

### Description

The 424170S 20kg grease kit is powered by an air operated reciprocating grease pump that is designed for high pressure greasing. Designed to be used with all types of grease (up to NLG-2 consistency) from the original drums, the Samoa 20kg grease kit is reliable, dependable and robust. The heavy-duty hand piece will not leak and the 55:1 ratio air motor of the grease pump will develop more than enough pressure to lubricate even the stiffest lube points.

### Specifications

|                    |  |
|--------------------|--|
| Uses               | Greasing applications in underground coal mines                                    |
| Discharge Quantity | 0.6kgs per minute  |
| Materials          | Steel air motor housing and non sparking bung adaptor with steel downtube assembly |
| Weight             | 12Kgs  |
| Outlet/Inlet       | 1/4"NPT(m) 1/4"NPT (f)   |

### Assembly Instructions

The 424170S 20kg grease kit pumps must be mounted grease drums by means of the drum cover that has a 2"BSP thread. To ensure consistent and reliable operation, particularly in areas where temperature drops to or 40 below zero, a grease follower plate is supplied to avoid the formation of air pockets and to enable the kit to use all of the grease supplied in a 20kg grease drum.

In the case of pumps to be equipped with adaptor for a 2" threaded cover, release the bung adaptor jaws by removing the lower part of the bung adaptor. Screw it on to the 2"bung opening. Place the bung adaptor and the adaptors three jaws on the pumps pump tube assembly and finally tighten the adaptor back up.

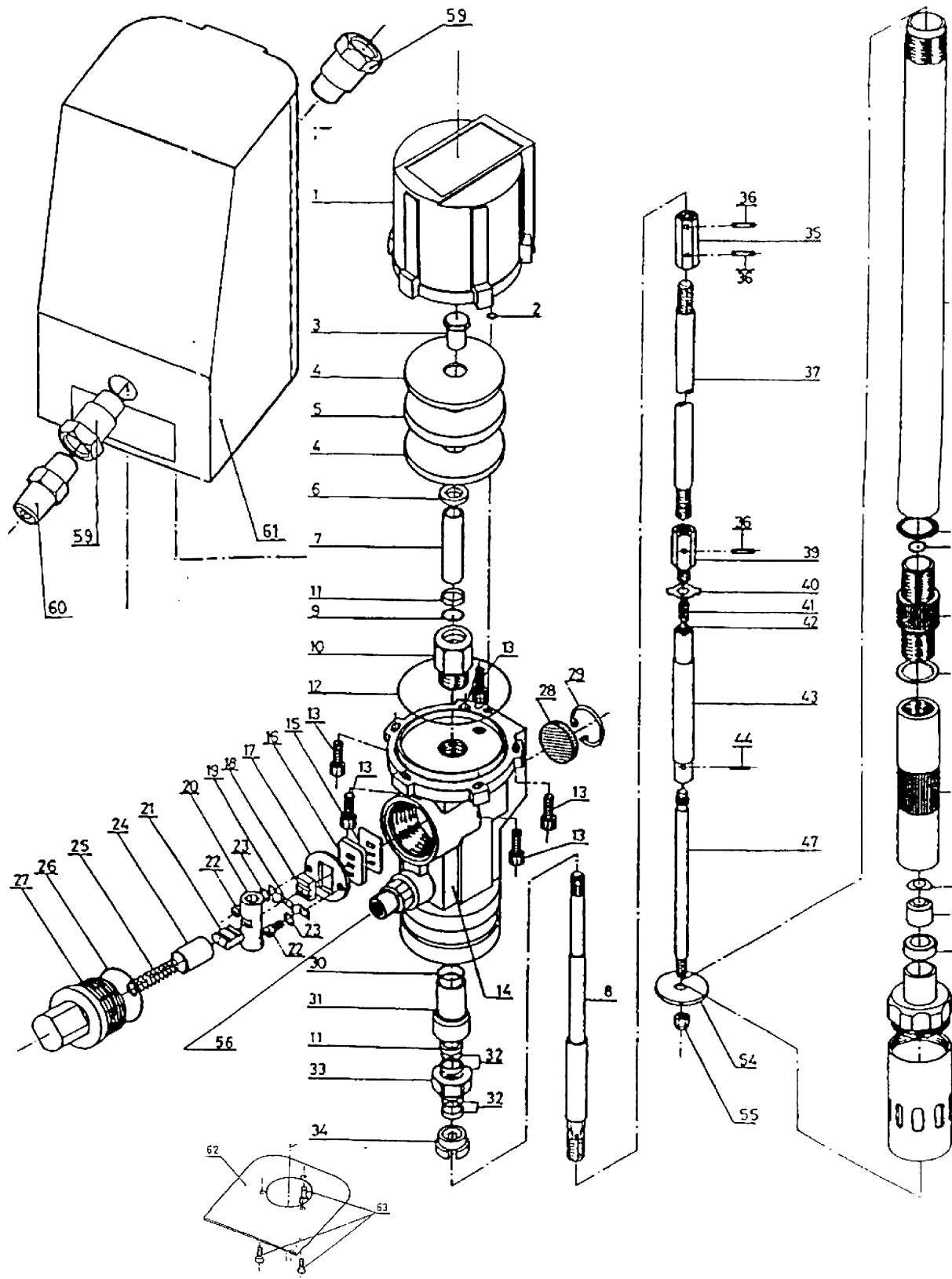
Carefully push the grease pump through the follower plate until the suction tube is partial introduced into the drum. The installation, using the necessary set of adaptors, of a compressed air service unit (filter and regulator) is recommended. In order to improve the efficiency of the pump, under extreme conditions, the installation of a lubricator is also recommended. The pumps air entry pressure must be limited to 10 bar, (140psi) maximum. If necessary, a pressure regulator may be installed.

### Grease Discharge Connection

The grease discharge outlet is a 1/4" NPT (m) thread. Connect the said outlet to the high pressure hose. Check that the control valve is closed. Slowly open the pumps compressed air inlet valve. The pump which has already been primed at the manufacturing plant, will start to function filling the hose with grease. Maintain pressure on the grease control valve until the grease starts coming out of the grease control valves coupler. The 20kg grease kit is now ready for use.



# Parts And Drawing Breakdown For The 424170S (Pump Only)



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## Ordering Spare Parts

### Parts List – Part No. 424170S (Pump Only)

| ITEM No. | PART No. | DESCRIPTION                 | QTY |
|----------|----------|-----------------------------|-----|
| 1        | 704100   | Air motor dolly             | 1   |
| 2        | 946004   | “O” Ring                    | 1   |
| 3        | 740230   | Air Piston Nut              | 1   |
| 4        | 740229   | Air Piston Plate            | 2   |
| 5        | 840500   | Air Piston                  | 1   |
| 6        | 942108   | Air Piston Washer           | 1   |
| 7        | 740227   | Spacer                      | 1   |
| 8        | 740225   | Air Piston Rod              | 1   |
| 9-10-11  | 740223   | Gland Housing Assembly      | 1   |
| 12       | 946028   | Air Motor Body              | 1   |
| 13       | 940321   | Air motor bolt              | 3   |
| 14       | 740101   | Air motor body              | 5   |
| 15       | 740231   | Valve Gasket                | 1   |
| 16       | 740232   | Valve Seat                  | 1   |
| 17       | 740233   | Valve guide plate           | 1   |
| 18       | 840600   | Valve slide                 | 1   |
| 19       | 740234   | Valve supporter             | 1   |
| 20       | 740226   | Trip shoe                   | 1   |
| 21       | 840601   | Trip shoe guide             | 1   |
| 22       | 940300   | Screw                       | 2   |
| 23       | 942004   | Washer                      | 2   |
| 24       | 840602   | Spring Holder               | 1   |
| 25       | 840300   | Spring                      | 1   |
| 26       | 946031   | “O” Ring                    | 1   |
| 27       | 740150   | Spring Nut                  | 1   |
| 28       | 835400   | Exhaust Muffler             | 1   |
| 29       | 942728   | Exhaust Muffler Circlip     | 1   |
| 30       | 946017   | “O” Ring                    | 1   |
| 31,32,11 | 740221   | Seal Assembly (Large)       | 1   |
| 32,33    | 740222   | Seal Assembly (Small)       | 1   |
| 34       | 740228   | Grease Pass Washer          | 1   |
| 35       | 740203   | Union Nut                   | 3   |
| 36       | 943030   | 55:1 Pin                    | 1   |
| 37       | 740302   | Suction Rod                 | 1   |
| 38       | 740303   | Suction Tube                | 1   |
| 39       | 740205   | Grease valve body           | 1   |
| 40       | 740206   | Grease valve washer         | 1   |
| 41       | 801300   | Grease valve spring         | 1   |
| 42       | 944151   | Grease valve ball           | 1   |
| 43       | 740207   | High pressure piston        | 1   |
| 44       | 943020   | Pin                         | 1   |
| 45       | 740217   | Washer                      | 1   |
| 46       | 740216   | High pressure cylinder      | 1   |
| 47       | 740208   | Shovel rod                  | 1   |
| 48       | 740215   | Foot tube                   | 1   |
| 49       | 740209   | Valve washer                | 1   |
| 50       | 740210   | Foot valve assembly         | 1   |
| 51       | 740211   | Foot valve seat             | 1   |
| 52       | 740213   | Intake filter head assembly | 1   |
| 53       | 740214   | Intake filter tube          | 1   |
| 54       | 740212   | Washer                      | 1   |
| 55       | 941106   | Nut                         | 1   |
| 56       | 740237   | Outside valve assembly      | 1   |
| 57       | 946013   | Cylinder “O” Ring           | 1   |
| 58       | 946034   | “O” Ring                    | 1   |
| 59       | 740247   | 1/4” BSP-1/4” NPTA Adaptor  | 1   |
| 61       | 740361   | Pump Cover                  | 1   |
| 62       | 740364   | Pump cover base             | 1   |
| 63       | 940211   | Pump cover base screw       | 1   |

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## Trouble Shooting

| TROUBLE   | POSSIBLE CAUSES   | REMEDY   |
|---|---|--|
| The pump continues to operate after the grease control valves trigger has been released | Grease missing around the suction filter<br>There is a grease leak at some point of the circuit.<br>High pressure valve assembly or foot valve assembly closes incorrectly due to dirt or weaning | Remove drum cover and take out pump and follower plate, compact grease and fill the drum or replace it with a full one. Check and tighten unions. Repair the leak.<br>Disassemble and clean valves. In case of damage, replace them. |
| Grease leaks through the air exhaust  | Damaged large packing set, small packing set or O Ring<br>Suction tube not sufficiently threaded into the air motor body  | Replace damaged elements.<br>Tighten the threaded union. Always check the correct position of the O Ring to avoid damaging it during assembly and disassembly.   |
| Air leaks through the air exhaust   | The sliding valve does not close properly<br>Broken valve support<br>Broken spring<br>Damaged air piston<br>Damaged o ring  | Disassemble and clean. Substitute in case of damage.<br>Replace.<br>Replace.<br>Replace.<br>Replace the guide set.   |
| Reduction of the amount of grease delivered   | Air pockets in the grease drum<br>Dirt in the high pressure valve assembly or in the foot valve assembly  | Remove the cover and take out the pump and the follower plate.<br>Compact the grease and fill the drum or substitute it for a full one<br>Disassemble and clean. If damaged, substitute it.  |
| Reduced pressure in the grease delivery   | Scratched high pressure cylinder or high pressure piston  | Replace them.  |

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