



# **TEHO-ESA HDR HYDRAULIC MOTOR POWERED pump for tank trucks and street washers**



**The most efficient ESA pump for medium and heavy vehicles**

**Thanks to its good pressure and high output, the pump is suitable for both  
washing and water transfer and irrigation**

**Complete equipment according to customer requirements Design**

**output 1100 L/min @ 10 bar  
Maximum pressure 15 bar.  
maximum output 1500 L/min**

**Simple, reliable design Low footprint**

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## TEHO -ESA HDR hydraulically operated pump for vehicle installations

**TEHO-ESA HDR** ESA's most efficient ready-to-install hydraulic pump for street washers and tank trucks.

Equipped with a red metal impeller, TEHO-ESA is also suitable for pumping foam or applying salt solutions.

the centrifugal pump is equipped with a maintenance-free mechanical seal. The shaft of the pump is made of stainless steel.

Two pressure outputs as standard.

**Engine: Volvo F11-19** revolution volume engine (19 cm<sup>3</sup>/revolution with a maximum speed of 8100 rpm/continuous) Maximum continuous pressure 350 bar. Oil demand 100-100 L/min, power demand with nominal output 200 L/min/30 bar 23 kW.

**Suction device:** If necessary, a compressed air ejector can be equipped with a suction device or a manual suction pump. Thanks to the suction devices, the pump can use open water sources without the seed water in the suction hoses. Suction hoses and piping according to rated power NS 80 to NS 100.

**Suction connection:** The size of the Power-Esa HDR suction connection is R 3" spk. the pump is delivered with a 3" pk , 3" cam lever - 3" pl- or B-Storz connector according to the customer's specification.

**Pressure outlet:** The pressure outlet is optionally equipped with two NS 65 non-return valves or the optional NS 25 to NS 40 ball valves.

**Pressure gauge:** The pump is equipped with a liquid-damped 63 mm stainless steel pressure gauge with a display of -1 / + 15 bar.

### Dimensions:

**length:** 480 mm without suction connector

**Width:** 350 mm with pressure valve

**height:** 560 mm max valve open

**weight:** 42 kg



## Commissioning TEHO ESA HDR and Installing Hydraulics

**The direction of rotation of Teho Esa** is clockwise from the direction of the pump inlet. The direction of rotation of the hydraulic motor is then also clockwise. The supply is connected to terminal B (direction of rotation clockwise) and the return terminal to terminal A.

**NB!** Turning the hydraulic motor counterclockwise will damage the pump O-ring seal.

### Esa T oil demand and piping

The nominal output is 125 L/min @ 200 bar. The recommended oil level for the system without the oil cooler is 3 x liter output per minute. (example: 3 x 125 L/min = 375 L)

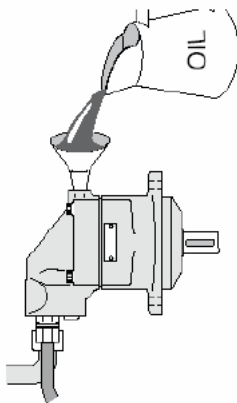
Always use a larger pipe in the return line than in the pressure line. The size of the piping is affected by its length. The general recommendation for vehicle use is 20 mm for the supply line, 32 mm for the return line and 12 mm for the leak line.

### Leak line

The leak line must never be left disconnected. Depending on the position of the hydraulic motor, the upper line is always selected as the leak line. (Leak line outputs on both sides of the motor).

The leak line is connected directly to the oil tank. If a leak line is connected to the return line, make sure that no pressure is created in the return line by using sufficiently large piping. The pressure will damage the pump O-rings.

Fill the hydraulic motor with oil before starting for the first



Fill the engine with oil before starting for the first time.

