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<th>Qty</th>
<th>Item No.</th>
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<td>49483</td>
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<td>52</td>
<td>113173</td>
<td>1</td>
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</tbody>
</table>

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

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

* Bedeutet normale Verschleißteile. Es empfiehlt sich eine angemessene Menge für Wartungszwecke auf Lager zu halten.

Bei der Bestellung von Ersatzteilen, bitte immer angeben:
- Typennummer der Bohrmaschine
- Werknummer
- Ersatzteilliste

* Le signe astérisque (*) indique des articles de rechange normaux. Il est recommandé d'en conserver des stocks suffisants pour assurer toutes les opérations d'entretien courant.

Lors de la commande de pièces de rechange, veuillez citer le numéro de modèle de l'outil, son numéro de série et le numéro de référence de chaque pièce de rechange.

* Indica elementos de reposición regular. Se recomienda tener una cantidad adequada de los mismos en reserva a efectos de mantenimiento.

Al encargar piezas de recambio, siempre debe indicarse el número de modelo de la herramienta, su número de serie y el número de la pieza de recambio.

* Indica itens que são substituídos regularmente. É recomendado que estequios adequados sejam mantidos para requisitos de manutenção.

Cite sempre o número do modelo da ferramenta, número de série, e número da peça acessório quando pedindo acessórios.

* L'asterisco denota ricambi normali. Si consiglia di mantenere scorte adeguate alle esigenze della manutenzione.

Nell'ordinazione di ricambi citare il numero di modello dell'utensile, il numero di matricola e quello di catalogo del pezzo.

* Σημαίνει συνηθισμένα είδη (τεμάχια) για αντικατάσταση. Σας συνιστούμε να τηρείτε αρκετό απόθεμα από είδη που χρειάζονται αντικατάσταση.

Όταν παραγγέλλετε αναλογικά πάντα να γράψετε τον αριθμό μονάδας του εργαλείου, τον αριθμό σειράς και τον αριθμό αναλογικού.

* Betekent onderdelen die aan alleide onderhoud zijn. Het verdient aanbeveling voldoende hiervan op voorraad te houden.

Bij bestelling van onderdelen altijd type, machinenummer en onderdeelnummer opgeven.

* Indikerer normalde udkiftningsnummer. Det anbefales at have rigelige foresynings af dele til brug i forbindelse med eftersyn.

Opgiv altid det korrekte værkøjsmodeinummer, serienummer og reservevalkn litter ved bestilling af reservedele.

* Angir normale reservedeler. Det anbefales at tilstrekkelig antall reservedeler holdes på lager.

Ved bestilling af døler må man altid opgi verktøys modellnr., serienr. og reservevalknens nr.

* Utmärker normala reservdelar. Vi rekommenderar att tillräckligt antal lagras för serviceändamål.

Uppge alltid verktygets modellnummer, serienummer samt reservdelens nummer vid beställning av reservdelar.

* Viittaa tavallisien varaosien. Suosittelemme, että riittävä määrä pidetään varastossa huoltopaikalta varten.

Työkalun mallinumero, sarjanumero ja varasosan numero on aina mainittava tilataessa.
OPERATORS INSTRUCTIONS

Air Supply - Main

A water free and filtered air supply is required, at a pressure of 6.3 bar, with a flow of 28 litre (1 cu.ft) per 100 full strokes controlled by a pressure regulator selected from the Desoutter Air Line Service Equipment Catalogue.

Air Supply - Remote

The basic requirements are as above but the pressure must be at least 2.7 bar and the flow requirement when signalling is 0.47 l/s (1 cu.ft/min). The signal duration should be kept to the minimum to reduce air consumption.

Electricity Supply

The motor must be connected to a three phase supply in accordance with the VOLTAGE CHART and provided with a starter fitted with an overload protection.

Voltage Chart - 3 Phase

<table>
<thead>
<tr>
<th>Recommended Voltage</th>
<th>Frequency</th>
<th>Motor</th>
<th>Overload Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>380 V (440/480)</td>
<td>50 Hz</td>
<td>Delta</td>
<td>1.4 to 1.6 Amps</td>
</tr>
<tr>
<td>380 V (440/480)</td>
<td>60 Hz</td>
<td>Delta</td>
<td>1.4 to 1.6 Amps</td>
</tr>
<tr>
<td>380 V (440/480)</td>
<td>60 Hz</td>
<td>Star</td>
<td>0.8 to 1.0 Amps</td>
</tr>
</tbody>
</table>

Connecting to the Electrical Supply

WARNING: (1) ENSURE THE SUPPLY IS OFF BEFORE MAKING CONNECTIONS.

(2) STAR AND DELTA CONNECTIONS ARE TO BE STRICTLY IN ACCORDANCE WITH THE SUPPLY VOLTAGE GIVEN IN THE CHART. ANY DevIATION FROM THE CHART WILL RESULT IN DAMAGE TO THE MOTOR.

For Y (star) connection, couple terminal W2 to U2 and U2 to V2.

For \( \Delta \) (delta) connection, couple terminal W2 to U1, U2 to V1 and V2 to W1.

In both methods the motor will be direct on line connected.

NOTE: The terminals are fitted with 4mm pozidrive screws and the connecting links are connected between the screws. The earth connection is a 4mm pozidrive screw for which a suitable screwdriver will be required.

IMPORTANT: Do not remove or loosen the bottom nut on the terminals.

For all voltages: The supply cable (min. cable rating: armoured flexible 1.0mm conductors) is connected to the motor terminals U1, V1 and W1, and earth, which are in the terminal box (see Figure 1). A suitable cable clamp should be fitted; the terminal box is provided with four (16mm diameter) "KNOCK-OUTS".

The Electric Motor

The motor is a totally enclosed, fan-cooled three-phase squirrel cage, class B minimum insulation with working ambient temperature of 40°C. Looking at the fan end of the motor the rotation should be clockwise, if the rotation is opposite, interchange connections U1 and V1 to correct the rotation.

Data

Maximum air pressure \( P_{\text{max}} \) = 6.3 bar
Minimum air pressure \( P_{\text{min}} \) = 2.7 bar
Sound pressure level = <70 dBA
(CAGI-PNEUROP Test Code)
Weight = 8.2 kg

Statement of use

The tool is designed for drilling holes, but may be adapted for other specified purposes, using Desoutter approved accessories.

Accessories

Mounting Clamps: A range of clamps, bases and columns are available. Full details obtained from Desoutter.

Multi Spindle Drilling: A series of 2, 3, 4 and 5 spindle drilling heads are available. Full details available from Desoutter.

SERVICING REQUIREMENTS

WARNING: (1) ALWAYS DISCONNECT THE TOOL FROM THE POWER SUPPLY BEFORE HANDLING THE DRILL BIT, ETC. OR ADJUSTING, SERVICING OR DISMANTLING.

(2) ENSURE THAT NO LOOSE ARTICLES OF CLOTHING OR CLEANING MATERIAL CAN BE CAUGHT BY THE MOVING PARTS OF THE TOOL.

(3) ALWAYS ALLOW THE TOOL TO STOP BEFORE REMOVING THE WORK.

(4) ENSURE THAT THE WORK PIECE IS SECURELY CLAMPED BEFORE COMMENCEMENT OF OPERATION.

(5) CLEAR ALL LOOSE ITEMS FROM VICINITY.

(6) EXTERNAL CIRCUITRY WILL BE REQUIRED TO CONTROL THE SPEED OF THE ADVANCE AND RETRACT FEEDS.

(7) ENSURE THAT SAFETY GUARDS ARE FITTED.

(8) BEWARE OF TOOL OUTPUT. THIS ADVANCES AND ROTATES.

(9) EYE AND EAR PROTECTION MUST BE WORN WHEN OPERATING THE TOOL.

(10) DO NOT OPERATE THE TOOL IN EXPLOSIVE ATMOSPHERES.

(11) WHEN MACHINING HAZARDOUS MATERIALS, PROVISION MUST BE MADE FOR DUST COLLECTION OR SUPPRESSION.

(12) ENSURE THAT AN EMERGENCY STOP IS PROVIDED FOR THE TOOL, WHETHER USED ALONE OR BUILT INTO A MACHINE.

(13) CLAMP THE TOOL SECURELY.

Part No. 363303 Issue 2 9.94
General Notes

Use the following lubricants:

- Grease - BP FGOO EP, for bearings.
- Grease - Duckhams Type Q5618, for gears, splines and threads.
- Grease - Molykote PG75 Plastisol, for 'O' rings and seals.

Replace as necessary all 'O' rings, circlips, bearings, spring pins, shims, oil seals and felt silencer.

NOTE: Right Hand (RH) thread: Fasten turning the item clockwise.
Left Hand (LH) thread: Fasten turning the item anti-clockwise.

The following torque values MUST be used:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Torque (Nm)</th>
<th>Thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 to 24</td>
<td>Bearing Sleeve to Outer Case</td>
<td>14 - 16</td>
<td>LH</td>
</tr>
<tr>
<td>24 to 36</td>
<td>Outer Case to Control Housing</td>
<td>40 - 47</td>
<td>LH</td>
</tr>
<tr>
<td>20 to 29</td>
<td>Quill to Piston</td>
<td>38 - 42</td>
<td>RH</td>
</tr>
<tr>
<td>3 to 20</td>
<td>Bearing Nut to Quill</td>
<td>27 - 30</td>
<td>RH</td>
</tr>
</tbody>
</table>

OPERATING REQUIREMENTS

Forward and reverse action is obtained by using pneumatic circuits, two suggested circuits have been given. In addition an Emergency stop must be provided, see Figure (page 3) for suggested circuit.

All controls must be located away from moving parts and control system.

Forward feed port (1) is located in the control housing (36) 1/4" BSP. (see Figure 4). Air feed return port (0) is located in the bearing sleeve 1/4" BSP. (see Figure 5).

RETURN FEED PORT (0) IS OBSOLETE ON ALL 'SR' VERSION UNITS.

Mounting the Tool

The tool must be clamped only in the area indicated on the outer case.

Set the gap between the stroke control valve and the fine adjusting screw (49) to equal the depth of drilling required PLUS the distance the bit is above the work piece, by sliding the crosshead. Lock in position with crosshead clamp screw.

Dušt Extraction Kits

<table>
<thead>
<tr>
<th>Extension Tube</th>
<th>Nominal Stroke Length</th>
<th>Locking Screw Length</th>
<th>Kit Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>250953</td>
<td>20 mm</td>
<td>90 mm</td>
<td>52152</td>
</tr>
<tr>
<td>250943</td>
<td>40 mm</td>
<td>130 mm</td>
<td>52162</td>
</tr>
</tbody>
</table>

The extraction kit must be used in conjunction with an extension tube. The sleeve outlet fits over the tube chuck key insertion slot, and is locked by two screws. Dust Extraction Kits must be used with an external vacuum collection system.

Maintenance

It is recommended that the tool is serviced at 1000hrs running time.
Clean all components and inspect for wear or damage, exchange if necessary. Apply new lubricant to the relevant parts in accordance with list. Assemble the tool using the exploded view.

Torque values given are ± 5%.

NOTE: Protective gloves and eye protection should be worn during cleaning of parts. Eating or smoking is prohibited when cleaning, dismantling or assembling tool.

Worn components should be carefully handled and disposed of safely.

Cleaning

Required: 1. Container to immerse components.
2. Good quality clean paraffin.

Soak the components in the tank ensuring full immersion, agitate the components to ensure that any air passages are flushed through. After soaking, remove from the tank and thoroughly dry. Blow through any air passages to remove all moisture. Keep all cleaned components in an airtight container until required.

TO DISMANTLE

Mount the tool horizontally between a pair of clamp blocks around the outer case (24) and clamp securely in the vice.

WARNING: THE BEARING SLEEVE (7) IS UNDER SPRING (21) COMPRESSION ON THE 'GR' VERSIONS.

Remove 4 screws (56) which connect the Motor Mounting Unit (54) to the Control Housing (56) and ease the motor off.

Remove drive shaft and sleeve complete and key (22) complete, dismantle the rest of the tool following normal engineering practices using the illustration as a guide and the recommended tools.

TO ASSEMBLE

It is recommended that all 'O' rings are renewed and greased on assembly.

Using the illustration as a guide, build up the sub-assemblies of the bearing sleeve complete and the drive shaft and sleeve complete.

Complete the assembling by reversing the dismantling using the illustration as a guide, and recommended torque figures and tools.

TESTING AFTER ASSEMBLY

Disconnect the motor then, check for free smooth rotation by rotating the chuck by hand.

Insert the mandrel into the chuck and using the DTI bearing on the mandrel 12.7mm (0.5in) from chuck, check that 'run-out' does not exceed 0.35mm. If it is out of tolerance, tap side of chuck at high side to resettle it then re-check.

Reduce air pressure to 2.06 bar (30lb/in²). Using circuit send signal to advance tool. Repeat test several times observing that feed and retract action is smooth and free from jerks. Movement should be smooth and without hesitation in each direction; when satisfied, stop tool.

Disconnect the airline and remove tool from vice and clamps. It is now ready for use.

Electric Motor

Electric motor testing and checking must be carried out, as necessary, by adequately trained personnel (ref. Article 12 of 89/391/EEC).

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