



# Avdel



## Instruction Manual

Pass onto user to read and keep for reference



**Hydro-Pneumatic Power Tool**

**07391 model**

AVDEL policy is one of continuous development. Specifications shown in this document may be subject to changes which may be introduced after publication. For the latest information always consult Avdel.

### SPECIFICATIONS FOR 07391 TOOL

AIR PRESSURE	■	Minimum - Maximum	■	5 - 7 bar	■	70 - 100 lbf/in <sup>2</sup>
FREE AIR VOLUME REQUIRED	■	@ 5.5 bar / 80 lbf/in <sup>2</sup>	■	1.59 litres	■	.056 ft <sup>3</sup>
STROKE	■	Minimum	■	16 mm	■	.625 in
PULL FORCE	■	@ 4.8 bar / 70 lbf/in <sup>2</sup>	■	6.05 kN	■	1360 lbf
CYCLE TIME	■	Approximately	■	1.5 seconds	■	
NOISE LEVEL	■		■	71.4 dB(A)	■	
WEIGHT	■	Without nose equipment	■	1.4 kg	■	3.1 lb
VIBRATION	■	Less than	■	2.5 m/s <sup>2</sup>	■	8 ft/s <sup>2</sup>

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# S A F E T Y

This instruction manual must be read with particular attention to the following safety rules, by any person installing, operating, or servicing this tool.

⚠ DO NOT USE OUTSIDE THE DESIGN INTENT.

⚠ DO NOT USE EQUIPMENT WITH THIS TOOL/MACHINE OTHER THAN THAT RECOMMENDED AND SUPPLIED BY AVDEL.

⚠ ANY MODIFICATION UNDERTAKEN BY THE CUSTOMER TO THE TOOL/MACHINE, NOSE ASSEMBLIES, ACCESSORIES OR ANY EQUIPMENT SUPPLIED BY AVDEL OR THEIR REPRESENTATIVES, SHALL BE THE CUSTOMER'S ENTIRE RESPONSIBILITY. AVDEL WILL BE PLEASED TO ADVISE UPON ANY PROPOSED MODIFICATION.

⚠ THE TOOL/MACHINE MUST BE MAINTAINED IN A SAFE WORKING CONDITION AT ALL TIMES AND EXAMINED AT REGULAR INTERVALS FOR DAMAGE AND FUNCTION BY TRAINED COMPETENT PERSONNEL. ANY DISMANTLING PROCEDURE SHALL BE UNDERTAKEN ONLY BY PERSONNEL TRAINED IN AVDEL PROCEDURES. DO NOT DISMANTLE THIS TOOL/MACHINE WITHOUT PRIOR REFERENCE TO THE MAINTENANCE INSTRUCTIONS. CONTACT AVDEL WITH YOUR TRAINING REQUIREMENTS.

⚠ THE TOOL/MACHINE SHALL AT ALL TIMES BE OPERATED IN ACCORDANCE WITH RELEVANT HEALTH AND SAFETY LEGISLATION. IN THE U.K. THE "HEALTH AND SAFETY AT WORK ETC. ACT 1974" APPLIES. ANY QUESTION REGARDING THE CORRECT OPERATION OF THE TOOL/MACHINE AND OPERATOR SAFETY SHOULD BE DIRECTED TO AVDEL.

⚠ THE PRECAUTIONS TO BE OBSERVED WHEN USING THIS TOOL/MACHINE MUST BE EXPLAINED BY THE CUSTOMER TO ALL OPERATORS.

⚠ ALWAYS DISCONNECT THE AIRLINE FROM THE TOOL/MACHINE INLET BEFORE ATTEMPTING TO ADJUST, FIT OR REMOVE A NOSE ASSEMBLY.

⚠ DO NOT OPERATE A TOOL/MACHINE THAT IS DIRECTED TOWARDS ANY PERSON(S).

⚠ ALWAYS ADOPT A FIRM FOOTING OR A STABLE POSITION BEFORE OPERATING THE TOOL/MACHINE.

⚠ ENSURE THAT VENT HOLES DO NOT BECOME BLOCKED OR COVERED AND THAT HOSES ARE ALWAYS IN GOOD CONDITION.

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In addition to the general safety rules opposite, the following specific safety points must also be observed:

⚠ THE OPERATING PRESSURE SHALL NOT EXCEED 7 BAR - 100 LBF/IN<sup>2</sup>.

⚠ DO NOT OPERATE THE TOOL WITHOUT FULL NOSE EQUIPMENT IN PLACE.

⚠ CARE SHALL BE TAKEN TO ENSURE THAT SPENT STEMS ARE NOT ALLOWED TO CREATE A HAZARD.

⚠ WHEN USING THE TOOL, THE WEARING OF SAFETY GLASSES IS REQUIRED BOTH BY THE OPERATOR AND OTHERS IN THE VICINITY TO PROTECT AGAINST RIVET EJECTION, SHOULD A FASTENER BE PLACED 'IN AIR'. WE RECOMMEND WEARING GLOVES IF THERE ARE SHARP EDGES OR CORNERS ON THE APPLICATION.

⚠ TAKE CARE TO AVOID ENTANGLEMENT OF LOOSE CLOTHES, TIES, LONG HAIR, CLEANING RAGS ETC... IN THE MOVING PARTS OF THE TOOL WHICH SHOULD BE KEPT DRY AND CLEAN FOR BEST POSSIBLE GRIP.

⚠ WHEN CARRYING THE TOOL FROM PLACE TO PLACE KEEP HANDS AWAY FROM THE TRIGGER/LEVER TO AVOID INADVERTENT START UP.

⚠ EXCESSIVE CONTACT WITH HYDRAULIC OIL SHOULD BE AVOIDED. TO MINIMIZE THE POSSIBILITY OF RASHES, CARE SHOULD BE TAKEN TO WASH THOROUGHLY.

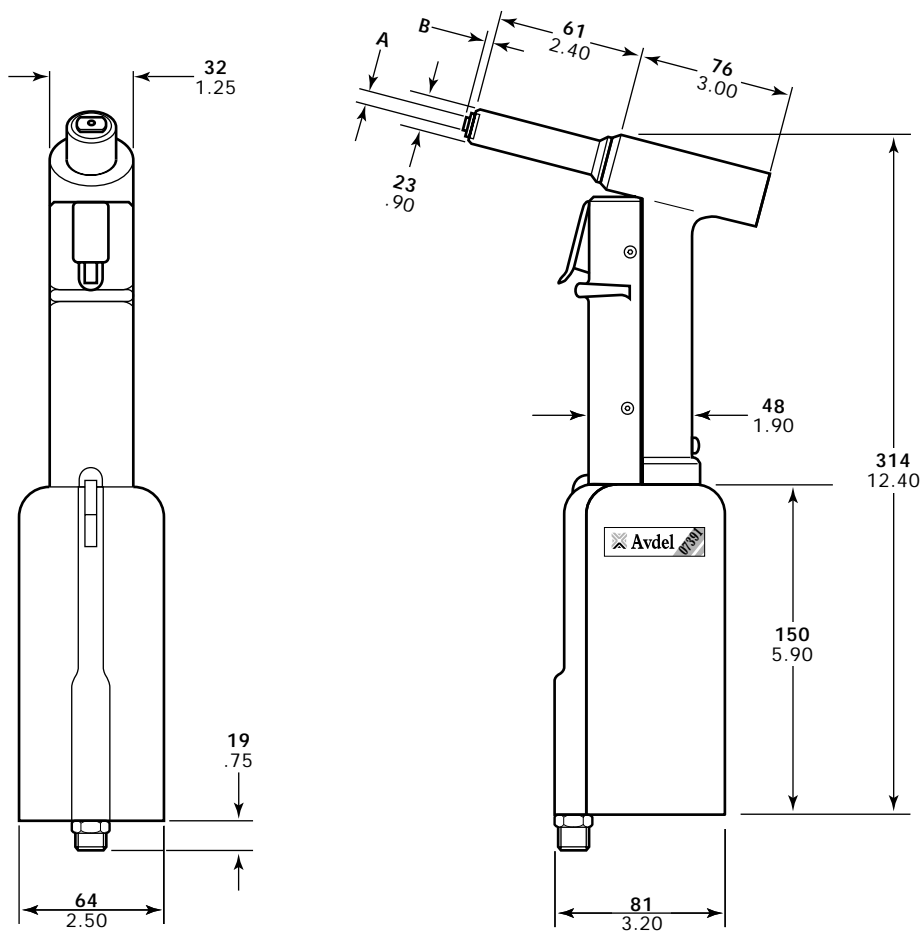
# INTENT OF USE

The hydro-pneumatic 07391 tool is designed to place Avdel breakstem rivets at high speed making it ideal for batch or flow-line assembly in a wide variety of applications throughout all industries.

The tool is designed to be operated with forward stem release nose assemblies. A complete tool will always be fitted with one of two assemblies which includes a nose tip. One or two nose tips will be screwed into the base of the tool. To select a complete tool use both tables opposite. In the first table identify your fastener and read the part number of the nose tip required to place this fastener.

'A' and 'B' dimensions will help you assess the accessibility of your application. By finding the nose tip part numbers in the second table you will be able to read the complete tool part number. There may be two complete tools which contain the nose tip, you may select either.

It is also possible to order the base tool only part number 07391-00200.



Dimensions shown in bold are millimetres.  
Other dimensions are in inches.

07391 NOSE TIP SELECTION							
FASTENER			NOSE (see drawing opposite for A & B)				
NAME & HEAD	Ø	MATERIAL	NOSE TIP part N°	A (mm)	B (mm)	A (in)	B (in)
AVEX Snap head & 120°csk head	1/8"	Al. Alloy	07381-04501	12.7	3.3	.500	.130
		Steel	07340-04601	12.7	3.3	.500	.130
	5/32"	Al. Alloy	07381-04601	12.7	3.3	.500	.130
		Steel	07381-04701	12.7	3.3	.500	.130
	3/16"	Al. Alloy	07381-04701	12.7	3.3	.500	.130
AVDEL SR (except those of 04821 Grip Length)	1/8"	Al. Alloy	07381-04501	12.7	3.3	.500	.130
		Copper	07381-04501	12.7	3.3	.500	.130
		Copper/Nickel	07381-04501	12.7	3.3	.500	.130
	5/32"	Al. Alloy	07381-04601	12.7	3.3	.500	.130
		Copper	07381-04601	12.7	3.3	.500	.130
		Copper/Nickel	07381-04601	12.7	3.3	.500	.130
	3/16"	Al. Alloy	07348-07001	12.7	3.3	.500	.130
		Copper	07348-07001	12.7	3.3	.500	.130
		Copper/Nickel	07348-07001	12.7	3.3	.500	.130
AVINOX BE11 & BE61	1/8"	Stainless Steel	07340-06101	12.7	3.3	.500	.130
	5/32"	Stainless Steel	07381-04701	12.7	3.3	.500	.130
AVIBULB Low Profile	1/8"	Steel	07340-06101	12.7	3.2	.500	.125
	5/32"	Steel	07381-04701	12.7	3.3	.500	.130
BULBEX	5/32"	Al. Alloy	07381-04601	12.7	3.3	.500	.130
	3/16"	Al. Alloy	07381-04701	12.7	3.3	.500	.130
T-LOK Snap Head	4.3mm	Steel	07381-04601	12.7	3.3	.500	.130
	3/16"	Steel	07381-04701	12.7	3.3	.500	.130

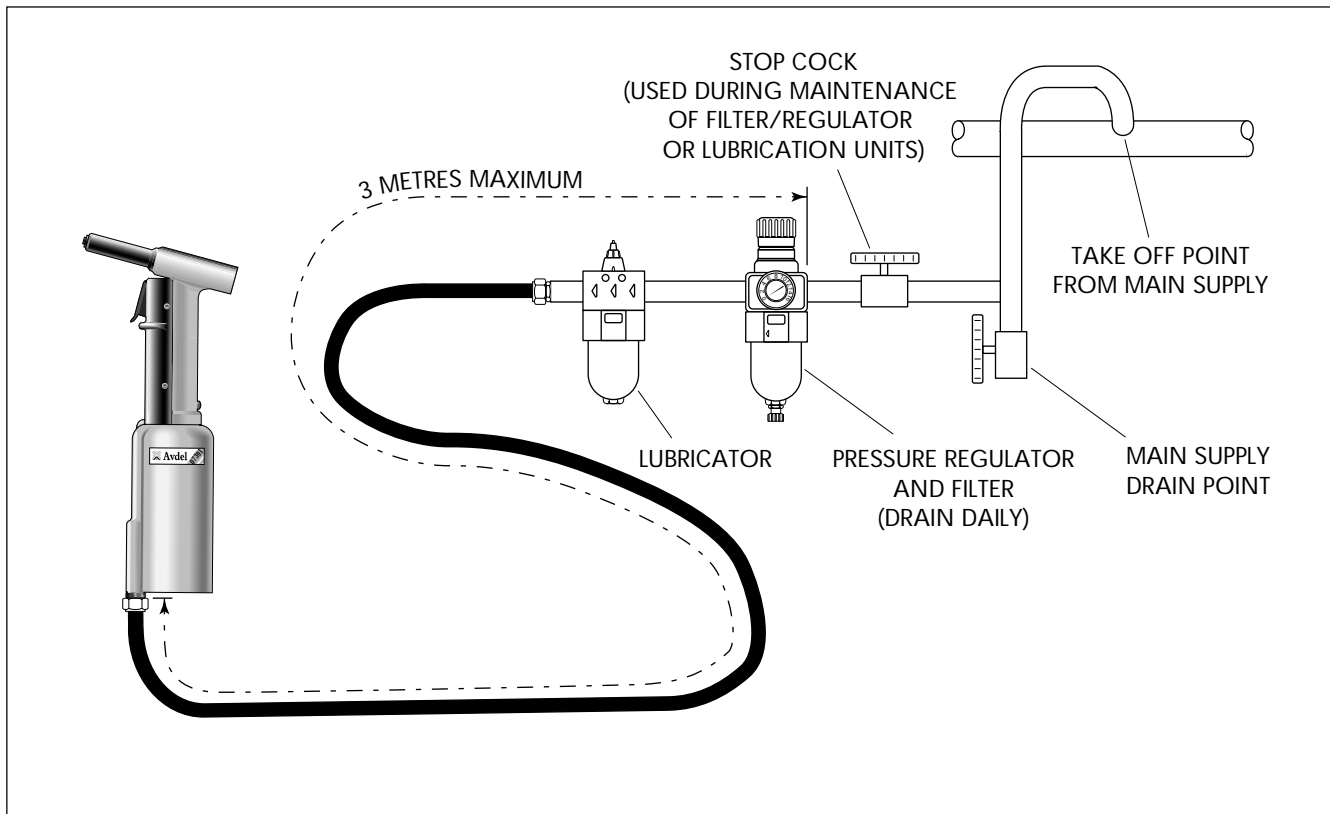
07391 TOOL SELECTION				
NOSE TIP Part N° (in nose assembly)	NOSE TIP 1 part N° (in base)	NOSE TIP 2 part N° (in base)	NOSE ASSEMBLY part N°	COMPLETE TOOL part N°
07381-04501	07381-04601	07381-04701	07391-03000	07391-00001
07340-06101	07381-04701	-	07391-03100	07391-00002
07381-04501	07381-04601	07348-07001	07391-03000	07391-00003

## AIR SUPPLY

All tools are operated with compressed air at an optimum pressure of 5.5 bar. We recommend the use of pressure regulators and automatic oiling/filtering systems on the main air supply. These should be fitted within 3 metres of the tool (see diagram below) to ensure maximum tool life and minimum tool maintenance.

Air supply hoses should have a minimum working effective pressure rating of 150% of the maximum pressure produced in the system or 10 bar, whichever is the highest. Air hoses should be oil resistant, have an abrasion resistant exterior and should be armoured where operating conditions may result in hoses being damaged. All air hoses MUST have a minimum bore diameter of 6.4 millimetres or 1/4 inch.

Read servicing daily details page 9.



## OPERATING PROCEDURE

### OPTION 1

- Ensure that the correct nose equipment is fitted.
- Connect the tool to the air supply.
- Insert the fastener body squarely into the prepared hole of the application.
- Apply the tool to the protruding rivet stem.
- Fully operate the trigger. The tool cycle will ensure the rivet is placed.

### OPTION 2

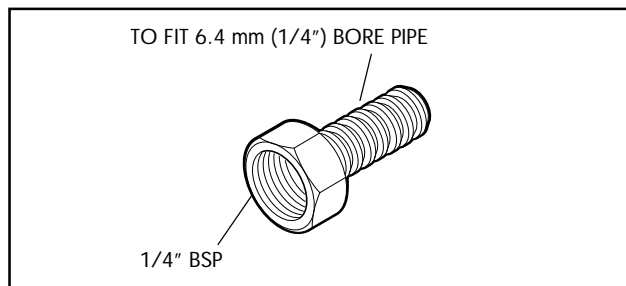
- Ensure that the correct nose equipment is fitted.
- Connect the tool to the air supply.
- Insert the fastener stem into the nose of the tool.
- Insert the tool with the fastener squarely into the prepared hole of the application.
- Fully operate the trigger. The tool cycle will ensure the rivet is placed.



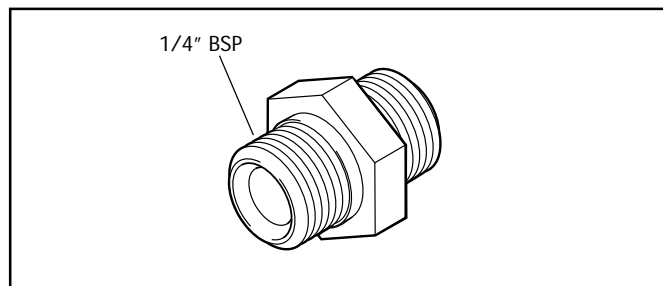
## ACCESSORIES

Two different accessories are available to make the connection to your air supply:

**Hose Connector**  
part n° 07005-00276



**Double Male Connector**  
part n° 07005-00041



# NOSE ASSEMBLIES

There are two nose assemblies available for the 07391 tool with only the nose tip varying. See nose assembly component table below for part numbers. If you have purchased a complete tool, it will be fitted with one of these two nose assemblies.

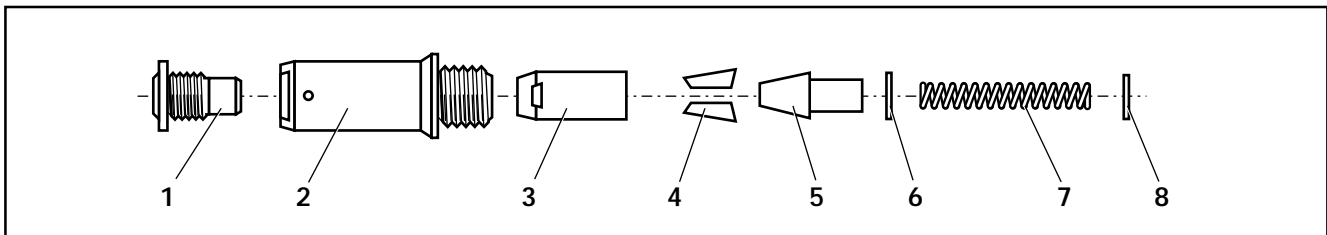
It is essential that the correct nose tip is fitted prior to operating the tool. One or two extra nose tips are supplied screwed into the base of the tool. For nose tip part numbers refer to the table on page 5. It is essential to use whichever nose tip has the smallest diameter hole fitting over the fastener stem.

## FITTING INSTRUCTIONS

### IMPORTANT

The air supply must be disconnected when fitting or removing nose assemblies unless specifically instructed otherwise.

- Lightly coat the jaws with Moly lithium grease.
- Drop jaws 4 into jaw housing 3.
- Insert jaw spreader 5 into jaw housing 3 (locating in the 'V' shape formed by the jaws).
- Locate buffer 6 on jaw spreader 5.
- Locate spring 7 into jaw spreader 5.
- Fit locking ring 8 onto the jaw spreader housing assembly of the tool.
- Holding tool pointing down, screw on the assembled jaw housing onto the jaw spreader housing assembly of tool and tighten with spanner.
- Screw nose tip 1 into nose casing 2.
- Place nose casing 2 over jaw housing 3 and screw onto tool, tightening with spanner.



## SERVICING INSTRUCTIONS

Nose assemblies should be serviced at weekly intervals.

- Remove the complete nose assembly using the reverse procedure to the 'Fitting instructions'.
- Any worn or damaged part should be replaced by a new part.
- Particularly check wear on jaws.
- Check spring 7 is not distorted.
- Assemble according to fitting instructions.

## NOSE ASSEMBLY COMPONENTS

The table lists component part numbers for both nose assemblies. Item numbers refer to the text and illustration above. We recommend some stock as items will need regular replacement. Read nose assemblies servicing instructions above carefully.

NOSE ASSEMBLY COMPONENTS			
Item N°	Components	Nose assembly 07391-03000	Nose Assembly 07391-03100
1	Nose Tip	07381-04501	07340-06101
2	Nose Casing	07340-00306	
3	Jaw Housing	07340-00304	
4	Jaws	07340-00213	
5	Jaw Spreader	07340-01501	
6	Buffer	07340-01503	
7	Spring	07498-06801	
8	Locking Ring	07340-00327	

Regular servicing should be carried out and a comprehensive inspection performed annually or every 500000 cycles, whichever is sooner.

## IMPORTANT

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.

### DAILY

- Daily, before use or when first putting the tool into service, pour a few drops of clean, light lubricating oil into the air inlet of the tool if no lubricator is fitted on air supply. If the tool is in continuous use, the air hose should be disconnected from the main air supply and the tool lubricated every two to three hours.
- Check for air leaks. If damaged, hoses and couplings should be replaced by new items.
- If there is no filter on the pressure regulator, bleed the air line to clear it of accumulated dirt or water before connecting the air hose to the tool. If there is a filter, drain it.
- Check that the nose equipment is correct.
- Check the stroke of the tool meets the minimum specification (inside front page). It is the difference in the measurement between the front face of the jaw spreader housing assembly and the front face of the handle top bore **before the trigger is operated and once it is fully pressed.**

### WEEKLY

- Dismantle and clean the nose assembly with special attention to the jaws. Lubricate with Moly lithium grease before assembling.
- Check for oil leaks and air leaks in the air supply hose and fittings.

Grease can be ordered as a single item, the part number is shown in the service kit overleaf.

## MOLY LITHIUM GREASE EP 3753 SAFETY DATA

### FIRST AID

**SKIN:** As the grease is completely water resistant it is best removed with an approved emulsifying skin cleaner.

**INGESTION:** Make the individual drink 30ml Milk of Magnesia, preferably in a cup of milk.

**EYES:** Irritant but not harmful. Irrigate with water and seek medical attention.

### ENVIRONMENT

Scrape up for burning or disposal on approved site.

### FIRE

**FLASH POINT:** Above 220°C.

Not classified as flammable.

Suitable extinguishing media: CO<sub>2</sub>, Halon or water spray if applied by an experienced operator.

### HANDLING

Use barrier cream or oil resistant gloves

### STORAGE

Away from heat and oxidising agent.

For all servicing we recommend the use of the service kit below (part number 07900-03400) supplied in its own plastic case.

SERVICE KIT		
ITEM PART N°	DESCRIPTION	N° OFF
07900-00001	SPRING COMPRESSOR	1
07900-00002	SPANNER FOR HEAD PISTON	1
07900-00004	CIRCLIP PLIERS	1
07900-00005	PLUG	1
07900-00006	'O' RING ASSEMBLING TOOL	1
07900-00008	7/16" x 1/2" SPANNER	1
07900-00009	3/32" SPANNER	1
07900-00010	PIN PUNCH	1
07900-00012	9/16" x 5/8" SPANNER	1
07900-00013	1/8" ALLEN KEY	1
07900-00015	5/8" x 11/16" SPANNER	1
07900-00018	PISTON EXTRACTOR	1
07900-00427	SLIDING OFFSET HANDLE	1

SERVICE KIT (Continued)		
ITEM PART N°	DESCRIPTION	N° OFF
07900-00087	SOCKET ASSEMBLY	1
07900-00092	3/4" x 7/8" SPANNER	1
07992-00020	80g TIN MOLY LITHIUM GREASE EP 3753	1
07900-00151	'T' HANDLE EXTENSION	1
07900-00192	PRIMING PUMP	1
07900-00078	5/32" ALLEN KEY	1
07900-00203	TORQUE WRENCH	1
07900-00401	ADAPTOR	1
07340-00306	NOSE CASING	1
07900-00421	13/16" SPANNER	1
07900-00422	3/4" SPANNER	1
07900-00638	PRIMING SPACER	1

## MAINTENANCE

Every 500000 cycles the tool should be completely dismantled and new components should be used where worn, damaged or recommended. All 'O' rings and seals should be renewed and lubricated with Moly Lithium grease EP 3753 before assembling.

### IMPORTANT

Safety Instructions appear on pages 2 & 3.  
 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.

Item **numbers in bold** refer to the general assembly and parts list page 12 and 13.

Before proceeding with dismantling, empty the oil from the tool by removing handle plug 4 and bonded seal 5. Empty oil into a suitable container.

Prior to dismantling the tool it is necessary to remove the nose assembly. For simple removal instructions see the nose assemblies section, page 8.

For total tool servicing we advise that you proceed with dismantling of sub-assemblies in the order shown opposite.

## HYDRAULIC PISTON ASSEMBLY

- With spring compressor\* held in vice, compress spring **17**, applying clamp screw ball-end to head piston plug **2**.
- Using circlip pliers\* remove circlip **3**.
- Unscrew clamp and remove the head piston plug **2** and spring **17**.
- Using spanner assembly for head piston\* and a spanner\* unscrew jaw spreader housing assembly **10** and withdraw piston **16**.
- Assemble in reverse order to dismantling.
- Use 'O' ring assembly tool\* and plug\* when renewing 'O' rings.
- If for any reason jaw spreader housing assembly **10** is removed from piston **16**, a new jaw spreader housing assembly must be fitted onto the piston and tightened with a torque of 20 lb.ft./9.1 kg.m. to the dimension shown on the general assembly drawing for the tool in question.

## AIR PISTON ASSEMBLY

- Remove internal circlip **33** and pull out base plate **34**.
- Engage piston extractor\* with piston rod **26** and pull out piston assembly **25**.
- Unscrew piston rod nut **31** and remove washer **30**, air piston cup **29**, washer **28** and buffer **27**.
- Assemble in reverse order to dismantling.

## AIR VALVE

- Using a spanner\* unscrew female adaptor **36**.
- Remove valve spring **39**, valve **40**, spring **41**, valve plunger **44** and valve operating rod **45**.
- Assemble in reverse order to dismantling, paying particular attention to sealing face of valve **40** and seal diameter of valve plunger **44** for marks and scratching.

## ADAPTOR ASSEMBLY

- Grip tool lightly in a vice fitted with soft jaws.
- Remove piston assembly **25** as described earlier.
- Using socket assembly\*, 'T' handle extension\*, lift out adaptor assembly **19** and washer **23**.
- Remove 'O' rings **20** & **18**, back up rings **21** & **52**.
- Assemble in reverse order to dismantling, ensuring 'O' rings and back up rings are replaced in correct positions.

## TRIGGER TIE REPLACEMENT

- Using pin punch\* drift out pin **55**.
- Remove screws **53** and pull off trigger guard **56**.
- Unbend trigger tie loop at trigger cam lever **51** and disengage.
- Assemble in reverse order to dismantling.
- Introduce free end of trigger tie into slot in trigger mounting and insert angled end of trigger tie into trigger cam lever **51**.
- Bend trigger tie over cam lever **51**, making sure it pivots freely.
- Position trigger guard **56** on handle **1**, insert screws **53** and tighten.
- Line up trigger assembly **54** with trigger guard **56** and insert new pin **55**. Check free movement of trigger assembly.

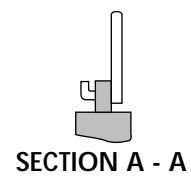
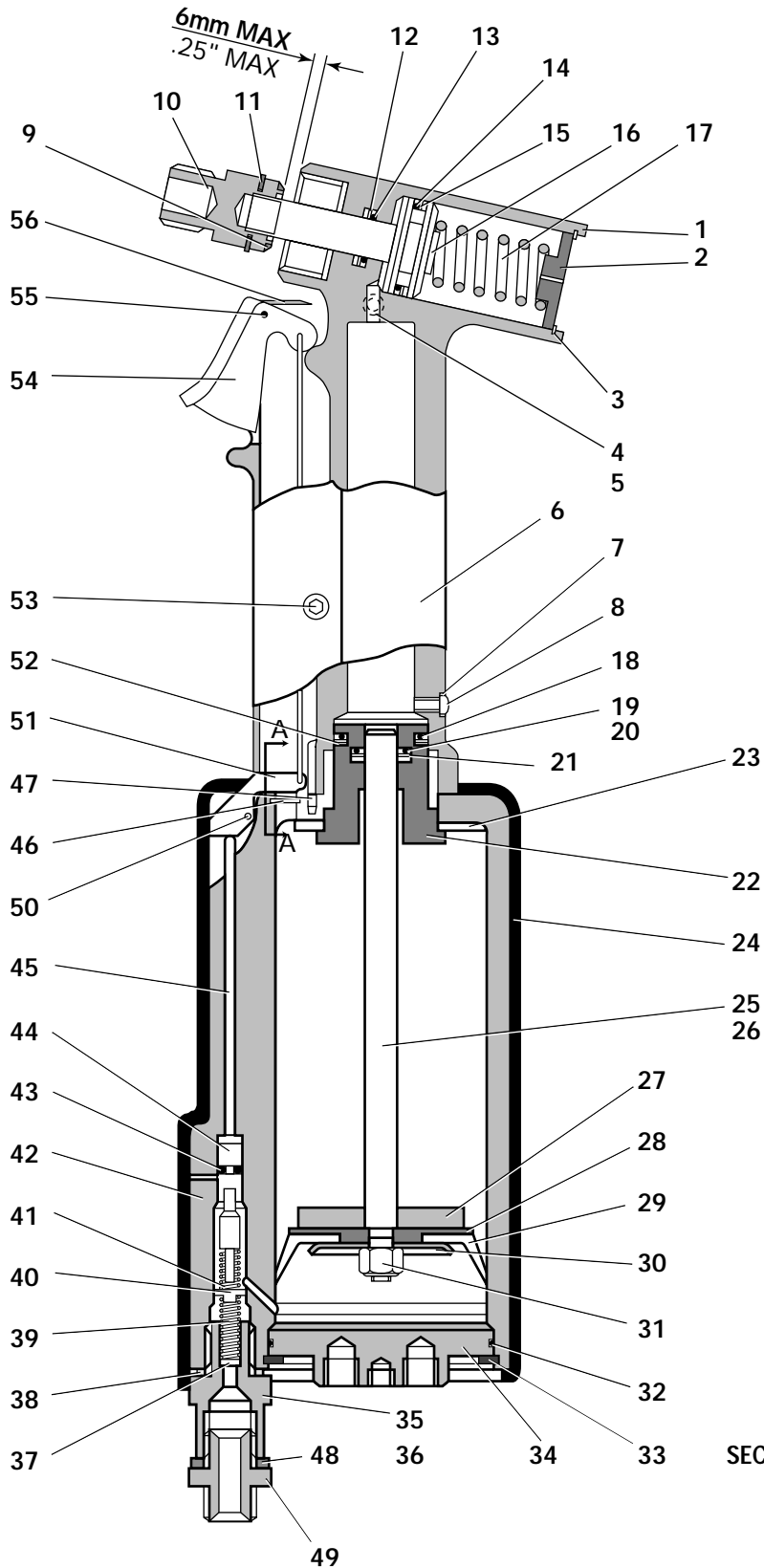
## IMPORTANT

Check the tool against daily and weekly servicing.

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

\* refers to items included in the Avdel service kit. For complete list see page 10.

GENERAL ASSEMBLY OF BASE TOOL 07391-00200



**07391-00200 PARTS LIST**

ITEM	PART N°	DESCRIPTION	QTY	SPARES	ITEM	PART N°	DESCRIPTION	QTY	SPARES
1	07391-00300	HANDLE ASSEMBLY ( 2 - 17 )	1	-	29	07003-00038	●AIR PISTON CUP	1	-
2	07391-00302	●PLUG	1	-	30	07340-00502	●WASHER	1	-
3	07004-00019	●CIRCLIP	1	1	31	07002-00011	●NUT	1	1
4	07003-00033	●BONDED SEAL	1	2	32	07003-00031	'O' RING	1	1
5	07001-00114	●SCREW	1	1	33	07340-00230	CIRCLIP	1	1
6	07340-00302	●HANDLE	1	-	34	07391-00201	BASE PLATE	1	-
7	07003-00099	●BONDED SEAL	1	2	35	07340-00400	CYLINDER ASSEMBLY (36 - 47 )	1	-
8	07001-00394	●SCREW	1	1	36	07340-00412	●FEMALE ADAPTOR	1	-
9	07340-00329	●BUFFER	1	-	37	07330-01302	●FILTER	1	1
10	07391-00400	●JAW SPREADER HOUSING ASSY	1	-	38	07003-00065	●WASHER	1	1
11	07340-00330	●WASHER	1	1	39	07340-00401	●VALVE SPRING	1	-
12	07003-00034	●BACK UP RING	1	1	40	07340-00413	●VALVE	1	-
13	07003-00036	●'O' RING	1	1	41	07340-00403	●SPRING	1	1
14	07003-00015	●'O' RING	1	1	42	07340-00407	●CYLINDER	1	-
15	07003-00035	●BACK UP RING	1	1	43	07003-00040	●'O' RING	1	2
16	07391-00301	●PISTON	1	-	44	07340-00417	●VALVE PLUNGER	1	-
17	07340-00324	●SPRING	1	1	45	07340-00416	●VALVE OPERATING ROD	1	1
18	07003-00032	'O' RING	1	1	46	07340-00414	●FILTER	1	-
19	07340-00700	ADAPTOR ASSEMBLY ( 20 - 23 )	1	-	47	07007-00016	●PIN	1	-
20	07003-00036	●'O' RING	1	1	48	07005-00015	WASHER	1	-
21	07003-00034	●BACK UP RING	1	1	49	07005-00041	CONNECTOR	1	-
22	07340-00701	●ADAPTOR	1	-	50	07007-00014	PIN	1	-
23	07340-00204	WASHER	1	-	51	07340-00208	TRIGGER CAM LEVER	1	-
24	07391-00203	COVER	1	-	52	07340-00217	BACK UP RING	2	2
25	07340-00500	PISTON ASSEMBLY ( 26 - 31 )	1	-	53	07001-00393	SCREW	4	-
26	07340-00505	●PISTON ROD	1	-	54	07340-04900	TRIGGER ASSEMBLY	1	-
27	07340-00506	●BUFFER	1	-	55	07007-00439	PIN	1	1
28	07340-00510	●WASHER	1	-	56	07340-04600	TRIGGER GUARD	1	-

Priming is ALWAYS necessary after the tool has been dismantled and prior to operating. It may also be necessary to restore the full stroke after considerable use, when the stroke may be reduced and rivets are not fully placed by one operation of the trigger.

## OIL DETAILS

The recommended oil for priming is Hyspin VG32 available in 0.5l (part number 07992-00025) or one gallon containers (part number 07992-00026). Please find specific table and safety data below.

H Y S P I N V G 3 2 O I L S A F E T Y D A T A			
<b>FIRST AID</b> SKIN: Wash thoroughly with soap and water as soon as possible. Casual contact requires no immediate attention. Short term contact requires no immediate attention. INGESTION: Seek medical attention immediately. DO NOT induce vomiting. EYES: Irrigate immediately with water for several minutes. Although NOT a primary irritant, minor irritation may occur following contact. <b>FIRE</b> Suitable extinguishing media: CO <sub>2</sub> , dry powder, foam or water fog. DO NOT use water jets.		<b>ENVIRONMENT</b> WASTE DISPOSAL: Through authorised contractor to a licensed site. May be incinerated. Used product may be sent for reclamation. SPILLAGE: Prevent entry into drains, sewers and water courses. Soak up with absorbent material. <b>HANDLING</b> Wear eye protection, impervious gloves (e.g. of PVC) and a plastic apron. Use in well ventilated area. <b>STORAGE</b> No special precautions.	
PROPERTIES	RESULT	PROPERTIES	RESULT
ISO oil type		Foaming tendency/stability	
ISO viscosity grade	HL		ml @ 24°C
Kinematic viscosity	32		ml @ 93.5°C
			ml @ 24°C after test @ 93.5°C
	cS @ 40°C	Air release value minutes to	Trace/Nil
	@ 100°C		20/Nil
	at 20°C	0.2% air content @ 50°C	Trace/Nil
Relative density	0.875		4
Viscosity Index	95	Seal compatability index	10
Pour point	°C	Water separation time	
Open Flash point	°C		in minutes to 40-40-0 @54°C
Neutralisation value mg KOH/g	1.5		@83°C
			15
			15



## PROCEDURE

Item **numbers in bold** refer to the general assembly and parts list pages 12 and 13.

### IMPORTANT

**CONNECT AIR SUPPLY** (this causes the piston to bottom, allowing more priming oil into the tool).  
**DO NOT OPERATE THE TRIGGER WHILE THE BLEED SCREW IS REMOVED.**

All operations should be carried out on a clean bench, with clean hands in a clean area.

Ensure that the priming pump is free from foreign matter  
and that the oil is perfectly clean and free from air bubbles.

Care **MUST** be taken at all times, to ensure that no foreign matter enters the tool, or serious damage may result.

The use of a priming kit is necessary to implement the priming procedure. The part number to be used with the 07391 tool is 7900-03401.

PRIMING KIT		
ITEM PART N°	DESCRIPTION	N° OFF
07900-00013	1/8" ALLEN KEY	1
07900-00076	5/32" ALLEN KEY	1
07900-00192	PRIMING PUMP	1
07900-00638	PRIMING SPACER	1

Item **numbers in bold** refer to the general assembly and parts lists pages 12 to 13.

- First remove the complete nose assembly off the tool.
- Insert priming spacer into the nose casing, ensuring that the spacer sits at the bottom.
- Fit the nose casing to the tool.
- Fill the priming pump with priming oil.
- Using a vice with a soft jaw place tool at a 45° incline.
- Remove screw **8** and bonded seal **7** from the bottom of the handle using allen key\*.
- Screw priming pump into handle, complete with bonded seal **7**.
- Remove upper screw **5** and bonded seal **4** from the handle using allen key\*.
- Pump oil through the tool until non-aerated oil flows freely from the upper screwhole.
- Fit screw **5** and bonded seal **4**, paying particular attention to the bonded seal which, if worn or damaged **MUST** be replaced.
- Remove priming pump and fit lower screw **8** and bonded seal **7** checking seal - as above.
- Remove the tool from the vice.
- Remove the priming spacer from the nose casing and fit the nose casing to the tool.
- Lay the tool horizontally on the bench with screw **5** uppermost.
- Remove screw **5** and allow excess oil to flow out.
- Replace screw **5**.
- Remove nose casing and priming spacer.
- Fit nose assembly.

\* refers to items included in the priming kit above.

# FAULT DIAGNOSIS

## FAULT DIAGNOSIS TABLE

SYMPTOM	POSSIBLE CAUSE	REMEDY
Several pulls required to set rivet	→ Low air pressure.	→ Increase air pressure.
	→ Lack of lubrication.	→ Lubricate tool at air inlet point.
	→ Worn or broken jaws.	→ New jaws.
	→ Oil level in tool low or air in oil.	→ Prime tool. (see page 15)
Jaws will not grip rivet stem	→ Worn or dirty jaws.	→ Clean or renew as necessary.
	→ Jaw housing loose.	→ Tighten against nylon locking ring.
	→ Weak or broken nose assembly spring.	→ Replace spring.
	→ Incorrect nose equipment fitted.	→ Replace as necessary.
Jaws will not release spent rivet stem.	→ Dirty jaws or jaw housing.	→ Clean.
	→ Jaw housing, nose tip or nose casing not properly seated.	→ Tighten nose equipment.
	→ Weak or broken spring around jaw spreader assembly.	→ New spring.



**Engineered Fastening and Assembly Systems****Declaration of Conformity**

We, *Avdel Systems Limited, Mundells, Welwyn Garden City, Herts, AL7 1EZ*

declare under our sole responsibility that the product

*type 07391*

*Serial N°*

to which this declaration relates is in conformity with the following standards or other formative documents

EN292 part 1 and part 2

ISO 8662 part 1

ISO 3744

ISO PREN792 part 14

following the provisions of the Machine Directive 89/392/EEC  
(as amended by Directive 91/368/EEC, 93/44/EEC) and 93/68/EEC



Welwyn Garden City - date of issue

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