

EN: Translated version of the original instruction

Manual chain hoist

PREMIUM PRO-EX

BASIC/MEDIUM (250 - 10.000) kg

HIGH (250 - 6.400) kg



Dear Customer,
Thank you very much for purchasing our device. We value your trust in our brand and hope you are satisfied with your purchase. If you have any questions or problems, please do not hesitate to contact us. Have fun with your new device!



Read these instructions carefully before use and keep them safe.



Please note the serial number and the corresponding dimensions before first use.

Serial number: _____

Upper hook:

g= _____ mm

b= _____ mm

h= _____ mm

Lower hook:

g= _____ mm

b= _____ mm

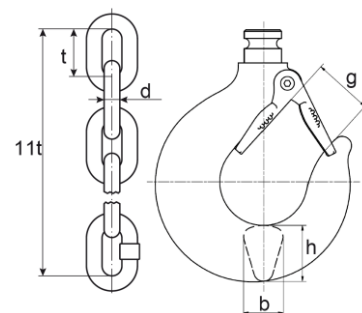
h= _____ mm

Load chain:

d= _____ mm

t= _____ mm

11t= _____ mm



First edition 10-2023 (Version 2)

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1 Introduction

1.1 General information



Read these instructions carefully before use and keep them in a safe place.



These instructions provide information on proper commissioning, intended use and safe and efficient operation and maintenance. The operating instructions are an integral part of the product. The illustrations shown in these operating instructions are for basic understanding and may differ from the actual design.



Fitters, operators and maintenance personnel must observe in particular the operating instructions and the documentation provided by the employers' liability insurance association.



Please observe their local regulations and rules. Information on safety, installation, operation, testing and maintenance from these operating instructions must be made available to the appropriate persons. Make sure that these operating instructions are available in close proximity to the product during the period of use of the product.

1.2 Information on the manufacturer

Name: PLANETA-Hebetechnik GmbH
Adresse: Resser Str. 17 | 44653 Herne | Germany

E-Mail: info@planeta-hebetechnik.de
Phone: 49-(0)-2325-9580-0

1.3 CE declaration and declaration of incorporation



A ready-to-use machine with all its associated safety devices has a CE declaration of conformity and is labelled with a CE mark. Incomplete machines are supplied without a CE mark and only contain a Declaration of Incorporation in accordance with the current Machinery Directive.

1.4 Copyright



These original operating instructions are protected by copyright. The authorised user has a simple right of use within the scope of the purpose of the contract. Any modified use or exploitation of the contents provided, in particular reproduction, modification or publication of any deviating kind, is only permitted with the prior consent of the manufacturer. If the operating instructions are lost or damaged, a new copy can be requested from the manufacturer. The manufacturer has the right to change the operating instructions without prior notification and is not obliged to replace earlier copies.

1.5 Warranty



The warranty is contractually regulated (see General Terms and Conditions or contract).

Warranty and liability claims for personal injury and damage to property are excluded if these are due to one or more of the following causes:

- Improper use of the device.
- Improper operation and maintenance of the device and improper commissioning.
- Failure to follow the instructions in the operating instructions.
- Unauthorized structural changes to the device.
- Disasters caused by foreign bodies and force majeure.
- Inadequate monitoring of equipment parts that are subject to wear and tear.
- Improperly performed repairs.
- Wear parts are not covered by liability for defects.
- We reserve the right to make technical changes to the device in the context of improving the performance characteristics and further development.



For the purposes of this document

Qualified professional:	A qualified professional is a person who has specific knowledge, skills and experience in a particular field. These professionals usually have formal training or relevant work experience that qualifies them for their job. They are able to perform complex tasks independently and responsibly and bring a high level of expertise to the job. Qualified professionals are employed in various fields such as engineering, medicine, IT, crafts, education, management and many others.
Competent person:	Qualified persons for testing are persons who have the required specialist knowledge due to their technical training, knowledge and experience as well as their recent professional activity. The exact requirements for qualification are specified in the relevant regulations and codes of practice. As a rule, these are specialists for occupational safety, experts for the inspection of work equipment or persons with comparable qualifications. However, the exact qualification and competence depends on the type and scope of the inspection. It is important to ensure that the person appointed has the necessary expertise and can carry out the inspection properly.
Expert:	An expert is a "recognised competent person" who, due to his professional training and experience, has knowledge in the field of the work equipment to be tested and is familiar with the relevant state occupational health and safety regulations, regulations of the employers' liability insurance association and generally recognised rules of technology. This competent person must regularly inspect and assess work equipment of the appropriate design and regulations. This qualification is granted by approved inspection bodies.
Electronic specialist:	An electronic specialist is a person who has specific knowledge and skills in the field of electronics. He is able to install, maintain and repair electronic equipment.
Hoist:	Hoist is the generic term for all equipment used to move or lift weights (loads).
Device:	A device is a technical appliance or machine designed to perform a specific function or task. It can be operated electronically, mechanically or manually and consists of various components that work together to achieve the desired result.
Crane:	A crane is a lifting device that can lift loads with a load-bearing device and also move them in one or more directions.
Lifting equipment:	Lifting equipment is equipment that is permanently attached to the hoist, e.g. ropes, chains, lifting beams, grabs, crane hooks, tongs. They are permanently installed in the hoist and are used to take up slings, load handling attachments or loads.

2 Safety

2.1 Safety information



Most accidents when handling technical equipment are due to disregard of basic safety rules. Recognising a possible hazard can prevent an accident before it occurs.



Disregarding the safety instructions can result in death or serious injury. As the manufacturer of the appliance, we cannot foresee all possible circumstances that may contain potential hazards. Consequently, the safety instructions in this manual are not all-inclusive.



The appliance must not be used in any way that deviates from the considerations in this manual. All applicable safety regulations and protective measures at the place of use must be observed, including site-related regulations and protective measures at the workplace.



Information, descriptions and illustrations in this manual are based on information available at the time of writing.

2.2 Regulations and directives



Please take into account the current rules and regulations in your country. The guidelines listed here may not apply to every single device or machine.

Table 1 European directives & regulations

European directives & regulations	
Regulation-2023/1230 EU L165/1	Machinery Product Ordinance
Regulation-1907/2006 L136/3	REACH-Regulation
Directive-2014/34/EU L 96/309	ATEX-Directive**
Directive-2014/53/EU 02014L0053	Funkanalgen-Directive*
Directive-2014/30/EU	EMV-Directive*
Directive-2012/19/EU L197/38	WEEE-Directive*
Directive-94/62/EG 01994L0062	Packaging -Directive
Directive-2011-65/EU L174/88	RoHS-Directive*

*These listed directives only apply to motor-driven devices or those equipped with an RFID chip.

** These listed directives only apply to equipment used in potentially explosive atmospheres.

2.3 Safety components of manual hoists

2.3.1 Load pressure brake



The load pressure brake is a central safety component in manual hoists, such as lever and cylindrical pulleys. It ensures that the load is held securely in any position. This mechanical system uses the compressive force generated by the load to achieve a reliable braking effect, based on the principle of friction. When lifting a load, the brake is completely and permanently closed by ratcheting the lever or pulling the hand chain. During the lifting process, the closed brake mechanism drives the drive shaft, which gradually lifts the load. Integrated pawls prevent the drive shaft from being turned back, which creates the characteristic "clacking" during lifting. When the load is lowered, the greatest heat is generated, due to the friction in the brake package. The brake is released for a short time so that the load can be lowered in controlled steps – exactly to the same extent as the lever is rattled or the hand chain is pulled. After each lowering manoeuvre, the brake closes completely again, thus ensuring maximum safety.

2.3.2 Overload protection



An integrated direct-acting overload protection in the form of a slipper clutch is an additional, often optional safety component, which prevents overloading of the hoist by exceeding the maximum permissible load capacity. In manual hoists, an overload protection device is located in front of the brake at the beginning of the drive train. In normal operation, the contact pressure of the slipper clutch is so high that the other drive train is driven and a load is lifted. If the contact pressure of the slipper clutch is exceeded, "slipping" occurs, which means that the load cannot be lifted and thus protects the hoist from being overloaded. The integrated overload protection is set to a defined trip value at the factory and checked. Due to the fact that neither Regulation (EU) 2023/1230 nor DIN EN 13157 specify specific limit values for direct-acting overload protection devices for manual hoists, we are based on DIN EN 14492-2, chapter 5.2.2.3.2 and set a release value of 1.5 times the load capacity for our hoists.

Safety

2.4 Personal protective equipment



Appropriate work clothing must be worn for each task.

For safety reasons, operators and other persons in the immediate vicinity of the machine must wear personal protective equipment (PPE). There are different types of protective equipment that must be selected according to the requirements of the working environment. The chapter "Symbols, command signs and signal words" lists the Personal Protective Equipment that must be worn as a minimum.

2.5 Duties of care and requirements



The requirements for safeguarding safety and health have been met. However, this safety can only be achieved in operational practice if all necessary measures are taken. The operator of the device must plan these measures and control their execution. The operator is responsible for safe operation. The operator must ensure that the operating and maintenance personnel are instructed in good time before any work is carried out with or on the equipment. Due to the risk of injury caused by e.g. getting caught or pulling in, these personnel are not allowed to wear loose clothing, open long hair or jewelry, nor rings. Persons under the influence of drugs, alcohol or drugs that affect their ability to react must not carry out any work with or on the product. The user must have the necessary instruction and experience, as well as any necessary tools, to be able to carry out work on and with the device. Personnel to be trained may only work on the component under the supervision of an experienced person. The user must also have sufficient physical and mental abilities.



It is essential to follow the safety instructions for the device, as failure to do so can result in serious injury or even death. As a manufacturer, we cannot anticipate all potential hazards, so the safety instructions in this guide are not all-encompassing. No work may be carried out if the relevant information has not been read and understood. The user is responsible for ensuring the safety of himself and others in the event of deviations from the work equipment, actions, working methods or working techniques suggested by the manufacturer.

2.6 Proper and improper uses

2.6.1 Proper uses



The intended use of a stationary manual chain hoist is to move or hold goods such as machinery and machine parts, building materials, containers, etc. in a vertical direction, as long as the weight of these goods is below the load capacity of the cylindrical pulley.



A manual chain hoist permanently installed with a monorail trolley can move goods horizontally along a steel girder. According to DGUV V52, such a combination is considered a crane, even in mobile or (partially) power-driven use. Any use beyond this is contrary to its intended purpose and increases the risk of accidents and damage. The operator is obliged to use the pulley in accordance with regulations and within its specifications. Expert advice is recommended to comply with the regulations.

2.6.2 Improper uses



Uses that are contrary to their intended purpose are those in which the above-mentioned device is not used in accordance with the intended conditions of use and safety regulations. These include, but are not limited to:

- Overload prohibited: The maximum load capacity of the device must never be exceeded.
- Attach load correctly: The load must always be securely and stably attached to the device to prevent it from slipping or loosening during lifting or transport.
- Keep suspension equipment free of twisting: Suspension equipment must not be knotted or twisted.
- Avoid sharp deflections: Loads must not be guided over sharp edges, as this can lead to material damage to the suspension equipment.
- Avoid diagonal pulling: Diagonal pulling with an angle of more than 4° is prohibited.
- Avoid dynamic loads: Sudden bumps or blows, such as those caused by jerky movements or falling into a loose chain, can damage the structure of the device and affect safety.
- Avoid static loads: Permanent loading, e.g. by applying loads over long periods of time, can put a permanent load on the device and lead to premature wear.
- Pulling against fixed resistances: The device must not be used to pull loads against fixed, immovable objects.
- Tampering or Modification: Any manipulation or modification of the device without the manufacturer's authorization is prohibited and may cause security issues and void the warranty.
- Maintain safety distances: Safety distances from people and other equipment must be maintained at all times to avoid accidents caused by unexpected movements or load drops. It is particularly important that no loads are positioned above people.
- Involve specialist personnel for examinations: Examinations, in particular safety-relevant inspections, may only be carried out by qualified specialists. The operating personnel must be trained in the safe handling of the device to ensure proper operation and safety.
- Comply with temperature specifications: The device must only be operated within the temperature range specified by the manufacturer. Extreme temperatures can affect the material or the functioning of the device.
- Protection against weather extremes: The device should only be operated with appropriate protective measures in extreme weather conditions, such as heavy rain, snow or extreme temperatures. Extreme weather conditions may affect the functionality and safety of the device.
- Use for personal security and transport: The device must not be used for personal security or passenger transport.
- Use in potentially explosive atmospheres: In areas with a high risk of explosion, the device may only be used if it has been specially equipped for this purpose (e.g. explosion-proof equipment).
- High-vibration use: If the device is operated in a high-vibration environment, it can cause damage to the components and shorten the life of the device.
- Use in environments with harsh chemicals: Contact with harsh chemicals can lead to corrosion or other material damage. Therefore, the device should either not be used in such environments or operated with protective precautions.
- Regular maintenance and inspection: The unit must be serviced and inspected regularly to ensure the proper functioning of all components. All maintenance and inspection measures must be documented in order to ensure a complete history.
- Reuse without periodic inspection: Continued use without adherence to the inspection intervals is prohibited.



Please note that the above examples of improper use of the above-mentioned device are only excerpts and do not fully cover all possible scenarios. They are only intended as a guide to give you an overview of potential risks. It is important to emphasize that the responsibility for the safe use of the above-mentioned equipment lies with the user or operator.

Safety

2.7 Symbols, mandatory, warning and prohibition signs



This operating manual contains mandatory, warning and prohibition signs that convey important information and safety instructions. Not all characters are relevant to every situation, as they can vary depending on the model, application, or regulations. The user must read the instructions carefully and identify the applicable characters. If you are unsure, it is advisable to consult the manufacturer or experts. Note that not all hazards are covered, and it is the user's responsibility to assess the environment and take necessary safety measures.



General Mandatory Sign

This icon indicates important information.



Follow the operating instructions

This symbol indicates that the existing operating instructions must be observed.



Use hearing protection

This symbol indicates that hearing protection must be used to avoid the risk of hearing damage.



Use eye protection

This symbol indicates that eye protection must be used to prevent eye injuries.



Use handguards

This symbol indicates that hand protection must be worn to avoid injuries to the hands/fingers.



Use foot protection

This symbol indicates that foot protection must be used to prevent foot injuries.



General warning sign

This warning sign indicates potential dangers. Follow the safety instructions provided to prevent damage or injury.



Explosion Hazard Warning

This warning sign indicates potentially explosive environments. Avoid ignition sources and only use approved equipment.



Low Temperature Warning

This warning sign indicates that low temperatures may occur, which can lead to skin injury or material embrittlement.



Hot surface warning

This warning sign indicates that the surface is hot and there is a risk of burns if touched.



Warning of obstacles in the head area

This warning sign indicates that there are obstacles in the header area. Protect yourself from injury by staying alert and using protective measures such as a helmet if necessary.



Warning of falling objects

This warning sign indicates the danger of falling objects. Take care of your safety and keep the area clear.



Suspended load warning

This warning sign indicates that suspended loads can pose a hazard. Stay out of the danger zone to avoid injury.



Warning of obstacles on the ground

This warning sign indicates that there may be obstacles on the ground that pose a risk of tripping or accidents.



Warning of hand injuries

This warning sign indicates the risk of hand injuries such as bruising. Make sure to keep your hands out of the danger zone at all times.



General prohibition sign

This prohibition sign indicates that a certain act is prohibited. Failure to do so can result in serious damage and/or fatal injury.



No touching

This prohibition sign indicates that touching the marked object or area is prohibited. Failure to do so can result in serious damage and/or fatal injury.

2.8 Hazards according to DIN EN ISO 12100



The following hazards may occur when handling the device.

Please note that the following types of hazards and examples of how to use the device are only excerpts and do not fully cover all possible scenarios. They are only intended as a guide to give you an overview of potential risks. It is important to emphasize that the responsibility for the safe use of the above-mentioned devices lies with the user or operator.

2.8.1 Mechanical hazards



Various mechanical hazards can occur when handling lifting equipment. Here are some examples:

- Risk of entrapment: For example, if a crane hook or load is lowered uncontrollably, there is a risk of fingers or other body parts being trapped.
- Crush hazard: When lifting or moving heavy loads, they can be pressed against other objects or people and thus pose a crushing hazard.
- Risk of falling: If hoists are not properly secured or used improperly, the load can fall, which can be dangerous for both the load itself and people nearby.
- Risk of slipping: If the load is not properly secured or the hoist is not properly attached, the load can slip and fall, which can lead to injury.
- Risk of overloading: If a hoist is loaded beyond its maximum load capacity, there is a risk of breakage or damage to the hoist, which can lead to accidents.
- Snagging parts: There is a risk that clothing, tools or other objects could become entangled in the moving parts of the hoist, causing injury.
- Sharp edges or pointed objects: Some loads that are lifted with hoists may contain sharp edges or pointed objects. If these are not properly secured or fall off, there is a risk of cuts or puncture wounds.
- Lack of maintenance: If hoists are not regularly serviced and checked, signs of wear and tear can occur, which can lead to equipment failure and thus pose a hazard.

2.8.2 Material and/or substantial hazards



When handling lifting equipment, various hazards can occur due to materials and/or substances. Here are some examples:

- Hazardous or toxic substances: When handling lifting equipment, loads containing hazardous or toxic substances can be transported. If these substances leak or are released, there is a risk of injury or poisoning to people nearby.
- Explosive materials: Transporting explosive materials by lifting equipment can pose a significant hazard. Improper handling or accidental dropping of such loads can lead to explosions and endanger both people and property.
- Heavy or unstable material: Handling heavy or unstable material can lead to increased danger. For example, if a heavy load is not lifted properly or shifts during transport, it can cause accidents and injure people.
- Chemicals: There is a risk of exposure to hazardous fumes, gases, or liquids when using lifting equipment in areas where chemicals are used. This can lead to respiratory problems, skin irritation, or other health problems.
- Asbestos or other harmful substances: When lifting equipment is used in areas where asbestos-containing materials or other harmful substances are present, there is a risk of exposure to these substances. This can lead to serious health problems, especially if proper protective measures are not taken.

2.8.3 Acoustic hazards



When handling lifting equipment, various hazards can occur due to acoustic noise. Here are some examples:

- Hearing damage: The operation of lifting equipment can result in significant noise pollution that can damage hearing. Long-term exposure to high noise levels can lead to permanent hearing damage.
- Communication difficulties: Due to the loud noise level, communication and understanding between employees can be difficult. This can lead to misunderstandings or mistakes and compromise security.
- Distraction: Noise can be distracting and affect employee concentration. This can lead to errors in the operation of the hoist or carelessness, which in turn increases the risk of accidents.
- Stress and fatigue: Continuous noise can cause stress and lead to fatigue. This can affect job performance and increase the risk of errors or accidents.
- Interference with warning signals: In a noisy environment, audible warning signals or alarm signals may not be heard, which can lead to a delayed response to potential hazards.

Safety

2.9 Residual risks

2.9.1 General residual risks



When handling the device, different residual risks can occur in different phases of life. Although it is impossible to completely eliminate all risks, residual risks can be minimized by various measures. Here are some ways to avoid residual risks:

- Risk assessment: Conduct a thorough risk assessment to identify potential hazards and assess their likelihood and impact. This allows you to take targeted measures to minimize risks.
- Technical protective measures: Use technical protective measures such as protective devices, emergency stop switches or safety systems to shield or control sources of danger.
- Organizational measures: Implement organizational measures such as clear work instructions, employee training, regular maintenance and inspections, and compliance with safety standards and regulations.
- Personal Protective Equipment (PPE): Provide appropriate PPE and ensure that employees use and maintain it correctly.
- Training and awareness-raising: Regular training for employees to educate them about potential hazards and provide them with the necessary knowledge and risk prevention skills.
- Continuous improvement: Regularly review your security measures and procedures to identify and improve potential vulnerabilities.
- Collaborate with experts: Consult professionals such as safety engineers or occupational health and safety experts to conduct an informed risk assessment and recommend appropriate risk mitigation measures.

It is important that all employees are actively involved in the identification and mitigation of residual risks. Through a holistic safety approach, residual risks can be minimized and a safe workplace can be guaranteed.

2.9.2 General Types of Residual Risks:



There are different types of residual risks that can persist despite all security measures. Here are some examples:

- Accepted risks: These are risks that are considered acceptable due to their low probability or impact. They can occur, for example, when all possible risk mitigation measures have been taken, but a residual risk remains.
- Unforeseen risks: In any situation, there is always some uncertainty and unpredictability. Unforeseen risks can arise when new sources of danger or unexpected events arise for which no specific safety precautions have been taken.
- Human error: Despite training and guidance, human error can occur, whether through negligence, inattention, or misjudgment. This can lead to residual risks, as not all employees always act correctly.
- Technical defects: Although machines and systems are regularly maintained and checked, there is always the risk of technical defects or failures, which can lead to residual risks.
- External influences: External factors such as weather conditions, natural disasters, or human error can create residual risks that are beyond the company's control.
- Change in the work environment: As the work environment or working conditions change, new risks may arise that may require additional protective measures.

It is important to note that residual risks cannot be completely avoided. It is best to take all possible measures to mitigate risk and to continuously train and sensitize employees to keep the residual risk as low as possible.

2.10 ATEX-Basic information

2.10.1 Importance of ATEX



The word ATEX can be derived from the French terms "**AT**mospheres **EX**plosibles" and is at the same time an important guideline in the field of protection of people and equipment in potentially explosive atmospheres. The term ATEX is the widely used synonym for the explosion protection directives in the European Union. The directive currently includes the following two directives in the field of explosion protection.

- Product Directive 2014/34/EU
- Establishment Directive 1999/92/EC

2.10.2 ATEX-Label & Marking



The hexagonal ATEX logo with the letters **E** and **X** will be affixed to the equipment together with other equipment markings once the conformity validation has been completed. The ATEX symbol has two prerequisites:

- A type has been tested by a conformity assessment body within the EU.
- The piece test showed that the model and the device match.



The Product Directive 2014/34/EU not only specifies the essential health and safety requirements, but also the conformity assessment procedure for products and equipment that can be used in potentially explosive atmospheres. All equipment, protective systems and installations covered by this Product Directive and placed on the market must therefore be labelled as follows:

- Name and address of the manufacturer
- CE marking and, if applicable, identification number of the notified body involved
- Series designation and type
- Serien-Number bzw. Fabrikations Issue
- Year of construction
- Device group and category



In addition, the product must have an EU declaration of conformity that describes the procedures for the required health and safety requirements and whether these could be complied with in the course of the conformity test. Furthermore, the product must be accompanied by an operating manual. The CE marking on the equipment (e.g. on the nameplate) must contain further data relating to explosion protection in the marking. The minimum information of the marking is contained in the ATEX Directive. The following information must be indicated in addition to the CE marking:

Table 2 non-electrical appliances

Gases / Vapours	CE	NB1)	Ex	II	2G	Ex h	IIC	T6	Gb	X
Dusts	CE	NB1)	Ex	II	2D	Ex h	IIIC	T80°C	Db	X
	1	2	3	4	5	6	7	8	9	10

Table 3 electrical appliances

Gases / Vapours	CE	NB1)	Ex	II	2G	Ex db eb	IIC	T6	Gb	X
Dusts	CE		Ex	II	2D	Ex tb	IIIC	T120°C	Db	X
	1	2	3	4	5	6	7	8	9	10

No.	Designation	No.	Designation
1	CE marking	6	Explosion protection
2	Number of the notified body	7	Explosion group
3	ATEX License Plate	8	Temperature class
4	Device Group	9	Device Protection Level (EPL)
5	Equipment category + type of explosive atmosphere	10	Additional marking

Safety

2.10.3 Zone division in explosion protection



Zoning in explosion protection is an essential measure that must be carried out by qualified specialists. The hazard potential increases in the vicinity of potentially explosive atmospheres, which is why the requirements for the equipment used vary depending on the specific hazard of the respective zones. Areas with explosive atmospheres are divided into different zones based on the probability and duration of occurrence of such atmospheres. The zones can be divided into two main categories. The value of the digits reflects the risk potential. A higher number represents a lower probability of the presence of an explosive atmosphere.

Single-digit codes (0, 1, 2)

describe atmospheres of gas or vapour-air mixtures

Two-digit codes (20, 21, 22)

describe atmospheres of dust-air mixtures



These zones contain not only potentially explosive substances, but also the necessary equipment, which has been specially developed for use in these zones and must meet the requirements of the respective equipment group and equipment category. The categories are defined as follows:

Zone 0/20

refers to areas in which explosive atmospheres are constantly or frequently present

Zone 1/21

refers to areas where explosive atmospheres are occasionally present

Zone 2/22

refers to areas in which explosive atmospheres are present for a short time



An important aspect of zoning is the definitions of the terms "permanent", "long-term", "frequent", "occasional" and "short-term". These terms are not clearly defined and their interpretation may vary depending on individual understanding. There are no fixed time limits, so what seems common to one person may be occasional to another. With regard to the safety requirements for equipment, the probability of the occurrence of explosive atmospheres in the different zones results in a guideline for the selection of suitable equipment. Ideally, these devices should be as secure as possible. As a general rule, the more likely the presence of an explosive mixture is, the higher the safety standards of the equipment used should be. Devices in Zone 0 or 20 must therefore have a very high level of security, while devices in Zone 1 or 21 should offer a high level of security. For equipment in Zone 2 or 22, a normal level of safety is sufficient, and in areas without explosive atmospheres, equipment engineering requirements are less stringent.

Zone 0 / 20 ! really dangerous!	Zone 1 / 21 ! dangerous!	Zone 2 / 22 Less dangerous
Area in which an explosive mixture of Air & Gas (Zone 0) or Air & Dust (Zone 20) <u>is constant, long-term or frequent!</u>	Area in which an explosive mixture of Air & Gas (Zone 1) or Air & Dust (Zone 21) <u>is occasionally present!</u>	Area in which an explosive mixture of Air & Gas (Zone 2) or Air & Dust (Zone 22) <u>is not, rare and entertaining!</u>

2.10.4 Equipment grouping



Based on the zone classification in explosion protection, equipment is specifically selected for each zone that must meet the essential requirements according to 2014/34/EU. A distinction is made between equipment group and equipment category. Basically, there are 2 different equipment groups according to Directive 2014/34/EU.

- **Equipment group I** applies to equipment for use in underground operations of mines and their surface installations which may be endangered by firedamp and/or combustible dust.
- **Equipment group II** applies to equipment for use in the other areas which may be endangered by a potentially explosive atmosphere.

2.10.5 Equipment categories



According to the ATEX Directive, the equipment category is the classification of equipment within each equipment group according to Annex I, from which the required level of safety that must be ensured results.

Equipment categories 1, 2 and 3 describe the safety levels of equipment that can be used in potentially explosive atmospheres.

- **Category 1** provides the highest level of safety and is intended for use in areas where a potentially explosive atmosphere is present continuously or frequently.
- **Category 2** provides a high level of safety and is intended for use in areas where an explosive atmosphere may occasionally occur.
- **Category 3** provides a normal level of safety and is intended for use in areas where an explosive atmosphere is likely to occur infrequently and for short periods only.

Table 4 Equipment categories

Device category	Avoidance of effective ignition sources	Level of security	Applicable in zone/s	Presence of explosive atmosphere
1	Even in the event of rare malfunctions	very high	0, 1, 2 20, 21, 22	Long-term, permanent or frequent
2	Even in the event of normal operating faults	high	1, 2 21, 22	Occasionally
3	in normal operation	normal	2 22	Rarely and briefly

Safety

2.10.6 Safety measure EPL protection level



The abbreviation "EPL" stands for "Equipment Protection Level" and means "equipment protection level". According to IEC 60079-0, as of the 2007 edition, equipment for potentially explosive atmospheres is classified into three protection levels (for equipment in mines exposed to firedamp, however, only two protection levels are specified):

- **EPL Ga or Da:** Equipment with a "very high" level of protection for use in potentially explosive atmospheres where there is no risk of ignition during normal operation, foreseeable or infrequent faults/misfunctions,
- **EPL Gb or Db:** Equipment with a "high" level of protection for use in potentially explosive atmospheres where there is no risk of ignition during normal operation or foreseeable faults/misfunctions,
- **EPL Gc or Dc:** Equipment with "extended" level of protection for use in potentially explosive atmospheres where there is no risk of ignition during normal operation and which has some additional protective measures to ensure that there is no risk of ignition in the event of normally foreseeable malfunctions of the equipment.

The following applies to the mining sector (underground):

- **EPL Ma:** Equipment with a "very high" level of protection for installation in mines susceptible to firedamp that ensures the required level of safety that there is no risk of ignition during normal operation, foreseeable or infrequent faults/misfunctions, even if the equipment is still in operation during a gas leak. Required for equipment that must continue to operate even if there is a gas leak in the pit.
- **EPL Mb:** Equipment with a "high" level of protection for installation in mines susceptible to firedamp that ensures the required level of safety that there is no risk of ignition during normal operation or foreseeable faults/malfunctions, in the time between gas leakage and switching off the equipment.

Table 5 EPL protection level

Device category	Protection level EPL	Level of security	Applicable in zone/s
Gases, vapours and dusts			
1G	Ga	very high	0, 1, 2
1D	Da		20, 21, 22
2G	Gb	high	1, 2
2D	Db		21, 22
3G	Gc	medium	2
3D	Dc		22
Mine workings at risk of firedamp			
M1	Ma	very high	Continued operation in ex-atmosphere
M2	Mb	high	Switching off with ex-atmosphere

2.10.7 Explosion group



The minimum ignition energy that just ignites a mixture willing to ignite is divided into explosion groups for flammable gases. The danger of the different types of gas is subdivided according to their specific ignition capabilities. Therefore, in this area, equipment is subdivided according to explosion group. The danger increases progressively from explosion group IIA to IIC. Propane, for example, falls into explosion group IIA, hydrogen, on the other hand, into explosion group IIC, since hydrogen requires a lower minimum energy to be ignited. The requirements for electrical equipment increase according to the explosion group. Equipment approved for IIC may also be used for all other explosion groups. Explosion groups are determined by the equipment group and equipment category in which zones an item of equipment can be used. It is determined via the explosion group and temperature class for which media within the zones the equipment may be used.

Table 6 Explosion groups

Group II explosive gas atmospheres			Group III explosive dust atmospheres		
Propane Ammonia Methane Ethane	Acrylonitrile Ethylene Ethyl glycol Hydrogen sulphide	Hydrogen Acetylene Carbon disulphide	combustible suspended solids	non- conductive dusts	conductive dusts
IIA			IIIA		
IIB			IIIB		
IIC			IIIC		

2.10.8 Temperature classes and surface temperatures



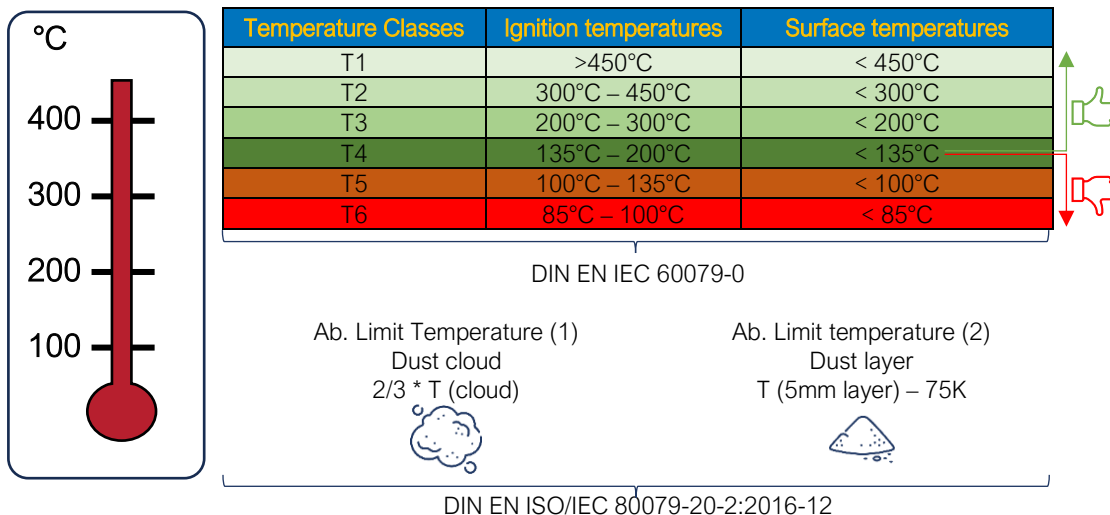
The classification of flammable gases and vapours is an essential aspect of safety technology to minimise potential fire or explosion hazards. These gases are divided into six temperature classes according to their flammability, ranging from T1 to T6. This classification is based on the ignition temperature of the respective medium, with each temperature class covering a specific range of ignition temperatures. The temperature classes determine the maximum temperature to which a gas or steam can be heated before spontaneous combustion occurs. The ignition temperature of a medium is crucial for determining the maximum allowable surface temperature of equipment and equipment used in flammable environments. This is of great importance for manufacturers and users, as excessive heating of a device can lead to dangerous situations.



ATEX-certified equipment classified in higher temperature classes offers greater flexibility in terms of their application in different environments. For example, a device classified in temperature class T4 may also be used in the environments of temperature classes T5 and T6. However, its use in lower temperature classes, such as T3, T2 and T1, is not permitted. This means that T4 class equipment is suitable for environments where the ignition temperatures of the flammable materials are higher, while they are not certified for the lower classes.



For combustible dusts, there is no direct classification into temperature classes. It is important to compare the ignition temperature of the dust cloud with the maximum permissible surface temperature of the device, also taking into account a safety factor. The maximum permissible surface temperature is determined by calculating the limit temperatures for dust clouds and dust deposits. The limit temperature of a dust cloud is determined by multiplying the substance-related ignition temperature by a factor of $2/3$. In the case of dust deposits, the limit temperature is obtained by subtracting a safety value of 75 K from the smoldering temperature of the dust layer, which is the lowest temperature at which a 5 mm thick layer of dust can be ignited. The smaller of the two values ultimately determines the maximum surface temperature of the device.



Safety

2.10.9 Operational instructions and safety precautions



The operating instructions must be kept correctly and be easily accessible to the operator. Check at regular intervals that work is being carried out in a safety-conscious manner. Observe the intervals specified for regular maintenance and tests. Record reports in the product's log book. Ensure correct implementation of safety regulations and accident prevention guidelines.



Hoists and trolleys in Ex-design are to be used for maximum operating conditions in the following maximum, uninterrupted operating times of the hoists are to be observed:

The spur gear hoists are manual hoists which are not suitable for continuous operation during the lowering process. In order to avoid impermissibly high temperatures of the brake discs, max. uninterrupted operating times for use in the Ex area must not be exceeded: based on a max. ambient temperature of up to + 40° Celsius.



When lowering, a max. operating travel of approx. 3 m uninterrupted lowering travel must not be exceeded, as the brake heats up strongly during lowering. After this 3 m operating travel (lowering), an approx. 20 minute break must be observed for the hoist brake to cool down. Flammable dust deposits on the hoists must be avoided. Every day before starting work, free the hoist from dust deposits and ensure that no dust can settle between the moving parts.



Repair work should only be carried out outside the potentially explosive atmosphere.

Protect the hoist from impact, friction, rough handling and moisture. When operating with a hoist, make sure that the operator wears conductive clothing (shoes, gloves). Gloves should have a leakage resistance of < 10 to the power of 8 ohms. Removing clothing can lead to ignitable discharges and is therefore not permitted.



Electrostatic flammability hazards can be prevented by safe earthing. In zone 1, earthing of lifting gear is required! This must be done via the load hook or the load eye when the hoist is connected to the appropriately earthed parts. In the case of trolleys, the surfaces of the rollers and the running rail must never be painted, as this can lead to impermissibly high earth resistance values. Loads must be earthed during transport; a separate earth is required, for example when using non-conductive slings.



To prevent mechanical sparking in Zone 1 but also in Zone 2 for Group IIC gases, hydrogen sulphide and ethylene oxide- the chain and load must always be moved in such a way that sliding and/or frictional contact with other equipment or components is excluded. To ensure the required degree of earthing, rusty chains must no longer be used in zones 1 and 2. Depending on the degree of corrosion, the earth leakage performance of the chain may be affected to an unacceptable degree. The working environment must be safe and free from obstructions. The risk of potential explosion hazards must be minimised.



The working environment must be safe and free from obstructions. The risk of potential explosion hazards must be minimised. The operating instructions must be kept correctly and be easily accessible to the operator. Check at regular intervals that work is being carried out in a safety-conscious manner. Observe the intervals specified for regular maintenance and testing. Record reports in the product's log book. Ensure correct implementation of safety regulations and accident prevention guidelines.

2.10.10 Explosion protection design and additional information, Part 1



The following information is based on our internally collected experiences, based on the ATEX Directive 2014/34/EU and the standard DIN EN ISO 80079-36 and -37. Technical documentation for devices and protective systems for use in potentially explosive atmospheres has been deposited with TÜV SÜD Product Service GmbH.

Table 7 ATEX type code

BASIC		MEDIUM		HIGH	
	II 3 G Ex h IIB T4 Gc X oder		II 2 G Ex h IIB T4 Gb X oder		II 2 G Ex h IIC T4 Gb X oder
	II 3 D Ex h IIIB T 135 °C Dc		II 2 D Ex h IIIB T 135 °C Db oder		II 2 D Ex h IIC T 135 °C Db oder
			I M 2 Ex h I T 135 °C (T4) Mb X		I M 2 Ex h I T 135 °C (T4) Mb X

**BASIC:**

The devices in the 'BASIC' group may only continue to be operated in normal operation without expected faults and without rare faults outside of mining if an explosive atmosphere caused by gases in group IIB (e.g. propane and butane) or dusts in group IIIB (non-conductive combustible dusts (e.g. cotton, filter materials)) arises briefly and then quickly dissipates.

**MEDIUM:**

The devices in the 'MEDIUM' group may continue to be operated outside of mining in normal operation and in the case of expected malfunctions if an explosive atmosphere occasionally arises because of gases in group IIB (e.g. propane and butane) or dusts in group IIIB (non-conductive combustible dusts (e.g. cotton, filter materials)) and subsequently dissipates.

Special feature: They may also be used in normal operation and in the case of expected faults underground, however, in an Ex environment.

**HIGH:**

The devices in the 'HIGH' group may continue to be operated outside of mining in normal operation and in the case of expected faults if an explosive atmosphere occasionally arises because of gases in group IIC (e.g. hydrogen) or dusts in group IIIC (conductive combustible dusts (e.g. metal and aluminium dusts)) and subsequently dissipates.

Special feature: They may also be used in normal operation and in the case of expected faults underground, however, in an Ex environment.



All three device groups 'Basic, Medium and High' are designed for gases, deposits (layer thickness 5mm) and dust clouds with an ignition temperature $\geq 135^{\circ}\text{C}$.



Attention! The following are excluded: ethylene oxides and hydrogen sulfides. For a more detailed description, see the intended use section.



The following information is based on our internal experience, based on the ATEX Directive 2014/34/EU and the DIN EN ISO 80079-36 and -37 standard.

Table 8 ATEX assignment

Range:	BASIC	MEDIUM	HIGH
Zone:	2 / 22	1,2 / 21,22	1,2 / 21,22
Device group:	II	II + I	
Device category:	3G / 3D	2G / 2D / M2*	
Explosion protection:	Ex h		
Explosion group:	IIB + IIIB		IIC + I IIC
Exception:	except ethylene and hydrogen sulfide		
Temperatures:	T4 (135°C)		
Protection level EPL:	Gc / Dc	Gb/Db/Mb	
Additional marking:	X		
Protective measures:	basic protection against sparks, fast-moving contact parts and against corrosion of critical contact parts	further protection against sparks, fast-moving contact parts and against corrosion of critical contact parts	high protection against sparks, fast-moving contact parts and corrosion of critical contact parts. Replacement of some components with non-corrosive and low-spark materials (sometimes accompanied by a reduction in load capacity)

M2* If an explosive atmosphere occurs, the movement of the device must be stopped immediately. The device may only continue to operate when there is a normal atmosphere

X See Exclusion of Use

2.10.12 Exclusion of use



The risk of mechanical sparking is minimized as far as technically possible by our measures. However, a complete elimination of this risk (0%) is not feasible. It is therefore the responsibility of the operator to take appropriate measures to reduce the risk of explosion in the environment before using the equipment in potentially explosive atmospheres and to ensure that the operating conditions comply with the specifications.



It is the responsibility of the operator to regularly check the equipment, the environment and the carrier tracks for cleanliness. The aim is to prevent the accumulation of dust deposits, as they can form a dangerous cloud of dust when stirred up. Careful cleaning and maintenance reduces the risk of explosion and ensures safe operation in dust-prone areas.



The risk of mechanical sparks is reduced as far as possible by design and technical measures within the scope of possibilities. Nevertheless, complete avoidance, especially due to wear and tear caused by sparks, cannot be completely guaranteed. It is the responsibility of the operator to ensure that additional protective measures are taken to minimise hazards in the relevant environment.



The use of the devices in potentially explosive atmospheres of equipment group II, category 1G/1D (Zone 0 / Zone 20) in accordance with ATEX Directive 2014/34/EU is expressly not permitted.



In potentially explosive atmospheres, there is a significant risk that certain gases can not only cause explosions, but also cause serious damage to the materials of the product. For these serious safety reasons, certain gases must be strictly excluded from use. The equipment or machine in question may only be used within the specified operating parameters, in particular with regard to the permissible ambient temperature and below the respective ignition points of the gases. However, it is crucial to point out that even if the temperature limits are strictly observed, the use of the products is prohibited if the surrounding gas is potentially capable of causing damage to the material both visibly and invisibly. Such invisible damage can compromise the structural integrity and maximum load-bearing capacity of the product to an extent that can have sudden serious and potentially catastrophic consequences. For these reasons, the use of the device or machine is generally excluded in the presence of the following gases:

Table 9 Metals and plastics under the influence of hazardous gases

Gas type	Hazard information
Hydrogen (H ₂):	Can lead to hydrogen embrittlement, which affects the tensile strength and ductility of metals.
Hydrogen sulfide (H ₂ S):	Causes corrosion and embrittlement in metals, especially at high temperatures.
Kohlendioxids (CO ₂):	In humid environments, it can form carbonic acid, which promotes the corrosion of materials.
Schwefeldioxid (SO ₂):	Generates acid rain, which increases the corrosion rate of materials.
Chlorine (Cl ₂):	Can cause corrosion damage, cause stress corrosion cracking, and affect the strength of plastics.
Ozone (O ₃):	Harmful to surfaces, can promote corrosion and attack the structure of rubber-like materials.
Ammoniak (NH ₃):	Can cause chemical reactions with certain materials, affecting their strength and stability.
Nitrogen dioxide (NO ₂):	Can lead to embrittlement and surface corrosion and affect the stability of materials.
Benzol (C ₆ H ₆):	Attacks materials and can decompose them, causing significant damage.
Kohlenmonoxid (CO):	Can cause corrosion in metallic components.
Fluorine (F ₂):	Extremely reactive, it can decompose materials and damage their properties.
Nitrosamine:	Can reduce the mechanical properties of materials.
Isocyanate:	Can lead to decomposition of materials and reduce their elasticity
Ethylenoxid (C ₂ H ₄ O):	May have corrosive effects, especially when in contact with water. Potential for corrosion, especially at high temperatures.

3.1 General information



Assembly and maintenance work may only be carried out by persons who are familiar with this and have been commissioned by the operator to carry out the assembly and maintenance work. These persons must be familiar with the relevant accident prevention regulations such as DGUV 52, DGUV 54 etc. and have been instructed accordingly and have read and understood the operating and assembly instructions provided by the manufacturer.



Equipment with a load capacity of up to 1000 kg and without power-operated trolleys or hoists must be inspected and approved by a competent person before being used for the first time. Equipment with a load capacity of more than 1000 kg or with more than one power-operated crane movement must be approved by an expert before being put into operation.



Before mounting and commissioning the unit, various points must be observed:

1. Make sure that the unit complies with the required technical data, such as load capacity, lifting height, tractive force, etc.
2. Check the unit for possible transport damage.
3. Immediately after unpacking your unit, write down the essential unit information such as serial number and hook dimensions in the table provided (see cover sheet).
4. Check the location where the unit is to be installed. Also consider the height and access routes for installation.
5. Make sure that all safety precautions have been taken to prevent accidents. Check that the units have the required safety features such as emergency stop switches, overload fuses and safety couplings.
6. Make sure that all parts are properly assembled and that all connections are secure and tight.
7. If the unit is electrically operated, ensure that the electrical connection is properly installed and complies with local regulations. Also check that the power supply is sufficient to operate the equipment.
8. Before commissioning, carry out a thorough check of the equipment to ensure that it is working properly. Check all functions, such as lifting and lowering, pulling and braking, to ensure they are working properly.
9. Ensure that equipment operators have the necessary knowledge and skills to operate it safely. Provide training where necessary to ensure that operators have the required knowledge.



It is important to follow all safety rules and guidelines to avoid accidents and injuries. If you are unsure, you should contact the manufacturer or a professional for further information and assistance.

3.2 Notes on overload protection



This hoist is equipped with a factory-preset, direct-acting overload protection in the form of a slipper clutch. The setting of the overload protection must not be changed or readjusted on your own. Changes or adjustments to the slipper clutch may only be made by authorized professionals. For this purpose, supplementary operating instructions are available, which must be consulted by the responsible persons.



If an unauthorized person improperly mounts or adjusts the overload protection on a hoist, this can result in significant safety risks that can even cause life-threatening situations. An overload protection device that is set too tightly prevents it from tripping in time. This can lead to overloading of the supporting structure or other components, which in the worst case leads to a load fall. If, on the other hand, the overload protection is set too loosely, it may already trip with normal loads, so that the load cannot be lifted as intended. Such improper handling not only endangers the operational safety of the hoist, but also has far-reaching liability consequences and also leads to the loss of CE conformity, which makes the operation of the hoist legally inadmissible. In addition to the legal and economic consequences, unplanned downtimes and considerable dangers to people and property can occur, for example due to uncontrolled behavior of the load or damage to surrounding machines and structures. To avoid these risks, the installation and adjustment of the overload protection must only be carried out by authorised and trained specialists. This is the only way to ensure the safety of the hoist as well as the operation and protection of people and property.

3.3 RFID Additional Information & Mounting



It is possible to equip the unit with an RFID system. Depending on the unit, the RFID chip can either be integrated in a nut on the housing or attached to the chain end stop as a robust tag.

4 Product description

4.1 Area of application



The devices should be installed in a covered room if possible. When installed outdoors, protect the device from adverse weather conditions such as rain, snow, hail, direct sunlight, dust, etc. In humid environments, combined with stronger temperature fluctuations, the functions are endangered by condensation. Ambient temperature -20°C / +50°C, humidity 100% or less, but not underwater!



The device can be designed on request specifically for use in other situations, such as:

- in potentially explosive environments (EX environments) see then chapter ATEX Additional Information.
- in the offshore sector and/or under corrosive conditions.
- in environments with a high humidity content.
- in environments with very low or high temperatures.
- in the food industry.



The device is equipped with an integrated, factory-preset and tested overload protection that does not require any subsequent adjustment and must not be adjusted. When manual hoists are put into operation for the first time with this overload protection, a functional test of the safety device can be dispensed with. However, for periodic tests in which the function of the overload protection must be checked, it must be ensured in advance that the statics of the load-bearing structure, such as steel girders, crane runways or crane bridges, are designed for a potential overload of up to 1.5 times the nominal load capacity. The overload protection test can be carried out either with the help of real load weights in combination with a crane scale or with a compatible slip force tester. An adjustment or adjustment of the overload protection may only be carried out by authorised persons of PLANETA-Hebetechnik GmbH. A separate manual describes the exact steps for the correct adjustment of the mechanical overload protection.

4.1.1 Committee of Use



In particular, the following are not permitted:

- for tearing off stuck loads as well as inclined pull when the device cannot align itself with the load.
- used as for passenger transport.
- Use in event and production facilities for scenic representation when people are under suspended load.
- Use as a crossbeam in the incoming crane.

4.2 Type plate/s



A type plate with product-specific information is attached to the unit.

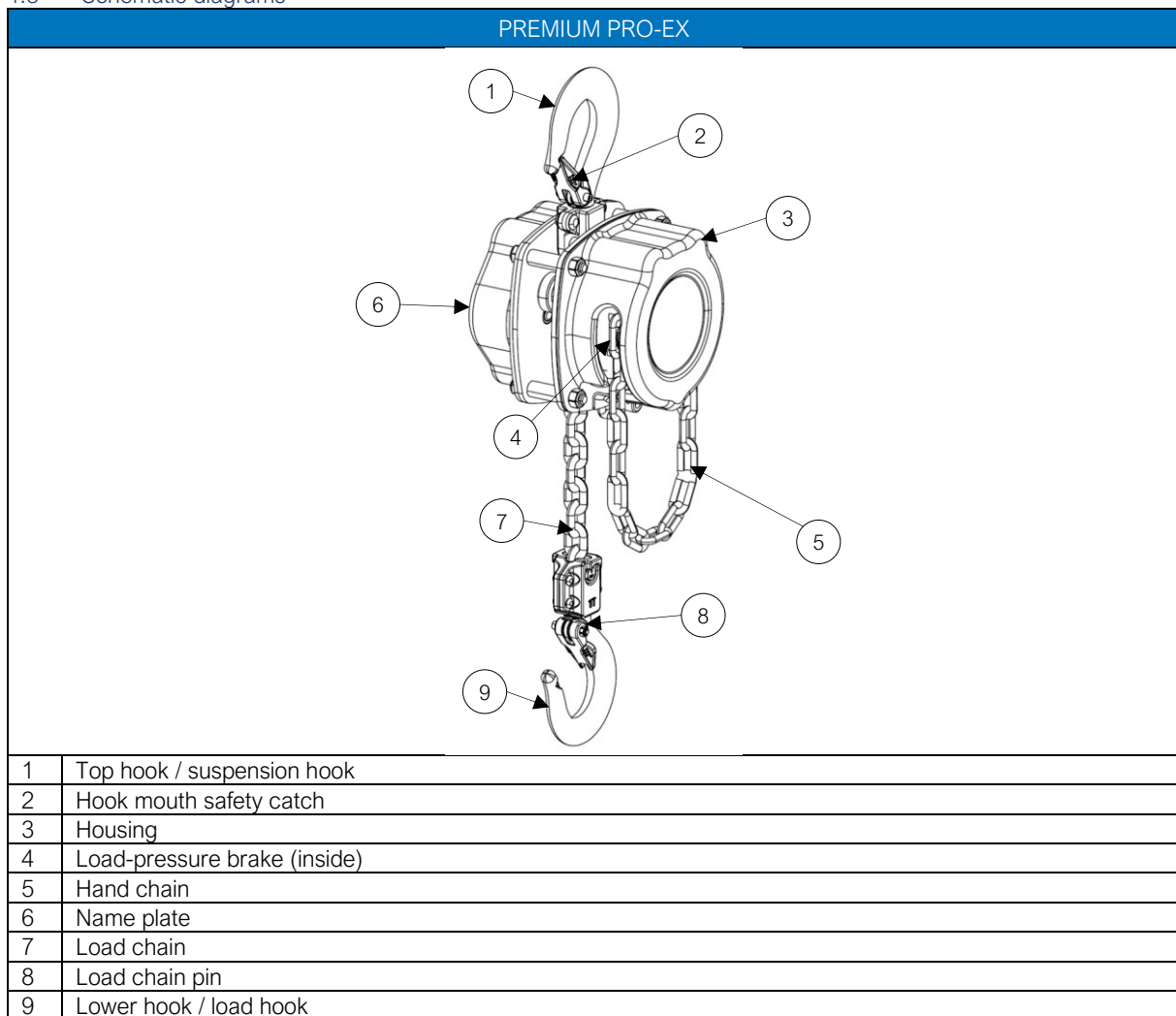
The type plate may differ from the illustration below.

Standard	ATEX	Powerd

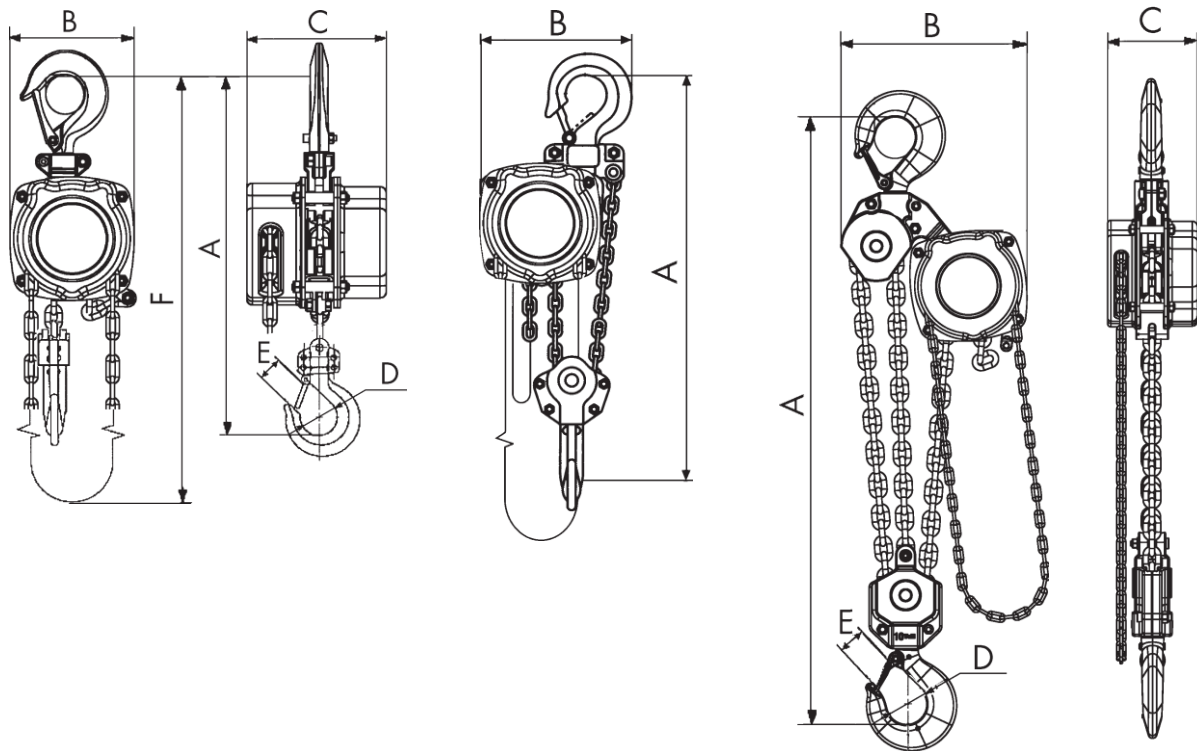


In accordance with DIN EN 13157 Chapter 7.1.3, all manual chain hoists must have a permanently affixed marking in a clearly visible place with the following information:

- name and address of the manufacturer;
- serial or type designation;
- Serial number;
- load capacity on the hoist and at the lower bottle;
- Year of construction;
- dimensions and quality of support equipment (chains, ropes, tape, etc.).



4.4 Technical data



PREMIUM PRO-EX 250 – 3.000 kg	PREMIUM PRO-EX 5.000 kg	PREMIUM PRO-EX 10.000 kg
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TYP	PREMIUM PRO ...	0,25	0,5	1	1,5	2	3	5	10
Load capacity (Standard)	kg	250	500	1.000	1.500	2.000	3.000	5.000	10.000
Load capacity (Basic/Medium)	kg	250	500	1.000	1.500	2.000	3.000	5.000	10.000
Load capacity (High)	kg	250	500	900	1.250	1.250	2.000	3.200	6.400
Standard stroke	m	3	3	3	3	3	3	3	3
Min. headroom (A)	mm	285	316	367	409	428	504	637	735
Hand chain pulling force	dan	22	22,1	33,2	32,3	43	40,6	33,8	45,1
Hand chain operating length	m	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
Reel travel for 1m lift	m	14,8	29,5	39,4	60,8	60,8	96,7	193,3	290
Number of chain strands		1	1	1	1	1	1	2	3
Chain size	mm	4 x 12	5 x 15	6 x 18	8 x 24	8 x 24	10 x 30	10 x 30	10 x 30*
B (dimensions)	mm	102	122	152	176	176	216	259	344
C	mm	112	117	144	156	156	167	167	167
D	mm	35	35	44	48	50	59	68	91
E	mm	23	23	30	31	34	40	47	61
F	m	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
Weight with standard stroke	kg	5,9	7,6	11,5	17,2	17,2	27	40,5	61,9
Weight per metre extra stroke**	kg	1,2	1,4	1,7	2,3	2,3	3,1	5,3	7,5

Chain bag (plastic), from 5,000 kg (stainless steel) on request. Please enquire about other load capacities!

* Grade 100 for Basic and Medium versions. ** 1 m operating length and 1 m stroke

Product description

TYP	PREMIUM PRO ...	15	20	30	40
Load capacity (Standard)	kg	15.000	20.000	30.000	40.000
Load capacity (Basic/Medium)	kg	-	-	-	-
Load capacity (High)	kg	-	-	-	-
Standard stroke	m	3	3	3	3
Min. headroom (A)	mm	1.036	1.031	1.149	1.557
Hand chain pulling force	dan	36	38	40	40
Hand chain operating length	m	2,5	2,5	2,5	2,5
Reel travel for 1m lift	m	290	386,7	580	773,3
Number of chain strands		6	8	12	16
Chain size	mm	10 x 30	10 x 30	10 x 30	10 x 30
B (dimensions)	mm	441	432	532	961
C	mm	221	222	220	282
D	mm	97	106	150	216
E	mm	65	73	92	148
F	m	2,5	2,5	2,5	2,5
Weight with standard stroke	kg	137,9	202,9	268,9	440
Weight per metre extra stroke**	kg	14,9	19,3	28,1	36,9

Chain bag (plastic), from 5,000 kg (stainless steel) on request. Please enquire about other load capacities!

* Grade 100 for Basic and Medium versions. ** 1 m operating length and 1 m stroke

4.5 Hook dimensions

Table 10 Hook dimensions

Load capacity [t]	Mouth width g [mm]	Hook base Ø [mm]	Hook width b [mm]	Hook height h [mm]
0,25	23	35	11	17
0,5	23	35	11	17
1,0	30	44	15	23
1,5	31	48	22	31
2,0	34	50	22	31
3,0	40	59	26	37
5,0	47	68	33	46
10,0	61	91	43	59
15,0	65	97	44	63
20,0	65	97	50	69
30,0	73	106	63	97
40,0	92	150	101	141



The dimensions in the table are theoretical dimensions without tolerances.

The forged support or load hooks may have permissible tolerances due to the manufacturing process. We advise you to enter the values g, b and h in the fields provided before the first commissioning. These noted values are the initial values for the subsequent recurring inspections.

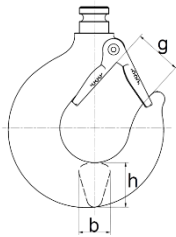


It should be noted that the above-mentioned dimensions of the hooks do not apply to the ATEX products in the medium and high range. For these hooks, an additional coating with a thickness of about 300 micrometres is applied.



Max. permissible widening of the hook: 10%.

Max. Max. wear of the hook: 5%



4.6 Chain dimensions

Table 11 Chain dimensions

Dimensions	diameter dn [mm]	Chain pitch 1t [mm]	Chain pitch 11t [mm]
4,0 x 12,0	4	12	132
5,0 x 15,0	5	15	165
6,0 x 18,0	6	18	198
8,0 x 24,0	8	24	264
10,0 x 30,0	10	30	300
10,0 x 30,0*	10	30	300

* Grade 100 for execution



The dimensions in the table are theoretical dimensions without tolerances.

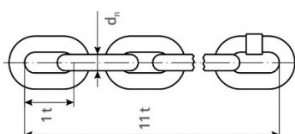
The forged load chains may have permissible tolerances due to the manufacturing process. We advise you to enter the values dn, 1t and 11t in the fields provided before the first commissioning.

These noted values are important for the later recurring inspections.



Max. Outer elongation of a link >3%, this corresponds to an inner elongation of 5%.

Max. Max. wear of a link at one point >10%.



5.1 General Protective Measures and Rules of Conduct

General requirements for operation with the device:

- **Training:** The operator should have undergone appropriate training that familiarizes him with the basic knowledge of how to handle the equipment safely. This training can take place, for example, as part of vocational training or training.
- **Experience:** In addition to training, practical experience in the use of the device is also important. The operator should already have experience and be familiar with the various functions and controls of the device.
- **Sense of responsibility:** The operator should be aware of his responsibility and observe the safety regulations and measures when operating the device. This includes, for example, wearing personal protective equipment and adhering to the prescribed load limits.

It is important to note that the exact requirements and requirements for operating such a device may vary depending on the country and area of use. It is therefore advisable to find out about the rules and regulations in force before operating.

5.1.1 Before operating the device

Before operation, the following steps must be carried out by the operator:

1. Inspect the device for visible damage or wear. If damage is detected, it should be repaired before use.
2. Checking the working environment for obstacles or hazards that could interfere with the safe operation of the equipment. Obstacles should be removed and sources of danger eliminated.
3. Checking the load to be lifted or pulled for weight, size and stability. The device may only be used for loads for which it is designed.
4. Checking the attachment points of the device to ensure that the device is stable and secure.
5. Verification of the proper lubrication of the load chain.
6. Preparation of the device's controls and safety devices to ensure that they are working properly and are easily accessible.
7. Instructing other people working in the vicinity of the equipment about the planned use and the safety precautions that need to be taken.
8. Perform a final visual check of the device and work environment to ensure that everything is ready and that there are no obvious hazards.

Only after these steps have been completed and the operator is sure that the device is working properly and can be used safely, the actual operation can begin.

5.1.2 While operating the device

During operation, it is imperative that you pay attention to and take into account the following points. Failure to observe these points may result in damage to the device or injury:

1. When moving loads, a minimum distance of 0.5m to parts in the surrounding area must be maintained.
2. The maximum permissible load capacity of the hoist must be observed.
3. Before lifting, slack load-bearing equipment must first be tensioned.
4. Load-bearing equipment must be guided in such a way that it can run in and out unhindered.
5. Loads must always be lifted from a standstill at the lowest available lifting speed.
6. The attached load must always be attached to the centre of mass. Swinging, rocking or an inclined pull is prohibited.
7. The attached load must not be left hanging for a long period of time.
8. Secondary safeguards must be used to hold loads over persons with lifting equipment in accordance with DGUV V54.

Please note that the above examples are only excerpts during the uses and do not fully cover all possible scenarios. They are only intended as a guide to give you an overview of potential risks. It is important to emphasize that the responsibility for the safe use of the above-mentioned devices lies with the user or operator.

5.2 Operation



Follow the steps below, one at a time:

- If the right strand of the hand chain (1) is pulled from the side of the wheel cover (clockwise), the load is lifted.
- If the left strand of the hand chain (2) is pulled from the side of the wheel cover (counterclockwise), the load is lowered.
- The device is designed in such a way that the nominal load can be lifted by pulling on the hand chain with a manual operating force according to the table values.
- Higher operating forces activate the overload protection.
- If this is the case, stop operating immediately and reduce the load to be lifted.



Operation

5.3 Correct slinging of loads

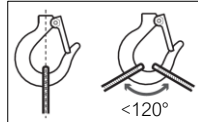
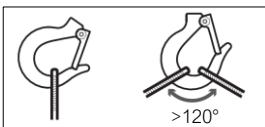

To sling a load correctly, the following steps should be followed:



1. check the load capacity of the sling: make sure that the sling is suitable for the load and has the required load capacity. Check the sling for damage or wear.
2. Select the correct anchor point: Identify the appropriate anchor point on the load. This may be a special anchor point designed for the purpose or a stable part of the load that has the required load capacity.
3. use the correct sling: select the appropriate sling for the load. This can be a lifting strap, chain, rope or other sling. Make sure the sling meets the requirements of the load and is properly marked.
4. Secure the sling properly: Make sure that the sling is properly placed around the anchor point and secured. Make sure that the sling is not twisted or kinked and that it is tight.
5. Check that the sling is secure: Before lifting the load, check that the sling is correctly attached and securely seated. Also check that all connections and fixings are properly tightened.
6. Lift the load carefully: Lift the load slowly and in a controlled manner to avoid sudden shifting or tipping. Make sure that the load remains stable and does not swing.
7. Monitor the load during transport: Monitor the load during transport to ensure that it remains safe and stable. Look for signs of damage or looseness of the sling.



It is important that these steps are followed carefully to ensure safety when slinging loads. In case of uncertainty or complex loads, it is advisable to consult a professional.

Permitted use		
<div>✓</div> <div>The load is on the centre line of the hook and or the internal angle is less than 120°.</div>		
Unauthorised use		
<div>✗</div> <div>The load or the sling is not hanging in the correct position.</div> <div>✗</div> <div>The angle is more than 120°.</div> <div>✗</div> <div>The jaw safety device cannot close.</div> <div>✗</div> <div>The tip of the hook is loaded.</div>		

6 Storage and transport

6.1 General information about storage



The following points should be observed when storing the unit:

1. location: The storage location should be dry, well ventilated and protected from direct sunlight. Moisture can cause corrosion, while direct sunlight can weaken the materials.
2. cleanliness: The units should be cleaned before storage to remove dirt, dust and other contaminants. This prevents corrosion and increases the life of the units.
3. securing: The appliance should be stored securely to prevent accidents or damage. It should be stored on stable and secure shelves or racks to prevent it from tipping over or falling down.
4. maintenance: Before storage, the unit should be serviced to ensure that it is in good working order. This may include checking wearing parts, refilling lubricants or replacing damaged parts.
5. labelling: The unit should be clearly labelled for easy identification and accessibility. This facilitates storage and access to the unit when needed.
6. documentation: it is important to document all relevant information about the unit, including maintenance records, repairs and inspections. This allows for better tracking and planning for future operations.
7. training: persons responsible for storing the equipment should have the proper training and knowledge to ensure that the equipment is stored properly and does not pose a hazard.



It is important to follow the manufacturer's specific instructions and take extra precautions, if necessary, to ensure the safety and longevity of the winches, hoists and pulling equipment.

6.2 General information about transport



The device should be transported correctly to avoid accidents and damage. Here are the steps to follow before, during and after transporting the device:

6.2.1 Before transport:

1. Inspect the device for visible damage or wear.
2. Make sure that the device has been properly maintained and that all safety precautions are in place.
3. Check the load capacity of the device and make sure it is suitable for the intended transport.
4. Make sure all instruction manuals and safety instructions are available.

6.2.2 During transport:

1. Use appropriate means of transport, such as forklifts or cranes, to move the equipment.
2. Make sure the device is properly secured to prevent it from slipping or falling during transport.
3. Keep the device in a stable position and avoid abrupt movements or vibrations.
4. Make sure that no people are standing near the device or could be in danger.

6.2.3 After transport:

1. Check the device again for any visible damage or wear that may have occurred during transit.
2. Perform a thorough inspection to ensure that all parts and components are intact.
3. Follow maintenance instructions according to local and legal regulations to keep the device in good condition.
4. Store the device in a suitable place away from weather conditions and damage.

It is important to follow these steps carefully to ensure safety when transporting equipment and to avoid possible damage or accidents.

7.1 Maintenance personnel



The maintenance of equipment or machines may only be carried out by qualified persons. The exact requirements for qualification may vary depending on the type of equipment and the legal requirements. Typically, individuals should have the following skills and knowledge:

- Professional competence: The persons should have the necessary specialist knowledge and skills to be able to carry out the maintenance work professionally.
- Experience: It is an advantage if the people already have experience in maintaining similar equipment or machinery.
- Training and certifications: Depending on the type of equipment or machinery, specific training or certifications may be required to be allowed to perform maintenance.
- Knowledge of safety regulations: People should be familiar with the applicable safety regulations and observe them when carrying out maintenance work.

It is the employer's responsibility to ensure that only qualified persons are contracted to carry out maintenance. This can be ensured through internal training, external training or the commissioning of external specialists.

7.2 Maintenance



Maintenance is the umbrella term for all work steps that are intended to ensure the functionality of machines and systems. Maintenance therefore includes inspection, servicing and repair. This also includes work steps such as improvement and weak point analysis. The entire maintenance process is regulated by DIN 31051.

7.2.1 Inspection



Inspection is a part of maintenance and refers to the regular inspection of a machine to ensure its proper condition, functionality and safety. Components, assemblies and equipment are examined for signs of wear, visual inspections are carried out and actual values are compared with target values. The goal is to determine the progress of wear and tear and determine the reasons for it. The inspection, also known as periodic testing, is carried out by a qualified person at predefined intervals, depending on environmental influences and machine utilization. The results of the inspection have consequences for the further handling and use of the plant.

7.2.2 Maintenance



During maintenance, work takes place on the machine. The target state is restored. Maintenance work is intended to delay the progression of wear and tear or, in the best case, to prevent it altogether. All actions taken should be recorded in a protocol. Regularly carried out and documented maintenance maintains the warranty claim and increases the resale value of a machine or system. Normally, the interval between two maintenance is one year.

7.2.3 Restoration



If a defective component is discovered and replaced during maintenance work, this is a repair measure. The target state, i.e. perfect, functional operating behaviour, is restored. Through inspections and maintenance, the machine is observed, cared for and wear is inhibited. After a certain period of time, however, even when a machine is used as intended, wear-and-tear damage often occurs. Repairs must be carried out immediately after the damage has been discovered. The defective parts are either repaired or replaced, depending on the situation and costs. Entire assemblies can also be replaced. At the end of the day, operability and functional safety must be restored. All repair measures must also be entered in the maintenance log.

7.2.4 Spares



Damaged components that need to be replaced due to wear and tear or faulty conditions during maintenance or repair should be replaced by a qualified person. Only original fasteners, spare parts and accessories according to the manufacturer's spare parts list are to be used. Only these parts are covered by the warranty. Any liability of the manufacturer is excluded for damage caused by the use of non-original parts and accessories.



Incorrect or faulty spare parts can lead to damage, malfunction or total failure of the device.



If you have any questions or order spare parts, please have the factory or order number (test book, load plate on the device) ready. Providing this data ensures that you receive the correct information or the required spare parts.

7.3 Legal framework



In Germany, inspections on machines are carried out by qualified personnel. The exact requirements and qualifications for inspection personnel may vary depending on the type of machine and the specific regulations. The legal basis for carrying out inspections on machinery in Germany is set out in various laws and regulations, including:

- Industrial Safety Ordinance (BetrSichV): The Industrial Safety Ordinance regulates the safety and protection of employees when using work equipment, which also includes machinery. It contains general requirements for the testing and maintenance of machinery.
- Technical Rules for Operational Safety (TRBS): The TRBS provide recommendations and information on the implementation of the Industrial Safety Ordinance. They contain, among other things, information on the requirements for inspection personnel and their qualifications.
- Employers' liability insurance associations (BGV): The employers' liability insurance associations issue regulations to ensure the safety and health protection of employees in certain sectors or areas of activity. These regulations may also include requirements for inspection personnel.

The specific requirements for inspection personnel may vary depending on the type of machine. In some cases, special training or certification may be required to be allowed to conduct inspections. It is recommended to consult the relevant regulations and technical rules in order to determine the specific requirements for inspection personnel. In addition, the manufacturer's specifications and recommendations can also contain important information on the qualifications of inspection personnel.



Attention: In order to be allowed to test electronic components, the person qualified to test must either have completed vocational training in electrical engineering or have another sufficient electrotechnical qualification. Suitable vocational training includes, for example, electronics technician in various disciplines or a degree in electrical engineering.



If an inspection check is not performed or is performed incorrectly, various negative consequences can occur. Here are some possible impacts:

- Security risks: If these checks are not performed or are flawed, potential security risks may be missed or not addressed. This can lead to accidents, injuries or damage.
- Operational disruptions: Periodic inspections can also be used to identify and remedy potential failures or malfunctions at an early stage. If these tests are not performed or are faulty, failures or malfunctions may occur, which may affect operations and lead to production losses or delays.
- Legal consequences: In some industries, periodic inspections are required by law. If these checks are not carried out properly, it can lead to legal consequences, such as fines, liability, or even criminal prosecution.
- Costs: If periodic inspections are not performed or are faulty, additional costs may be incurred. This can be caused, for example, by repairs, spare parts or the loss of production time.



During an inspection of equipment, various aspects are examined to ensure that the equipment is functioning properly and complies with applicable safety standards. The exact examinations may vary depending on the type of device and the specific requirements, but in general, the following points are checked:

- Visual inspection: Checks if the device is externally damaged, such as cracks, deformations or signs of wear.
- Functional test: The hoist is tested for its functionality by loading and moving it. This involves verifying that all parts are working properly and that there are no unusual noises or vibrations.
- Load Capacity Testing: The maximum load capacity of the hoist is checked to ensure that it meets the required standards. This can be done by load testing or by checking the manufacturer's specifications.
- Inspection of safety devices: All safety devices of the hoist are checked to ensure that they are working properly. These include, for example, overload protection, brakes and safety hooks.
- Checking the instruction manual and marking: It is checked that the hoist is provided with an up-to-date instruction manual and the necessary markings.

It is therefore extremely important to carry out regular inspections to ensure safety, prevent damage and ensure smooth operation. If any damage or defects are found, appropriate repairs or replacements should be carried out before the device is used again. These checks should be carried out in accordance with the manufacturer's recommendations and applicable regulations.

Maintenance

7.4 Inspection and maintenance interval



The intervals for inspections and maintenance of the device depend on the duration of use and the operational stress. As a rule, short, regular inspections and maintenance are recommended to ensure the proper functioning of the device and to detect possible problems at an early stage. For some equipment, an annual inspection may be sufficient, while others may require maintenance every six months or even more often. National law and regulations must be complied with in any case. In addition, regular maintenance such as lubricating moving parts, checking wear parts, and cleaning the device should also be performed. The following information is provided as a guideline.

Table 12 Types of use of the device

Types of use	
Normal use / operation:	Use with randomly distributed loads within the nominal load limit or with uniform loads below 65% of the maximum load capacity for a maximum of 15% of the operating time.
Difficult use / operation:	Application in which the equipment is operated within the nominal load limit and which goes beyond normal use.
Tough use / operation:	Application in which the equipment is operated under normal or difficult conditions with abnormal operating conditions.

Table 13 Intervals depending on the type of use of the device

Intervals depending on the type of use	
Daily Inspection:	by the operator or other designated persons prior to daily operation.
Frequent Inspection:	by the operator or other specified persons at intervals determined by the following criteria: <ul style="list-style-type: none">• Normal use: monthly• Difficult operation: weekly to monthly• Hard work: daily to weekly There is no need to keep records.
Periodic inspection:	by designated persons at intervals determined by the following criteria: <ul style="list-style-type: none">• Normal use: annually• Difficult assignment: every six months• Hard work: quarterly Records shall be kept for the continuous assessment of the condition of the equipment.

7.5 Inspection & Maintenance Plan



As part of our efforts to ensure the safety and functionality of the device, we would like to provide you with important information about the minimum test criteria for the periodic tests. These test criteria are intended as a guideline and should be carefully considered during each periodic audit to minimize potential risks.

7.5.1 Visual inspections

o.B.: without complaint B: Complaints n.r.: not relevant

Document Type / Component	o.B.	B.*	n.r	Remark / Deficiency
Instruction manual(s)				
Declaration of Conformity(s)				
Risk assessment(s)				
Test report(s) or test book				
Markings (nameplate)				
Enclosures & Protective Covers				
Bearings				
Fasteners and screws				
Serving elements (Bedienhebel / Heels)				
Load chain				
Load chain end stop / load chain fastening				
Load chain guide				
Load chain accumulator				
Suspension (carrying hook)				
Hook harness / hook block				
Braking system and brake elements				

7.5.2 Functional tests

o.B.: without complaint B: Complaints n.r.: not relevant

Component / Type of Functional Test	o.B.	B.*	n.r	Remark / Deficiency
Serving elements (Bedienhebel / Heels)				
Chain freewheel (only for lever hoists)				
Locking mechanism (only for lever pulls)				
Function without load				
Function under Nominal Load (Maximum Load)				
Function under overload (overload protection test) *				

*applies only to devices that are equipped with an overload protection.

7.5.3 Lubrication



All mechanically moving parts should be thinly coated with a creeping lubricant on a regular basis. Gearboxes and transmission components should also be regularly coated with a lubricant. In this case, we recommend the use of an EP2 class lubricant. Exception: Brake parts must not be lubricated! When not in use, hang the device in a dry place. Please note that only if original spare parts are used can a safe and flawless operation be guaranteed. If you would like to have the device checked or repaired within the scope of the warranty, we ask you to send the device in its assembled condition. Unfortunately, we can no longer recognize warranty claims when disassembled devices are sent in

Table 14 Lubricants

Delivery company	Designation
FUCHS LUBRITECH	Stabylan 2001
FUCHS LUBRITECH	Stabylan 5006
FUCHS LUBRITECH	Ceplattyn 300 (Graphitpaste)
Klüber Lubrication München KG	Klüberoil CA 1-460
Klüber Lubrication München KG	Klüberoil 4UH 1-1500
CASTROL	Optimol Viscogen KL300

8.1 Faults

If there is a malfunction during use with the unit, the following steps should be taken:



1. Immediately stop use and check the cause: Stop use immediately to avoid further damage or accidents. Examine the unit carefully to identify the cause of the malfunction. Check the gears, chain and other components for damage, wear or blockages.
2. Remedy the malfunction and restore functionality: Depending on the type of malfunction, various measures may be necessary. For example, remove foreign objects or dirt that are blocking the unit. If there is wear or damage, parts may need to be replaced or repaired. In the case of serious malfunctions, you should call in a specialist to carry out the repair. Make sure that the unit functions properly after the malfunction has been corrected. Re-check all components to make sure they are properly assembled and in good condition.
3. Safety check: Before using the unit again, carry out a safety check to ensure that it is safe and reliable. Check the load bearing capacity, fixing points and all safety devices.



It is important that only trained personnel repair or perform maintenance on the unit to prevent further damage or accidents.

8.2 Causes of malfunctions and measures



The table below provides a summary of the main disorders and checkpoints for each symptom. Please note that this is not a comprehensive list of all possible faults.

Table 15 Causes of malfunctions and measures

Disturbance	Possible Cause of Error	Test point(s)
Load is not lifted	Settling the load	Unleashing the load
	Worn brake pads	Carry out maintenance and replace brake pads
	Load chain twisted	Aligning the load chain
	Defective chain, gears or sprockets	Carry out maintenance and replace defective parts with original spare parts
	Pawl not engaged correctly	Check the pawl and replace it if necessary
	Pawl spring not available	Carry out maintenance and replace defective parts with original spare parts
Load is difficult to lift	Dirty chains, gears or sprockets	Perform maintenance, lubricate chains, gears and sprockets
	Defective chain, gears or sprockets	Carry out maintenance and replace defective parts with original spare parts
Load is lifted with interruptions	Pawl spring not present or defective	Carry out maintenance and replace defective parts with original spare parts
Load is not moved over the entire stroke	Hook tilted, chain twisted	Bring the hook and chain into the correct position
Brake remains closed (clamped)	the load hook has been pulled against the housing and is clamped there	Release the hook, attach the load again, lower the load, unhook the load
Load is not released	Brake too tight	Release the brake
	Brake soiled by rust	Replace rusty parts and perform periodic inspection
Load sags piece by piece during release	Foreign objects between the brake discs	Remove foreign bodies, clean the surface. In case of grooves on the surface, replace the brake disc.
Load sags when released	Missing, incorrect installation or wear of the brake discs	Replace or install brake discs correctly

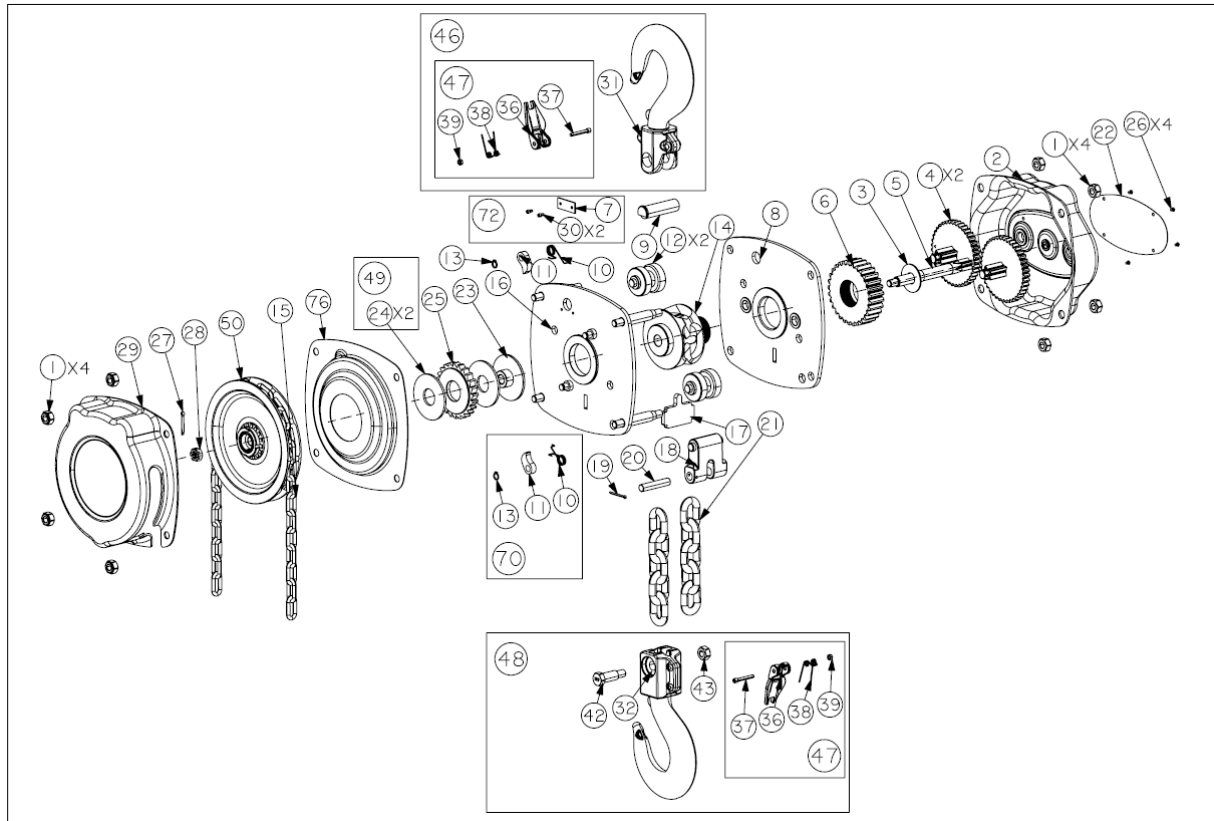
9 Decommissioning and disposal

9.1 Decommissioning and disposal



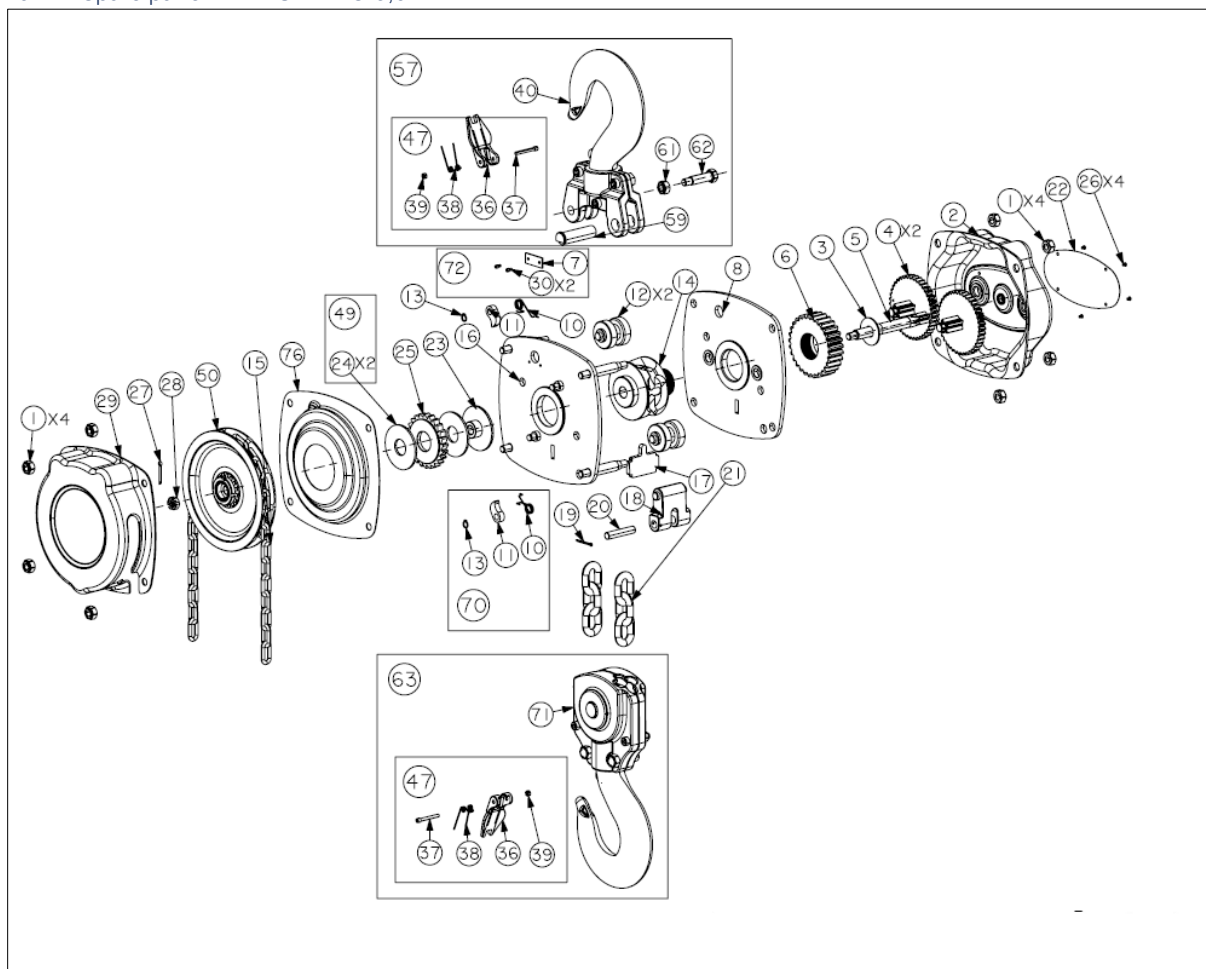
The device should be taken out of service and/or disposed of if it stops working or is irreparably damaged. This can also be the case if the device is outdated and needs to be replaced with a newer version. It is important that disposal is carried out in accordance with local regulations and laws to avoid environmental damage. In some cases, devices can also be recycled or reused instead of simply throwing them away. When not in use, store the device in a dry place. Please note that only if original spare parts are used can a safe and flawless operation be guaranteed. If you would like to have the device checked or repaired as part of the warranty, we ask you to send the device in its assembled condition. Unfortunately, we can no longer recognise warranty claims when disassembled devices are sent in. Please note that electronic waste, electronic components, lubricants and other auxiliary materials are subject to hazardous waste treatment and may therefore only be disposed of by approved specialist companies. National disposal regulations must be observed with regard to the environmentally sound disposal of the machine. Further information can be obtained from the relevant local authority.

10.1 Spare parts PREMIUM PRO 25t - 3,0t

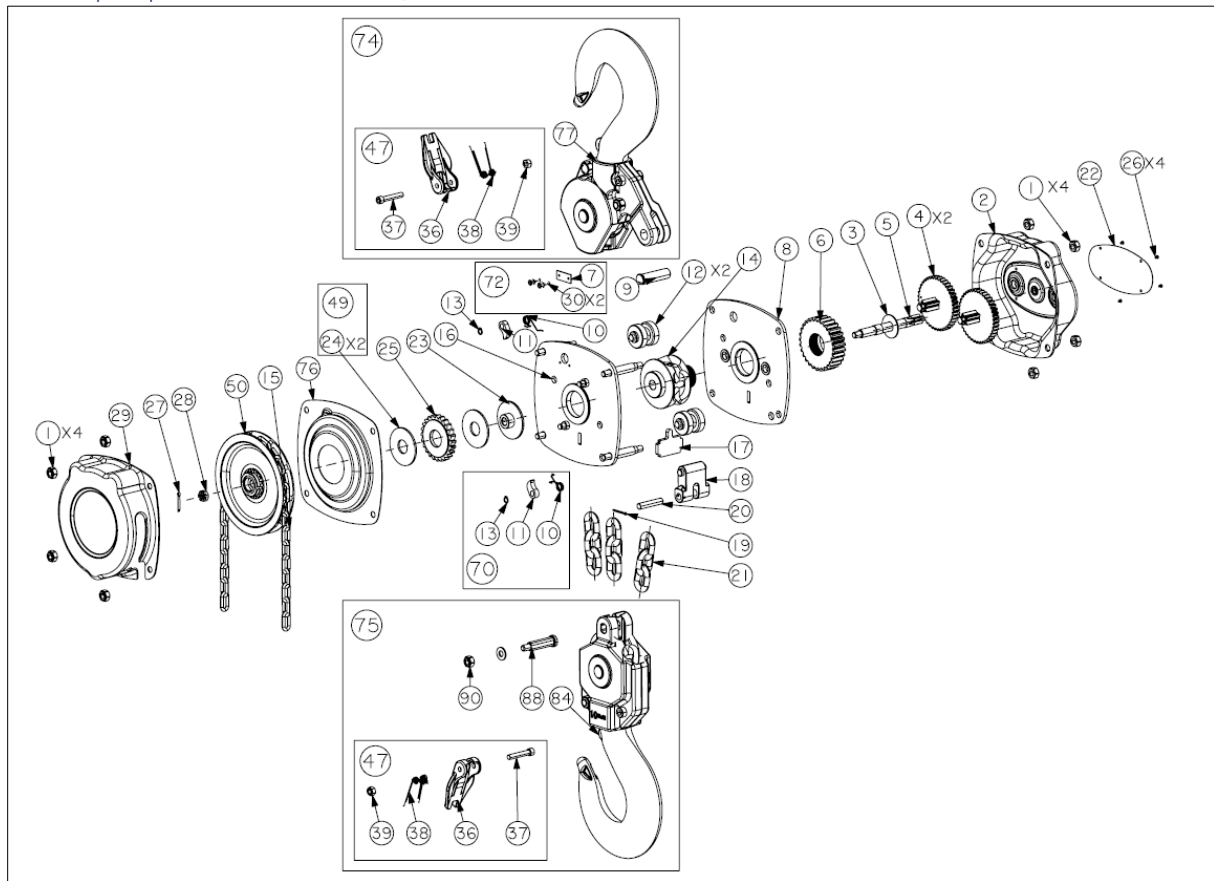


Set.No	Set description	Unit	Quantity
46	Set of suspension hooks with hook safety catch	Set	1
47	Set hook safety catch	Set	2
48	Load hook set with hook safety catch	Set	1
49	Set brake discs	Set	1
70	Set of pawls	Set	2
72	Set lifting hook pin	Set	1

10.2 Spare parts PREMIUM PRO 5,0t

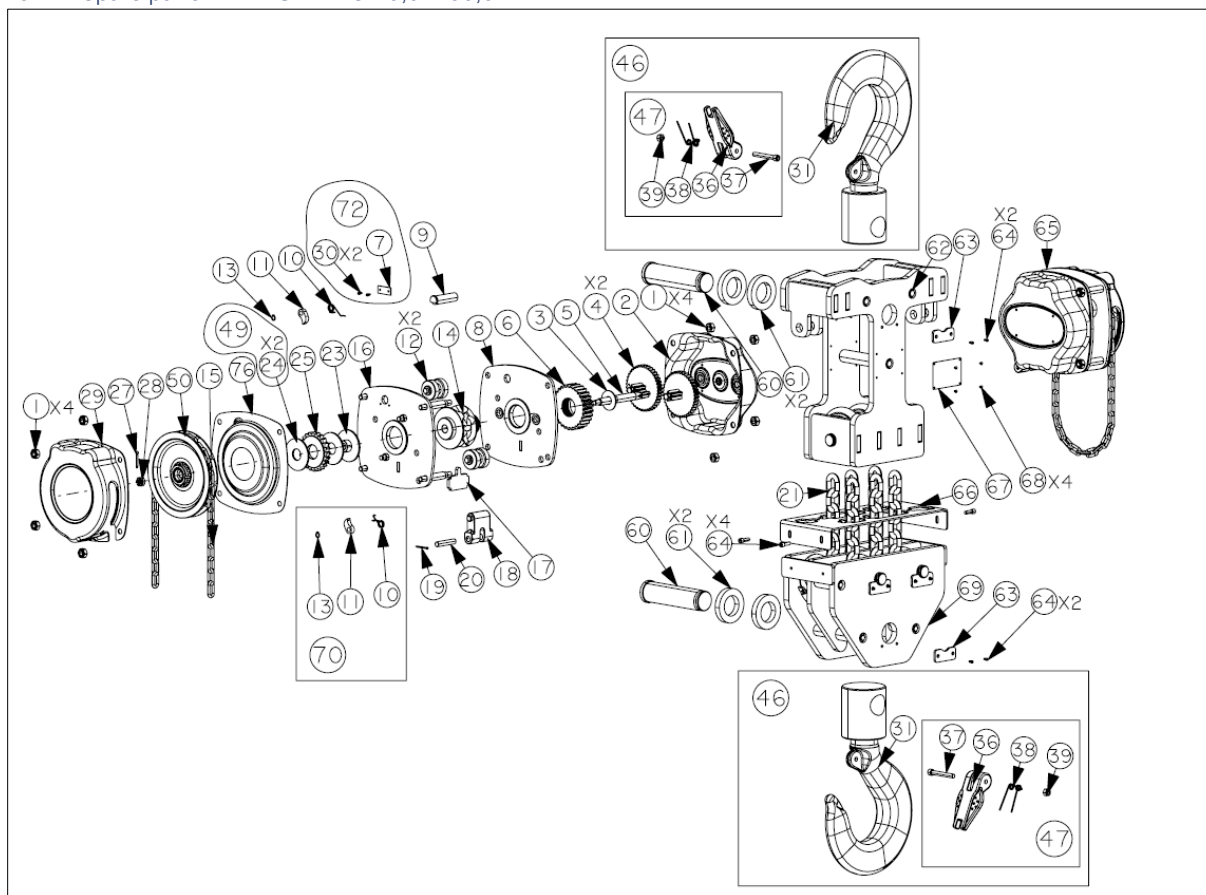


Set.No	Set description	Unit	Quantity
47	Set hook jaw safety device	Set	2
49	Brake disc set	Set	1
57	Set load hook with hook safety device	Set	1
63	Load hook set with hook safety catch	Set	1
70	Set pawls	Set	2
72	Set securing hook pin	Set	1



Set.No	Set description	Unit	Quantity
47	Set hook jaw safety device	Set	2
49	Brake disc set	Set	1
70	Set of pawls	Set	2
72	Set suspension hook pin	Set	1
74	Set load hook with hook safety catch	Set	1
75	Set load hook with hook safety device	Set	1

10.4 Spare parts PREMIUM PRO 15,0t - 50,0t



Set.No	Set description	Unit	Quantity
47	Set hook jaw safety device	Set	2
49	Brake disc set	Set	1
70	Set of pawls	Set	2
72	Set suspension hook pin	Set	1
74	Set load hook with hook safety catch	Set	1
75	Set load hook with hook safety device	Set	1



EU/EC DECLARATION OF CONFORMITY (Original)

*Within the meaning of Regulation (EU) 2023/1230 as defined in Annex V, Part A and
Annex VI, internal production control (Module A) and
within the meaning of ATEX Directive 2014/34/EU, in accordance with Annex VIII*

We hereby declare,
PLANETA-Hebetechnik GmbH on its own responsibility,
that the machine, with the following information, complies with the relevant essential safety and health requirements of
EU Regulation 2023/1230 and the relevant harmonised standards in its design, design and design as well as in the
version placed on the market by us.

We confirm that the special technical documentation for this complete machine has been prepared in accordance with
Annex V Part A. These documents will be made available to the market surveillance authorities via our documentation
department upon request. The declaration of conformity loses its validity if changes or additions are made to the machine
that have not been agreed with us. Likewise, the declaration expires if the machine is not used in accordance with the
use cases described in the operating instructions or if the prescribed periodic inspections are not carried out. It is
important to note that this declaration of conformity does not include any assurance of properties. Therefore, the safety
instructions and instructions of the product must be carefully observed. The machine below is considered a complete
machine if all the components necessary for operation are in place and the machine can be operated properly without
any additional modifications or adjustments after assembly at the point of use. Furthermore, the machine must meet all
relevant safety requirements and be provided with the necessary compliance documents as well as a mark confirming
compliance with the applicable legal requirements. If this is not the case, the declaration of conformity loses its validity.

Machine Information:

Machines / Product Type:	Manual chain hoist
Machines / Product name:	PREMIUM PRO-EX
Function:	Vertical moving of loads
Serial number:	2300001-1 ... 29999999-99 / 6000000001-6999999999
Carrying capacity:	250kg ... 10.000kg
Year of construction:	2024

The following legal regulations and regulations have been taken into account and complied with:

Regulation (EU) 2023/1230 L165/1	Machinery Product Ordinance
Regulation (EC) No 1907/2006 L136/3	REACH Regulation
RL-2014/53/EU 02014L0053	Radio Equipment Directive*
Directive 2014/30/EU	EMC Directive*
RL-2014/34/EU L 96/309	ATEX Directive
Directive 2014/35/EU	Low Voltage Directive**
Directive 2012/19/EU L197/38	WEEE Directive*
RL-94/62/EC 01994L0062	Packaging Guideline
RL-2011-65/EU L174/88	RoHS Directive*

*The listed legal provisions only apply if the above-mentioned machine contains electronic or radio-capable components.

** Directive 2014/35/EU is complied with in accordance with Chapter 1.5.1. of Regulation (EU) 2023/1230 with regard to its protection objectives and applies to power-driven machinery.

The following harmonised standards have been taken into account and complied with:

DIN EN ISO 12100:2011-03	Safety of machinery - General Design Principles Risk Assessment and Risk Mitigation
DIN EN ISO 20607:2019-10	Safety of machinery – Operating Instructions General Design Principles
DIN EN 13157:2010-07	Cranes – Safety Hand-operated cranes
DIN EN 1127-1:2019-10	Explosive atmospheres - Explosion protection - Part 1: Fundamentals and Methodology
DIN EN ISO 80079-36:2016-12	Explosive atmospheres - Part 36: Non-Electrical Appliances
DIN EN ISO 80079-37:2016-12	Explosive atmospheres - Part 37: Non-Electrical Appliances

Machine labelling:

The machine was developed, manufactured and tested for the type of construction specified below in accordance with the device labelling.

Basic

II 3G Exh IIB T4 Gc X
II 3D Exh IIIB T135°C Dc

Medium

II 2G Exh IIB T4 Gb X
II 2D Exh IIIB T135°C Db
I M2 Exh I T135°C (T4) Mb X

High

II 2G Exh IIC T4 Gb X
II 2D Exh IIIC T135°C Db
I M2 Exh I T135°C (T4) Mb X

The documentation is filed with the notified body named below:

TÜV SÜD Product Service GmbH, Gottlieb-Daimler-Str. 7, 70794 Filderstadt, Germany, identification no.: 0123

Place and date on which the declaration of conformity was issued:

Resser Str. 17 | 44653 Herne | Germany, 01.08.2024



On behalf of Philipp J. Hadern
(CE Coordinator)

EU/EC DECLARATION OF INCORPORATION (Original)

*Within the meaning of Regulation (EU) 2023/1230 in accordance with Annex V, Part B and
Annex VI, internal production control (Module A) and
within the meaning of ATEX Directive 2014/34/EU, in accordance with Annex VIII*

We hereby declare,
PLANETA-Hebetechnik GmbH on its own responsibility,
that the machine, with the following information, complies with the relevant essential safety and health requirements of
EU Regulation 2023/1230 and the relevant harmonised standards in its design, design and design as well as in the
version placed on the market by us.

We confirm that the special technical documentation for this incomplete machine has been prepared in accordance
with Annex V Part B. These documents will be made available to the market surveillance authorities via our
documentation department upon request. The declaration of conformity loses its validity if changes or additions are
made to the machine that have not been agreed with us. Likewise, the declaration expires if the machine is not used in
accordance with the use cases described in the operating instructions or if the prescribed periodic inspections are not
carried out. It is important to note that this declaration of conformity does not include any assurance of properties.
Therefore, the safety instructions and instructions of the machine must be carefully observed. The machine below is
considered an incomplete machine according to Machinery Regulation 2023/1230 if it does not contain all the
components necessary for operation and requires additional modifications or adjustments after assembly at the point
of use in order to be able to operate properly. In addition, the machine is considered incomplete if it does not meet all
relevant safety requirements and does not have the necessary CE marking confirming compliance with the applicable
legal requirements.

Machine Information:

Machines / Product Type:	Manual chain hoist
Machines / Product name:	PREMIUM PRO-EX
Function:	Vertical moving of loads
Serial number:	2300001-1 ... 29999999-99 / 6000000001-6999999999
Carrying capacity:	250kg ... 10.000kg
Year of construction:	2024

The following legal regulations and regulations have been taken into account and complied with:

Regulation (EU) 2023/1230 L165/1	Machinery Product Ordinance
Regulation (EC) No 1907/2006 L136/3	REACH Regulation
RL-2014/53/EU 02014L0053	Radio Equipment Directive*
Directive 2014/30/EU	EMC Directive*
RL-2014/34/EU L 96/309	ATEX Directive
Directive 2014/35/EU	Low Voltage Directive**
Directive 2012/19/EU L197/38	WEEE Directive*
RL-94/62/EC 01994L0062	Packaging Guideline
RL-2011-65/EU L174/88	RoHS Directive*

*The listed legal provisions only apply if the above-mentioned machine contains electronic or radio-capable components.

** Directive 2014/35/EU is complied with in accordance with Chapter 1.5.1. of Regulation (EU) 2023/1230 with regard to its protection objectives and applies to power-driven machinery.

The following harmonised standards have been taken into account and complied with:

DIN EN ISO 12100:2011-03	Safety of machinery - General Design Principles Risk Assessment and Risk Mitigation
DIN EN ISO 20607:2019-10	Safety of machinery – Operating Instructions General Design Principles
DIN EN 13157:2010-07	Cranes – Safety Hand-operated cranes
DIN EN 1127-1:2019-10	Explosive atmospheres - Explosion protection - Part 1: Fundamentals and Methodology
DIN EN ISO 80079-36:2016-12	Explosive atmospheres - Part 36: Non-Electrical Appliances
DIN EN ISO 80079-37:2016-12	Explosive atmospheres - Part 37: Non-Electrical Appliances

Machine labelling:

The machine was developed, manufactured and tested for the type of construction specified below in accordance with the device labelling.

Basic	Medium	High
II 3G Exh IIB T4 Gc X	II 2G Exh IIB T4 Gb X	II 2G Exh IIC T4 Gb X
II 3D Exh IIIB T135°C Dc	II 2D Exh IIIB T135°C Db	II 2D Exh IIIC T135°C Db
	I M2 Exh I T135°C (T4) Mb X	I M2 Exh I T135°C (T4) Mb X

The documentation is filed with the notified body named below:

TÜV SÜD Product Service GmbH, Gottlieb-Daimler-Str. 7, 70794 Filderstadt, Germany, identification no.: 0123

The commissioning of the incomplete machine will be prohibited until the incomplete machine complies with the provisions of EU Regulation 2023/1230 and the EC declaration of conformity according to Annex V Part A is available.

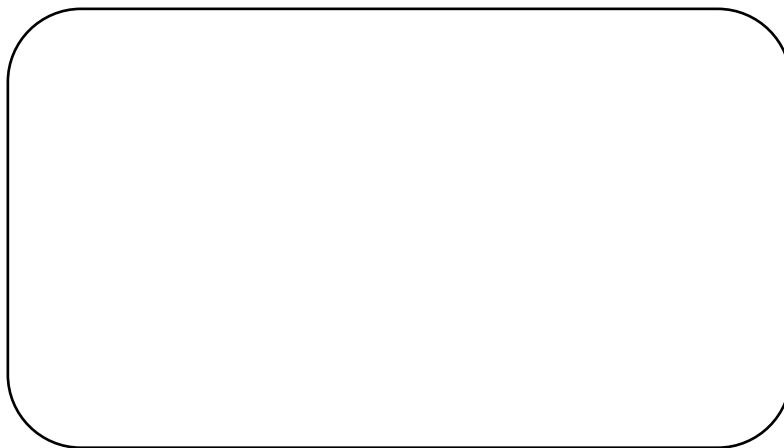
Place and date on which the declaration of conformity was issued:

Resser Str. 17 | 44653 Herne | Germany, 01.08.2024



On behalf of Philipp J. Hadem
(CE Coordinator)

[illegible]



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