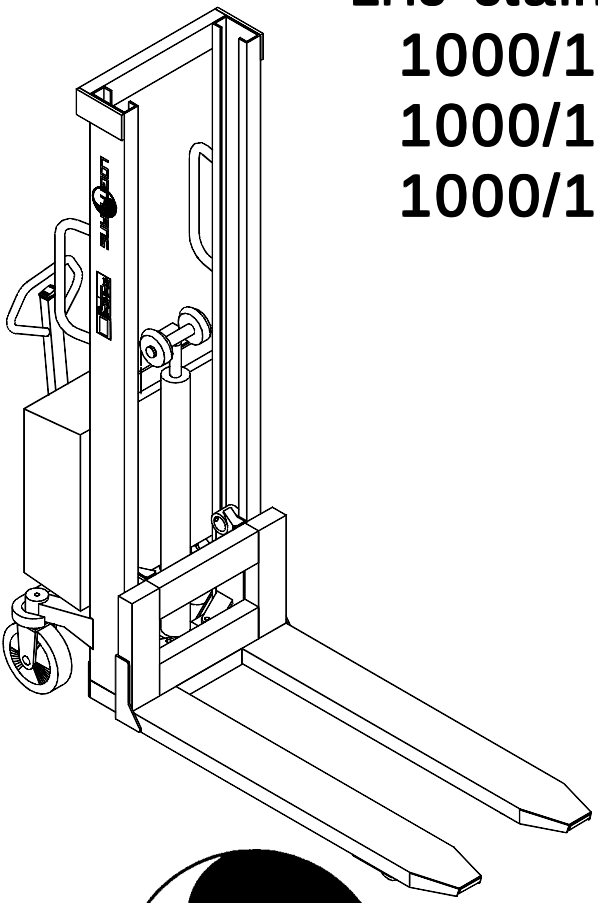
Instruction Manual

EHS Stainless
1000/1200
1000/1400
1000/1600



LOGITRANS

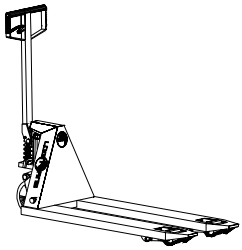
1.0 Before the first lift...

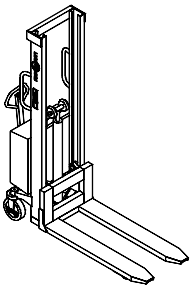
The **Logitrans** Stacker is manufactured in accordance with safety directives.

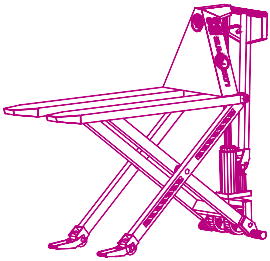
Among the subjects dealt with in this **Instruction Manual** are:

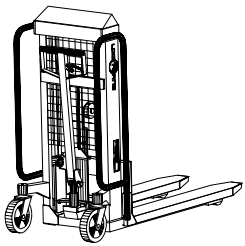
- *Proper application*
- *Physical limitations of the product*
- *Risks with improper use*

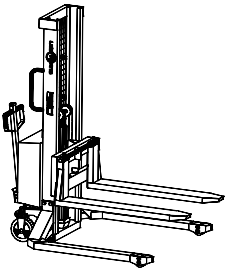
- Therefore please read this Instruction Manual carefully!

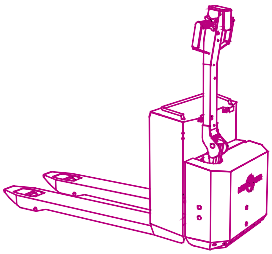




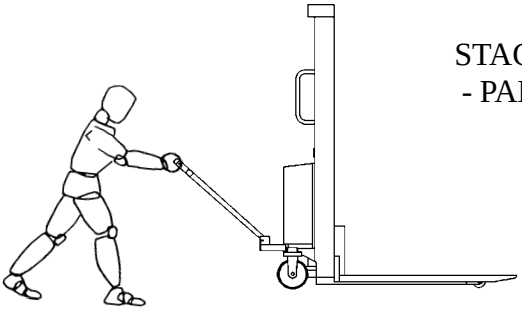








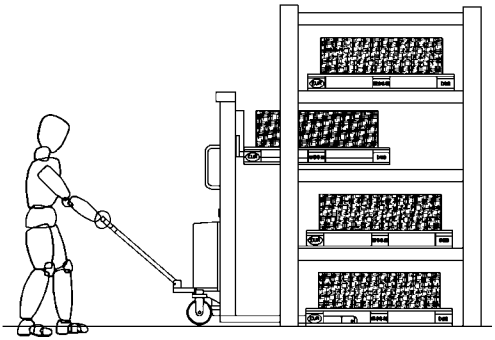
2.0 How to operate the stacker

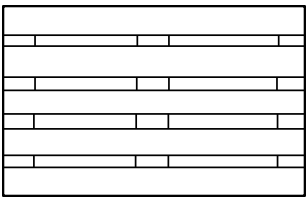


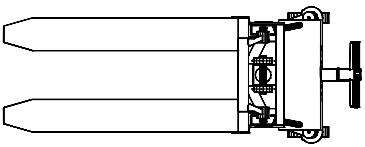
STACKER APPLICATION
- PALLET HANDLING -

For proper operation,
stand behind the handle.

Push/pull - raise/lower







EHS

3.0 Optimum safety

3.1 Avoid overloads

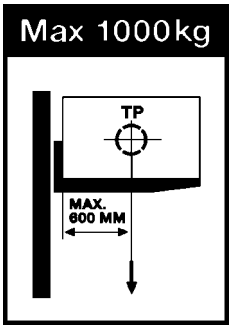
The maximum load must not be exceeded. Remember, the stacker is designed for evenly distributed load, - goods on pallets etc. If the forks are pointloaded on one side there is a risk of bending.

3.2 Avoid offset loads

The load must be evenly distributed. The maximum centre-of-gravity distance from the front of the fork mast (given on the truck) must not be exceeded. A greater distance will impair safety and increase the risk of toppling.

Goods on pallets, etc. must be properly secured so that they cannot fall off during transport, when the truck is lifted, or when the truck must remain lifted for a time.

Marking

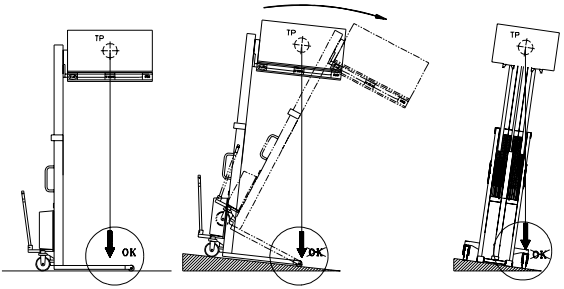


The mast lifting capacity and the corresponding centre of gravity distance are given by the pictogram on the side of the mast.

The lifting capacity of the mast is the same as the max. lifting capacity of the product.

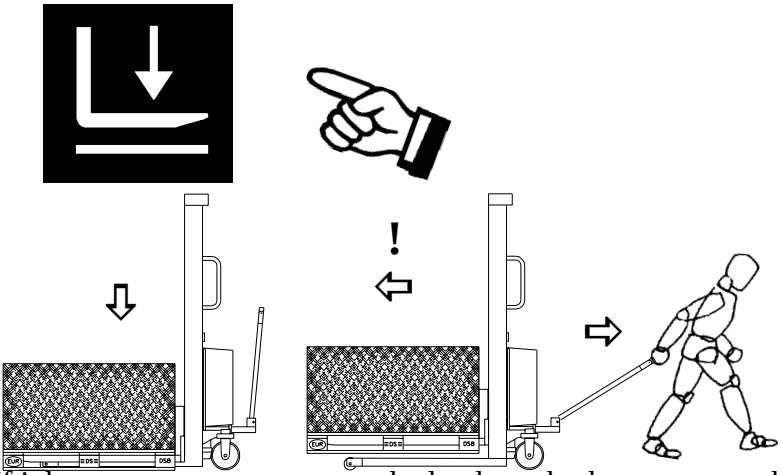
Max. lifting capacity is set on the safety valve in the product.

3.3 Driving loaded

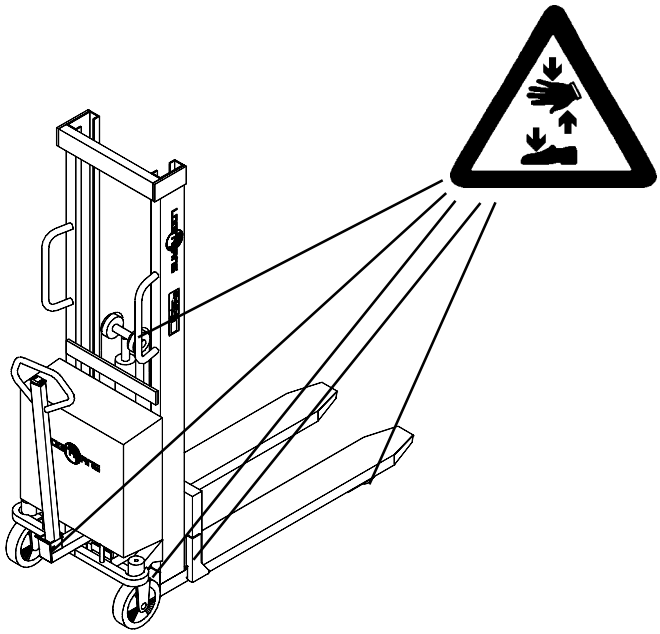


The stacker is designed for use on even and level floor. During transport the forks shall be raised as little as possible. Transport with raised forks should be made over the shortest possible distances and at low speed.

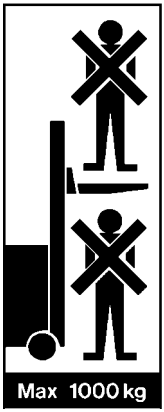
3.4 Emergency braking



If it becomes necessary to use the load as a brake to prevent the stacker running loose, activate the DOWN button quickly until the load reaches the ground.



Safety regulations



- Never walk under a raised load!
- Before lowering the forks, make certain that no foreign elements can hinder the free lowering of the forks.
- The stacker is designed for use on even and level floor.
- During transport the forks shall be raised as little as possible.
- Transport with raised forks should be made over the shortest possible distances and at low speed.
- Check that the chains lift equally. They shall be equally tight when the forks are loaded.
- Chains and chain bolts must not be damaged. Chains that have become permanently stretched (max. 2% of original length) must be scrapped.

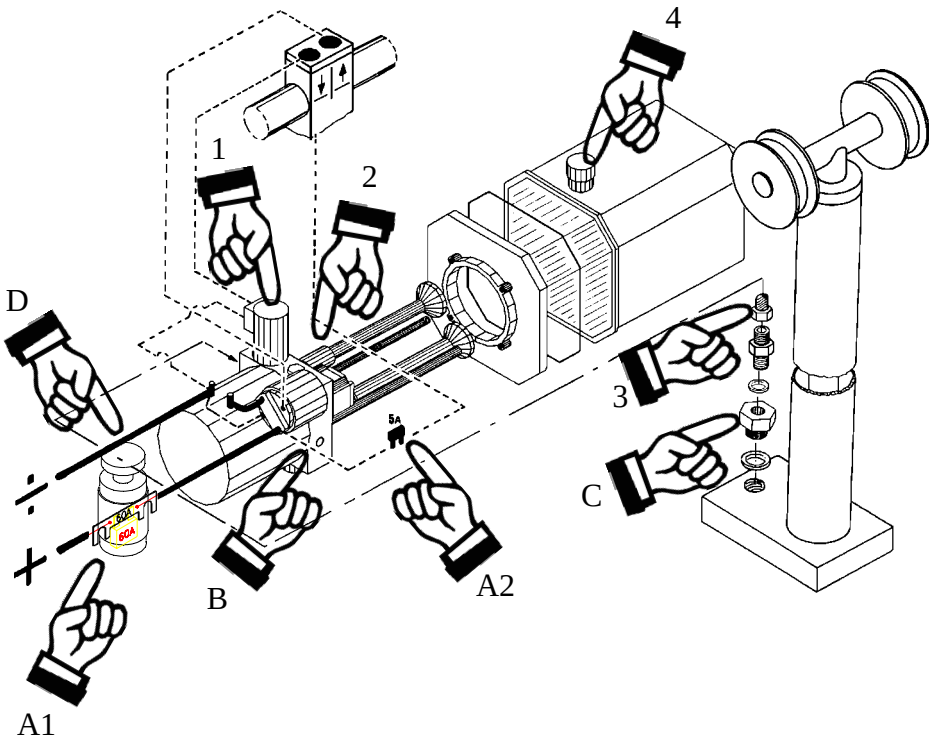
3.5 Safety system

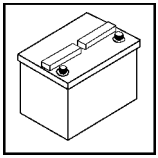
A: **Fuses:** motor protector and protection against electrical overload.

B: **Safety/pressure relief valve**: protection against mechanical and hydraulic overload. Set by the manufacturer at the maximum design load (see product nameplate).

C: **Hose safety valve:** protection against load "falling" in the event of hose fracture.

D: (Pos. **1-4**, see section 8.0)





4.0 There must be a current supply

4.1 Battery specifications

The manufacturer offers two different battery types recommended for EHS 1000:

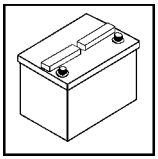
	Semi-trak 986034	**Semi-trak 986036**	**Tubular cell 986014**
Voltage	12V	12V	12V
Capacity	60Ah/5h 74Ah/20h	105Ah/5h 130Ah/20h	113Ah/5h 130Ah/10h
Recommended for	Normal use		Severe daily use
Life in cycles at 80% discharge	Approx. 300 See note 1		Approx. 1200 See note 2
MAINTENANCE Liquid inspection	Acid level must be min. 5 mm and max. 10 mm above cells. Add distilled water if necessary.		
MAINTENANCE Poles	Verdigris to be removed from poles regularly. Poles to be greased after cleaning.		
Charge condition to be measured with	Acidometre, voltmetre or electrical capacity metre		
Charging frequency	Daily or as required. See note 1		At 80% discharged See note 2
Charging voltage measured across poles during charging	15,2V		
No. of lifts with correct usage. Load 500 kg.	At 1600 mm lift 80	At 1600 mm lift 155	At 1600 mm lift 150
Load 1000 kg	At 1600 mm lift 45	At 1600 mm lift 70	At 1600 mm lift 65
Battery dimensions LxWxH	278x175x190 19,8 kg	513x189x223 39,6 kg	514x175x230 43 kg

Note 1: The battery can be charged, irrespective of how much it is discharged.
Battery life: 300 cycles at 80% = approx. 600 cycles at 50%

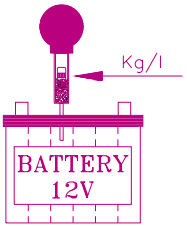
Note 2: Longest battery life obtained when the battery is charged on being 80% discharged. 1 charge = 1 cycle

Dry-charged batteries must be filled with battery acid 37.5% H_2SO_4 specificgravity 1.28 before they are used for the first time.

4.2 Checking the battery



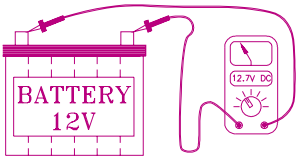
Method A for SEMI-TRAK and TUBULAR CELL:
Check acid density in the six battery cells with an acidometer.
Check each cell - max. difference between each cell 0.04 kg/l.



DENSITY

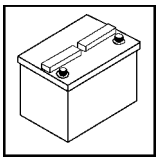
1.26 - 1.28 kg/l	Fully charged
1.19 - 1.20 kg/l	1/2 charged
1.16 - 1.17 kg/l	1/4 charged
1.10 - 1.11 kg/l	Discharged

Method B for all three battery types:
To measure the voltage, use a digital voltmeter (DC) on the battery poles. The truck must not have been in use for the previous 30 minutes.



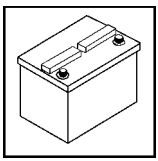
Approx. 12.7 V	Fully charged
Approx. 12.2 V	1/2 charged
Approx. 12.0 V	1/4 charged
Approx. 11.6 V	Discharged

4.3 Battery charging



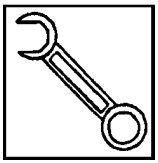
Charging must be performed with a charger correctly set with the charging voltage for the battery type, see point 4.1.
The manufacturer recommends a charger of 10-15 amp capacity.
During charging, the temperature in the battery must not exceed 50° C.
Charging simultaneously with truck operation is not advised.

4.4 Warnings and information on battery



Avoid the use of naked flame in the vicinity of tubular cell and Semi-Trak batteries.
The charging of tubular cell and Semi-Trak batteries gives off gases that can be explosive. Therefore charging should be performed in a ventilated room.
At temperatures around freezing point, battery capacity is reduced by 30%.

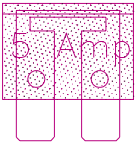
4.5 Fuses - replacement



There are two fuses in the electrical circuit.
- See illustration under point 3.5:

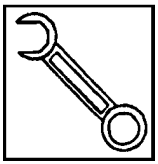
80 amp fuse in main supply
from battery
(location: see A1, point 3.5)

5 amp fuse in control current
circuit
(location: see A2, point 3.5)



Replacement:
Before replacing fuse, disconnect battery + pole. The old fuse can then be removed and replaced by a new one of the same size. Do not insert a larger fuse; the fuse acts as a protector for the pump motor.
Find out why fuses blow!

4.6 Wiring connections



Much operational disturbance is caused by poor connections in the electrical circuit. Make sure connections are in order.
Check connections regularly for damage at insulating caps or looseness at plugs, etc.
Verdigris must be removed from lead plugs. Keep all screw/nut connections tight.

5.0 Long live the stacker

Regular inspection and the replacement of worn or defective parts in good time will prolong the life of the stacker. "Prevention is better than repair", therefore ensure:

Correct usage
Regular cleaning
Oil changes at the correct intervals
Periodic safety inspection

5.1 Lubrication and oil change

Galvanised, semi stainless and stainless electrical products: Lubrication and oil change. All ball bearings are lubricated with a lubricating grease for the food industry, and all moving parts are treated with a grease for the food industry. The hydraulic system is filled with hydraulic oil of viscosity class ISO VG 32. An additive is added to the oil: - Wynn´s Hydraulic Systems Concentrate. The proportion of concentrate is 2.5%, reducing friction and wear and protecting against corrosion. Ready-mixed hydraulic oil with the additive can be bought at the dealers. The oil is suited for use in the temperature range -10ºC to +50ºC. A thinner oil is recommended for temperatures below -10ºC (please contact a dealer).
The hydraulic oil must be changed every other year.

5.2 Oil change

Draining the oil:

1. Bring the forks down to the lowest position.
2. Most of the oil can be drained by loosening the hydraulic hose union (216) and briefly activating the hydraulic pump with the switch(122).
3. Remaining oil can be drained from the oil tank by taking off the twelve clips on the pump and removing the tank.

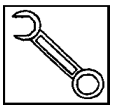
Oil filling:

4. Fill oil through the filling hole (3.5, 4) on the tank.
5. Oil quantity:

EHS 1000/1200	approx. 3 litre
EHS 1000/1400	approx. 3 litre
EHS 1000/1600	approx. 3 litre

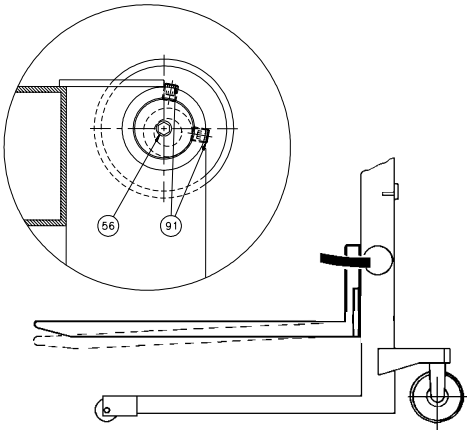
6. Refit the filling cap and bleed the system (5.6).

5.3 Fork adjustment

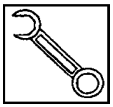


Two of the rollers on the fork bracket are mounted on eccentric pins so that they can be adjusted. The adjustable rollers are upper most.

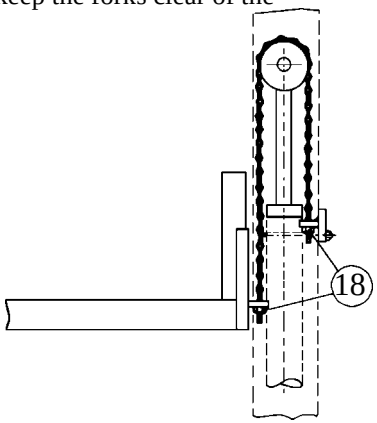
1. Loosen setscrews pos. 91 (5 mm a/flats).
2. Eccentric pin pos. 56 (8 mm a/flats) can now be turned to give the necessary fork adjustment.
3. Adjustment must be made on both sides to ensure uniform loading of the rollers.



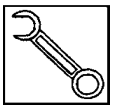
5.4 Adjustment of lifting chain



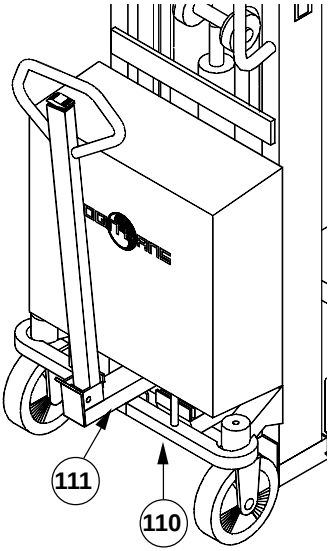
The chains shall be adjusted so that they lift equally. Shall be equally tight. Adjustment are made on nuts, pos. 18 (nut M12, key width 19 mm).
With straddle versions, chains keep the forks clear of the floor.

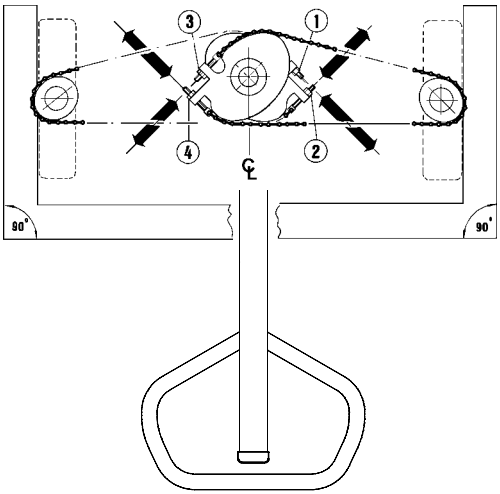


5.5 Adjustment of steer wheel chain



Access to the chain is gained by removing the chain guard.
-Remove the two screws (111) and two screws(110) (4 mm Allen key).
-Set the handle in its mid position.
-Adjust nuts (1 and 2, 3 and 4) and bring the wheels into parallel.





5.6 Bleeding the hydraulic system

With a load of 50-100 kg, the forks must be raised and lowered to top and bottom position 2-3 times.

5.7 Cleaning

When cleaning the stacker, do not direct the jet onto bearings and seals. Otherwise the grease will be washed out and the life of the equipment shortened.

6.0 Good service after purchase

6.1 Ordering spare parts

The correct spare parts are obtainable from your distributor.
When ordering, please state:

Series number of stacker
Type and width/length of stacker
Spare part No.

6.2 Warranty/Compensation

Spare parts supplied during the warranty period will be invoiced.
A credit note will be sent immediately after we have received and tested the defective parts and found that the warranty conditions have been met.

6.3 Service and repair

You should be able to make adjustments and perform minor repairs on the spot. However, major repairs should be left to the distributor who has well-trained personnel and the necessary special tools. The manufacturer offers a replacement set for pumps/cylinders. These are renovated and are supplied under the same warranty conditions as for new pumps.

6.4 Warranty

The warranty covers material and assembly defects which, subject to inspection by us, are deemed to be faults or deficiences that prevent normal use of the parts concerned. Such affected parts shall be sent to us carriage paid within 24 months after delivery.
The warranty does not cover normal wear and adjustments.
The warranty period is based on single-shift working.
The warranty shall no longer apply if:

-the product has been used incorrectly.
-the product is used in environments for which it was not designed.
-the product has been overloaded.
-replacements have been made incorrectly or original parts have not been used and consequent damaqe has arisen.
-a yearly service check and regular maintenance has not taken place.

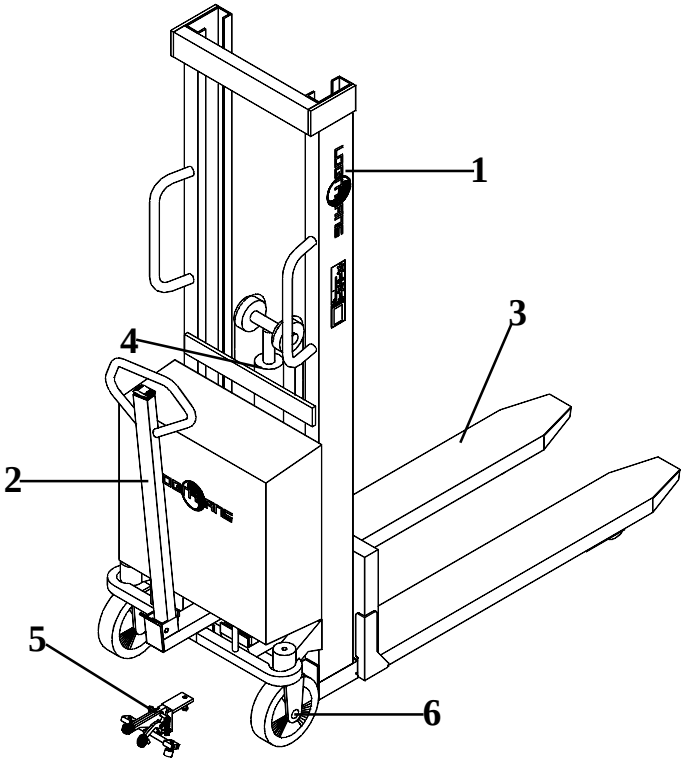
6.5 Liability exemption

The manufacturer accepts no responsibility for personal injury or material damage arising from deficiencies, defects or improper usage. The manufacturer accepts no responsibility for lost earnings, operating losses, lost time, lost profits or similar indirect losses incurred by the purchaser or a third party.

7.0 The advantages of stainless

7.1 Corrosion in EHS Stainless

Details are contained in the spare parts lists.



		A	B	C	D
1.	Chassis		X		
2.	Handle		X		
3.	Fork bracket	X			
4.	Cylinder (1)				X
5.	Brake				X
6.	Shafts	X			

Material code

A	Acid-resistant steel AISI 316
B	Stainless steel AISI 303/304
C	Hot-dip galvanised - coating thickness: min. 50 µm
D	Electrogalvanised + yellow chromated - coating thickness: 6-10 µm. - This surface treatment has good properties in respect of wear, water and chemical resistance. However, it is important to be aware that if certain parts are subjected to shock and impact the coating can crack and thus allow corrosive substances to affect base materials.

(1) The cylinder is not made of stainless material, but is surface treated (D).
The Piston rod is stainless.
Under certain circumstances, corrosion can appear on parts of the cylinder.

7.2 Warranty for EHS Stainless

Rust damage in the cylinder or pump and tarnishing on the stacker caused by the environment in which it is used or the way it is cleaned are not covered by the warranty.
See point 6.4 "Warranty conditions".

8.0 Fault location key

When the STACKER is used every day, adjustments and the replacement of worn parts might be necessary.

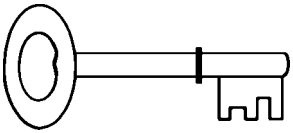
If a fault appears during daily operation of the highlifter, first check:

Oil supply
Electricity supply
Condition of leads and fuses

If faults cannot be traced to these sources, contact your distributor, but ....

BEFORE ASKING THE DISTRIBUTOR FOR ASSISTANCE...

...TRY THE FAULT LOCATION KEY!



SYMPTOMS AND OBSERVATIONS

A Pump does not run when the UP button is pressed

B Truck does not lift when the UP button is pressed

C Truck does not lift to max. height

D Forks fall after being raised

E Forks do not fall when DOWN button is pressed

F Forks cannot be lowered fully

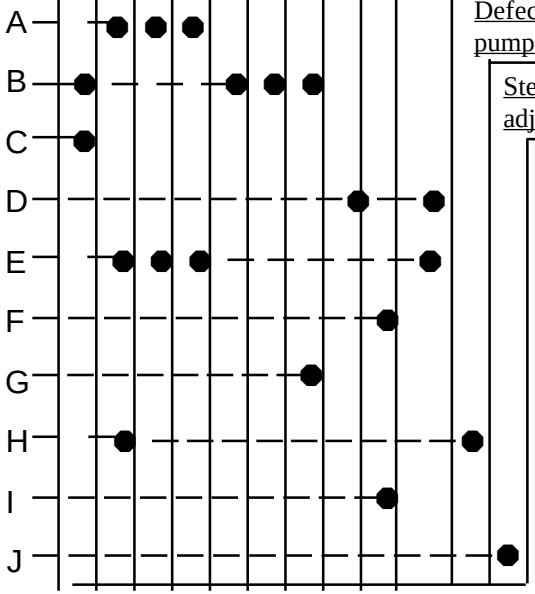
G Truck unable to lift the max. load

H Truck lifts slowly

I Forks do not lift horizontally

J Steer wheel does not drive evenly

Cause	Mending
Oil deficiency	See point 5.1/ 5.2
Battery discharged	See point 4.3
Fuse blown Point 3.5 pos. A1/A2	See point 3.5/ 4.5
Leads defective	See point 4.6
Max. load exceeded	See point 3.1
Air in hydraulic system	See point 5.6
Pressure relief valve incorrectly adjusted Point 3.5 pos. B	Contact the distributor
Hyd. hose defective Point 3.5 pos. 3	Contact the distributor
Mast needs adjustment	See point 5.3/ 5.4
Valve damaged (solenoid and check valve) Point 3.5 pos. 1 and 2	Contact the distributor
Defective valves in pump	Contact the distributor
Steer wheel out of adjustment	See point 5.5



If the problem cannot be solved by using the fault location key...

...please contact your distributor!

Notes:

EU DECLARATION OF CONFORMANCE

Manufacturer: **Logitrans A/S**
Hillerupvej 35
DK-6760 Ribe
Danmark

It is hereby declared that:

Machine: Product group: Stackers

Type: EHS 1000 RF

Year of manufacture/
Serial No.:

a) Has been manufactured in conformance with the stipulations of the

- **COUNCIL DIRECTIVE no. 98/37/EC**
- **COUNCIL DIRECTIVE no. 89/336/ECC**

b) Has been manufactured in conformance with the stipulations of the standard:

- **EN-1757-1**

Name **Erling Pedersen**

Position: **Product manager**

Company: **Logitrans A/S**

Signature:

Product type declaration of:
01.01.2000

Distributor:

F:\Dok_styr\Blanket\B148.1-en

Periodic safety inspection

Safety inspection should be performed by the supplier or other qualified persons at least once each year, unless local regulations state otherwise.

Such inspection shall be performed in accordance with the instruction manual. Test instructions and test forms are available from the distributor.