# Desoutter D Series

Screwdrivers & Nutrunners; Manual Start & Non-Reversible

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Operating Instructions
Servicing Instructions
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**Supplied Accessories**

- **1** 154223 Clutch Key
- **1** 39433 Suspension Bail
- **1** 222453 Exhaust Hose
- **1** 235203 Clip - Exhaust Hose
- **1** 9 Clutch Spring - next in series to extend torque range

* Indicates normal replacement items. It is recommended that adequate stocks are held for servicing requirements.

# Indicates updated parts.

Always quote tool number, serial number and spare part number when ordering spares.
## Parts List - Motor & Gearbox

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
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* Indicates normal replacement items. It is recommended that adequate stocks are held for servicing requirements.

# Indicates updated parts

Always quote tool model number, serial number and spare part number when ordering spares.

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### Customer Notes
**D8-S/L Operating / Servicing Instructions**

**WARNING**

1) Always disconnect tool from the power supply before attempting any replacement, adjustment, servicing or dismantling.

2) Ensure that no loose articles of clothing or cleaning material can be caught by the rotating parts of the tool.

3) Always allow the tool to stop before removing work or resting tool.

4) Ensure that work piece is securely clamped before commencement of operation — clear all loose items from vicinity.

**INITIAL SETTING**

When received the torque output of the tool will require setting to match the job requirement.

It is recommended that a trial tightening operation is carried out to determine the amount of adjustment required. The ideal instrument for checking the torque is an electronic peak meter (request information from Desoutter); failing this a dial indicating torque wrench is adequate.

**Clutch Adjustment**

Rotate spring clip to uncover access hole in clutch case, insert clutch key, supplied with tool, and rotate to obtain the required torque (see illustration).

**SERVICE REQUIREMENTS**

**General Notes**

Use the following lubricants:

- Oil: ISO Viscosity Classified - ISO VG 15, for motors.
- Grease: Duckhams Type Q5618, for gears and bearings.
- Silicone Grease - Molycote 83, for 'O' rings.

The following tools will be required:

- Clamp Block — Part No. 39373 (1 pair)
- Hexagon Key — Part No. 277343
- Spanner — 32mm
- Spanner — 19mm
- Circlip Pliers.

The following torque values MUST be used:

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<th>Item</th>
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<th>Torque Value</th>
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<tr>
<td>1 to 5</td>
<td>Hand tighten</td>
<td>24.4Nm (18lbf.ft)</td>
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<td>6 to 103</td>
<td>Hand tighten</td>
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<td>104 to 22</td>
<td>Hand tighten, faces abutting</td>
<td>13.5Nm (10lbf.ft)</td>
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Replace as necessary all 'O' rings, gaskets, bearings and rotor blades.

Bearings that have a retainer holding the balls in place must be assembled into the tool with the blank face of the retainer to the air flow; in the case of the motor the blank faces must face each other across the rotor.

The threads in this tool are left hand with the exception of the air inlet adaptor.

It is important that the gear and nose/front bearing housing (103) is slackened first, NEVER attempt to unscrew the control top when the above component is fully tightened.

**TO DISMANTLE**

Mount the motor case (22) between a pair of clamp blocks and clamp firmly in a vice. Unscrew the clutch case (5) and remove the clutch complete (20), release circlip (101) and pull off dog clutch (102).

Using the hexagon key unscrew the gear and nose/front bearing housing (103) then unscrew the control top. Remove the tool from the clamp blocks and push the internal components out of the motor case.

The remainder of the dismantling follows normal engineering practice with reference to the illustration.
TO ASSEMBLE

Assembly Notes.

When locating the motor complete (144) in the control top complete (45) the pin projecting out of rear bearing housing complete (142) must enter the ‘R’ marked hole in the control top.

It is important that spacer (39) is located the correct way round: concave side to the rear of the tool.

Sub Assemblies

Using the illustration as a guide assemble control top, planet cages and if dismantled the clutch.

The following instructions for the motor complete (144) must be followed:

Take the rotor (140) and place the rear bearing plate (138), with grooves to rotor, into position. Press bearing (137) onto the rotor so that there is a 0.038mm (0.0015in.) gap between the rotor and the rear bearing plate. Holding the rotor and rear bearing plate assembly with the gear end of the rotor uppermost, slide the cylinder (139) over the rotor.

Locate the rotor blades (141) into their slots in the rotor (140). Place this sub-assembly, gear end of rotor spligot uppermost, onto a fixture which locates only on the rotor rear spligot. Align the location slot in both bearing plates with the pin holes in the cylinder and push on the bearing (137). Press home until the bearing bottoms on the front bearing plate BUT do not preload the bearing. Locate the rear bearing housing (142) with its spring pin onto the motor then, press on the front bearing housing (135) making sure that the spring pins are correctly located. Check for free rotation of the rotor.

Final Assembly

Stand control top on air inlet adaptor, place gasket (145) in position so that the required pin location hole is clear. Remove the rear bearing housing (142) from the motor complete (144) and locate in the control top, load the rest of the motor into position then slide the motor case (22) over the motor and screw fully into the control top. Slide the planet cage assemblies into the motor case checking that as each assembly is located the unit is free to rotate.

Mount the motor case (22) between a pair of clamp blocks and clamp firmly in a vice then using the hexagon key fully tighten the gear and nose/front bearing housing (103). Replace dog clutch (102) and retain with circlip (101), locate the clutch (20) making sure that seating pin (18) and spring (19) are in place. Screw the clutch case into position, release the tool from the clamps, connect to the air supply and test for correct operation.