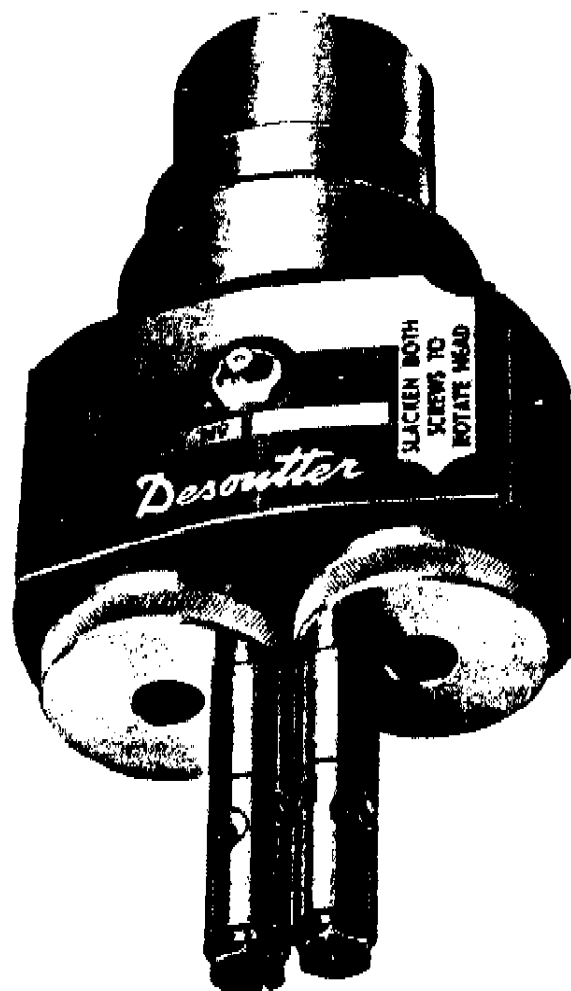


Desoutter

AFD Twin Spindle Drilling Head



204163

Spare Parts List & Servicing Instructions

ATD Twin Spindle Drilling Head Servicing Instructions

To Dismantle:

NOTE: All threads are R.H. unless otherwise stated. Using a 38 mm (1½ in.) A/F spanner, unscrew L.H. thread, twin head from tool. Dog nut (2), collar (3) and screw (4) can be left on tool providing that the twin head is to be refitted to it after servicing. Take head to a clean workbench.

Separate head from adaptor. Using hexagon key 204903, unscrew each turret screw (111) half a turn at a time in sequence until the head (101) is released from adaptor (1).

Adaptor:

Lay adaptor on bench, driving gear (14) upwards. Push down lock ring (9) and remove spring ring (10) from adaptor body and spring ring (11) from centre of lock ring. Lift out lock ring. Position adaptor body (5), driving gear and bearing (13) downward on a soft jawed vice opened wide enough to clear the bearing. Using a tubular drift against inner race, drive out the race which will take with it driving spindle (6), bearing (13), driving gear (14), lock pin (15) and circlip (12). Remove circlip (12) and drive bearing (13) from driving gear (14) spindle exposing lock pin (15). Push out lock pin and withdraw driving gear and bearing. Do not separate driving spindle (6) from inner race (7). Bearing (8) can be readily pressed out of adaptor body if required.

Head Assembly:

Hold a screw (111) with hexagon key 204903 to prevent it turning and remove 'E' clip (102). Utilise either an old screw (111) or a piece of rod 6 mm diameter by 63 mm long and withdraw the turret screw (111) following it up with the old bolt or rod, to retain nylon washer (106), inter gear (108) with two needle bearings (107), separated by a spacing collar (109), in its bore and a second nylon washer (106) in position whilst turret assembly (112) is being removed. To remove turret assembly, maintain a light downward pressure whilst rotating the turret until the turret link bearing overhang aligns with a cut-out in the body aperture when the turret will come clear of the body. Repeat the procedure to remove the other turret assembly (112). The removal of the remainder of the components is self evident in conjunction with the exploded illustration.

To Assemble:

Required: Grease—Shell Alvania R2 or equivalent.
Oil—SAE 20/50 Multigrade.

Assemble Adaptor:

Press needle bearing (8) into adaptor body bore flush

with flanged end, then pack bearing with grease. Check that inner race (7) is fitted to driving spindle (6), if not fit it. Refer to inset drawing; check and set as necessary, the depth dimension between driving spindle (6) and inner race (7) as shown. Drop bearing (13) over spindle shaft followed by driving gear (14), shaft first. Align driving gear and spindle lock pin holes and insert lock pin (15) to secure. Engage bearing (13) with driving gear shaft and press bearing home, fit circlip (12) to secure.

Pack bearing (8) with grease and fit drive spindle assembly to it. Position adaptor body assembly on a bench, driving gear (14) upward and assemble lock ring (9) with centre spring ring recess upward. Fit spring ring (11) to the recess and spring ring (10) to adaptor body groove.

Assemble Head:

Ensure that either the old screw (111) or rod is in position at each turret, holding nylon washer (106), inter gear (108) with two needle bearings (107) sandwiching a spacing collar (109) in the gear bore and a second nylon washer (106) under the gear. Should they have been removed, fit them, in that order, packing each item with grease when assembling.

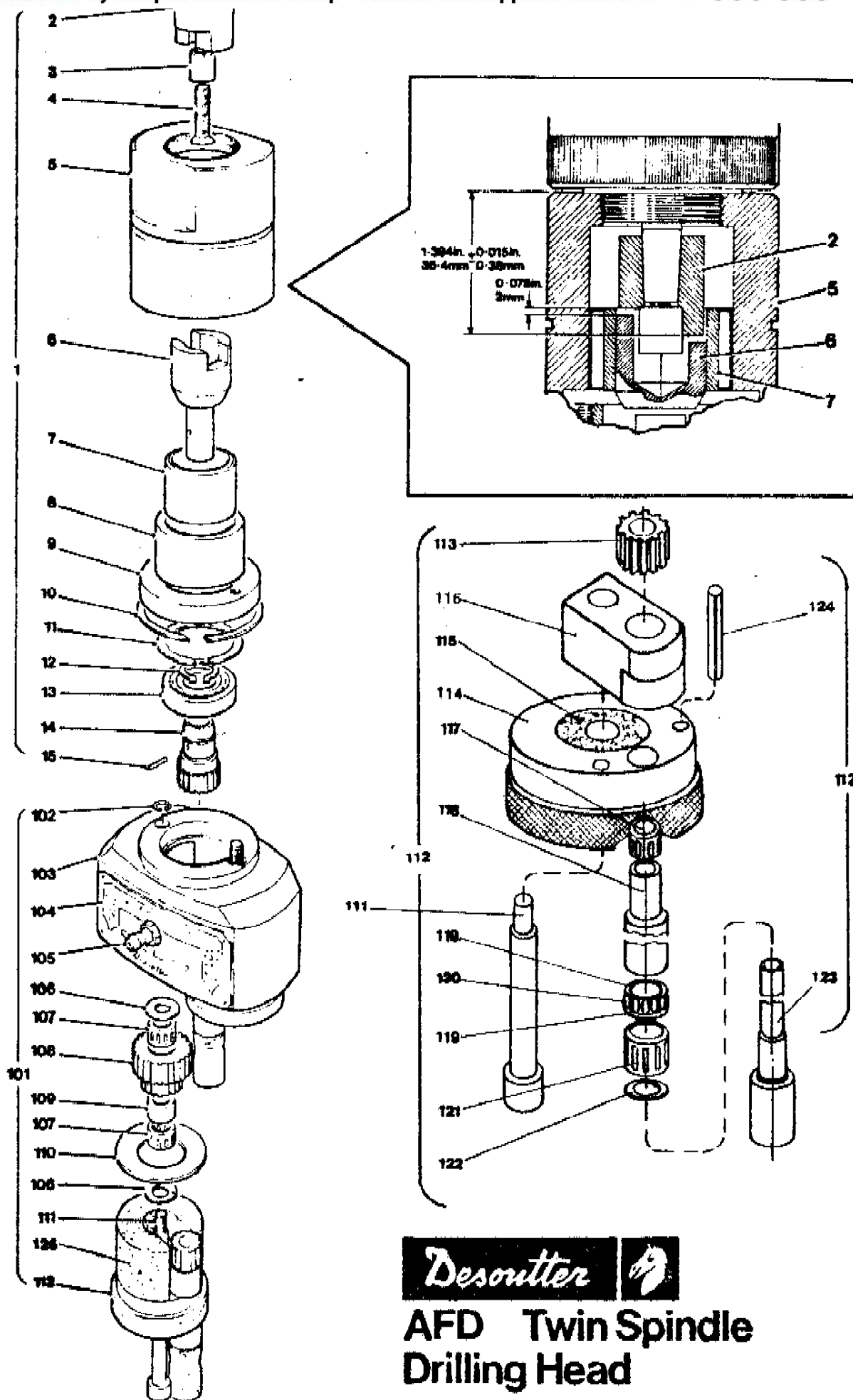
Coat the exposed gear of a turret assembly (112) with grease. Check that oil reservoir is firmly in position on turret assembly and place a nylon washer (110) on top. Align turret link bearing overhang with the cut-out in body (103) and enter the turret assembly into body hard up against inter gear assembly. Fit screw (111) to turret which will push the old bolt or rod out as it enters. Push turret screw head hard against its seating and fit an 'E' clip to the waisted portion of screw at threaded end, to secure the assembly.

Repeat the foregoing procedure, fitting similar parts and fit the second turret assembly (112).

Align lock ring (9) threaded holes with head turret screws (111) and engage screws with threads by hand as tight as possible. Using hexagon key 204903, tighten each turret screw approximately one turn in sequence so that head seats squarely on adaptor.

After final assembly of head to adaptor, pump oil through nipple until it leaks through from the turrets indicating that the oil reservoirs are saturated. Repeat at approximately every 500 hours running time.

When assembling head to its tool, refer to inset drawing and check that dimension from top of dog nut to end of adaptor body (5) is as shown.



Desoutter 

**AFD Twin Spindle
Drilling Head**

Parts List

| Item No. | Part No. | Description | Qty. | Item No. | Part No. | Description | Qty. |
|----------|----------|--------------------------|------|---|-----------------------------|-----------------------|------|
| 1 | 204653 | Adaptor Assembly | 1 | 106 | 174983 | Nylon Washer | 4 |
| 2 | 174813 | Dog Nut | 1 | *107 | 204893 | Needle Bearing | 4 |
| 3 | 174823 | Collar | 1 | 108 | 204533 | Internal Gear | 2 |
| 4 | 175093 | Countersunk Socket Screw | 1 | 109 | 204523 | Spacing Collar | 2 |
| 5 | 204653 | Adaptor Body | 1 | 110 | 175103 | Nylon Washer | 2 |
| 6 | 204643 | Driving Spindle | 1 | 111 | 204473 | Turret Adjuster Screw | 2 |
| 7 | 175073 | Inner Race | 1 | 112 | 204563 | Turret Assembly | 2 |
| * 8 | 175083 | Needle Bearing | 1 | Servicing Tools Required (Supplied with Head) | | | |
| 9 | 204553 | Lock Ring | 1 | 204923 | Spanner | | 1 |
| * 10 | 175013 | Spring Ring | 1 | 204933 | Spanner | | 1 |
| * 11 | 204983 | Spring Ring | 1 | 204903 | Hexagon Key - 4 mm - Turret | | 1 |
| * 12 | 204773 | Circlip | 1 | | Screw | | 1 |
| * 13 | 205003 | Bearing | 1 | 205033 | Hexagon Key - 2.5 mm - | | 1 |
| 14 | 204633 | Driving Gear | 1 | | Turret Locking Insert | | 1 |
| 15 | 204993 | Driving Gear Lock Pin | 1 | <i>*Indicates normal replacement items. It is recommended that adequate stocks are held for servicing requirements.</i> | | | |
| 101 | 204443 | Head Assembly | 1 | Always quote twin head part number and spare part number when ordering spares. | | | |
| *102 | 205073 | E Chip | 2 | | | | |
| 103 | 204543 | Body | 1 | | | | |
| 104 | 206043 | Nameplate | 2 | | | | |
| 105 | 205053 | Lubrication Nipple | 1 | | | | |
| 113 | 204513 | Spindle Gear | 2 | | | | |
| 114 | 204483 | Turret | 2 | | | | |
| 115 | 175123 | Foam Strip | 2 | | | | |
| 116 | 204503 | Link Bearing | 2 | | | | |
| 117 | 204893 | Needle Bearing | 2 | | | | |
| 118 | 204493 | Sleeve | 2 | | | | |
| 119 | 204583 | Thrust Race | 4 | | | | |
| 120 | 204463 | Roller | 12 | | | | |
| 121 | 176653 | Needle Bearing | 2 | | | | |
| 122 | 176833 | O Ring | 2 | | | | |
| 123 | 204453 | Spindle | 2 | | | | |
| 124 | 176853 | Spring Pin | 4 | | | | |
| 125 | 176583 | Oil Reservoir | 2 | | | | |

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