

MOBILE LUBRICATION PUMP

PMPP

APPLICATION

Mobile lubrication pumps PMPP are used for fast and reliable lubrication of bearings, pins and other lubricated points of stationary machinery and equipment, especially in heavy industry, metallurgy and mining industry which are not equipped with their own lubrication system, and further for lubrication of mobile machines, machinery and transportation vehicles, e.g. excavators, cranes, trucks, buses, agricultural and forestry devices, in rail transport, etc.

Mobile lubrication pumps PMPP are available with 8 litres (organic glass) and 12 litres (metal) lubricant reservoirs and nominal outputs of 10.5 cm³/min. The mobile lubrication pump is fed using a standard single-phase plug - 230V AC/50Hz. The lubrication pump electric motor operates at 24V DC; the input voltage is transformed to the electric motor's operating voltage through a transformer and a rectifier bridge.

DESCRIPTION

The main part of the lubrication pump is the pump body made of aluminium alloy and the cam mechanism allowing for fitting the pump with three working dosing units. One G1/4" outlet is located on each of the working units. The lubricant flow of 3.5 cm³/min. is set consistently on each working unit. The outlet of the working units is combined into one outlet. A control pressure gauge, pressure switch and safety valve are connected to this outlet. The connection of these elements is carried out using a zinc-coated pipe and the termination is through a fluid coupling with connection to a high-pressure hose. The lubricant reservoir with top cover is placed on the body vertically. Lubricant reservoirs are equipped with a scraper blade to improve plastic lubricant pumping. The electric motor for the cam mechanism is located in the lower part of the pump body and protected with a cover. The left-hand side is fitted with a connector. The connector identified as POWER is intended for 230V AC power supply. Below the connector (POWER), there is a fuse-holder with a T 2.5A fuse. The lubricating nipple for replenishment of lubricant is located on the front of the body. The high-pressure hose ended with the lubricating gun is connected to the outlet of piping for interconnection of units. The mobile lubrication pump is equipped with a starting circuit breaker and a mains cable with plug for connecting to the mains.

OPERATION

The lubrication pump operates on a piston pump principle. The electric motor drives the cam mechanism, controlling the pistons of working pumping units in straight reciprocating motion. A negative pressure inside the unit's working cylinder occurs when the piston slides out of the working pumping unit and when it is fully extended, the suction channel opens, which results in suction. When the piston moves back, the lubricant is discharged through the non-return valve into the lubrication pump outlet. Simultaneously, with the rotation of the central shaft and cam, the scraper blade is on the move, separating the lubricant from the reservoir wall and pushing it into the suction area. Its motion provides a visual check over the lubrication pump operation.

The control unit checks and controls the operation of the pump. The lubrication pump is started using the green button and turned off using the red button; these are located in the

electric control box on the lubrication pump handle. The white indicator lamp is located in between the two buttons. The pressure switch monitors the set pressure in the output part, the lubrication pump is constantly in the so-called stand-by mode indicated by flashing of the white indicator lamp. When the lubricating gun trigger is pressed or when lubricant is applied to the lubricated place, the pressure in the outlet high-pressure hose goes down. The pressure switch is activated and the lubrication pump electric motor is turned on by means of electric control and lubricant dosing occurs - the white indicator lamp is ON. When lubricant is replenished and the set pressure is reached, the white indicator lamp will start flashing again.

The maximum lubricant pressure is monitored by a safety valve which is set to 300 bar by the manufacturer. When the maximum pressure is exceeded, the lubricant flows through the return channel and the safety valve vinyl top cover into the outside environment. The lubricant does not go back into the reservoir and so it is easy to check the state of the lubrication pump in this way.

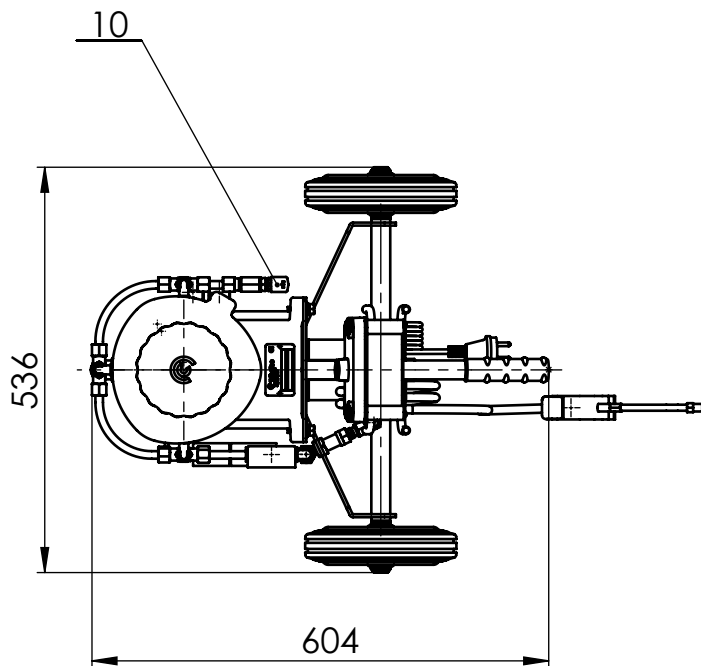
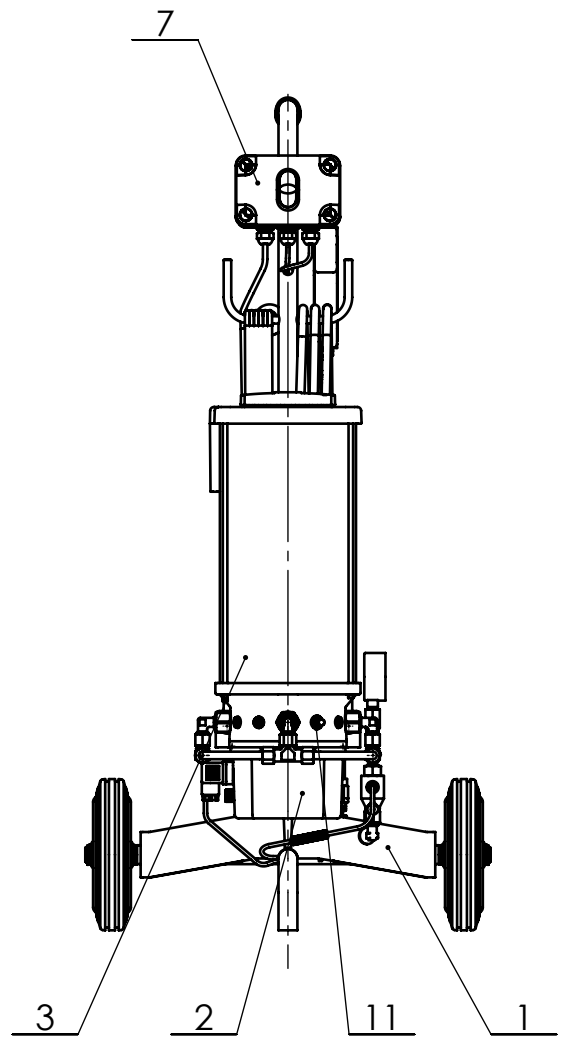
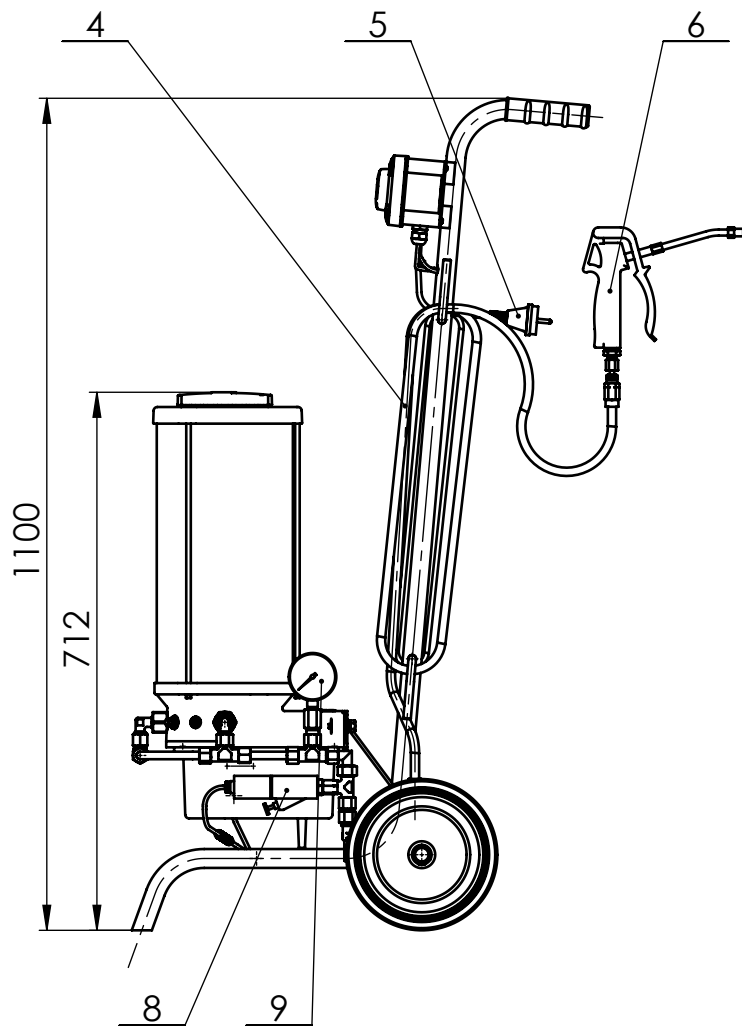
SERVICE AND MAINTENANCE

Lubricant reservoir needs to be checked for any impurities. Lubricant reservoir is filled with specified lubricant. Lubrication pump is connected to the power supply using a power cable with plug. Lubrication pump electric motor is switched ON/OFF using the relevant push buttons on the handle. Lubrication pump needs to be checked for its smooth and regular run after being put into operation. The lubricant remained in the lubrication pump after pressure tests as a protective compound is emptied. When the lubricant supplied from the lubricating gun flows out regularly without bubbles, the lubrication pump can be used. The adjustment of required pressure is carried out on the by-pass valve as required by tightening or loosening the union nut. Turning it clockwise increases the working pressure, turning it counter-clockwise the working pressure is reduced. The working pressure is verified on the lubrication pump pressure gauge.


The lubricant should be refilled when the lubricant level falls to the tapered part of the reservoir. If the reservoir is fully emptied, the pump must be bled. Lubricant is refilled directly to the reservoir through the lubricating nipple or after lifting the cover. Lubricant purity must be strictly ensured during the refilling operation. Except for lubricant refilling, no other maintenance of the pump is required. For operation safety, it is necessary to regularly check the condition of the power cable for damage.

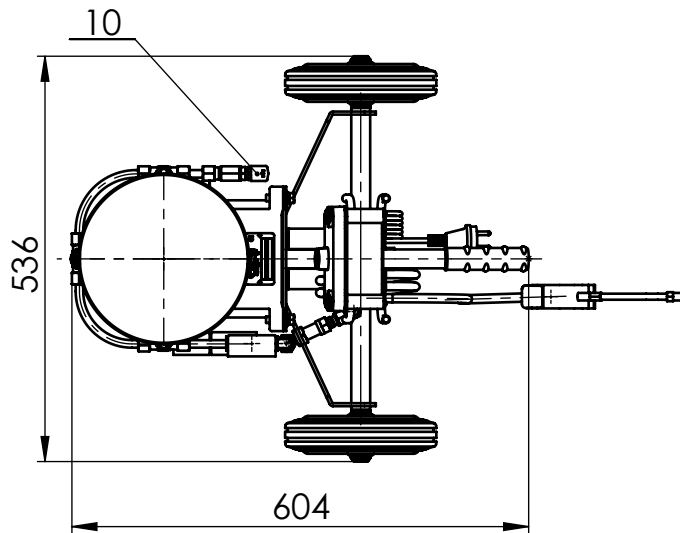
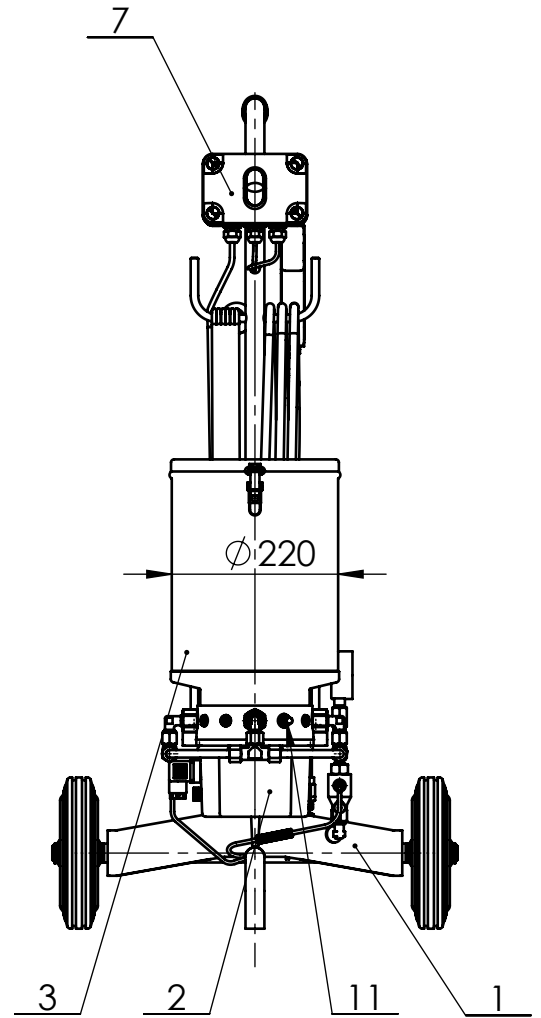
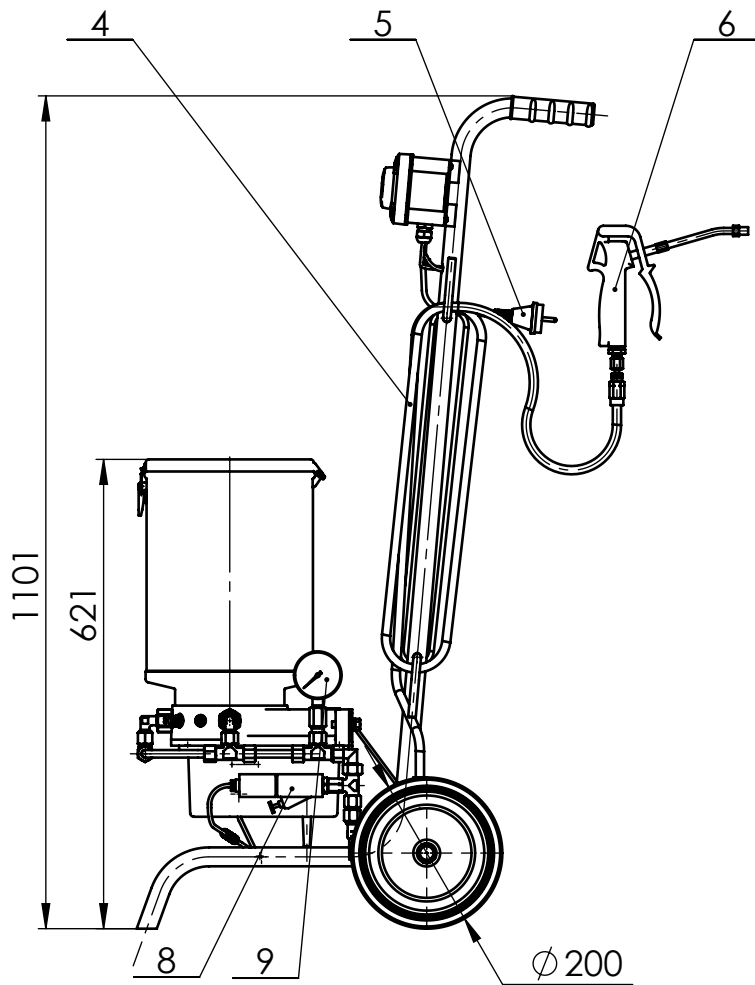
TECHNICAL DATA

Maximum pressure		350 bar
Working pressure		300 bar
Working pressure control range		100 to 300 bar
Nominal delivered quantity		10.5 cm ³ /min.
Lubricant container capacity		8 and 12 dm ³
Number of outlets		1 (into lubricating gun)
Electric motor		230V/50Hz, 0.5A
Outlet hose length		5 m
Power supply cable length		10 m
Lubricant	grease	max. NLGI-2
	oil	min. 50 mm ² /sec.
Temperature of working environment		-25 to 40°C
Weight		20 kg (without lubricant)




Pos.	Name
1	Chassis
2	Lubrication pump
3	Lubricant tank 8L
5	Power cabel
6	Grease gun
4	High pressure hose
7	Control unit
8	Pressure switch
9	Manometer
10	Safety valve
11	Grease nipple

Name	MOBILE LUBRICATION PUMP	 Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	PMPP 8L	
Code	9 45 1775	



Pos.	Name
1	Chassis
2	Lubrication pump
3	Lubricant tank 12L
5	Power cabel
6	Grease gun
4	High pressure hose
7	Control unit
8	Pressure switch
9	Manometer
10	Safety valve
11	Grease nipple

Name	MOBILE LUBRICATION PUMP	 Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	PMPP 12L	
Code	9 45 1494	