

HYDRAULIC TILELIFTER WITH ROTOR

Varenr. 3000



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Introduction

1.1. Purpose

The purpose of these operating instructions is to ensure correct installation, operation, handling, and maintenance of the machine. Hereinafter, the hydraulic tile lifter will be referred to as *the machine*.

1.2. Availability

The operating instructions must be kept with the machine and be readily accessible to operators and maintenance personnel.

1.3. Familiarization

It is the responsibility of the employer (the machine owner) to ensure that all persons who operate, service, maintain, or repair the machine have read these operating instructions, at least the parts relevant to their work. Furthermore, all persons who operate, service, maintain, or repair the machine are obliged to seek information in the operating instructions themselves.

If a person is injured without having read the safety and operating instructions, the employer shall be held responsible.

1.4. Version

The user manual is a translation of the original Danish user manual, version 02.01.

1.5. Manufacturer

ASP Produktudvikling A/S is the manufacturer and producer of the machine.

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2. Overview and Application

2.1. Purpose of the Machine and Intended Use

The machine may only be used for lifting loads up to the machine's rated lifting capacity.

The machine is designed to be mounted on an excavator or a backhoe loader equipped with a functional hydraulic system.

The machine may only be mounted on excavators/backhoe loaders where a working pressure at the auxiliary hydraulic outlet of between 165–210 bar can be achieved, with a maximum oil flow of 30 L/min. If this limit is exceeded, a hydraulic flow divider must be installed.

Never attempt to modify or adapt the machine for purposes other than those described in these operating instructions. Any modification or change of intended use will void all warranty and liability obligations of the manufacturer.

2.1.1. Prohibited Use

Persons under the age of 18, as well as persons without experience in operating excavators or backhoe loaders, are not permitted to operate or work with the machine.

3. Safety and Residual Risks

The machine is manufactured in accordance with national and international standards and safety requirements. Therefore, repairs may only be carried out by an authorized service technician, and only original spare parts must be used. Failure to comply may result in repairs that pose a risk to the user.

3.1. Warning Against Foreseeable Misuse

The machine must not be used for lifting loads exceeding the machine's rated lifting capacity.

It is strictly prohibited to lift or move loads over persons.

3.2. Safety Measures to Be Taken by the User

No persons are allowed within the machine's working area during operation.

Always exercise extreme caution when operating the machine, especially with regard to bystanders and colleagues.

In certain situations, it may be necessary to cordon off the working area when operating in public spaces.

Always use the required personal protective equipment when handling the machine. During operation, safety footwear and a safety helmet must be worn.



3.3. Intended Use and Warnings of Hazardous Situations

The machine may only be used with original accessories and spare parts and must be correctly installed. Never use components other than those supplied with the machine or specifically designed for this purpose by ASP Produktudvikling A/S.

Never attempt to modify or adapt the machine for purposes other than those described in these operating instructions. Any modification or change of intended use will void all warranty and liability obligations of the manufacturer.

During operation, the operator must remain alert to any changes in function and ensure that any damage is remedied before the machine is used again.

No persons are allowed within the reach of the excavator/backhoe loader during lifting operations.

3.4. Risiko for motorskade

The product must NEVER be connected to 110 V or 220 V AC. Doing so involves a risk of serious motor damage.

The maximum continuous lifting time of a load is 5 minutes. Exceeding this time may cause excessive heat buildup and prevent the machine from operating optimally.

4. Before Use

It is the user's responsibility to ensure that the machine, including seals, oil level, air filter, belts, and rotor, is not damaged before work is commenced.

Verify that the machine is correctly mounted. The coupling between the machine and the excavator/backhoe loader must be inspected for cracks, damage, and excessive play.

If these operating instructions specify additional inspection points, it is also the user's responsibility to carry out these checks.

The user must ensure that the machine is operated correctly and is not subjected to loads exceeding its specified capacity. When lifting asymmetrical loads, they must be properly secured and balanced.

If, during operation, the user feels uncertain or unsafe about the situation, the machine must be stopped immediately by releasing the controls.

The function of the control unit must be checked. When activated, the machine must respond correctly.

5. Assembly and Installation

1. Before use, inspect the machine to ensure that there is a sufficient oil level in the oil reservoir, that the air filter is clean,



- and that the belt is correctly tensioned. Check that the sealing strip underneath the base of the machine is intact.
2. Mount the machine onto the excavator/backhoe loader using the quick coupler.
 3. Route and install the electrical control system along the excavator arm and into the operator's cab. Then connect the power cable to a 12 V outlet (cigarette lighter socket) and mount the control handle on the side of the joystick.
 4. Connect the hydraulic hoses/quick couplings to the auxiliary hydraulic outlet on the excavator/backhoe loader (typically the hammer circuit).
 5. On some excavators/backhoe loaders, the hydraulic auxiliary outlet is equipped only with pressure and return lines. On these machines, ensure that the rotation direction of the vacuum pump is correct (air pressure at the exhaust).
 6. A valve is installed on the machine in connection with the hydraulic hoses, allowing adjustment of the machine speed. The speed affects the vacuum gauge reading, which must indicate a minimum vacuum of -0.5 bar. This value also depends on the density and weight of the load.
 7. During lifting operations, no persons may be present within the reach of the excavator arm.
 8. Once the load has been positioned, press the release valve to disengage the vacuum. The machine can then be used to lift the next load.
 9. Never lift loads higher than necessary or over persons.
 10. It is important to place the machine straight down onto the tile (load) and not to drag it across the surface, as this will extend the service life of the suction cup.
 11. After placing the tile, the electric slewing/rotation system (rotor) must be returned to its starting position. Failure to do so may result in tension or damage to the hydraulic hoses and the electrical system if rotation continues in the same direction.
 12. If the excavator/backhoe loader stalls during a lift, the load must be lowered as quickly as possible, as the load will eventually detach after a period of time, approximately 7 to 300 seconds, depending on the material and surface properties of the load.

6. Training

6.1. Operators

Only operators or personnel over the age of 18 who have read and understood these operating instructions are permitted to operate the machine.

7. Technical Data

7.1. Technical Specifications

- CE approved
- Net weight incl. rotor: 79 kg
- Net weight excl. rotor: 70 kg
- Lifting capacity: 2000 kg
- Air flow at 80 kPa: 500 L/min
- Hydraulic oil requirement: min. 10 L/min
- Rotation motor: 400-degree rotation
- Rotation motor power consumption: 12 V, 50 W

7.2. Operation from the Operator's Cab

7.2.1. Control Handle

The machine can be operated by fastening the control handle to the side of the joystick.

1. Clockwise rotation
2. Counter-clockwise rotation
3. Velcro strap for mounting on joystick
4. Vacuum release valve

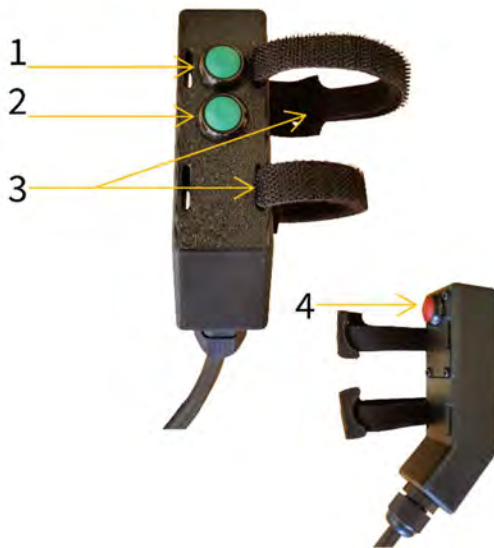


Fig. 1. Control handle.



7.2.2. Programming of Existing Joystick

If the excavator/backhoe loader is equipped with available control buttons, the machine can be programmed to use these for operation.

7.3. Machine Designation

The full designation of the machine is Hydraulic Tile Lifter.

7.4. Machine Plate

The machine plate is located on the cover of the oil reservoir (see technical specifications in the appendix).

7.5. Noise Emission

The noise level of the equipment is below 70 dB(A).

7.6. Service Life

Regular service and maintenance will extend the service life of the equipment. In addition, the legally required 12-month inspection must be observed and carried out by ASP Produktudvikling A/S or an official service partner.

8. Transport

During transport, the machine must be raised so that the sealing strip or suction cups are not subjected to load. For this purpose, our dedicated holder can be used to advantage.

During transport, the machine must be secured in accordance with applicable legislation and regulations.

9. Assembly and Installation of Adapters

All our adapter plates are compatible with the machine. The adapter plates are easily mounted by loosening the wing nuts, sliding the L-bracket upward, and lowering the machine onto the adapter plate. The L-bracket is then pressed down, and the wing nuts are tightened.

It is important to ensure that the adapter plate and the machine are correctly aligned on top of each other and that the sealing strip provides an airtight seal between the machine and the adapter plate.

1. Wing nut
2. Wing nut

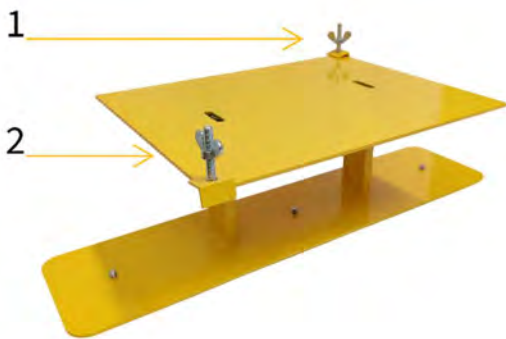


Fig. 2. Adapter plate.

10. Maintenance

The maintenance instructions refer to the technical specifications in the appendix (page 9).

10.1. Checking the Oil Level

Behind the rear guard with inspection holes (item 8) is the oil reservoir for the vacuum pump. The oil level must be checked, and the needle valve must be set to 0.5 before each start-up.

If oil needs to be topped up, remove the guard by loosening the thumb nut, allowing the guard to be lifted off. Use standard engine oil SAE 10W-40.

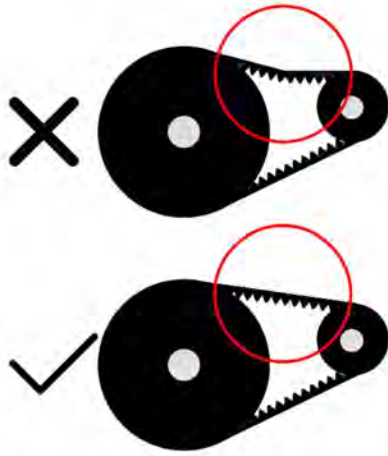
If water is present in the oil reservoir, the oil must be replaced with clean oil. The oil reservoir and needle valve must be cleaned of any sludge residues using compressed air.

10.2. Drive Belt Inspection

The drive belt (V-belt) from the motor to the vacuum pump must be checked and tightened if necessary. This is done using the V-belt tensioner (item 3). A new drive belt (V-belt) typically requires a few retightenings after initial installation. A drive belt (V-belt) should only deflect 10 mm at the midpoint between the pulleys (Figure 3).

The drive belt must not show cracks or

breaks, and it must run on the side of the pulleys, not at the very bottom of the groove.



Figur 3. Illustration af nedbøjning på kilrem.

There are also drive belts (V-belts) located under the support top. There are two belts here, which run together; if either of these exhibits any of the aforementioned defects, both drive belts must be replaced. It is important to wipe off any excess or spilled oil, as the sealing strip on the underside is not oil-resistant.

10.3. Air Filter

The air filter must be inspected weekly, as a clogged filter reduces the machine's capacity and lifting performance. The vacuum pump may also be damaged. A lightly soiled filter can be gently tapped or cleaned with compressed air. A damaged air filter must never be reinstalled.

10.4. Sealing Strip

The sealing strip located on the underside of the machine must be handled carefully when the machine is not in use. The machine must never be placed in an oil puddle or on sharp edges, as this will damage the sealing strip. It is recommended to install our protective holder to preserve the sealing strip.

10.5. Cleaning

Clean using water with mild soap and a well-wrung cloth. Avoid cleaning with running water. Do not use solvents or cleaning agents containing abrasive particles.

10.6. Storage

If the machine is not to be used for an extended period, it should be elevated so that the sealing strip and suction cups are not under load.

The machine must be stored in a dry environment at room temperature to ensure optimal function and prolong service life.

11. End of Use

11.1. Disposal and Environmental Considerations

Oil and hydraulic fluid contained in the oil reservoir and hoses are considered environmentally hazardous and must be disposed of in accordance with the regulations set by

local environmental authorities. All other components can be disposed of as metal and electronic waste.

11.2. Environmental Responsibility and Recycling

At ASP Produktudvikling, we take environmental responsibility seriously. Therefore, we offer to accept the return of our products at no cost when a customer no longer requires them.

Machines that are still operational are inspected, serviced, and refurbished to extend their service life. This approach conserves resources, reduces waste, and allows the products to remain in use for additional years. We believe that quality and sustainability can go hand in hand.

12. Service

Service, spare parts, and mandatory annual inspections are provided at the following address:

ASP Produktudvikling A/S

Tolstrup Byvej 7, 9600 Aars, Denmark

Or

At an official service partner.

We carry out the mandatory 12-month service inspection on all our machines and lifting equipment. Regular inspections ensure

that the machine is approved, fully operational, and compliant with current regulations.

12.1. Service Abroad

Service, spare parts, and mandatory inspections can be carried out by official partners who have a collaboration agreement with ASP Produktudvikling A/S.

If you are unsure of the location of your nearest authorized partner, please contact ASP Produktudvikling.



13. Contact Information

ASP Produktudvikling A/S

Tolstrup Byvej 7

9600 Aars, Denmark

Tel.: +45 98 66 92 69

E-mail: asp@asp-produkt.dk

Website: www.asp-produkt.dk

VAT: 32 27 83 29

14. Disclaimer

The warranty covers material defects and assembly faults in components that, upon the manufacturer's inspection, are found to be incorrect or insufficient for normal use.

The warranty is void if the machine has been misused, overloaded, or if parts have been incorrectly replaced, resulting in damage.

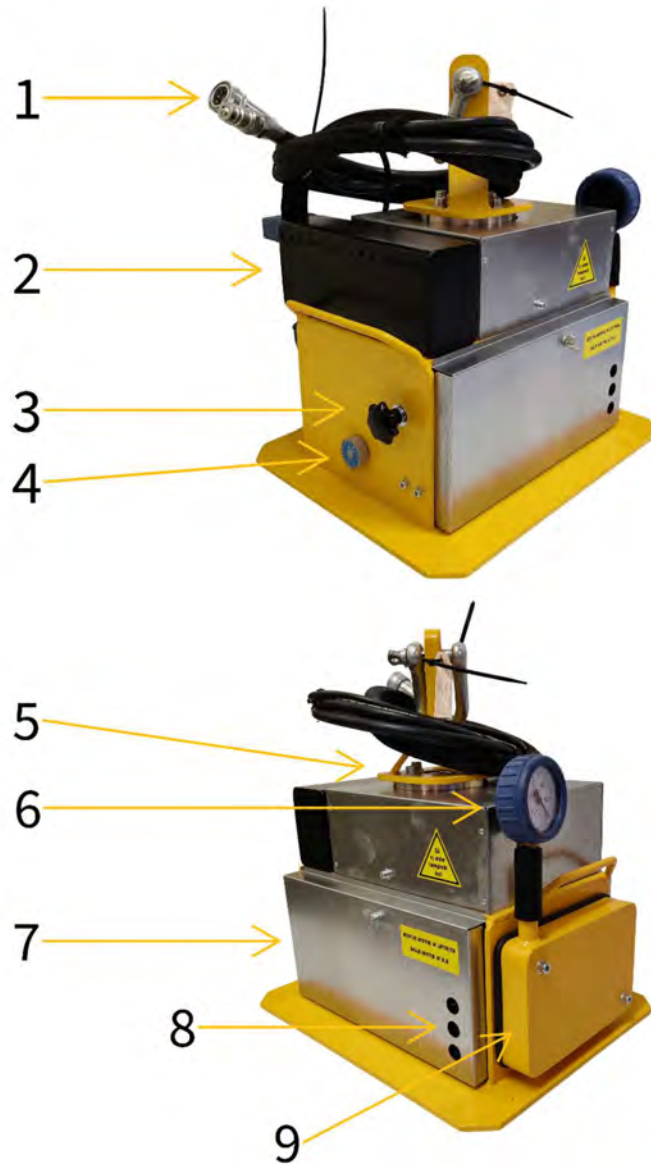
The manufacturer assumes no liability for personal injury or property damage caused by the delivered machine, nor for issues arising from defects, malfunctions, or incorrect use. Likewise, the manufacturer disclaims any responsibility for lost profits, operational downtime, time losses, margin losses, or indirect damages incurred by the purchaser or third parties.



15. Appendices

15.1. Technical Specifications

1. Quick Coupling
2. Exhaust for Excess Air
3. V-Belt Tensioner
4. Oil Valve
5. 12V Rotor
6. Vacuum Gauge
7. Oil Reservoir Shield
8. Inspection Ports for Oil Reservoir
9. Air Filter Housing



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Hydraulic Tile Lifter with rotor

Lifting aid for all types of paving stones, natural stone and concrete elements. With various adapter plates, the tile lifter can be adapted to any task. It is easily mounted on a mini excavator and connected to the machine's hydraulics to create vacuum. A wide range of accessories, adapter plates and quick couplers ensure simple and efficient operation.

Specifications	
Item No.	3000
Oil flow requirement (l/min)	min. 10
Voltage	12V
Lifting capacity (kg)	2000
Total weight (kg)	75

- ✓ Wide range of accessories
- ✓ Multiple adapter plate variants
- ✓ Mounted on all types of excavators
- ✓ CE approved

