LEADERS IN FLUID TRANSFER SOLUTIONS

DG9812

INSTRUCTION MANUAL

INTRODUCTION

DG9812 is a portable high pressure manual greasing system.

DG9812 is supplied complete with spring loaded pump, lid, rubber edged follower plate, 3 metres of special Macnaught grease hose, and a unique Pressurite (High pressure / High Volume) grease gun.

The design of the KR grease gun allows the user to grease at 5000psi when set on the high volume setting, and 10,000psi when set on the high pressure setting.

Please read and retain this instruction manual to assist you in the operation and maintenance of this quality product.

GENERAL INFORMATION

This manual assists you in operating and maintaining your new Super-Lube. The information contained in this instruction manual will help you ensure many years of dependable performance and trouble free operation.

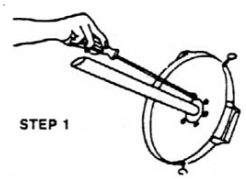
Please take a few moments to read through this manual before operating your Super-Lube. If you experience problems with the product, refer to the Maintenance and Trouble Shooting sections of this manual. If you require any further assistance please contact your local Macnaught distributor or Macnaught Pty Ltd.

NOTE:
Your Super-Lube is designed for use with greases up to NLGI No2 greases. (i.e recommended for use with light and self collapsing greases).

ASSEMBLY

1) Fit the pump assembly to the lid with the 3 screws supplied.

2) Insert the follower into the grease pail as shown with the follower boss facing upwards. Push down firmly onto the grease until grease emerges through the boss.



3) Push the pump tube through the follower boss and down until the lid sits on the rim of the grease container. Hand tighten the 3 thumb screws evenly under the rim of the container.

4) To achieve initial prime push, the handle down several times to start grease flowing through the grease hose. When the hose is full of grease, the handle will stay down.

5) Squeeze the KR gun handle and hold closed to bleed air out of the system. When fully bled, container grease will emerge from the gun coupler.

Note: Grease must travel through the entire length of the hose to accomplish full bleeding and it may be necessary to repeat step 4.

If the unit fails to prime, bump the container base several times on a solid surface, to settle the grease.

OPERATING INSTRUCTIONS

After completing the assembly instructions described in the previous section your Super-Lube is now ready for use.

When greasing, the handle will rise slowly. When the handle is fully up and the gun loses pressure, push the handle down once or twice to re-prime the pump and continue greasing.

Each pump prime will provide sufficient grease for up to 60 shots of grease.

The KR Pressurite gun is normally operated on the HI-VOLUME switch position. Should high pressure be required to clear a blocked or seized grease nipple, simply push the switch on the gun to the HI-PRESSURE position.

Note: Once bled of air, the Super-Lube does not usually require bleeding when changing over containers. If using a grease container that is only partly filled with grease, settle the grease and remove air bubbles by bumping the container base several times on a solid surface.

CHANGING OVER PAILS

1) Loosen the 3 thumbscrews.

2) Remove the Super-Lube from the pail.

3) Remove the follower from the empty pail and repeat steps 2,3,and 4 in the assembly section

MAINTENANCE

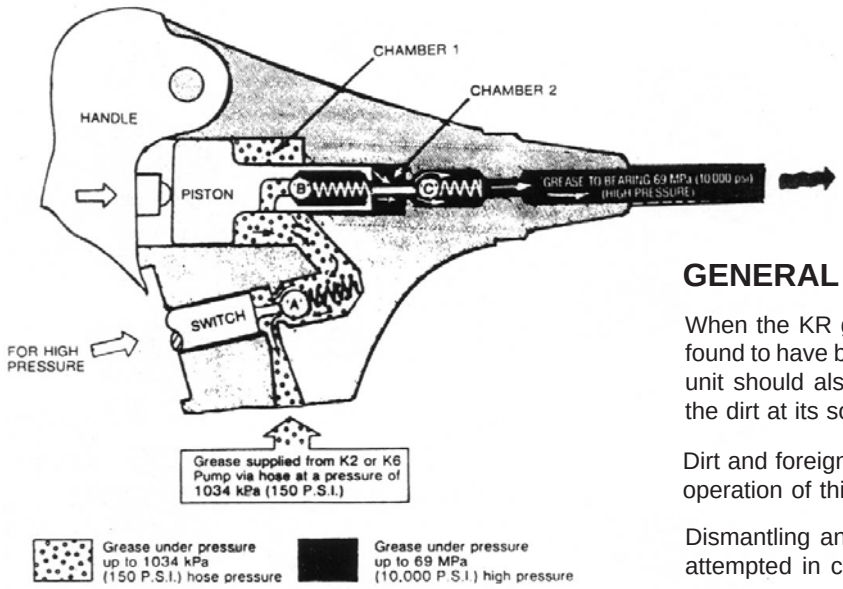
Should the strainer require cleaning, undo the nut at the base of the spring tube with a suitable spanner, remove the assembly as illustrated. Clean all parts and check and replace any damaged or worn components before reassembly.

CAUTION

When replacing the hose assembly only use a genuine Macnaught replacement hose, failure to do so may result in pump damage.

KR PRESSURITE GUN FEATURES

Operation on the High Pressure Setting

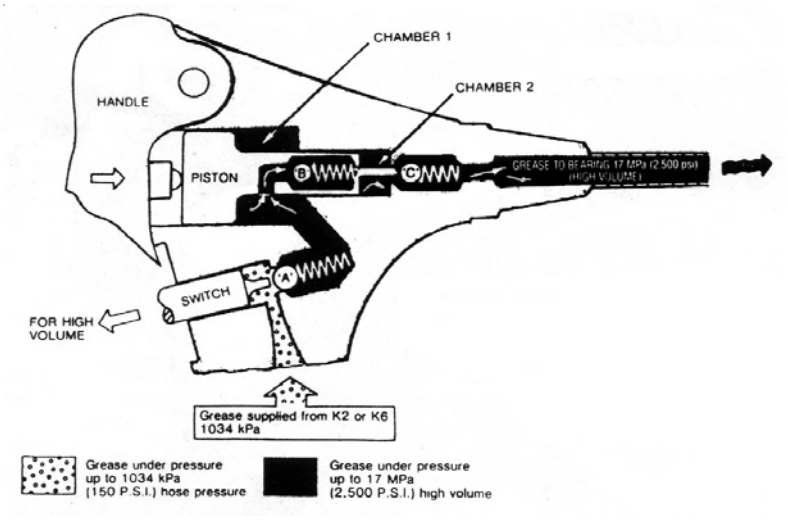


1) The switch is pushed foward and lifts ball A off its seat.

2) As the piston is pushed foward by the handle, the grease in chamber 1 is pushed back past ball A into the supply hose.

3) The grease in chamber 2 (small volume) is pressurised up to 69MPa (10,000 psi). This pressure seats ball B and lifts ball C, then forces grease through to the equipment being greased.

Operation on the High Volume Setting



1) The switch is withdrawn allowing ball A to seat.

2) The piston is pushed foward by the handle. As ball A is seated, grease cannot return back into the hose. Therefore both volumes of grease in chambers 1 and 2 are combined (high volume) and pressurised for delivery to the equipment requiring greasing.

3) During the operation balls B and C are forced off their seats by the volumes of grease passing.

Note: To select either high pressure or high volume, refer to Fig 1.

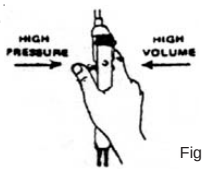


Fig 1

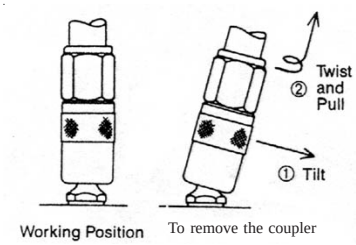
GENERAL INSTRUCTIONS

When the KR gun has been serviced and the trouble is found to have been caused by dirt in the valves, the pump unit should also be cleaned out thoroughly to eliminate the dirt at its source.

Dirt and foreign matter (lint, etc.) can seriously affect the operation of this unit.

Dismantling and reassembly of this unit should only be attempted in clean conditions.

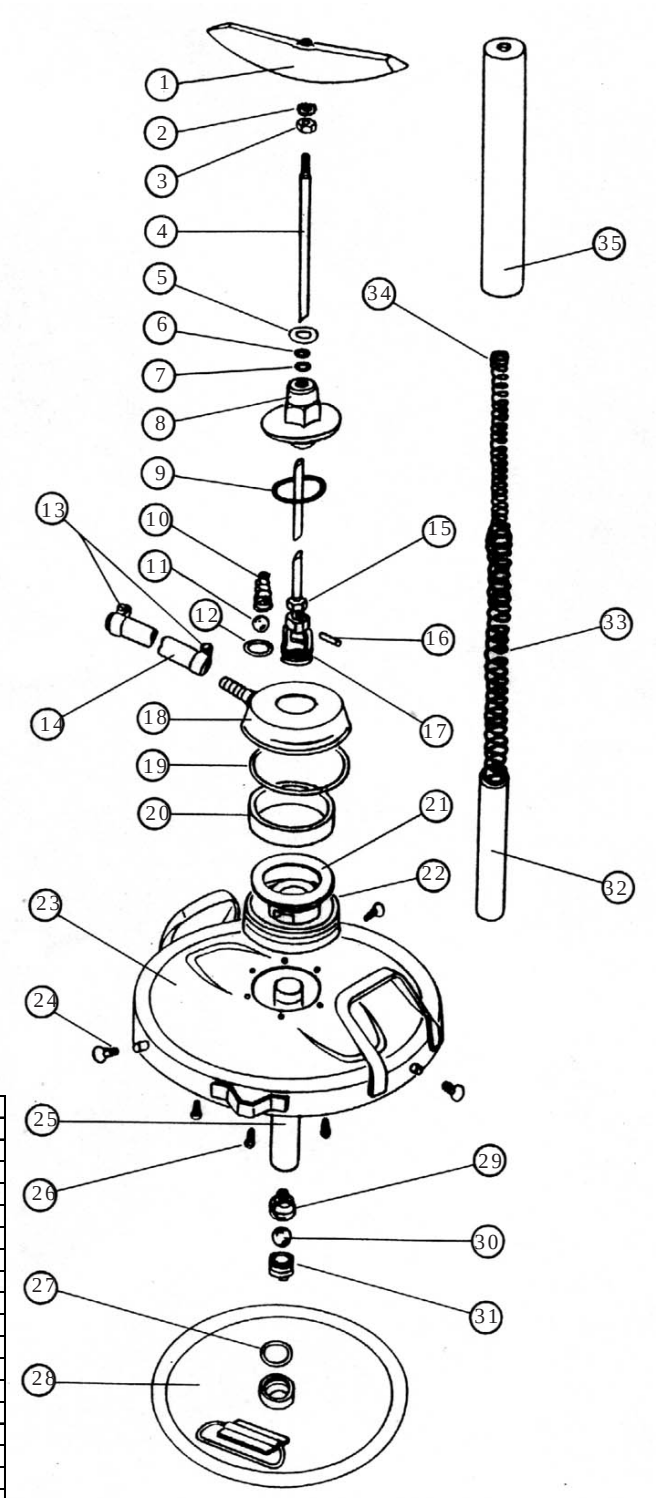
THE CORRECT METHOD FOR REMOVING THE KY COUPLER FROM A GREASE NIPPLE



PARTS DIAGRAM

CAUTION

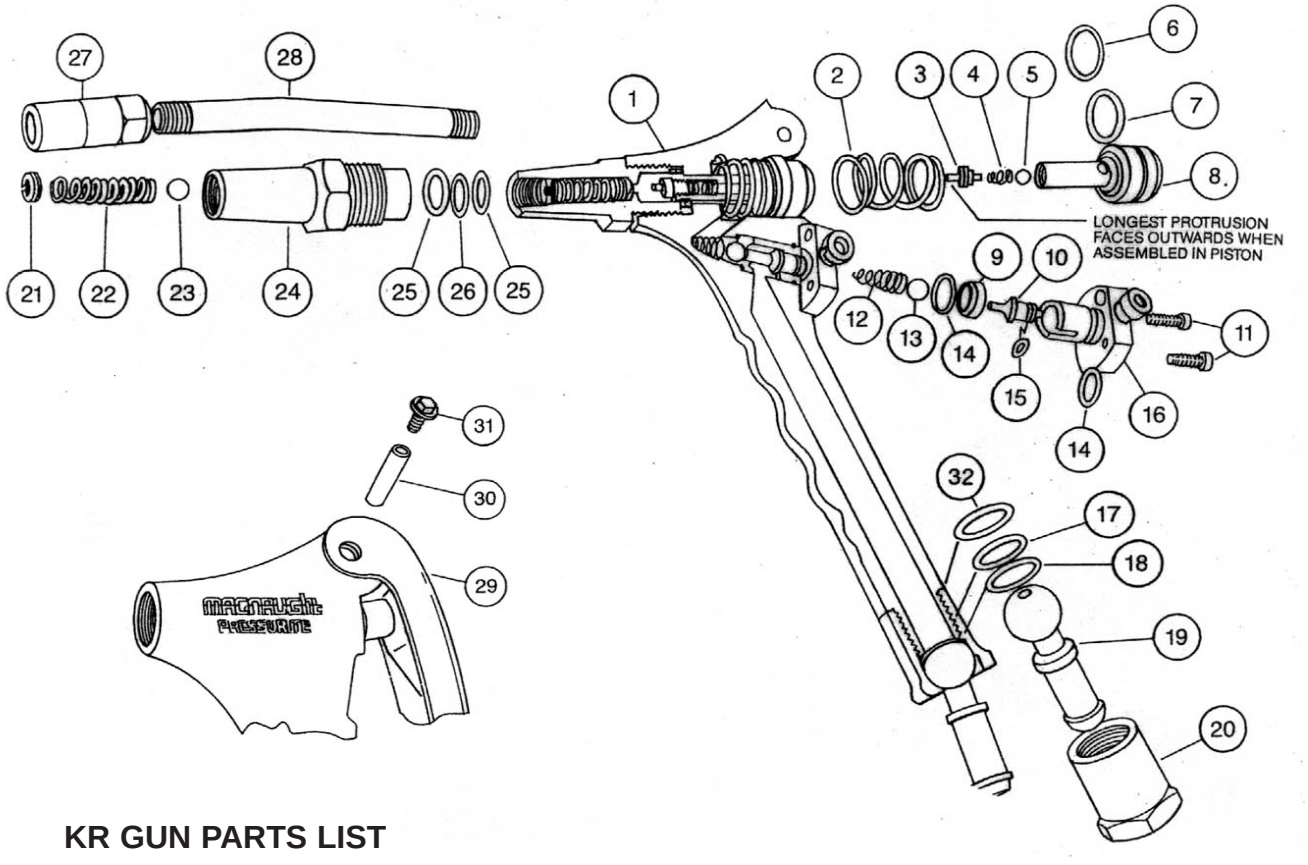
The springs inside tubes (35) and (32) are compressed. When removing the tubes to service seals or replace the springs, remove the handle (1) and hold tube (35) firmly against the spring pressure while removing the nut (3). Gently release the spring pressure against the tube (35).



PARTS LIST

			ORDER FOR REPLACEMENT		
ITEM	PART No.	No. off	PART/SET	KIT. REF	DESCRIPTION
	K3-1K		**K3-1K**		**OVERHAUL KIT**
1	KA71	1	KA71s		HANDLE
2	N124	1	N205s		SHAKEPROOF WASHER
3	N205	1			3/8" NUT
4	KA24	1	KA24s		PISTON ROD
5	KA33	1		A	WASHER
6	KA3	1		A	GLAND WASHER
7	BS111	1	KA53s	A	O' RING
8	KA54	1			CLAMP NUT
9	BS223	1		A	O' RING
10	KH11	1		A	BALL SPRING
11	N410	1	KA43s incl N210,N331	A	1/2" BALL
12	BS115	1	KM24	A	O' RING
13	KH74	2	KH43s		HOSE CLAMP
14	KH43	1			GREASE HOSE
15	N210	1			NUT
16	N331	1	order KA43s	A	SPIROL PIN
17	KM24	1			PISTON
18	KM17	1			STRAINER COVER
19	BS240	1	KA45s	A	O' RING
20	KA58	1			STRAINER
21	N154	1			STRAINER SEAL WASHER
22	KA31	1	KA31s		BODY CASTING
23	KA51	1	KA51s		LID ASSEMBLY
24	N21	3			THUMBSCREW 5/16"
25	KA27	1	KA27s		PUMP TUBE
26	N52	3	N52s		GUTTER BOLT
27	BS214	1	J17s	A	O' RING
28	J17	1			FOLLOWER
29	KM58	1		A	BALL RETAINER
30	N412	1	KM57s	A	9/16" BALL
31	KM57	1			FOOT VALVE
32	KA90	1			LOWER SPRING COVER
33	KA7	1	KA90s		OUTER SPRING
34	KA9	1			INNER SPRING
35	KA20	1			UPPER SPRING COVER

KR GUN PARTS DIAGRAM



KR GUN PARTS LIST

			ORDER FOR REPLACEMENT		
Item	PART No.	No. off	NEW PART/SET	KIT. REF	DESCRIPTION
			KR-1K (KIT A)		OVERHAUL KIT
			KR-2K (KIT B)		PISTON KIT
1	KR2	1	KR2		GUN BODY
2	KR3	1		A & B	PISTON SPRING
3	KR1	1		A & B	VALVE STEM (PISTON)
4	KH5	1		A & B	SPRING, PISTON CHECK
5	N403	1	KR-2K	A & B	7/32" BALL. PISTON
6	KR5	1	incl N326, N65	A & B	GLYDE RING
7	BS111	1		A & B	O' RING FOR GLYD RING
8	KR4	1		A & B	PISTON
9	KH12	1		A	VALVE SEAT
10	KH17	1			OPERATING PLUNGER CONTROL
11	N81	2			CAP SOCKET 1/2"X3/16" WHIT
12	KH11	1	KR12s	A	SPRING, (INLET CHECK)
13	N402	1		A	5/16" BALL, INLET
14	BS013	2		A	O' RING, SEAL BODY
15	BS008	1		A	O' RING, PLUNGER CONTROL
16	KH13	1			CONTROL BODY ASSEMBLY
17	N113	1		A	WASHER, HOSE ADAPTOR
18	BS113	1	KR13s	A	O' RING, HOSE ADAPTOR
19	KR6	1	incl BS017		BALL END, HOSE ADAPTOR
20	KH77	1			BALL SOCKET RETAINER
21	KD64	1			KEEPER SCREW (OUTLET)
22	KD61	1		A	SPRING (OUTLET)
23	N400	1	KH22s	A	1/4" BALL (OUTLET)
24	KH22	1			OUTLET BODY
25	KH9	2		A	TEFLON BACK-UP WASHER
26	BS012	1		A	O' RING PISTON
27	KY	1	KY		COUPLER
28	KH23	1	KH23s		EXTENSION TUBE
29	KH19	1			HANDLE
30	N326	1	KR14s	A & B	HANDLE PIN
31	N65	2		A & B	DRIVE SCREW
32	BS017	1		A	RETAINER O' RING

TROUBLE SHOOTING GUIDE

PUMP UNIT

TROUBLE	CAUSE	REMEDY
The handle rises slowly when not using the gun. (No visible leakages)	a) Dirt trapped between the inlet ball (11) and the piston (17).	a) Unscrew the clamp nut (8) and withdraw the assembly. Clean the ball (11) and piston (17), then reassemble.
	b) The piston o'ring (12) is defective or worn.	b) Replace the piston o'ring (12).
The handle springs up and the unit will not pump grease.	a) Air lock in the grease caused by :- i) Dent in the container stopping the follower. ii) Damaged follower o'ring (27).	a) i) Remove the dents or tilt the follower (28) under the dent. ii) Replace the o'ring (27) in the follower (28).
	b) Grease container empty.	b) Change over to a new grease container or refill the old container with grease.
	c) The footvalve assembly (31) is faulty, holding the ball (30) off the seat.	c) Replace with a new footvalve assembly (Do not attempt to rework this part).
The handle stays down, but the unit will not pump grease.	a) The grade of grease is too Heavy.	a) Use NLGI No2 grease, or lighter. (Force out the old grease).
	b) The strainer (20) is blocked	b) Unscrew the clamp nut (8) and withdraw the assembly. Using a screwdriver, lever off the strainer cover (18). Clean or replace the strainer (20).
Grease leaks at the top of the clamp nut (8).	Gland o'ring (7) is defective or worn	Unscrew the clamp nut (8) and withdraw the assembly. Unscrew the handle (1), hold down the upper spring cover (35) against spring tension, undo the nut (3) and carefully release the cover (35). Remove cover (35), outer and inner springs (33,34) and lower cover (32). Withdraw the piston rod (4) and replace the o'ring (7) and washers (5) and (6). Reassembly pump.
Grease leaks from the bottom of the strainer cover (18).	a) O'ring (19) damaged.	a) Unscrew the clamp nut (8) and withdraw the assembly. Using a screwdriver, lever off strainer cover (18).Replace o'ring(19).
Grease leaks from under the clamp nut (8).	a) Dirt under the clamp nut (8)	a) Undo and clean surfaces.
	b) Damaged seal washer (9)	b) Replace seal washer (9)

KR PRESSURITE GREASE GUN
TROUBLE SHOOTING GUIDE

TROUBLE	CAUSE	REMEDY
A) Coupler Leaks	a) Dirt under the seat of the outlet ball (23). **Note:** There is nothing wrong with the coupler itself.	a) Change to high volume and strike the handle sharply. If it still leaks, remove the extension tube (28), spring keeper screw (21), spring (22) and ball (23). Clean the seat and replace the ball, spring an and spring keeper screw (part way). Prime the pump and screw in the spring keeper screw until the grease stops leaking. Then screw in an extra 2 full turns. Reassemble extension tube (28). **Note:** Too many turns makes the gun hard to operate, and too few turns allows the gun to leak. If the coupler still leaks replace the complete outlet body assembly. When refitting the outlet body (24) hold the handle in the (29) in the closed position. This enables the back-up washerss and o'ring seals to enter squarely onto the piston.
	b) The valve stem (3) has worked loose and is holding the outlet ball (23) off its seat.	b) Remove the handle pin (30), and handle (29) . Remove piston (8), re-tighten valve stem (3) or replace the complete piston assembly
B) Gun leaks at the back end of the piston.	Glyde ring worn.	Remove the handle pin (30) and handle (29). Remove the old piston and replace with a new piston assembly.
C) Gun fails to deliver grease on the high pressure setting	a) Dirt under the delivery ball (5) or damaged ball seat in the piston (8).	a) Change over to the high volume setting and strike the handle hard to shift dirt off the seat. If there is no improvement, replace the piston assembly.
	b) Seals (25, 26) are worn.	b) Replace seals (25, 26) in the outlet body.
	c) Valve stem (3) has become loose from the piston (8).	c) Replace piston assembly
D) Gun fails to deliver grease on the high volume setting	a) Dirt on the inlet valve seat (9). Note: This fault will decrease volume.	a) Remove the control body (16), tap out the valve seat (9), o'ring (14), ball (13) and spring (12). Clean parts and replace in the correct order.
	b) Operating plunger control (10) sticking in body (16).	b) Replace the control body assembly.
E) The control push rod in the control body leaks	O'ring (15) damaged or worn.	Remove the control body and replace worn or damaged parts.
F) The gun leaks at the swivel joint	Worn seals (18, 32).	Replace worn or damaged swivel seals.
G) The gun, when on the high volume setting is too slow or hard to operate	a) Springs (2 or 4) may have collapsed and is blocking the flow of grease.	a) Fit KR-1K overhaul kit.
	b) Grade of grease is too heavy.	b) Change grease to NLGI No 2 grease or lighter.
	c) Too much compression on the outlet spring (22).	c) Reset the spring keeper screw (Refer to A - a) of the trouble shooting guide) or replace the outlet body assembly.