INSTRUCTION MANUAL





Trolley Mounted Oil Pump Kit

ATD-5226

Trolley mounted kits are ideal for use in workshops, garages, shop floors providing complete portability for everyday oiling jobs

Designed for use with 55 gal. (205 Litre) Oil Drums, these come complete with

- 3:1 Air Operated Oil Pump with 2" Bung
- 2. Oil Hose Reel with 10m (30') x 1/2" Oil Hose
- 3. Digital Oil gun with Flexible Hose & Manual Non Drip Tip

30-50 PSI	150 PSI
WORKING AIR	MAX. AIR
PRESSURE	PRESSURE

- 4. Drum Trolley with chain to hold the drum
- 5. 1/4" Miniature Filter-Regulator combination
- 6. Hose for connecting pump outlet to reel inlet

Kit comes in CKD form & can be assembled quickly.

Trolley can be locked with brakes provided on the wheels



SPECIFICATIONS

PUMPTYPE	Air Operated 3:1
FLOW RATE (AT PUMP OUTLET)	Up to 14 LPM (3.70 GPM)
WORKING PRESSURE	2-10 BAR (30-150 PSI)
MAXIMUM AIR INLET PRESSURE	10 BAR (150 PSI)
MAXIMUM MEDIA OUTLET PRESSURE	30 BAR (450 PSI)
AIR INLET CONNECTION	1/4" (F)
PUMP OUTLET CONNECTION	1/2" (F)
AIR CONSUMPTION	230 LPM (61 GPM)
MAX. VISCOSITY OF OIL	SAE 130
MAX. DISTANCE	Upto 30 metres (98.5 ft.)
HOSE REEL	Oil Hose reel (Dual Arm) complete with 10m (30') x 1/2" ID Rubber Hose
CONNECTING HOSE	Rubber Hose 1.5m (5') x 1/2" ID
OIL CONTROL GUN	Aluminum Body gun with protective rubber shroud, 1/2* Swivel & Digital Meter. Includes Flexible Hose with Manual Non Drip nozzle.
POWER SOURCE FOR METER	2 x 1.5 V Alkaline batteries (size 1N)
MEASURES IN	Litres, Quarts, Pints & Gallons
LEAST COUNT	0.001 units
ACCURACY	+- 0.50 %
REPEATABILITY	+- 0.30 %
MAX. RESETTABLE BATCH TOTAL	99,999 units
MAX. NON RESETTABLE TOTALIZER	9,99,999 units
AIR CONTROL UNIT	Miniature 1/4* Air Filter-Regulator combination with Pressure Gauge, 40 Micron Filter, 20 CFM (550 LPM)
NOISE LEVEL	81 db



SAFETY INFORMATION

- Follow workshop health & safety rules, regulations and conditions when using the trolley mounted oil pump kit.
- During their period of use, accessories must be checked for wear, cracks and other damage, replace any damaged or worn parts.
- Use genuine parts only. Unauthorized parts may be dangerous and will void the warranty.
- Wear approved safety gloves and eye and ear protection.
- Keep the trolley mounted oil pump kit clean and in good working order for best and safest performance.

WARNING!

- DO NOT use the trolley mounted oil pump kit for a task it is not designed to perform.
- DO NOT drop, throw or abuse the oil control gun.
- DO NOT use the trolley kit if damaged or thought to be faulty. Contact your local service agent.

PACKAGE CONTENT

DESCRIPTION	QUANTITY
3:1 Oil Ratio Pump with 2" Bung, nipple	1
Oil Hose Reel	1
1.5m Connecting hose and swivel	1
Digital Oil control gun	1
Trolley base plate	1
Carrier assembly	1
Handle assembly	1
Miniature Air Filter-Regulator combination with guage	1
Hardware set	4
O.I.P.M.	1

TOOLS NEEDED

- · 10 mm Spanner
- · 11 mm spanner / 7/16" spanner
- 12 mm Spanner
- · 14 mm spanner / 9/16" spanner
- 17 mm spanner / 11/16" spanner
- 19 mm spanner / 3/4" spanner
- · 24 mm spanner / 15/16" spanner
- · 25 mm spanner / 1" spanner
- Phillip Screw Driver (PH 2)

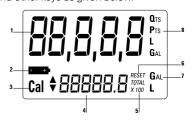
BEFORE INSTALLATION

- Use only original accessories compliant with this trolley mounted oil pump kit.
- Make sure that all connections are secure.
- Pump construction: The pump is made up of two sections
- Drive section: It consists of an air motor assembly driven by compressed air. The piston diameter of the air motor is 2.5" (63 mm).

- The motor consists of an air cylinder with piston and one reciprocal valve with a nylon slider. The valve directs the compressed air alternately to the top or bottom of the piston, thus producing a reciprocating motion of the piston rod.
- Pumping Section: It consists of a pump in which a piston lifts media through non return valves by reciprocating inside the suction tube. Media is discharged with pressure (from the outlet located at bottom of Air Motor) into the delivery hose / pipe.
- Air motor of this pump starts automatically when the dispensing gun / tap is opened. When the dispensing gun / tap is closed, air motor builds up a back-pressure and stops operating the pumping section.
- Pressure ratio of the pump states the ratio of the output fluid pressure to the incoming air pressure. When the pressure ratio is 31, we achieve an output media pressure up to 450 PSI (30 BAR) when the incoming air pressure is 150 PSI (10 BAR).

Digital meter

LCD display: Includes three numerical Totals and other keys as given below:



- Resettable Batch Total (5 figures with moving comma): indicates volume dispensed after RESET button was last pressed.
- 2. Indication of battery charge.
- 3. Indication of calibration mode.
- Batch Totalizer (6 figures with moving comma in multiple of 10 or 100): indicates two types of Total:
 - Non-Resettable General Total (TOTAL)
 - · Resettable total (Reset TOTAL)
- 5. Indication of total multiplication factor (x10 or x100).
- Indication of type of total, (TOTAL / Reset TOTAL).
- 7. Indication of unit of measurement of Totalizer:
 - L=Litres
 - Gal=Gallons
- Indication of unit of measurement of Resettable Batch Total:
 - · Qts=Quarts
 - Pts=Pints
 - · L=Litres
 - · Gal=Gallons



User Buttons: The meter features two buttons (RESET and CAL) which individually perform two main functions and together, other secondary functions.

RESET key: is used to reset the Batch Total and Reset Total

CAL key: is used to enter calibration mode **Combination of RESET + CAL keys:** is used to change the unit of measurement

Measurement Chamber: It has a threaded inlet and outlet. It contains two oval gears which turn when media passes through them with sufficient pressure. This action generates electrical pulses which are processed by a microprocessor and the result is displayed on the registers of the LCD.

Battery Housing: The meter is powered by two standard type 1.5 V batteries (size IN). The battery housing is closed by a threaded watertight cap that can be easily removed for quick battery change.



Standby mode: When the media is not flowing through the meter, the display shows only the word TOTAL on the batch register. This mode is called STAND BY and majority of adjustments are carried out in this mode.

12,345	Отѕ	Standby Mode
1345,6	G_{AL}	

Measurement units configuration: The meter comes with a menu through which the user can select the main measurement unit, Quarts (Qts), Pints (Pts), Litres (Lit), Gallons (Gal); The combination of the unit of measurement is predefined according to the following table:

Reference No	Unit of Measurement Batch Total	Unit of Measurement Total Register
1	Litres (L)	Litres (L)
2	Gallon (Gal)	Gallon (Gal)
3	Quarts (Qts)	Gallon (Gal)
4	Pints (Pts)	Gallon (Gal)

WARNING!

 Defective accessories can lead to personal injury and material damage

INSTALLATION

 Insert the 2 pump clamps in the carrier assembly and hand tighten it using the knob.



Note: There must be adequate distance between the two clamps

Tighten the carrier assembly with the base plate using one pair of nut and bolt on each side.



Note: The 2 pump clamps should be on the same side as of the welded cavity on the base plate.

Fix the handle by inserting it into the handle slot and lock it by rotating the knob in clockwise direction.





Mounting the pump

 Pass the pump barrel through 2 pump clamps on the trolley.





2. Attach the filter, regulator combination to the pump air inlet.



 Lift the drum from other side and slide it over the trolley base plate till it reaches the extreme point on the base plate.



Mounting the hose reel

 Mount the hose reel on the trolley using 4 bolts, nuts and washers of 17mm provided with the kit



 Adjust the drum clamp according to the height of the drum and rotate the knob in clockwise direction to lock the drum on the trolley.



Connect the electronic oil control gun with the hose reel outlet



Mounting the pump over drum

 Use drum wrench on the handle to open the drum cover.



3. Connect one end of the connecting hose to the pump outlet and other end to the hose reel inlet using

swivel.



Pull the pump out from the pump clamp.



Mounting the drum on trolley

 Lock both the front castors by pressing it with foot.



 Handle can be detached and used as a drum loader. Lift the drum by placing the handle in the position shown in the picture and slide the drum trolley beneath the drum simultaneously.



- Insert the pump into the drum through the drum opening.
- Connect compressed air line to the filter, regulator combination, turn on the air supply to operate the pump.

Note: Shut off the air supply before connecting the line to the Pump assembly.

CAUTION!

- An FRC (Filter-Regulator Combination) unit must be used in the Air supply, before it is connected to the pump. Set the regulator to 90 PSI (6 Bar) or any required inlet pressure, but never more than 150 PSI (10 Bar) or less than 30 PSI (2 Bar). When not in use & at the end of each day, air supply to the pump must be switched off.
- Tighten the nuts and bolts for rigid assembly.
- Apply thread sealant on all threaded connections to ensure leak-proof operation.



Digital meter settings

Sequence of setting the unit of measurement

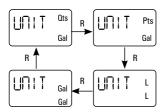
1. Wait for the meter to go to Standby

12,345 123456 GAL

 Press the CAL and RESET keys together. Keep these pressed until the word "UNIT" appears on the screen together with the unit of measurement set at that time (in this example Quarts / Gallon)



Press RESET key to scroll among the four combinations of units of measurement as shown:



 By pressing the CAL key at length, the new settings will be stored, the meter will pass through the start cycle and will then be ready to dispense in the set units.

No new calibration is required after changing the Unit of Measurement.

Normal dispensing mode: While the media is flowing through the meter, Batch Total and Reset Total are displayed at the same time.

12,345 QTS

12.3 Reset GAL TOTAL

A few seconds after dispensing has ended, on the lower register, the display switches from Reset Total to General Total: the word RESET above the word TOTAL disappears, and the Reset Total is replaced by the General Total.

12,345 QTS
12.3 TOTAL GAL

This situation, where only "TOTAL" is displayed, is called STANDBY mode. It remains stable until the user operates the meter again.

Resetting the batch total:

- 1. While in standby (i.e when the display shows TOTAL), press the RESET button.
- During reset, the display screen first of all shows all the lit-up digits and then all the switched off digits.
- At the end of the process, a display page is first of all shown with the reset batch and the Reset TOTAL.
- 4. After a few moments, the Reset TOTAL is replaced by TOTAL.

Resetting the reset total: The Reset Total can be reset by pressing the RESET key at length while the display screen shows Reset TOTAL. The steps to be taken are:

- Wait untill the display shows Total only (standby mode)
- 2. Press the RESET key quickly.
- 3. The meter starts to reset the Batch Total.
- While the display page showing the Reset Total is displayed, press the Reset key again for at least 1 second.
- The display screen again shows all the segments of the display followed by all the switched-off segments and finally shows the display page where the new Reset Total is shown.

Calibration: In standby mode, press the CAL key at length to see the current calibration factor.



- Factory K Factor: Factory-set default factor.
- It is equal to 1 (indicated as 1,000).
- User K Factor: Customized calibration factor, meaning modified by calibration.

The meter has been calibrated at the factory under the following operating conditions:

Fluid motor oil type : 10W40
Temperature : 20°C (68°F)
Flow rate : 5-25 litres/min

Calibration is needed to make the meter suitable for actual conditions.

Note: The meter features a non-volatile memory that keeps the data concerning calibration and total dispensed quantity stored for an indefinite time, even in the case of a long power break.

Calibration procedures:

- In-Field Calibration, performed by means of a dispensing operation
- Direct Calibration, performed by directly calculating the calibration factor.
 By pressing CAL key while the meter is in Standby, the display page appears showing the current calibration factor used.
 Two cases can occur.

Case 1

If no calibration has ever been performed, or the factory setting has been restored after previous calibrations, the following display page will appear:

1,000

Cal FACT

The word "Fact" abbreviation for "factory" shows that the factory calibration factor is being used.

Case 2

If, on the other hand, calibrations have been made by the user, the display page will appear showing the currently used calibration factor (in our example 0.998).

0,998

Cal USFR

The word "user" indicates that a calibration factor, set by the user is being used.

To confirm the choice of calibration factor, quickly press CAL while "User" or "Fact" are displayed.

After the restart cycle, the meter uses the calibration factor that has just been confirmed.

In-field calibration sequence

 Wait until the meter comes in Standby (Display shows TOTAL). 12,345 OTS 12,5 GAL

2. Press CAL key for more than 2 seconds. The meter enters calibration mode and shows "CAL". The words "FACT" and "USER" indicate which factor (factory or user) is currently in use.

1,000 OTS
Cal GAL

O,998 OTS
Cal GAL

 Press RESET key for more than 2 seconds. The meter shows "CAL" and the Batch Total at zero. The meter is ready to perform in-field calibration. O,000 Qrs

 Dispensing into sample container Without pressing any key, start dispensing into the sample container.

nout pressing key, start ensing into sample tainer.

9,800 ars

Cal FIELD

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While dispensing, do not try to reach a particular reading of the container. Instead make short top-ups in the final stage of dispensing.

Container Value

Meter Value

Ors
Cal 0,0000 GAL



5. Press RESET key once. The meter detects that the calibration dispensing is finished. To calibrate the

9,800 **Q**ts

Cal * FIELD

meter, the value indicated by the Batch total (example 9.800) must be forced to the Container value marked on the graduated sample container. An arrow (up/down) appears which indicates the direction in which the value can be changed via steps 6 & 7.

6. Press RESET key once. The arrow changes direction. The operation can be repeated to alternate the direction of the arrow.

9,800 \mathbf{Q}_{TS} Cal FIELD

7. Press RESET key for more than 2 seconds. The meter value changes in the direction indicated by the arrow

9,860 \mathbf{Q}_{TS} Cal FIELD

- One unit for every short press of CAL key.
- Continually if the CAL key is kept pressed.
- Press RESET key for more than 2 seconds The meter is informed that the calibration procedure is finished.

 \mathbf{Q}_{TS} Cal FND

The meter calculates the new USER K FACTOR factor for a few seconds.

9. The new USER K FACTOR is shown for a few seconds. after which the restart cycle is repeated.

1,015 **Q**TS Cal END

10. The meter comes back to standby mode.

 \mathbf{Q}_{TS} 12.5 GAL Direct calibration sequence

If normal meter operation shows a mean percentage error E, (obtainable on the basis of several performed dispensing operations), this can be corrected by applying a correction to the current calibration factor as shown below:-

New cal. Factor = Old Cal Factor X

Example:

Error percentage found E% = - 0.3 % CURRENT calibration factor = 1.000 New USER K FACTOR

- = 1.000 * [(100 (-0.3))/100]
- = 1.000 * [(100 + 0.3)/100]
- = 1.003
- 1. Wait until the meter comes in Standby (Display shows TOTAL).

12,345 **Q**TS GAL 12.5

2. Press CAL key for more than 2 seconds. The meter enters calibration mode and shows "CAL". The words "Fact"

0ts **FACT** Cal GAL **USER**

and "USER" indicate which factor (factory or user) is currently in use.

3. Press RESET key for more than 2 seconds. The meter shows "CAL" and the Batch total at zero. The user can perform in-field calibration now.

0,000 \mathbf{Q}_{TS} Cal FIFI D

4. Press RESET key for more than 2 seconds. "Direct" appears together with the Current calibration factor.

1,000 \mathbf{Q}_{TS} Cal DIRECT

In the bottom left part of the display, an arrow appears (upwards or downwards) defining the direction (increase or decrease) of the reading.

5. By pressing RESET key the user can change the direction of the arrow.

1,000 0ts Cal * DIRECT



 By pressing CAL key, the Meter value changes in the direction indicated by the arrow.

1,003 OTS

- one unit for every short press of CAL key.
- continually if the CAL key is kept pressed.

 The speed increase rises by keeping the key pressed.
- 7. Press RESET key for more than 2 seconds. The meter detects that the desired reading has been set and the calibration procedure is finished.

———— Ots
Cal ^ DIRECT

8. At the end of the calculation, the new USER K FACTOR is shown for a few seconds.

1,003 Ors

 The restart cycle is repeated to finally achieve standby mode.

0,000 OTS
12.5 GAL

OPERATING INSTRUCTIONS

- Partially open the on/off air valve (It helps in creating initial vacuum when filling a totally dry pump). Pump will start operating automatically until it gets primed. Pump is said to be primed when oil is available at the pump outlet, making the pump ready to use. Once primed, the air motor will stop. Open the on/off air valve fully.
- 2. Hold the oil control gun near a container & press the trigger. Pump will start operating with continuous oil discharge as long as the trigger is pressed. Release the trigger & this will stop the pump. Check for any leaks from any of the connections & tighten again if required.
- 3. Once the trigger is released, pump will stop dispensing oil & the air motor will stop.
- 4. When not in use & at the end of each day, air supply to the pump must be switched off.

WARNING!

- Always wear protection gear like safety goggles, gloves, apron, and ear plugs while operating the pump
- Never let any body part come in front of, or in

- contact with the control outlet
- Always cut off air supply after use, so that media cannot leak in case any of the pump component fails
- Before switching the air supply on, check hoses for sign of wear, leak or loose fittings. Replace as necessary
- Do not smoke near the pump. Do not use the pump near a source of spark / open flames
- When changing the working fluid, at least 1 litre of new fluid should be discarded to avoid mixing of fluids
- Pump should NOT be operated for more than 4 hours continuously
- Pump must be supplied with clean & dry compressed air via an FRC unit
- Before attempting any repair of this product, disconnect air supply and then squeeze control valve trigger to release fluid pressure

MAINTENANCE

Every week clean the FRC (Filter-Regulator Combination) unit and high pressure hose so the pump remains free from contamination.

The Oil Control Gun has been designed to require a minimum amount of maintenance.

The only maintenance jobs required are: **Battery change for meter:** Necessary when the batteries have run down

Cleaning the measurement chamber: Necessary due to the particular nature of the dispensed fluids or due to the presence of solid particles following bad filtering.

Changing the battery

The meter features two low-battery alarm levels

When the battery charge falls below the first level on the LCD, the fixed battery symbol appears. In this condition, the

12,345 OTS 2342,3 GAL

meter continues to operate correctly, but the fixed icon warns the user that it is time to change the batteries.

2. If meter operation continues without changing the batteries, the second battery alarm level will be reached which



will prevent operation. In this condition the battery icon starts to flash and is the only one to remain visible on the LCD.



Battery replacement procedure for meter: Refer "Exploded View (Digital oil control gun)"

- Press RESET to update all the totals
- Unscrew the battery plug (8);
- · Remove the old batteries;
- Place the new batteries in the same position as the old ones, making sure the positive pole is positioned as indicated on the cover.
- Re-tighten the battery plug, making sure the conical spring (9) and O ring (7) are correctly positioned.
- The meter will switch on automatically and normal operation can be resumed. The old calibration will stay same as before..

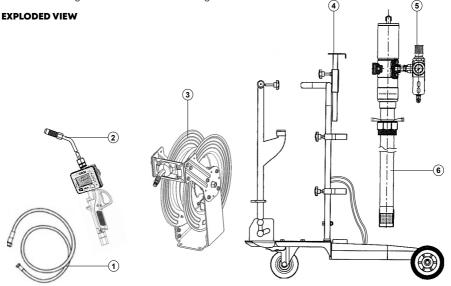
Cleaning of the measurement chamber

The measurement chamber can be cleaned without removing the meter from the control gun.

- Remove the meter from the gun handle (20) and the extension (19).
- Loosen and remove the four cover retention screws (15).
- · Remove the cover (14) and the seal (13).
- · Remove the oval gears (11) and (12).
- Clean wherever necessary. For this operation, use a brush or pointed object such as a small screwdriver.
- Be careful not to damage the body or the gears.

WARNING!

Always make sure the liquid has been drained from the meter and the line pressure is released before cleaning.

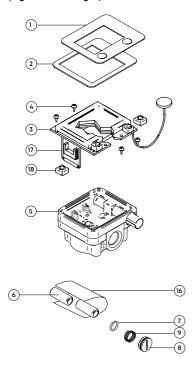


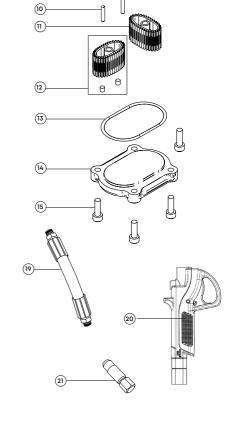
PART LIST

REF NO.	PARTS DESCRIPTION	QUANTITY
1	Connecting hose (1.5 meter)	1
2	Digital oil control gun (Complete exploded and part list on page 10)	1
3	Hose reel (Complete exploded and part list on page 11)	1
4	Trolley with chain to hold the drum	1
5	FRC unit	1
6	Oil ratio pump 3:1 (Complete exploded and part list on page 12)	1



EXPLODED VIEW (Digital oil control gun)



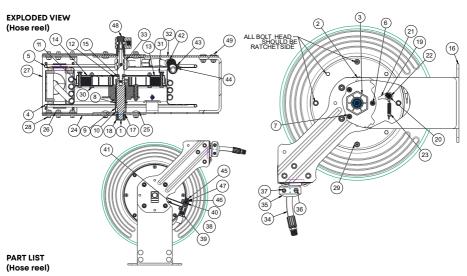


PART LIST (Digital oil control gun)

REF NO.	PARTS DESCRIPTION	QUANTITY
1	Meter Label	1
2	Plastic Face	1
3	Electronic Board	1
4	Screw	4
5	Housing with Gasket	1
6	Battery 1.5 V	2
7	O-Ring	1
8	Battery Plug	1
9	Conical Spring	1
10	Oval Gear Pivot	2
11	Oval Gear	1

REF NO.	PARTS DESCRIPTION	QUANTITY
12	Oval Gear with Magnet	1
13	Seal	1
14	Cover	1
15	Screw	4
16	Battery Protection	1
17	Spacer for Bulbs	1
18	Spacer for Key	2
19	Flexible Extension	1
20	Gun Handle	1
21	Non Drip Nozzle (Manual)	1



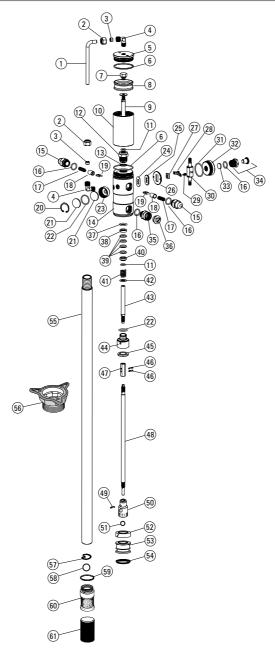


REF NO.	PARTS DESCRIPTION	QTY.
1	Shaft	1
2	Ratchet Plate	1
3	Holder (Ratchet Plate)	1
4	Sheave (Right)	1
5	Sheave (Left)	1
6	Square Neck Bolt	3
7	Flange Nut	7
8	Steel Washer	1
9	Spacer	1
10	Steel Washer	2
11	Cover (Coil Spring)	1
12	Coil Spring Guide	1
13	Coil Spring (Power spring)	1
14	Cover (Coil Spring)	1
15	External Circlip	1
16	Base Plate.	1
17	Spring Washer	2
18	Nut	1
19	Flange Bolt	1
20	Bush	1
21	Latch	1
22	Flange Nut	1
23	Extension spring	1
24	Side Bracket	2
25	Square neck Bolt	8

REF NO.	PARTS DESCRIPTION	QTY.
26	Flange nut	18
27	Roller Plate	1
28	Flange Bolt	6
29	Steel Washer	4
30	Bolt	8
31	Nut (Spring Cover)	4
32	Leg (Left)	1
33	Swivel	1
34	Hose	1
35	Hose Stopper	1
36	Screw	2
37	Lock Nut	2
38	Hose Connector	1
39	Hose Adaptor	1
40	O-ring	2
41	Pipe	1
42	Hose Clip	2
43	Screw	2
44	Hex Domed Nut	2
45	Allen Bolt	1
46	Steel Washer	1
47	Spring Washer	1
48	Inlet Swivel	1
49	Square Neck Bolt	4



EXPLODED VIEW (Oil ratio pump 3:1)





PART LIST (Oil ratio pump 3:1)

REF NO.	PARTS DESCRIPTION	QTY.
1	Bend Pipe	1
2	Coupling Nut	2
3	Sealing Ring	2
4	Bend	2
5	Cylinder Cover	1
6	O Ring BS141	2
7	Plunger Nut	1
8	Rubber Plunger	1
9	Plunger Rod	1
10	Cylinder	1
11	O Ring BS614	2
12	Rod Guide	1
13	O Ring	1
14	Housing	1
15	Pusher	1
16	O Ring BS617	4
17	Pusher Spring	2
18	Pusher Nut	2
19	Pusher Button	2
20	Circlip	1
21	Filter (B)	2
22	O Ring BS121	2
23	Exhaust Valve	1
24	Paper Seal	1
25	Seat	1
26	Slider Guide	1
27	Nylon slider	1
28	Clip	1
29	Self Tapping Screw	2
30	Slider	1
31	O Ring BS129	1

REF NO.	PARTS DESCRIPTION	QTY.
32	Inlet Cover	1
33	Filter (B)	1
34	Air Inlet Adapter	1
35	Outlet Adapter	1
36	Adapter Cap	1
37	O Ring BS115	1
38	Slider Guide	1
39	Seal	4
40	Seal Support	1
41	Spring	1
42	Washer	1
43	Connecting Rod	1
44	Coupler	1
45	Washer	1
46	Slotted Spring Pin (Upper)	2
47	Connecter	1
48	Extension Rod	1
49	Slotted Spring Pin (Lower)	1
50	Piston Coupler	1
51	Ball (5/8")	1
52	Slitted Washer	1
53	Piston	1
54	Seal	1
55	Barrel	1
56	Bung	1
57	Circlip	1
58	Ball (7/8")	1
59	O Ring BS126	1
60	FilterTube	1
61	Filter Cap	1



TROUBLESHOOTING Refer "Exploded View (Oil ratio pump 3:1)"

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Pump operates, but does not	Media viscosity is too high	Make sure that media used has a viscosity of SAE 130 or lower
dispense media at all	Drum is empty	Media level inside the drum may be too low. Refill the drum
	Pump inlet is blocked	Remove suction tube & clean strainer at pump inlet
	Low inlet air pressure	Increase the air pressure to at least 30 psi (2 bar)
Pump not working / less discharge	Low inlet air pressure	Increase the air pressure to at least 30 psi (2 bar)
	Nylon slider (27) is jammed / over tight	a. Check for any build-up edge on Clip (28) & tighten it again. Make sure the movement of Nylon Slider (27) is neither very loose nor very tight b. If needed, replace Nylon Slider (27). Also replace the Paper Seal (24), Seat (25) & Slider Guide (26) to ensure best fitting
	Plunger rod (9) / connecting rod (43) / piston (53) jammed.	a. Remove suction tube. Disconnect Air Motor Assembly from Pumping Section by removing the upper Slotted Spring Pin (46) from Connector (47) b. Supply input air to Air Motor. If it works properly without the barrel assembly, then the problem lies with the pumping section. Otherwise check the Air Motor for smooth movement c. After locating the faulty section, check the respective Piston / Plunger & the associated washers & seals for any overlap or wear & tear. Replace the defective parts d. Ensure to replace the moving parts having close tolerances (such as Nylon Slider (27) & Seat (25) as a SET to ensure the best fitting
Pump continues to operate even after the trigger of dispensing gun has been released	Leakage in the assembly	Check all the connections to ensure they are air tight. Use thread sealant. Check O rings & seals for damage. Replace the defective parts
Media comes out through the air exhaust valve (23)	Media leaks into the air motor	Check Slider Guides (38), O Rings (11) & (37), Seals (39) & Seal Support (40) for wear & tear. Replace the damaged parts
Air passes directly from inlet to the outlet and pump does not work	Nylon slider (27) is jammed / over tight	a. Check for any build-up edge on Clip (28) & tighten it again. Make sure the movement of Nylon Slider (27) is neither very loose nor very tight b. If needed, replace Nylon Slider (27). Also replace the Paper Seal (24), Seat (25) & Slider Guide (26) to ensure best fitting
Discharge suddenly stopped	Seals / O-rings damage	Check all seals / O-rings and replace the damaged parts
while the pump was running	Chip / other foreign particles get clogged at dispensing gun / discharge outlet	Clean all foreign particles / chips
	Clogging of filter tube (60)	Open Filter Tube (60), clean it & reassemble it properly

DISPOSAL

The components or the used products must be given to companies that specialize in the disposal and recycling of industrial waste.

