

Hydraulic Pump Unit



for the connection of single-acting hydraulic detensioning cylinders

Function

Power is supplied to the motor by pulling the knob of a spring-loaded switch. As soon as the knob is released, the motor comes to a stop. When the motor is running, oil flows from the pump to the stop valves 5, 6 and 7.

If valves 5 and 6 are opened while valve 7 is closed, oil flows from valve 5 to valves 1 and 2 and from valve 6 to 3 and 4. If hydraulic cylinders are connected to connections 1 - 4 and these valves are opened, then the pistons of the cylinders concerned will extend.

The working pressure is limited by a pressure relief valve to max. 450 bar and can be read on the two permanently-mounted pressure gauges. When the drain valve 7 is opened, the oil flows from the cylinders back into the tank.

Drive

3-phase motor, 1500 rpm, normal voltage 400 V, 50 Hz (other voltages and frequencies on enquiry).

Pump

High-pressure radial-piston pump, max. working pressure 450 bar, useful oil capacity approx. 50 ltr., total oil capacity 90 ltr. (for hydraulic oil, see Sheet B 541.01/2).

Connections

Max. 4 hydraulic detensioning cylinders (hydraulic lifting jacks). Piping 12 mm dia. with union nut M 12 - S / M20 x 1.5 and cutting ring d 12 - S.

Weight

Approx. 125 kg (unpacked and without oil filling)

Ordering data

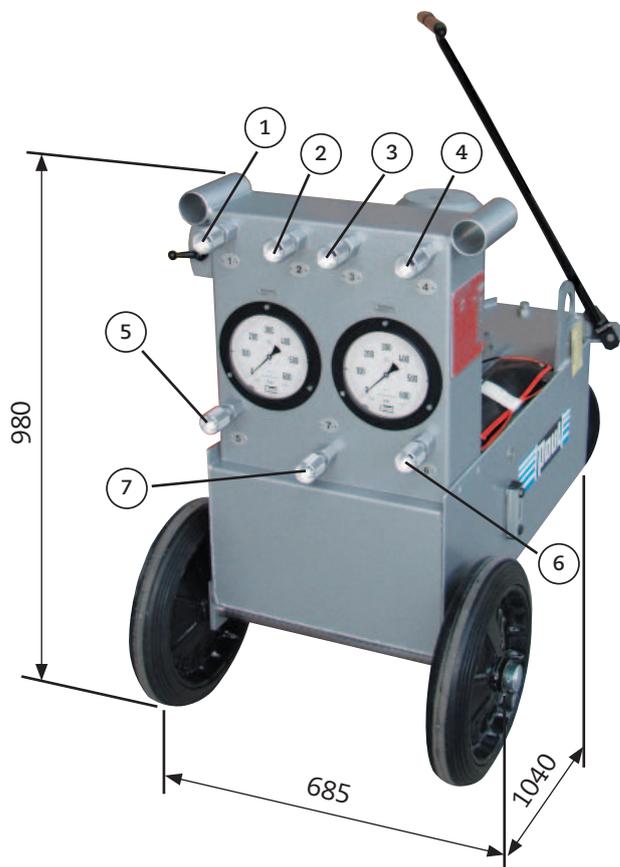


Fig. 1: Mobile hydraulic pump unit

Designation	Type	Order No.	Spare parts kit
Mobile hydraulic pump unit	Pump 4.2 l/min. Motor 2.2 kW	78-037.00	78-049.00 + 77-038.00
	Pump 5.8 l/min. Motor 3.0 kW	78-070.00	
	Pump 8.4 l/min. Motor 5.5 kW	78.037.15	

Pneumatic tyres (optional extra)		77-138.12
200 ltr. oil tank, useful oil capacity 100 ltr., pneumatic-tyred (optional extra)		77-138.43
200 ltr. oil tank, useful oil capacity 100 ltr., standard tyres (optional extra)		77-138.46
Connection hoses for detensioning cylinders:	ND 8 x 2500	13-069.23
	ND 8 x 5000	13-069.39
	ND 8 x 2500	13-070.11
Extension hoses for detensioning cylinders:	ND 8 x 2500	13-070.11
	ND 8 x 5000	13-070.12



Fig. 2: 200 ltr. oil tank, 77-138.43, overall width incl. wheels: 1300 mm, weight: 250 kg

Please note the useful oil capacity of the hydraulic unit! A casting bed for the production of beams/roof trusses, designed for a prestressing force of 4000 kN in the main reinforcement and 1000 kN in the transport reinforcement would require 28 litres of oil. In this case one pump unit would be sufficient to supply two beds.

On casting beds using larger cylinders or where more than two beds of this type are provided, it will be necessary to use either another pump unit or if the casting beds are close together, a pump unit with a larger tank. 200 ltr. tanks have a useful oil capacity of 100 ltr. (see fig. 2).

Oil volume required by single-acting 225 mm stroke detensioning cylinders as per brochure B562.01/1:

200 kN	1.4 litres	1000 kN	5.9 litres	4000 kN	20.5 litres
350 kN	1.9 litres	1500 kN	8.2 litres	5000 kN	25.6 litres
500 kN	2.9 litres	2000 kN	11.1 litres	7000 kN	42.9 litres
700 kN	3.9 litres	3000 kN	16.0 litres	10000 kN	59.6 litres

In special design the hydraulic pump unit is also available with extra connections to operate more than 4 cylinders or with cylinder supports for the transport from bed to bed, in particular on sliding mould systems with lock-type anchoring device.

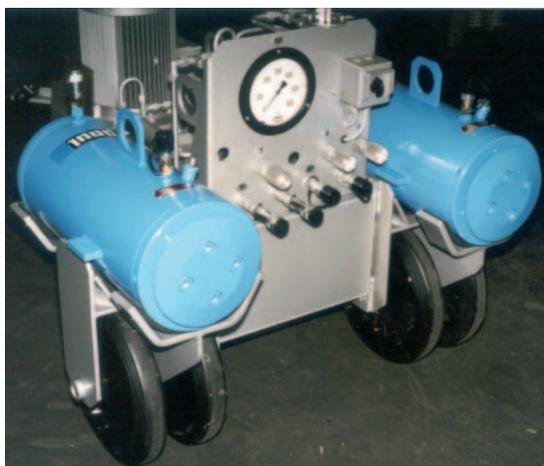


Fig. 3: Hydraulic unit with cylinder support 78-070.04

Supplementary equipment for two extra cylinder connections
Order No. 78-037.12

Cylinder support to accommodate two 1000 or 1500 kN cylinders
Order No. 78-070.04