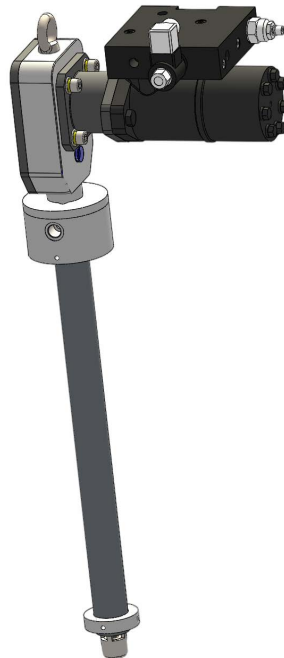




**SOATOER**  
AN ISO 9001 APPROVED COMPANY

# HANDY-H

High performance hydraulic pump for  
Lubrication systems  
高性能的液压桶装润滑泵

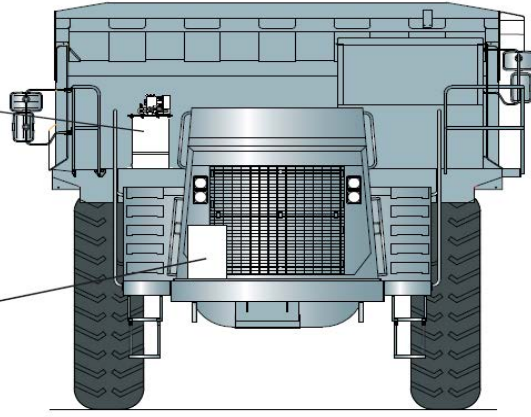


**SOATOER**  
LUBRICATION SYSTEM

# TABLE OF CONTENTS 目录

C-E-04032022

60 lb. (27 kg) pump and reservoir mounted on the upper deck of the truck. 泵和油桶安装在卡车的上层甲板上



Enclosure for controller, valve and gauge, at ground level for easy filling. 控制器、阀门和压力表的外壳，在地面上，便于灌装。

<b>Description</b> 描述		<b>3</b>	<b>System structure</b> 系统结构	<b>5</b>
Features and benefits	特点和优点	3	<b>Order</b> 订购信息	<b>6</b>
Applications	应用	3	<b>Components</b> 部件	<b>7</b>
<b>Technical Data</b>	技术参数	<b>4</b>	<b>Accessories</b> 附件	<b>11</b>
Technical data	技术参数	4	<b>Dimensions</b> 尺寸	<b>13</b>
Hydraulic data	液压参数	4		
Electrical Data	电气参数	4		
Lubricant Level control	低液位	4		
Release valve	释放阀	4		



All SOATOER products must only be used for their intended purposes, as specified in this brochure and in all instructions. If the product is supplied together with user instructions, the user is required to read them and comply with them. Not all lubricants are suitable for centralised lubrication systems. SOATOER lubrication systems or relative components cannot be used together with gas, liquid gas, pressurised gas in solution and liquids with vapour pressure exceeding normal atmospheric pressure (1013 bar) by more than 0.5 bar, maximum temperature permitted. Any type of dangerous materials, namely those classified as such by European Community Directive (EC) 67/548/EEC, Article 2 (2), can only be used in SOATOER centralised lubrication systems or relative components upon consultation with SOATOER and after having received written approval from the company.

所有SOATOER产品只能用于本手册和所有说明中指定的目的。如果产品与使用说明一起提供，则要求用户阅读并遵守使用说明。并不是所有的润滑剂都适用于集中润滑系统。SOATOER润滑系统或相关部件不能与气体、液化气、溶液中的加压气体和蒸汽压力超过正常大气压力(1013 bar) 0.5 bar(允许的最高温度)的液体一起使用。任何类型的危险材料，即被欧洲共同体指令(EC) 67/548/EEC第2(2)条分类的危险材料，只有在与SOATOER协商并获得公司书面批准后，才能用于SOATOER集中润滑系统或相关部件。

## Features and benefits特点和优点

The SOATOER Maximeter system has been designed to lubricate heavy duty and large machinery. The system consists of a Hydraulic pump (Hydra) which supplies the lubricant to a Single-line system equipped with XL-1,XL-2 valves. Each metering device supplies a single point and we can adjust its flow rate with precision.SOATOER最大测量系统被设计用于润滑重型和大型机械。该系统由一个液压泵(HANDY-H)组成，为配备XL-1、XL-2阀门的单线系统提供润滑油。每个计量装置提供一个单点，我们可以精确地调整它的流量。

The Maximeter systems have several advantages.

### High performance pump高性能泵

The Maximeter systems supply adjustable quantities of both grease and oil. Operation is not affected by changes in the lubricant temperature or viscosity. The metering devices can be located at great distances from the pump tanks.

最大测量系统提供可调节数量的润滑脂和油。操作不受润滑油温度或粘度变化的影响。计量装置可以安装在离泵罐很远的地方。

### Resistance

The Maximeter systems are suitable for work in difficult conditions, particular environments and temperatures below or above the standard.系统适用于在困难的条件下工作，特殊的环境和温度低于或高于标准。

### Easy Installation安装方便

The Maximeter systems are simple to manage, install and maintain. 系统易于管理、安装和维护。

### External Adjustment外部调节

The metering valves are externally adjustable without the use of special tools. Each point to be lubricated will receive the right amount of lubricant.

计量阀是外部可调的，不需要使用特殊工具。每个要润滑的点都将得到适量的润滑剂。

### Visual Indicators目视指示器

Each metering valve is equipped with an indicator which gives a visual indication of its correct operation. Troubleshooting is quick.每个计量阀都配有一个指示器，可以直观地显示其正确的操作。故障诊断是快速。

### Simplified Maintenance维护简单

The replacement of the metering valves is quick and simple. It is not necessary to remove the line power supply connections or act on the adjacent metering devices: the replacement can be made between work cycles, without leakage of lubricant. 更换计量阀快捷简单。不需要拆除线路电源连接或作用于相邻的计量装置:可以在工作周期之间进行更换，没有润滑油泄漏。

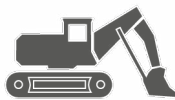
## Applications应用



Front wheel loaders  
装载机



Mining Trucks  
采矿卡车



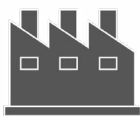
Digging buckets  
挖掘桶



Drag excavators  
电铲



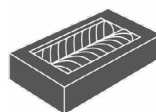
Bucket Excavator  
铲斗挖掘机



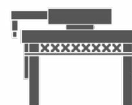
Cement factories  
水泥厂



Shredders  
破碎机



Mining Dimensioners  
破碎机



Port Loaders  
港机



Slurry Pumps  
水泥泵

Technical data 技术参数

<b>Operating principle 工作原理</b>	Hydraulic Pump 液压驱动泵
<b>Metering 排量</b>	Adjustable from 120 to 360 cc / min 可调节流量
<b>Transmission ratio 传动比</b>	10:1 with inlet pressure from 20 to 25 bar and Flow rate 10-18 l/1' 11:1 with inlet pressure from 26 to 32 bar and Flow rate 18-28 l/1'
<b>Maximum Operating Pressure 最大压力</b>	241 bar [3500psi] 241公斤
<b>Safety Valve 安全阀</b>	Set to 250 bar ±10%
<b>Lubricants 润滑剂</b>	NLGI Grease from 00 to 2
<b>Outlets 出口数</b>	1
<b>Working temperature 工作温度</b>	from -30 to +65 °C
<b>Tank capacity 油箱容量</b>	27 - 41 Kg
<b>Materials 材料</b>	elastomer, steel, aluminium, bronze, copper, brass
<b>Outlet connections 出口螺纹</b>	3/8" BSP F
<b>Assembly position 安装方式</b>	Vertical 垂直安装

Hydraulic data 液压参数

<b>Hydraulic Inlet Pressure 进口压力</b>	max. 200 bar
<b>Inlet Operating Pressure 工作压力</b>	from 20 to 32 bar
<b>Hydraulic Inlet Flow 液压流量</b>	min. 5 max. 28 l/1'
<b>Hydraulic Fluid Temperature 液压温度</b>	max. +90 °C;
<b>Inlet and return hydraulic connection 进、回口螺纹</b>	BSP 1/4"

Electrical Data 电气参数

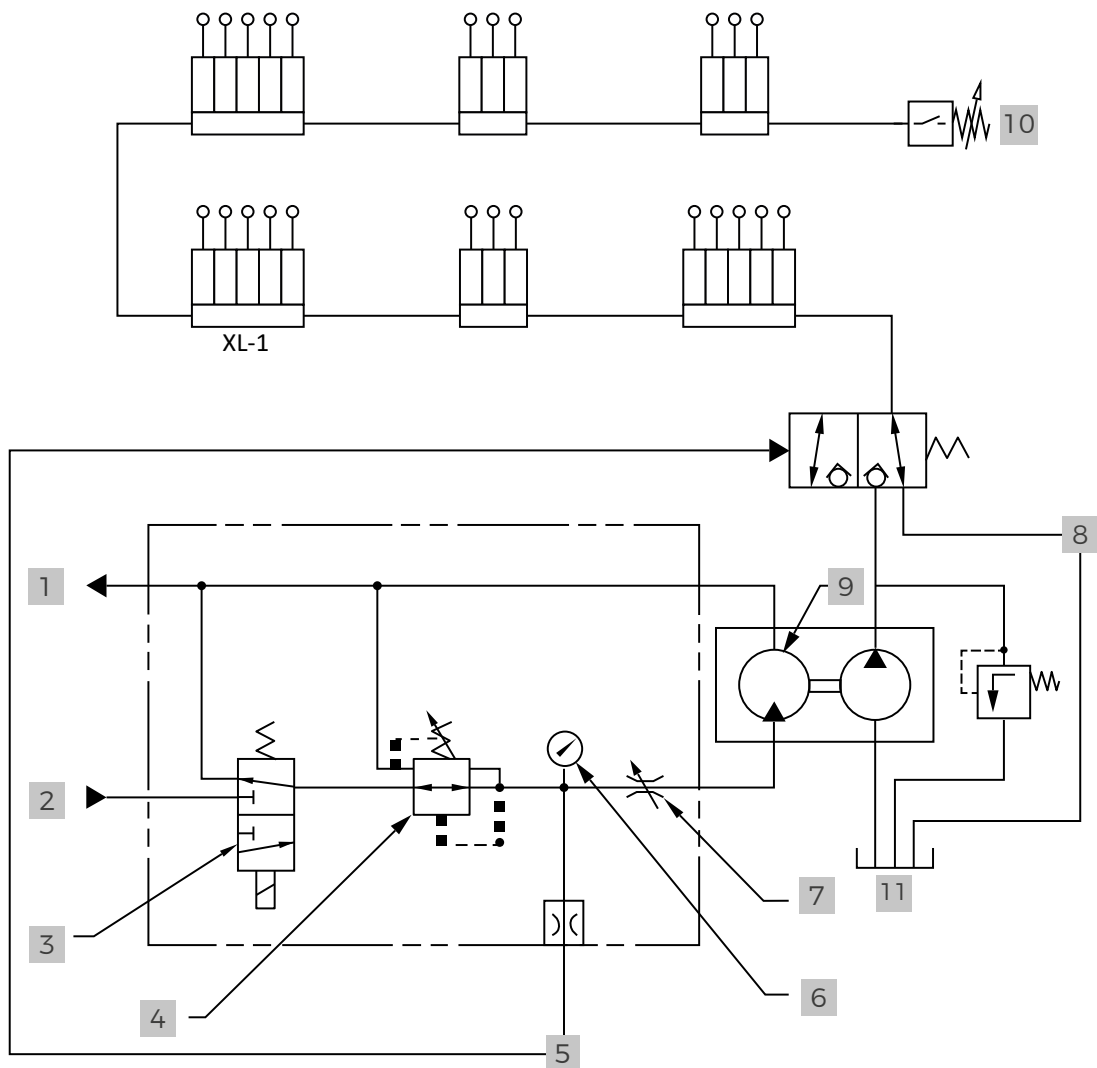
Lubricant Level control 液位控制

<b>Level Switch 液位开关</b>	Laser Sensor, Class 1, 2 signals
<b>Protection 防护等级</b>	IP-67 IO-Link
<b>Connection 连接Power</b>	Connector M12x1
<b>supply 电源</b>	10-30 V DC
<b>Signal Output 输出信号</b>	PNP
<b>Fixing 固定</b>	M18x1

Release valve 释放阀

<b>Nomenclature 机能</b>	3/2 Ways	<b>Input Port 入口尺寸</b>	3/4" BSP
<b>Supply voltage 电源</b>	24 V DC	<b>Output Port 出口尺寸</b>	3/4" BSP
<b>Power Absorption 功率</b>	26 W	<b>Release Port 释放口尺寸</b>	1/4" BSP
<b>Connector 插头标准</b>	1.1 A Din 43650-A 3P	<b>Max Pressure 最大压力</b>	400 Bar (5802 Psi)

## Hydraulic Diagram 原理图

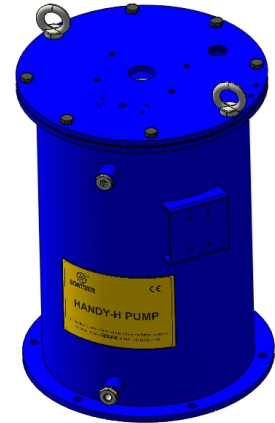
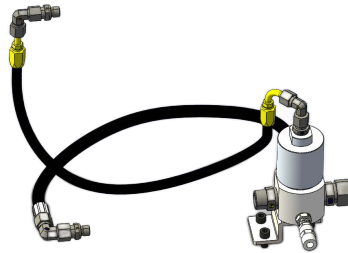
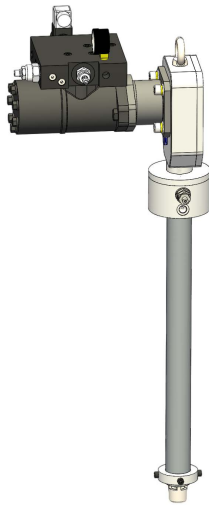


- |   |                               |    |                                    |
|---|-------------------------------|----|------------------------------------|
| 1 | Return to hydraulic line 液压返回 | 7  | Flow Rate Adjustment Valve 流量控制阀   |
| 2 | Hydraulic Oil Inlet 液压入口      | 8  | Lubricant outlet 润滑出口              |
| 3 | Solenoid valve 电磁阀            | 9  | Hydraulic Motor 液压马达               |
| 4 | Pressure Reducing Valve 减压阀   | 10 | End of line pressure switch 终端压力开关 |
| 5 | Release Valve 释放阀             | 11 | Lubricant Tank 润滑油箱                |
| 6 | Pressure gauge 压力表            |    |                                    |

## Order code configurator 订货信息

| HH | . | 27 | . | 1 | . | 1 | . | X | . | X | . | X |

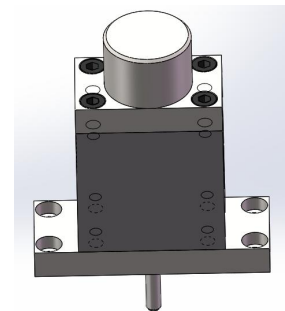
A
B
C
D
E
F



A (Pump 泵)		B (Release Module 释放阀组)		C (Tank 油桶) **	
27 kg	27	Yes	1	Cover Only	1
41 kg	41	No	X	Complete Tank	2
180 Kg	18	Valve Only Max Pressure	2*	Without a tank	X

*\*for progressive and double line systems*

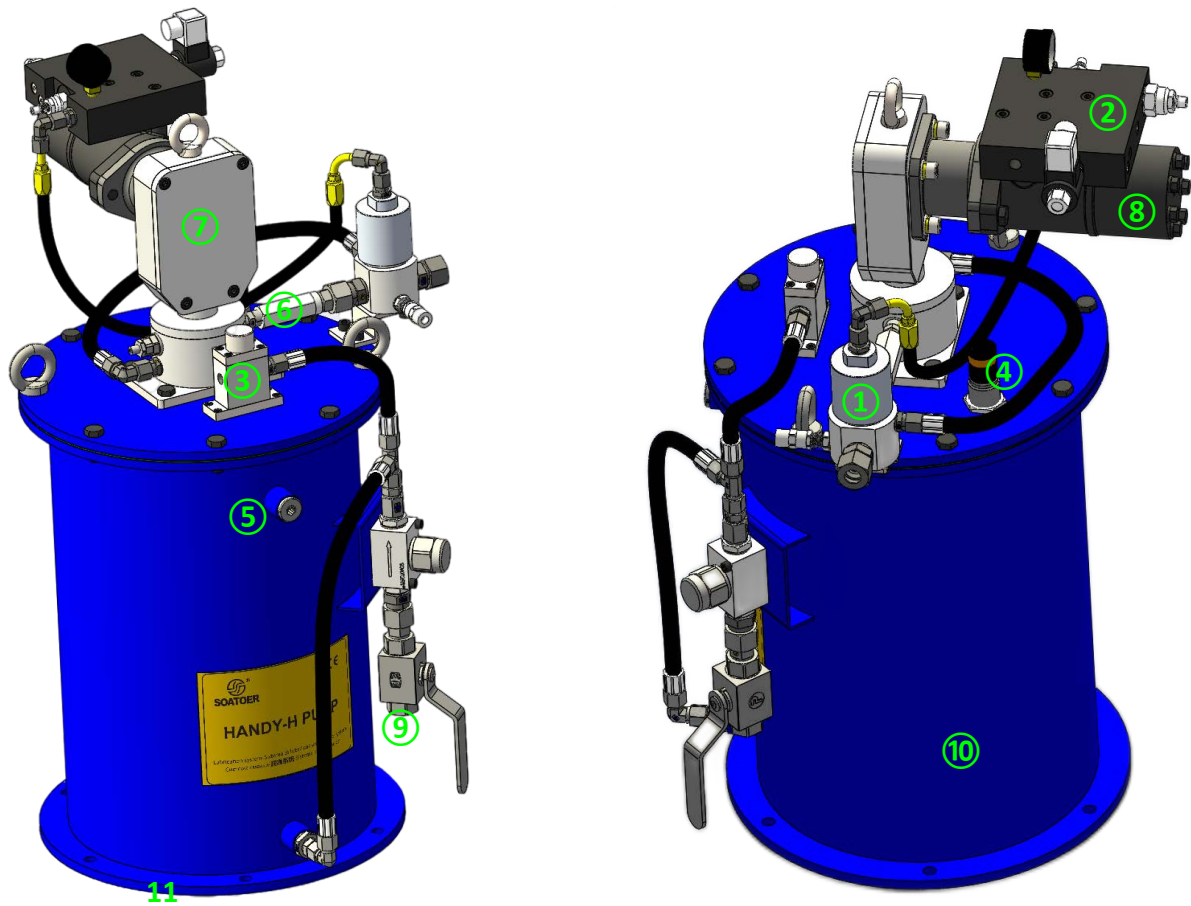
*\*\*The complete tank is not available for the 180 kg model*



D (Presser Disc 压油盘)		E (Electric Level Sensor 液位)***		F (Loading Kit)***	
Yes	1	Yes	1	Yes	1
No	X	No	X	No	X

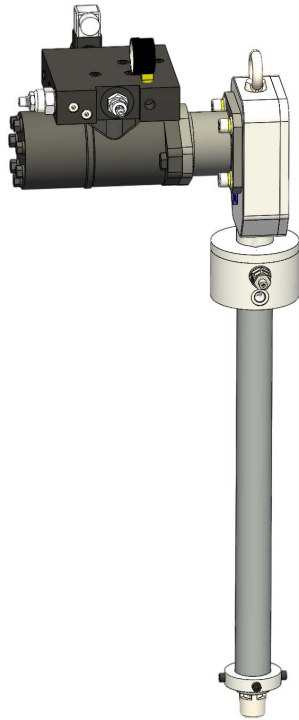
*\*\*\*requires presser disc (D)*

*\*\*\*requires presser disc (D)*



- |                            |                          |
|----------------------------|--------------------------|
| ① Release Valve释放阀         | ⑦ Pump body泵体            |
| ② Control Unit液压控制阀块       | ⑧ Hydraulic Motor液压马达    |
| ③ Overload Prevention 过载阀  | ⑨ Filling Connection补油接头 |
| ④ Minimum Level Control低液位 | ⑩ Tank油桶                 |
| ⑤ Vent Plug透气阀             | ⑪ Fixing Plate固定板        |
| ⑥ Check Valve单向阀           |                          |

## Pump 泵



27/41 Kg



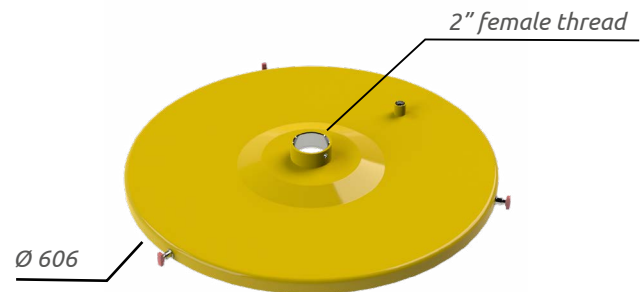
180/200 kg

### With Pump Control 带液压控制泵

Dimensions 尺寸	Part No.
27 Kg	HH.27.X.X.X.X.X
41 Kg	HH.41.X.X.X.X.X
180 Kg	HH.18.X.X.X.X.X

### Without Pump Control 不带液压控制泵

Dimensions 尺寸	Part No.
27 Kg	1013002
41 Kg	1013003
180 Kg	1013004



The 27 Kg and 41 Kg pumps are supplied with SOATOER tank of respective capacity. 27公斤和41公斤泵分别配备SOAOTER油桶。

Whereas, the 180 kg pump is designed for installation in standard 180 kg grease drums with 2" F perforated cover. 180公斤泵设计安装在标准180公斤润滑脂桶2寸穿孔盖。

To simplify assembly (where the complete supply of drum cover is required) SOATOER provides an adapter plate that allows you to use any cover. 为了简化组装(需要完整的鼓盖供应), SOATOER提供了一个适配器板, 允许您使用任何盖。

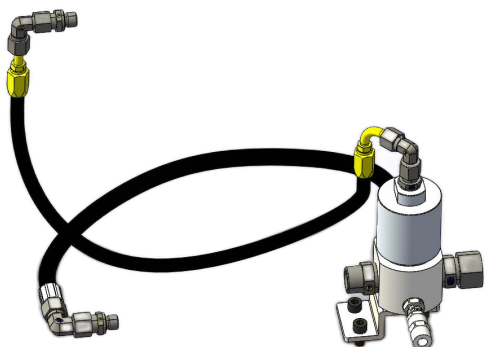
pump assembly does not require any drilling or mechanical machining of the drum cover. Only if the electric level is required, is it necessary to make a hole that allows reading the presser disc movement.

泵组件不需要对泵筒盖进行任何钻孔或机械加工。只有在需要电动水平时, 才需要打一个孔来读取压片的运动。

The pump is supplied with screws and gasket. 该泵配有螺丝和垫圈。



Release Valve 释放阀

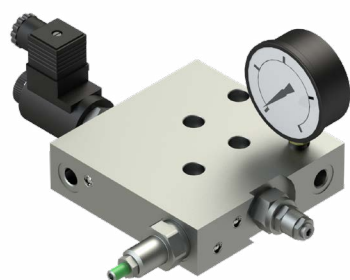


The release valve is required to feed the single-line systems equipped with CX, CL or CM valves. It releases the system pressure so that the metering devices are ready for a new cycle and protects the system from any overpressure. It is supplied complete with Flex pipes for the pump and the tank return port. 该释放阀需要为配备XL-1,XL-2阀的单线系统提供供应。它释放系统压力，使计量装置准备好进入一个新的周期，并保护系统免受任何超压。它提供完整的扣压管道，用于泵和油箱返回端口。

Part No.

5009007A

Control Unit 自控单元

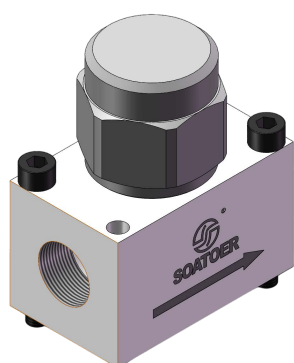


A Control manifold is integrated with the motor. The oil inlet pressure must never exceed 32 bar. The control houses a Solenoid valve, a Pressure Control Valve, a Flow Adjustment Valve and a Pressure gauge. 控制歧管与电机集成。进油压力不能超过32巴。该控制装置包括一个电磁阀，一个压力控制阀，一个流量调节阀和一个压力表。

Part No.

1013101A

Grease Filter 油脂过滤器



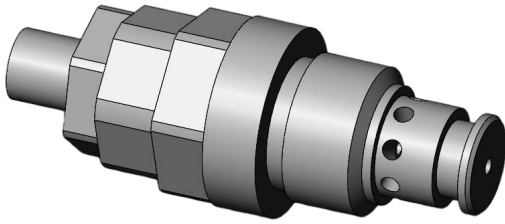
Filter 过滤器

Part No.	Filtering Degree	Thread
7076027	150	3/8"
7076028	300	3/8"
7076011	150	1/2"
7076012	300	1/2"

Spare cartridge

Part No.	Filtering Degree
8176013	150
8176014	300

## Safety Module

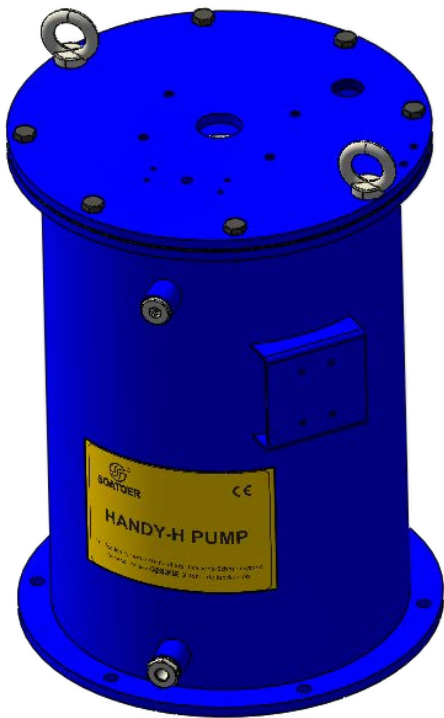


Lubricated pumps come standard with safety valve, 200-350bar.  
 润滑泵标准配备的安全阀，200-350bar.

Part No.

5009003

## Tank and Cover 油桶和盖



### Cover 桶盖

Part No.	Kg
1013011	27
1013011	41
1013012	

### Complete Tank 油桶

Part No.	Kg
1013002	27
1013003	41

The cover is supplied complete with screws, vent plug, gasket and lifting eyebolts. The tank order code also includes the complete cover. 阀盖配有螺丝，排气塞，垫圈和吊环螺栓。油桶订单代码还包括完整的封面。

Level Sensors and Presser Disc must be ordered separately.  
 液位传感器和压片必须单独订购。

## Overload Prevention System 过载预防系统

The Overload prevention system is designed to improve the safety of workers. It helps prevent leaks that can cause slips and falls and reduce fire hazards. Compatible with any HYDRA grease tank, this product is easy to install, simple to use and reduces the labour work required to fill the tank, freeing personnel for other tasks. 过载预防系统旨在提高工人的安全。它有助于防止可能导致滑倒和坠落的泄漏，并减少火灾危险。本产品与HYDRA润滑脂罐兼容，安装方便，使用简单，减少了注罐所需的人工劳动，使工作人员得以自由从事其他工作。

It is made entirely of steel with anti-corrosion plating to withstand harsh environments, and is mechanically operated (does not require electricity). 它完全由钢制成，并有防腐电镀，以承受恶劣的环境，并且是机械操作(不需要电力)。

The system's high-pressure mechanical shut-off valves are available in ½ inch NPT. The system can be operated with or without our grease **Laser Level Sensor**, which can be connected to an indicator at the filling station or in the cabin.

该系统的高压机械关闭阀可提供英制NPT。该系统可以使用或不使用我们的油脂激光液位传感器，它可以连接到加油站或客舱的指示器。

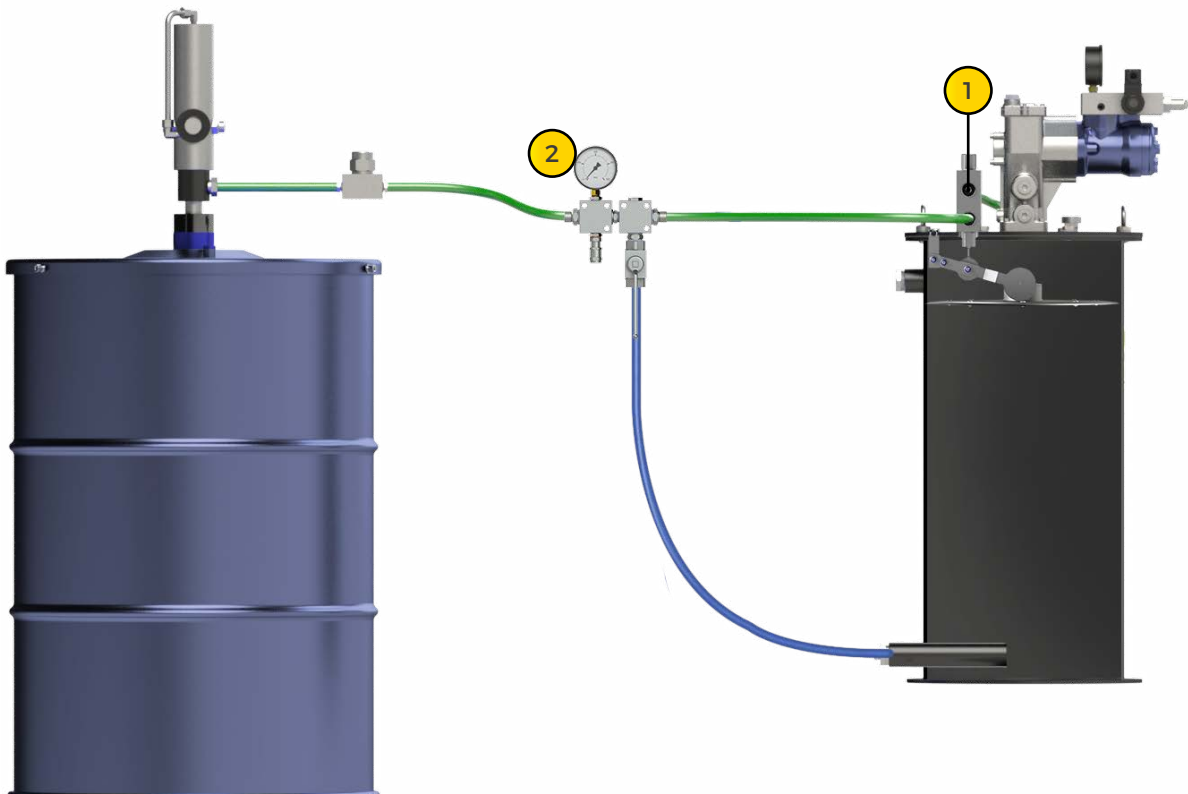
The mechanical grease overflow prevention system is suitable for mining, aggregate and industrial applications, as well as for use on off-road construction machines. Optional components are available for customised installations.机械防油脂溢出系统适用于采矿，骨料和工业应用，以及用于非公路施工机械。可选组件可用于定制安装。

### ADVANTAGES 优点

- **Improves workers' safety** 提高工人的安全
- **Helps avoid cleaning and potential fines** 有助于避免清洁和潜在的罚款
- **Easy to install; simple to use** 易于安装;使用简单
- **Mechanical: does not require electricity to work** 机械的:不需要电就能工作
- **Operating pressures of up to 400 bar** 操作压力可达400bar
- **Operating temperature range from -40 to +70°C** 工作温度范围:-40 ~ +70°C
- **Excess grease goes back to the external tank** 多余的油脂返回外部油箱

### Order Codes

Part No.	Description 描述	Fig.
A70.093821	Overload Prevention Kit 过载预防工具包	1
14.691.0	Release Block	2



### Laser Sensor (minimum and maximum level) 激光传感器(最小和最大电平)



The laser level switch (Class 1) works together with the presser disc and provides a low and high lubricant level signal to the Controller. 激光液位开关(1类)与压盘一起工作，向控制器提供低和高润滑油液位信号。

Part No.

A91.111548

### Presser Disc 压油板



The plate slides through the collar, along the pump rod, to ensure that the maximum amount of lubricant is used before topping up.

滑板通过环，沿着泵杆，以确保润滑油的最大使用量之前，充满。

Dimensions

Part No.

27 / 41 Kg

A70.093768

180 Kg

31.600.4

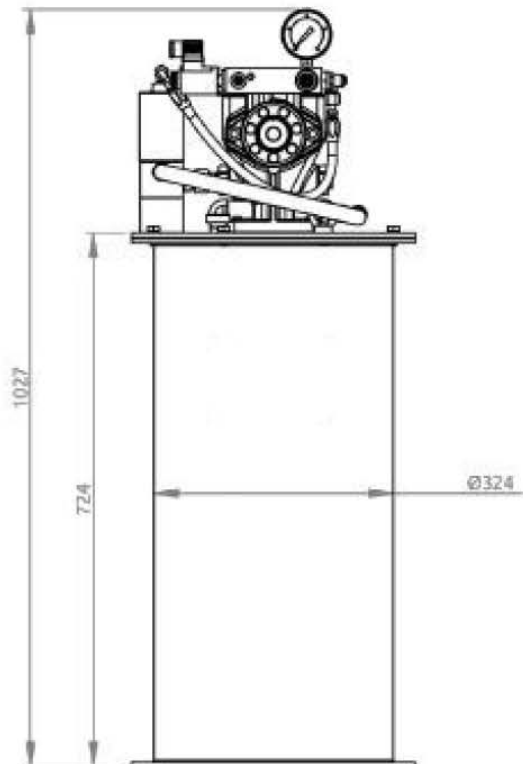
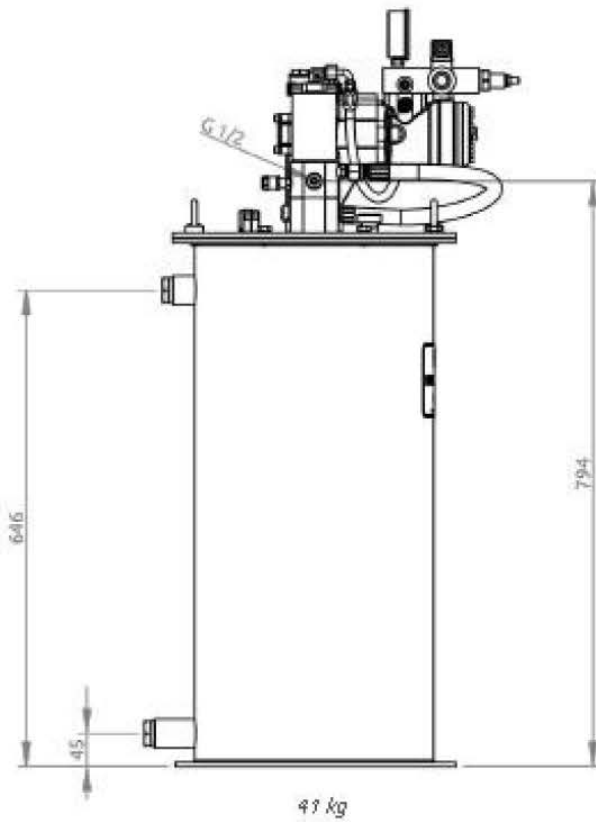
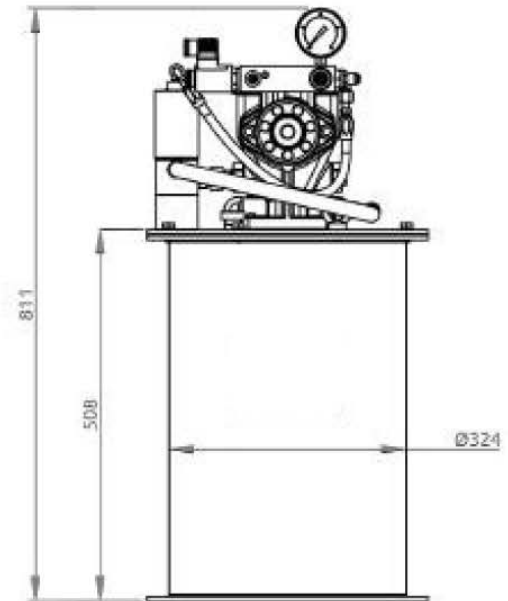
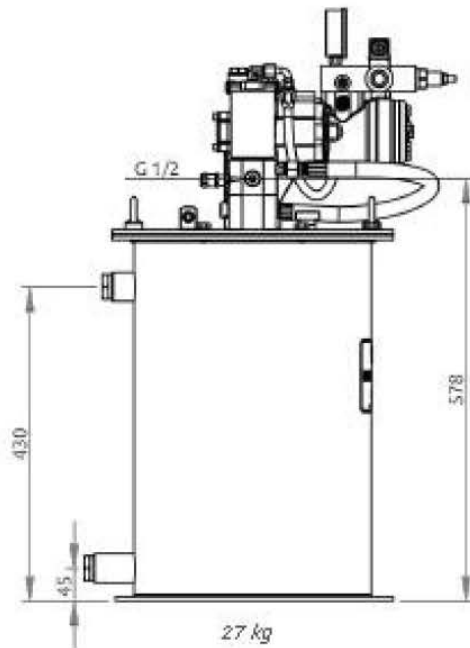
### Pressure switch 压力开关



The pressure switch works together with the Controller. It monitors the lubricant pressure and reports to the Controller when the set pressure is reached. An adjustment ring nut allows to adjust the pressure between 40 and 400 bar. The pressure switch can be assembled at the end of the line. 压力开关与控制器一起工作。它监测润滑油压力，并在达到设定压力时向控制器报告。调节环螺母可以将压力调节在40到400 bar之间。压力开关可以装配在线路的末端。

Part No.

49.066.7



Soatoer Fluid System (Shanghai) Co.,Ltd -201612- Songjiang Shanghai -China

Phone +86 21 54888200 - Fax +86 21 54888020 - [www.soatoer.com](http://www.soatoer.com) - [sales@soatoer.com](mailto:sales@soatoer.com)