

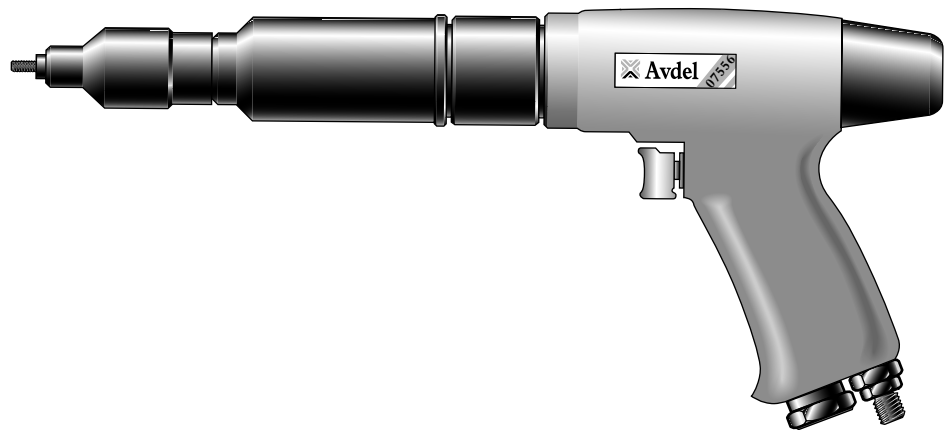


An Acument™ Global Technologies Company



Instruction Manual

Pass onto user to read and keep for reference



Threaded Insert Power Tool

07556

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 07556 TOOL

| | | | | | | |
|--------------------------|---|----------------------------------|---|----------------------|---|------------------------------|
| AIR PRESSURE | ■ | Minimum - Maximum | ■ | 5 - 8 bar | ■ | 75 - 120 lbf/in ² |
| FREE AIR VOLUME REQUIRED | ■ | @ 5 bar / 75 lbf/in ² | ■ | 510 litres/min | ■ | 18 ft ³ /min |
| MOTOR SPEED | ■ | @ 75 lb/in ² | ■ | 1000 RPM | ■ | (clockwise) |
| CYCLE TIME | ■ | Approximately | ■ | 3 seconds | ■ | |
| NOISE LEVEL | ■ | | ■ | 80 dB(A) | ■ | |
| WEIGHT | ■ | Without nose equipment | ■ | 1.76 kg | ■ | 3.9 lb |
| VIBRATION | ■ | Less than | ■ | 2.5 m/s ² | ■ | 8 ft/s ² |

SAFETY

| | |
|------------------------|---|
| General | 2 |
| Specific to 07556 Tool | 3 |

INTENT OF USE

| | |
|-----------------------------|-----|
| General | 4 |
| Tool Dimensions / Selection | 4-5 |

PUTTING INTO SERVICE

| | |
|---------------------------------|---|
| Air Supply | 6 |
| Operating Procedure | 6 |
| Clutch Adjustment - Accessories | 7 |

NOSE ASSEMBLIES

| | |
|----------------------------|-----|
| Fitting/Service/Components | 8-9 |
|----------------------------|-----|

SERVICING

| | |
|-------------------------------|-------|
| Regular Servicing | 10 |
| Maintenance | 11-13 |
| General Assembly & Parts List | 14-15 |

FAULT DIAGNOSIS

| | |
|-----------------------|----|
| Fault Diagnosis Table | 16 |
|-----------------------|----|

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).

⚠ 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 8 BAR - 120 LBF/IN².
- ⚠ DO NOT OPERATE THE TOOL WITHOUT FULL NOSE EQUIPMENT 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.
- ⚠ ALWAYS ADOPT A FIRM FOOTING OR A STABLE POSITION BEFORE OPERATING THE TOOL AND BE AWARE OF A TORQUE REACTION ON THE HANDS WHEN THE TOOL IS OPERATING, PARTICULARLY DURING THE REVERSING SEQUENCE. GRIP THE TOOL FIRMLY TO BE ABLE TO COUNTER THE TORQUE REACTION, BUT NOT TOO TIGHTLY.
- ⚠ KEEP HANDS AWAY FROM THE ROTATING DRIVE SCREW AND THE NOSE END OF THE TOOL. IF A FASTENER BECOMES JAMMED ON THE DRIVE SCREW, SHUT OFF THE AIR SUPPLY AND DRAIN THE SUPPLY LINE TO THE TOOL BEFORE ATTEMPTING TO DISLodge IT.
- ⚠ THE TOOL IS NOT ELECTRICALLY INSULATED.
- ⚠ THIS TOOL IS NOT DESIGNED FOR USE IN COMBUSTIBLE OR EXPLOSIVE ATMOSPHERES.

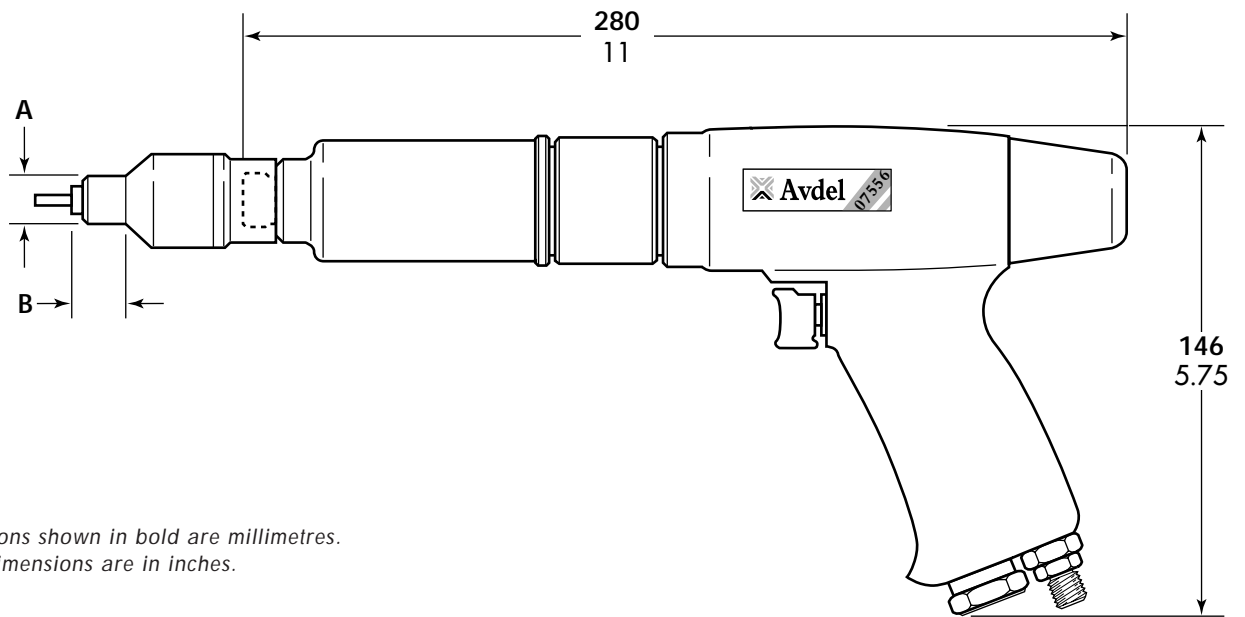
CONTENT OF USE

The pneumatic 07556 type 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 tables below and opposite to select a complete tool which will be fitted with the correct nose assembly for the threaded insert selected. 'A' and 'B' dimensions will help you assess the accessibility of your application.

It is also possible to order the base tool only (part number 07556-00400). For details of Nose Assemblies see pages 8 and 9.

| 7556 TOOL SELECTION | | | | | | | | | |
|------------------------------------|----------|-----------------------------|-------------------------|---------------------------------------|--------|--------|-------------|-------------------|--------------------------|
| INSERT NAME & SERIES | Ø | TORQUE SETTING (lbf ins) | UNSET CLUTCH PART N° | NOSE (see drawing opposite for A & B) | | | | NOSE ASSY PART N° | COMPLETE TOOL PART N° |
| | | | | A (mm) | B (mm) | A (in) | B (in) | | |
| THIN SHEET NUTSERT (9650) | 3/16 BSW | 30 - 35 | 08556-00308 | 13 | 10 | 1/2 | 13/32 | 07556-09916 | 07556-01016 |
| | 1/4 BSW | 35 - 40 | 08556-00309 | 13 | 13 1/2 | 1/2 | 17/32 | 07556-09918 | 07556-01018 |
| | 5/16 BSW | 50 - 55 | 08556-00312 | 14 | 14 | 9/16 | 9/16 | 07443-09910 | 07556-01010 |
| | 1/4 BSF | 35 - 40 | 08556-00309 | 13 | 13 1/2 | 1/2 | 17/32 | 07556-09928 | 07556-01028 |
| | 5/16 BSF | 50 - 55 | 08556-00312 | 14 | 14 | 9/16 | 9/16 | 07443-09920 | 07556-01020 |
| | 4 UNC | 7 - 9 | 08556-00302 | 13 | 11 | 1/2 | 7/16 | 07556-09954 | 07556-01054 |
| | 6 UNC | 16 - 18 | 08556-00305 | 13 | 11 | 1/2 | 7/16 | 07556-09956 | 07556-01056 |
| | 8 UNC | 16 - 18 | 08556-00305 | 13 | 12 | 1/2 | 15/32 | 07556-09958 | 07556-01058 |
| | 10 UNC | 30 - 35 | 08556-00308 | 13 | 10 | 1/2 | 13/32 | 07556-09950 | 07556-01050 |
| | 4 UNF | 7 - 9 | 08556-00302 | 13 | 11 | 1/2 | 7/16 | 07556-09974 | 07556-01074 |
| | 6 UNF | 16 - 18 | 08556-00305 | 13 | 11 | 1/2 | 7/16 | 07556-09976 | 07556-01076 |
| | 8 UNF | 16 - 18 | 08556-00305 | 13 | 12 | 1/2 | 15/32 | 07556-09978 | 07556-01078 |
| | 10 UNF | 30 - 35 | 08556-00308 | 13 | 10 | 1/2 | 13/32 | 07556-09970 | 07556-01070 |
| | 1/4 UNC | 35 - 40 | 08556-00309 | 13 | 13 1/2 | 1/2 | 17/32 | 07556-09948 | 07556-01048 |
| | 5/16 UNC | 50 - 55 | 08556-00312 | 14 | 14 | 9/16 | 9/16 | 07443-09940 | 07556-01040 |
| | 1/4 UNF | 35 - 40 | 08556-00309 | 13 | 13 1/2 | 1/2 | 17/32 | 07556-09968 | 07556-01068 |
| | 5/16 UNF | 50 - 55 | 08556-00312 | 14 | 14 | 9/16 | 9/16 | 07443-09960 | 07556-01060 |
| | 6 BA | 7 - 9 | 08556-00302 | 13 | 13 1/2 | 1/2 | 17/32 | 07556-09936 | 07556-01036 |
| | 4 BA | 16 - 18 | 08556-00305 | 13 | 11 | 1/2 | 7/16 | 07556-09934 | 07556-01034 |
| | 2 BA | 30 - 35 | 08556-00308 | 13 | 17 | 1/2 | 21/32 | 07556-09932 | 07556-01032 |
| | 0 BA | 35 - 40 | 08556-00309 | 13 | 11 | 1/2 | 7/16 | 07556-09930 | 07556-01030 |
| | M3 | 7 - 9 | 08556-00302 | 13 | 11 | 1/2 | 7/16 | 07556-09983 | 07556-01083 |
| | M4 | 16 - 18 | 08556-00305 | 13 | 11 | 1/2 | 7/16 | 07556-09984 | 07556-01084 |
| | M5 | 30 - 35 | 08556-00308 | 13 | 10 | 1/2 | 13/32 | 07556-09985 | 07556-01085 |
| M6 | 35 - 40 | 08556-00309 | 13 | 13 1/2 | 1/2 | 17/32 | 07556-09986 | 07556-01086 | |
| M8 | 50 - 55 | 08556-00312 | 14 | 14 | 9/16 | 9/16 | 07443-09988 | 07556-01088 | |
| SUPERSERT (FB00) | 8 UNC | 16 - 18 | 08556-00305 | 13 | 10 | 1/2 | 13/32 | 07552-09558 | 07556-02058 |
| | 10 UNC | 30 - 35 | 08556-00308 | 13 | 12 | 1/2 | 15/32 | 07552-09550 | 07556-02050 |
| | 8 UNF | 16 - 18 | 08556-00305 | 13 | 10 | 1/2 | 13/32 | 07552-09578 | 07556-02078 |
| | 10 UNF | 30 - 35 | 08556-00308 | 13 | 12 | 1/2 | 15/32 | 07552-09570 | 07556-02070 |
| | 1/4 UNC | 45 - 50 | 08556-00311 | 13 | 15 | 1/2 | 19/32 | 07552-09548 | 07556-02048 |
| | 1/4 UNF | 45 - 50 | 08556-00311 | 13 | 15 | 1/2 | 19/32 | 07552-09568 | 07556-02068 |
| | M3 | 16 - 18 | 08556-00305 | 13 | 19 | 1/2 | 3/4 | 07552-09583 | 07556-02083 |
| | M4 | 16 - 18 | 08556-00305 | 13 | 10 | 1/2 | 13/32 | 07552-09584 | 07556-02084 |
| | M5 | 30 - 35 | 08556-00308 | 13 | 11 | 1/2 | 7/16 | 07552-09585 | 07556-02085 |
| M6 | 45 - 50 | 08556-00311 | 13 | 15 | 1/2 | 19/32 | 07552-09586 | 07556-02086 | |
| LARGE FLANGE HEXSERT (9498) | M4 | 16 - 18 | 08556-00305 | 13 | 10 | 1/2 | 13/32 | 07556-09184 | 07556-04084 |
| | M5 | 30 - 35 | 08556-00308 | 13 | 10 | 1/2 | 13/32 | 07557-09285 | 07556-03085 |
| | M6 | 35 - 40 | 08556-00309 | 14 | 12 | 9/16 | 15/32 | 07556-09186 | 07556-04086 |



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

| 7556 TOOL SELECTION (continued) | | | | | | | | | |
|---|----------|-----------------------------|-------------------------|------------------------------------|--------|--------|-------------|--------------------------|-------------------|
| INSERT NAME & SERIES | Ø | TORQUE SETTING (lbf ins) | UNSET CLUTCH PART N° | NOSE (see drawing above for A & B) | | | | COMPLETE TOOL PART N° | |
| | | | | A (mm) | B (mm) | A (in) | B (in) | | NOSE ASSY PART N° |
| STANDARD NUTSERTS (9500) (9538) | 3/16 BSW | 20 - 25 | 08556-00306 | 13 | 12 | 1/2 | 15/32 | 07556-09816 | 07556-00016 |
| | 1/4 BSW | 25 - 30 | 08556-00307 | 13 | 15 | 1/2 | 19/32 | 07556-09818 | 07556-00018 |
| | 5/16 BSW | 40 - 45 | 08556-00310 | 14 | 14 | 9/16 | 9/16 | 07443-09810 | 07556-00010 |
| | 3/8 BSW | 50 - 55 | 08556-00312 | 16 | 10 | 5/8 | 13/32 | 07443-09812 | 07556-00012 |
| | 1/4 BSF | 25 - 30 | 08556-00307 | 13 | 15 | 1/2 | 19/32 | 07556-09828 | 07556-00028 |
| | 5/16 BSF | 40 - 45 | 08556-00310 | 14 | 14 | 9/16 | 9/16 | 07443-09820 | 07556-00020 |
| | 3/8 BSF | 50 - 55 | 08556-00312 | 16 | 10 | 5/8 | 13/32 | 07443-09822 | 07556-00022 |
| | 4 UNC | 5 - 7 | 08556-00301 | 13 | 12 | 1/2 | 15/32 | 07556-09854 | 07556-00054 |
| | 6 UNC | 9 - 11 | 08556-00303 | 13 | 12 | 1/2 | 15/32 | 07556-09856 | 07556-00056 |
| | 8 UNC | 13 - 15 | 08556-00304 | 13 | 10 | 1/2 | 13/32 | 07556-09858 | 07556-00058 |
| | 10 UNC | 20 - 25 | 08556-00306 | 13 | 12 | 1/2 | 15/32 | 07556-09850 | 07556-00050 |
| | 6 UNF | 9 - 11 | 08556-00303 | 13 | 12 | 1/2 | 15/32 | 07556-09876 | 07556-00076 |
| | 8 UNF | 13 - 15 | 08556-00304 | 13 | 10 | 1/2 | 13/32 | 07556-09878 | 07556-00078 |
| | 10 UNF | 20 - 25 | 08556-00306 | 13 | 12 | 1/2 | 15/32 | 07556-09870 | 07556-00070 |
| | 1/4 UNC | 25 - 30 | 08556-00307 | 13 | 15 | 1/2 | 19/32 | 07556-09848 | 07556-00048 |
| | 5/16 UNC | 40 - 45 | 08556-00310 | 14 | 14 | 9/16 | 9/16 | 07443-09840 | 07556-00040 |
| | 3/8 UNC | 50 - 55 | 08556-00312 | 16 | 10 | 5/8 | 13/32 | 07443-09842 | 07556-00042 |
| | 1/4 UNF | 25 - 30 | 08556-00307 | 13 | 15 | 1/2 | 19/32 | 07556-09868 | 07556-00068 |
| | 5/16 UNF | 40 - 45 | 08556-00310 | 14 | 14 | 9/16 | 9/16 | 07443-09860 | 07556-00060 |
| | 3/8 UNF | 50 - 55 | 08556-00312 | 16 | 10 | 5/8 | 13/32 | 07443-09862 | 07556-00062 |
| | 6 BA | 5 - 7 | 08556-00301 | 13 | 15 | 1/2 | 19/32 | 07556-09836 | 07556-00036 |
| | 4 BA | 9 - 11 | 08556-00303 | 13 | 12 | 1/2 | 15/32 | 07556-09834 | 07556-00034 |
| | 2 BA | 20 - 25 | 08556-00306 | 13 | 12 | 1/2 | 15/32 | 07556-09832 | 07556-00032 |
| 0 BA | 25 - 30 | 08556-00307 | 13 | 12 | 1/2 | 15/32 | 07556-09830 | 07556-00030 | |
| M3 | 5 - 7 | 08556-00301 | 13 | 12 | 1/2 | 15/32 | 07556-09883 | 07556-00083 | |
| M4 | 13 - 15 | 08556-00304 | 13 | 10 | 1/2 | 13/32 | 07556-09884 | 07556-00084 | |
| M5 | 20 - 25 | 08556-00306 | 13 | 12 | 1/2 | 15/32 | 07556-09885 | 07556-00085 | |
| M6 | 25 - 30 | 08556-00307 | 13 | 15 | 1/2 | 19/32 | 07556-09886 | 07556-00086 | |
| M8 | 40 - 45 | 08556-00310 | 14 | 14 | 9/16 | 9/16 | 07443-09888 | 07556-00088 | |
| M10 | 50 - 55 | 08556-00312 | 16 | 12 | 5/8 | 15/32 | 07443-09880 | 07556-00080 | |
| LGE FLANGE THIN SHEET NUTSERT(9698) | M4 | 16 - 18 | 08556-00305 | 13 | 10 | 1/2 | 13/32 | 07556-09184 | 07556-04084 |
| | M5 | 30 - 35 | 08556-00308 | 13 | 12 | 1/2 | 15/32 | 07556-09185 | 07556-04085 |
| | M6 | 35 - 40 | 08556-00309 | 13 | 15 | 1/2 | 19/32 | 07556-09186 | 07556-04086 |
| HEXSERT (9498) | M4 | 16 - 18 | 08556-00305 | 13 | 12 | 1/2 | 15/32 | 07556-09284 | 07556-06084 |
| | M5 | 30 - 35 | 08556-00308 | 13 | 12 | 1/2 | 15/32 | 07556-09285 | 07556-06085 |
| | M6 | 40 - 45 | 08556-00310 | 16 | 14 | 5/8 | 9/16 | 07556-09286 | 07556-06086 |
| | M8 | 50 - 55 | 08556-00312 | 16 | 15 | 5/8 | 19/32 | 07443-09288 | 07556-06088 |
| NUTSERT SQ (GK08) | M5 | 30 - 35 | 08556-00308 | 10 | 13 | 13/32 | 1/2 | 07528-07085 | 07556-07085 |
| | M6 | 40 - 45 | 08556-00310 | 13 | 15 | 1/2 | 19/32 | 07556-09186 | 07556-04086 |

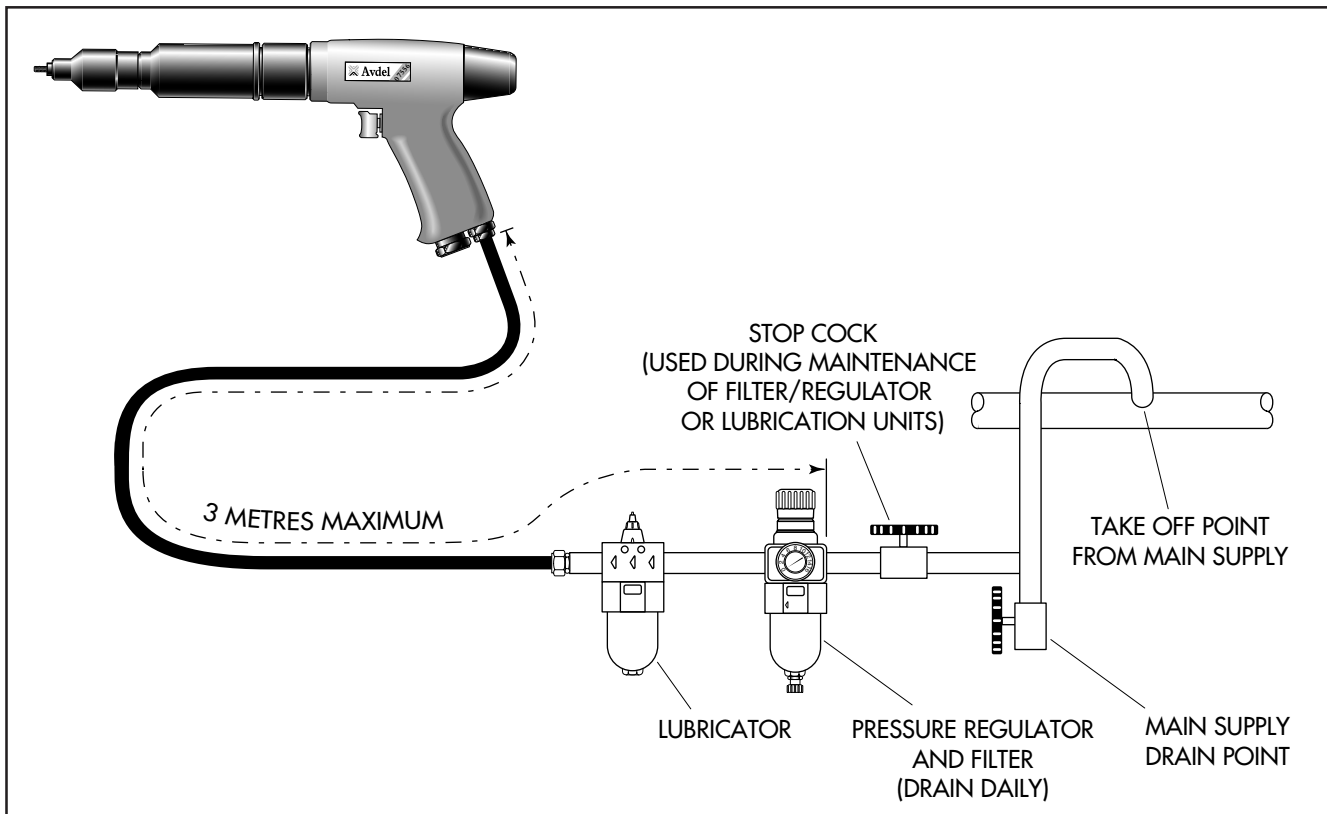
PUTTING INTO SERVICE

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 $\frac{1}{4}$ inch.

Read servicing daily details page 10.



OPERATING PROCEDURE

IMPORTANT

When placing Standard Nutserts, lubricate the drive screw of the tool every 25 placings. This is best achieved by wiping the drive screw with a sponge soaked with STP Lubricant part number 07992-00013

OPTION 1

- Ensure that the correct nose equipment is fitted.
- Connect the tool to the air supply.
- Place the insert into the prepared hole of the application.
- Locate the drivescrew of the tool into the insert.
- Operate the trigger. The drivescrew will screw into and collapse the insert, then automatically reverse out.

OPTION 2

- Ensure that the correct nose equipment is fitted.
- Connect the tool to the air supply.
- Screw the insert lip first onto the drive screw of the tool.
- With the insert on the tool, locate it into the prepared hole of the application
- Operate the trigger. The drivescrew will screw into and collapse the insert, then automatically reverse out.

CLUTCH ADJUSTMENT

If you have ordered a complete tool the clutch will be set for the specified insert.

When purchased as a spare part the clutch is supplied unset.

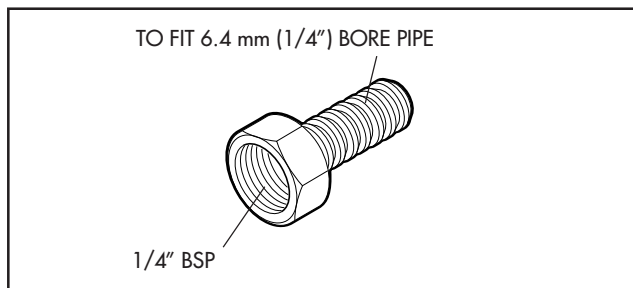
Correct clutch setting is necessary to ensure optimum deformation of the insert. If the deformation is insufficient (clutch torque too low) the insert will rotate in the application. If the deformation is excessive (clutch torque too high) thread distortion will occur and extensive wear on the drivescrew, may lead to fracture.

For details on how to adjust the clutch refer to the maintenance instructions referring to the clutch on page 11.

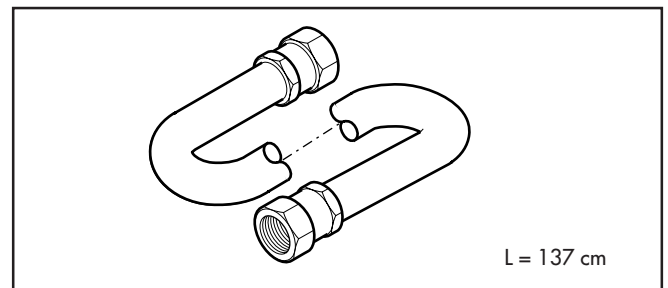
ACCESSORIES

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

Hose Connector
part n° 07005-00276



Hose Assembly
part n° 07008-000324



NOSE ASSEMBLIES

Nose assemblies are specifically designed for each size and type of insert used with the 07556 type of tooling. If you have purchased a complete tool, it will already be fitted with the correct nose assembly for your insert.

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 insert to be placed, you will be able to order a new complete nose assembly using the selection tables pages 4 and 5.

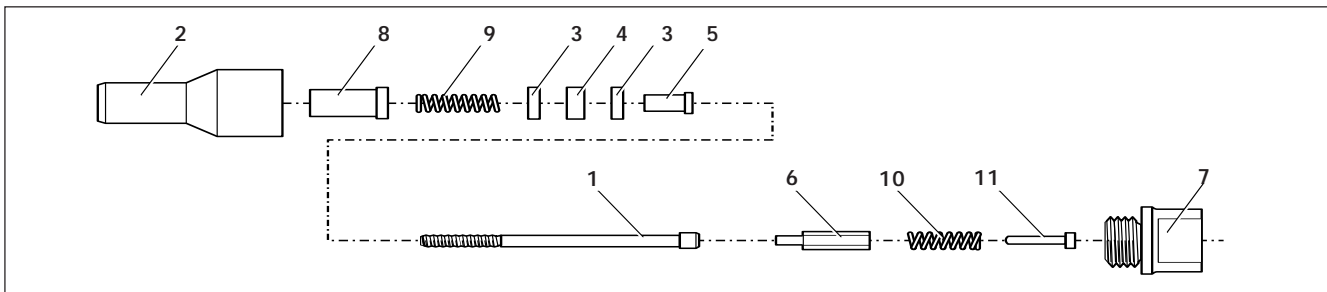
FITTING INSTRUCTIONS

IMPORTANT

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

Before fitting the nose equipment, ensure the clutch on the tool is set to the correct torque for the insert being placed. (Torque values are on page 11.)

- Where applicable, insert sleeve 8 and thrust spring 9 into nose housing 2.
- Coat thrust washers 3 and thrust bearing 4 with high pressure grease (eg. Shell Alvania E.P.I.) and locate them in the order shown below into the nose housing 2.
- Where applicable, fit spacer 5 through thrust washers and thrust bearings.
- Insert drive screw 1 through the above assembly.
- Fit drive shaft 6 into the hexagon hole in the drive screw head.
- Insert stop 11 and spring 10 into the front of the base tool.
- Screw adaptor 7 into clutch housing of the base tool (left hand thread).
- Offer up the nose assembly to the adaptor. It will be necessary to rotate the drive screw by hand to line up the hexagon on the drive shaft 6 with the hexagonal hole in the front jaw of the base tool.
- Screw the nose housing 2 onto the adaptor 7 and tighten with a spanner (left hand thread).



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.
- Particularly check wear on drivescrew, thrust washers and thrust bearing.
- Lubricate thrust washers and thrust bearings with high pressure grease (eg Shell Alvania E.P.I.)
- Check springs are not distorted.
- Assemble according to fitting instructions.

NOSE ASSEMBLY COMPONENTS

The table opposite lists all nose assemblies available. Each nose assembly represents a unique assembly of components which can be ordered individually. Components numbers refer to the text and illustration above. We recommend some stock as items will need regular replacement. Read the nose assemblies servicing instructions above carefully. All nose assemblies also include spring 10 part number 07430-08282 and stop 11 part number 07430-08203.

SERVICING THE TOOL

Regular servicing should be carried out and a comprehensive inspection performed annually or every 200000 cycles, whichever is soonest.

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 fitted, drain it.
- Check that the nose assembly is correct.
- Inspect the drivescrew in the nose assembly for wear or damage. If there is any, renew.

WEEKLY

- Fully dismantle and service the nose assembly (see instructions page 8).
- Lubricate the clutch spring with high pressure grease (eg. Shell Alvania E.P.I.).
- Check the clutch torque setting (see clutch adjustment procedure page 11).
- Check for air leaks in the air supply hose and fittings.

For lubricating internal tool parts other than those described previously, use Moly Lithium Grease EP3753 (part number 07992-00020)

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: CO₂, 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.

MAINTENANCE

Every 200000 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 not to.

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

Item numbers in bold refer to the General Assembly drawing and parts list (pages 14 and 15).

Prior to dismantling the tool it is necessary to remove the nose assembly. For simple removal instructions see the nose assemblies section, page 8 and 9.

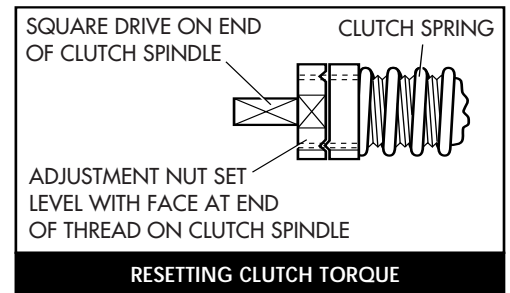
For total tool servicing we advise that you proceed with dismantling the sub-assemblies in the order shown on pages 12 and 13.

CLUTCH

- Place housing and bush assembly **1** in vice fitted with soft jaws.
- Unscrew clutch housing **34** (left hand thread) and remove bush **35** from clutch housing **34**.
- Withdraw the clutch assembly, taking care not to bend push rod **43**. Pull out push rod (long) **43**.
- Remove the tool from the vice and gently tap on the front end of assembly to remove needle roller **61** and push rod (short) **65**.
- Holding the square drive end of clutch spindle **31**, unscrew adjustment nut **28**.
- Pull off adjustment lock washer **29** and spring **30**.
- Depress spring **42** and remove pin **41**.
- Remove collar **40** and three balls **38**.
- Remove split retaining ring halves **39**.
- Move front jaw **33** relative to clutch spindle **31** until small hole in side of front jaw **33** is aligned with track of the balls in clutch spindle **31**.
- Ten balls **36** will become visible through small hole in front jaw **33**.
- Gently tap front jaw **33**, allowing the ten balls to fall out of hole in the front jaw, (as each ball is ejected, turn front jaw **33** on clutch spindle **31** to align next ball with hole).
- Insert small rod through centre of front jaw **33** and tap out clutch spindle **31**.
- Remove drive jaw **32**, key **37** and spring **42**.

- Assemble in reverse order to dismantling.

- Reset clutch torque in the following manner, (see diagram opposite):
- Place square drive on end of clutch spindle **31** in vice, engaging approximately 10 mm in vice jaws. This allows access for spanner entry.
- Using the spanner, unscrew adjustment nut **28** until it is level with the end of the thread of the clutch spindle. Torque can then be increased/decreased as dictated by fastener type and size by turning the adjustment nut clockwise/anticlockwise as appropriate. Use the data in the table below to know how many turns to give a particular torque.



Use the data in the table below to know how many turns give a particular torque.

| 7556 CLUTCH DETAILS | | | | | | | | | | | | | | | | |
|----------------------------|----------------|---------------|----------------------|-----|----|------|----|------|----|------|----|----|----|----|----|----|
| UNSET CLUTCH PART N° | SPRING PART N° | SPRING COLOUR | N° OF TURNS/lb f ins | | | | | | | | | | | | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 08556-00390 | 08572-00407 | OXIDE BLACK | - | - | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 08556-00380 | 08556-00412 | SILVER | 5 | 7.5 | 10 | 12.5 | 15 | 17.5 | 20 | 22.5 | 25 | 28 | 31 | 34 | - | - |
| 08557-00380 | 08557-00202 | COPPER | - | 34 | 42 | 51 | 60 | - | - | - | - | - | - | - | - | - |

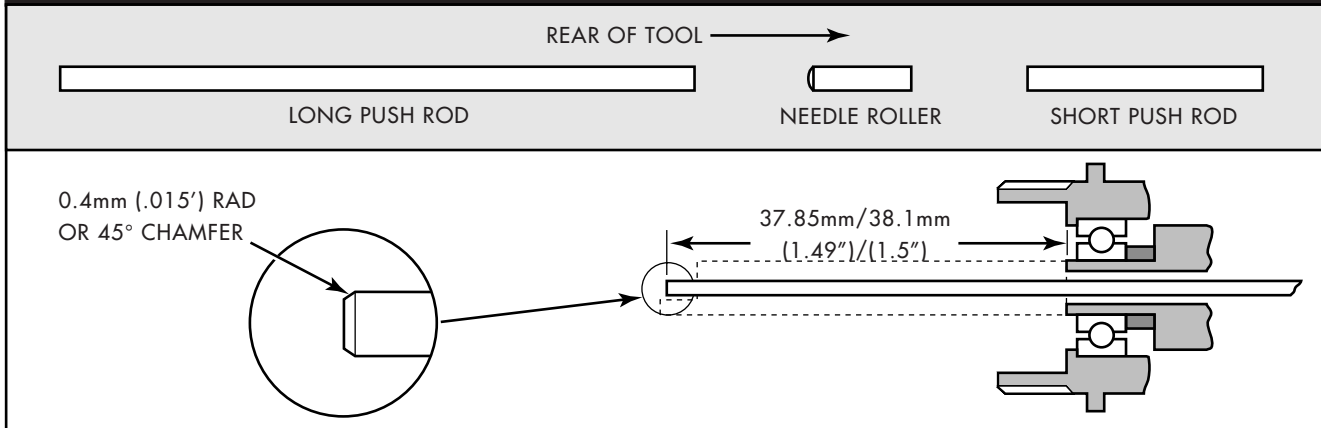
I M P O R T A N T

It is imperative that the reverse control rods are fitted in the correct sequence (see diagram opposite) to ensure correct tool function. When renewing the long push rod, it is necessary to trim the overall length to give a protrusion of 37.85mm (1.49")/38.1mm (1.5") of the push rod above the front face of the output square drive spindle of the final gearbox.

A gauge (part number 07900-00424) is used to achieve this.

This operation should be carried out with the air supply connected to the tool. Do not operate the trigger during this operation. When the rod has been trimmed to the correct length, carefully remove the sharp edge left with either a 0.4mm(.015") radius or 45° chamfer. Take care not to bend or damage the new push rod.

FITTING NEW REVERSE CONTROL RODS



HANDLE ASSEMBLY

- Replace handle and brush assembly 1 in soft jaw vice.
- Using spanner on ring gear 45, remove front gear assembly.
- Using spanner on housing 26, remove inner gear assembly.
- Remove 'O' ring 19 and spacer 18 from handle and brush assembly 1 and pull out the motor assembly. (It may be necessary to tap the front end of handle and brush assembly 1 on a wooden block until the motor assembly slides out).
- Unscrew silencer retainer assembly 9 and remove perforated washer 10, silencer body 12 and silencer element 11.
- Unscrew nipple 8 from adaptor 7.
- Unscrew adaptor 7 from handle and brush assembly 1 and remove filter 6.
- Tap out pin 15 and carefully pull out the trigger assembly, (take care not to damage 'O' rings).
- Support trigger 17 and carefully drive out pin 16 taking care not to damage or bend valve 3.
- Separate trigger 17 from valve 3 and remove 'O' ring 14, three 'O' rings 2 from valve body 13 and 'o' rings 4 & 5 from valve 3.
- Unscrew knob 76 and remove 'O' ring 68 from handle and bush assembly 1.
- Remove screw 74 and washer 75.
- Lightly tap end plate 71 to break the Loctite seal between end plate 71 and valve assembly 66.
- Remove end plate 71, taking care not to damage pins 73.
- Remove 'O' ring 72 and spring 70.
- Push valve assembly 66 out of handle and bush assembly 1.

I M P O R T A N T

Valve assembly 66 is a manufacturer supplied assembly and **MUST NOT** be dismantled

- Remove 'O' ring 67 from valve assembly 66.
- Remove 'O' ring 69 from valve bush but do not attempt to remove the valve bushing from handle and bush assembly 1.
- Assemble in reverse order of dismantling.
- When replacing screw 74 and washer 75 ensure thread sealant is used on screw threads.

FRONT GEAR ASSEMBLY (previously removed from handle assembly).

- Hold ring gear **45** and tap out internal assembly from front end.
- Remove two bearing **25** and spacers **50** and **47** from planet gear spindle **46**.
- Tap out two shafts **28** and thirty needles **27** and remove two planet gears **49** and drive gear **48**.

- Assemble in reverse order of dismantling.

REAR GEAR ASSEMBLY

- Pull off spacer **53**.
- Hold housing **26** and push out internal assembly from the front end.
- Remove two bearings **25** and spacers **20** & **23**. from planet gear spindle **24**.
- Push out two shafts **52** together with thirty needles **21**.
- Take out two planet gears **49** and drive gear **22**.
- Using circlip pliers, remove circlip **51** from housing **26**.

- Assemble in reverse order of dismantling.

MOTOR ASSEMBLY (previously removed from handle assembly).

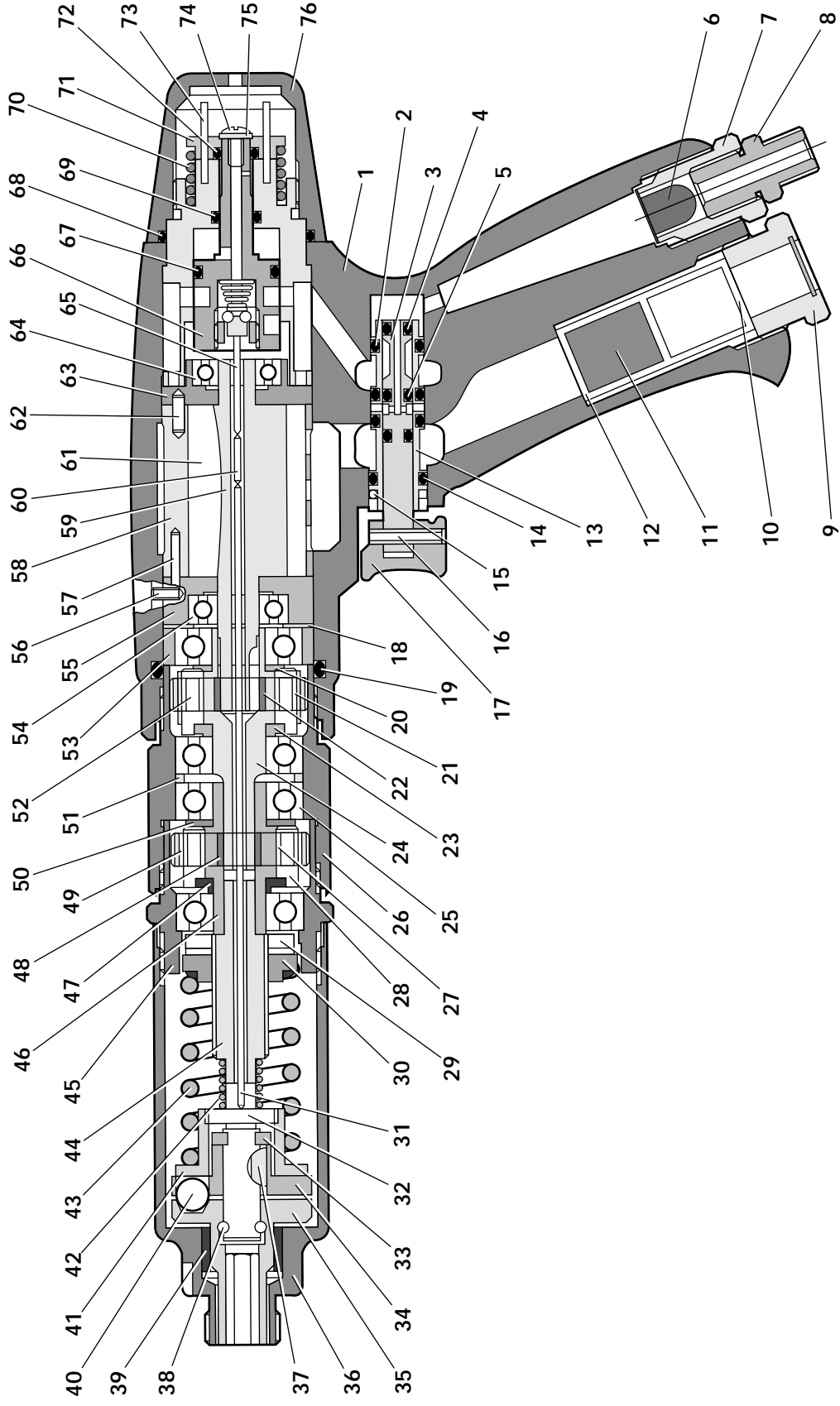
- Remove locating pin **56** from lower end plate **55**.
- Hold lower end plate **55** and tap splined end of rotor **59** with a soft hammer so as not to damage splines.
- Remove lower end plate **55** and bearing **54** from rotor **59**.
- Remove cylinder **58** complete with pin **57** and pin **62**.
- Remove five rotor blades **61** from rotor **59**.
- Support rear end plate **63** using a piece of tube with a bore diameter as close as possible to largest diameter of rotor **59**, then tap the non-splined end of the rotor to remove it from rear end plate **63** and bearing **64**.
- Using a suitable punch, tap out bearing **54** from lower end plate **55**, bearing **64** and rear end plate **63**.

- When assembling, make sure that locating pin **58** in lower end plate **55** locates in keyway in the front end bore of the handle.
- Pay special attention to lower end plate **55** and rear end plate **63**, ensuring they are free from burrs and surface marking. If necessary, lap faces that abut cylinder **58** on a flat fine grade abrasive paper.
- Press fir bearings **54** & **64** into lower and rear end plates **55** & **63**.
- Support bearing **64** in rear end plate **63** on its inner ring and using a soft hammer, tap rotor **59** on its splined end until the rotor locates against rear end plate **63**.
- Support inner face of rear end plate **63** as close as possible to largest diameter of rotor **59**.
- Tap non-splined end of rotor **59** until a clearance of 0.040 mm (0.0015 in) to 0.065 mm (0.0025 in) is obtained between inner face of rear end plate **63** and rotor **59**.
- Check clearance by pulling rotor **59** away from rear end plate **63** and bearing **64**.
- Spin rotor **59** ensuring that it rotates freely in rear end plate bearing **64**.
- Locate cylinder **58** with locating pin **56** to rear end plate **63** and check ports in rear end plate **63** align with ports in cylinder **58**.
- Insert five rotor blades **60** into rotor **59**.
- Fit lower end plate **55** to cylinder **58** via locating pin **56**.
- Ensure rotor **59** spins freely.

- Fit motor in reverse order of removal (see handle assembly).

IMPORTANT

Check the tool against daily and weekly servicing.



07556-00200 PARTS LIST

| ITEM | PART N° | DESCRIPTION | QTY | REC. SPARES | ITEM | PART N° | DESCRIPTION | QTY | REC. SPARES |
|------|-------------|----------------------------|-----|-------------|------|-------------|-------------------------------------|-----|-------------|
| 01 | 08556-00423 | HANDLE AND BUSH ASSEMBLY | 1 | - | 40 | 08556-00410 | 5/16 DIA. BALL | 3 | - |
| 02 | 08415-00207 | 'O' RING | 3 | 3 | 41 | 08556-00406 | COLLAR | 1 | - |
| 03 | 08556-00417 | VALVE | 1 | 1 | 42 | 08556-00411 | SPRING | 1 | - |
| 04 | 08434-00202 | 'O' RING | 1 | 1 | 43 | 08557-00202 | CLUTCH SPRING 35-85lb. (COPPER) | 1 | - |
| 05 | 08441-00402 | 'O' RING | 2 | 4 | | 08572-00407 | CLUTCH SPRING 5-16lb. (OXIDE BLACK) | 1 | - |
| 06 | 08415-00201 | FILTER | 1 | 2 | | 08556-00412 | CLUTCH SPRING 12-35lb. (SILVER) | 1 | - |
| 07 | 08415-00202 | ADAPTOR | 1 | - | 44 | 08556-00408 | CLUTCH SPINDLE | 1 | - |
| 08 | 08433-00221 | NIPPLE | 1 | - | 45 | 08430-00801 | RING GEAR | 1 | - |
| 09 | 08415-00203 | SILENCER RETAINER ASSEMBLY | 1 | - | 46 | 08443-00401 | PLANET GEAR SPINDLE | 1 | - |
| 10 | 08432-00201 | PERFORATED WASHER | 1 | - | 47 | 08443-00402 | SPACER | 1 | - |
| 11 | 08415-00204 | SILENCER ELEMENT | 1 | 2 | 48 | 08434-00203 | DRIVE GEAR | 1 | - |
| 12 | 08415-00205 | SILENCER BODY | 1 | - | 49 | 08434-00206 | PLANET GEAR | 4 | - |
| 13 | 08520-00212 | VALVE BODY | 1 | 1 | 50 | 08434-00201 | SPACER | 1 | - |
| 14 | 08520-00215 | 'O' RING | 1 | 2 | 51 | 08430-00707 | CIRCLIP | 1 | - |
| 15 | 08524-00207 | PIN | 1 | 2 | 52 | 08434-00208 | SHAFT | 1 | - |
| 16 | 08433-00233 | PIN | 1 | 2 | 53 | 08430-00706 | SPACER | 1 | - |
| 17 | 08281-00405 | TRIGGER | 1 | - | 54 | 08430-00601 | BEARING | 1 | - |
| 18 | 08430-00215 | SPACER | 1 | - | 55 | 08430-00602 | LOWER END PLATE | 1 | - |
| 19 | 08522-00205 | 'O' RING | 1 | - | 56 | 08435-00202 | LOCATING PIN | 1 | - |
| 20 | 08434-00201 | SPACER | 1 | - | 57 | 08433-00233 | PIN | 1 | - |
| 21 | 08434-00207 | NEEDLE | 30 | - | 58 | 08435-00214 | CYLINDER | 1 | - |
| 22 | 08434-00203 | DRIVE GEAR | 1 | - | 59 | 08556-00415 | ROTOR | 1 | - |
| 23 | 08434-00205 | SPACER | 1 | - | 60 | 08556-00418 | NEEDLE ROLLER | 1 | 3 |
| 24 | 08556-00414 | PLANET GEAR SPINDLE | 1 | - | 61 | 08430-00608 | ROTOR BLADE | 5 | - |
| 25 | 08430-00705 | BEARING | 4 | - | 62 | 08435-00203 | PIN | 1 | - |
| 26 | 08430-00708 | HOUSING | 1 | - | 63 | 08433-00214 | REAR END PLATE | 1 | - |
| 27 | 08434-00207 | NEEDLE | 30 | - | 64 | 08430-00606 | BEARING | 1 | - |
| 28 | 08434-00208 | SHAFT | 2 | - | 65 | 08556-00416 | PUSH ROD (SHORT) | 1 | 3 |
| 29 | 08430-00229 | ADJUSTMENT NIUT | 1 | - | 66 | 08556-00420 | VALVE ASSEMBLY | 1 | - |
| 30 | 08556-00409 | ADJUSTMENT LOCK WASHER | 1 | - | 67 | 08435-00209 | 'O' RING | 1 | - |
| 31 | 08556-00413 | PUSH ROD (LONG) | 1 | - | 68 | 08435-00204 | 'O' RING | 1 | 2 |
| 32 | 08556-00407 | PIN | 1 | - | 69 | 08415-00217 | 'O' RING | 1 | - |
| 33 | 08556-00405 | RETAINING RING HALF | 2 | - | 70 | 08556-00425 | SPRING | 1 | - |
| 34 | 08556-00404 | DRIVE JAW | 1 | - | 71 | 08556-00422 | END PLATE | 1 | - |
| 35 | 08556-00401 | FRONT JAW | 1 | - | 72 | 08556-00424 | 'O' RING | 1 | - |
| 36 | 08556-00402 | CLUTCH HOUSING | 1 | - | 73 | 08415-00209 | PIN | 2 | - |
| 37 | 08430-00223 | KEY | 1 | - | 74 | 08415-00221 | SCREW | 1 | - |
| 38 | 08430-00221 | 3/32 DIA. BALL | 10 | - | 75 | 08415-00220 | WASHER | 1 | - |
| 39 | 08556-00403 | BUSH | 1 | - | 76 | 08415-00421 | KNOB | 1 | - |

F AULT D I A G N O S I S T A B L E

| SYMPTOM | POSSIBLE CAUSE | REMEDY |
|---------------------------------------|---|---|
| Tool reverses before Insert is Placed | → Worn thrust bearing or thrust washers | → Replace |
| | → Dirty insert threads | → Change batch of inserts |
| | → Worn drive screw | → Replace |
| | → Lack of lubrication on drive screw (Standard Nutserts only) | → Lubricate drive screw properly (see page 6) |
| | → Thrust spring not fitted | → Fit thrust spring |
| | → Clutch torque setting too low | → Adjust to correct setting |
| | → Insufficient pressure/volume of air | → Check air supply/fittings |
| Tool runs slowly | → Insufficient air pressure | → Adjust air pressure at base of handle. 5 - 8 bar maximum. |
| | → Incorrect bore of hose | → Ensure bore of hose is 6.4mm minimum |
| | → Insufficient air volume | → Ensure there is no restriction in the air supply or connections |
| | → Tool not properly lubricated internally | → Lubricate as per instructions |
| Tool fails to start | → Tool not properly lubricated | → Lubricate then depress trigger several times |
| | → Restricted air pressure/volume | → Ensure there is no restriction in the air supply |
| Tool runs permanently in reverse mode | → Push rod too long | → Replace with one of correct length |
| | → Insufficient air supply | → Adjust air pressure/volume |
| Tool runs permanently in forward mode | → Push rods/needle roller missing | → Replace where necessary |
| | → Air leak around screw 73 | → Seal with thread sealant |
| | → Push rod too short | → Replace |
| Inserts not pulling up | → Torque setting too low | → Adjust to correct setting |
| | → Insufficient air pressure/volume | → Adjust air pressure/volume |
| | → Inserts out of grip | → Select correct insert |
| | → Lack of lubrication on insert | → Change batch of inserts |
| | → Lack of lubrication on drive screw (Standard Nutserts only) | → Lubricate drive screw correctly (see page 6) |
| | → Insert thread restricted | → Change Inserts |
| | → Drive screw thread worn | → Replace drive screw |
| → Incorrect insert/drive screw | → Replace with correct insert/drive screw | |
| Standard Nutserts centres falling out | → Dirty Nutserts | → Clean Nutserts |
| | → Clutch torque setting too low | → Adjust to correct setting |
| | → Application thickness below minimum recommended grip | → Change to correct Insert |
| | → Oversize hole in application | → Correct hole size in application |
| Worn drive screws | → Clutch torque setting too high | → Adjust to correct setting |
| | → Drive screw not lubricated | → Lubricate drive screw regularly when using Standard Nutserts |
| | → Inserts not lubricated | → Change batch of inserts |
| | → Tool not held correctly | → Ensure tool is held square to application |
| | → Incorrect insert/drive screw threads | → Replace with correct insert/drive screw |
| | → Restricted insert threads | → Change batch of inserts |

Declaration of Conformity

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

declare under our sole responsibility that the product

type 07556

Serial N°

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

EN292 part 1 and part 2

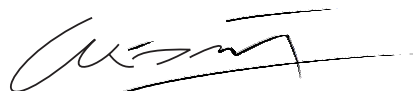
ISO 8662 part 1 and part 7

ISO 3744 and PNEUROP test code PN8TC1

ISO PREN792 part 6

**following the provisions of the Machine Directive 98/37/EC
This box contains a power tool which is in conformity with Machines Directive
98/37/EC. The 'Declaration of Conformity' is contained within.**

Welwyn Garden City - date of issue



A. Seewraj
Product Engineering Manager - Automation Tools



An Acument™ Global Technologies Company

AUSTRALIA

Acument Australia Pty Ltd.

891 Wellington Road
Rowville, Victoria 3178
Tel: +61 3 9765 6400
Fax: +61 3 9765 6445
Email: info@acument.com.au

CANADA

Avdel Canada, a Division of Acument

Canada Limited
87 Disco Road
Rexdale
Ontario M9W 1M3
Tel: +1 416 679 0622
Fax: +1 416 679 0678
Email: infoAvdel-Canada@acument.com

CHINA

Acument China Ltd.

RM 1708, 17/F., Nanyang Plaza,
57 Hung To Rd., Kwun Tong
Hong Kong
Tel: +852 2950 0631
Fax: +852 2950 0028
Email: infochina@acument.com

FRANCE

Avdel France S.A.S.

33 bis, rue des Ardennes
BP4
75921 Paris Cedex 19
Tel: +33 (0) 1 4040 8000
Fax: +33 (0) 1 4208 2450
Email: AvdelFrance@acument.com

GERMANY

Avdel Deutschland GmbH

Klusriede 24
30851 Langenhagen
Tel: +49 (0) 511 7288 0
Fax: +49 (0) 511 7288 133
Email: AvdelDeutschland@acument.com

ITALY

Avdel Italia S.r.l.

Viale Lombardia 51/53
20047 Brugherio (MI)
Tel: +39 039 289911
Fax: +39 039 2873079
Email: vendite@acument.com

JAPAN

Acument Japan Kabushiki Kaisha

Center Minami SKY,
3-1 Chigasaki-Chuo, Tsuzuki-ku,
Yokohama-city, Kanagawa Prefecture
Japan 224-0032
Tel: +81 45 947 1200
Fax: +81 45 947 1205
Email: info@acument.co.jp

SINGAPORE

Acument Asia Pacific (Pte) Ltd.

#05-03/06 Techlink
31 Kaki Bukit Road 3
Singapore, 417818
Tel: +65 6840 7431
Fax: +65 6840 7409
Email: Tlim@acument.com

SOUTH KOREA

Acument Korea Ltd.

212-4, Suyang-Ri,
Silchon-Eup, Kwangju-City,
Kyunggi-Do, Korea, 464-874
Tel: +82 31 798 6340
Fax: +82 31 798 6342
Email: info@acumentkorea.com

SPAIN

Avdel Spain S.A.

C/ Puerto de la Morcuera, 14
Poligono Industrial Prado Overa
Ctra. de Toledo, km 7,8
28919 Leganés (Madrid)
Tel: +34 (0) 91 3416767
Fax: +34 (0) 91 3416740
Email: ventas@acument.com

UNITED KINGDOM

Avdel UK Limited

Pacific House
2 Swiftfields
Watchmead Industrial Estate
Welwyn Garden City
Hertfordshire
AL7 1LY
Tel: +44 (0) 1707 292000
Fax: +44 (0) 1707 292199
Email: enquiries@acument.com

USA

Avdel USA LLC

614 NC Highway 200 South
Stanfield,
North Carolina 28163
Tel: +1 704 888-7100
Fax: +1 704 888-0258
Email: infoAvdel-USA@acument.com

© Avdel UK Limited 2007

| Manual No. | Issue | Change Note No. |
|-------------|-------|-----------------|
| 07900-00666 | B | 07/325 |
| | | |
| | | |
| | | |