

Original instructions

Hand pallet truck

HPS-20
HPS-25



0051 0052

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first in intralogistics

Address of manufacturer and contact details ▷

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Made in China



Rules for the operating company of industrial trucks

In addition to these operating instructions, a code of practice containing additional information for the operating companies of industrial trucks is also available.

This guide provides information for handling industrial trucks:

- Information on how to select suitable industrial trucks for a particular area of application
- Prerequisites for the safe operation of industrial trucks
- Information on the use of industrial trucks
- Information on transport, initial commissioning and storage of industrial trucks

Internet address and QR code



The information can be accessed at any time by pasting the address <https://m.still.de/vdma> in a web browser or by scanning the QR code.



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1

Foreword

Your industrial truck

Your industrial truck

General

The industrial trucks described in these operating instructions are built to the applicable standards and safety regulations. The industrial trucks are fitted with the most up-to-date technology. It is now a matter of handling the trucks safely and maintaining their functionality.

These operating instructions provide the necessary information to do this. Read and observe the information provided before commissioning the industrial truck. This will prevent accidents and ensure that the warranty remains valid.

EC conformity, CE labelling

With the EC declaration of conformity, the manufacturer confirms that the industrial truck complies with the standards and regulations valid at the time of marketing. The CE labelling is attached to the nameplate and indicates compliance with the standards and regulations listed in the EC declaration of conformity.

An independent structural change or addition to the industrial truck can compromise safety, thus invalidating the EC declaration of conformity.

The EC declaration of conformity must be carefully stored and made available to the responsible authorities.

EC/EU declaration of conformity



EC/EU declaration of conformity

STILL GmbH
Berzeliusstraße 10
22113 Hamburg Germany

We hereby declare that the machine

Industrial truck type	Hand pallet truck
Model	HPS 20 / HPS 25
Serial number	ST10000000 – ST99999999

conforms to the most recent version of EC Machinery Directive 2006/42/EC and the most recent version of EMC Directive 2014/30/EU for industrial trucks implemented in accordance with harmonised standard EN 12895:2015.

The manufacturer is solely responsible for exhibiting this declaration of conformity.

Personnel authorised to compile the technical documents in accordance with the named directives:

Name	Dirk Scharr
Address	STILL GmbH, Berzeliusstraße 10, 22113 Hamburg

Hamburg, 1 October 2018

A handwritten signature in black ink, appearing to read "Dirk Scharr", written over a horizontal dotted line.

Dirk Scharr
Head of testing department

A handwritten signature in black ink, appearing to read "Rainer Hardt", written over a horizontal dotted line.

Rainer Hardt
Product Audit Manager

Information about the documentation

Information about the documentation

Documentation scope

These operating instructions describe all measures necessary for the safe operation and proper maintenance of your industrial truck in all possible variants at the time of printing. Special designs based on customer request are documented in separate operating instructions. If you have any questions, please contact your service centre.

Please enter the production no. and year of manufacture from the nameplate ⇒ Chapter "Nameplate", P. 4-30 in the space provided:

Production no.

Year of manufacture

.....

Please quote these numbers during all technical enquiries.

Operating instructions are provided with each industrial truck. These instructions must be stored carefully and must be available to the operator and operating company at any time.

If the operating instructions are lost, the operating company must obtain a replacement from the manufacturer immediately.

The operating instructions can be reordered as a spare part from the STILL service centre.

The personnel responsible for operating and maintaining the equipment must be familiar with these operating instructions.

The operating company (see ⇒ Chapter "Definition of terms used for responsible persons", P. 18) must ensure that all users have received, read and understood these instructions.

Thank you for reading and complying with these instructions. If you have any questions or suggestions for improvements, or if you have found any errors, please contact your authorised service centre.

Issue date and currentness of manual

The issue date of this manual can be found on the title page.

STILL is constantly engaged in the further development of industrial trucks. These operating instructions are subject to change, and any claims based on the information and/or illustrations contained in them cannot be asserted.

If you require technical support for the industrial truck, please contact your authorised service centre.

Your partner

STILL GmbH

Berzeliusstr. 10

22113 Hamburg

Copyright and trademark rights

These instructions must not be reproduced, translated or made accessible to third parties—including as excerpts—except with the express written approval of the manufacturer.

Explanation of information symbols used

DANGER

Indicates procedures that must be strictly adhered to in order to prevent the risk of fatalities.

WARNING

Indicates procedures that must be strictly adhered to in order to prevent the risk of injuries.

CAUTION

Indicates procedures that must be strictly adhered to in order to prevent material damage and/or destruction.

Information about the documentation

NOTE

For technical requirements that require special attention.

ENVIRONMENT NOTE

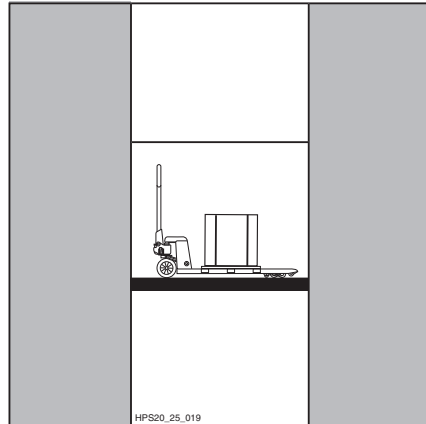
To prevent environmental damage.

Typical graphics

This documentation explains the (usually sequential) chain of certain functions or operations. Schematic views of an industrial truck are used to illustrate these procedures.

NOTE

These schematic views are not representative of the structural state of the documented industrial truck. The views are used solely for the purpose of clarifying procedures.



Environmental considerations

Packaging

During delivery of the industrial truck, certain parts are packaged to provide protection during transport. This packaging must be removed completely prior to commissioning.



ENVIRONMENT NOTE

The packaging material must be properly disposed of after delivery of the industrial truck.

Disposal of units during repair work

It may be necessary to exchange units as part of maintenance work. Exchanged units must then be disposed of.

The industrial truck is made of different materials. Each of these materials must be

- disposed of,
- treated or
- recycled in accordance with regional and national regulations.



ENVIRONMENT NOTE

We recommend working with a waste management company for disposal purposes.

2

Introduction

Proper usage

Proper usage

The industrial truck described in these operating instructions is suitable for lifting and transporting loads on pallets, see ⇒ Chapter "Safety regulations for handling loads", P. 5-38.

The industrial truck must only be used for its intended purpose as set out and described in these operating instructions!

If the industrial truck is to be used for purposes other than those specified in the operating instructions, the approval of the manufacturer and, if applicable, the relevant regulatory authorities must be obtained beforehand to prevent hazards.

The maximum load to be lifted (rated capacity) is specified on the nameplate and must not be exceeded.

The industrial truck must be used only at the place of use stipulated, see ⇒ Chapter "Place of use", P. 2-12.

Impermissible use

The operating company or operator, and not the manufacturer, is liable for any hazards caused by improper use (see also ⇒ Chapter "Definition of terms used for responsible persons", P. 18).

CAUTION

Use for purposes other than those described in these operating instructions is prohibited.

- The industrial truck may not be operated in areas where is a risk of fire, explosion or corrosion, or areas that are particularly dusty.
- The transport of unstable, poorly stacked loads or fluids is dangerous and not permissible.
- The industrial truck must not be used if the load capacity is exceeded.
- Foodstuffs must not come into direct contact with the industrial truck.
- It is not permissible to use the industrial truck as a jack or lever.
- It is prohibited to transport persons or to use the truck as a scooter.
- The industrial truck must not be used on slopes.
- The industrial truck must not be used in areas that are insufficiently lit.
- The tiller must not be turned at a right angle in order to stop the industrial truck.
- The industrial truck must not be used for handling free-swinging loads.
- The industrial truck must not be used if there is a danger of unintentional movement.

Place of use

Place of use

The industrial truck can be used in buildings.

The sites on which the industrial truck is used must comply with the current regulations (condition of the ground, lighting etc.).

The floor areas must have an adequate load capacity (concrete, asphalt) and should have a smooth surface.

The driveways, work areas and aisle widths must correspond with the specifications in these operating instructions.

The industrial truck is suitable for interior use in countries ranging from the Tropics to Nordic regions (see temperature ranges ⇒ Chapter "Technical datasheet", P. 7-61).

The operating company (see ⇒ Chapter "Definition of terms used for responsible persons", P. 18) must ensure suitable fire protection in the surrounding area of the industrial truck for the relevant application of the truck. If in doubt, contact the relevant authorities.

Residual dangers, residual risks

Despite careful working and compliance with standards and regulations, the occurrence of other risks when using the industrial truck cannot be entirely excluded.

The industrial truck and all other system components comply with current safety requirements. Nevertheless, even when the truck is used for its proper purpose and all instructions are followed, some residual risk cannot be excluded.

Even beyond the narrow danger areas of the industrial truck itself, a residual risk cannot be excluded. Persons in this area around the industrial truck must exercise a heightened degree of awareness, so that they can react immediately in the event of any malfunction, incident or breakdown etc.

WARNING

All persons that are in the vicinity of the industrial truck must be instructed regarding these dangers that arise through use of the industrial truck.

In addition, we draw attention to the safety regulations in these operating instructions.

The risks can include:

- Escape of consumables due to leakages, rupture of lines and containers etc.
- Falling, tripping etc. when moving the industrial truck, especially if consumables have leaked.
- The stability of the industrial truck has been tested to the latest standards. These standards only take into account the static and dynamic tipping forces that can arise during specified use in accordance with the operating rules and intended purpose. The risk of exceeding the moment of tilt that arises from improper use or incorrect operation cannot be excluded in extreme cases, and will impact stability.
- Risk of feet being crushed under the load when the load is lowered.
- Pinch and shear points between the load, industrial truck and surroundings.

Residual dangers, residual risks

- Risk of accident when transporting loads due to slipping or falling.
- Loss of stability due to the load being unstable or the load slipping etc.
- Human error - Disregarding safety regulations.
- Risk caused by unrepaired damage.
- Risk caused by insufficient maintenance or testing.
- Risk caused by using the wrong consumables.
- Risk caused by exceeding testing intervals.

The manufacturer is not held responsible for accidents involving the industrial truck caused by the failure of the operating company to comply with these regulations either intentionally or carelessly.

Danger to employees

In accordance with the German operating safety ordinance (BetrSichVO) and labour protection law (ArbSchG), the operating company (see "Definition of terms used for responsible persons") must determine and assess hazards during operation, and establish what occupational health and safety measures are required in respect of employees. The operating company must therefore draw up appropriate operating instructions (§ 6 ArbSchG) and make them available to the operator. A responsible person must be appointed. The national regulations for the country of use must be observed.

The construction and equipment of the industrial truck correspond to the Machinery Directive 2006/42/EC and are therefore identified with the CE label. These elements are therefore not included in the hazard assessment. Attachments possess their own CE label and likewise are not included for that reason. The operating company must, however, select the type and equipment of the industrial trucks so as to comply with the local provisions for deployment.

The result must be documented (§ 6 ArbSchG). In the case of industrial truck deployments involving similar hazard situations it is permitted to summarise the results.

The conditions of use for industrial trucks are broadly similar in many plants, so that the hazards can be summarised in one overview. Observe the information provided by the relevant employers' liability insurance association on this subject.

Specific usage risks as a result of operating the industrial truck

Specific usage risks as a result of operating the industrial truck

Approval from the manufacturer and, if applicable, the relevant authorities, must be obtained each time the truck is used in a manner that is different to how it is used normally, and in cases where the operator is not certain that he can use the truck correctly and without the risk of accidents.

3

Safety

Definition of terms used for responsible persons

Definition of terms used for responsible persons

Operating company

The operating company is the natural or legal person or group who uses the industrial truck or on whose authority the truck is used.

The operating company must ensure that the industrial truck is used only for its proper purposes and in compliance with the safety regulations in these operating and maintenance instructions.

The operating company must ensure that all users read and understand the safety information.

The operating company is responsible for the scheduling and correct performance of regular safety checks.

We recommend that the national performance specifications are adhered to.

Qualified person

A qualified person is a fitter who works for the manufacturer or is a person who meets following requirements:

- A completed vocational qualification that demonstrably proves their professional expertise. This proof is to consist of a vocational qualification or a similar document.
- Professional experience indicating that the qualified person has gained practical experience of industrial trucks over a proven period during their career. During this time, this person has become familiar with a wide range of symptoms that require checks to be carried out, such as based on the results of a hazard assessment or a daily inspection.
- Recent professional involvement in the field of the industrial truck test in question and an appropriate further qualification are essential. The qualified person must have experience of carrying out the test in question or of carrying out similar tests. Moreover, such a person must also be aware of the latest technological developments regarding

the industrial truck to be tested and the risk being assessed.

Definition of terms used for responsible persons

Operator

This industrial truck may be used only by persons who have received sufficient instruction on control and operation, and proven their ability to handle this industrial truck safely to the operating company's responsible representative.

Rights, duties and rules of behaviour for the operator

The operator must be informed of his rights and duties.

The operator must be granted the necessary rights.

The operator must wear appropriate protective equipment (protection suit, safety footwear, safety helmet, industrial goggles, gloves) for the application conditions, the job and the load to be lifted. Safety footwear must always be worn for safety.

The operator must be familiar with the operating instructions and have access to them at all times.

The operator must:

- have read and understood the operating instructions,
- have familiarised himself with safe operation of an industrial truck,
- be physically and psychologically able to drive an industrial truck safely.

DANGER

Taking drugs, alcohol or medications that affect the responses of an individual limits the ability of that individual to drive an industrial truck!

Individuals under the influence of the above-mentioned substances are not permitted to perform any work on or with an industrial truck.

Basic principles for safe operation

Changes and retrofitting



NOTE

Changes and retrofitting are prohibited!

Warning regarding non-original parts

Original parts, attachments and accessories are specially designed for this industrial truck. We specifically draw your attention to the fact that parts, attachments and accessories supplied by other companies have not been tested and approved by us.

CAUTION

Installation and/or use of such products may therefore have a negative impact on the design features of the industrial truck and thus impair active and/or passive safety.

We recommend that you obtain approval from the manufacturer and, if necessary, from the relevant regulatory authorities before installing such parts. The manufacturer accepts no liability for any damage caused by the use of non-original parts and accessories without approval.

Damage, defects and misuse of safety systems

The operator must report any damage or other defects to the industrial truck immediately to the supervisory personnel.

Industrial trucks that are not functional must not be used until they have been properly repaired.

Do not remove or disable safety systems.

Fixed set values may only be changed with the approval of the manufacturer.

Safety tests

Safety tests

Carrying out regular testing on the industrial truck

Safety inspection based on time and extraordinary incidents

The operating company must ensure that the industrial truck is checked by a competent person at least once a year or following unusual incidents.

As part of this testing, a complete check of the technical condition of the industrial truck must be performed with regard to accident safety. Furthermore, the industrial truck must be thoroughly checked for damage that could have been caused by improper use. A test log must be created. The results of the testing must be retained at least until a further two inspections have been carried out.

The inspection date is indicated by an adhesive label on the industrial truck.

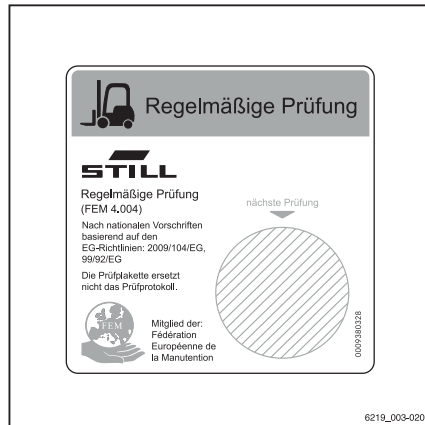
- Arrange for the authorised service centre to perform regular testing on the industrial truck.
- Observe the guidelines regarding inspection work on industrial trucks as specified by FEM 4.004.

The operating company is responsible for ensuring any defects are remedied without delay.

- Notify the authorised service centre.

 **NOTE**

In addition, observe the national regulations for the country of use.



Safety regulations for handling consumables

Permissible consumables

WARNING

Consumables can be dangerous.

Observe the safety regulations when handling such materials.

Please refer to the maintenance data table for the permissible substances that are necessary for operation (see → Chapter "Maintenance data table", P. 6-49).

Oils



DANGER

Oils are flammable!

- Follow the statutory regulations.
- Do not allow oils to come into contact with hot engine parts.
- No smoking, fires or naked flames!



DANGER

Oils are toxic!

- Avoid contact and consumption.
- If vapour or fumes are inhaled, move to fresh air immediately.
- In the event of contact with the eyes, rinse thoroughly (for at least 10 minutes) with water and then consult an eye specialist.
- If swallowed, do not induce vomiting. Seek immediate medical attention.

Safety regulations for handling consumables



⚠️ WARNING

Prolonged intensive contact with the skin can result in dryness and irritate the skin!

- Avoid contact and consumption.
- Wear protective gloves.
- After any contact, wash the skin with soap and water, and then apply a skin care product.
- Immediately change soaked clothing and shoes.

⚠️ WARNING

There is a risk of slipping on spilled oil, particularly when combined with water!

- Spilt oil should be removed immediately with oil-binding agents and disposed of according to the regulations.



ENVIRONMENT NOTE

Oil is a water-polluting substance!

- *Always store oil in containers that comply with the applicable regulations.*
- *Avoid spilling oils.*
- *Spilt oil should be removed immediately with oil-binding agents and disposed of according to the regulations.*
- *Dispose of old oils according to the regulations.*

Hydraulic fluid



⚠️ WARNING

These fluids are pressurised during operation of the truck and are hazardous to your health.

- Do not spill the fluids.
- Follow the statutory regulations.
- Do not allow the fluids to come into contact with hot engine parts.



⚠️ WARNING

These fluids are pressurised during operation of the truck and are hazardous to your health.

- Do not allow the fluids to come into contact with the skin.
- Avoid inhaling spray.
- Penetration of pressurised fluids into the skin is particularly dangerous if these fluids escape at high pressure due to leaks in the hydraulic system. In case of such injury, immediate medical assistance is required.
- To avoid injury, use appropriate personal protective equipment (e.g. protective gloves, industrial goggles, skin protection and skin care products).



ENVIRONMENT NOTE

Hydraulic fluid is a water-polluting substance.

- *Always store hydraulic fluid in containers that comply with regulations*
- *Avoid spills*
- *Spilt hydraulic fluid should be removed immediately with oil-binding agents and disposed of according to the regulations*
- *Dispose of old hydraulic fluid according to the regulations*

Disposal of consumables



ENVIRONMENT NOTE

- *Materials that accumulate during repair, maintenance and cleaning must be collected properly and disposed of in accordance with the national regulations for the country in which the truck is being used. Work must only be carried out in areas designated for the purpose. Care must be taken to minimise any environmental pollution.*
- Soak up any spilt fluids such as hydraulic oil or gearbox oil using an oil-binding agent.
- Neutralise any spilt battery acid immediately.

Safety regulations for handling consumables

- Always observe national regulations concerning the disposal of used oil.

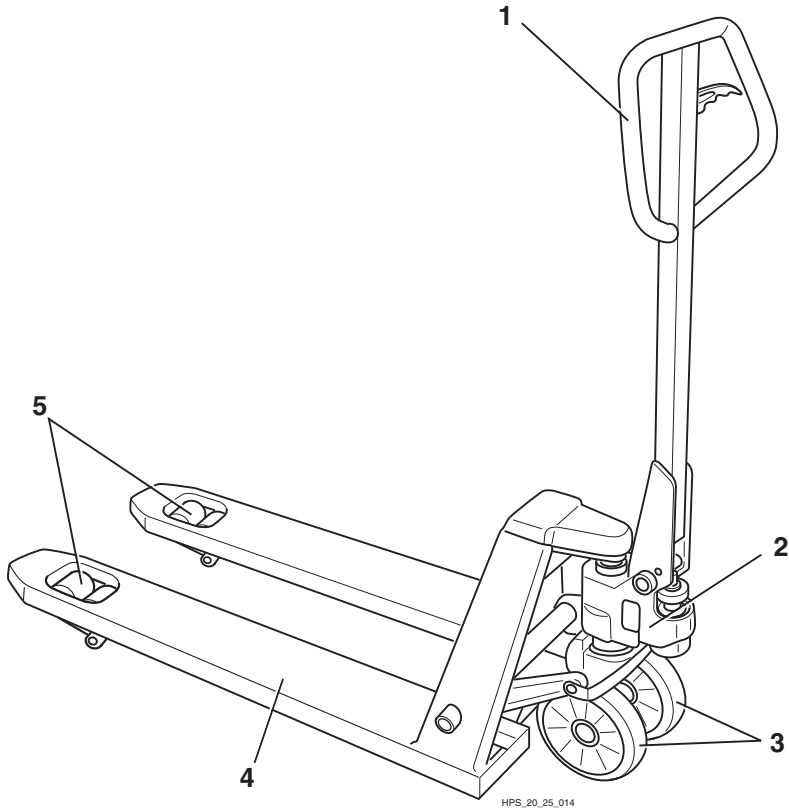
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Overviews

Overview

Overview

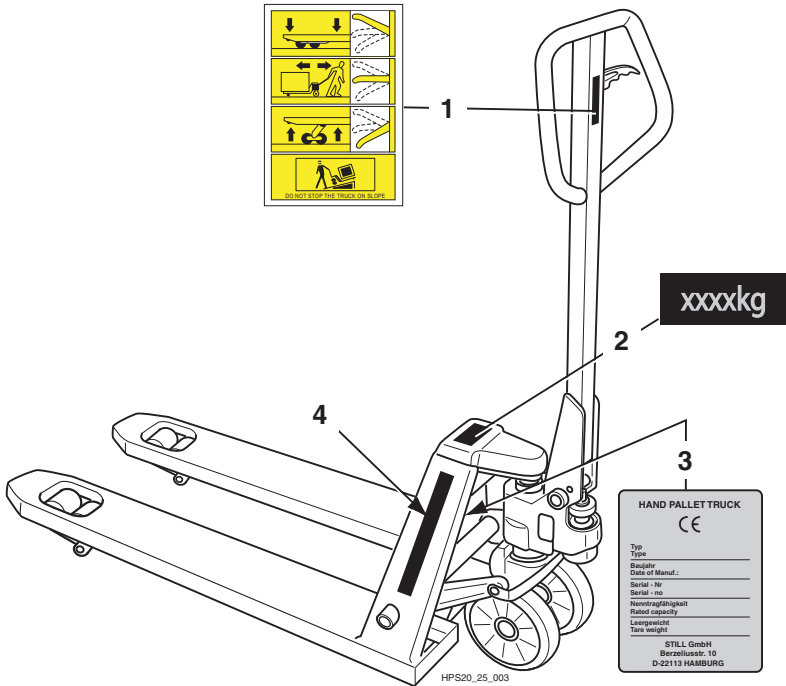
General view



- 1 Tiller
- 2 Hydraulic pump
- 3 Steering rollers
- 4 Forks
- 5 Load castors

Labelling points

Overview

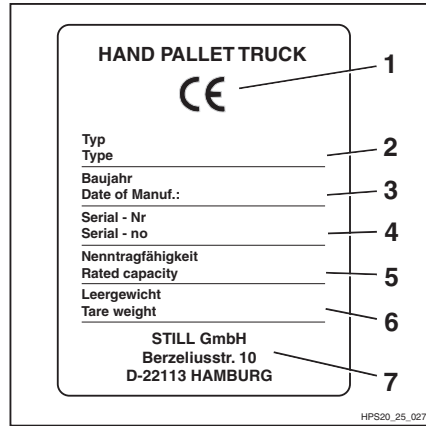


- 1 Decal information: Lower load / Transport load / Lift load / Do not drive on slopes
- 2 Capacity rating plate
- 3 Nameplate
- 4 Manufacturer's name

Nameplate

Nameplate

It is possible to identify the industrial truck from the information on the nameplate.



- 1 CE labelling
- 2 Model
- 3 Year of manufacture
- 4 Serial number
- 5 Rated capacity
- 6 Tare weight
- 7 Manufacturer

5

Operation

Checks and tasks to be carried out prior to commissioning

Checks and tasks to be carried out prior to commissioning

Visual inspections

⚠ WARNING

Damage or other defects on the industrial truck can result in accidents.

If damage or other defects are identified on the industrial truck during the following inspections, do not use the industrial truck until it has been repaired properly. Do not remove or disable safety systems and controls. Do not change predefined set values.

Prior to start-up, ensure that the truck is safe to be operated:

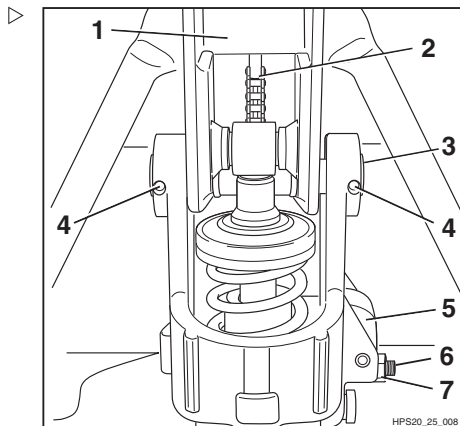
- Fork arms or other load-carrying equipment should not show any noticeable damage (e.g. bends, cracks, significant wear).
- Check the area under the industrial truck for leaking consumables.
- Check whether all decal information is present and legible. Damaged or missing adhesive labels must be replaced according to the overview of identification points, see ⇒ Chapter "Overview", P. 4-29.
- Check the visible areas of the hydraulic system for damage and leakages. Damaged components must be changed.
- Report defects to the supervisory personnel.

Fitting the tiller

NOTE

If the industrial truck is delivered without the tiller fitted, it must be attached before commissioning.

- Unscrew lock nut (7) on lever (5).
- Unscrew adjustment screw (6).
- Fit tiller (1) on the tiller foot.
- Insert bolt (3) and clamping sleeve (4) and fit to the tiller foot.
- Lift lever (5) and insert the pin at the end of chain (2) into the groove in the lever.
- Screw in adjustment screw (6).
- Screw on lock nut (7) hand-tight.

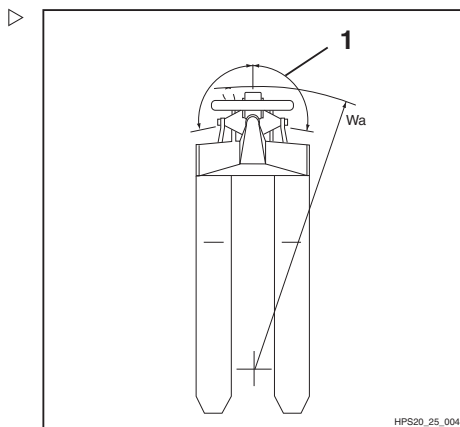


Commissioning

Steering

The industrial truck can be steered by swiveling the tiller within the angle indicated (1).

At maximum steering lock, the industrial truck can be turned in the smallest turning radius (W_a), see \Rightarrow Chapter "Technical datasheet", P. 7-61.



Lifting

Lifting

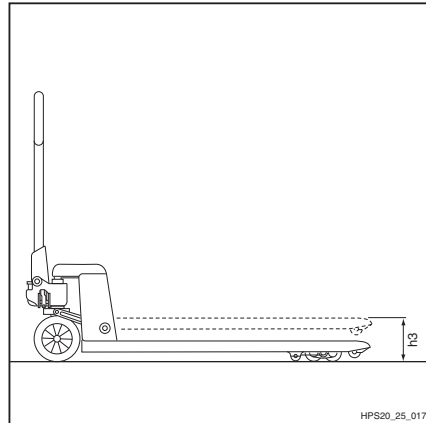
Lifting system

The following lifting system is fitted on this industrial truck:

Initial lift

By performing pumping actions, the fork is lifted to the max. height (h3), see ⇒ Chapter "Technical datasheet", P. 7-61.

If the industrial truck is equipped with the fast-lift function, loads of up to approx. 200 kg can be lifted faster.



Lifting system controls

⚠ DANGER

Danger to life!

Stay away from the area beneath the raised forks.

Never exceed the rated capacity indicated on the nameplate. Otherwise stability cannot be guaranteed!

⚠ DANGER

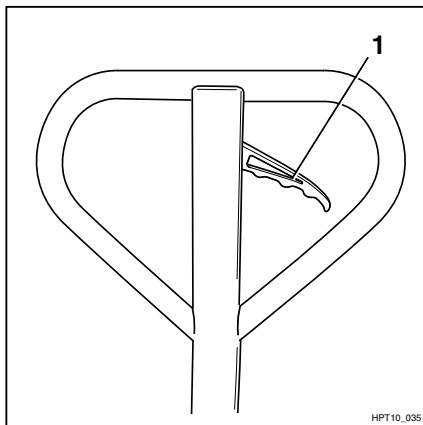
Risk of accidents!

Do not step onto the forks. Do not lift people.

Lifting the forks

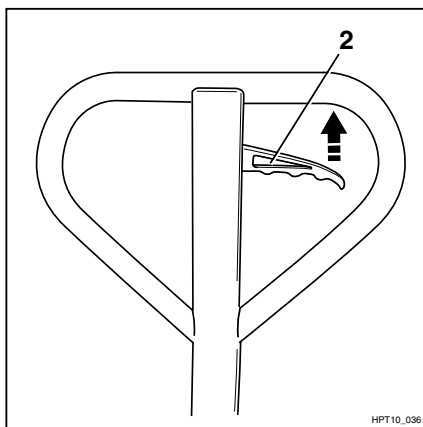
- Push "lift-lower" operating lever downwards (1). ▷
- Perform a pumping action with the tiller.

The forks are raised.

**Lowering the forks**

- Pull "lift-lower" operating lever upwards (2). ▷

The forks are lowered.



Brakes

Brakes

Braking the industrial truck

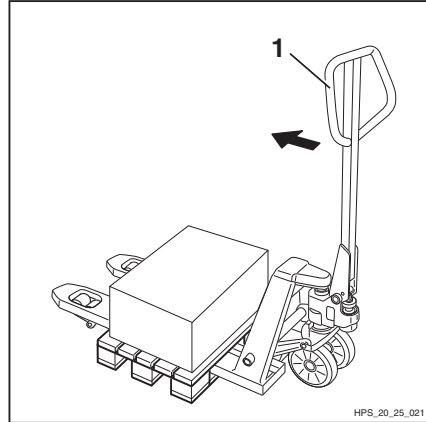
To brake the industrial truck, with or without a load, proceed as follows:

- Move tiller (1) against the drive direction and use your muscular strength to reduce the speed of the industrial truck.

⚠ WARNING

Risk of crushing!

If the truck is decelerated too quickly, the load could slip forwards and lead to damage as a result of crushing.



Emergency stop

If the industrial truck is carrying a load and reaches a speed that is too high, it is possible to perform an emergency stop.

⚠ CAUTION

Risk of tipping!

The transportation speed must be adapted to suit the ground conditions. Transport heavy loads slowly and carefully.

- Pull operating lever (1) on the tiller upwards. ▷

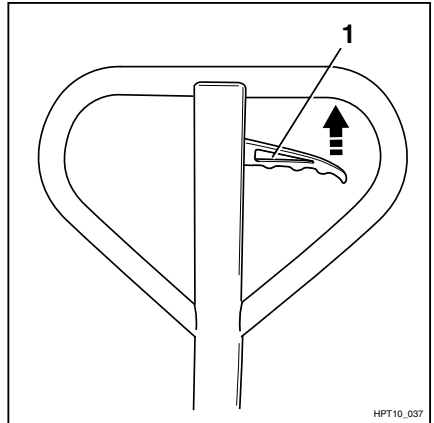
The pallet is lowered and is braked by the ground.

- Also brake the industrial truck as usual, see ⇒ Chapter "Braking the industrial truck", P. 5-36.

⚠ WARNING

Risk of injury

If travelling at a high speed, the load could slip forwards and cause damage as a result of crushing. The industrial truck can continue to roll even if the load is braked.



Parking brake (special equipment)

The industrial truck can be equipped with a parking brake as special equipment. This is intended solely for secure parking of the industrial truck and is not to be used as a service brake.

Operating the parking brake

- Press right brake pedal (2) down with your foot. ▷

Brake plate (3) is pushed against steering rollers (4) and (5).

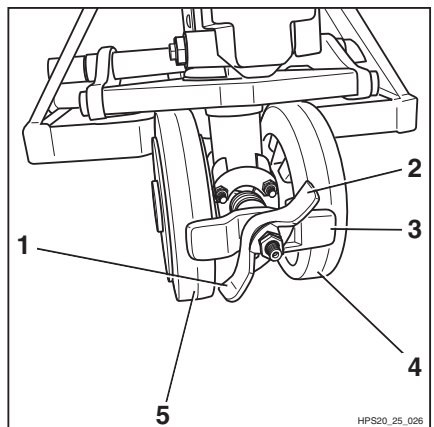
The parking brake is now applied.

Releasing the parking brake

- Press left brake pedal (1) down with your foot.

Brake plate (3) is pushed away from steering rollers (4) and (5).

The parking brake is released.



Handling loads

Handling loads

Safety regulations for handling loads

The safety regulations for handling loads are shown in the following sections.

⚠ DANGER

Danger to life!

Stay away from the area beneath the raised forks.

Never exceed the rated capacity indicated on the nameplate. Otherwise stability cannot be guaranteed!

⚠ DANGER

Risk of accidents!

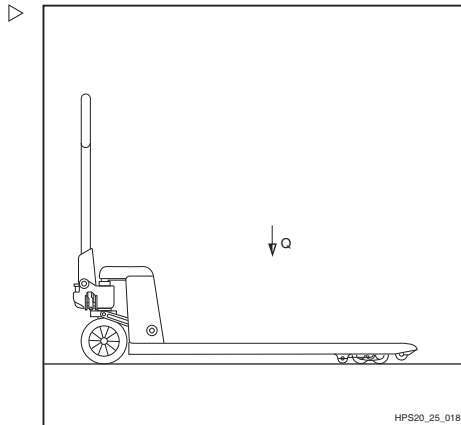
Do not step onto the forks. Do not lift people.

Never grab or climb on moving parts of the industrial truck.

Before the load pick-up

Load capacity

The load capacity (Q) indicated for the industrial truck must not be exceeded, see → Chapter "Technical datasheet", P. 7-61.



Taking up loading units

To make sure that the load is securely supported, it must be ensured that the fork is positioned as far as possible under the load.

If possible, the load should rest on the back of the fork.

The load must not protrude too far over the fork tips.

Loads are to be picked up and transported between the fork arms as close as possible to the centre.

Taking up load

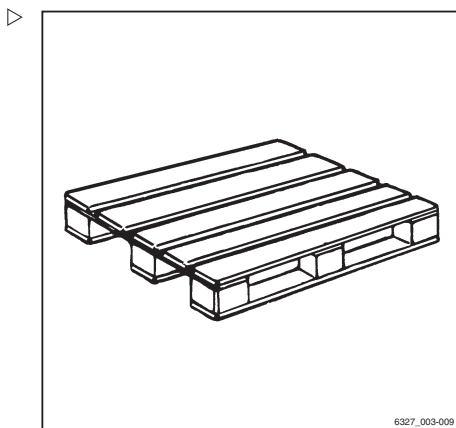
- Only place those pallets into stock that do not exceed the specified maximum dimensions of 1000 x 1200 mm. Damaged loading equipment and improperly designed loading units may not be used.
- Attach or secure the load to the load-carrying equipment so that the load cannot move or fall.
- Place the loading units into stock so that the defined aisle width is not reduced by protruding parts.

Transporting pallets

As a rule, loading units (e.g. pallets) are to be transported individually. Transporting several loading units at a time is only permissible

- when instructed by the supervisor and
- when the technical requirements have been met.

The operator must ensure proper condition of the loading unit. Only safely and carefully positioned loading units may be transported.



Driving on lifts

For this industrial truck, the operator may only use lifts with a sufficient load capacity and which the operating company (see ⇒ Chapter "Definition of terms used for responsible persons", P. 18) has authorisation for use.

Handling loads

- Drive the industrial truck with the forks forwards into the lift without touching the shaft walls.
- Park the industrial truck securely in the lift, see ⇒ Chapter "Parking the industrial truck securely", P. 5-43 to prevent uncontrolled movements of the load or the industrial truck.

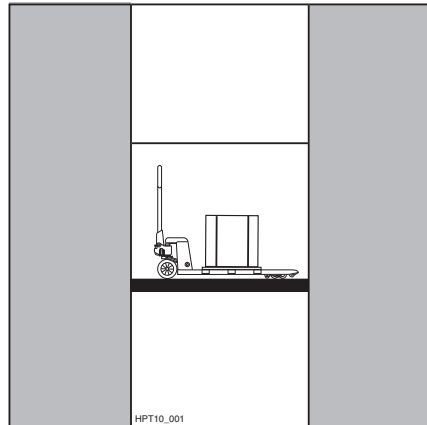
The distance from the shaft wall must be at least 100 mm.

⚠ DANGER

Risk of accidents!

- Personnel accompanying the truck onto the lift are only allowed to occupy the lift once the industrial truck is secure and must exit the lift first after the trip.

The maximum weight of the industrial truck comprises the net weight and the maximum load, see ⇒ Chapter "Technical datasheet", P. 7-61.



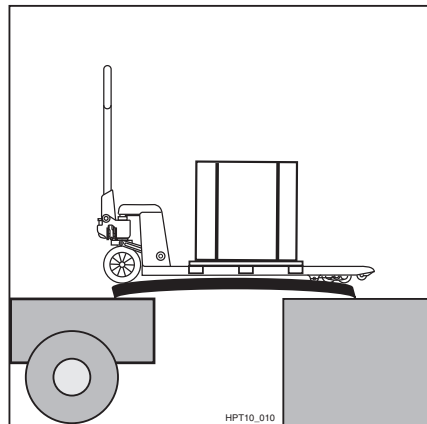
Driving on loading bridges

⚠ DANGER

Risk of accidents!

- Before driving across a loading bridge, ensure that it is properly attached and secured and has adequate load capacity (lorry, bridge etc.).
- Drive slowly and with care on the loading bridge.
- Ensure that the lorry onto which you will be driving is adequately secured to prevent its shifting and can support the load of the industrial truck.

The lorry driver and the operator of the industrial truck must agree on the departure time.



Cold store application

Cold store application

The industrial truck is suitable for use in cold stores, see temperature ranges ⇒ Chapter "Technical datasheet", P. 7-61.

CAUTION

Changing from a cold internal temperature to a warm outside temperature may result in the formation of condensation water. This water may freeze on re-entry to the cold store and block moving parts of the industrial truck.

Close attention to the duration of deployment in the different temperature ranges must be paid for both types of application.

The industrial truck must be dry before it can be used in the cold store.

WARNING

Risk of injury!

If condensation water freezes in the cold store, do not try to free blocked parts with your hands.

- Always park the industrial truck outside the cold store.

Operation in special business situations

Operation in special business situations**Transport**

When the industrial truck is driven onto a means of transport, note the following:

- The load/lifting capacity of the means of transport, ramps and loading bridges must be greater than the loading weight of the industrial truck.
 - When turning the tiller, the industrial truck could veer off the loading bridge towards the edge. This can cause the industrial truck to crash.
- Park the industrial truck securely, see
⇒ Chapter "Parking the industrial truck securely", P. 5-43.

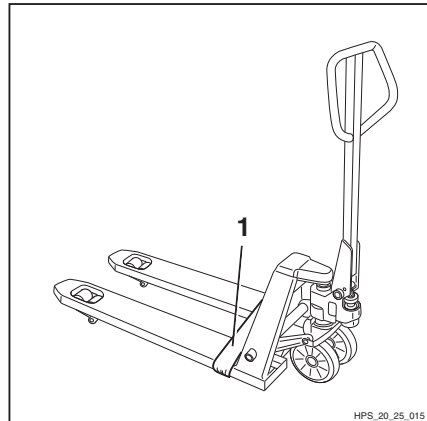
⚠ CAUTION

If the industrial truck is not secured against rolling, this could result in damage of the cargo or cause accidents.

- Lash the industrial truck to secure it.

Lashing

- Use tension belts (1) to secure the industrial truck against slipping and rolling. ▷



Decommissioning

Parking the industrial truck securely

WARNING

Do not park the industrial truck on a slope.

Make sure that the industrial truck cannot roll away unintentionally.

Never park the industrial truck in areas where it could create risks for other traffic.

- Lower the forks completely.
- Actuate the parking brake, (special equipment), see ⇒ Chapter "Parking brake (special equipment)", P. 5-37.

Cleaning

Cleaning

Cleaning the industrial truck

WARNING

Risk of fire!

Combustible fluids may not be used to clean the truck.

CAUTION

Failure to follow these instructions could result in damaged components!

- Follow the manufacturer's guidelines for working with cleaning materials.
- Before lubrication, clean the oil filling openings and their surroundings, and the lubricating nipples.

NOTE

Please note: The more often the industrial truck is cleaned, the more frequently it must be lubricated.

- Clean all parts of the industrial truck using a damp cloth.
- Under no circumstances should you use a direct water jet or steam for cleaning.

After cleaning

- Dry the truck carefully (e.g. with compressed air).
- Put the industrial truck into operation in accordance with regulations.

6

Maintenance

General maintenance information

General maintenance information

Qualifications of personnel

Only qualified and authorised personnel are allowed to perform maintenance work. The annual testing must be carried out by a qualified person. The examination and assessment by the qualified person must not be affected by operational and economic conditions and must be conducted solely from a safety perspective. The qualified person must have sufficient knowledge and experience to be able to assess the condition of an industrial truck and the effectiveness of the protective equipment according to technical conventions and the principles for testing industrial trucks.

Maintenance work for which no special qualifications are necessary

Simple maintenance work, such as checking the hydraulic oil level, may be carried out by untrained personnel. This does not require the qualifications described above. Refer to these operating instructions for further information.

Information regarding performing maintenance

This section contains all the information required to determine when your industrial truck must be serviced. Be sure to perform maintenance within the time limit according to the maintenance overview; this is essential to obtain the full operability, performance and service life from the industrial truck, and is a pre-condition for any warranty claims.

Intervals for maintenance and inspection

The work must be performed by the authorised service centre according to the maintenance intervals listed below.

Servicing

Function group	Maintenance work	Chapter
Chassis frame	Checking the condition, mounting and wear of the rollers	"Roller maintenance"
Load lift system	Checking the function of the initial lift	"Servicing the lifting system"
	Adjusting the lowering device	"Adjusting the lowering device"
Identification points	Checking the labelling for completeness	"Overview"

Maintenance after 6 months

Function group	Maintenance work	Chapter
-	Carry out all servicing work	
Load lift system	Checking the forks	"Check the forks"
Hydraulics	Checking the hydraulic oil level and hydraulic system for leaks	"Check the hydraulic oil level and hydraulic system for leaks"

General maintenance information

Ordering spare parts and wearing parts

Spare parts can be requested and ordered from the STILL service centre.

Only use spare parts as per the manufacturer's instructions. The use of unapproved spare parts can result in an increased risk of accidents due to insufficient quality or incorrect assignment.

Anyone using unapproved spare parts shall assume unlimited liability in the event of damage or harm.

Maintenance data table

Unit	Operating material	Specification	Dimension
Hydraulic system	Hydraulic oil	ISO VG32	Max. 0.4 l
Steering rollers			∅ 200 x 50 mm
Load castors, tandem			∅ 80 x 70 mm
Load castors, single			∅ 80 x 93 mm

Safety regulations for maintenance

Safety regulations for maintenance

General information

To prevent accidents during maintenance and repair work, all necessary safety measures must be taken, e.g.:

- Ensuring that unintentional movement of the industrial truck is prevented.
- Ensuring that a raised lifting accessory cannot be lowered when work is being carried out beneath it.

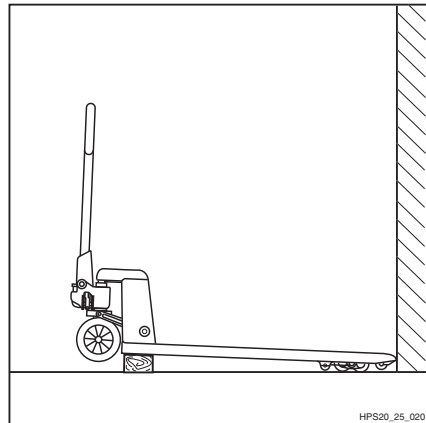
Preparation for maintenance

Jacking up

The industrial truck must be jacked up for some maintenance work. Make sure that the industrial truck is only jacked up on level surfaces, and is secured against rolling and dropping.

Jacking up at the chassis

- Position the industrial truck with the fork tips against a wall.
- Jack up the industrial truck until the steering rollers are no longer in contact with the ground.
- Secure the industrial truck.



Servicing

Roller maintenance

The bearing surfaces of the steering rollers and load castors must not be damaged.

- Change damaged or worn steering rollers and load castors for new ones of the same size, see ⇒ Chapter "Technical datasheet", P. 7-61.

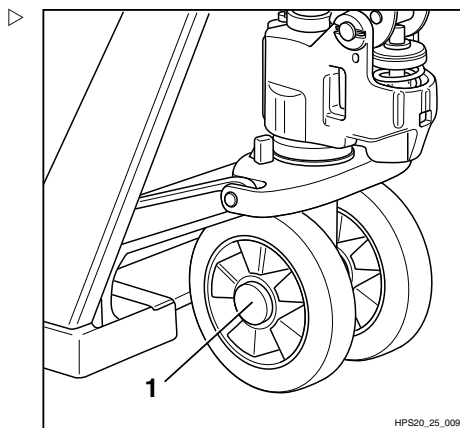
⚠ CAUTION

Incorrectly adjusted steering rollers or load castors could lead to problems with stability.

This adjustment must be carried out by your service centre.

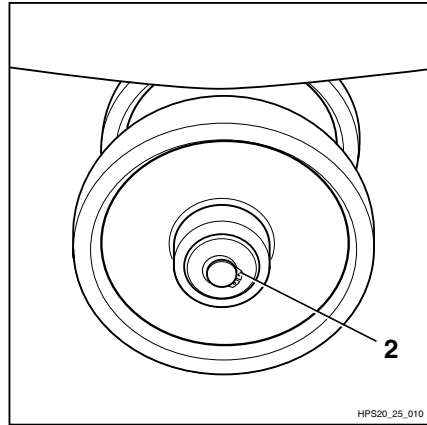
Checking the mounting of the steering rollers

- Remove cover (1) on both sides.



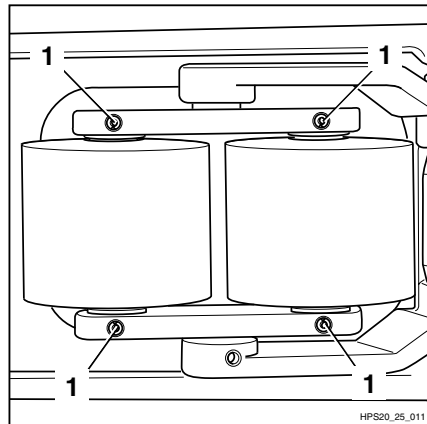
Servicing

- Check snap ring (2) on both sides on the steering rollers for damage and secure positioning, and change if necessary.
- Reattach cover (1).



Checking the mounting of the load castors

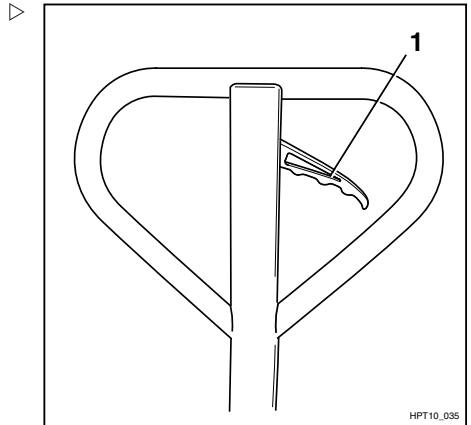
- Check clamping sleeve (1) on both sides on the load castors for damage, and change clamping sleeve as necessary.



Servicing the lifting system

Check the initial lift for correct operation:

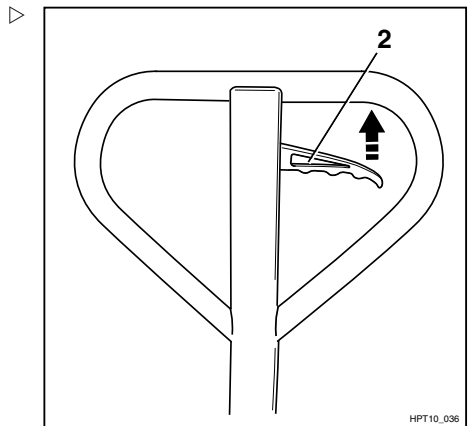
- Press operating lever (1) downwards and perform a pumping action with the tiller. The initial lift must extend to the maximum height without jerking.



- Pull operating lever (1) upwards. The initial lift must retract again without jerking.

If the initial lift does not extend and retract without jerking:

- Check the hydraulic oil level
- Check the lift cylinder for leaks.

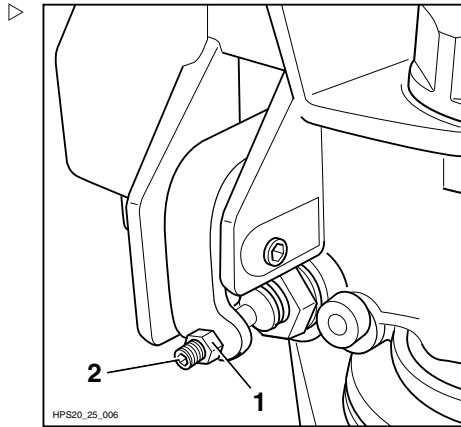


Servicing

Adjusting the lowering device

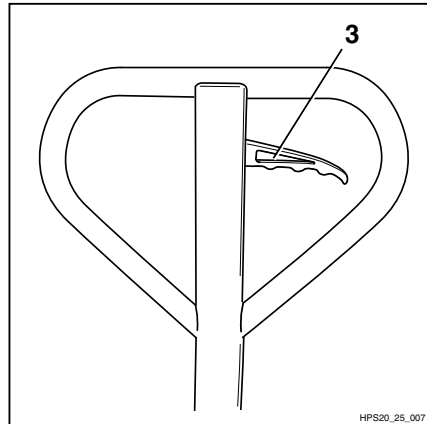
Lowering position

- Park the industrial truck securely, see
 ⇒ Chapter "Parking the industrial truck
 securely", P. 5-43.
- Loosen lock nut (1).
- Lift the forks a little.
- Adjust adjustment screw (2) on the lever
 until the lowering function works.



- Move operating lever (3) to neutral position. ▷
- Perform a pumping action.

This action must not lift the forks. If it does, rotate adjustment screw (2) clockwise until the forks are no longer lifted.



Neutral position

- Lift the forks a little.
- Move operating lever (3) to neutral position.
- Check whether the forks are lowered to the
 neutral position.

If the forks are lowered, proceed as follows:

- Rotate adjustment screw (2) anti-clockwise
 until the forks stop lowering.

Lifting position

- Press operating lever (3) downwards.
- Perform a pumping action.

The forks must be lifted. If this is not the case, proceed as follows.

- Rotate adjustment screw (2) anti-clockwise
 until the forks are lifted by the pumping
 action.

- Tighten lock nut (1).

Maintenance after 6 months

Other tasks

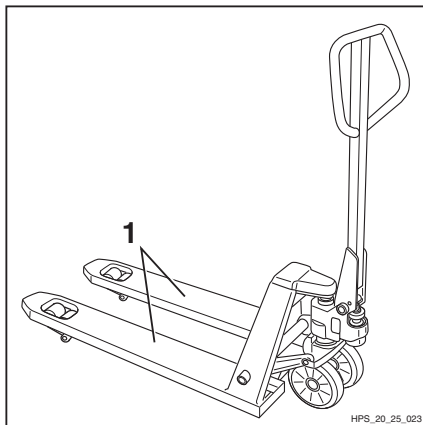
- Perform all tasks required to maintain full operability; see the chapter entitled "Remaining ready for operation".

Checking the forks

- Carry out a visual inspection of the forks (1) ▷ for excessive deformation or cracks, and have them repaired as necessary.

⚠ CAUTION

- Repairs and replacements on the frame must only be carried out by your service centre.



Checking the hydraulic oil level and hydraulic system for leaks

Checking the hydraulic pump for leaks ▷

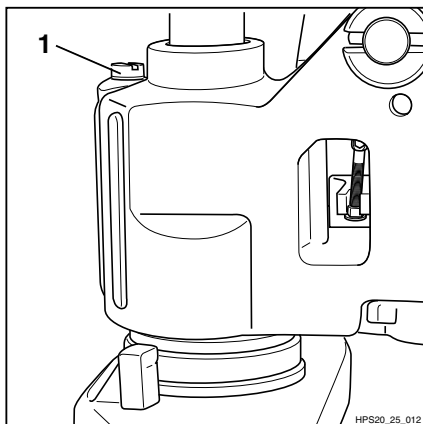
- Check the hydraulic pump for leaks.
- Check oil filler plug (1) for secure positioning and tighten as necessary.

Checking the oil level

- Lower the forks.
- Swivel the tiller to the left.
- Unscrew oil filler plug (1).

The oil level must reach the thread of the oil tank.

- If necessary, top up with hydraulic oil of the corresponding specification, see → Chapter "Maintenance data table", P. 6-49.



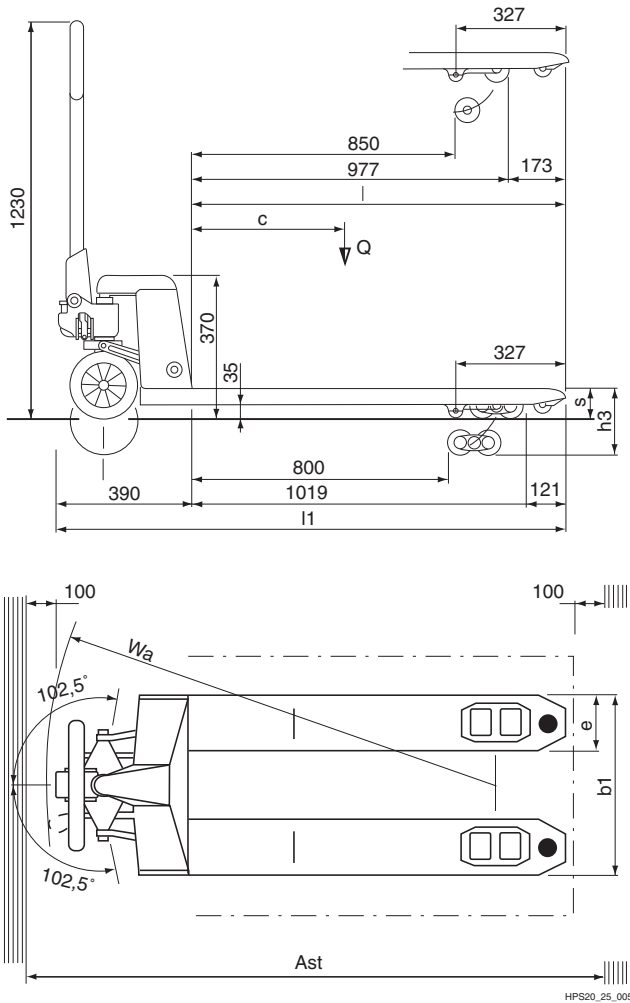
Maintenance after 6 months

- Screw the oil filler plug back on.

Technical data

Dimensions

Dimensions



Technical datasheet

 **NOTE**

*Values are valid for the standard devices.
Variants may deviate from them.*

Characteristics

		HPS 20	HPS 25
Manufacturer		STILL GmbH	STILL GmbH
Operation: manual, accompanied, standing, seated, order picking		Manual	Manual
Load capacity / Load	Q (kg)	2000	2500
Load centre of gravity	c (mm)	600	600

Weight

		HPS 20	HPS 25
Net weight	kg	69.5	70

Chassis frame

		HPS 20	HPS 25
Front load castors, single		80x93	80x93
Front load castors, tandem		80x70	80x70
Rear steering rollers		200x50	200x50
Number of rollers (or castors), front/rear		4/2	4/2

Basic dimensions

		HPS 20	HPS 25
Lift height	h3 (mm)	115	115
Total length	l1 (mm)	1540	1540
Total width	b1 (mm)	520	520
Fork arm dimensions	s/e/l (mm)	85/160/1150	85/160/1150
Turning radius	Wa (mm)	1335	1335
Aisle width for pallet 1000x1200 longitudinal	Ast (mm)	1790	1790

Technical datasheet

Temperature ranges

		HPS 20	HPS 25
Temperature	°C	-12 to +50	-12 to +50

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STILL GmbH

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