



Avdel



Instruction Manual

Pass onto user to read and keep for reference



Threaded Insert Power Tool

07555 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.

S P E C I F I C A T I O N S F O R T H E 0 7 5 5 5 T O O L

AIR PRESSURE	■	Minimum - Maximum	■	4 - 7 bar	■	60 - 100 lbf/in ²
FREE AIR VOLUME REQUIRED	■	@ 5.4 bar or 80 lbf/in ²	■	12 litres	■	.4 ft ³
STROKE	■	Maximum	■	6.1 mm	■	.24 in
MOTOR SPEED	■	SPIN ON	■	1300 RPM	■	
		SPIN OFF	■	2400 RPM	■	
PULL FORCE	■	@ 5.4 bar or 80 lbf/in ²	■	10.6 kN	■	2380 lbf
CYCLE TIME	■	Approximately	■	2.5 seconds	■	
NOISE LEVEL	■	Less than	■	70 dB(A)	■	
WEIGHT	■	Without nose equipment	■	2.4 kg	■	5.3 lb
VIBRATION	■	Less than	■	2.5 m/s ²	■	8 ft/s ²

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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.

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/IN².

⚠ DO NOT OPERATE THE TOOL WITHOUT FULL NOSE EQUIPMENT, OIL PLUG AND OIL BLEED SCREW IN PLACE.

⚠ WHEN USING THE TOOL, THE WEARING OF SAFETY GLASSES IS REQUIRED BOTH BY THE OPERATOR AND OTHERS IN THE VICINITY TO PROTECT AGAINST FASTENER PROJECTION, 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.

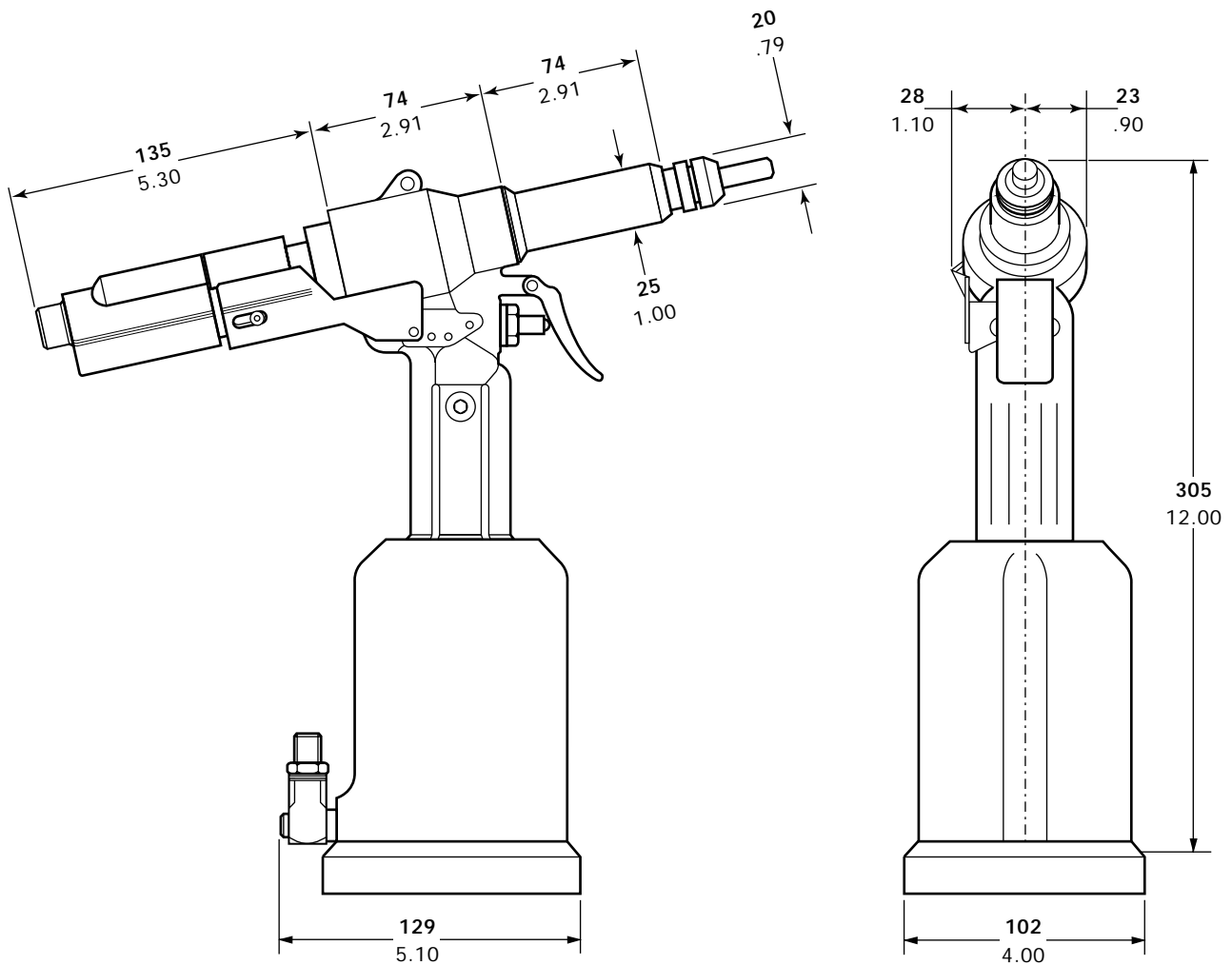
⚠ EXCESSIVE CONTACT WITH HYDRAULIC OIL SHOULD BE AVOIDED. TO MINIMIZE THE POSSIBILITY OF RASHES, CARE SHOULD BE TAKEN TO WASH THOROUGHLY.

INTENT OF USE

The hydro-pneumatic 07555 tool is designed to place Avdel threaded inserts at high speed making it ideal for batch or flow-line assembly in a wide variety of applications throughout all industries.

Use the selection chart page 8 to select a complete tool.

It is also possible to order the base tool only (part number 07555-00200) which will not be fitted with a nose assembly. For details of nose assemblies see pages 7 and 8.



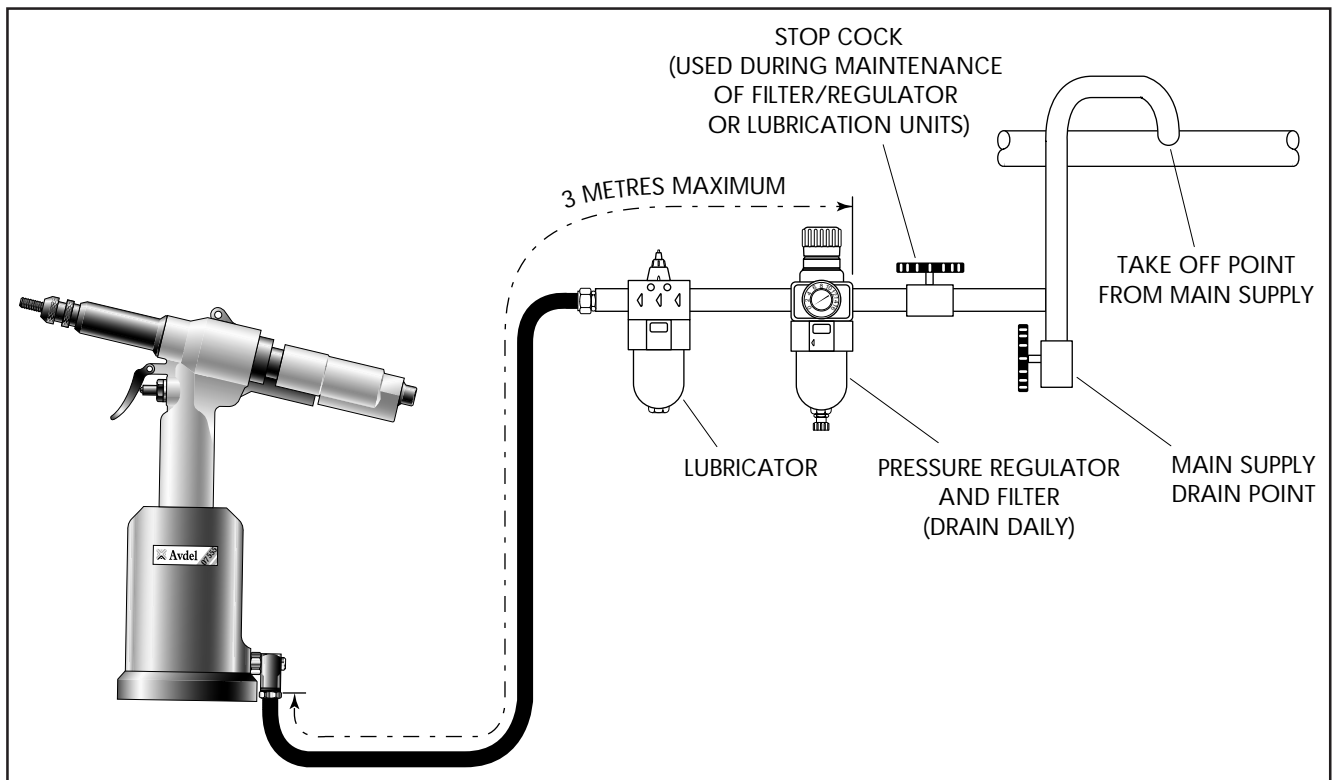
Dimensions shown in bold are millimetres. Other dimensions are in inches.

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.



STROKE ADJUSTMENT

- This adjustment is necessary to ensure optimum insert deformation. It is suggested, therefore, that a test plate with the same thickness and hole size as workpiece be used.
- If deformation is insufficient, the insert will rotate inside the application.
- If deformation is excessive, thread distortion will occur and possibly drive screw fracture.
- The stroke is adjusted by the amount the adjustable lock nut **46** (parts list page 15) is screwed in or out using a spanner and the two pins.
- To shorten stroke, turn clockwise; to lengthen stroke, turn anticlockwise. Adjust until optimum deformation is obtained.



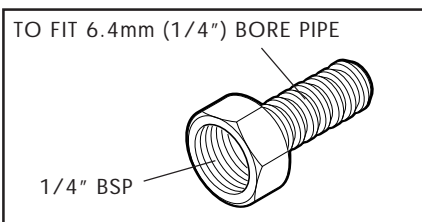
OPERATING PROCEDURE

- First connect the tool to the air supply.
- Offer up the insert lip first to the drive screw. A light pressure will start the motor and automatically thread the insert up against the nose and stop.
- Insert the fastener into the application squarely.
- Depress the trigger halfway. This will place the insert into the application
- Depress the trigger all the way to unscrew the drive screw from the placed insert and remove the tool.

ACCESSORIES

There is one accessory available to make the connection to your air supply.

Hose connector -
Part N° 07005-00276



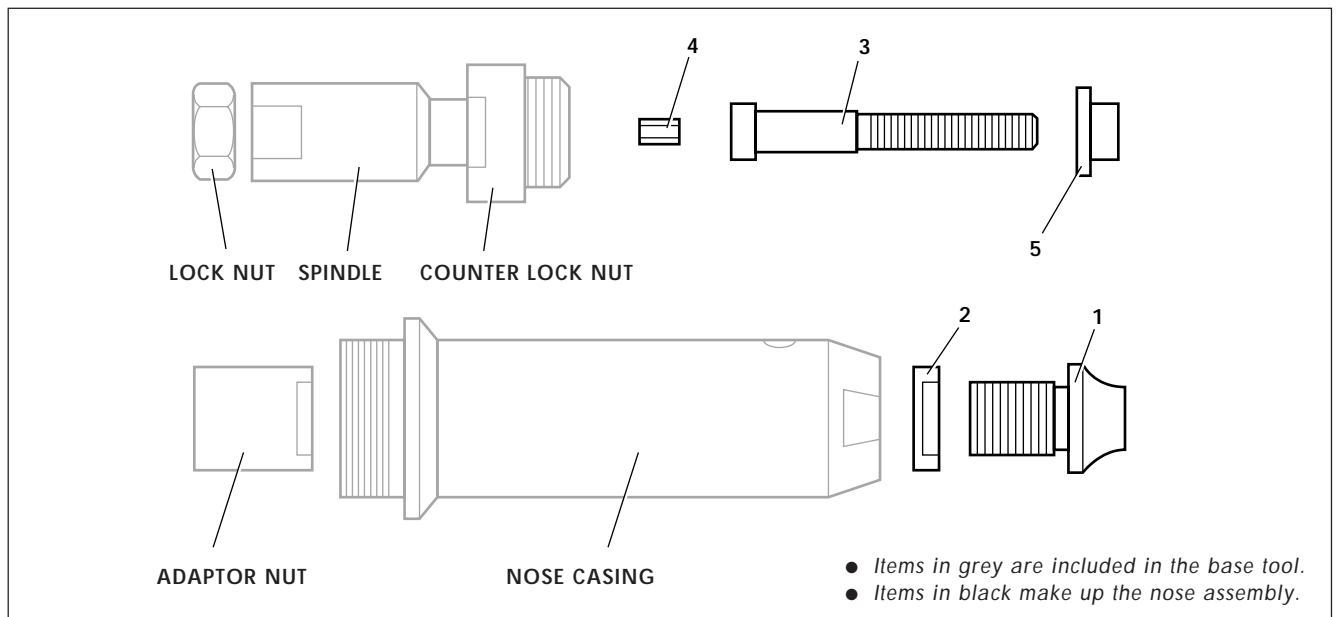
It is essential that the correct nose assembly is fitted prior to operating the tool. By knowing your original complete tool part number or the details of the fastener to be placed, you will be able to order a new complete nose assembly using the selection tables on page 8.

FITTING INSTRUCTIONS

IMPORTANT

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

- If still fitted remove the nose casing and the adaptor nut.
 - Insert drive shaft 4 into spindle.
 - Fit drive screw 3 onto drive shaft 4.
 - Insert reducing sleeve 5 (if required) into the adaptor nut.
 - Screw the adaptor nut onto the spindle.
 - Hold the spindle with a spanner* and tighten the adaptor nut clockwise.
 - While holding the adaptor nut with the spanner*, tighten the lock nut anticlockwise.
 - Screw on the nose casing and nose tip 1 with the nose tip lock nut 2.
 - The reverse operation is carried out for equipment removal.
-
- With tool still disconnected from air supply, screw one insert onto drive screw manually - making sure the insert is flush with the end of drive screw.
 - Set nose tip in exact position and lock nose tip nut clockwise with a spanner*.
 - Remove the insert from drive screw.



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 for wear on drive screw.
- Assemble according to fitting instructions.

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

NOSE ASSEMBLY COMPONENTS

Nose tips vary in shape according to the insert type. Each nose assembly represents a unique assembly of components which can be ordered individually. All nose assemblies also include item 2 nose tip locknut (part number 07555-00901). Component numbers refer to the illustration on page 7. We recommend some stock as items will need regular replacement. Read the Nose Assemblies servicing instructions, also on page 7 carefully.

INSERT SIZE	COMPLETE TOOL	NOSE ASSEMBLY	1	3	4	5
LARGE FLANGE INSERTS (9698,FS58,9408,9418,9498) + STANDARD NUTSERT(9500,9538)* + NUTSERT SQ(GK08) + EUROSERT(GJ08)						
M3	07555-00083	07555-09883	07555-00903	07555-09003	07555-01003	07555-09103
M4	07555-00084	07555-09884	07555-00904	07555-09004	07555-01004	07555-09104
M5•	07555-00085	07555-09885	07555-00905	07555-09005	07555-01005	07555-09105
M5••	07555-04085	07555-09185	07555-00915	07555-09005	07555-01005	07555-09105
M6	07555-00086	07555-09886	07555-00906	07555-09006	07555-01006	07555-09106
M8	07555-00088	07555-09888	07555-00908	07555-09008	07555-01008	07555-09108
M10	07555-00080	07555-09880	07555-00910	07555-09010	07555-01010	-
M12	07555-00082	07555-09882 #	07555-00912	07555-09012	07555-01012	-
4 UNC	07555-00054	07555-09854	07555-00854	07555-09054	07555-00754	07555-09154
6 UNC	07555-00056	07555-09856	07555-00856	07555-09056	07555-00756	07555-09156
8 UNC	07555-00058	07555-09858	07555-00858	07555-09058	07555-00758	07555-09158
10 UNC	07555-00050	07555-09850	07555-00850	07555-09050	07555-00750	07555-09150
1/4 UNC	07555-00048	07555-09848	07555-00848	07555-09048	07555-00748	07555-09148
5/16 UNC	07555-00040	07555-09840	07555-00840	07555-09040	07555-00740	07555-09140
3/8 UNC	07555-00042	07555-09842	07555-00842	07555-09042	07555-00742	-
10 UNF	07555-00070	07555-09870	07555-00850	07555-09070	07555-00750	07555-09150
1/4 UNF	07555-00068	07555-09868	07555-00848	07555-09068	07555-00748	07555-09148
5/16 UNF	07555-00060	07555-09860	07555-00840	07555-09060	07555-00740	07555-09140
3/8 UNF	07555-00062	07555-09862	07555-00842	07555-09062	07555-00742	-
THIN SHEET NUTSERT (9650, 9468, 9488, FS38)						
M3	07555-01083	07555-09983	07555-00993	07555-09003	07555-01003	07555-09103
M4	07555-01084	07555-09984	07555-00994	07555-09004	07555-01004	07555-09104
M5	07555-01085	07555-09985	07555-00995	07555-09005	07555-01005	07555-09105
M6	07555-01086	07555-09986	07555-00996	07555-09006	07555-01006	07555-09106
M8	07555-01088	07555-09988	07555-00998	07555-09008	07555-01008	07555-09108
M10	07555-01080	07555-09980	07555-00999	07555-09010	07555-01010	-
M12	07555-01082	07420-09982 #	07555-00992	07555-09012	07555-01012	-
4 UNC	07555-01054	07555-09954	07555-00954	07555-09054	07555-00754	07555-09154
6 UNC	07555-01056	07555-09956	07555-00956	07555-09056	07555-00756	07555-09156
8 UNC	07555-01058	07555-09958	07555-00958	07555-09058	07555-00758	07555-09158
10 UNC	07555-01050	07555-09950	07555-00950	07555-09050	07555-00750	07555-09150
1/4 UNC	07555-01048	07555-09948	07555-00948	07555-09048	07555-00748	07555-09148
5/16 UNC	07555-01040	07555-09940	07555-00940	07555-09040	07555-00740	07555-09140
10 UNF	07555-01070	07555-09970	07555-00950	07555-09070	07555-00750	07555-09150
1/4 UNF	07555-01068	07555-09968	07555-00948	07555-09068	07555-00748	07555-09148
5/16 UNF	07555-01060	07555-09960	07555-00940	07555-09060	07555-00740	07555-09140
SUPERSERT - OPEN AND CLOSED END (FB)						
M3	07555-02083	07555-09583	07555-07103	07555-09003	07555-01003	07555-09103
M4	07555-02084	07555-09584	07555-07104	07555-09004	07555-01004	07555-09104
M5	07555-02085	07555-09585	07555-07105	07555-09005	07555-01005	07555-09105
M6	07555-02086	07555-09586	07555-07106	07555-09006	07555-01006	07555-09106
8 UNC	07555-02058	07555-09558	07555-07158	07555-09058	07555-00758	07555-09158
10 UNC	07555-02050	07555-09550	07555-07150	07555-09050	07555-00750	07555-09150
1/4 UNC	07555-02048	07555-09548	07555-07148	07555-09048	07555-00748	07555-09148
8 UNF	07555-02078	07555-09578	07555-07158	07555-09078	07555-00758	07555-09158
10 UNF	07555-02070	07555-09570	07555-07150	07555-09070	07555-00750	07555-09150
1/4 UNF	07555-02068	07555-09568	07555-07148	07555-09068	07555-00748	07555-09148
HEXSERT (9688)						
M3	07555-06083	07555-09283	07555-08103	07555-09003	07555-01003	07555-09103
M4	07555-06084	07555-09284	07555-08104	07555-09004	07555-01004	07555-09104
M5	07555-06085	07555-09285	07555-08105	07555-09005	07555-01005	07555-09105
M6	07555-06086	07555-09286	07555-08106	07555-09006	07555-01006	07555-09106
M8	07555-06088	07555-09288	07555-00998	07555-09008	07555-01008	07555-09108

- Places all inserts listed in this section except M5 large flange Thin Sheet Nutsert.
- Places M5 large flange Thin Sheet Nutserts 09698-00516 ONLY.
- # These nose assemblies include an adaptor nut part number 74200-12119 to replace the one on the tool.
- * Except M8.

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 air hose to tool.
- Check that the nose assembly is correct.
- Check the stroke of the tool is adequate to place selected insert (see stroke adjustment page 6).
- Inspect the drive screw in the nose assembly for wear or damage. If any, renew.

WEEKLY

- Check for oil leaks and air leaks on air supply hose and fittings.

Grease used during tool maintenance can be ordered as a single item, the part number is shown in the service kit below.

M O L Y L I T H I U M G R E A S E E P 3 7 5 3 S A F E T Y D A T A	
<p>FIRST AID SKIN: As the grease is completely water resistant it is best removed with an approved emulsifying skin cleaner.</p> <p>INGESTION: Make the individual drink 30ml Milk of Magnesia, preferably in a cup of milk.</p> <p>EYES: Irritant but not harmful. Irrigate with water and seek medical attention.</p> <p>ENVIRONMENT Scrape up for burning or disposal on approved site.</p>	<p>FIRE FLASH POINT: Above 220°C. Not classified as flammable. Suitable extinguishing media: CO₂, Halon or water spray if applied by an experienced operator.</p> <p>HANDLING Use barrier cream or oil resistant gloves</p> <p>STORAGE Away from heat and oxidising agent.</p>

For all servicing we recommend the use of the service kit (part number 07900-05550).

SERVICE KIT		
ITEM PART N°	DESCRIPTION	N° OFF
07900-00163	ALLEN KEY	1
07900-00225	ALLEN KEY	1
07900-00162	ALLEN KEY	1
07900-00408	ALLEN KEY	1
07900-00004	CIRCLIP PLIERS	1
07900-00519	IMPACT SOCKET	1
07900-00426	SPANNER	2
07900-00411	PRIMING TOOL	1

SERVICE KIT (Continued)		
ITEM PART N°	DESCRIPTION	N° OFF
07900-00010	PIN PUNCH	1
07900-00151	'T' HANDLE EXTENSION	1
07900-00351	3mm A/F ALLEN KEY	1
07900-00371	LOCTITE 222	1
07900-00393	14 x 15mm SPANNER	1
07900-00516	PISTON EXTRACTOR	1
07900-00518	PRIMING TOOL EXTENSION	1
07992-00020	GREASE	1

MAINTENANCE

Every 500000 cycles the tool should be completely dismantled and components replaced where worn, damaged or when recommended. All 'O' rings and seals should be replaced with new ones 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 14 and 15.

Before proceeding with dismantling, empty the oil from the tool. Remove oil plug **49** from the handle assembly and drain the 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 7.

For total tool servicing we advise that you proceed with dismantling of sub-assemblies in the order shown on pages 11 to 13.

PNEUMATIC SCREW DRIVE UNIT

- Remove screws **47** using an Allen Key* and spanner*, and remove cover **2**.
- Carefully remove two nylon tubes **53** from the head and handle assembly **26**, NOT FROM THE MOTOR.
- Using combination spanner*, tighten lock nut **46** into head and handle assembly **26**.
- Using two combination spanners*, unscrew and remove pneumatic motor **1**. Remove adaptor nut **3**. Take care not to lose the push rod **64**.
- Clean and inspect components and renew any worn or damaged items.
- Assemble in reverse order of dismantling.
- Lock screws **47** using 'Loctite' 222.

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

HYDRAULIC HEAD ASSEMBLY

- Grip the tool in a vice fitted with soft jaws.
 - Remove rubber base plug **30**.
 - Using circlip pliers*, remove retaining ring **29**.
 - Screw in extractor* to base cover **32** and remove base cover.
 - Using reverse end of extractor*, screw onto piston rod **25**.
 - Remove piston rod **25** with air piston **31** and seal **27**.
 - Remove spring **39**.
 - Drain away oil.
 - Using two spanners*, loosen lock nut **10** enabling spindle **13** to be unscrewed and removed from movement pivot **5**.
 - Using an Allen key* to hold movement pivot **5** steady, unscrew lock nut **11** completely and remove.
 - From rear of tool, remove movement pivot **5** and shim adjustment ring **8**.
 - Knock out pin **4** from movement pivot **5** and remove movement pivot **5** from adaptor nut **3**.
 - Using combination spanner*, remove lock nut **46**.
 - Remove spring **45**.
 - Remove piston **6** together with seal **24**.
 - Using Allen key*, unscrew lock nut **10** and remove seal **9**.
 - Unscrew rod guide **23** using impact socket* and 'T' bar extension* and remove the rod guide complete with locknut **40**, 'O' Ring **41** and seal **24**.
 - Place rod guide **23** in a vice (holding on the spanner flats) and unscrew lock nut **40** using Allen key*, enabling seal **24** to be removed.
- Assemble in reverse order of dismantling, observing the following:
- Use new pin **4** when assembling movement pivot **5**.
 - Ensure locknut **11** is not locked against piston **6**. The locknut's only function is to hold spindle **13** in place.
 - Lock nut **40** is screwed on until top face of the locknut is level with the top face of rod guide **23**.
 - Smear the last two threads (next to spanner flats) of rod guide **23** with 'Loctite' 222.

INTENSIFIER PISTON GUIDE ASSEMBLY

- Unscrew rod guide **23** using impact socket* and 'T' bar extension* and remove the rod guide complete with locknut **40**, 'O' Ring **41** and seal **24**.
 - Place rod guide **23** in a vice (holding across the spanner flats) and unscrew lock nut **40** using Allen Key*, enabling seals **24** to be removed.
- Assemble components in reverse order of dismantling, observing the following:
- Lock nut **40** is screwed home until top face of the locknut is level with the top face of rod guide **23**.
 - Smear the last two threads (next to spanner flats) of rod guide **23**, with 'Loctite 222'.

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

PNEUMATIC TRIGGER VALVE ASSEMBLY

- Using Allen key*, loosen screw **16**.
- Lay the tool on its side and with pin punch*, gently tap trigger pin **17** free of its housing to release trigger **18**.
- Using spanner*, release lock nut **20**.
- Connect airline to the tool, and taking the necessary precautions, blow out the valve plunger **42** from the head and handle assembly **26**. Remove locking washer **44** by releasing adjacent screw **16**.
- Remove valve pivot **19**.

- Assemble in reverse order of dismantling.

PNEUMATIC MOTOR ASSEMBLY

- Using Allen key*, loosen screw **47** to enable the nylon tubes to be removed.
- Place motor assembly in a vice fitted with soft jaws.
- Remove sleeve **63** using combination spanner*.
- Remove push rod **64** carefully.
- Pull out bearing **60**.
- Pull out spider **68** containing three locating pins.
- Remove three planet gears **61**.
- Pull out planet gear **69** with spacer **70**.
- Tap the face of the motor casing **76** on a wood or plastic surface and allow the stator **73** to drop.
- Grip the flat end of the rear end plate **74** gently in a vice, allowing the small shoulder on the stator **73** to rest on the vice jaw top surface.
- Using a soft hammer, tap down and free the rotor **72** and the rotor blades **59**.

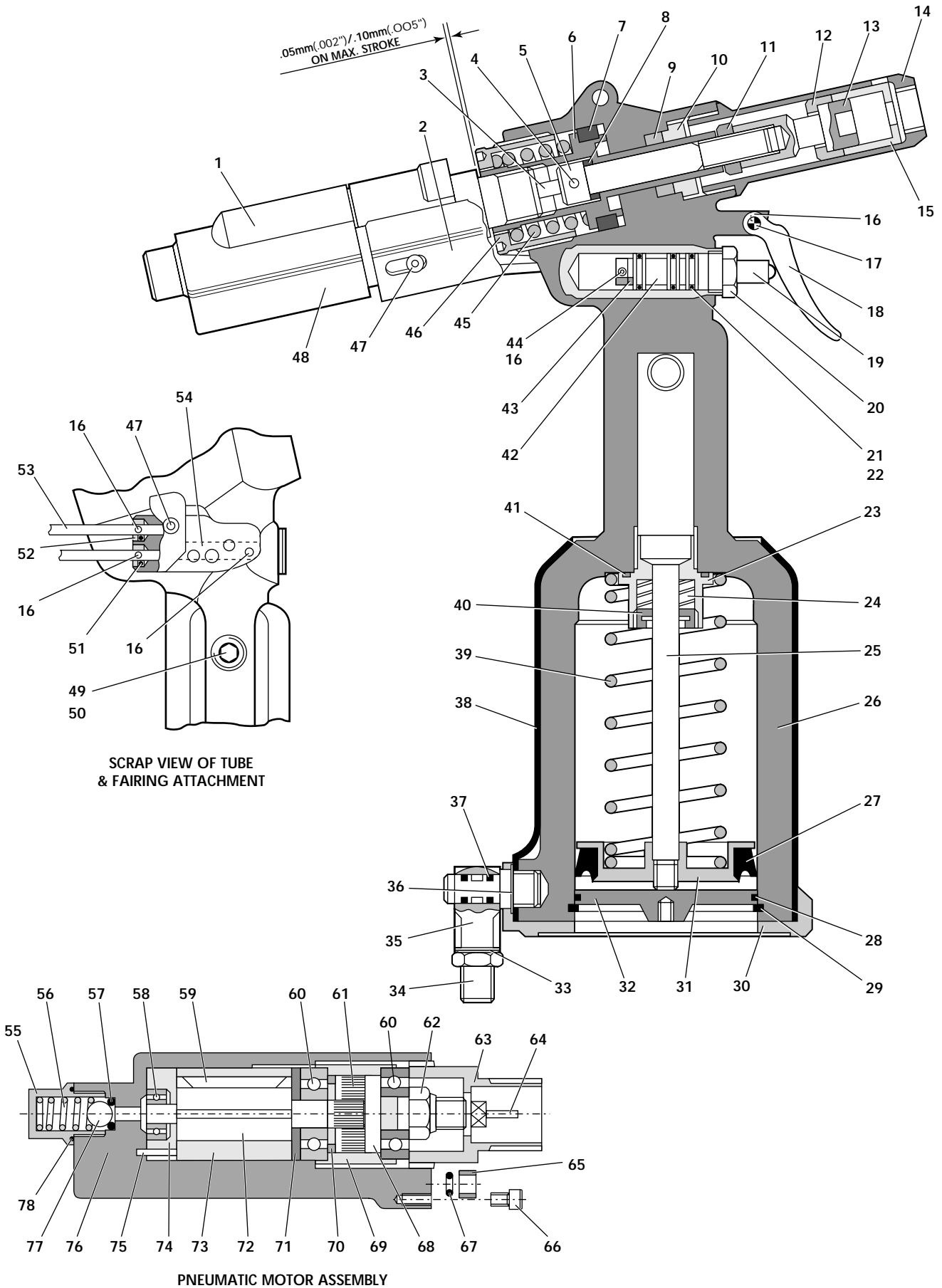
- Assemble in reverse order of dismantling, taking care to replace pin **75** in the centre hole of three holes located within the rear end plate and the centre hole within the three internal holes of the body casting.

I M P O R T A N T

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 07555-00200



07555-00200 PARTS LIST

ITEM	PART N°	DESCRIPTION	QTY	SPARES	ITEM	PART N°	DESCRIPTION	QTY	SPARES
1	07555-00601	PNEUMATIC MOTOR ASSEMBLY	1	-	42	07555-00304	VALVE PLUNGER	1	-
2	07555-00110	COVER	1	-	43	07555-00301	'O' RING	2	2
3	07555-00703	ADAPTOR NUT	1	-	44	07555-00302	LOCKING WASHER	1	1
4	07555-00715	PIN	1	1	45	07555-00702	SPRING	1	-
5	07555-00704	MOVEMENT PIVOT	1	-	46	07555-00701	LOCK NUT	1	-
6	07555-00706	PISTON	1	-	47	07555-00111	SCREW	2	-
7	07555-00707	SEAL	1	1	48	07555-00116	AIR MOTOR RUBBER CASING	1	-
8	07555-00705	SHIM ADJUSTMENT RING	1	-	49	07555-00501	OIL PLUG	1	-
9	07265-02004	SEAL	1	-	50	07555-00506	OIL SEAL WASHER	1	-
10	07555-00802	LOCK NUT	1	-	51	07555-00502	'O' RING	2	2
11	07555-00803	LOCK NUT	1	-	52	07555-00503	ADAPTOR STOP RING	2	2
12	07555-00808	COUNTER LOCK NUT	1	-	53	07555-00504	NYLON TUBE	2	2
13	07555-00804	SPINDLE	1	-	54	07555-00113	SILENCER	1	-
14	07555-00806	NOSE CASING	1	-	55	07555-09221	KNOB	1	-
15	07555-00805	ADAPTOR NUT	1	-	56	07555-09219	SPRING	1	1
16	07555-00403	SCREW	5	5	57	07555-09217	'O' RING	1	2
17	07555-00402	TRIGGER PIN	1	-	58	07555-09215	BEARING	1	-
18	07555-00401	TRIGGER	1	-	59	07555-09213	ROTOR BLADE	4	4
19	07555-00307	VALVE PIVOT	1	-	60	07555-09206	BEARING	2	-
20	07555-00306	LOCK NUT	1	-	61	07555-09208	PLANET GEARS	3	-
21	07555-00305	'O' RING	3	3	62	07555-09205	LOCKNUT	1	-
22	07555-00308	PLASTIC RING	3	3	63	07555-09202	SLEEVE	1	-
23	07555-00203	ROD GUIDE	1	-	64	07555-09203	PUSH ROD	1	-
24	07555-00202	SEAL	1	-	65	07555-09223	BUSH	1	-
25	07555-00204	PISTON ROD	1	-	66	07555-09222	SCREW	1	-
26	07555-00101	HEAD & HANDLE ASSEMBLY	1	-	67	07555-09224	'O' RING	2	4
27	07555-00108	SEAL	1	-	68	07555-09204	SPIDER	1	-
28	07555-00107	'O' RING	1	1	69	07555-09207	PLANET GEAR	1	-
29	07555-00106	RETAINING RING	1	1	70	07555-09209	SPACER	1	-
30	07555-00115	RUBBER BASE PLUG	1	-	71	07555-09210	PLATE	1	-
31	07555-00104	AIR PISTON	1	-	72	07555-09212	ROTOR	1	-
32	07555-00105	BASE COVER	1	-	73	07555-09211	STATOR	1	-
33	07005-00015	SEALING WASHER	1	-	74	07555-09214	REAR END PLATE	1	-
34	07005-00041	DOUBLE MALE CONNECTOR	1	-	75	07555-09216	PIN	1	-
35	07555-00102	CONNECTOR	1	-	76	07555-09201	MOTOR CASING	1	-
36	07555-00114	WASHER	1	-	77	07555-09218	BALL	1	1
37	07003-00029	'O' RING	2	2	78	07555-09220	'O' RING	1	2
38	07555-00109	PLASTIC COVER	1	-	79	07900-00426	COMBINATION SPANNER	1	-
39	07555-00205	SPRING	1	-	80	07900-00354	TIE ON SAFETY LABEL	1	-
40	07555-00201	LOCK NUT	1	-	81	07900-00636	TOOL INSTRUCTION MANUAL	1	-
41	07555-00206	'O' RING	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 inserts 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 07992-00002) or one gallon containers (part number 07992-00006). 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				
FIRST AID 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. FIRE Suitable extinguishing media: CO ₂ , dry powder, foam or water fog. DO NOT use water jets.		ENVIRONMENT 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. HANDLING Wear eye protection, impervious gloves (e.g. of PVC) and a plastic apron. Use in well ventilated area. STORAGE No special precautions.		
PROPERTIES	RESULT		PROPERTIES	RESULT
ISO oil type		HL	Foaming tendency/stability	
ISO viscosity grade		32		ml @ 24°C Trace/Nil
Kinematic viscosity				ml @ 93.5°C 20/Nil
	cS @ 40°C	32		ml @ 24°C after test @ 93.5°C Trace/Nil
	@ 100°C	5.3	Air release value minutes to	
Relative density	at 20°C	0.875		0.2% air content @ 50°C 4
Viscosity Index		95	Seal compatibility index	10
Pour point	°C	- 30	Water separation time	
Open Flash point	°C	232		in minutes to 40-40-0 @54°C 15
Neutralisation value mg KOH/g		1.5		@83°C 15

PROCEDURE

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

IMPORTANT

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

Ensure 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 tool must remain on its side throughout the priming sequence.

- If already fitted remove nose tip and nose tip lock nut.
- Place tool on its side, oil plug **49** side up.
- With an Allen key*, unscrew oil plug **49** and remove with oil seal washer **50**.
- Unscrew adjustable locknut **46** to its maximum setting.
- Insert priming tool extension* into front of nose casing.
- Screw priming tool* into front of nose casing and screw in threaded centre spindle as far as possible.
- Fill tool with priming oil rocking gently to expel air.
- Replace oil seal washer **50** and oil plug **49** and tighten.
- Unscrew oil plug **49** by ONE TURN only, using an Allen key*. Slowly unfasten the priming tool centre spindle then remove priming tool extension, then tighten the adjustable locknut **46**.
- Wait until oil appears all around oil plug **49** then re-tighten. Wipe excess oil away.
- Using an Allen Key* open oil plug **49** and remove with oil seal washer **50**.
- Top-up with priming oil to reset level. Replace oil seal washer **50** and oil plug **49** and fully tighten.
- It is necessary to fit the appropriate nose equipment and adjust the tool stroke prior to operating the tool.

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

Item numbers in bold refer to the general assembly and parts list pages 14 and 15.

SYMPTOM	POSSIBLE CAUSE	REMEDY
Pneumatic motor runs slowly	→ Air leak from motor	→ Check for worn seals. Replace
	→ Low air pressure	→ Increase
	→ Air way blockage	→ Clear restriction in air supply
	→ Worn drive screw	→ Replace
	→ Rotor blades 59 jamming	→ Lubricate tool through air inlet
	→ Air leak on pipes 53	→ Replace
Insert does not deform properly	→ Damaged 'O' Rings 51	→ Replace
	→ Stroke incorrectly set	→ Adjust
	→ Air pressure outside the tolerance	→ Adjust
Insert does not deform properly	→ Low oil level	→ Prime tool
	→ Insert out of grip	→ Check grip range of Insert
Drivescrew turns independent of motor	→ Worn or damaged drive shaft	→ Replace
	→ Worn or damaged drive screw	→ Replace
	→ Adaptor nut 15 loose	→ Tighten
	→ Nose Equipment incorrectly assembled	→ Disconnect air supply - refit nose equipment carefully
Insert will not place onto drivescrew	→ Incorrect Insert thread size	→ Change to correct insert
	→ Incorrect drive screw fitted	→ Change to correct drive screw
	→ Worn or damaged drive screw	→ Replace
	→ Nose equipment incorrectly assembled	→ Disconnect air supply, refit nose equipment carefully
Tool is jammed on placed insert	→ Excessive stroke/ Defective Insert/ Worn or defective drive screw	→ Disconnect tool from air supply. Insert a 3mm Ø Rod through hole in nose casing to prevent casing from turning. Using a spanner loosen Nose Tip nut. Rotate tool to unscrew from insert. Replace insert and drive screw
Drive screw breaks	→ Stroke of tool excessive	→ Reset stroke
	→ Side load on drive screw	→ Hold tool square to application when placing Insert
Drive screw does not rotate clockwise	→ Adaptor nut 15 loose	→ Tighten
	→ No air supply	→ Connect
	→ Insufficient gap between locknut 11 and spindle 13	→ Adjust to 1.5 mm gap to 2mm gap
	→ Push Rod 64 too short	→ Replace
	→ Air motor jammed	→ Lubricate tool at air inlet 34 . If insufficient dismantle & clean air motor thoroughly
Trigger inoperative	→ Static friction	→ Depress trigger 18 a few times
	→ Low air pressure	→ Increase air pressure
	→ Valve plunger 42 remains stuck	→ Depress trigger 18 several times. Lubricate tool through air inlet 34 . If unsuccessful , dismantle, clean and lubricate trigger elements.
Drivescrew does not return and/or keeps rotating anti-clockwise	→ Seal 7 is defective	→ Replace
Drive screw does not rotate anti-clockwise	→ Adaptor nut 15 loose	→ Tighten
	→ No air supply	→ Connect
	→ 'O' ring 67 leaking air	→ Replace
	→ Push rod 64 jammed	→ Lubricate or replace
	→ Air motor jammed	→ Lubricate tool at air inlet 34 . If insufficient dismantle & clean air motor thoroughly

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

We, *Avdel SRL, Via Manin 350-21, 20099 Sesto Giovanni, Milan, Italy.*

declare under our sole responsibility that the product

type 07555

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 and part 7

ISO 3744 and PNEUROP test code PN8TC1

ISO PREN792 part 6 & 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



M. Dellefave - Quality Manager

Milan - date of issue

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