

# Servicing the Tool

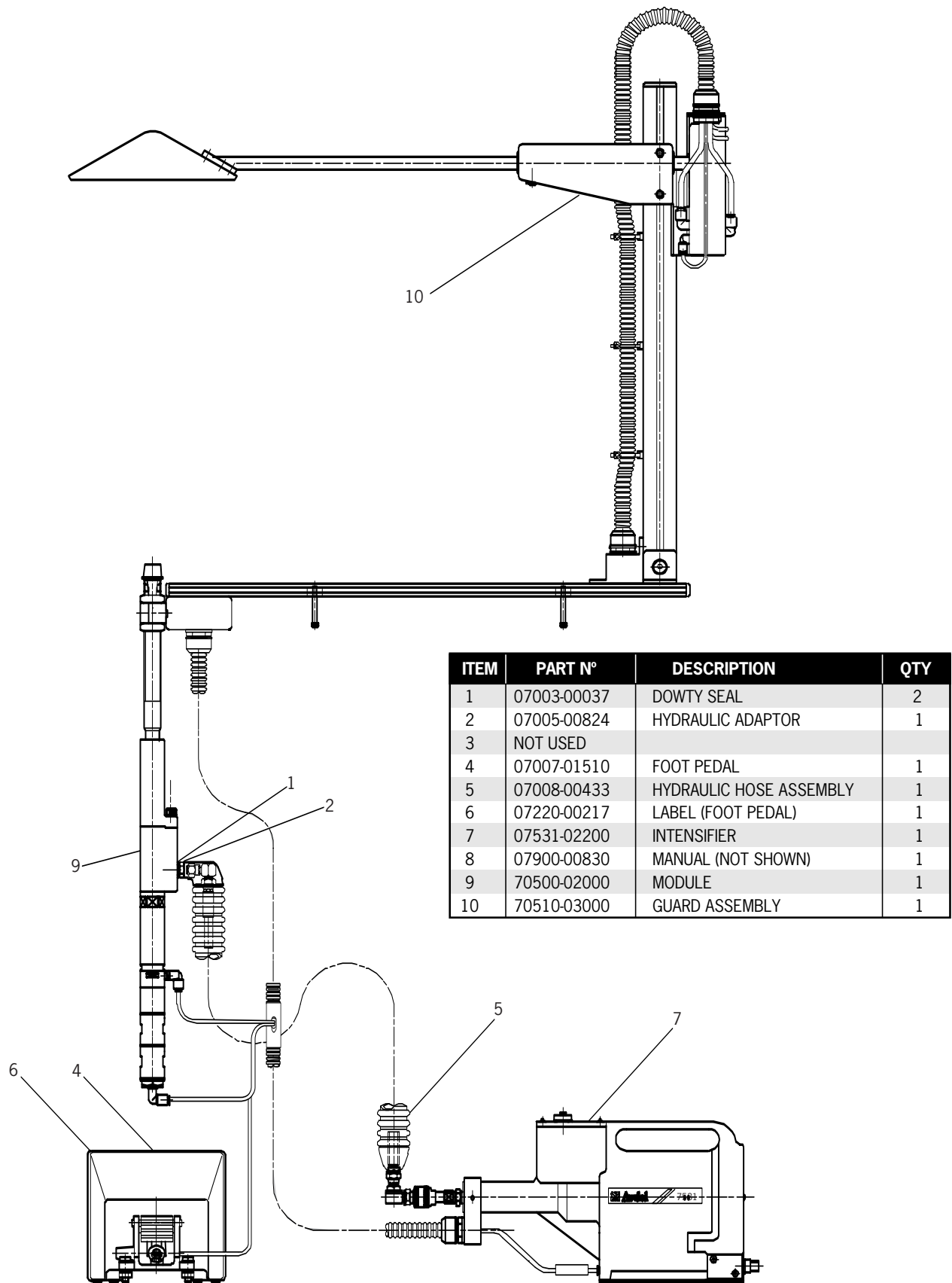
## Service Kit

For all servicing we recommend the use of the service kit (part number 07900-04750(S)).

SERVICE KIT					
ITEM PART N°	DESCRIPTION	N° OFF	ITEM PART N°	DESCRIPTION	N° OFF
07900-00002	SPANNER ASSEMBLY	1	07900-00429	ASSEMBLY SPANNER FOR HEAD PISTON	1
07900-00006	SPATULA	1	07900-00433	SPANNER 24 & 26mm OPEN ENDED	1
07900-00008	7/16in X 1/2in A/F SPANNER	1	07900-00434	SPANNER 32 & 30mm OPEN ENDED	1
07900-00012	9/16 X 5/8 A/F SPANNER (1/18in thick)	1	07900-00446	EXTRACTOR	1
07900-00013	HEXAGON WRENCH 1/8" A/F	1	07900-00488	SPANNER ASSEMBLY	1
07900-00194	JAW HOUSING KEY	1	07900-00496	HEXAGONAL WRENCH 2.5mm A/F	1
07900-00201	HEXAGON WRENCH 0.050in A/F	1	07900-00520	3/8 DIAMETER ROD	1
07900-00224	HEXAGON WRENCH 4mm A/F	1	07900-00521	1/4in DIAMETER ROD	1
07900-00225	HEXAGON WRENCH 5mm A/F	1	07900-00522	ASSEMBLY SPANNER FOR HEAD PISTON	2
07900-00226	HEXAGON WRENCH 6mm A/F	1	07900-00576	ASSEMBLY BULLET	1
07900-00237	3/8 B.S.W SPANNER	1	07900-00577	PISTON ASSEMBLY ROD	1
07900-00351	HEXAGON WRENCH 3mm A/F	1	07900-00593	SLEEVE	1
07900-00392	8mm A/F SPANNER	1	07900-00594	PUSH ROD	1
07900-00393	15mm x 14mm A/F SPANNER	1	07900-00669	ASSEMBLY BULLET (PISTON)	1
07900-00394	17mm A/F SPANNER	1	07992-00020	80gm MOLYLITHIUM GREASE E.P.3753	1 tin
07900-00409	12mm x 13mm A/F SPANNER	1			

Note: Spanner sizes are measured 'across flats' unless otherwise specified.

# Bench Mounted Module & Guard Assembly 70510-01000(s)



# Maintenance

Every 500,000 cycles the tool should be completely dismantled and components should be replaced where worn, damaged or when recommended. All 'O' rings and seals should be renewed and lubricated with Moly Lithium grease EP 3753 before assembling.

## IMPORTANT

Safety Instructions appear on page 4.

The employer is responsible for ensuring that tool maintenance instructions are given to the appropriate personnel. The operator should not be involved in maintenance or repair of the tool unless properly trained.

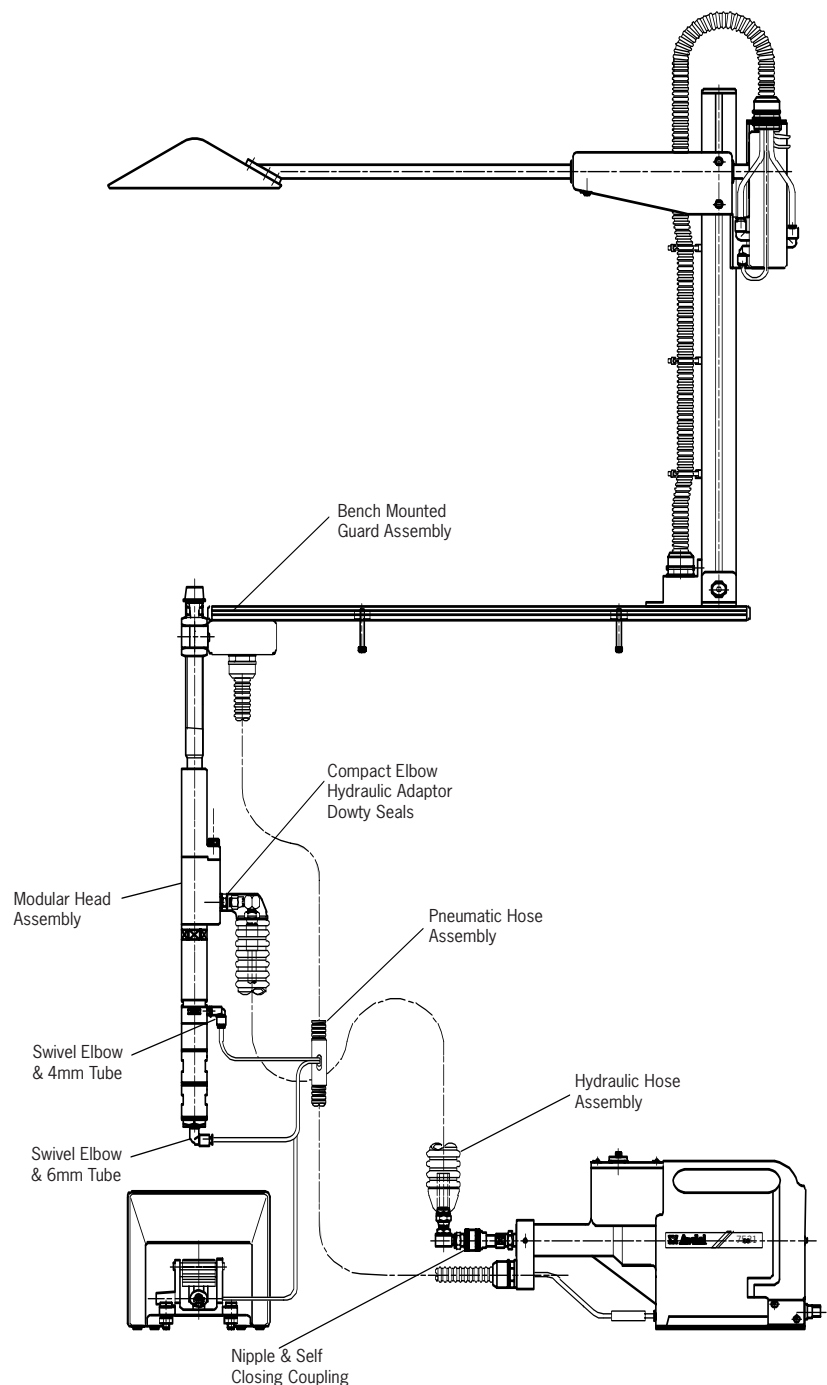
The airline must be disconnected before any servicing or dismantling is attempted, unless specifically instructed otherwise.

It is recommended that any dismantling operation be carried out in clean conditions.

## Dismantling the 70510

### Separating the Module from the Assembly

- Remove the nose jaw equipment from the Modular Head Assembly
- Remove the Modular Head Assembly & Tool Mounting Block from the guard, by using the appropriate Allen Key\*.
- Remove the Mounting Block from the Module by using the appropriate Spanner\*.
- Disconnect nipple from self-closing coupling at the intensifier
- Remove the 6mm Tube by depressing the collar on the swivel elbow fitting. Using a Spanner\* remove swivel elbow from module.
- Remove the 4mm Tube by depressing the collar on the swivel elbow fitting. Using a Spanner\* remove swivel elbow from module.
- Using a spanner\* remove the hydraulic hose assembly, compact elbow, hydraulic adaptor and dowty seals from the module



\* Refers to items included in the service kit, see page 24.

# Hydraulic Module Assembly 70500-02000 - Maintenance

## Dismantling the Tail Jaws

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- With the aid of Spanners\*, remove Adaptor **24** and “Tail Jaw Assembly” from Tail Jaw Housing **42**. The Turret **22** and the Turret Jaws **19** will be exposed. Care should be taken not to misplace the Jaws.
- Clean and inspect Jaw Housing **45**. It will be necessary to remove the Jaw Housing only if damaged. To remove the Jaw Housing **45** use Jaw Housing Key\* and Spanners.
- Clean all items, clean and replace as necessary. Regrease using Molybdenum based grease.

## Dismantling Tail Jaws Assembly

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- Remove Adaptor **24** and Tail Jaws Assembly.
- Remove Adaptor **24** from Front Cylinder **44** using Spanner\*. Remove Banjo **43** and 'O' Rings **9**.
- With the aid of Spanners\* remove Turret **22** from Front Piston Rod **49**.
- With the aid of Spanners\* remove Front Cylinder **44** from Rear Cylinder **28**. Remove Front Piston Rod **49** and Piston **26**. Remove Circlip **16** and remove Piston **26** from Piston Rod **27**. Remove 'O' Ring **4** from Front Cylinder **44**.  
*Note: Removal of 'O' Rings from internal recesses requires the use of a pointed probe. Care must be taken not to damage sealing surfaces. Remove 'O' Ring **8** from Piston. Remove 'O' Ring **10** from Piston using Spatula\*.*
- Remove Seal Retainer **30**, with the aid of spanner\* remove Front Rear Cylinder **28** from Back Rear Cylinder **28**. Remove Piston Rod **27**, Circlip **16**, Piston **26**, and 'O' Ring Seals as described.
- Remove Seal Retainer **30**. With the aid of spanner\* remove Back Rear Cylinder **28** from Rear Plug **29**. Remove Seal Retainer **30**. Remove Piston Rod, Circlip, Piston and 'O' Ring Seals as described.
- Replace worn or damaged parts as required. Clean all parts thoroughly, lubricate Seals and Cylinder Bores with Molybdenum grease. Re-assemble in reverse order.

## Dismantling Hydraulic Body Assembly

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- Using Hexagon Wrench\* remove Button Head Bleed Screws **1** and Seals **6** from Body **38**. Allow hydraulic fluid to drain from Cylinder Body.
- Using Hexagon Wrench\* remove Barrel Assembly **2, 11, 13, 20, 21, 23, 25, 31, 32, 33, 34, 35, 36, 37**.
- Using spanners\* to prevent the Body **38** rotating, and with the aid of spanners\* remove the Tail Jaw Housing **42** and Tail Jaw Assembly.
- With the aid of spanners\* remove Locknut **46** and Piston Nut **47**. Remove Buffer Stops **48**.  
*Note: It is important that the same number of Buffer Stops removed, are replaced on re-assembly.*
- Remove Piston **41**. Remove Hydraulic Seal **15** and Piston Guidance Tape **39**, clean all parts thoroughly, inspect for damage and replace if necessary.
- Remove Hydraulic Seal **14** and Piston Guidance Tape **40** from Body **38**, clean and inspect for damage and replace if necessary.  
*Note: Extreme care must be taken when removing Seals, to avoid damage to sealing surfaces.*
- Inspect Piston diameters, and Body Cylinder bore, for wear and damage. Replace Hydraulic Seals and Piston Guidance Tape in the correct relative positions. For Hydraulic Seals **14** use assembly tools\*. Insert Seal in tapered end of Sleeve\*. Ensure seal is orientated correctly. Insert sleeve into bore of Body **38**. Using Push Rod\*, push Seal out of sleeve into body groove. Lubricate Seals and Cylinder Bores with Molybdenum grease.

## Re-assembling Hydraulic Body

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- Using Assembly Bullet\*, positioned on the thread of Piston **41** and with the aid of Piston Assembly Rod\*, push the piston through the bore of the Body **38** until it reaches the shoulder of the Body, remove the Assembly Bullet\*.
- Assemble Buffer Stops **48**, ensure the same number are assembled as were removed.
- Screw Piston Nut **47** and Lock Nut **46** onto the Thread of the Piston **41**. Using Spanners\*, lock the Nuts together, ensuring that the front face of Locknut **46** is flush with the front face of Piston **41**.
- Fit Barrel Assembly **2, 11, 13, 20, 21, 23, 25, 31, 32, 33, 34, 35, 36, 37** to Body **38**. Secure using Screw **3**, lock screw using Hexagon Wrench\*.
- Fit Tail Jaw Housing **42** and Tail Jaw Assembly to Body **38** and tighten using Spanners\*.

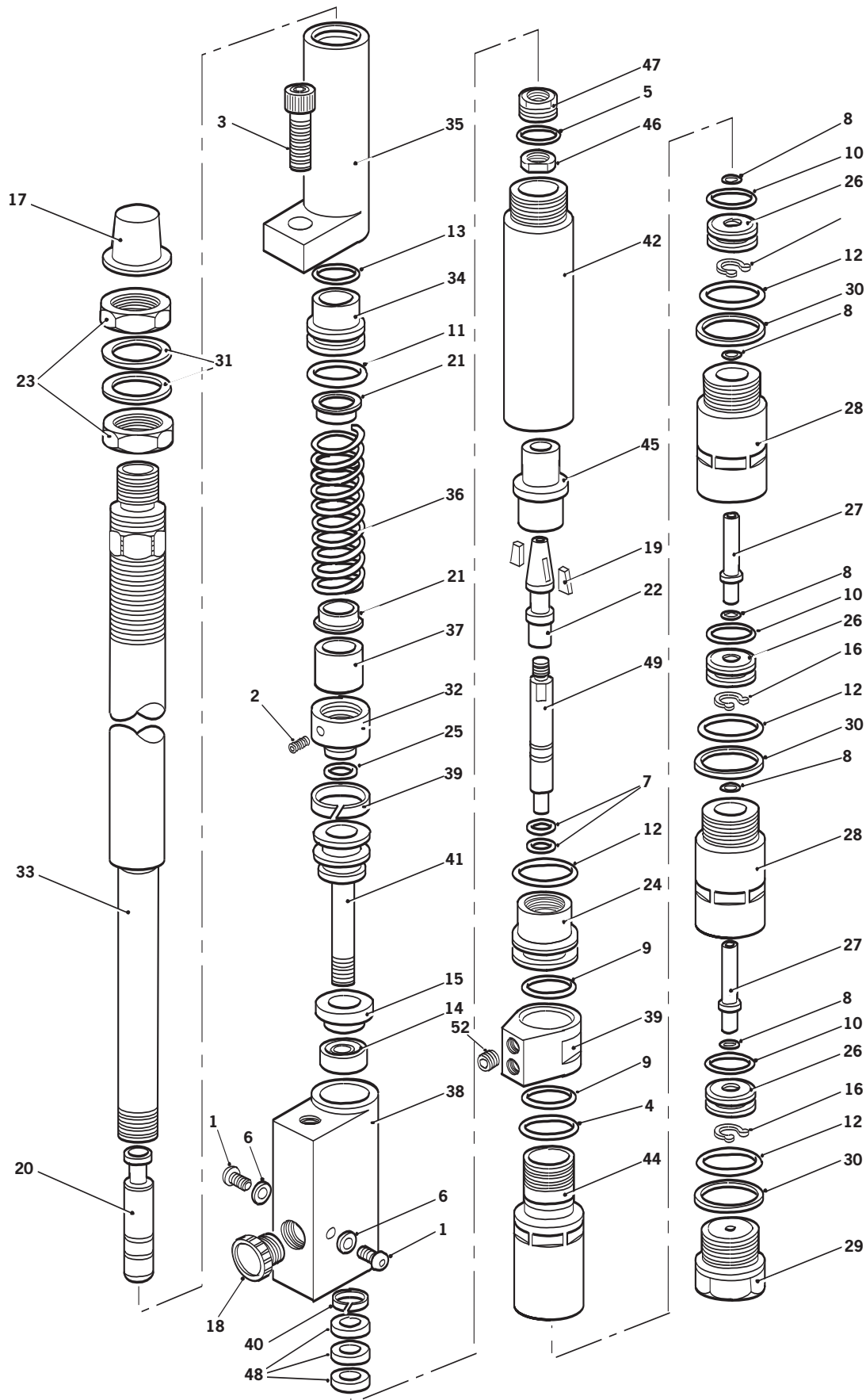
## Dismantling Barrel Assembly

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- Using hexagon Wrench\*, remove Button Head Bleed Screws **1** and Seals **6** from Body **38**.
- Remove Barrel Assembly from Body **38**.
- Using Hexagon Wrench\*, remove Screw **2** from Barrel Nut **32**. Replace “O” Ring **25**.  
*Note: When Replacing Screw, secure using Locktite Screwloc 222.*
- With the aid of Spanners\* hold Barrel **33** and remove Barrel Nut **32** using Spanners\*.
- Remove Barrel Spring **36**, Barrel Spring Retainer **35**. Remove Spring Guide **21**, remove Spacer **37** and remove Seal Spring Guide **34**. Remove “O” Rings **11** and **13**.
- Clean and inspect all parts. Replace if damaged or worn. Assemble in reverse order.

\* Refers to items included in the service kit, see page 24.  
Item numbers in **bold** refer to the general assembly and parts list on pages 28-29.

# Repetition Module Assembly 70500-02000(s)



## Parts List for Repetition Module Assembly 70500-02000(s)

<b>70500-02000(s) PARTS LIST</b>			
<b>ITEM</b>	<b>PART N°</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	07001-00114	10-24 UNC BUTTON HEAD SCREW	2
2	07001-00243	GRUB SCREW	1
3	07001-00250	M8 SOCKET HEAD CAP SCREW	1
4	07003-00248	'O' RING SEAL	1
5	07003-00028	'O' RING SEAL	1
6	07003-00033	BONDED SEAL	2
7	07003-00264	'O' RING SEAL	2
8	07003-00042	'O' RING SEAL	5
9	07003-00067	'O' RING SEAL	2
10	07003-00100	'O' RING SEAL	3
11	07003-00147	'O' RING SEAL	1
12	07003-00153	'O' RING SEAL	4
13	07003-00178	'O' RING SEAL	1
14	07003-00242	HYDRAULIC SEAL	1
15	07003-00243	HYDRAULIC SEAL	1
16	07004-00057	CIRCLIP	3
17	07007-00017	DUST CAP	1
18	07007-00353	PROTECTIVE PLUG	1
19	07151-00403	TURRET JAW	2
20	07271-01100	CURSOR ASSEMBLY	1
21	07650-00218	SPRING GUIDE	2
22	07650-00303	TURRET	1
23	07650-00501	BARREL LOCK NUT	2
24	07657-00302	ADAPTOR	1
25	07003-00036	'O' RING SEAL	1
26	07657-00305	PISTON	3
27	07657-00306	PISTON ROD	2
28	07657-00307	FRONT/REAR CYLINDER	2
29	07657-00308	REAR PLUG	1
30	07657-00309	SEAL RETAINER	3
31	07660-00202	BARREL WASHER	2
32	07667-00207	BARREL NUT	1
33	70500-02001	BARREL	1
34	70500-02002	SEAL SPRING GUIDE	1
35	70500-02003	BARREL SPRING RETAINER	1
36	70500-02004	BARREL SPRING	1
37	70500-02005	SPACER	1
38	70500-02006	BODY	1
39	70500-02007	PISTON GUIDANCE TAPE-LONG	1
40	70500-02008	PISTON GUIDANCE TAPE-SHORT	1
41	70500-02009	PISTON	1
42	70500-02010	TAIL JAW HOUSING	1
43	70500-02011	BANJO	1
44	70500-02012	FRONT CYLINDER	1
45	70500-02013	JAW HOUSING	1
46	70500-02014	LOCKNUT	1
47	70500-02015	PISTON NUT	1
48	70500-02016	BUFFER STOP	3
49	70500-02017	FRONT PISTON ROD	1
50	07273-00203	SAFETY LABEL	1*
51	07007-01503	'BOOK SYMBOL' LABEL	1*
52	07001-00481	GRUB SCREW M5 CUP	1

\* Not shown



# Bench Mounted C-Frame Guard - Parts List

70500-03000(s) PARTS LIST			
ITEM	PART N°	DESCRIPTION	QTY
1	07001-00215	CAP HEAD SCREW M5 X 45	4
2	07001-00256	CAP HEAD SCREW M5 X 40	2
3	07001-00262	CAP HEAD SCREW M4 X 22	1
4	07001-00359	CAP HEAD SCREW M6 X 35	1
5	07001-00379	CSK HEAD SCREW M6 X 12	2
6	07001-00381	CAP HEAD SCREW M6 X 12	6
7	07001-00418	CAP HEAD SCREW M4 X 5	2
8	07001-00420	BUTTON HEAD SCREW M4 X 8	1
9	07001-00452	CAP HEAD SCREW M3 X 12	4
10	07001-00494	BUTTON HEAD SCREW M4 X 10	1
11	07001-00415	CAP HEAD SCREW M3 X 20	2
12	07001-00663	FLANGED BUTTON HEAD SCREW M8 X 12	2
13	07001-00600	BUTTON HEAD SCREW M6 X 30	3
14	07001-00481	GRUB SCREW M5 X 5	2
15	07002-00084	PLAIN WASHER M3	6
16	07002-00129	NYLOC NUT M3	2
17	NOT USED		
18	NOT USED		
19	07005-01083	Ø4 HOSE - BLUE	A/R
20	07005-01085	Ø6 HOSE - BLUE	A/R
21	07005-01352	Ø4 HOSE - BLACK	A/R
22	07005-01417	Ø6 HOSE - BLACK	A/R
23	07005-01728	VALVE ROLLER LEVER	1
24	07005-10032	Ø6 NON-RETURN VALVE	1
25	07005-10033	Ø4 HOSE - GREEN	A/R
26	NOT USED		
27	07007-01305	TEE NUT M8	1
28	07007-01306	TEE NUT M6	4
29	07007-01310	CAP	1
30	07007-01311	COVER PROFILE 8	A/R
31	07007-01317	BRACKET RIGHT - ANGLE	1
32	07007-01323	COVER PROFILE 5	A/R
33	07007-01324	CAP	2
34	07007-01326	TEE NUT M5	6
35	07007-01400	PROFILE END CAP (80 X 40)	2
36	07007-01424	CABLE TIE	3
37	07007-01696	CABLE CRADLE	3
38	07007-01990	GLAND	4
39	07007-01991	UMBILICAL	2
40	NOT USED		
41	07273-00101	SAFETY LABEL	1
42	07273-01003	GUARD	1
43	07273-02802	GUARD PLATE	1
44	07273-02806	SPACER	1
45	NOT USED		
46	07475-03300	BEARING BRACKET ASSEMBLY	1
47	70510-03010	CONDUIT SPACER	1
48	70510-03001	BASE PLATE	1
49	70510-03002	BASE PLATE END STOP	1
50	70510-03003	TOOL MOUNTING BLOCK	1
51	70510-03004	PILLAR	1
52	70510-03005	SUPPORT BRACKET	1
53	70510-03006	GUARD ROD	1
54	70510-03007	VALVE MOUNTING PLATE	1
55	70510-03008	VALVE COVER PLATE	1
56	07005-01528	BANJO CONNECTOR	1
57	07005-01527	BANJO CONNECTOR - Ø6mm PIPE	1
58	07005-01526	BANJO CONNECTOR - Ø4mm PIPE	1
59	70510-03009	INTENSIFIER BRACKET	2



# Intensifier 07531-02200 - Maintenance

## Dismantling Instructions

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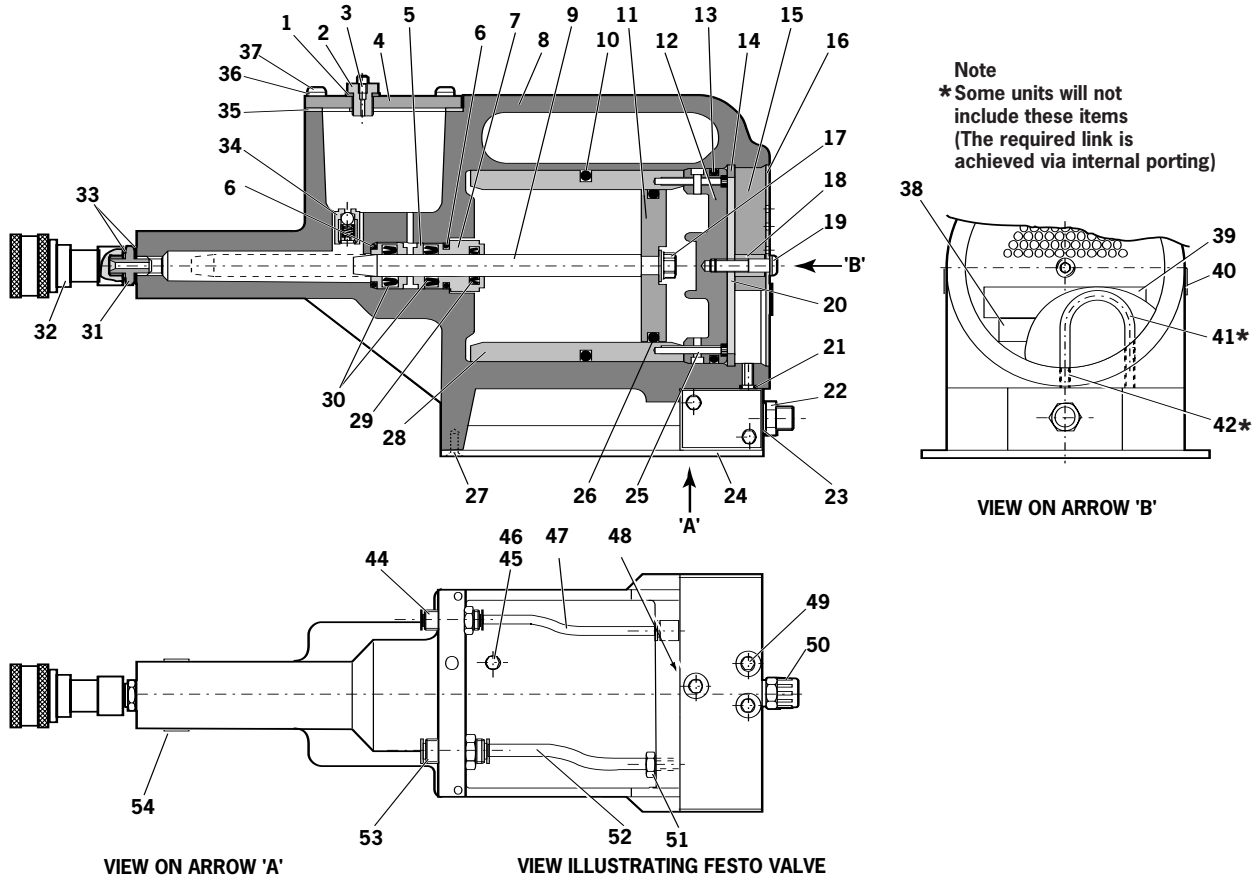
- When dismantling the intensifier assembly, first disconnect the air supply hose to intensifier inlet Connector **22**.
- Using an Allen Key\* undo four Screws **27** and remove Protection Plate **24**.
- Disconnect the trigger hose from the Intensifier Valve **48** by depressing the Bulkhead Connector **44** and withdrawing the hose.
- Remove Cover Plate **4** and Gasket **35** by removing Screws **37** and Washers **36** using Allen Key\*.
- Ensure that gasket is not damaged to ensure a proper seal on assembly.
- Invert intensifier assembly and drain oil from reservoir into a suitable container.
- Remove Quick Release Connector **32** together with Connector **31** and Seals **33** with suitable spanner\*.
- Remove Intensifier Valve **48** by removing the fixing screws with a suitable spanner taking care to retain 'O' Ring **21** located in the Intensifier Body Casting.
- Remove Screw **19** using a suitable Allen Key\* and remove Silencer Cover **16**, Foam Silencer **15**, Spacer **18** and Retaining Plate **20**.
- Pull off the 6mm Plastic Tube **41** from Vacuum Connectors **42**.
- From the base of the intensifier insert a 3mm Allen Key \* through the two holes and unscrew the Vacuum Connectors **42**. Note:
  - Care must be taken as the vacuum connectors are locked and sealed in place using Loctite 574.
  - If difficult to remove, the vacuum connectors can be drilled out using a 3/16" or 4.7mm diameter drill.
- To reassemble the Vacuum Connectors **42**, the following procedure must be followed: -
  - Soak the vacuum connectors in a suitable primer, i.e. Perma Bond A905
  - Place a drop of Loctite 574 in the intensifier threaded hole.
  - From the base of the intensifier insert the Allen Key \* through the hole. Ensure that the Allen Key \* is free from Loctite 574 before inserting into the vacuum connector.
  - Rotate the Allen Key while applying Loctite 574 to the base of the vacuum connector.
  - Screw the Vacuum connector into the intensifier, ensuring that there is sufficient Loctite 574 at the base of the fitting such the thread is not visible.
- Using a screwdriver, carefully remove internal Retaining Ring **14**. Clean and inspect groove for sign of damage.
- Using Extractor\*, insert male threaded end into End Cover **12** and withdraw it along with intensifier Sleeve **28** and 'O' Rings **10** and **13**.
- Insert Rod\* through the connector orifice at the front of the intensifier body and tap out Piston Rod **9** and Piston Assembly.
- Using a suitable Allen Key\*, unscrew two Screws **25** and remove End Cover **12** from intensifier Sleeve **28**.
- Remove Seal Plug **7** with spanner\*.
- Insert rod\* through connector orifice at the front of the intensifier body and push out Seal Housing **5** and associated 'O' rings and lip seals.
- Remove Valve Housing Assembly **34** from the main body with a suitable spanner\*. Clean by blowing through with a low-pressure air jet.
- Remove Piston Rod **9** from intensifier Air Piston **11** by gripping the first 20 mm (3/4") of the rod in a vice fitted with soft jaws, taking care not to damage or mark the working surface.
- Unscrew locking Nut **17** with a suitable spanner\*.
- Assemble in the reverse order of dismantling, observing the following:
  - Clean all parts and renew all 'O' rings.
  - Lubricate all seals using Moly Lithium grease.
  - Valve Housing Assembly **34** must be refitted using a thread sealing adhesive.
  - Assemble the Piston Assembly using a new Nut **17**.
  - End Cover **12** must be fitted correctly inside Retaining Ring **14**. The tool must not be operated if the end cover has been omitted.

### I M P O R T A N T

**Priming is ALWAYS necessary after the tool has been dismantled and prior to operating.**

\* Refers to items included in the service kit, see page 24.  
Item numbers in **bold** refer to the illustration and parts list opposite.

# Intensifier 07531-02200



## 07531-02200 PARTS LIST

ITEM	PART N°	DESCRIPTION	QTY	SPARES	ITEM	PART N°	DESCRIPTION	QTY	SPARES
1	07003-00037	SEAL	1	1	28	07531-00201	SLEEVE	1	-
2	07240-00211	FILLER SCREW	1	-	29	07003-00337	LIP SEAL	1	1
3	07001-00418	BLEED SCREW	1	1	30	07003-00336	LIP SEAL	2	2
4	07240-00210	COVER PLATE	1	-	31	07005-00406	CONNECTOR	1	-
5	71420-02006	SEAL HOUSING	1	-	32	07005-00759	QUICK RELEASE CONNECTOR	1	-
6	07003-00153	'O' RING	2	-	33	07003-00142	SEAL	2	1
7	71420-02007	SEAL PLUG	1	-	34	07240-00400	VALVE HOUSING ASSEMBLY	1	-
8	71420-02300	BODY ASSEMBLY	1	-	35	07240-00209	GASKET	1	1
9	71420-02008	PISTON ROD	1	-	36	07002-00073	WASHER	4	1
10	07003-00182	'O' RING	1	1	37	07001-00554	SCREW	4	1
11	07531-00202	AIR PISTON	1	-	38	07007-01504	LABEL	1	-
12	07531-00204	END COVER	1	-	39	07240-00217	LABEL	1	-
13	07003-00183	'O' RING	1	1	40	07531-00205	LABEL	2	-
14	07004-00069	RETAINING RING	1	1	41	07005-00596	* 6mm PLASTIC TUBE	-	-
15	07240-00213	FOAM SILENCER	1	1	42	07245-00103	* VACUUM CONNECTOR	2	-
16	07240-00214	SILENCER COVER	1	-					
17	07002-00017	NUT	1	1	44	07005-01431	BULKHEAD CONNECTOR	1	1
18	07240-00215	SPACER	1	-	45	07005-00668	M5 PLUG	1	-
19	07001-00417	SCREW	1	1	46	07005-00670	M5 SEALING RING	1	-
20	07240-00216	RETAINING PLATE	1	-	47	07005-01084	4mm PLASTIC TUBE (150mm)	-	-
21	07003-00042	'O' RING	1	1	48	07005-01524	FESTO VALVE	1	-
22	07005-00041	CONNECTOR	1	-	49	07001-00176	SCREW	3	-
23	07003-00065	WASHER	1	-	50	07007-00292	1/4" BSP REDCAP	1	-
24	07240-00220	PROTECTION PLATE	1	-	51	07005-00647	CONNECTOR	1	-
25	07001-00375	SCREW	2	-	52	07005-01085	6mm PLASTIC TUBE (150mm)	-	-
26	07003-00238	'O' RING	1	1	53	07005-00855	BULKHEAD UNION	1	-
27	07001-00396	SCREW	4	-	54	07007-01503	LABEL	1	-