional data

The masses of the machine and of the main components/accessories relevant for use, transport and configuration are given in paragraph 14.2.2. The reference operating dimensions are given in paragraph 14.3.5. The plan dimensions related to stabilization are given in paragraph 14.3.4.

6. Construction variants, installable options and accessories

APPLICABILITY OF CHAPTER 6.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

The differences between versions are indicated in the dedicated paragraphs.

The chapter describes the main construction variants and the accessories/options that can be installed on Magister³.

The configurations permitted for use at height and the related constraints are regulated by the Chapters 3 and 4.

The operating limits and capacities are given in paragraphs 14.3.1, 14.3.2 and 14.3.3. The masses of the main components/accessories are given in paragraph 14.2.2. The plan dimensions related to stabilization are given in paragraph 14.3.4. The reference operating dimensions are given in paragraph 14.3.5.

6.1. Construction variants

6.1.1. Variants for power supply, controls and functions

Magister³ It is available in the following versions:

- ☒ **Manual:** lifting by manual pump; push/pull movement; absence of interlocks to verify minimum stabiliser extraction.
- ☒ **Electric:** battery-powered version with electrical functions; checks/interlocks and display signals depending on the configuration.
- ☒ **Automatic:** powered version with automated functions and control via controls/display; checks/interlocks according to configuration.
- ☒ **Automatic Rotax:** powered version with automated functions and motorized rotation system of the lifting part; dedicated checks/interlocks according to configuration.

6.1.2. Variants for SB/DB setup

The machine is available with different configurations for the operator stations:

- ☒ **SB:** predisposition for **1 side basket** (principal).
- ☒ **DB:** predisposition for **2 side baskets** (main and secondary), identical and distinguishable by position.

6.1.3. Upper floor variants and dedicated applications

The upper floor can be configured with dedicated variants depending on the use and line supply:

- ☒ **coffin floor** (Montaferetri line);
- ☒ **storage plan** (Professional line) and/or as the configuration provided in the supply.

Provisions for additional applications authorised by the manufacturer are also possible (ad hoc solutions or future standardised systems also applicable for retrofitting).


USE

For details on the plans/solutions that can also be purchased subsequently and for the related compatibility conditions, please refer to paragraph 6.2.2.2; the operating limits and compatibility of the variants are reported in paragraphs 14.3.1, 14.3.2, 14.3.4 and 14.3.5.

6.2. Installable accessories and options

The accessories and options described in this chapter are intended to expand the available configurations of the machine or to support its use and logistics (transport, handling, PPE).

The installation and use of accessories at height is regulated by Chapters 3 and 4 (permitted/prohibited configurations and safety requirements) and by the capacities and limits set out in paragraphs 14.3.1 and 14.3.2.


USE

Accessories and options that can be installed on the Magister³ must be supplied or authorized by FEDA and installed according to the instructions provided.


USE

The simultaneous presence of multiple accessories (e.g. side baskets + Higher + side loading system) is **permitted only for transport/movement on land**; use at altitude remains governed by chapters 3 and 4.


ATTENTION

Use the machine and accessories exclusively for the functions for which they were designed and only in the configurations permitted by the manufacturer. Unauthorized modifications, adaptations, or accessories may compromise the safety and conformity of the machine.

6.2.1. Side baskets (SB/DB) – optional and after-sales supply

The side baskets are single-operator stations that can be installed laterally with respect to the lifting unit.

- ☒ in configuration **SB** the use of only the **main side basket**;
- ☒ in configuration **DB** the machine is designed for the installation of **two side baskets** (main and secondary). The secondary basket can also be supplied subsequently as an optional, exclusively on DB machines.

In the configuration **DB** the machine is designed for the installation of **two side baskets** on opposite sides; commercially it can be supplied as standard with a **single basket**,

while the **second basket** it is also available as an after-sales option, exclusively for machines supplied in the DB version.

The **The side basket is identical and can be installed on both sides**; the terms "main/secondary" identify only the **mounting position** in DB configuration.



USE

It is not permitted to carry or lift equipment and materials in the side baskets; the materials must be placed on the **upper floor** within the applicable limits referred to in paragraph 14.3.2.

6.2.2. Accessories and options that can be installed on the upper level

6.2.2.1. Higher upper platform

Higher is a two-operator upper platform that can be installed on the upper deck. The machine is ready for assembly.

Higher is also available for after-sales service; the machine is ready for assembly.

There are two versions of Higher:

- ☒ **Higher for Manual versions**;
- ☒ **Higher for electric versions** (Electric, Automatic, Automatic Rotax), equipped with safety wiring/micro-switches according to the configuration.

Higher is supplied complete with an access ladder (with hooks and handrails), which can be installed alternatively on both short sides of the machine depending on operational needs.

6.2.2.2. Upper loading systems

On the upper level, shelves and accessories can be installed to support loading/positioning operations, which can also be purchased later, such as:

- ☒ **storage plan** (Professional line) or optional on the Coffin Lifts line;
- ☒ **smooth surface** and other dedicated plans/accessories;
- ☒ **specific solutions authorized by the manufacturer** (ad hoc applications) and/or **standardized systems** which FEDA will also be able to make available for retrofitting, depending on operational and use needs.



USE

Installation and use at height are permitted exclusively in the permitted configurations (Chap. 3) and within the configuration, load and overall dimensions limits indicated in paragraphs 14.3.1, 14.3.2 and 14.3.4 and on the machine markings.

6.2.2.3. Lateral loading systems (applicable to the upper deck; can be installed laterally)

The lateral loading system may include, for example, a slab lift; these systems are applied to the upper deck and installed laterally depending on the application. FEDA can also provide other lateral systems (custom or standardized) that can also be retrofitted. In some configurations, the system may include additional connection points (e.g., even on the Higher structure) to improve support.

6.2.3. Wheels with pneumatic ring – use and replacement

Wheels are available with **pneumatic ring** per:

- ☒ manual push/tow versions (**Manual** and **Electric**);
- ☒ versions with motorized traction (**Automatic** and **Automatic Rotax**).

Pneumatic wheels are useful on uneven surfaces (e.g. cobblestones) and in conditions where better grip/cushioning is required than standard industrial solid-tread wheels.

In the Manual and Electric versions, the four wheels are of the same type. In the Automatic and Automatic Rotax versions, the steering wheels are of the same type as the rear wheels of the manually propelled models, while the wheels on the motorized axle bridge are different and have flanged rims.



USE

For replacement procedures and acceptance/rejection criteria, see Chapter 10.

6.2.4. Stabilizer support plates

The support plates are supplied as standard and are also available as spare parts/after-sales supplies. They are designed to increase the ground contact surface when necessary, considering that the diameter of the stabilizing foot is 80 mm. For usage criteria and operating instructions, see Chapters 4 and 7.

6.2.5. Cranks for adjusting stabilizers

The kit includes 2 cranks for adjusting the stabilizing feet.

The cranks are equipped with a hook terminal, designed to grip the eyebolt located at the top of each stabilizing foot; rotation of the crank allows adjustment of the support foot in its vertical travel.

The advantage of independent cranks is the possibility of using them even at an angle, allowing adjustment even with the foot near walls or obstacles (e.g. columns), without having to compromise the stabilization space or reposition the machine.



USE

The cranks are an operational aid for stabilization: after adjustment they must be removed and placed back in the designated locations in the frame.

6.3. Control system implementations and options

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

The control system can be upgraded upon request with additional features such as operator authorization via badge or RFID-enabled electronic keys, remote diagnostics, and geolocation, including retrofitting, depending on machine availability and configuration. These features are described in dedicated documentation and may include associated services/subscriptions (e.g., data connectivity and cloud management portal).



USE

Connectivity features require the installation of a modem with a data SIM and include subscription services.

6.4. Personal protective equipment (PPE) and operator equipment

The PPE and operator equipment supplied by FEDA are external devices to support the operator and do not constitute structural parts of the machine or elements connected to the machine.

The PPE described in this chapter constitutes external support equipment. The minimum requirements and obligations for using the machine are indicated in the safety chapters and operating instructions.

The selection, supply and use of PPE are the employer's responsibility, based on the specific risk assessment of the place of use.



USE

For requirements for use at height, permitted configurations and operating instructions, refer to chapters 3 and 7.

6.4.1. Safety helmets

Safety helmets are designed to protect the operator from the risk of impacts, shocks and falling objects during work and handling operations.

The helmet must be worn correctly, with an adequate size/adjustment, and kept in efficient conditions (no cracks, deformations, damage to the shell, retention system and internal padding).

The use of a protective helmet depends on the conditions at the place where the machine is used.

If there is a risk of head impact or falling materials, a safety helmet compliant with EN 397 must be used.

If operating conditions may involve the risk of accidental loss of the helmet (e.g. working at height, movements that may dislodge it), use a helmet with a suitable chinstrap or a helmet compliant with the EN 12492 standard.

The type of helmet and any accessories (visor, ear defenders, etc.) must be chosen by the employer based on the risk assessment and local regulations.

Harnesses and positioning lanyards

Harnesses and lanyards intended for use on Magister³ are aimed **at operator retention inside high-altitude workstations** (side baskets and/or Higher platform), by connecting to the anchoring points provided on the machine.

Minimum recommended features:

- ☒ body harness: **EN 361**;
- ☒ adjustable restraint/positioning cord: **EN 354** or **EN 358**;
- ☒ connectors: **EN 362**.

Energy absorber (EN 355): it is not required as a minimum feature for ordinary use of the machine in the holding configuration.

The anchor points present on the high-altitude positions are intended for **withholding** and are designed according to the applicable platform requirements (UNI EN 280-1:2022). The use of PPE and the connection/adjustment methods are described in the safety chapters and operating procedures.

6.5. Accessories and complements

6.5.1. Protective sheet

FEDA can also provide, as an after-sales service, a heavy-duty, fire-retardant, waterproof PVC cover, tailored to the machine's geometry (before installing the side baskets). The cover is designed as a "volume" cover, with a zip closure on one side wall for easy covering/uncovering.

The accessory is recommended for:

- ☒ protection of the machine when left in open spaces or exposed to bad weather;
- ☒ protection during transport on open-body vehicles (not vans).

6.5.2. Wooden crate packaging

FEDA can provide, including after-sales service, wooden crates for transport via carriers/transporters, consisting of a pallet and protective walls. Where applicable, we recommend retaining the original crates for future shipping needs.



USE

For instructions on how to handle, load/unload and lift the packaged unit, refer to Chapter 5.

6.5.3. Aids for handling sheets and glass

FEDA can provide aids to simplify the handling of sheets and glass (for example, manual suction handles, electronic systems such as Grabo Pro, and Grip Sheet clamp handles). For characteristics and application limitations, please refer to the dedicated technical data sheets.

6.5.4. Ramps and walkways

The manufacturer supplies accessories for handling and overcoming differences in level, for example:

- ☒ **loading ramps**(also foldable);
- ☒ **gateway**for overcoming differences in level (steps, sidewalks), also made to measure;



USE

For the use of ramps/walkways and for loading/unloading, refer to Chapter 5.

6.5.5. Carousel Platform

Carousel is a rotating loading platform useful when traditional ramps are not possible (limited space) and/or where slopes are transverse to the height difference to be overcome. The rotating aluminum platform allows for maneuverability in less than two meters of space; it features two wheels and a handlebar for transport and four independently adjustable, extendable stabilizers for ground adaptation. It is intended for use in combination with loading ramps for access and disembarkation.

6.5.6. Rollers for RLA/RLB loculi

The RLA/RLB roller conveyors are accessories dedicated to the Coffin Lift system. Refer to the Coffin Lift Line Addendum for a description, installation, and use.

6.6. Documentation, accessories and attachments

For detailed technical information on the components and accessories listed in this chapter (characteristics, limits of use, installation where applicable and maintenance), refer to the technical data sheets and reference manuals provided by FEDA and/or the respective manufacturers, which can also be requested from the FEDA sales office.

7. Operating instructions for controls, movements and set-ups

7.1. Purpose, scope and logic of the chapter

This chapter describes **How to use Magister³ in ordinary operations**, taking into account the differences between versions.

APPLICABILITY OF CHAPTER 7.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

The differences between versions are indicated in the dedicated paragraphs.

Consultation logic

- ☒ if you need to carry out pre-use and commissioning checks → see 7.2
- ☒ if you need to prepare the setup before using it at height (baskets or Higher) → see 7.3
- ☒ if you need to consult a quick guide “version → controls → interlocks → display” → see 7.4
- ☒ if you have to move on the ground:
 - manual/electric (manual translation) → see 7.5
 - automatic/rotax (powered translation) → see 7.6
- ☒ if you need to turn on/off and give consent to use → see 7.7
- ☒ if you need to stabilize and switch to lift mode → see 7.8
- ☒ if you need to lift (manual or electric) → see 7.9
- ☒ if you need to rotate (automatic rotax only) → see 7.10
- ☒ if you need to fit/use side baskets (SB/DB) → see 7.11
- ☒ if you need to mount/use the Higher upper platform → see 7.12
- ☒ end of work/battery charging → see 7.14
- ☒ for controls, displays, icons and alarms → see Chapter 8; for emergencies → see Chapter 9

The procedures described in this chapter are valid exclusively in the configurations foreseen by the manufacturer; the use of the machine in non-permitted configurations or with unforeseen combinations of equipment is prohibited.

7.2. Preliminary checks and commissioning

Before use, the user/employer must check that:

- ☒ the operator in charge has the training/qualification requirements required by applicable legislation;
- ☒ the ground staff member is present and trained in the emergency procedures of the specific Magister³ configuration;

- ☒ for Italy, the commissioning requirements have been fulfilled and the mandatory periodic checks applicable to the machine are valid.

Before any maneuver:

1. check that the work area is suitable (free spaces, no obstacles, no unauthorized persons, compatible ground conditions);
2. check that the machine is intact and free from obvious anomalies (damage, leaks, loose components);
3. check the presence and legibility of safety markings and labels;
4. check that the required protective devices are present and correctly positioned (parapets, handrails, protections);
5. for powered versions (Electric, Automatic, Automatic Rotax): check that there are no active alarms on the display and that the machine is in operating conditions;
6. ensure the presence of the Ground Operator during operations at height and, in any case, provide assistance during ground maneuvers with risk of collision/runover or reduced visibility.

In Italy, possession of a valid PLE license with stabilizers is an essential requirement for using the machine.



DANGER

It is forbidden to use the machine near overhead power lines without respecting the minimum safety distances and the procedures established by the employer and by current legislation.



WARNING

During all lifting operations, the presence of at least one operator on the ground, trained in emergency procedures (emergency stop, emergency descent, recovery and call for help), is mandatory.

7.3. Machine configuration before use at altitude

The configuration operations are mandatory preliminary conditions for use at height; failure to comply with the following requirements will result in the machine being prohibited from use.

The machine must operate with:

- ☒ **side basket** (configuration **SB** with a basket; configuration **DB** with one or two baskets), or
- ☒ **Higher upper platform**, installed on the upper floor.



WARNING

The configurations with side baskets and the configuration with the Higher upper platform **They cannot be combined for use at altitude**, It is forbidden to use the machine with Higher installed and one or more side baskets installed.


DANGER

It is forbidden to access or exit high-level workstations with the machine raised and to use ladders or structures to lift oneself up (see Chapter 4 – Prohibited uses).

7.4. Quick map versions → controls → interlocks → display

Version	Translation	Lifting	Rotaz.	Display	Interlocks
Manual	manual with tiller + parking brake pedal	manual pump	no	no	no electronic interlock; correct use required
Electric	come Manual	electric pump with push-button panel + manual backup	no	and	checks/interlocks depending on the configuration; signals on the display
Automatic	electric traction with head (proportional throttles) + electric brake	come Electric	no	and	come Electric
Automatic Rotax	come Automatic	come Electric	and	and	come Electric

The transition between operating modes (translation, lifting and, if present, rotation) occurs automatically based on the status of the sensors and safety interlocks; forced manual selection of modes is not permitted.


USE

For a description of the controls, display and interlocks see Chapter 8.

7.5. Manual translation (Manual and Electric)

APPLICABILITY

☒ **Manual** ☒ **Electric** ☐ **Automatic** ☐ **Automatic Rotax**

7.5.1. Prepare the translation

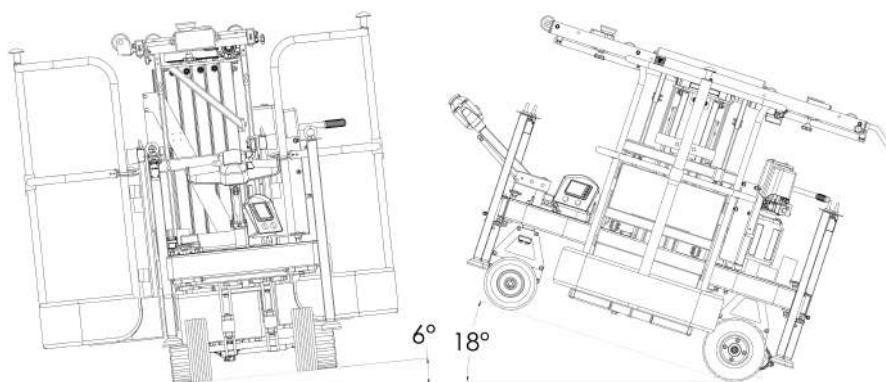
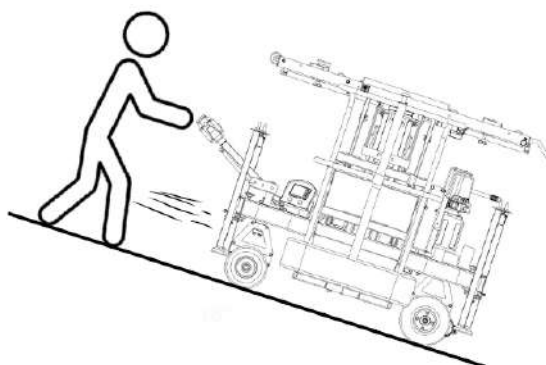
Before moving:

1. check that the lifting unit is fully retracted (lower limit switch) and that there are no loads at height;
2. check that the stabilizers are fully raised and inserted into their seats;
3. check that there are no operators at height and that there are no loose objects on the high-level workstations and on the upper floor;
4. check that the transit area is clear, with a stable surface and without critical transverse slopes;
5. check that any accessories mounted for transport do not create interference (impacts/clutter) and are not used as anchor points.



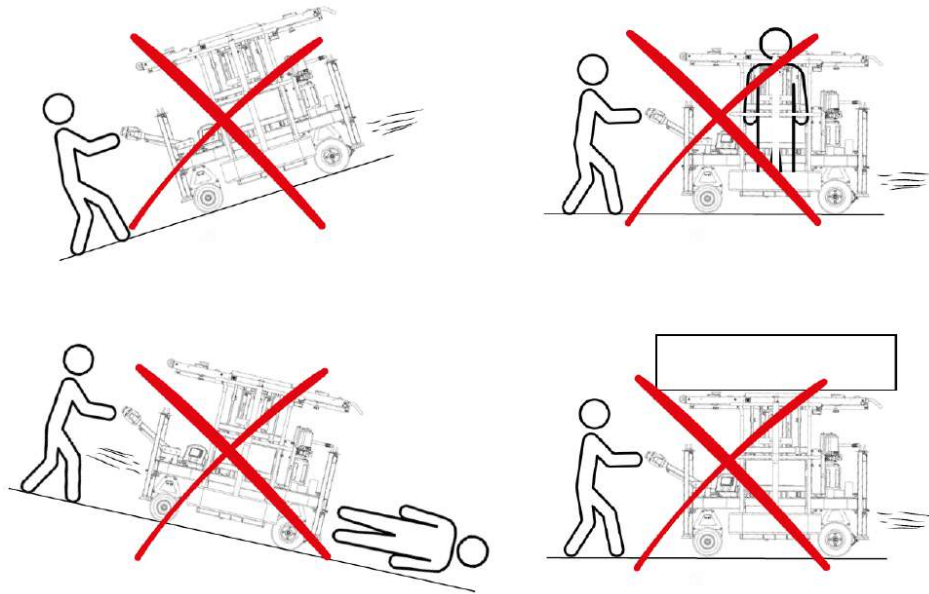
7.5.2. Insert the rudder and the foot brake

- ☒ Grasp the "T" rudder and maintain a stable posture.
- ☒ **Foot-operated parking brake (Manual and Electric versions only):**
 - when stopped/parked: apply the foot brake and check that the car is stationary;
 - Before moving: release the foot brake and check that the wheels are free.
- ☒ On a longitudinal slope: operator **up stream** (high side), maintaining control of the machine.
- ☒ Avoid transverse slopes: risk of overturning.



USE

For maximum permitted slopes (frontal/transverse) and the rule of non-combinability of values, refer to paragraph 14.3.3.



7.6. Motorized translation (Automatic and Automatic Rotax)

APPLICABILITY

☐ Manual ☐ Electric ☒ Automatic ☒ Automatic Rotax

7.6.1. Preliminary conditions

- ☒ travel is disabled if the lift assembly is not fully retracted or if the outriggers are not fully raised and in place;
- ☒ lifting group retracted;
- ☒ no operator at height;
- ☒ emergency devices released;
- ☒ absence of active alarms on the display (Chap. 8),

For slope limits and conditions of use refer to 7.5.2 and paragraph 14.3.3.



7.6.2. Travel controls on the head (rudderAutomatic/Rotax)

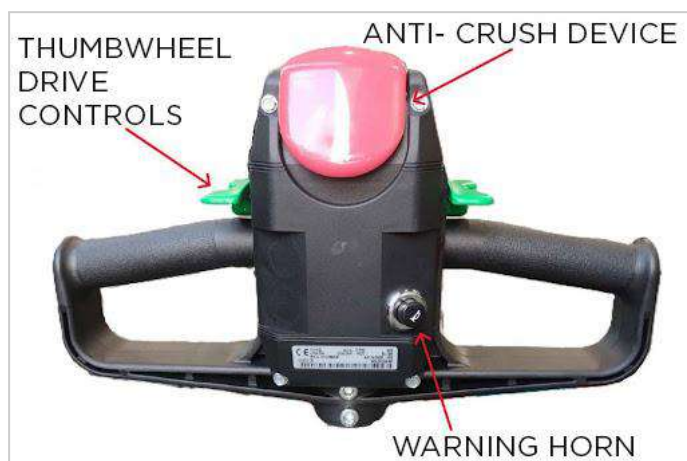
The translation takes place through **command head** on the rudder. Acting on the **butterflies** adjacent to the handle you select the direction of travel and modulate the speed proportionally. Releasing it automatically returns to zero speed (stop).

- ☒ **Direction of travel** (reference: "front = rudder side"):
 - press the lower end of the butterflies → advance
 - press the upper end of the butterflies → reverse
- ☒ **Speed regulation**: gradually increase the pressure to avoid sudden movements.

Anti-collision device (integrated in the head)

The anti-collision device intervenes to prevent the operator from being crushed during the maneuver.

When reversing, if the anti-collision device is engaged, the machine reverses direction until the device is released.



7.6.3. AND electric brake and unlocking logics

The axle bridge is equipped with an electric brake that keeps the machine braked when no travel controls are active; the release/management can be controlled according to the logic provided by the display (Chap. 8).

Display unlock procedure

1. Place the machine in a safe condition (unit retracted, area clear).
2. Access the brake function on the display and request unlocking.
3. Confirm the request on the popup.



When requesting to lock or unlock the brake via the display, the system displays a confirmation pop-up. Confirm the command only after verifying that the machine is in safe conditions, with the lifting unit retracted, the area clear, and no one in the

path. After confirming, always check the brake status before moving or parking the machine.

4. Move the machine in a controlled manner to a safe area.
5. Request brake lock via display and check the status.

7.7. Turning on, off and consent to use

7.7.1. Version Manual

APPLICABILITY

☒ Manual ☐ Electric ☐ Automatic ☐ Automatic Rotax

There is no key switch.

The authorization to use the lift is done through **padlock on the manual pump** (key removal/management as an organizational measure against unauthorized use).

7.7.2. Versions POWERED (Electric, Automatic, Automatic Rotax)

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

1. Check that the emergency buttons are released (display and keypad).
2. Turn on the machine using the key located next to the display in the on position.
3. Wait for the display to start and check that there are no blocking alarms.

Extinguishing and transporting on vehicles

For transport on vehicles: the machine must be switched off and, if transport is entrusted to unauthorised third parties, the key must be removed from the ignition.

7.8. Stabilization (all versions) and switching to lift mode

APPLICABILITY

☒ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

Safety recommendation – maximize stabilization area

Where local conditions permit, **always favor the broadest possible stabilization**, extending the stabilizers to the maximum permitted value and reducing the lateral openings **Alone** when physical impediments (walls, columns, obstructions) do not allow full extension.

A larger support base increases overall stability and reduces sensitivity to micro-subsidences in the ground, irregularities and stresses during maneuvers.

7.8.1. Similar placement generals

- ☒ Stable and load-bearing surface; avoid slippery surfaces and soft areas. Check that the slope of the ground at the installation point does not exceed 10° transversely and 10° longitudinally (references A-B / C-D and D-A / B-C). Otherwise, reposition the machine.
For the certification values of use and the geometric stabilization references see paragraphs 14.3.3 and 14.3.4.
- ☒ Position away from edges/ditches and unstable point supports.

- ⊠ Never lift if the machine is resting on its wheels or is not perfectly stabilized and leveled.

Before stabilizing, delimit the work area below and around it and check that there are no unauthorized persons.



7.8.2. Stabulation: mechanical procedure

1. Place the machine at the work point.
 - Manual / Electric versions: engage the foot brake.
 - Automatic / Automatic Rotax versions: release the gear controls (butterflies) and make sure that the traction is deactivated.
2. Pull out the stabilizer arms sideways up to the marked references/limits.

Lateral extraction limits

- stabilizers A and B (main basket side): respect the MIN and MAX references marked (depending on the configuration of use);
- Stabilizers C and D (secondary basket side): respect the MIN and MAX references marked (depending on the configuration of use).

For the MIN references applicable to the different configurations of use and for the relative overall dimensions in plan, refer to paragraph 14.3.4 and the relative stabilization tables/figures.

3. Tighten the knobs/lobe handles to lock the extension (follow the logic indicated by the pictograms on the frame).



4. Adjust the height of the feet with the two cranks, acting on the eyebolts until full contact with the ground and leveling.

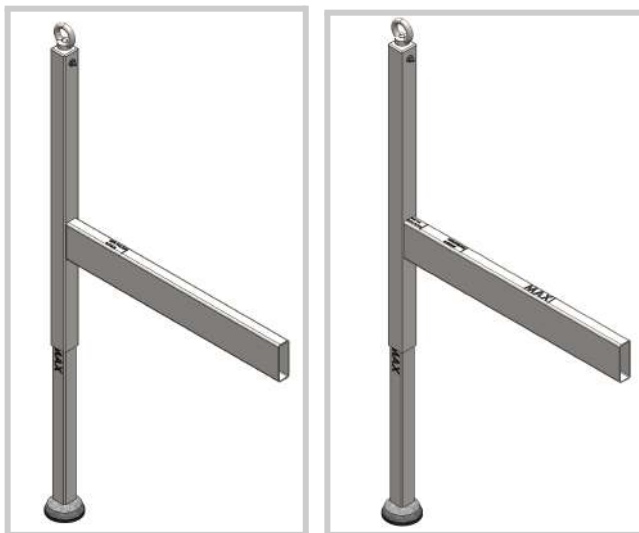


ATTENTION

The maximum vertical extraction limit of the stabilizing foot is indicated by a marking on the component and is not verified by interlocks: it is the operator's responsibility not to exceed it.

Conditions to be met before lifting

- ☒ do not exceed the MAX vertical extraction limit marked on the stabilizing foot
- ☒ the four wheels must not touch the ground
- ☒ the machine must be level (check with omnidirectional levels)





Support plates

Use the plates when necessary to increase the support area (foot Ø 80 mm).



7.8.3. Leveling control and interlocks (powered versions)

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

In the powered versions there are sensors/microswitches and a flatness sensor; lifting inhibition intervenes if the stabilization is not compliant (threshold $\pm 3^\circ$ in x e y).

In the Electric, Automatic and Automatic Rotax versions, the correct lateral extraction of the stabilizers (MIN) can be verified by control/interlock devices and the condition is signalled on the display (see Chapter 8).

The display highlights:

- ☒ state of stabilizers and feet,
- ☒ state of the side baskets,
- ☒ Higher state,

- ☒ inclination on x/y axes with color indication.

Before lifting, check the display:

- ☒ tilt within threshold;
- ☒ stabilizers and feet in compliant condition (ground support completed);
- ☒ correct station configuration (consistent baskets/Higher).



Display – overview in lifting mode (top view)

For detailed interpretation of icons, states and display messages see Chapter 8.

7.9. Lifting: standard modes (manual and electric)



WARNING

Lifting and lowering operations are permitted only with at least one operator present at a high-altitude station, in safe conditions and in compliance with applicable procedures and limits.

7.9.1. Lifting manual (Manual only)

APPLICABILITY

☒ Manual ☐ Electric ☐ Automatic ☐ Automatic Rotax

In the Manual version, the lifting command is given from the ground via a manual pump, while the operator is at height in the designated position.

Repositioning the manual pump

The hand pump can be repositioned alternatively at either end of the machine.

For repositioning:

- ☒ remove the pump from its current location by unscrewing the knob underneath;
- ☒ disconnect the two hydraulic hoses from the quick couplings;
- ☒ place the manual pump in the opposite seat and tighten the knob again;
- ☒ connect the pipes to the quick couplings on the opposite end of the frame;
- ☒ Check that the fittings are correctly engaged before operating the pump.

Reposition only with the lifting unit fully lowered.

Lifting controls

Lifting and lowering are controlled by a ground operator using a manual pump; the operator at height must remain within the station and communicate with the ground operator during the operation.

- ☒ Before operating the manual pump, check that the machine is stabilized and leveled and that the area under the elevated station is clear.
- ☒ Manual hydraulic pump repositionable on both sides with quick-release couplings; hoses with quick-release connectors; valves identifiable by protective caps.
- ☒ Remove the safety lock and keep the key/lock.
- ☒ Orange lever:
 - left = lift
 - right = descent (gravity)

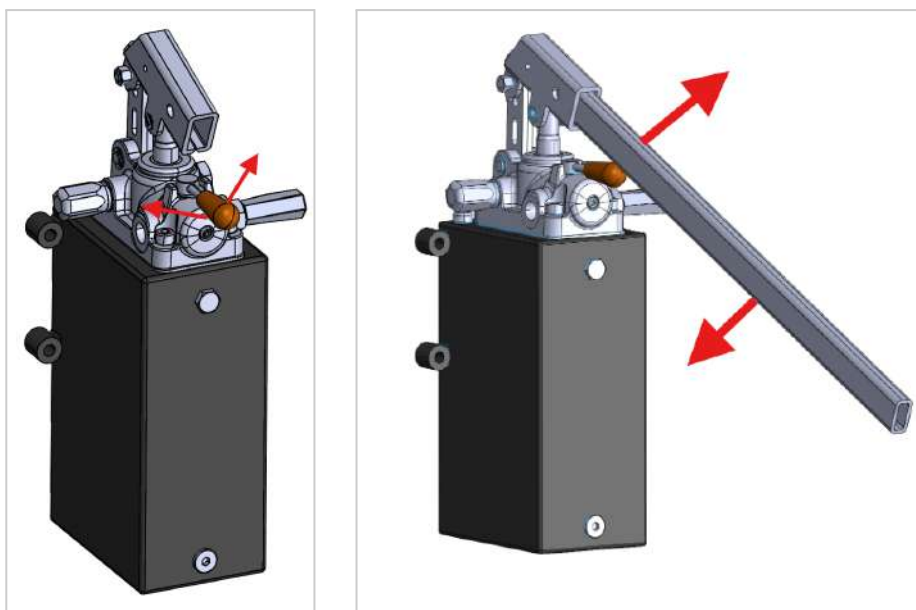
Lifting procedure

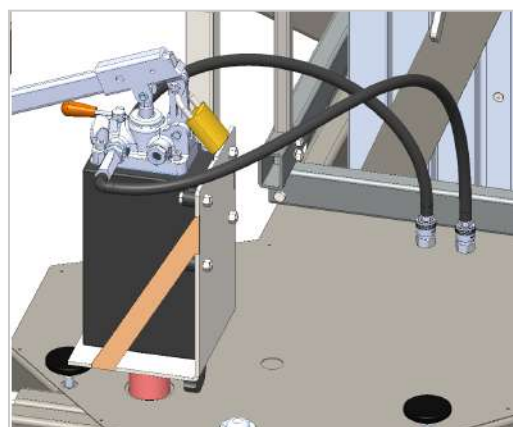
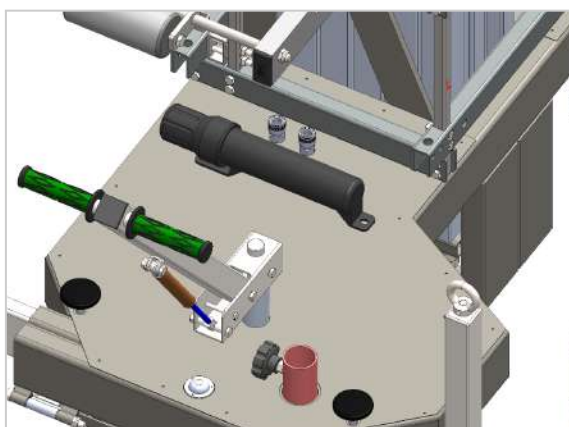
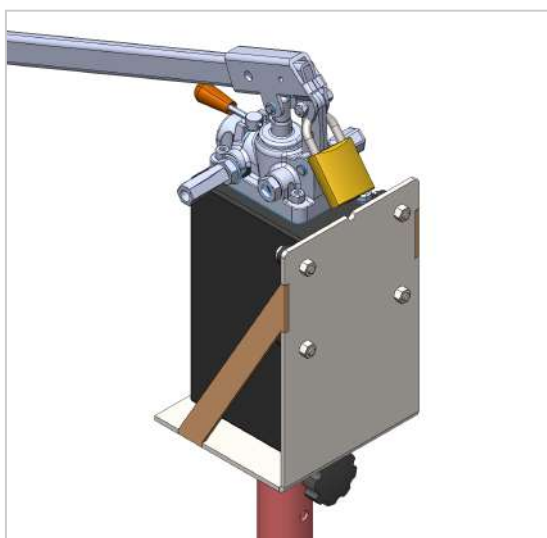
1. Stabilize and level the machine
2. Set the lever to "lift".
3. Pump in full cycles, without jerks.
Perform full, regular pumps to reduce strain.
4. Stop at the desired height.

Descent procedure

1. Set the lever to **Descent**.
2. Slowly operate the lever, the unit begins to descend without the need to pump, the pump is pre-calibrated to ensure a controlled descent.
3. To stop the descent, you need to place the lever back on **Lifting**.

For emergency descent and recovery procedures, refer to Chapter 9.





7.9.2. Liftingelectric (Electric, Automatic, Rotax)

APPLICABILITY

□ Manual ✓ Electric ✓ Automatic ✓ Automatic Rotax



USE

The button panel is connected with a spiral cable and can be used from the side baskets or from the Higher (if installed), moving it without reconnecting.

The lifting and lowering operations are controlled from the height station via a pendant control panel; the display at the base of the machine provides status indications and alarms (see Chapter 8)

Pulsantiera Electric/Automatic

- ☒ Breath (arrow up)
- ☒ Down (down arrow)
- ☒ Emergency (red mushroom)

All the lifting controls on the push-button panel operate by holding down the pressure: when the button is released the manoeuvre stops.



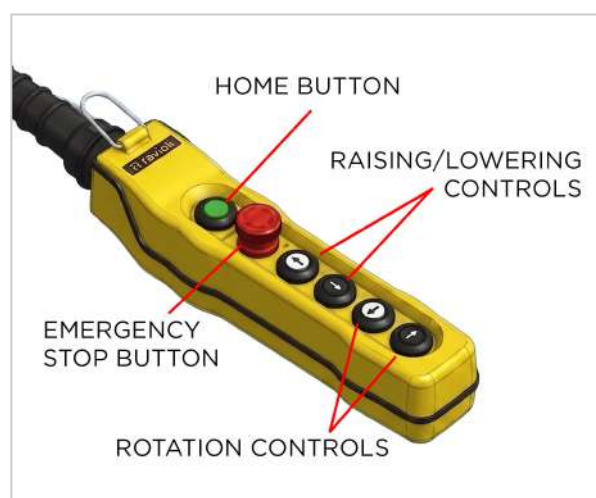
Rotax keypad

- ☒ Ascent (up arrow)
- ☒ Down (down arrow)
- ☒ time setting (left arrow)
- ☒ Counterclockwise rotation (arrowright)
- ☒ Home
- ☒ Emergency (red mushroom)

All the rotation controls on the keypad work by holding down the pressure: when the button is released the manoeuvre stops.

If necessary, use the emergency stop (red mushroom) on the keypad: it interrupts the functions until reset according to Chapter 9.

The function **Home** of the Automatic Rotax version is described in Chapter 7.10.





ATTENTION

The manual pumping element integrated into the electro-hydraulic power unit is intended exclusively for emergency and recovery operations (Chapter 9). It is prohibited to use it for ordinary machine operations. Improper use may result in uncontrolled operations and dangerous conditions.

7.10. Elevating part rotation (Automatic Rotax only)

APPLICABILITY

☐ Manual ☐ Electric ☐ Automatic ☒ Automatic Rotax

7.10.1. Permissions and limitations

Rotation is permitted only when the lifting unit exceeds the minimum lifting height of 110 cm (see paragraph 14.3.5). When descending, upon reaching the minimum height, if the lifting part has not returned to the rest position (0°), the machine inhibits further descent until the rotation value is brought back to 0° using the Home command or the rotation commands (clockwise/anticlockwise)

Angular limit

- ☒ The rotation of the upper plane is limited by an angle sensor $\pm 90^\circ$ to avoid cable tangles (unless a specific limit switch/interlock is present).

7.10.2. Using the Home command

Holding down the command **Home**, the lifting part rotates until it returns to the rest position (0°). Once the retraction is complete, the machine starts the descent until the lifting unit is completely retracted, within the limits of the limit switches and interlocks.

7.11. Assembly and use of side baskets (SB/DB)

APPLICABILITY

☒ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

7.11.1. Description functional and usage constraints

The side basket is a single-operator, single-block aluminium operator station.

The side basket can be installed or removed by attaching/detaching it to the dedicated supports on the lifting unit and inserting the relevant fastening devices.

The same side basket can be used both as a main side basket (SB and DB) and as a secondary side basket (DB only): the wording main/secondary identifies only the mounting position.



WARNING

The side basket does not constitute a lifting point or an anchoring point for transport or harnessing.

**DANGER**

It is forbidden to use the side basket if it is not correctly attached to the supports and if the appropriate hooks are not inserted and locked. Incomplete assembly may cause the basket to come loose, the operator station to become unstable, and the operator may fall from a height.

7.11.2. Main side basket assembly procedure (SB and DB in 1-basket configuration)

APPLICABILITY

✓ SB setup ✓ DB setup

1. Verify that the machine is in SB or DB configuration consistent with the installation side and that the Higher configuration is not installed.
2. Place the machine on a flat surface, with the lifting unit retracted and the brake applied.
3. Verify that the machine is not configured with the Higher platform installed.
4. Position the one-piece side basket on the intended side and hook it to the dedicated supports of the lifting unit.
5. Insert the fasteners into their designated locations and check that they are fully engaged and locked.
6. Perform a manual hold test (pull/push) to confirm there is no abnormal play.
7. If there is a foldable/extendable portion of the footboard: open it and check that it locks into place.
8. Check the integrity of parapets/gates and the correct functioning of safety devices (including anti-collision devices at height).

**WARNING**

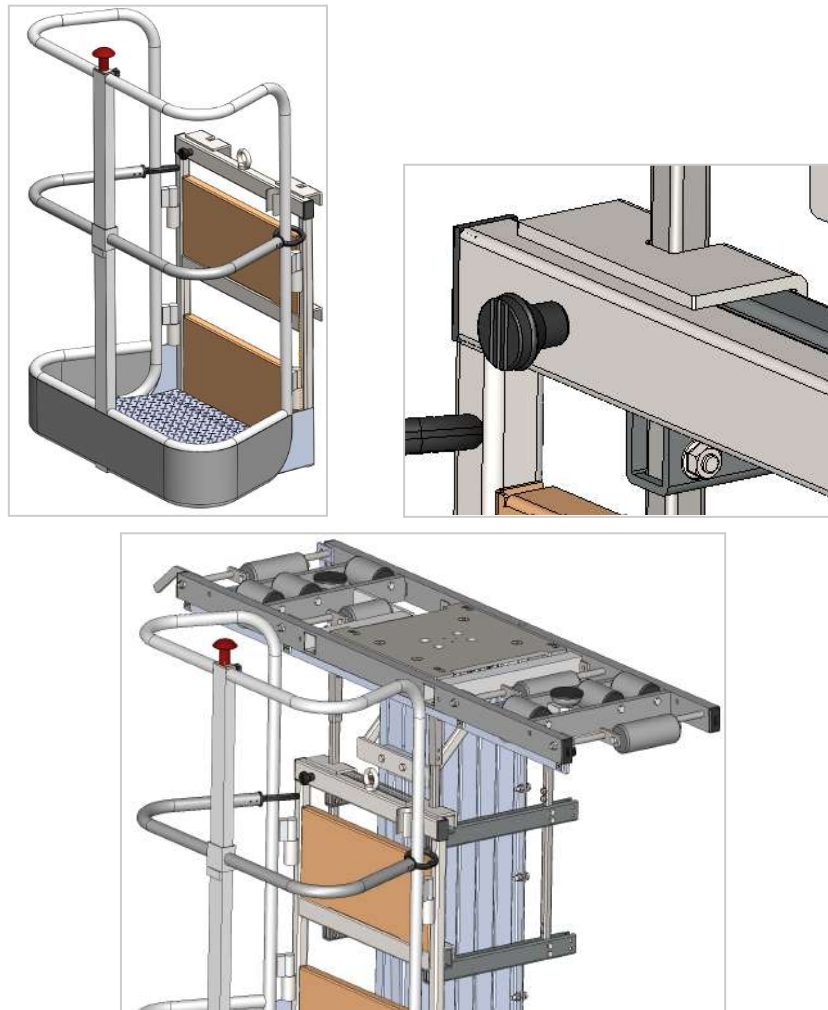
Before using the side baskets, check:

- ☒ correct assembly/attachment and locking (securing and safety catches correctly inserted and locked);
- ☒ integrity of parapets, gates and closing devices;
- ☒ correct functioning of the controls and safety devices (including anti-collision at height, if present);
- ☒ absence of interference/obstacles in the maneuvering area.

In powered versions, motorized movements of the overhead section are only permitted if the installed side basket is correctly inserted, secured, and recognized by the control system. Incomplete assembly, incorrect fastening, or failure to recognize the side basket will prevent overhead section movements.

Final verification

- ☒ no abnormal play; stops engaged; guardrails intact; complete walking surface.
- ☒ Check basket status on display (powered versions): grey/red/green according to connection/configuration logic.



7.11.3. DB Configuration (Second Basket)

APPLICABILITY

☐ SB setup ☒ DB setup

For DB setup, repeat the assembly procedure on the opposite side (secondary basket). The second basket is identical to the main one; the word "secondary" only identifies the assembly position.

7.11.4. Access and stay in the side basket

To access the side basket, unlock the sliding intermediate guardrail by sliding it upwards. Keep it raised when entering/exiting; when released, the intermediate guardrail automatically returns to the closed position by gravity.

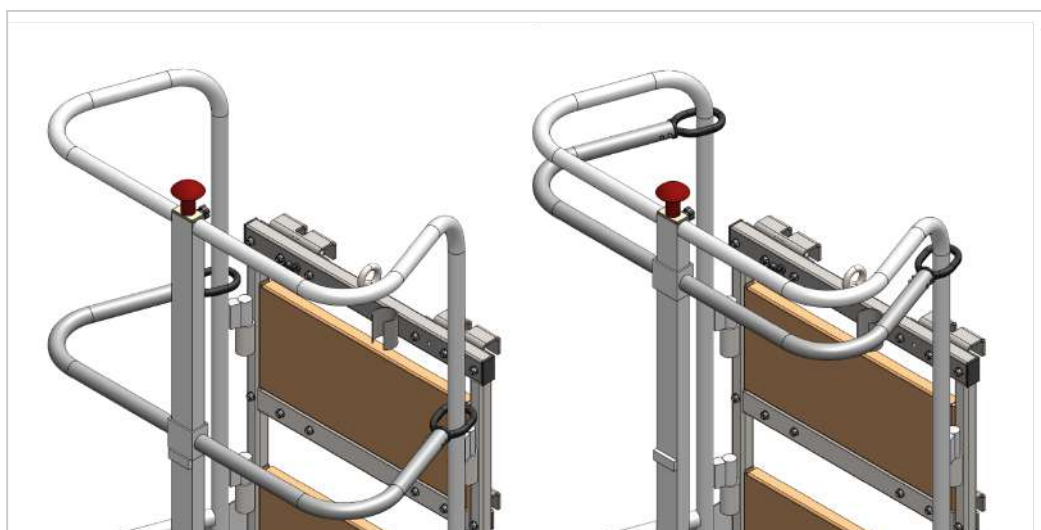
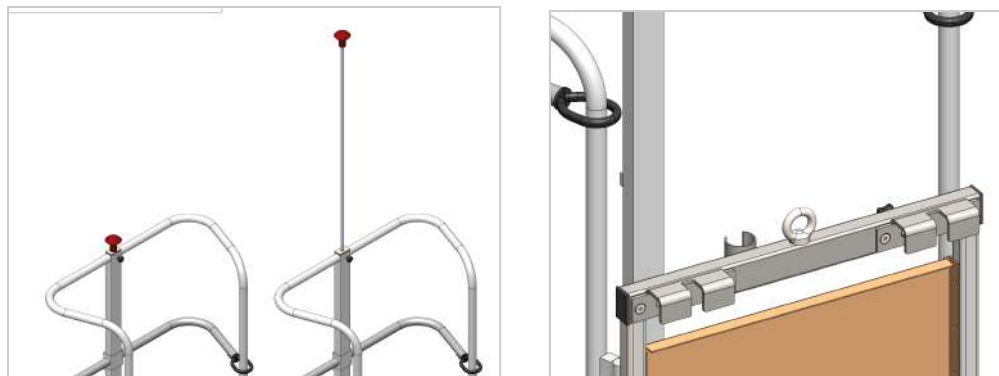


WARNING

The use of an EN 361 harness with an adjustable restraint lanyard (EN 354 or EN 358) and EN 362 connectors is mandatory. Connect the lanyard to the anchoring ring indicated by the marking on the machine and set it as short as possible, so as to prevent the operator from escaping from the basket.

Anti-collision device at height (rod with red mushroom on the side baskets)

In the presence of ceilings/floors/overhead obstacles, adjust the **this is anti-collision** at height. The boom is a mechanical warning (not an interlock): in the event of contact with the obstacle, it must prompt the operator to immediately interrupt the maneuver and lower the station.



7.12. Assembly and use of the Higher upper platform

7.12.1. Horse riding and staff

- ☒ assembly/disassembly: at least 2 operators.
- ☒ check that the parapets are configured correctly: foldable parapets and extendable parapets on the long side.

7.12.2. Procedure assembly Higher

APPLICABILITY

✓ Manual ✓ Electric ✓ Automatic ✓ Automatic Rotax

1. Machine safe: stabilized, unit retracted, brake engaged.
2. Place Higher on the top plane and align with the mounting marks.

3. Center Higher by aligning the 4 spring pins with the pre-drilled holes on the top surface. Simultaneously insert the spring pins located on the short sides. Release the pins and make sure all 4 are inserted into their seats.
4. Open and lock the guardrails correctly.



WARNING

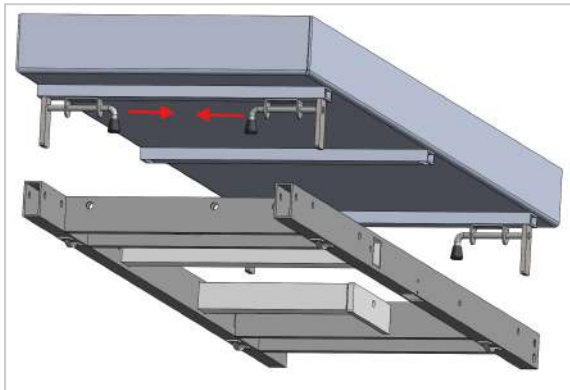
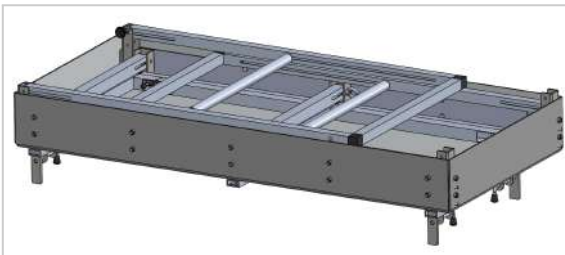
Before use, check: that the Higher is fully secured to the anchor points; that the guardrails are correctly open/locked; that there are no play/malfunctions; for powered versions, that the connectors are connected and that the Higher status on the display is correct (green).

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

In powered versions, motorized movements of the overhead section are only permitted if the installed Higher platform is correctly inserted, secured, and recognized by the control system. Incomplete assembly, incorrect fastening, or failure to recognize the platform will prevent overhead section movements.

1. Connect the wiring connectors (Higher version for powered machines) to the safety microswitches.
2. Check the Higher status on the display:
 - Gray = not connected
 - Yellow = guardrail error (sensors not detected or guardrails not extended)
 - Green = connected and parapets extracted





7.12.3. Access and fall protection

Higher is supplied with a dedicated ladder with hooks applicable on the two short sides.

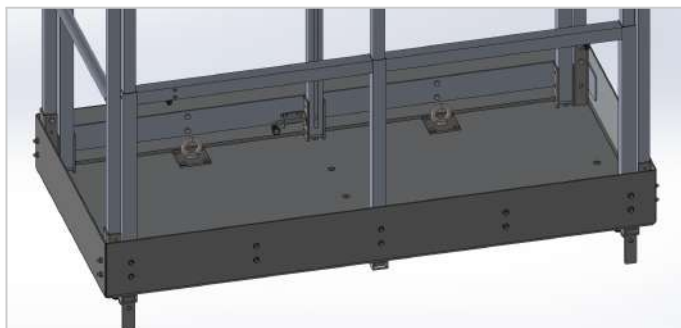
The ladder with hooks must be attached and used only with the structure completely lowered and must be removed before any lifting operation.

When going up and down, maintain 3 points of contact (both hands and one foot) on the steps and handrails.

To access the inside of the platform, lift the intermediate tube with the sliding guillotine closing system on the short sides; make sure it automatically returns to the closed position.

Before operating on the Higher, wear an EN 361 harness and connect an adjustable restraint lanyard (EN 354 or EN 358) to the anchor points identified on the Higher.

Adjust the cord as short as possible in order to prevent them from leaving the protected perimeter of the platform.



7.13. Assembly and use of upper deck and loading systems



USE

For the use of the Coffin Lift roller table and burial procedures (frontal/lateral) see the Coffin Lift Line Addendum.

7.13.1. Storage shelf / closed shelf

The storage shelf or closed shelf can be installed on the upper shelf.

The procedure also applies to snap-on accessories with 4 spring pins (e.g. exhumation tray, storage basket), if included in the supply.

Preliminary operations

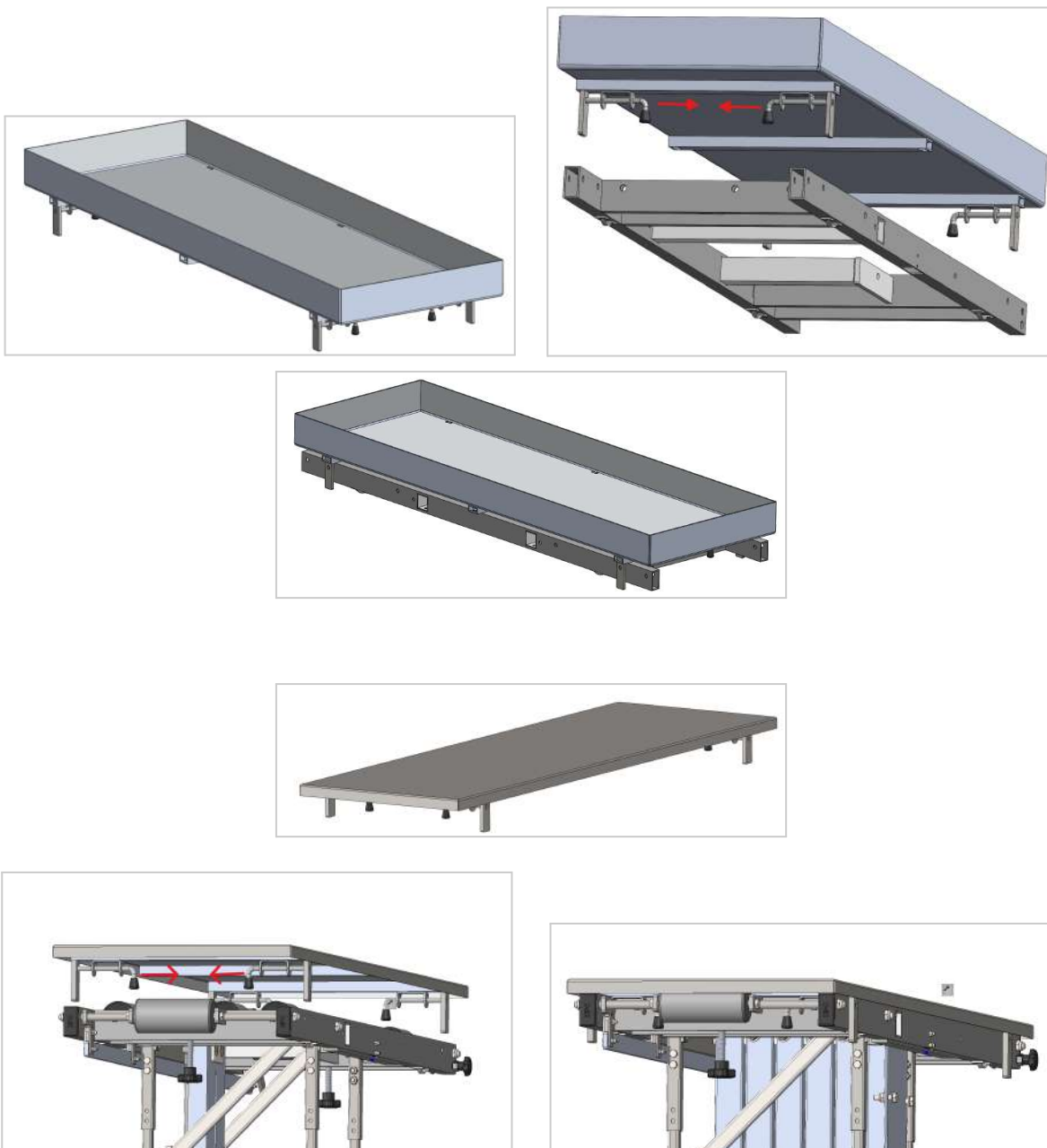
- check the integrity of the structure and locking pins; do not use if damaged

Assembly (at least 2 operators required)

1. Place the hob/accessory onto the upper shelf from above.
2. Center by aligning the 4 spring pins with the holes on the upper surface.
3. Simultaneously operate the pins on the short sides to allow the accessory to rest completely.
4. Release the pins and make sure they are inserted into their seats (no play).

Use

Loading operations may only be carried out in compliance with the configuration and load limits set out in paragraphs 14.3.1 and 14.3.2; if necessary, to prevent the material from falling, use suitable restraint systems (straps/ropes) without creating snagging points or interference.



7.13.2. Lateral loading systems

The lateral loading system can only be installed in the permitted configurations (see Chapter 3 and paragraphs 14.3.1 and 14.3.2). The lateral loading system does not constitute an operator station.

Before use, check:

- ☒ correct mechanical installation and absence of play/anomalies;
- ☒ correct distribution of loads, compliance with the installed configuration and applicable limits according to paragraphs 14.3.1 and 14.3.2;
- ☒ absence of interference with guardrails, accesses and rotation (Automatic Rotax), where applicable.

Installation (general principles):

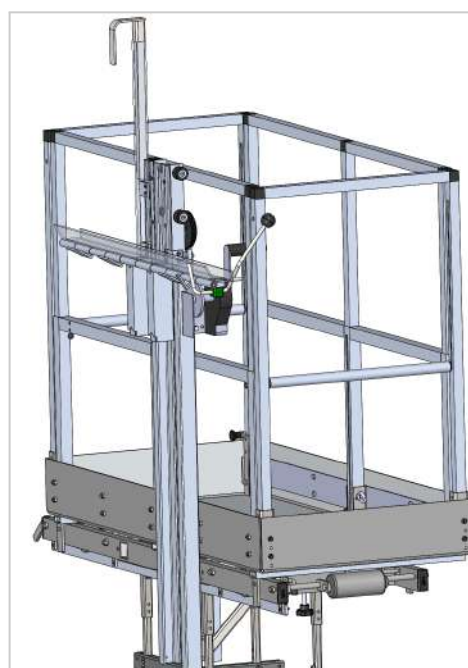
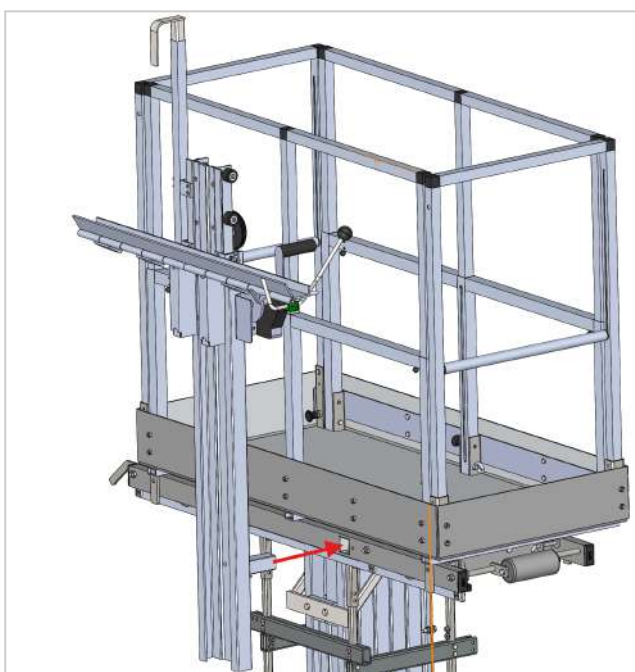
1. make sure that the stabilization adopted covers the overall area of the accessory;
2. install and lock the accessory in the designated connection points;
3. carry out a retention check (absence of play) and check that there is no interference during the maneuvers.

Accessory example: plate lifter for Higher (optional).



USE

The specific assembly, use and maintenance instructions for the individual lateral loading systems (including the slab lifter) are provided in the technical data sheets/accessory manuals supplied by FEDA and must be consulted in conjunction with this manual.



7.14. End of work, safety measures and battery charging

APPLICABILITY

□ Manual ✓ Electric ✓ Automatic ✓ Automatic Rotax

Once work is finished, put the machine in safe conditions and, for powered versions, recharge according to the instructions.

7.14.1. Work completed and parking safely

1. Place the machine in a suitable area, on a flat and stable surface.

2. Return the lifting unit to its rest position: arms/columns fully retracted and accessories in a safe position.
3. To deactivate the controls: Turn off the car and remove the key.
4. Make sure the machine is stable and the surrounding area is clear.
5. If required by the operating/environmental conditions, implement additional safety measures (e.g., cordon off the area, store in a protected place).

Manual Version: after use, reset the safety lock on the manual pump and keep the key/lock safe to prevent unauthorised operation.

Access to the parked vehicle must be prevented to unauthorized persons.



USE

In case of prolonged storage, follow the instructions in Chapter 10.

7.14.2. Battery charging

Charging must be done at the end of the shift or when indicated by the charge status/display, in a suitable and ventilated area.

Recharging is prohibited in closed/unventilated areas or in the presence of open flames, sparks or other sources of ignition.

Do not charge damaged, swollen, or leaking batteries. Before charging, check the visual integrity of the battery compartment, terminals, and wiring.

1. Bring the machine to a safe condition: lifting unit fully retracted, machine stopped, area clear.
2. Turn off the machine and remove the key from the control panel.
3. Connect the built-in charger/power supply to a suitable 220V mains socket.
4. Check that charging starts according to the charger/display instructions (if present).
5. Allow the cycle to complete; once charging is complete, the charger can automatically maintain the charge level (maintenance function).
6. Before use, disconnect the power supply from the mains and restore operating conditions.



Battery charger

**DANGER**

During charging, batteries may emit flammable gases: recharge in a ventilated area and prohibit flames and sparks in the vicinity (see Chapter 10.5 and Chapter 14).



8. Commands and control devices

This chapter describes the location, function and enabling/interlocking logic of the Magister controls and control devices.³, depending on the version (Manual, Electric, Automatic, Automatic Rotax).

The operating procedures (stabilization, translation, lifting, rotation, accessory mounting) are described in Chapter 7; the emergency maneuvers and recovery procedures are described in Chapter 9. In the powered versions, the display automatically switches the display and the enabling functions depending on the operating phase (translation / stabilization-lifting / Rotax rotation) and the status of the interlocks.

This chapter describes the devices and logic (what they are and what they indicate). The step-by-step operational use remains in Chapter 7.

8.1. Ground controls

The ground controls have the following functions: (1) enabling/isolating the machine (key, battery switch); (2) immediate stopping of functions (mushroom emergency stop); (3) emergency recovery support (see Chapter 9). In the powered versions, the ordinary lifting operations are controlled from the height position via a pendant control panel; the Manual model is controlled from the ground via a manual pump (see paragraph 8.5.1).

8.1.1. Switch with key and consent

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

In the versions **Electric, Automatic, Automatic Rotax** the machine is equipped with **control panel** with **key switch** to enable the electrical/electronic system. Removing the key prevents unauthorized use of the machine.



USE

The Manual version is not equipped with a key switch: prevention of unauthorised use is achieved by means of the manual pump enabling lock (see 8.5.1).

8.1.2. Battery switch

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

Land powered versions come with **battery switch** for electrical isolation of the machine. The battery isolator must be used as specified in the manual (for example, for storage, transport, maintenance, or safety conditions requiring system isolation).



Battery switch

8.1.3. Button ground emergency stop

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

The powered versions come with **mushroom emergency stop** near the dashboard/display. Activation of the emergency stop **interrupts functions** and puts the machine in a safe condition. The recovery takes place **rotating** the mushroom according to the indication on the device.

The ground controls perform enabling/isolation and emergency management functions. In the powered versions, the standard lifting (and Rotax rotation) operations are controlled from the overhead pendant control panel.

The ground emergency stop button is integrated into the control panel/display described in §8.1.1.

8.2. Commands at altitude

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

At the top, only the operating controls are located via a pendant control panel. The display is installed at the base of the machine.

8.2.1. Pendant control panel (controls at height)

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

The Magister³ employs a **pendant push-button panel** connected with **spiral cable**, usable from the height position provided for by the installed configuration (main or secondary side basket if DB; or Higher upper platform when installed). The control panel is designed to be moved by the operator between the designated positions without the need for reconnections.

Controls present – Electric / Automatic

- ☒ **Word** (up arrow).
- ☒ **Descent** (down arrow).
- ☒ **Emergency stop** (red mushroom).

Controls present – Automatic Rotax

- ☒ **Word** (up arrow).

- ☒ **Descent** (down arrow).
- ☒ **Clockwise rotation.**
- ☒ **Counterclockwise rotation.**
- ☒ **Home** (rotation return to 0° and return of lifting group according to machine logic).
- ☒ **Emergency stop** (red mushroom).

General rule (all powered versions)

All the movement controls of the keypad work with **pressure maintained**: when the button is released, the maneuver stops.

8.3. Control display

APPLICABILITY

□ Manual ✓ Electric ✓ Automatic ✓ Automatic Rotax

The display supports the operator in the main phases of use (translation, stabilization, lifting and, for Rotax, rotation), showing machine statuses, configurations, interlocks and alarms.

The display is installed at the base of the machine and does not constitute a height control.

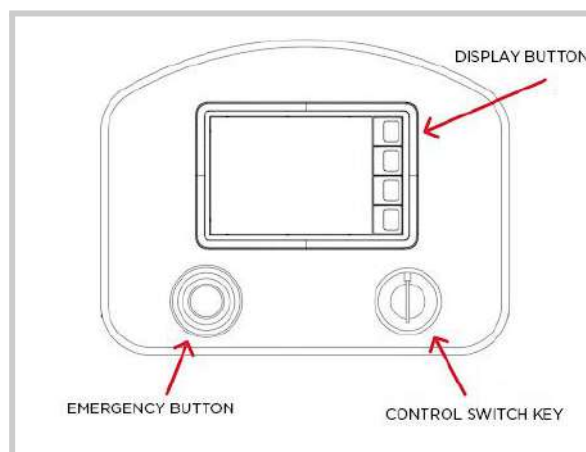
The display is not a touch screen: navigation and selection are made exclusively using the physical buttons on the control panel; the icons displayed next to the buttons may vary depending on the active screen.

The display can display information pop-ups (e.g., command confirmations or maintenance reminders). The screens relating to protected access, maintenance reminders, and technical service functions are described, as far as they are relevant to the user, in §8.3.8.

The display starts when the machine is turned on using the key; wait for the start-up screen to complete before giving any commands. For the complete on/off procedure, see Chapter 7.7.

Protected functions (maintenance records, date/time, resets) are reserved for authorized personnel; the credentials are not shown in this user manual.

In case of discrepancy between the manual and the display interface, the message displayed by the installed machine shall prevail.



Control panel with display

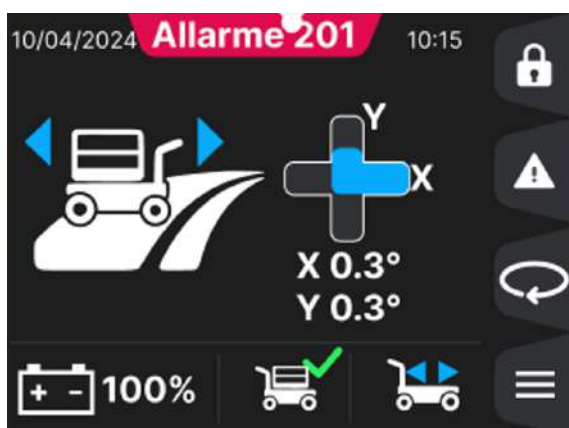
8.3.1. Home Page (Overview)

The main page shows, in summary:

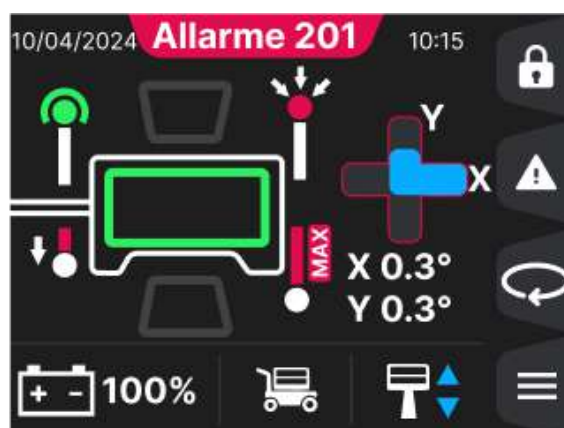
- ☒ **Machine tilt** on the X/Y axes via a cross icon and directional indications; the cross is bordered in red when the inclination on one of the axes exceeds $\pm 3^\circ$; it is green when the inclination is within the threshold; the blue bands indicate the direction of the inclination. In translation/transport mode, the cross outline is white.
- ☒ **Battery charge status** (bottom left).
- ☒ **Position of the lifting group**, represented by a stylization of the machine (lower central area).
- ☒ **Operating mode** (bottom right): Transaction / Lifting / Rotation (Rotax).

When the machine enters **Lift mode** (following the movement of the stabilizers), the page shows the machine **view from above**, with status of:

- ☒ Stabilizers;
- ☒ Stabilizing feet;
- ☒ Baskets;
- ☒ Higher (if installed).



Translation Screen



Lift Screen

8.3.2. Operating modes and status of the lifting group

The operating mode is displayed at the bottom right: travel, lift, rotation (Rotax only).

The lower band displays the status of the lifting group (GdS): GdS raised or GdS at rest; in translation mode the "GdS at rest" icon is accompanied by a check mark (✓).

Symbol	Mode
	Translation
	Lifting



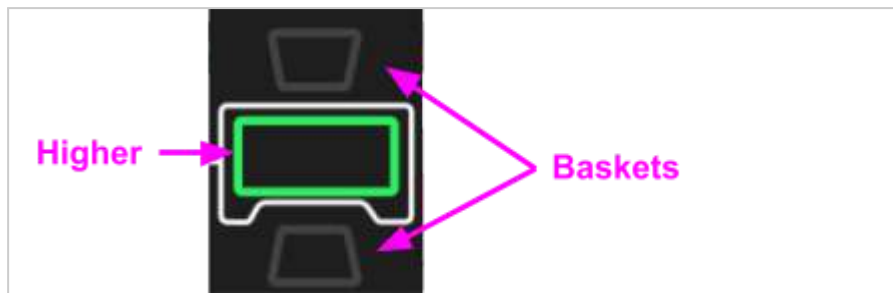
Rotation (for Rotax versions only)

In the center, in the lower band of the display, the status of the lifting group (GdS) is shown:

Symbol	Mode
	High lift group
	Lifting group at rest. In translation mode this icon is accompanied by ✓

8.3.3. States baskets and Higher (configuration indicators)

The operator positions are shown on the display: Main side basket (in the SB and DB versions), Secondary side basket (in the DB version) and Higher upper platform.



The colors change depending on the state.

- ☒ The **side baskets** are represented by two lateral polygons with respect to the outline of the machine.

Typical states are:

 - **Grey**: not connected;
 - **Red**: connected but incorrect configuration;
 - **Green**: connected in correct configuration.
- ☒ The **Higher** It is represented by a central rectangle inside the outline of the machine.

Typical states are:

 - **Grey**: not connected;
 - **Yellow**: parapet error;
 - **Green**: connected in correct configuration.

Incorrect configuration conditions inhibit functions; see 8.5 (Interlocks).

In case of alarm, the display shows a red banner at the top of the screen.



8.3.4. Stabilizer states

In lifting mode, the display shows the status of the four stabilizers and their feet. The displayed states guide the operator through the extraction → positioning sequence.

Typical states (as indicated by the display):



Symbol	Stabilizer state
	Basket configuration not present/stabilizers not in place
	Stabilizer too far out (MAX light).
	Stabilizer not pulled out enough (MIN limit not exceeded)
	Stabilizer extracted correctly without support on the ground → proceed with foot support
	Stabilizer correctly extracted + foot on the ground (valid condition for lifting)

8.3.5. Areal function

The physical buttons on the side of the display correspond to icons displayed on the screen (soft keys). The icons may vary depending on the active screen.

Typical functions:

Button	Function
	Brake: requires block/unlock ; the first time you are asked to unlock, a confirmation popup appears (you must confirm to perform the operation).
	Alarms page
	Page rotation (only for Rotax version)
	Menu Page (diagnostics/maintenance/settings)

8.3.6. Page rotation

APPLICABILITY

☐ Manual ☐ Electric ☐ Automatic ☒ Automatic Rotax

The rotation page shows the rotation angle and the statuses related to the function. Rotation is controlled by the Rotax pendant control panel; the display also reports any blocking conditions (for example, rotation not permitted or the need to retract).

The rotation page can be displayed automatically when a rotation greater than 0,5°; the page also features status indicators (rotation not permitted; descent of the lifting unit permitted), depending on the safety conditions detected.



Symbol	Description
	The icon appears when rotation is not allowed.
	At the bottom right, the icon indicates that the GdS descent is permitted.



USE

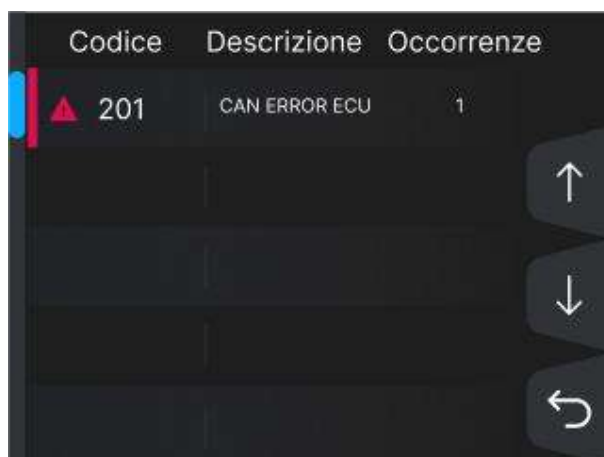
Rotation is only permitted beyond a minimum height of 110 cm. When descending, if the elevating part has not returned to the rest position (0°), the machine can prevent further descent below the safety height until the retraction is completed. (See also the procedures in Chapter 7).

8.3.7. Alarms Page

In case of alarm, the display shows:

- ☒ An alert banner;
- ☒ The list of alarms on the dedicated page (with any description/code).

The operational management of alarms is described in the table below. **Chapter 8.7, Display Alarm Table**

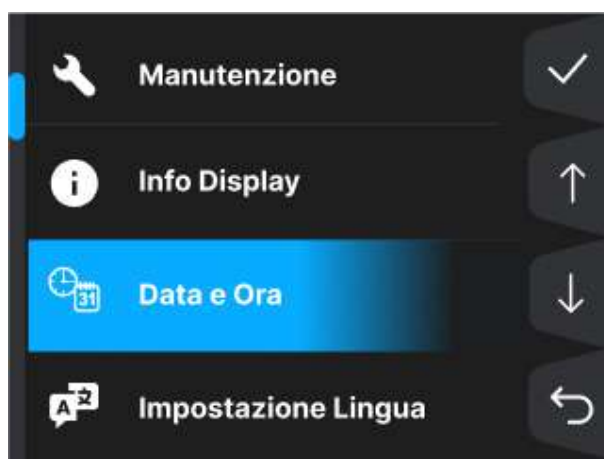


Codice	Descrizione	Occorrenze
▲ 201	CAN ERROR ECU	1
		↑
		↓
		↶

8.3.8. Menu (Diagnostics / Maintenance / Settings)

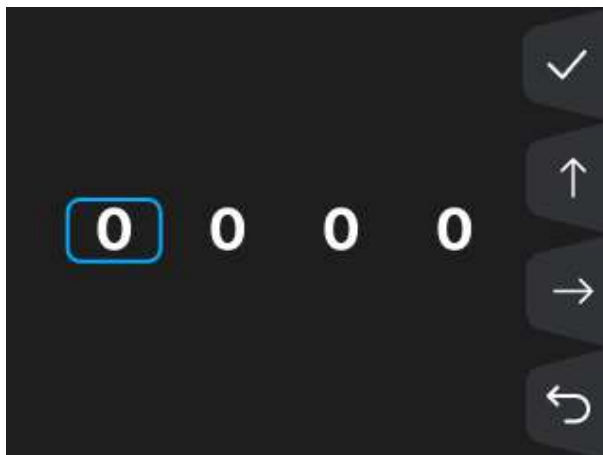
Main menu

From the menu you can access the main functions: control unit diagnostics (pinout), maintenance, maintenance history, language, date and time, sensor reset, info.



Password

Access to the display's protected functions may require a password. The Password screen is reserved for FEDA-authorized personnel and allows access only to the technical and maintenance functions enabled for the relevant user level. The credentials are not provided in this manual.



ECU diagnostics (pinout)

Allows you to view the status of the control unit's pins/inputs/outputs (status, number/configuration, user, values, and error presence). Service function: use reserved for authorized personnel.

PIN	DESCRIPTION	VAL	FB	ERR
 114 Curr	LOREM IPSUM	1000 uA	100	-
 125 DI	LOREM IPSUM	0	-	-
 113	LOREM IPSUM	-	-	1
 124	-	-	-	-
 112 DI	LOREM IPSUM	1	-	-

Maintenance

View maintenance cycles and deadlines; can display maintenance alerts/pop-ups. Logging operations are protected and confidential functions.



The Maintenance page of the display shows the number of lifting cycles recorded by the system and the main stored deadlines, such as next maintenance CHECK, next inspection and next chain maintenance.

For powered versions, the system can display reminder pop-ups at startup: 30 days before the CHECK and REVISION deadlines and 10 days before the chain check deadline.

Maintenance reminder popup

When the machine is started, the display may display a maintenance reminder pop-up, intended to indicate the approaching of a scheduled maintenance deadline. The pop-up is for informational purposes and does not replace the verification of the maintenance deadlines in the inspection, maintenance, and inspection log referred to in §14.5. Confirming or closing the message does not constitute execution of the maintenance intervention.



Once the thresholds set by the system in terms of lifting cycles are reached, the corresponding deadline is considered expired; specifically, once 500 lifting cycles have been exceeded, the REVISION is considered expired.

The operations of recording or updating deadlines are protected functions and reserved for authorized personnel.

The information shown on the display is for operational support purposes and does not replace the obligation to perform and record interventions according to the machine maintenance plan.

Maintenance history

List of recorded maintenance operations with date and cycles.

Cicli	Data
10	15/11/2024 08:00
10	15/11/2024 08:00
10	15/11/2024 08:00
10	15/11/2024 08:00
10	15/11/2024 08:00

Language

Select language via navigation and confirmation.

Italiano

Inglese

✓

↑

↓

↶

Date and time

Date/time setting (protected and confidential function).

gg \ mm \ aaaa

hh : mm

✎

→

←

↶

Sensor reset

Protected function reserved for authorized personnel. The screen allows technical service operations related to the control system sensors, to be performed exclusively according to FEDA procedures and only when strictly necessary following technical interventions, checks, or resets. Unauthorized resets or modifications are prohibited, as such operations may alter safety conditions, the accuracy of the signals, and the functioning of the interlocks.

**Info**

View system information (e.g. software version).



The functions for recording interventions and updating the related deadlines (chain control, CHECK, REVISION), as well as the other protected functions of the system, are reserved for authorised personnel.

The access credentials are not shown in this manual and are issued exclusively by FEDA, according to internal procedures, to personnel adequately qualified and trained for the specific intervention.

Unauthorized access to protected functions and modification of records or maintenance deadlines is prohibited.



ATTENTION

It is forbidden to access protected functions without authorization or to alter unexpected parameters/resets: this may compromise the safety conditions and conformity of the machine.

8.4. Acoustic signals

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

INAn acoustic warning (buzzer) accompanies the lifting maneuvers (ascent/descent).

8.5. Version-specific functions (main commands)

8.5.1. Manual Version – Manual pump (ground control)

APPLICABILITY

☒ Manual ☐ Electric ☐ Automatic ☐ Automatic Rotax

The Manual version is equipped with **manual hydraulic pump** repositionable on both sides of the frame via quick-release couplings (flexible hoses with quick-release connectors and dedicated valves). The pump is controlled via a lever and a two-position selector (gravity lift/lower).

The manual pump is equipped with an enabling lock: remove the lock only before use by authorised personnel and keep the key safe.

8.5.2. Electric / Automatic / Automatic Rotax Versions – Emergency Stops

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

The emergency stops (red mushroom button on the ground and red mushroom button on the control panel) have an equivalent function: actuating them stops the machine's functions and interrupts the control circuit. Resetting occurs by rotating the mushroom button as indicated.

8.5.3. Automatic / Automatic Rotax Versions – Traction control head

APPLICABILITY

☐ Manual ☐ Electric ☒ Automatic ☒ Automatic Rotax

The motorized translation is controlled by the command **head on** the helm:

- ☒ Due **connected butterflies**. They allow selection of the direction of travel and proportional modulation of speed; when released they return to the neutral position (0), stopping the machine.
- ☒ There is an anti-collision device integrated into the head: in reverse **gear active**, if engaged, the machine activates a **reverse gear until the device is released**; upon release the translation stops.

8.6. Safety and control devices (interlocks)

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

The main control and safety devices include, depending on the version and configuration installed:

☒ Emergency stop devices

Tilt control: in lifting mode the display indicates the status with respect to the permitted threshold (colour indications).

☒ **Stabilizer interlock:** lateral extraction control and support conditions, with statuses displayed on the display; the applicable limits depend on the version and configuration installed and are defined by the machine markings and by paragraphs 14.3.2, 14.3.3 and 14.3.4, according to the type of limit considered.

☒ **Recognition of configuration of high-altitude workstations:** basket states and Higher (Grey/Red/Green and Grey/Yellow/Green).

☒ **Interlocks Rotax:** minimum rotation altitude management, 0° return and conditional descent logic upon return.



ATTENTION

It is forbidden to tamper with, exclude or bypass microswitches, sensors, limit switches, wiring and any control/interlocking device.

8.7. Display alarm table

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

The following table shows **the typical wording of the message** and the related operational interpretation.

General rule: in the presence of blocking or uninterpretable alarms, **secure the machine** and contact support.

The following table lists the alarms and messages provided by the control system. In the event of a discrepancy between the table and the display, the message displayed by the system installed on the machine takes precedence. If the alarms are uninterpretable or persistent, secure the machine and contact support.

ID	Message (Display)	Operational meaning (IT)	Operator action
1	E-Stop	Emergency stop active.	Reset the mushroom (earth and/or button panel) and check the causes.
2	Low Battery	Battery low.	Stop activity and reload according to the dedicated chapter.
3	Display Stab. Not Enabled	Stabilization not enabled/condition not met.	Check stabilizers, configuration and required conditions.
4	High Tilt	Inclination beyond the permitted lifting threshold.	Restore stabilization/leveling; do not lift.

ID	Message (Display)	Operational meaning (IT)	Operator action
5	Inconsistent baskets	Non-compliant basket configuration.	Check SB/DB and correct connection/removal.
6	Higher incoherent	Non-compliant Higher configuration.	Check assembly/connections/guardrails; comply with permitted configurations.
7	Rotation Inconsistency	Rotation not consistent with conditions/interlocks (Rotax).	Return to 0°, check altitude and enabled conditions.
8	Inconsistency Stab. C Post. Left	Stabilizer fault/invalid condition (position indicated).	Check extraction/support and markings; reposition.
9	Inconsistency Stab. B Post. Left	As above.	As above.
10	Inconsistency in the Post Right Stable	As above.	As above.
11	Inconsistency Stab. It's Post. Dx	As above.	As above.
12	Basket A Not Detected	Basket not detected (side/position).	Check connection/mechanics and wiring (if applicable).
13	Basket B Not Detected	As above.	As above.
14	Higher not detected	Higher not detected.	Check micro/switch connection and assembly.
15	Higher parapets not extended	Higher parapets not in correct position.	Open/extend and lock the guardrails correctly.
16	Higher not installed correctly	Higher not fixed/positioned correctly.	Check fixings and references; reinstall correctly.
17	TimeOut CAN Display	CAN communication error (display).	Stop use; contact support if persists.
18	TimeOut CAN Inclometro	CAN communication error (tilt sensor).	Stop use; contact support.
19	TimeOut CAN PowerBoard	CAN communication error (power board).	Stop use; contact support.
20	TimeOut CAN Joystick	CAN communication error (command).	Stop use; contact support.
21	Translation Inconsistency Blocked	Translation blocked by condition/interlock.	Check modes, stabilizers, brake, alarms.
22	Inconsistency Lifting Blocked	Lift blocked by condition/interlock.	Check stabilization, configuration, tilt.
23	A-B contrast	Sensor/input mismatch (A-B).	Stop; contact support if not resolved by reset.
24	Contrast C-D	Sensor/input mismatch (C-D).	As above.
25	Contrast A-B C-D	Multiple inconsistency.	As above.
26	Higher Enabled Without Baskets	Invalid configuration detected.	Check installed configuration and constraints Chap. 3 and 4.

ID	Message (Display)	Operational meaning (IT)	Operator action
27	Baskets Enabled Without Higher	Invalid configuration detected.	As above.
28	Higher Not Enabled With Baskets	Invalid configuration detected.	As above.
29	Baskets Not Enabled With Higher	Invalid configuration detected.	As above.
52	Trav. B (Rear Right) Not Detected	Translation element/sensor not detected.	Stop; contact support.
53	Trav. A (Rear Left) Not Detected	As above.	As above.
54	ECU Watchdog	Internal control unit error.	Stop; contact support.
55	SafeState: Parameters Crc	Parameter error (CRC).	Stop; contact support.
56	SafeState: Persistent CRC	Persistent data error (CRC).	Stop; contact support.
201	CAN_ERROR_ECU	CAN control unit error.	Stop; contact support.

9. Emergencies and recovery

9.1. Purpose and scope

This chapter describes the actions to be taken in the event of an emergency or malfunction, including: emergency stop, emergency lowering procedures, power failure management, brake release and emergency movement, and behavior in the event of an accident or near miss.

For the definition of the prohibited area and danger zones see also Chapter 4.5.

APPLICABILITY OF CHAPTER 9.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

The differences between versions are indicated in the dedicated paragraphs.

General Rules (all versions)

1. Stop the activity immediately and secure the area (no-entry area).
2. Prevent access by unauthorized persons.
3. Do not perform maneuvers if there are obstacles in the descent area or people below the height station.
4. If necessary, activate your company's emergency procedures and call for help.

Emergency procedures must be carried out primarily by the ground worker; the operator at height must limit himself to cooperating if safe, without taking any unforeseen autonomous action.



DANGER

It is forbidden to stop or pass under the elevated station or under the upper floor during any emergency manoeuvre, including emergency descent.



USE

The emergency procedures described in this chapter must be able to be carried out by the Ground Attendant, who is responsible for securing the area, managing the emergency stop and emergency descent from the ground and, if necessary, alerting the rescue services.

9.2. Emergency stop and reset

9.2.1. Versioni Electric / Automatic / Automatic Rotax

APPLICABILITY

□ Manual ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

Emergency stop

If necessary, you can interrupt all functions by:

- ✘ the red EMERGENCY button (mushroom) on the pendant control panel (see Chapter 8.2.1 – Pendant control panel);
- ✘ the red mushroom located near the display/control panel (see Chapter 8.1.3 – Ground emergency stop button).

The shutdown interrupts the machine's electrical circuit.

Recovery

To reset, release the red mushroom button by turning it clockwise (according to the arrows on the device).

After the restore:

1. Check the display for active alarms.
2. Check that the machine is in safe condition before resuming operation.
3. If the cause that prompted the emergency is not clearly resolved, discontinue use and contact assistance.

9.2.2. Manual Version

APPLICABILITY

☒ Manual ☐ Electric ☐ Automatic ☐ Automatic Rotax

The Manual version does not have an electric emergency stop. If necessary:

1. Immediately stop operating the manual pump (release lever).
2. Move the orange lever to the Lift position.
3. Secure the area and prevent unauthorized access.
4. If equipped, reset the manual pump lock to prevent improper operation.

9.3. Emergency descent

The lowering of the elevating part must be performed, where possible, using the machine's standard controls. If this is not possible, use the emergency procedures from the ground according to the sequence indicated in the following paragraphs.

9.3.1. Emergency descent mode – Manual version

APPLICABILITY

☒ Manual ☐ Electric ☐ Automatic ☐ Automatic Rotax

Manual descent is also to be understood as an emergency descent that can be activated from the ground.

Procedure

1. Make sure the area below is free of obstacles and people.
2. Move the orange lever to position **Descent** (right position).
3. Slowly operate the pumping lever, with partial and controlled travel, to allow the **gradual descent of the lifting group**.
4. The lifting part will gradually descend by gravity.
5. Release the lever when you reach the desired level and return the orange lever to the normal mode **Lifting**.



WARNING

Do not move the orange lever while operating the pumping lever. This maneuver may cause the lifting unit to descend.



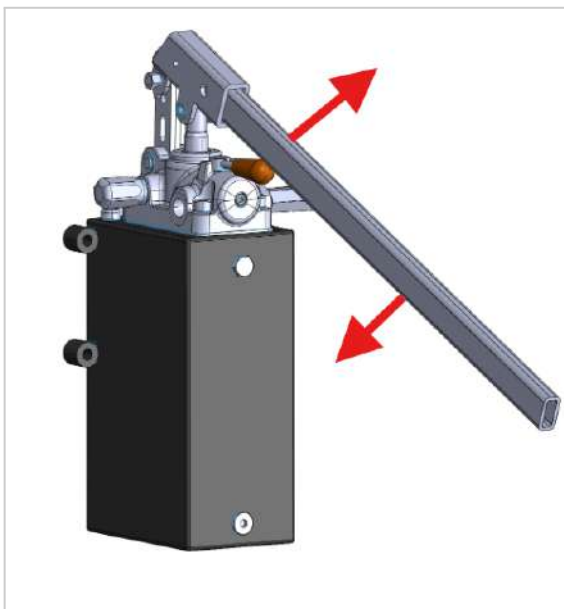
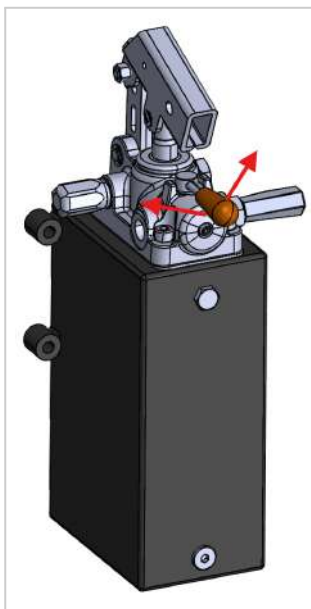
WARNING

Make controlled movements, without jerks.



WARNING

It is forbidden to position yourself with your body under the elevated station or under the upper floor during the descent.



9.3.2. Emergency descent mode – Electric / Automatic / Automatic Rotax versions with liftable part not rotated

APPLICABILITY

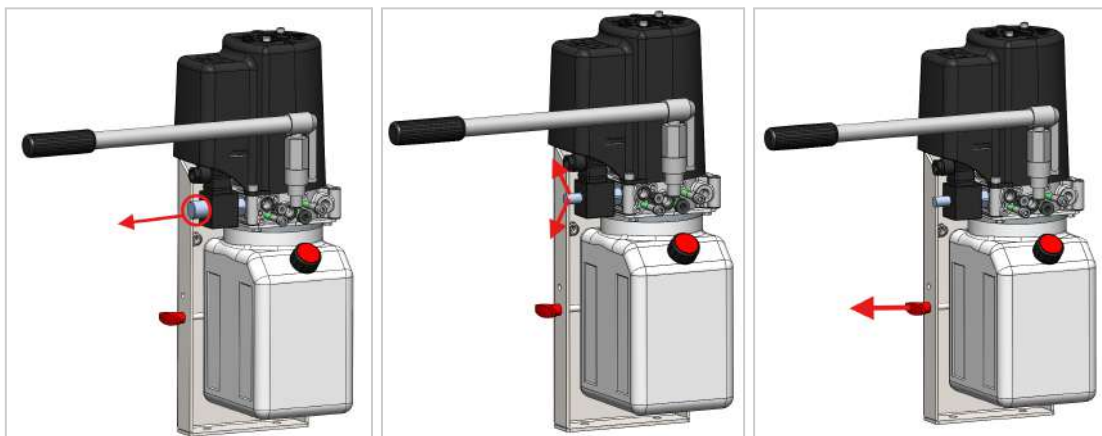
☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

The following procedure allows the emergency lowering of the lifting unit by manually operating the safety valve installed on the hydraulic pump.

For emergency operations in the event of a power failure or malfunction: use the emergency descent procedures; any manual pumping element integrated into the control unit is reserved for emergency operations only.

Procedure

1. Locate the safety valve on the hydraulic pump.
For the identification of the components of the hydraulic power unit see Chapter 3.4.2.
2. Remove the silver-grey protective cap.
3. Unscrew the internal valve without removing it.
4. Pull and hold the red T-handle to activate controlled descent.
5. Wait for the lifting part to be completely lowered.
6. Screw the internal valve back into place.
7. Reapply the grey protective cap.

**WARNING**

Commissioning and operation must be carried out by authorized personnel only.

**WARNING**

Do not activate the emergency descent if there are obstacles under the elevated station or under the upper floor.

**WARNING**

During the emergency descent operation, it is forbidden to position oneself with one's body under the elevated station or under the upper floor.

**WARNING**

Be careful not to hit your head or other parts of your body while maneuvering.

9.3.3. Emergency descent mode Automatic Rotax with rotated elevating part

APPLICABILITY

☐ Manual ☐ Electric ☐ Automatic ☒ Automatic Rotax

In this condition the machine automatically prevents descent below the minimum altitude until the 0° (Home) position is restored.



DANGER

It is forbidden to lower the lifting unit below the minimum safety height with the lifting part not in the 0° (Home) position: this may cause interference/collisions with the structures and components of the machine.

Objective

Return the elevating part to 0° (Home) before performing the emergency descent.

Procedure (Priority 1 – available commands)

1. Secure the area (close off the area below and surrounding it).
2. If the keypad/display is working: command rotation until 0° (Home) via button **Home** or with **clockwise/counterclock wise rotation**.
3. Check that the return to 0° has occurred (display feedback and/or visual feedback).
4. Perform the emergency descent according to the standard procedure provided (valve + T-handle).

Procedure (Priority 2 - Emergency Mechanical Rotation)

Perform only if the operation is **accessible** and **achievable safely**, with the assistance of a ground operator.

1. Secure the area and prepare the **Ground worker** under continuous assistance (visual inspection and, if available, display inspection).
2. Locate the bearing/firing ring assembly **hexagonal head** opposite to the rotation gearmotor.
3. Use the **reversible ratchet wrench** with **19mm wrench/socket**(device supplied for this maneuver).
4. Rotate the lifting part until it is realigned in 0° (**Home**), stopping immediately in case of interference or risk of collision.
5. Check that the lifting part is actually at 0° (display feedback if available and/or visual check).
6. Only after realignment to 0°, perform the emergency descent according to the standard procedure (valve + T-handle).

Access Restrictions (Important)

- ☒ If the operator or operators are on **side baskets**, access to the mechanical rotation point may be possible from their position.
- ☒ If the operators are on the **Higher**, the point may not be reachable: the intervention must be carried out by **Earth** with suitable means of access (e.g. scaffolding/ladder) **only** safety conditions allow; otherwise, activate recovery with external means.



WARNING

If it is not possible to safely return the rotation to 0°, do not force the maneuver and activate the recovery plan (rescue/assistance).



USE

The min. height for safe enabling/descent of rotation is given in paragraph 14.3.5.



9.4. Power failure and battery failure

9.4.1. Manual Version

APPLICABILITY

☒ Manual ☐ Electric ☐ Automatic ☐ Automatic Rotax

The Manual version does not have a battery. If the machine is unable to operate due to mechanical or hydraulic issues, discontinue use and follow company safety and service procedures.

9.4.2. Versioni Electric / Automatic / Automatic Rotax

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax

In case of power failure, low battery or fault:

1. Stop the activity and secure the area (no-go area).
2. Check the display for any alarms (e.g. low battery) and follow the instructions.
3. If the operator is at height and the ordinary maneuver is not possible, proceed with the emergency descent from the ground according to 9.3.2 or, in the case of Automatic Rotax with the elevating part rotated, according to 9.3.3.
4. After lowering, put the machine out of service until it is reset and functionally checked.

9.5. Display and/or safety sensor anomaly

APPLICABILITY

☐ Manual ☒ Electric ☒ Automatic ☒ Automatic Rotax



ATTENTION

If the display does not respond or indicates anomalies in the safety sensors (e.g. tilt, stabilizers, basket/Higher configuration, CAN communication), discontinue use and secure the machine.

- ☒ If an operator is at height: perform the emergency descent from the ground according to 9.3.2 or, in the case of Automatic Rotax with the elevating part rotated, according to 9.3.3.
- ☒ After returning: take the machine out of service and contact FEDA assistance for diagnosis and repair.



WARNING

The presence of anomalies in the display, sensors, interlocks or non-resettable alarms will prohibit the reuse of the machine until the technical check and functional restoration have been completed.

9.6. Brake release and emergency movement

9.6.1. General principles

APPLICABILITY

☒ Manual
 ☒ Electric
 ☒ Automatic
 ☒ Automatic Rotax

Brake release and emergency movements must be performed:

- ☐ Only if necessary (move to a safe area, remove from a risk area).
- ☐ With a clear and restricted area.

Emergency movements must be carried out, where necessary, with the support of two people: one dedicated to the release device and one to control the movement via the rudder/push.

After any emergency movement, it is mandatory to restore the braking system to normal operating conditions before any further use of the machine.



DANGER

Unlocking the braking system can cause loss of control of the vehicle. Do not unlock the vehicle on slopes or with people in the path.

9.6.2. Manual / Electric (foot brake) versions

APPLICABILITY

☒ Manual
 ☒ Electric
 ☐ Automatic
 ☐ Automatic Rotax

For emergency ground handling:

- ☐ Release the foot brake only for the time strictly necessary for controlled movement.
- ☐ Re-apply the brake immediately upon reaching a safe area.

The maneuver must be carried out in a restricted area, on a path that is as flat and stable as possible, and with continuous monitoring of the machine by the operator on the ground.

9.6.3. Automatic / Automatic Rotax versions (electric brake and release)

APPLICABILITY

☐ Manual
 ☐ Electric
 ☒ Automatic
 ☒ Automatic Rotax

Mechanical release of the electric brake is permitted only for emergency movements.

The procedure described in this section concerns emergency mechanical release. Unlocking/locking via the display, if available and with the system functioning, is governed by Chapters 7.6.3 and 8.3.5.

Procedure (mechanical release of electric brake)

1. Turn the key to the "0/STOP" position.
2. Disconnect the machine's electrical power supply (battery disconnect switch / battery connector), ensuring that there is no power to the traction and control systems.
3. Operate the release lever on the electric motor and keep it in position for the entire duration of the movement.

4. Once the movement is complete, return the lever to the rest position and check that the brake is actually activated by attempting to move the machine.

The maneuver must be carried out in a restricted area, avoiding slopes and with the support of two people, one at the release device and one to control the movement.



WARNING

Two people are needed to move the machine: one operator carries out the maneuvers and a second operator keeps the release lever engaged.



USE

If the electrical system is functional and the display is operational, the brake release/lock can be managed via the display according to the ordinary procedure described in Chapter 7 (Electric brake and release logics) and in Chapter 8 (Display – brake control).

9.7. Behavior in the event of an accident or near-accident

APPLICABILITY

✓ Manual ✓ Electric ✓ Automatic ✓ Automatic Rotax

9.7.1. In case of accident

1. Stop the maneuvers immediately (emergency stop, where present).
2. Secure the area and prevent unauthorized access.
3. Provide first aid according to company procedures and call for help when necessary.
4. Do not resume use of the machine until it has been technically checked and authorized to be put back into service.

9.7.2. In case of near miss or significant anomaly

1. Stop use and secure the machine.
2. Report the incident to the safety manager/supervisor.
3. Record the event (date, time, location, configuration, description).
4. Carry out an extraordinary check before reuse, to be performed exclusively by FEDA S.r.l. or by a center/personnel expressly authorized by FEDA.


USE

After accidents, impacts, near misses, long periods of inactivity, unauthorized modifications, or recurring malfunctions, the machine cannot be put back into service without an extraordinary check and an updated inspection/maintenance record.

9.7.3. Emergency and recovery summary tables

For an operational summary of the main emergency situations and related immediate actions, refer to Table 9-A. For detailed scenarios, applicable procedures, and operational notes, refer to Table 9-B.

Table 9-A – Emergency and Recovery Quick Guide

Situation	Action
Immediate stop (imminent danger)	Version Electric / Automatic / Automatic Rotax: press the emergency stop (red mushroom) on keypad and/or on display side panel and secure the machine. Manual Version: to interrupt immediately the actuation of the manual pump (release command) and secure the machine (prevent unauthorized reactivations).
Operator at height, ordinary descent not possible	Apply the emergency descent procedure expected for the version in use: - Manual: "Emergency descent mode – Manual version". - Electric / Automatic / Automatic Rotax with non-rotated elevating part: see 9.3.2 - Automatic Rotax with rotated elevating part: see 9.3.3 before descent. If the machine doesn't answer or the maneuver it is not safe to do, don't force it and move on to the recovery plan (rescue/assistance).
Accident / medical emergency	Call 112 (<i>single emergency number in Italy</i>) or the local number of the country of use; implement the site emergency plan. If possible and in safety, initiate altitude recovery according to the applicable emergency descent procedure.
Risk area (third parties under the car, falling objects, etc.)	Ban and report the area below and surrounding it; prevent unauthorized access; suspend unnecessary operations.
Machine not recoverable safely / persistent risk conditions	Secure and do not make improvised maneuvers; to put out of service the machine; contact assistance FEDA s.r.l.

Table 9-B – Detailed guide to emergencies and recovery

Scenario	Typical signs	Immediate action	Procedure to apply	Essential notes
Immediate stop required (imminent danger) – powered versions	Risk to people, imminent collision, incorrect maneuver	Press emergency mushroom (keypad or display side)	9.2.1 Emergency stop and reset – Electric / Automatic / Automatic Rotax versions	Restore only after eliminating the cause. Check the display and the absence of alarms before resuming.
Need for immediate stop – Manual version	Risk to people, imminent collision	Stop pump actuation (lever release)	9.2.2 Emergency Stop and Reset – Manual Version	Secure the area; if applicable, reset the pump lock.
Operator at height, ordinary descent not possible – Manual version	Difficulty with ordinary maneuvers; need for rapid return	Secure area, clear area under station	9.3.1 Emergency descent mode – Manual version	Use the orange “Down” switch; slow and controlled maneuver; no parking underneath.
Operator at height, ordinary descent not possible – powered versions	Low battery, blocking alarm, control failure	Secure the area; check for any obstacles underneath	9.3.2 Emergency descent mode – Electric / Automatic / Automatic Rotax versions (with the elevating part not rotated)	Valve on control unit: cap → unscrew internal valve (without removing it) → pull red T-handle → close again.
No power / low battery (powered versions)	Display off or “low battery”; functions not responding	Stop use; secure; if operator at height, initiate emergency descent	9.4 Power failure and battery failure; if the operator is at height, apply 9.3.2 or 9.3.3 depending on the configuration	After return: Do not reuse until reset and verified.
Display alarm that inhibits functions	Alarm banner; alarm page	Stop maneuver; secure	9.5 Display and/or safety sensor anomaly + Chap. 8.7 Display alarm table	If the alarm persists or concerns safety sensors: contact assistance.
Need to move the machine in an emergency – Manual/Electric	Obstacle, risk of unsafe area	Secure area; move under control	9.6.2 Manual / Electric (foot brake) versions	Release the foot brake only for the necessary time; re-engage it immediately afterwards.
Need to move the car in an emergency – Automatic/Rotax	Breakdown, unsafe area, need towing/moving	Secure the area; activate brake release only if necessary	9.6.3 Automatic / Automatic Rotax versions (electric brake and release)	Risk of loss of control: avoid slopes; operator on the ground; clear area.

Scenario	Typical signs	Immediate action	Procedure to apply	Essential notes
Electric brake release (Automatic / Automatic Rotax)	Need for handling without traction	Secure; use the emergency mechanical release or, if the system is working, the display release.	9.6.3 for emergency mechanical release; Chap. 7.6.3 / Chap. 8.3.5 if the system is functioning and display release is used.	Use only in emergencies. Lock again at the end of the maneuver and check the status.
Near miss / accident	Collision, falling load, loss of control, contact with obstacles	Stop use; secure; provide assistance if necessary	9.7 Behaviour in the event of an accident or near-accident	Do not put back into service without technical verification and event registration.
Contact/approach to power line	Risk of electrocution	Stop operations; isolate area; follow company procedures	Company emergency procedures + 9.7 if there has been an event/anomaly + machine decommissioning	Do not attempt any improvised maneuvers; call for help/manager if necessary.


USE

Detailed procedures are provided in the paragraphs indicated in the "Procedure to be applied" column. Before intervening, always secure the area and prevent unauthorized access.

10. Maintenance and checks

APPLICABILITY OF CHAPTER 10.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

The differences between versions are indicated in the dedicated paragraphs.

Periodic maintenance and checks are essential to ensure operator safety, machine reliability, and compliance. All maintenance, inspection, and testing operations performed on the machine must be recorded in the logbook referred to in paragraph 14.5.



ATTENTION

Failure to perform or incorrect maintenance may result in dangerous conditions, faults and a loss of conformity of the machine.

10.1. General safety instructions for maintenance

Maintenance and control activities are divided into:

- ☒ **pre-use and daily checks**, which can be performed by an operator trained as per §10.2.1 and in the model referred to in §14.4;
- ☒ **routine periodic checks**, which can be carried out by technically competent and qualified personnel;
- ☒ **periodic checking of chains and their tension**, which can be carried out by technically competent and qualified personnel according to the procedure in §10.2.3, or entrusted to FEDA / FEDA authorised centre;
- ☒ **Detailed scheduled check (CHECK)**, reserved for FEDA S.r.l. or a center/personnel expressly authorized by FEDA;
- ☒ **Scheduled review (REVISION)**, reserved for FEDA S.r.l. or a center/personnel expressly authorized by FEDA;
- ☒ **extraordinary checks before putting back into service**, reserved for FEDA S.r.l. or a center/personnel expressly authorized by FEDA;
- ☒ **extraordinary maintenance**, repairs and interventions that may affect stability, resistance, performance or safety devices, reserved to FEDA S.r.l. or centre/personnel expressly authorised by FEDA.

The mandatory periodic checks required by current legislation are regulated separately in §10.6 and Chapter 13 and do not replace the manufacturer's scheduled maintenance program.

Before any maintenance intervention:

1. Place the machine on a suitable, stabilized surface, with lifting **group fully retracted** and without load.
2. Prevent any involuntary operation of the controls:

- Versions **Electric / Automatic / Automatic Rotax**: turn off the car, remove the key, disconnect the battery disconnect switch and disconnect the charger power supply.
 - Version **Manual**: secure the manual pump operation using the provided device (padlock) and prevent use by unauthorized personnel.
3. Delimit the work area and prevent access by unauthorized persons.
 4. Use appropriate PPE (gloves, safety footwear, glasses, and additional protection when required by the activity).



DANGER

It is prohibited to perform operations with people at height or with the lifting unit not secured according to the established procedures. If it is necessary to work with the structure elevated, use the appropriate safety lock for maintenance with the lifting unit raised..



10.1.1. Safety lock for maintenance with lifting unit raised

When it is necessary to operate with the lifting unit raised for inspections, registrations or replacements, **It is mandatory to use the mechanical maintenance stop**(tubular rod) supplied with the machine. The stop must be inserted into the appropriate seat provided on the frame beams, as indicated by the manufacturer.



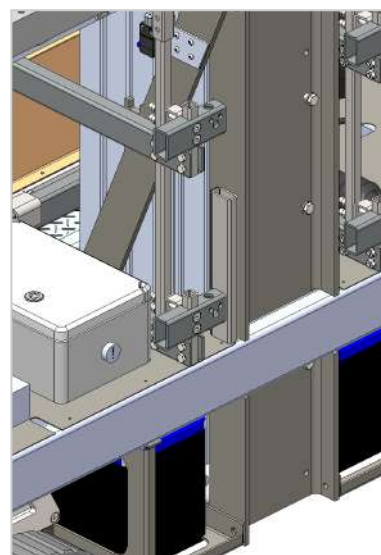
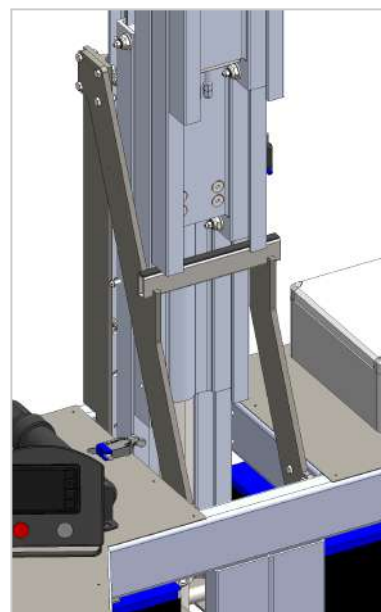
DANGER

It is prohibited to perform maintenance work with people present at height or to support the lifting component by relying solely on hydraulic pressure. If it is necessary to operate with the lifting unit raised, use only the designated mechanical safety device and verify that the weight of the structure is actually transferred to it before starting the work.

General procedure (only if necessary, operate with the lifting unit raised)

1. Place the machine on a flat surface, stabilize it and block off the work area.
2. Remove any unnecessary loads and ensure there are no operators in side baskets or on the Higher platform.

3. Raise the lifting unit to the minimum height necessary to insert the stop provided by the manufacturer.
4. Turn off the machine, remove the key and isolate the energies according to the version: battery disconnect / disconnect external power supplies / manual pump lock.
5. Insert the mechanical safety catch/device into the intended position and check that it is inserted correctly.
6. Perform a controlled descent until the weight of the structure is on the stop, avoiding impacts.
7. Check that the catch is properly engaged and that there is no abnormal play.
8. Perform the intervention while keeping the area off-limits and preventing involuntary reactivations.
9. Once finished, restart the machine in a controlled manner, lift a few centimetres to unload the stop, remove it and return the lifting unit to the rest position.
10. Reposition the stopper equipped with magnets on the frame in the designated location.



USE

If the latch is missing, damaged, or cannot be inserted correctly, do not perform the operation and contact assistance.



WARNING

Work on plumbing and electrical systems must be performed only by qualified personnel. Use only spare parts and components approved by the manufacturer.



ATTENTION

Do not dispose of oils, greases, used batteries, or contaminated materials in the environment. Dispose of them according to applicable regulations and company procedures.

10.2. Scheduled maintenance plan

This paragraph governs the **manufacturer's scheduled maintenance program** and is distinct from the mandatory periodic checks required by current legislation, referred to in §10.6 and Chapter 13.

The manufacturer's scheduled maintenance program includes:

- ☒ daily checks;
- ☒ routine periodic checks;
- ☒ periodic checking of chains and their tension;
- ☒ detailed scheduled check (CHECK);
- ☒ scheduled review (REVISION);
- ☒ extraordinary checks before putting back into service.

Under ordinary conditions, the machine is therefore subjected to:

- ☒ **periodic check of chains every** three months or upon reaching 500 lifting cycles, whichever comes first;
- ☒ **first CHECK** within 12 months of commissioning;
- ☒ **Before REVISION** within 24 months of commissioning or upon reaching 500 lifting cycles, whichever comes first;
- ☒ **subsequent annual alternation between CHECK and REVISION**, it being understood that the REVISION must be brought forward upon reaching 500 lifting cycles, if earlier.

The frequency of maintenance also depends on the intensity of use, operating environment, mode of transport, and impacts/stresses. In severe conditions, schedule maintenance more frequently.

All interventions must be recorded in the register referred to in §14.5. When the quarterly chain inspection coincides with a CHECK or REVISION, it is considered completed provided it is performed and reported in the relevant report/register.

For powered versions, the display provides automatic maintenance reminders: 30 days before the CHECK and REVISION deadlines and 10 days before the chain inspection deadline; after exceeding 500 lifting cycles, the REVISION is considered expired. These reminders are for operational support and do not replace the periodicity and registration obligations set forth in this manual.



USE

For the Manual version, in the absence of an on-board cycle counter, the deadlines expressed in cycles apply only if the user adopts a count documented in the register referred to in §14.5; otherwise the time deadlines apply.



USE

Maintenance interventions must be recorded in the inspection, maintenance and check register referred to in paragraph 14.5.

10.2.1. Daily checks

Daily checks are performed before use and include visual inspection and function tests.

References:

- ☒ For the fillable template of **check-list pre-use and function test** refer to §14.4.
- ☒ Functional checks and tests described in the **Chapter 7** (commissioning and preliminary checks).



ATTENTION

If a daily check is not passed, the machine must not be used until safety conditions are restored.

10.2.2. Routine periodic checks

Below is the minimum schedule of routine periodic checks to be carried out by the user/competent personnel.

Frequency	Activity	Executing entity	Applicability
Monthly	Check the general condition of the wheels. For pneumatic tires, also check for proper pressure and for leaks/damage.	Trained operator / competent personnel	All versions
Monthly	Check that the batteries are intact, that the terminals are tight and free of oxidation, and that there are no damages/swellings/leaks.	Competent staff	Electric / Automatic / Automatic Rotax
Quarterly	Check the hydraulic oil level in the manual pump or hydraulic power unit; top up if necessary with approved oil.	Competent staff	All versions
Quarterly	Lubricate moving parts and designated points.	Technically competent staff	All versions

The periodic inspection of the chains referred to in §10.2.3, the **Detailed scheduled check (CHECK)** referred to in §10.2.4 and the **Scheduled review (REVISION)** the specific periodicity, execution methods and authorised subjects referred to in §10.2.5 follow.



USE

The quarterly periodic inspection of the chains can also be entrusted to FEDA S.r.l. or to an authorized FEDA center, on a scheduled basis.
The CHECK and REVISION can be purchased individually or as part of FEDA scheduled maintenance plans.

10.2.3. Periodic chain and tension check using indicators

The periodic check of the chains and their tension constitutes a scheduled safety check of the machine and must be carried out at least quarterly and in any case upon reaching 500 lifting cycles, whichever is earlier.

For the Manual version, which does not have an on-board cycle counter, the 500 cycle threshold applies only if the user adopts a count documented in the register; otherwise, the quarterly deadline applies.

For powered versions, also perform the check when prompted by the display.

The inspection must be carried out by technically competent and qualified personnel, trained in this procedure and able to assess the suitability of the lifting devices for use.

The user can also entrust this control to FEDA S.r.l. or to a center/personnel authorized by FEDA.

During the inspection, also check the wear and tear and integrity of the chains, paying particular attention to wear, cracks, deformations, corrosion/oxidation, loosening and other structural anomalies.

If you notice any misaligned indicators, failure to maintain alignment during manual inspection, abnormal wear, corrosion, deformation, abnormal noise, doubts as to interpretation, or any other abnormality, immediately stop using the machine, take it out of service, and contact FEDA or a FEDA-authorized center/personnel.

Preliminary operations:

1. Place the machine on a flat surface.
2. Making the machine safe:
 - a. Versions **Electric / Automatic / Automatic Rotax**: turn off the car, remove the key (if present), set the battery switch to OFF and disconnect the power supply (if connected to the charger/mains).
 - b. Version **Manual**: prevent involuntary/unauthorized activation (e.g. lock the manual pump according to the intended equipment).
3. Remove any accessories installed on the lifting unit that prevent access to the inspection points (upper floor, Higher platform, side baskets, basket castle/support and other accessories).



USE

The removal of the upper shelf and accessories requiring manual handling must be performed by:

- ☒ at least 2 operators for non-Rotax versions;
- ☒ 3 operators for the Automatic Rotax version, for load distribution (castle/basket support + fifth wheel/actuator group).

4. In the Automatic Rotax versions, to access the inspection points it may also be necessary to remove the castle/basket support, to which the fifth wheel assembly with actuator/gearmotor is fixed, if provided for dismountable.
5. If an accessory does not impede access to inspection points, it does not need to be removed.

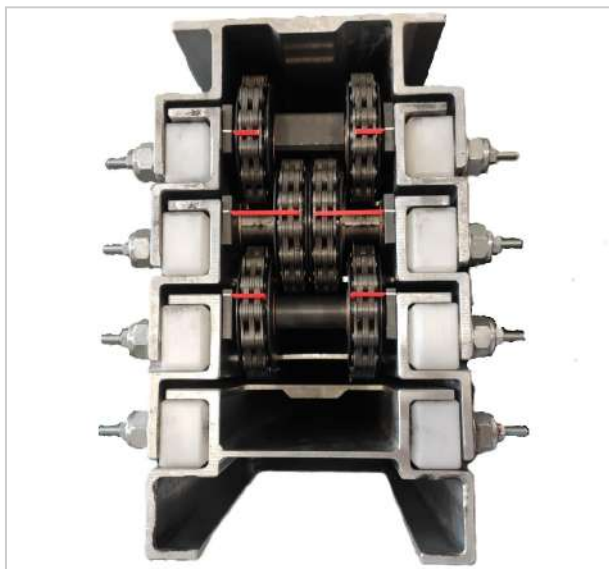
6. It is not necessary to disconnect the wiring: simply place the removed assembly on the ground, adjacent to the machine. Be careful not to pull, crush, or damage the cables; do not leave components suspended or under tension on the wiring.

Visual inspection (indicators/notches):

7. Locate the indicators between the chain links and the notched metal plates located on the sides of the lifting unit extrusions.
8. Check the alignment between indicators and notches:
 - Indicators aligned: continue with manual control.
 - Indicators not aligned: Stop using the machine and contact technical support.

Manual motion control:

9. Manually push each chain along its respective pulley and check that the indicators remain with the notches during movement.
 - If the alignment is maintained: the machine can continue to be used.
 - If alignment is not maintained: stop using the machine and contact technical support.

**Registration:**

10. Record the results in the inspection, maintenance, and verification log referred to in §14.5. If required by the system, the chain inspection display must be recorded by authorized personnel using a protected function, according to the credentials and procedures issued by FEDA. If the inspection is performed by FEDA or by a center/personnel authorized by FEDA, attach or retrieve the relevant intervention report.

**USE**

When the quarterly chain check coincides with CHECK or REVISION, it is considered completed, so long as the inspection was actually carried out and was expressly recorded in the intervention report.

10.2.4. Detailed scheduled check (CHECK)

The **Detailed scheduled check (CHECK)** is the scheduled, in-depth inspection of the machine provided by the manufacturer. For the purposes of FEDA after-sales services, this intervention corresponds to the commercial service called **CHECK**.

Periodicity

First intervention: within 12 months of commissioning.

Subsequent interventions: every 24 months, in years in which the REVISION is not foreseen.

Executing entity

The CHECK must be performed exclusively by **FEDA S.r.l.** the of **center/personnel expressly authorized by FEDA**.

Minimum CHECK content

The CHECK includes at least:

- ☒ response to customer reports regarding any anomalies;
- ☒ integral structural and functional control and diagnosis of the machine;
- ☒ checking the operation and registration of the lifting unit;
- ☒ inspection of load-bearing structure, stabilizers, lifting unit, hydraulic circuits, safety devices and interlocks;
- ☒ check of electrical/electronic parts, where present, and of any alarms/diagnostics;
- ☒ lubrication of mechanisms;
- ☒ check fluid levels and top up if necessary;
- ☒ restoration of signage where necessary;
- ☒ any additions/updates to the manuals and maintenance booklet;
- ☒ compilation of the activity carried out in the maintenance booklet/register;
- ☒ release of the intervention report;
- ☒ reporting of any anomalies and non-conformities found, with an indication of the next maintenance deadline.

The CHECK can be requested as a single intervention or as part of a FEDA scheduled maintenance plan.

10.2.5. Scheduled review (REVISION)

The **Scheduled review (REVISION)** This is the scheduled in-depth maintenance and technical overhaul of the machine provided by the manufacturer. For the purposes of FEDA after-sales services, this intervention corresponds to the commercial service called **REVISION**.

Periodicity

First intervention: within 24 months of commissioning or upon reaching 500 lifting cycles, whichever comes first.

Subsequent interventions: every 24 months or upon reaching 500 lifting cycles, whichever comes first.

Executing entity

The REVISION must be performed exclusively by FEDA S.r.l. or by a center/personnel expressly authorized by FEDA.

CHECK Absorption

In the year in which the REVISION is performed, **the detailed scheduled check (CHECK)** it is considered to be absorbed by the REVISION, provided that all the checks required for the CHECK are carried out and recorded.

Minimum content of the REVISION

The REVISION includes at least:

- ☒ response to customer reports regarding any anomalies;
- ☒ complete structural and functional check of the machine, including the electrical and hydraulic parts if present;
- ☒ restoration/replacement of hydraulic circuit components where necessary;
- ☒ complete overhaul of the internal sliding components of the lifting unit, including the possible replacement of worn or damaged ones;
- ☒ execution of the scheduled replacements foreseen by the manufacturer's plan and **from the summary table of components subject to periodic replacement referred to in §14.5.2.;**
- ☒ lubrication of mechanisms;
- ☒ check fluid levels and change or top up if necessary;
- ☒ general cleaning;
- ☒ anti-corrosion protection touch-ups or restoration of protective finishes where necessary;
- ☒ restoration of signage;
- ☒ final testing with calibration, load and function tests;
- ☒ any additions/updates to the manuals and maintenance booklet;
- ☒ compilation of the activity carried out in the maintenance booklet/register;
- ☒ release of the intervention report.

The REVISION can be requested as a single intervention or as part of a FEDA scheduled maintenance plan.

10.2.6. Extraordinary checks before putting the machine back into service

In addition to the scheduled interventions indicated above, extraordinary checks are mandatory before putting the equipment back into service in the following cases:

- ☒ significant impact, rollover, near miss or significant anomaly;
- ☒ replacement of critical or safety-critical components;
- ☒ non-routine interventions on traction, stabilization, lifting or safety devices;
- ☒ long periods of storage or disuse, especially if longer than 6 months;

- ☒ persistent alarms, recurring malfunctions or doubts about maintaining safety conditions.

Such checks must be carried out exclusively by **FEDA S.r.l.** or of **center/personnel expressly authorized by FEDA**.

If there is any doubt about the condition of the machine, it is forbidden to put it back into service before the extraordinary inspection has been successfully completed and registered.

10.3. Routine maintenance

Routine maintenance includes repetitive, simple, and recurring activities aimed at maintaining the efficiency, cleanliness, and safety of the machine between scheduled maintenance visits. It does not include the detailed scheduled inspection (CHECK), the scheduled overhaul (REVISION), extraordinary checks before returning to service, extraordinary maintenance, repairs, or interventions on safety-critical components.

Recurring checks and activities

- ☒ **Cleaning and general visual inspection:** remove dirt deposits that may prevent the correct reading of markings, the functionality of microswitches/sensors, or mask leaks/anomalies.
- ☒ **Plumbing system:** check oil level, absence of leaks, integrity of pipes, fittings and fixings.
- ☒ **Lifting organs:** perform only a general visual inspection of chains, sliders/guides, and tension/alignment indicators; periodic inspection of chains and their tension is specifically regulated in §10.2.3, while CHECK, REVISION, replacements, and interventions on critical components of the lifting unit are reserved for FEDA S.r.l. or a center/personnel authorized by FEDA.
- ☒ **Stabilizers:** check the sliding, integrity of the seats, functioning of the tightenings, absence of deformations and abnormal wear of the threads and supports.
- ☒ **Translation organs:**
 - Manual / Electric: check the integrity of the wheels and the correct functioning of the foot brake (if equipped).
 - Automatic / Automatic Rotax: check the integrity of the controls on the cylinder head, correct behavior of the traction system and associated safety functions.
- ☒ **Electrical system (powered versions):** check the integrity of the wiring, connectors, button panel, emergency stops and general condition of the components.

Acceptance/rejection and replacement criteria for non-structural consumable components

The following replacements can be carried out by competent personnel, with the machine in safe conditions and in compliance with the instructions in this chapter:

- ☒ wheels/rings (standard wheels and wheels with pneumatic ring, where installed);
- ☒ stabilizer support plates;
- ☒ cranks and non-structural accessory components.

For each replacement:

1. secure the machine (Chap. 10.1), stabilize it and prevent involuntary activation;

2. use only original FEDA spare parts or spare parts expressly approved in writing by FEDA for the specific machine/application;
3. At the end of the intervention, carry out a functional check and record the activity in the control, maintenance and inspection register referred to in paragraph 14.5.

Minimum rejection criteria (replace without further checks):

- ☒ **wheels with industrial ring:** cuts, exposed plies/layers, detachments, ovalizations, deformations, abnormal wear, excessive play on the hub/pin, unstable braking or irregular running;
- ☒ **pneumatic wheels:** tread damage, bulges, leaks, damaged valve, compromised bead;
- ☒ **stabilizer plates:** permanent deformations, cracks, crushing that reduces the flatness of the support, very worn or slippery surfaces, loss of anti-slip elements (if present).

If structural deformations, cracks on load-bearing elements, anomalies on stabilisers or lifting/traction devices emerge during the inspection, **discontinue use** and contact authorized assistance.



USE

If the fault concerns chains, chain tensioners, pulleys, pads, structural components, safety devices, hydraulic circuit valves, brakes, interlocks, sensors, displays/diagnostics or any element that could affect stability, strength or performance, suspend use of the machine and contact FEDA or a center/personnel authorized by FEDA.



ATTENTION

Do not work on fittings, pipes or hydraulic components when the lifting unit is not fully retracted: the system may be under pressure.



DANGER

Risk of high-pressure hydraulic fluid injection: do not check for leaks by hand. Use cardboard or wood to locate any leaks and maintain a safe distance. If you suspect a subcutaneous injection, seek immediate medical attention.

10.3.1. Wheel replacement (standard wheels or wheels with pneumatic ring)

1. Place the machine on a flat surface and stabilize it; remove any loads;
2. bring the lifting group fully retracted;
3. turn off the power to the machine (powered versions: turn off, remove the key, turn off the battery switch; manual versions: prevent unauthorized use);
4. safely lift the affected side using the stabilizing feet;
5. replace the wheel with the correct component for the version/model; tighten the fixings according to the spare part specification;
6. check: free rotation, absence of abnormal play, correct functioning of the brake (if present);
7. record the intervention in the maintenance log.

10.4. Lubrication

Use only suitable lubricants compatible with the materials used (aluminum/steel/engineering polymers). Do not mix incompatible products.

Consumables

- ☒ **Hydraulic oil ISO VG 32** (or equivalent) for refilling/replacing the manual pump tank and the hydraulic power unit.
- ☒ **NLGI 2 Multipurpose Grease**(or equivalent) for **stabilizers/stabilizer feet**. Use a grease nipple to fit onto the appropriate grease nozzles on each stabilizer.
- ☒ **Lubricating spray for metal-plastic sliding**, preferably dry film (PTFE or ceramic), compatible with aluminium and technopolymers, for the lubrication of the lifting unit.
- ☒ **Non-conductive lubricating spray** for lubricating the lifting group control head components.

Points and frequencies

Lubricate as per the maintenance plan (10.2) and the Maintenance/Component Replacement Manual, paying particular attention to:

- ☒ **Lifting group**: elements subject to wear and sliding (guides and metal-plastic contact surfaces).
- ☒ **Stabilizers**: greasing points, joints and movement parts of the stabilizing feet.
- ☒ **Joint points and movement organs**.
- ☒ **Control head organs**(Automatic and Rotax versions only): Lubricate the throttle valves/levers with a non-conductive (dielectric) plastic lubricant spray, preferably a dry film (PTFE) (alternatively, dielectric silicone). Apply a small amount, avoiding contact with electrical components.
- ☒ **Transmissions/gears/bearings**(versions with motorized traction), second floor.



USE

Lubrication and component replacement specifications are detailed in the maintenance/component replacement manual and/or in the supporting technical documentation referred to in Chapter 14.

10.4.1. Level check and replenishment (topping up)

Refilling is a restoration of the level (MIN–MAX) when, during periodic checks or after small leaks, the level is lower than the minimum.

Perform with the machine on a level surface, the lifting unit retracted, and the machine in safe condition. Use only compliant oil (ISO VG 32 or equivalent). Do not mix oils of different specifications. Record the operation in the maintenance log.

10.4.2. Complete hydraulic oil replacement

A complete hydraulic oil change must be performed as part of the scheduled inspection (REVISION), with replacement scheduled every 10 years. Replacement must be done earlier in the event of contamination, the presence of water or particulate matter,

abnormal overheating, fluid degradation, major work on the system, or other conditions that could compromise performance and safety. Each change must also include a complete draining of the system, cleaning/replacing the suction filter, and recording of the change.

For the Automatic and Automatic Rotax versions, the traction/differential group oil (axle bridge) is subject to scheduled replacement every 10 years, to be brought forward in the event of contamination, anomalies, overheating or interventions on the group.

10.5. Battery maintenance and inspection

APPLICABILITY

□ Manual ✓ Electric ✓ Automatic ✓ Automatic Rotax

Batteries must be kept in efficient condition to ensure safety and autonomy.

General provisions

- ☒ Charge batteries using appropriate procedures and equipment.
- ☒ Keep the poles clean and periodically check the terminals/wiring (tightness and absence of oxidation).
- ☒ Avoid deep discharges and prolonged periods of low charge.
- ☒ In case of prolonged storage, perform periodic recharging according to the instructions in this manual and the battery manufacturer.



DANGER

Batteries may emit flammable gases during charging. Charge in a well-ventilated area, away from open flames, sparks, and ignition sources.



WARNING

Use appropriate PPE when working on batteries (gloves and eye protection). Do not place metal tools on the terminals.



WARNING

Do not use or charge damaged, deformed, swollen or leaking batteries. Before charging, check the visual integrity of the battery compartment, terminals and wiring.



Batteries installed

The machine is equipped with batteries **VRLA AGM**. The batteries are sealed and do not require refilling.

When replacing batteries, batteries with equivalent electrical and dimensional characteristics must be used, or solutions expressly approved by the manufacturer. Any

technological changes require compatibility verification with the charger and on-board system by authorized personnel.


USE

For intensive use, the machine can be equipped with alternative batteries (e.g. GEL), compatible with the battery compartment and the system.


USE

For alternative batteries, follow the battery manufacturer's instructions (including any permitted tests, where applicable).

Battery charging

The machine incorporates a battery charger; once charging is complete, the charger can act as a maintainer.


ATTENTION

In case of replacement with a different technology (e.g. GEL), the charger must be correctly configured by authorized personnel.

Check electrolyte level (if batteries have caps/can be inspected)

If the machine is equipped with serviceable batteries (not VRLA AGM), follow the manufacturer's instructions for any permitted checks (including, where applicable, topping up with distilled water).


USE

With VRLA AGM batteries there is no need to top up the electrolyte.

Battery replacement

In case of replacement, use batteries with equivalent characteristics at least for: nominal voltage, capacity compatible with the system, dimensions and mass.


ATTENTION

Do not use damaged, swollen, or leaking batteries. Remove the machine from service and contact service.

10.6. Mandatory checks for MEWPs pursuant to current legislation

The employer / owner / user, as the case may be, must ensure that the machine is subjected to the mandatory checks and controls required by the legislation in force in

the country of use (including any periodic and extraordinary checks required for MEWPs).

All maintenance documentation and records must be kept up to date and available for inspection.



USE

For the management of checks, decommissioning and end-of-life, also refer to Chapter 13 and Chapter 14 (documentation and records).



USE

The mandatory periodic checks required by the legislation in force in the country of use are separate from the manufacturer's scheduled maintenance program referred to in §10.2 and do not replace it. Carrying out the mandatory checks does not exempt you from performing the checks and maintenance operations required by this manual.

10.6.1. Italy – periodic checks process (in-depth analysis)



USE

Procedures may vary: always check current legislation and applicable operating practices in your location.

In Italy, the machine is subject to the commissioning requirements and periodic checks required by current legislation for lifting equipment for people.

For the purposes of periodicity, for the Magister³ family the following criterion applies:

- ☒ Magister Manual: biennial review;
- ☒ Magister Electric / Automatic / Automatic Rotax: verifica annuale.

The notification or declaration of commissioning, the assignment of the registration number, and the request for periodic checks must be carried out according to the current administrative and electronic procedure applicable in Italy.

The employer/owner/user must keep the machine documentation, the inspection reports and the control, maintenance and inspection register referred to in §14.5.

At the user's request, FEDA can provide documentation and organizational support for the preparation of technical documentation required for commissioning and periodic inspections, and can facilitate coordination with partners or authorized entities. In any case, the inspection request and related legal requirements remain the responsibility of the employer/owner/user.

10.6.2. Regulatory reminder for quarterly chain checks

Per Magister³, the control referred to in the regulatory framework finds technical implementation in the **periodic check of the chains and their tensioning as per §10.2.3**.

This check must therefore be performed at least quarterly and in any case upon reaching 500 lifting cycles, whichever comes first, according to the most conservative condition. For the Manual version, which does not have an on-board cycle counter, the cycle threshold applies only if the user adopts a count documented in the logbook; otherwise, the quarterly frequency applies.

The inspection can be performed by technically competent and qualified personnel trained in the procedures in this manual. The Customer can also entrust it to FEDA S.r.l. or to a center/personnel authorized by FEDA.

Each inspection must be recorded in the register referred to in §14.5, indicating the date, the person carrying out the inspection, the outcome, any anomalies found, and the measures taken.

In the presence of anomalies, abnormal wear, elongations beyond the permitted limits, misaligned indicators, alignment not maintained in manual control or doubts about the safety of the system, the machine must be immediately taken out of service until safe conditions are restored.

11. Troubleshooting

APPLICABILITY OF CHAPTER 11.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

The differences between versions are indicated in the dedicated paragraphs.

11.1. Table of symptoms, possible causes and remedies

Scope

This section provides operational instructions for identifying the most common faults and for safely restoring functions. For anomalies that cannot be resolved with the actions permitted to the user, contact support (section 11.4).



DANGER

If any anomalies occur involving stability, brakes, safety devices, the load-bearing structure, chains, or the hydraulic system, immediately stop use and secure the machine. Some operations (e.g., replacing chains) require specialized personnel and suitable equipment and should not be performed by the user.



USE

For powered versions, always record: display alarm/message ID, installed configuration (SB/DB/Higher), stabilizer status (A-B-C-D) and operating conditions (altitude, slope, Rotax rotation presence), before performing any reset.

Table of symptoms / causes / remedies (actions allowed to the user)

Symptom / Abnormality	Version	Possible causes (typical)	Actions allowed to the user (safely)	It persists
No functions available (powered versions)	Electric / Automatic / Automatic Rotax	Emergency stop pressed; battery switch OFF; battery low; alarm/interlock active	Check and reset the emergency stop (Chap. 9.1); check the battery switch; check the battery charger and battery conditions (Chap. 10.5); read any messages on the display and address the "operational" causes (stabilizers/tilt/configuration)	Contact support (11.4)
The machine signals stabilizer interlock / does not allow ascent	Electric / Automatic / Automatic Rotax	Stabilizers not extended within limits; foot not supported; configuration requiring minimal extensions; machine not level (tilt)	Verify complete stabilization according to Chapter 7; respect the markings and limits in Chapter 14; restore leveling; verify configuration consistency (SB/DB/Higher)	Contact support (11.4)
The car does not descend below a certain altitude (Rotax)	Automatic Rotax	Elevating part not returned to rest position (0°); height/rotation interlock	Perform rotation return to rest position via command Home ; check that the rotation is completed before the descent (Chap. 7/8)	Contact support (11.4)

Symptom / Abnormality	Version	Possible causes (typical)	Actions allowed to the user (safely)	It persists
Motorized traction not available	Automatic / Automatic Rotax	Throttle levers not in neutral position; anti-crush device engaged; electromagnetic brake not releasing; alarm on display	Release the throttle and try again gradually; check that the anti-collision device is not engaged; read the display; if necessary, carry out emergency procedures from Chapter 9.4	Contact support (11.4)
Difficult manual traction / machine "pulls"	Manual / Electric	Foot brake engaged; wheels not free; uneven path	Check pedal brake release; inspect route; discontinue use on slopes/unsuitable surfaces	If mechanical fault, contact assistance
Manual lift does not work (manual pump)	Manual	Pump lock engaged; mode selector in incorrect position; valves not in correct position; quick coupler connection incorrect	Check removal of the padlock; check the selector/valves according to the procedure in Chapter 7; check that the quick-release couplings are fully engaged.	Contact support (11.4)
Electric lift not working (button panel)	Electric / Automatic / Automatic Rotax	Emergency button on button panel pressed; machine emergency button pressed; interlock alarm; button panel cable damaged	Reset emergency switches; read displays; check interlocks (stabilizers/configuration); visual inspection of spiral cable	Contact support (11.4)
Abnormal noises, knocks, "jerks" during ascent/descent	All	Worn components; chains; guides; hydraulic circuit; incorrect load	Stop the maneuver; lower safely; take out of service; check for obvious leaks	Contact support (11.4)
Chain indicators not aligned or alignment not maintained in manual control	All	Incorrect tension; worn chains/pulleys/shoes; faulty lifting unit	Immediately put the machine out of service; do not use	Contact support (11.4)
Hydraulic oil leak	All	Cracks in pipes/joints; damage	Secure and cordon off area; do not use; remove oil from traffic surfaces	Contact service; cracked/leaking pipes require replacement
Deformed structure / deep corrosion	All	Impacts; improper use; environmental degradation	Put out of service immediately	Immediately remove the system from service and contact FEDA or an authorized FEDA center for a technical assessment; any repairs will be considered as extraordinary interventions and/or REVISION, depending on the technical outcome.
Abnormal battery (odors, overheating, abnormal battery life)	Powered versions	End of battery life; faults; use beyond discharge limits; connections	Discontinue use; do not intervene directly; contact FEDA; dispose of through authorized agencies	Contact support

11.2. Handling error messages on the display

APPLICABILITY

□ Manual ✓ Electric ✓ Automatic ✓ Automatic Rotax

General rule

8. When an alarm or message appears on the display:
9. stop the maneuvers and put the machine in a stable condition;
10. read and note **Message ID and text**;
11. check operating conditions (stabilizers, flatness/tilt, SB/DB/Higher configuration, Rotax altitude and rotation);
12. apply only allowed resets (emergency stop reset, stabilizer/trim/configuration correction);
13. If the alarm persists, contact assistance indicating the requested data (11.4).



USE

The complete list of alarms and display messages is given in Chapter 8 (Display Alarm Table). In the event of SafeState messages or persistent errors, the machine may inhibit functions for safety reasons and require technical diagnosis.

11.3. Conditions requiring immediate machine shutdown

Immediately take the machine out of service in the following cases:

- ☒ presence of deformations, cracks, significant impacts or damage to structural components;
- ☒ significant hydraulic leaks, damaged pipes or damaged hydraulic circuit components;
- ☒ non-compliant result, non-aligned indicator, failure to maintain alignment or interpretative doubt emerged during the periodic check of the chains and their tensioning as per §10.2.3;
- ☒ brake inefficiency or failure;
- ☒ malfunction or bypass of safety devices, interlocks, microswitches, sensors or emergency stops;
- ☒ presence of alarms or display/sensor anomalies that cannot be resolved with the expected operational resets;
- ☒ abnormal machine behavior during translation, stabilization, lifting or rotation;
- ☒ any condition that casts doubt on whether safety requirements are met.



DANGER

The machine must be immediately taken out of service if any of the above conditions are present. Perform the following actions: stop operations, secure the machine, close off the area, and prohibit reuse until the technical inspection and functional restoration have been completed by FEDA S.r.l. or a center/personnel expressly authorized by FEDA.


USE

Replacing chains is a complex operation that requires experience and suitable equipment and must be performed by the manufacturer's specialized personnel.

11.4. Cases in which to contact FEDA or authorized assistance

Contact FEDA or a FEDA-authorized center/personnel in the following cases:

- ☒ faults involving the load-bearing structure, chains, hydraulic circuit, brakes, safety devices and interlocks;
- ☒ non-compliant result or doubtful interpretation of the periodic check of the chains and their tensioning;
- ☒ need to perform or schedule CHECK and/or REVISION;
- ☒ request to entrust FEDA with the quarterly control of the chains;
- ☒ need for repairs or modifications that may affect stability, strength or performance;
- ☒ anomalies in batteries, chargers or electrical/electronic components;
- ☒ need for recommissioning after impacts, accidents, near misses, long periods of inactivity or other significant anomalies;
- ☒ any doubts about the machine's suitability to resume service.

Minimum data to be provided to assistance

- ☒ model and version;
- ☒ line/setup: Coffin Lift Line / Professional Line;
- ☒ registration number and year;
- ☒ installed configuration (SB / DB / Higher / possible lateral loading system);
- ☒ any cycle counter / last maintenance deadline;
- ☒ Alarm ID and display text, if present;
- ☒ description of the event and operating conditions;
- ☒ photos/videos and, if available, a copy of the latest intervention report.

For FEDA assistance network contact details, please refer to §12.4.

12. Warranty and assistance

APPLICABILITY OF CHAPTER 12.

This chapter applies to the following versions:

✓ **Manual** ✓ **Electric** ✓ **Automatic** ✓ **Automatic Rotax**

12.1. Warranty conditions

FEDA Company guarantees the equipment components under the following terms:

- ☒ 24 months for all mechanical components;
- ☒ 12 months for all electrical and hydraulic components;
- ☒ 6 months for batteries.

The warranty begins on the delivery date and applies exclusively to manufacturing defects certified by the technical office. The warranty covers the free repair or replacement of defective parts at the company's headquarters or at an authorized service center.

The buyer must report any defects within 5 business days of discovery. Any warranty repair must be agreed upon in advance with FEDA.

The buyer is responsible for transporting the equipment to the FEDA headquarters. For work performed on the customer's premises, travel and accommodation expenses will be charged according to the applicable rates.

Replacements or repairs performed under warranty do not extend the warranty. Under no circumstances will FEDA provide compensation for machine downtime.

Compliance with the manufacturer's scheduled maintenance program as per Chapter 10 is an essential condition of the FEDA conventional warranty. Specifically, the daily and periodic routine checks, the periodic chain check as per §10.2.3, the in-depth scheduled check (CHECK), the scheduled inspection (REVISION), and any extraordinary checks prior to returning the vehicle to service must be performed and recorded within the established timeframes.

Using the machine in conditions that do not comply with this manual may result in the invalidation of the warranty and any associated services.

The periodic inspection of chains by technically competent and qualified personnel is permitted when carried out in full compliance with the procedure in §10.2.3 and with correct recording of the intervention.

The interventions that this manual reserves for FEDA S.r.l. or for centers/personnel expressly authorized by FEDA must be entrusted to these entities; otherwise, the conventional warranty and any applicable additional services/extensions will expire.

12.2. Warranty Exclusions

The following are excluded from the warranty:

- ☒ faults caused by improper use, negligence, carelessness or incorrect operations by the operator;
- ☒ damage resulting from normal wear and tear or improper storage of the equipment;
- ☒ cases in which the maintenance program provided for in this manual has not been respected;
- ☒ cases in which the periodic inspection of the chains referred to in §10.2.3 has not been carried out or has not been correctly recorded;
- ☒ cases in which the CHECK and/or REVISION have not been carried out within the prescribed timeframes;
- ☒ cases in which interventions reserved by this manual to FEDA or to an authorised FEDA subject have been carried out by unauthorised personnel;
- ☒ consumables and wear.

The removal or tampering with safety devices, the use of non-original or unapproved spare parts, as well as any unauthorized modification or intervention, immediately voids any applicable conventional warranty.

Unauthorized alteration of maintenance records, deadlines, or protected system parameters will result in the forfeiture of the conventional warranty and any applicable contractual services.

FEDA also declines all responsibility for consequences directly resulting from unauthorized interventions, modifications/tampering, omitted maintenance, failure to comply with expected deadlines or the use of non-original/non-approved spare parts.

12.3. Original spare parts and their identification

To ensure safety, performance, traceability, and warranty coverage, only original FEDA spare parts or spare parts expressly approved in writing by FEDA for the specific machine/application must be used. The user is required to keep the required records up to date and not make unauthorized modifications. The use of non-original or unapproved spare parts, as well as unauthorized modifications, voids the warranty and may compromise the machine's conformity.

Spare parts identification (data to be indicated in the request)

- ☒ Model: Magister³ [Manual / Electric / Automatic / Automatic Rotax]
- ☒ Machine serial number
- ☒ Component name
- ☒ Spare part code where available
- ☒ Photo of the component and installation location (if necessary)



USE

When an intervention may affect the stability, strength, or performance of the MEWP, specific checks and tests by the manufacturer or authorized parties are required; these activities are not within the user's jurisdiction.

12.4. Support network and contacts

Assistance requests must be submitted via email or the FEDA portal, indicating the serial number and description of the fault.

Support Contacts

- ✉ Email: servizioclienti@feda.it
- ✉ Web: <https://www.feda.it/contatti/>
- ✉ Telephone: +39 0744 407351
- ✉ Hours: Monday to Friday - 8:30 a.m. - 1:00 p.m. | 2:00 p.m. - 5:30 p.m. (CET/CEST)

12.5. FEDA Technical, Training and Assistance Services

FEDA provides technical, training and assistance services relating to the Magister machine³, which can be provided directly or, where applicable, through qualified partners or authorized entities, in compliance with the skills required by applicable legislation.

Available services include, but are not limited to:

- ✉ **specific information, training and education courses** are Masters³, with a focus on correct conditions of use, permitted configurations, pre-operational checks, operating limits, foreseeable anomalous situations, emergency and recovery procedures;
- ✉ support, directly or through qualified/authorized partners, for the access to **PLE qualification courses** and the related periodic updates, distinct and separate from the machine course;
- ✉ **periodic check of chains** and the related tension;
- ✉ **Detailed scheduled check-up (CHECK)**;
- ✉ **Scheduled review (REVISION)**;
- ✉ **extraordinary checks** before returning to service;
- ✉ **extraordinary maintenance**, post-malfunction or post-accident repairs and restorations;
- ✉ **documentary and organizational support**, directly or through partners or authorized entities, in relation to the requirements applicable in Italy for commissioning and periodic checks.

The quarterly periodic inspection of the chains, although it can be performed by technically competent and qualified personnel according to §10.2.3, can also be entrusted to FEDA S.r.l. or to an authorized FEDA center, either on a spot or scheduled basis.

The CHECK and REVISION are performed by FEDA S.r.l. or by a center/personnel expressly authorized by FEDA and conclude with the compilation of the maintenance booklet/register and the issuing of an intervention report.

Any additional services and contractual benefits associated with FEDA plans are governed by the applicable commercial and contractual conditions.

The use of FEDA services does not replace the legal obligations of the user/employer, which remain in full force.

12.6. Insurance coverage (FEDA Products Liability)

The machine is covered by a Product Liability policy (Product Liability) within the limits, conditions and exclusions set out in the relevant insurance and contractual documentation.

Failure to comply with the instructions for use, control, verification, maintenance and replacement of components provided for in this manual may compromise the safety of the machine, result in the forfeiture of the conventional warranty and determine liability on the part of the owner / user for damages causally attributable to such omissions.

Any effects on applicable insurance coverage or contractual services are governed exclusively by the policy conditions and contractual terms in force.

The mandatory legal responsibilities for any original defects of the product remain unaffected.

13. Checks, decommissioning and end-of-life

APPLICABILITY OF CHAPTER 13.

This chapter applies to the following versions:

✓ Manual ✓ Electric ✓ Automatic ✓ Automatic Rotax

13.1. Mandatory periodic checks and registrations

The **control and maintenance activities** foreseen by the manufacturer's scheduled maintenance program must be recorded in the **register referred to in §14.5**.

The mandatory periodic checks required by the legislation in force in the country of use must be tracked and the related reports must be kept together with the machine documentation.

For Italy, the requirements referred to in §10.6.1 apply, with the following periodicity:

- ☒ Magister Manual: biennale;
- ☒ Magister Electric / Automatic / Automatic Rotax: annuale.

The mandatory periodic checks required by law remain separate from the checks and interventions of the manufacturer's scheduled maintenance program referred to in Chapter 10.

Fault, decommissioning and recommissioning events must be recorded in the log referred to in §14.5.1.

13.2. Temporary decommissioning

For temporary decommissioning (storage), perform at least the following actions:

- ☒ Bring the machine to rest condition (lifting unit fully retracted; Rotax rotation in rest position).
- ☒ Park on a flat, stable area and prohibit access to unauthorized persons.
- ☒ Powered versions: Turn off and secure the power supply according to the appropriate procedures (battery disconnect, key lock).
- ☒ Restore cleanliness and suitable conditions (absence of mud, contaminants, etc.).
- ☒ Record the decommissioning in the logbook referred to in paragraph 14.5.1 and schedule checks upon return to service.



USE

Before putting the machine back into service after storage, carry out the required checks and function tests (paragraph 14.4) and verify that there are no display alarms (if present).

13.3. Permanent decommissioning



WARNING

Final decommissioning, demolition, and disposal must be carried out by qualified personnel, in compliance with current regulations on workplace safety and environmental protection.

Minimum operations for definitive decommissioning:

- ☒ Place the machine on a flat, stable and obstacle-free area;
- ☒ Turn off the power supply and disconnect the batteries (powered versions);
- ☒ Completely release the pressure from the hydraulic circuit;
- ☒ Mechanically lock any moving parts before disassembly.

13.4. Disposal and recycling of the machine

13.4.1. Disposal of metal components

Separate metal materials for subsequent recycling:

- ☒ Steel and cast iron → metallurgical recycling;
- ☒ Aluminum → specific recycling.

13.4.2. Disposal of plastic and wood components

- ☒ Plastic and rubber → separate waste collection according to local regulations;
- ☒ Residual wood or packaging → disposal at authorized centers.

13.4.3. Disposal of batteries and fluids

- ☒ Hydraulic oil: collect in suitable, closed containers; dispose of through authorized companies.
- ☒ Batteries: take to authorized centers/consortia.
- ☒ Electronic components (WEEE): dispose of through authorized channels.

Documentation and traceability

Record disposal operations and retain documents/certificates issued by authorized operators.

14. Declarations, technical data and supporting documentation

14.1. Chapter consultation criteria

This chapter contains the technical reference data, the operating limits, the control/maintenance document templates, the index of the signs applied to the machine and the references to the machine's declarations/delivery documents.

The information provided here supplements the previous chapters and must be read in conjunction with the operating, safety, emergency, maintenance and inspection instructions contained in this manual.

Additional support documentation for the Magister series³, including downloadable templates and complementary documents, can be made available by FEDA in the dedicated repository: www.feda.it/repository/magister3

In the event of a discrepancy between a generic piece of information reported in the manual and a specific marking applied to the machine, the information referring to the machine identified by the relevant serial number shall prevail, provided that it is consistent with the configuration actually installed and with the conformity documentation.

This chapter also includes the summary table of scheduled replacements of components subject to periodic replacement, to be used as a reference for the activities carried out as part of the REVISION and technical maintenance.

14.2. Machine data sheet

This technical data sheet contains the identification and performance data of the machine and of the main removable components that affect mass, dimensions, permitted configurations and limits of use.

14.2.1. Identification data and classification

Voice	Given
Machine family	Magister ³
Versions	Manual (M) / Electric (E) / Automatic (A) / Automatic Rotax (R)
Accessory configurations	Single Basket (SB) / Double Basket (DB)
Setups	Linea Montaferetri (MF) / Linea Professional (PF)
PLE classification	Group A
PLE classification	Type 1
Freshman	M3[M/E/A/R]YY###
Year of construction	Data reported on the license plate
Recalled standards	UNI EN 280-1:2022 / EN ISO 12100 / EN 60204-1 / EN ISO 13849

Voice	Given
Organization / certification	VERICERT (NB 1878)

14.2.2. Dimensions and unladen masses

To avoid ambiguity, the mass of the machine base is distinct from the mass of the removable components and the mass of the complete configuration.

Magister Model	Machine base(kg)	Config. A 1 basket + shelf (kg)	Config. B 2 baskets + shelf (kg)	Config. C Higher (kg)	Config. D Higher + lateral system (kg)
Manual (M)	350	375	400	398	419
Electric (E)	430	455	480	478	499
Automatic (A)	460	485	510	508	529
Automatic Rotax (R)	490	515	540	538	559

Removable components and their reference masses/dimensions:

Component	Parameter	Value
Side basket	Empty mass	25 kg
Side basket	Reference dimensions	50/80 × 45 × 115 cm
Higher upper platform	Empty mass	48 kg
Higher upper platform	Closed dimensions	144 × 69 × 28 cm
Higher upper platform	Open dimensions	144 × 69 × 121 cm
Side loading system	Empty mass	21 kg
Side loading system	Reference dimensions	120 × 100 × 40 cm

14.2.3. General functional and performance data

Parameter	Given
Total capacity configuration A	330 kg max
Total capacity configuration B	410 kg max
Total capacity configuration C	120 kg max (1 person) / 200 kg max (2 people)
Total capacity configuration D	220 kg max (1 person) / 300 kg max (2 people)
Local upper loading floor limit	250 kg max
Minimum loading platform height	Manual/Electric/Automatic: 130 cm Automatic Rotax: 140 cm
Maximum loading platform height	Manual/Electric/Automatic: 450 cm Automatic Rotax: 460 cm
Traction	Manual / Electric: push and pedal parking brake Automatic/Automatic Rotax: electric with 1200 W 24 V differential and electric brake

Parameter	Given
Lifting	Manual: manual pump Electric/Automatic/Automatic Rotax: Electric pump (hydraulic power unit)
Stabilization	No. 4 Laterally extractable and height-adjustable worm screw jacks
Rotation	Automatic Rotax: $\pm 90^\circ$
Diet	Electric/Automatic/Automatic Rotax: 2 x 12 V 100 Ah + charge battery / maintainer
Noise	LpA 71,8 dB(A) / LWA 86,6 dB(A)
Vibrations	hand-arm $\leq 2.3 \text{ m/s}^2$ – body $\leq 0.1 \text{ m/s}^2$
Degree of protection	Electric/Automatic/Automatic Rotax: IP54

14.2.4. Standard equipment and technically relevant components/accessories

Category	Content
Standard equipment	User and maintenance manual / bag / wrench for adjusting the stabilizers / 4 plates for supporting the stabilizer feet
Accessories that affect mass or limits	second basket / Higher platform / lateral loading system / storage shelf
Other options	roller conveyor covers, exhumation platforms, tarpaulins, roller conveyors, ramps, pneumatic wheels, PPE, carousels, etc.

14.3. Operating limits and permitted configurations

The following tables define the permitted operating configurations, load limits, environmental limits and stabilization data to be used as a unified reference for the operator, ground staff and technical personnel.

14.3.1. Permitted operating configurations

Conf.	Essential setup	Available positions	Max. number of people	Materials/tools	Constraints / Prescriptions
A	1 side basket + top loading shelf	1 lateral position	1	permitted on the loading platform within the local limit of 250 kg and in any case always within the maximum total load of the configuration indicated on the plate.	The local load plan limit is included in the configuration total

Conf.	Essential setup	Available positions	Max. number of people	Materials/tools	Constraints / Prescriptions
B	2 side baskets + top loading shelf	2 side stations	2	permitted on the loading platform within the local limit of 250 kg and in any case always within the maximum total load of the configuration indicated on the plate.	Applicable to DB machines only. The local load plan limit is included in the configuration total.
C	Higher Platform	Higher position	1 or 2 people	Tools permitted on the platform up to 40 kg and in any case always within the maximum total load of the configuration.	the side baskets must be removed.
D	Higher + side loading system	Higher station + lateral materials plan	1 or 2 people depending on the applicable limit	tools on the platform within 40 kg and materials on the lateral system within 100 kg, always within the maximum total load of the configuration indicated on the plate.	the local limit of the lateral system is included in the configuration total

14.3.2. Load limits per configuration

Conf.	Total configuration load	Local floor / accessory limit	People	Materials / tools	Constraints / observations
A	330 kg max	upper loading platform: 250 kg max	1	allowed on the loading platform	the local limit is included in the total
B	410 kg max	upper loading platform: 250 kg max	2	allowed on the loading platform	DB configuration only
C	120 kg max (1 person) / 200 kg max (2 people)	Platform equipment: 40 kg max	1–2 people	tools within marking limits	included in the configuration total
D	220 kg max (1 person) / 300 kg max (2 people)	Platform equipment: 40 kg max; lateral system: 100 kg max	1–2 people	materials on the lateral system included in the total	both included in the configuration total

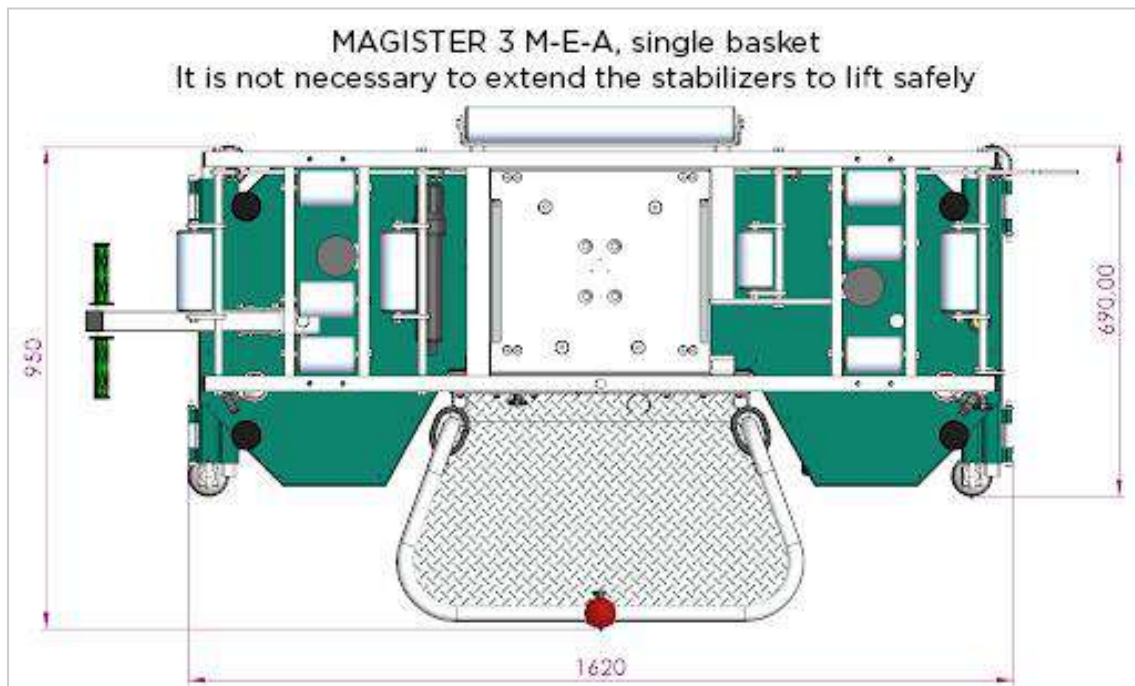
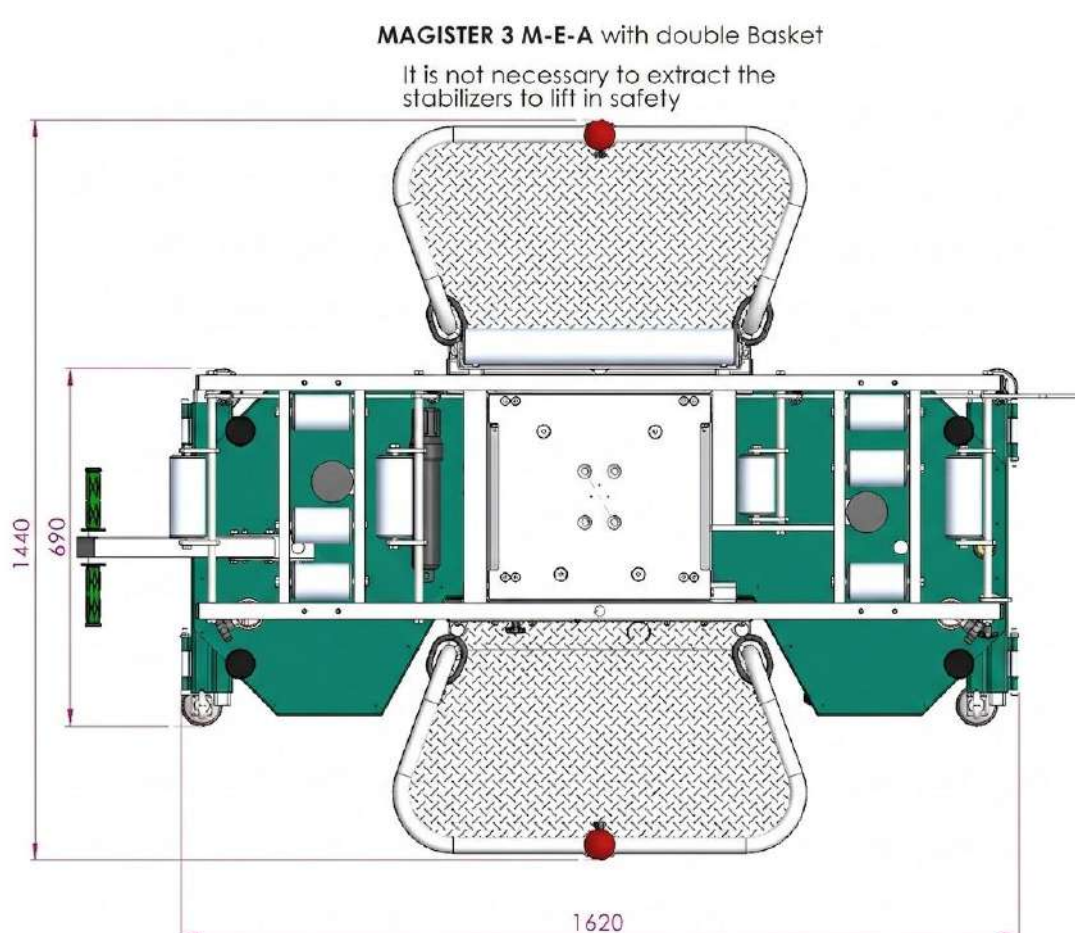
14.3.3. Environmental and usage limits

Condition	Limit
Maximum slope during transport/transfer on the ground	18° frontal – 6° transverse
Maximum ground slope for positioning and stabilization	10° transverse – 10° longitudinal
Permissible lateral force	200 N
Operating temperature	–10 °C ÷ +40 °C
Maximum altitude	2000 m s.l.m.

Condition	Limit
Maximum operational wind	12,5 m/s

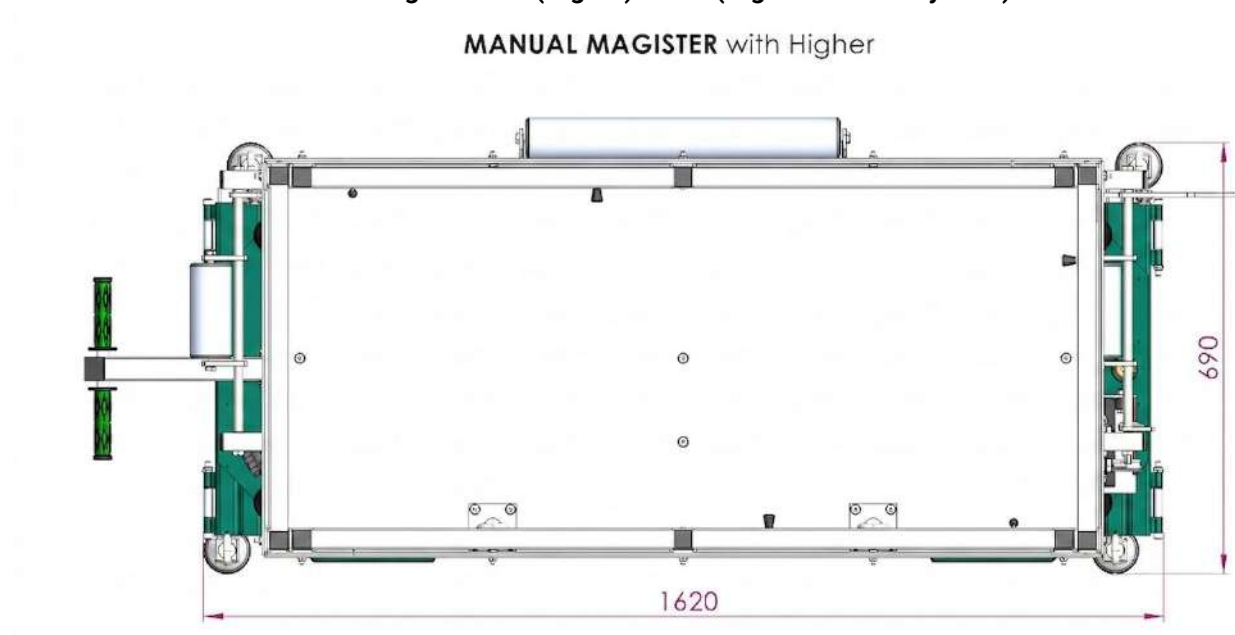
14.3.4. Stabilization limits and overall dimensions

Model	Configuration	MIN lateral clearance required (mm)	Total footprint (mm)
Manual	(A) 1 side basket	A/B = 0 ; C/D = 0	min 950
Manual	(B) 2 side baskets	A/B = 0 ; C/D = 0	min 1440
Manual	(C) Higher / (D) Higher + sistema laterale	A/B = 0 ; C/D = 0	min 690 / 920
Electric	(A) 1 side basket	A/B = 0 ; C/D = 0	min 950
Electric	(B) 2 side baskets	A/B = 0 ; C/D = 0	min 1440
Electric	(C) Higher / (D) Higher + sistema laterale	A/B = 40 ; C/D = 0	min 725 / 920
Automatic	(A) 1 side basket	A/B = 0 ; C/D = 0	min 950
Automatic	(B) 2 side baskets	A/B = 0 ; C/D = 0	min 1440
Automatic	(C) Higher / (D) Higher + sistema laterale	A/B = 40 ; C/D = 0	min 725 / 920
Automatic Rotax	(A) 1 side basket	A/B = 0 ; C/D = 0	min/max 950 / 1650
Automatic Rotax	(B) 2 side baskets	A/B = 150 ; C/D = 150	min/max 1440 / 1650
Automatic Rotax	(C) Higher / (D) Higher + sistema laterale	A/B = 150 ; C/D = 150	min/max 980–1070 / 1650

Stabilization area Manual, Electric, Automatic – Configuration A (1 side basket + shelf)

Stabilization area Manual, Electric, Automatic in Double Basket version – Configuration B (2 side baskets + shelf)


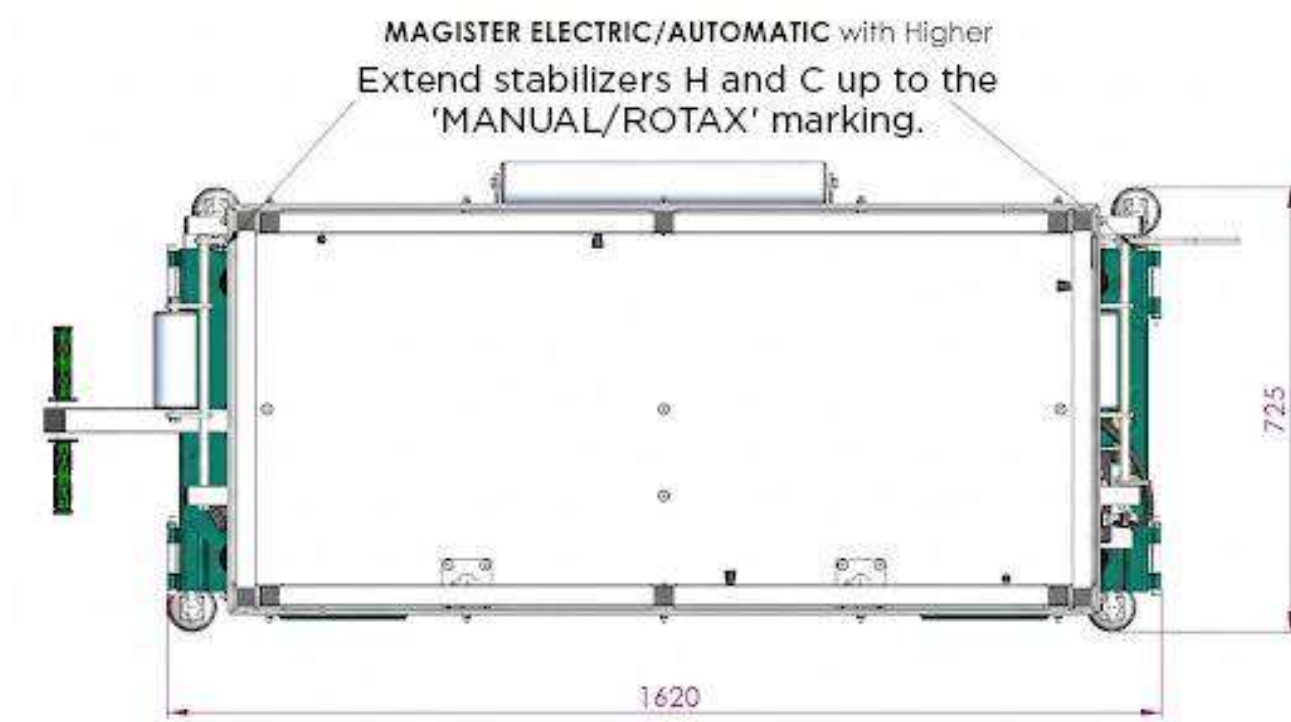
Manual stabilization area – Configuration C (Higher) and D (Higher + lateral system)

MANUAL MAGISTER with Higher

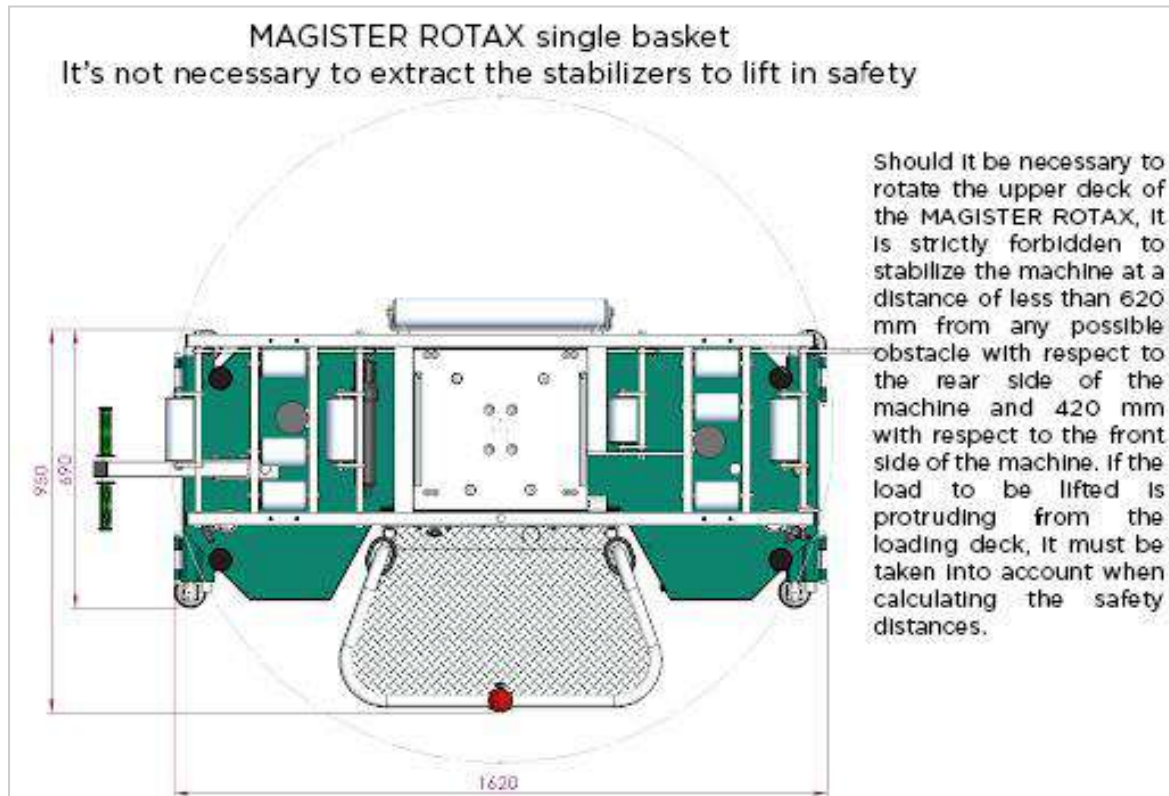


Stabilization area Electric, Automatic - Configuration C (Higher) and D (Higher + lateral load)

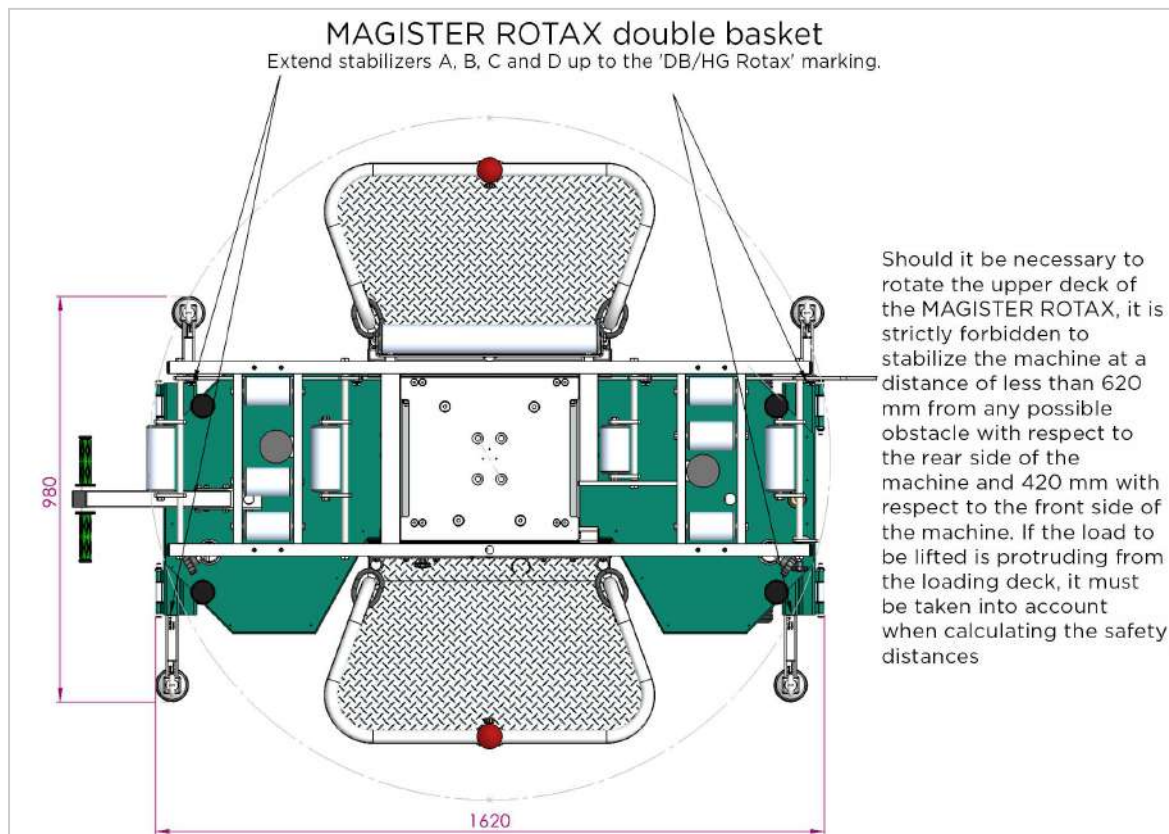
MAGISTER ELECTRIC/AUTOMATIC with Higher
Extend stabilizers H and C up to the
'MANUAL/ROTAX' marking.



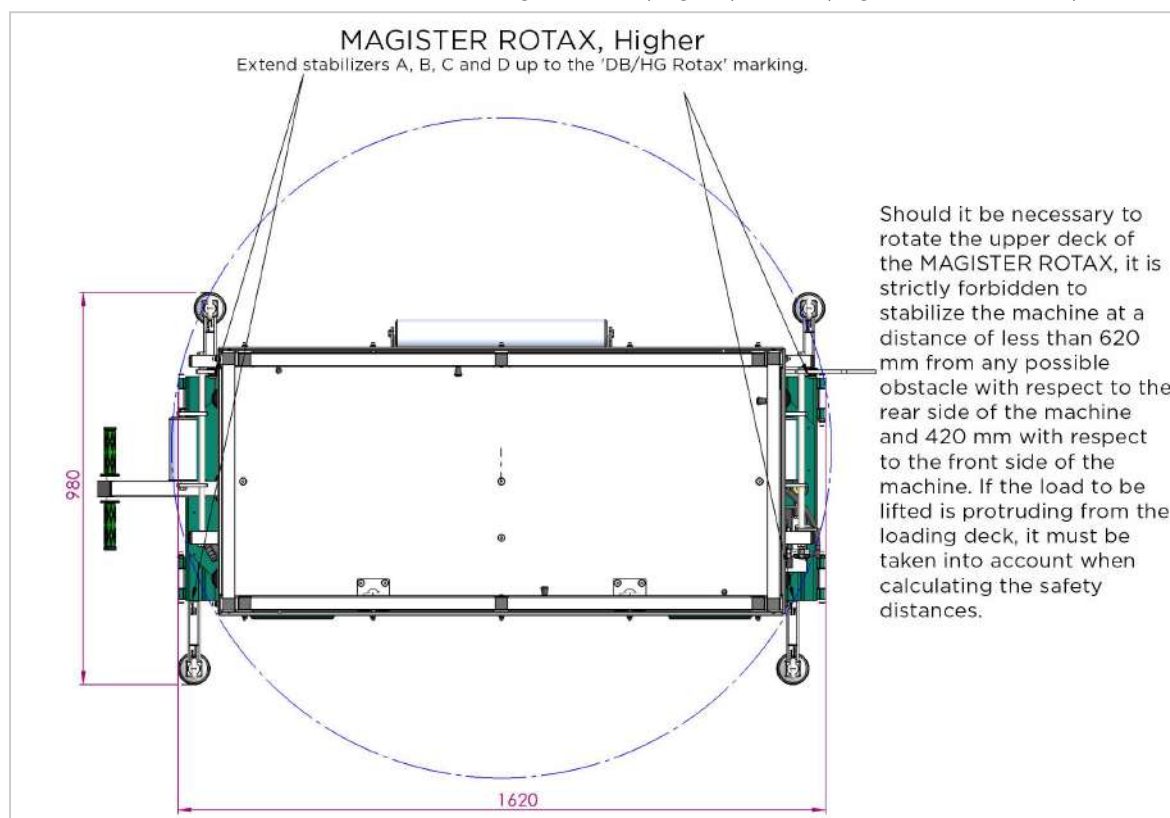
Automatic Rotax stabilization area - Configurations A (1 side basket + shelf)



Automatic Rotax stabilization area in Double Basket version – Configuration B (2 side baskets + shelf)



Automatic Rotax Stabilization Area – ConfigurationC (Higher) and D (Higher + lateral load)



14.3.5. Reference operating quotas

Parameter	Value
Maximum height at the parapet – side basket	4,53 m
Maximum height at the parapet – Higher	5,60 m
Maximum height at the parapet – Rotax with Higher	5,70 m
Maximum horizontal reach from centre of machine / external edge of parapet – side platform	0,725 m
Maximum horizontal reach from centre of machine to outer edge of parapet – Higher	0,7 m
Minimum quota for enabling rotation (Automatic Rotax only)	110 cm

14.4. Check-list pre-use e function test

This checklist is a quick operational tool to be performed before using the machine. It does not replace the periodic chain inspection referred to in §10.2.3, the CHECK referred to in §10.2.4, the REVISION referred to in §10.2.5, the extraordinary checks referred to in §10.2.6, nor the mandatory periodic checks required by current legislation.

14.4.1. Daily pre-use checklist

Check	Outcome (☐ OK / ☐ N.A. / ☐ To be corrected)	Note
Work area, obstacles, power lines, lighting and weather conditions compatible with the planned activity		
Ground, load-bearing capacity, slope and possibility of correct stabilization compatible with the machine's limits		
Installed configuration (side basket(s), Higher, any side loading system) consistent with the intended use and correctly secured		
Operator in charge trained/qualified according to applicable regulations		
Ground staff present and trained in emergency procedures		
Mandatory check and scheduled maintenance documentation available and updated		
Structure, welds and components intact, without deformations, cracks or fissures		
No leaks; pipes and fittings intact, free from leaks		
Cables and electrical connections without obvious damage or oxidation		
Batteries intact, correctly connected and with a charge level suitable for the intended activity (powered versions only)		
Wheels intact and, if pneumatic, visually suitable		
Stabilizers, locking knobs and support plates intact and functioning		
Roller conveyor / accessories correctly installed, if present		
Integrity of the operator station and anchor points		

Check	Outcome (☐ OK / ☐ N.A. / ☐ To be corrected)	Note
Presence and readability of safety labels		
Presence of the necessary operating equipment (stabilizer keys, straps, platforms, etc.)		

14.4.2. Function test before use

Trial	Outcome (☐ OK / ☐ N.A. / ☐ To be corrected)	Note
Emergency stop – arming and resetting		
Operation of the lifting control according to the version (manual pump or push-button panel/electric controls)		
Operation of the button panel and up/down controls		
Stabilizer interlocks – inhibition of unsafe maneuvers		
Display / diagnostics / icons / alarms (powered versions only)		
Motorized rotation, end stops and Home control (Automatic Rotax only)		
Anti-crush device on the rudder, if present		
Emergency descent from the ground with a ground attendant, where required by company protocol		
Braking system working and without obvious anomalies		
Interlocking of movable handrails/parapets: check that, with handrails/parapets not closed and not correctly fixed, the movements of the overhead part are inhibited.		
Interlocking handrails / movable guardrails of the upper platform Higher		
Installed platform interlock (side basket / Higher)		

Trial	Outcome (☐ OK / ☐ N.A. / ☐ To be corrected)	Note
Translation enabled only in permitted configuration (Automatic / Automatic Rotax only)		

14.5. Register of periodic checks, maintenance and inspections

This register must be completed and kept by the user to document the inspections, the manufacturer's scheduled maintenance interventions, the mandatory checks and other technical interventions carried out on the machine.

In the "Activity Type" field, use one of the following:

- ☐ pre-use / daily
- ☐ routine periodical
- ☐ Chain control §10.2.3
- ☐ CHECK §10.2.4
- ☐ REVISION §10.2.5
- ☐ extraordinary §10.2.6
- ☐ mandatory legal verification

When the REVISION is performed in the reference year, expressly indicate whether the CHECK is intended to be absorbed by the REVISION.

When the quarterly chain inspection coincides with CHECK or REVISION, expressly indicate whether this inspection has been included and recorded in the report.

Data	Freshman	Lifting cycles*	Type of activity	Activity Description	Executing entity	Outcome	Report / verbal n	Next deadline.	Note

** For powered versions, indicate, where available, the cycle counter value detected by the display. For the Manual model, without an on-board cycle counter, indicate "N.A." or the number of cycles noted by the user in the internal register, if applicable.*

14.5.1. Fault log / decommissioning / recommissioning

Data	Anomaly detected	Machine out of service since	Intervention performed	Performed by	Report / verbal n	Final functional check	Authorization for re-commissioning	Machine readmitted on

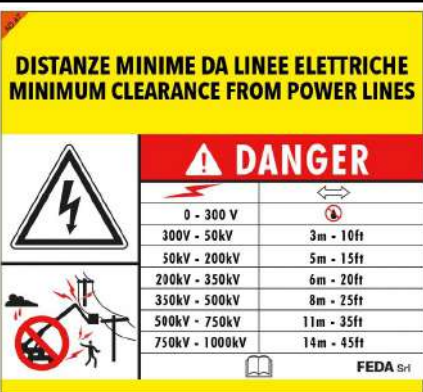
14.5.2. Summary table of scheduled replacements of components subject to periodic replacement

Assembly / Drawing	Part No.	Component / Group	QTY	MODEL MAGISTERL				Repl. Cycle (yrs)	Replacement schedule (years)									
				MAN	ELEC	AUTO	RTX		2	4	6	8	10	12	14	16	18	20
		LIFTING GROUP																
		Column sliding																
C-S-M3-GDS-07	CM-GdS_p103	Socket set screw flat point_ISO	4	●	●	●	●	2	●	●	●	●	●	●	●	●	●	●
C-S-M3-GDS-07	CM-GdS_p044	Deltrin slider GdS	16	●	●	●	●	4		●		●		●		●		●
C-S-M3-GDS-07	CM-GdS_p043	Threaded rod for Deltrin slider	16	●	●	●	●	6			●			●			●	
		Chain transmission																
	7991UNFC1303	TPSCE UNF/10.9 3/8X1/2	12	●	●	●	●	2	●	●	●	●	●	●	●	●	●	●
C-S-M3-GDS-08	8572002	Bronze washer	16	●	●	●	●	2	●	●	●	●	●	●	●	●	●	●
C-S-M3-GDS-11	CM-GdS_p057	GdS Magister spacer nut	8	●	●	●	●	2	●	●	●	●	●	●	●	●	●	●
C-S-M3-GDS-08	CM-GdS_s015	Narrow chain pulleys	1	●	●	●	●	10					●					●
C-S-M3-GDS-09	CM-GdS_s010	Wide chain pulleys	2	●	●	●	●	10					●					●
C-S-M3-GDS-06	CM-GdS_s006	Main Tie-rod Column 1	1	●	●	●	●	10					●					●
C-S-M3-GDS-10	CM-GdS_s011	Column 4 Chain Tie-rod Group	1	●	●	●	●	10					●					●
C-S-M3-GDS-12	CM-GdS_s008	Column 5 Chain Tie-rod Group	1	●	●	●	●	10					●					●
	CM-GdS_p008	Chain retainer block	2	●	●	●	●	10					●					●
	CM-GdS_p008	Chain retainer block	2	●	●	●	●	10					●					●
	CM-GdS_p014	Aluminum spacer 50x30x31 mm	2	●	●	●	●	20										●
	CM-GdS_p007	Internal cylinder pusher support	1	●	●	●	●	20										●
	CLL1044NGR57	Type A Fleyer-type chain	2	●	●	●	●	20										●
	CLL1044NGR59	Type B Fleyer-type chain	2	●	●	●	●	20										●
	CLL1044NGR103	Type C Fleyer-type chain	2	●	●	●	●	20										●
		HYDRAULIC SYSTEM																
		Hydraulic hoses	var	●	●	●	●	10						●				●
		Hydraulic fittings (Nipples)	var	●	●	●	●	10						●				●
		Burst valve	var	●	●	●	●	10						●				●
		Copper washers	var	●	●	●	●	10						●				●
		Hydraulic oil	var	●	●	●	●	10						●				●
		ELECTRICAL COMPONENTS																
		Axle bridge oil	1				●	●	10						●			●

14.6. Labels, pictograms and signs applied to the machine

The labels, pictograms, and markings applied to the machine are an integral part of the safety information devices and must always be present, legible, and consistent with the configuration actually installed.

BASIC MACHINE - SAFETY

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD16		All mods.	Front cover, handlebar area / control panel (visible to the operator on the ground)	1	EN: Read the manual before use. EN: Read the manual before use. + QR code
AD50		All mods.	Frame/lifting assembly (visible from surrounding area).	1	EN: It is prohibited to pass or stand under the elevated platform/structure or under suspended loads. EN: Do not pass or stand under the raised platform/structure or suspended loads.
AD19c		All mods.	Front cover, handlebar / control panel area (near AD16).	1	EN: WARNING It is forbidden to use the machine without the assistance of the operator on the ground. Lifting is only permitted with the stabilizers extended and resting on the ground (wheels raised). EN: WARNING Do not use the machine without a ground operator. Lift only with stabilizers extended and on the ground (wheels off the ground).
AD47		All mods.	Frame, in an area clearly visible to the operator on the ground (near the dashboard/handlebars) and/or on the IPE lifting group.	1	EN: MINIMUM DISTANCES FROM POWER LINES EN: MINIMUM CLEARANCE FROM POWER LINES 0-300 V: Avoid contact 300 V-50 kV: 3 m - 10 ft 50-200 kV: 5 m - 15ft 200-350 kV: 6 m - 20 ft 350-500 kV: 8 m - 25ft 500-750 kV: 11m - 35ft 750-1000 kV: 14m - 45ft

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD72		All mods.	Base frame near translation controls / rudder / towing area.	1	EN: Travelling with the lifting part raised is prohibited. EN: No travel with elevated structure.

BASIC MACHINE- IDENTIFICATION/LIMITS

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD51		All mods.	Lifting unit frame / beam (near CE identification and capacity plate).	1	EN: OPERATIONAL LIMITS (flow rates - wind - inclinations) Consult the CE identification and capacity plate on the lifting unit beam. EN: OPERATING LIMITS (loads - wind - inclinations) Refer to the rating plate / nameplate on the lifting beam.
AD77		All mods.	Lifting unit frame/beam, near the identification and capacity plate (rating plate)	1	EN: TOTAL NOMINAL CAPACITY The sum of the loads must not exceed the value indicated on the identification plate and capacity. EN: RATED TOTAL LOAD The sum of loads must not exceed the value shown on the machine rating plate.

STABILIZERS

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD13		All mods.	Frame, near each stabilizer (horizontal extraction area and screw/foot). Or 2 for each pair of stabilizers at both ends	2	EN: ATTENTION Pull out the stabilizer HORIZONTALLY up to the MIN marks marked on the arm (depending on the configuration). For VERTICAL extraction do not exceed the MAX limit marked. EN: CAUTION Extend the stabilizer HORIZONTALLY to the marked MIN positions (according to the configuration). For VERTICAL extension do not exceed the marked MAX limit.
AD37		All mods.	Adjacent to stabilizer A (seat/guide).	1	IT/EN: Stabilize. Pos. A
AD38		All mods.	Adjacent to the stabilizer B (seat/guide).	1	IT/EN: Stabilize. Pos. B

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD39		All mods.	Adjacent to the C stabilizer (seat/guide).	1	IT/EN: Stabilize. Pos. C
AD40		All mods.	Adjacent to the D stabilizer (seat/guide).	1	IT/EN: Stabilize. Pos. D
AD53		All mods.	Front and rear casing, adjacent to the extraction locking knobs (for each stabilizer).	4	EN: Locking / Unlocking Lock / Unlock EN: Lock / Unlock Locking / Unlocking
AD65		All mods.	On each stabilizer (visible point during support).	4	EN: MAXIMUM GROUND LOAD Fmax = 280 daN EN: MAX GROUND LOAD Fmax = 280 daN

POWERED VERSIONS-EMERGENCY

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD23		E / A / R	Electric pump/control unit casing: location sticker (text + arrow).	1	EN: EMERGENCY DESCENT → EN: EMERGENCY LOWERING →
AD46		E / A / R	Near the display/control panel (on the ground).	1	EN: EMERGENCY STOP (Emergency Stop) → EN: EMERGENCY STOP →
AD63		E / A / R	Electric pump/control unit casing (adjacent to the device).	1	EN: EMERGENCY DESCENT VALVE For manual descent: 1) Remove the cap. 2) Turn the valve counterclockwise (without removing it). 3) Pull and hold the red "T" handle. EN: EMERGENCY LOWERING VALVE Manual lowering: 1) Remove the Cap. 2) Turn the valve counter-clockwise (do not remove it). 3) Pull and hold the red "T" handle.

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD88	POMPA MANUALE DI EMERGENZA Solo per manovre di emergenza/recupero. Vietato uso ordinario. EMERGENCY HAND PUMP For emergency/recovery only. Do not use for normal operation.	E / A / R	directly on the control unit casing, near the manual pump (not the AD63 valve)	1	EN: EMERGENCY HAND PUMP For emergency/recovery maneuvers only. Ordinary use prohibited. EN: EMERGENCY HAND PUMP For emergency/recovery only. Do not use for normal operation.
AD86	AUTOMATIC ROTAX - DISCESA DI EMERGENZA Prima di scendere sotto quota minima: rotazione a 0° (Home). Se Home non disponibile: ruotare manualmente (chiave 19 mm) fino a 0°. Poi continuare la discesa di emergenza. AUTOMATIC ROTAX - EMERGENCY LOWERING Before lowering below minimum height: rotation to 0° (Home). If Home not available: rotate manually (19 mm wrench) to 0°. Then continue emergency lowering.	R	Near the display/control panel (on the ground).	1	EN: AUTOMATIC ROTAX – EMERGENCY DESCENT Before descending below minimum altitude: rotation to 0° (Home). If Home is not available: rotate manually (19 mm wrench) to 0°. Then continue with the emergency descent. EN: AUTOMATIC ROTAX – EMERGENCY LOWERING Before lowering below minimum height: rotation to 0° (Home). If Home not available: rotate manually (19 mm wrench) to 0°. Then continue emergency lowering.

POWERED VERSIONS – BATTERIES

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD48	BATTERIE - RICARICA / BATTERIES - CHARGING Vietato fumare o usare fiamme libere. No smoking or open flames. Caricare in ambiente ventilato. Charge in a ventilated area. Indossare protezioni occhi e guanti. Wear eye protection and gloves. Rischio gas esplosivi e acido corrosivo. Risk of explosive gas and corrosive acid. Leggere il manuale. Read the manual.	E / A / R	Battery compartment/cover and near charger/charging socket (clearly visible during charging).	1	EN: BATTERIES – CHARGING • No smoking or open flames allowed. • Charge in a ventilated area. • Wear eye protection and gloves. • Risk of explosive gases and corrosive acid. • Read the manual. EN: BATTERIES – CHARGING • No smoking or open flames. • Charge in a ventilated area. • Wear eye protection and gloves. • Risk of explosive gas and corrosive acid. • Read the manual.
AD62	COLLEGARE LA PRESA DI ALIMENTAZIONE PER RICARICARE LA MACCHINA. MANTENERE LA MACCHINA IN CARICA QUANDO NON IN USO. CONNECT THE MAINS PLUG TO CHARGE THE MACHINE. KEEP THE MACHINE ON CHARGE WHEN NOT IN USE.	E / A / R	Carter, near the charger/charging socket.	1	EN: Plug in the power outlet to charge the machine. Keep the machine charging when not in use. EN: Connect the mains plug to charge the machine. Keep the machine on charge when not in use.
AD93	STACCABATTERIE BATTERY DISCONNECT	E / A / R	Carter, near the battery switch	1	IT: BATTERY DISCONNECTOR EN: BATTERY DISCONNECT

POWERED VERSIONS – STABILIZATION

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD68	AVVERTENZA La macchina è dotata di sensore di planarità. Se inclinazione > 3°: sollevamento inibito. Correggere agendo sugli stabilizzatori. WARNING The machine has a leveling sensor. If inclination > 3°: lift is inhibited. Correct by adjusting the stabilizers.	E / A / R	Front cover, fork area / stabilizer area (visible when leveling).	1	EN: WARNING The machine is equipped with a flatness sensor. If inclination > 3°: lifting inhibited. Correct by acting on the stabilizers. EN: WARNING The machine has a leveling sensor. If inclination > 3°: lift is inhibited. Correct by adjusting the stabilizers.
AD74	AVVERTENZA Interruttori di sicurezza controllano appoggio a terra ed estrazione min/max stabilizzatori. Se il sollevamento è bloccato: correggere posizione degli stabilizzatori. WARNING Safety switches monitor stabilizer ground contact and min/max extension. If lifting is inhibited: correct the stabilizer position.	E / A / R	Carter, adjacent to the display/panel (visible when lift is locked).	1	EN: WARNING Safety switches control ground contact and min/max extraction of the stabilisers. If lifting is blocked: correct the position of the stabilizers. EN: WARNING Safety switches monitor stabilizer ground contact and min/max extension. If lifting is inhibited: correct the stabilizer position.

MANUAL VERSION – WARNING AND EMERGENCY

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD90	VERSIONE MANUAL - AVVERTENZA Prima della manovra verificare configurazione, stabilizzazione e limiti. Sollevare solo con stabilizzatori estratti e appoggiati a terra. MANUAL VERSION - WARNING Before operation check configuration, stabilization and limits. Lift only with stabilizers extended and on the ground.	M	handlebar/panel area "on the ground" near the AD19c or directly near the manual pump (where the operator decides the maneuver)	1	EN: MANUAL VERSION – WARNING Before maneuvering, check configuration, stabilization and limits. Lift only with outriggers extended and resting on the ground. EN: MANUAL VERSION – WARNING Before operation check configuration, stabilization and limits. Lift only with stabilizers extended and on the ground.
AD69	DISCESA DI EMERGENZA (MANUAL) 1) Area sotto la postazione libera. 2) Portare la levetta arancione su DISCESA. 3) Azionare lentamente la leva manuale per discesa controllata. 4) Riposizionare la levetta su SOLLEVAMENTO. EMERGENCY LOWERING (MANUAL) 1) Keep the area below clear. 2) Set the orange lever to DOWN. 3) Pump slowly for controlled lowering. 4) Set the lever back to UP.	M	Manual pump tank / orange lever area (visible during maneuver).	1	EN: EMERGENCY DESCENT (MANUAL) 1) Area under the free station. 2) Move the orange lever to DESCENT (right position). 3) Slowly operate the manual lever for controlled descent. 4) Put the lever back to LIFT. EN: EMERGENCY LOWERING (MANUAL) 1) Keep the area below clear. 2) Set the orange lever to DOWN (right position). 3) Pump slowly for controlled lowering. 4) Set the lever back to UP.

MODEL/VERSION IDENTIFICATION

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD54		M	External frame (near license plate) + visible side (branding).	1	IT/EN: Mod. MASTER ³ MANUAL
AD55		AND	External frame (near license plate) + visible side (branding).	1	IT/EN: Mod. MASTER ³ ELECTRIC
AD56		A	External frame (near license plate) + visible side (branding).	1	IT/EN: Mod. MASTER ³ AUTOMATIC
AD57		R	External frame (near license plate) + visible side (branding).	1	IT/EN: Mod. MASTER ³ AUTOMATIC ROTAX

CONFIGURATION IDENTIFICATION

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD58		SB	External frame (near license plate) or in combination with model sticker.	1	IT/EN: SB version (Single Basket)
AD59		DB	External frame (near license plate) or in combination with model sticker.	1	IT/EN: DB version (Double Basket)

LINE IDENTIFICATION

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD60		M	External frame	1	EN: Coffin Lift Line EN: Coffin lifter line
AD61		P	External frame	1	IT/EN: Professional line

IDENTIFICATION AND BRANDING OF THE COFFIN ELEVATOR LINE

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD01		M	Frame, outer perimeter.	1	IT/EN: COME BY FEDA TECHNOLOGY AND SECURITY AT THE SERVICE OF THE CEMETERY TECHNOLOGY AND SAFETY FOR CEMETERIES www.koime.it

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD02	 ELEVATORE MONTAFERETRI / COFFIN LIFT MAGISTER³ LINEA MONTAFERETRI / CEMETERY LINE	M	Frame, outer perimeter.	1	IT/EN : ELEVATORE MONTAFERETRI COFFIN LIFT MAGISTER ³ COFFIN ELEVATOR LINE CEMETERY LINE

IDENTIFICATION AND BRANDING OF THE PROFESSIONAL LINE

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
ADP01	 SOLLEVAMENTO E SICUREZZA AL SERVIZIO DEI PROFESSIONISTI VALIFTER BY FEDA LIFTING AND SAFETY FOR PROFESSIONALS www.valifter.com	P	Frame, outer perimeter.	1	IT/EN: VALIFTER BY FEDA LIFTING AND SAFETY AT THE SERVICE OF PROFESSIONALS LIFTING AND SAFETY FOR PROFESSIONALS www.valifter.com
ADP02	 PIATTAFORMA DI LAVORO ELEVABILE MOBILE ELEVATING WORK PLATFORM MAGISTER³ LINEA PROFESSIONAL / PROFESSIONAL LINE	P	Frame, outer perimeter.	1-2	IT/EN : ELEVATED WORK PLATFORM MOBILE ELEVATING WORK PLATFORM MAGISTER ³ LINEA PROFESSIONAL / PROFESSIONAL LINE

SIDE BASKET

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD24			Basket sill (perimeter).	1	EN: (perimeter marking – without text) EN: (perimeter marking – no text)
AD25	 APRIRE/SOLLEVARE MANCORRENTE OPEN/LIFT HANDRAIL		Basket upright (near sliding handrail).	1	EN: OPEN / LIFT CURRENTLY AND: OPEN / LIFT HANDRAIL
AD52	 CESTELLO LATERALE - DATI E SICUREZZA Portata max: 120 kg Persone max: 1 Forza manuale max: 200 N Vento max: 12,5 m/s • Leggere il manuale prima dell'uso. • Indossare imbracatura e collegarsi al punto di ancoraggio. • Stabilizzare prima del sollevamento. • Vietato l'uso senza addetto a terra. • Vietato sostare sotto la postazione in quota. • Verificare assenza ostacoli in alto. SIDE BASKET - DATA AND SAFETY Max load: 120 kg Max persons: 1 Max manual force: 200 N Max wind: 12,5 m/s • Read the manual before use. • Wear a harness and attach to the anchorage point. • Stabilize before lifting. • Do not use without a ground operator. • Do not stand under the elevated platform. • Check for overhead obstructions.		Backrest/front cover of the basket (large and readable surface).	1	EN: SIDE BASKET – DATA AND SAFETY Max load: 120 kg Max people: 1 Max manual force: 200 N Max wind: 12.5 m/s • Read the manual before use. • Put on your harness and connect to the anchor point. • Stabilize before lifting. • Use without a ground attendant is prohibited. • It is forbidden to stop below the height station. • Check that there are no obstacles above. EN: SIDE BASKET – DATA & SAFETY Max load: 120 kg Max persons: 1 Max manual force: 200 N Max wind: 12.5 m/s • Read the manual before use. • Wear a harness and attach to the anchorage point. • Stabilize before lifting. • Do not use without a ground operator. • Do not stand under the elevated

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
					platform. • Check for overhead obstructions.
AD73			Near the eyebolt/anchoring point (rubber rail, running board/heel sill).	1	EN: ANCHOR POINT Fall protection PPE MAXIMUM 1 PERSON EN: FALL ARREST ANCHORAGE POINT MAX 1 PERSON

Higher

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD24			Basket sill (perimeter).	1	EN: (perimeter marking – without text) EN: (perimeter marking – no text)
AD66			Higher external door sill (perimeter) or clearly visible internal side.	1	EN: Higher – SECURITY • Read the manual before use. • Put on your harness and connect to the anchor point. • Stabilize before lifting. • Use without a ground attendant is prohibited. • It is forbidden to stop below the height station. • Check that there are no obstacles above. EN: Higher – SAFETY • Read the manual before use. • Wear a harness and attach to the anchorage point. • Stabilize before lifting. • Do not use without a ground operator. • Do not stand under the elevated platform. • Check for overhead obstructions.
AD70			Higher, external door sill (on two opposing sides if necessary).	2	EN: ATTENTION During use, the guardrails must be raised and locked. EN: CAUTION During operation the guardrails must be raised and locked.
AD73			Near the eyebolt/anchoring point (rubber rail, running board/heel sill).	2	EN: ANCHOR POINT Fall protection PPE MAXIMUM 1 PERSON EN: FALL ARREST ANCHORAGE POINT MAX 1 PERSON

ACCESSORIES / LOADING SURFACES

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD80	 PIANO SUPERIORE PORTATA MAX 250 KG UPPER DECK MAX LOAD 250 KG		Upper deck side (visible before loading).	1	EN: UPPER FLOOR MAX LOAD CAPACITY 250 kg A: UPPER DECK MAX LOAD 250 kg

ACCESSORIES

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD81	 PIANO FERETRO PORTATA MAX 250 KG COFFIN DECK MAX LOAD 250 KG		On the top/accessory in a visible position.	1	EN: COFFIN TOP - MAXIMUM LOAD CAPACITY 250 kg EN: COFFIN DECK - MAX LOAD 250 kg
AD82	 PORTAOGGETTI PORTATA MAX 250 KG STORAGE TRAY MAX LOAD 250 KG		On the glove compartment in a visible position.	1	EN: STORAGE STORAGE - MAXIMUM LOAD CAPACITY 250 kg EN: STORAGE TRAY - MAX LOAD 250 kg
AD83	 ALZALASTRE PORTATA MAX 100 KG SLAB LIFTER MAX LOAD 100 KG		On the plate lift group in a visible position.	1	IT: ALZALASTRE MAX LOAD CAPACITY 100 kg A: SLAB LIFTER MAX LOAD 100 kg
AD84	 PIANO ESTUMULAZIONE PORTATA MAX 250 KG EXHUMATION PLATFORM MAX LOAD 250 KG		On the exhumation floor in a visible position.	1	EN: EXTUMULATING PLATFORM - MAXIMUM LOAD CAPACITY 250 kg EN: EXHUMATION PLATFORM - MAX LOAD 250 kg
AD89	SCALA DI ACCESSO HIGHER Solo per accesso alla piattaforma. HIGHER ACCESS LADDER For access to the platform only.		On ladder upright for Higher access	1	EN: ACCESS STAIRCASE Higher For platform access only. EN: Higher ACCESS LADDER For access to the platform only.

SAFETY MAINTENANCE

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD85	 FERMO MECCANICO DI SICUREZZA Solo per manutenzione. Seguire il manuale. MECHANICAL SAFETY PROP For maintenance only. Follow the manual.	M / E / A / R	On the bar/stop and/or near the insertion point.	1	EN: MECHANICAL SAFETY STOP For maintenance only. Follow the manual. EN: MECHANICAL SAFETY PROP For maintenance only. Follow the manual.
AD87	 Chiave emergenza rotazione (19 mm). Rotation emergency wrench (19 mm).	R	On the jack wrench and/or near the insertion point.	1	EN: Emergency rotation key (19 mm) EN: Rotation emergency wrench (19 mm)

Cod	Figure	Appl.	Position	Qty	Text (IT/EN)
AD91		M / E / A / R	On the IPE support bar, near the positioning seat	1	EN: MECHANICAL STOP POSITIONING POINT Follow the manual. EN: MECHANICAL STOP POSITIONING POINT Follow the manual

14.7. Statements of conformity

This section contains, in graphic form, the EC Declaration of Conformity and, for powered models, the Declaration of Conformity – Electromagnetic Compatibility. The actual declaration referring to the specific serial number must accompany the machine upon delivery and be kept among the accompanying documents.

14.7.1. CE Declaration of Conformity


 Elevating work platforms.


 LIFTING UTILS

EC DECLARATION OF CONFORMITY

N. [N. DECLARATION]

PERSON AUTHORIZED TO COMPILE THE TECHNICAL FILE
 Valerio Cicciola, C.F. CCCVLR86503L117X, as legal representative pro tempore of FEDA s.r.l., domiciled for the purpose of this office at FEDA s.r.l., as the person authorized to compile the technical file on behalf of the manufacturer.

COMPANY NAME AND FULL ADDRESS OF THE MANUFACTURER
 FEDA s.r.l. – Via Mario Corrieri 16, 05100 Terni (TR), Italy – VAT number / Tax code / Registration number: 01483910558.

Declares under its sole responsibility that the machine identified below complies with the applicable requirements.

SUBJECT OF THE DECLARATION

MODEL	MAGISTER³ [MANUAL / ELECTRIC / AUTOMATIC / AUTOMATIC ROTAX]	MATRICALE	M3[M/E/A/R]YY### ##	YEAR OF CONSTRUCTION	[AAAA]
CONFIGURATION	[SB (Single Basket) / DB (Double Basket)]		LINE		[Montaferetri / Professional]
COMMERCIAL NAME	[Magister³ Manual SB - Linea Professional / Magister³ Manual DB - Linea Professional / Magister³ Electric SB - Linea Professional / Magister³ Electric DB - Linea Professional / Magister³ Automatic SB - Linea Professional / Magister³ Automatic DB - Linea Professional / Magister³ Automatic Rotax SB - Linea Professional / Magister³ Automatic Rotax DB - Linea Professional / Magister³ Manual SB - Linea Montaferetri / Magister³ Manual DB - Linea Montaferetri / Magister³ Electric SB - Linea Montaferetri / Magister³ Electric DB - Linea Montaferetri / Magister³ Automatic SB - Linea Montaferetri / Magister³ Automatic DB - Linea Montaferetri / Magister³ Automatic Rotax SB - Linea Montaferetri / Magister³ Automatic Rotax DB - Linea Montaferetri]				
GENERIC NAME	[Mobile elevating work platform (MEWP) / Mobile elevating work platform (MEWP) equipped with a loading platform for cemetery use]				
FUNCTION	[Lifting of people and materials for operations at height / Lifting of people and materials, including using a loading platform, for the movement of coffins in cemeteries]				

THE ABOVE MACHINE COMPLIES WITH ALL THE RELEVANT PROVISIONS OF THE FOLLOWING DIRECTIVE

- Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 relating to machinery, transposed into Italian law by Legislative Decree no. 17 of 27 January 2010.
- Machine included among those referred to in Annex IV of Directive 2006/42/EC / Legislative Decree 17/2010; conformity assessment procedure applied: EC type-examination (Annex IX) and internal production control (Annex VIII, point 3).
- Complies with the applicable technical requirements of the UNI EN 280-1:2022 standard.

NOTIFIED BODY THAT CARRIED OUT THE EC-TYPE EXAMINATION

VERICERT S.r.l. – Certifications and Verifications
 Notified Body No. 1878
 Via L. Masotti n. 5 – 48124 Fornace Zarattini (RA) – Italy
 Certificate No. [CERTIFICATE N.] of the [GG/MM/AAAA]

SIGNED IN THE NAME AND ON BEHALF OF THE MANUFACTURER
Valerio Cicciola

PLACE AND DATE
Terni, [GG/MM/AAAA]

14.7.2. Declaration of Conformity – Electromagnetic Compatibility

MAGISTER³

Elevating work platforms

FEDA
LIFTING UTILS

EU DECLARATION OF CONFORMITY relating to electromagnetic compatibility – Directive 2014/30/EU

N. [N. DECLARATION]

COMPANY NAME AND FULL ADDRESS OF THE MANUFACTURER

FEDA s.r.l. – Via Mario Corrieri 16, 05100 Terni (TR), Italy – VAT number / Tax code / Registration number: 01483910558.

STATEMENT ISSUED UNDER THE EXCLUSIVE RESPONSIBILITY OF THE MANUFACTURER

This declaration of conformity is issued under the sole responsibility of the manufacturer.

SUBJECT OF THE DECLARATION

SUBJECT OF THE DECLARATION						
MODEL	MAGISTER ³ [ELECTRIC / AUTOMATIC / AUTOMATIC ROTAX]		MATRICLE	M3[E/A/R]YY####	YEAR OF CONSTRUCTION	[AAAA]
CONFIGURATION		[SB (Single Basket) / DB (Double Basket)]		LINE	[Montaferetri / Professional]	
COMMERCIAL NAME		[Magister ³ Electric SB - Linea Professional / Magister ³ Electric DB - Linea Professional / Magister ³ Automatic SB - Linea Professional / Magister ³ Automatic DB - Linea Professional / Magister ³ Automatic Rotax SB - Linea Professional / Magister ³ Automatic Rotax DB - Linea Professional / Magister ³ Electric SB - Linea Montaferetri / Magister ³ Electric DB - Linea Montaferetri / Magister ³ Automatic SB - Linea Montaferetri / Magister ³ Automatic DB - Linea Montaferetri / Magister ³ Automatic Rotax SB - Linea Montaferetri / Magister ³ Automatic Rotax DB - Linea Montaferetri]				
GENERIC NAME		[Mobile elevating work platform (MEWP) / Mobile elevating work platform (MEWP) equipped with a loading platform for cemetery use]				
FUNCTION		[Lifting of people and materials for operations at height / Lifting of people and materials, including using a loading platform, for the movement of coffins in cemeteries]				

The object of the declaration above is in conformity with the relevant Union harmonisation legislation:

- Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.

Reference to the relevant harmonised standards used, including the date of the standards, or references to other technical specifications in relation to which conformity is declared:

- EN 61000-6-2:2005 + AC:2005 – Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments.
- EN 61000-6-4:2007 + A1:2011 – Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments.

ADDITIONAL INFORMATION

- The installed electrical and electronic equipment, wiring and component integration have been verified for compliance with the applicable essential protection requirements.
- The supporting technical documentation is kept at the manufacturer's premises and is available upon request to the competent authorities.

SIGNED IN THE NAME AND ON BEHALF OF THE MANUFACTURER

Valerio Ciccioia

Legal representative pro tempore

PLACE AND DATE

Terni, [GG/MM/AAAA]