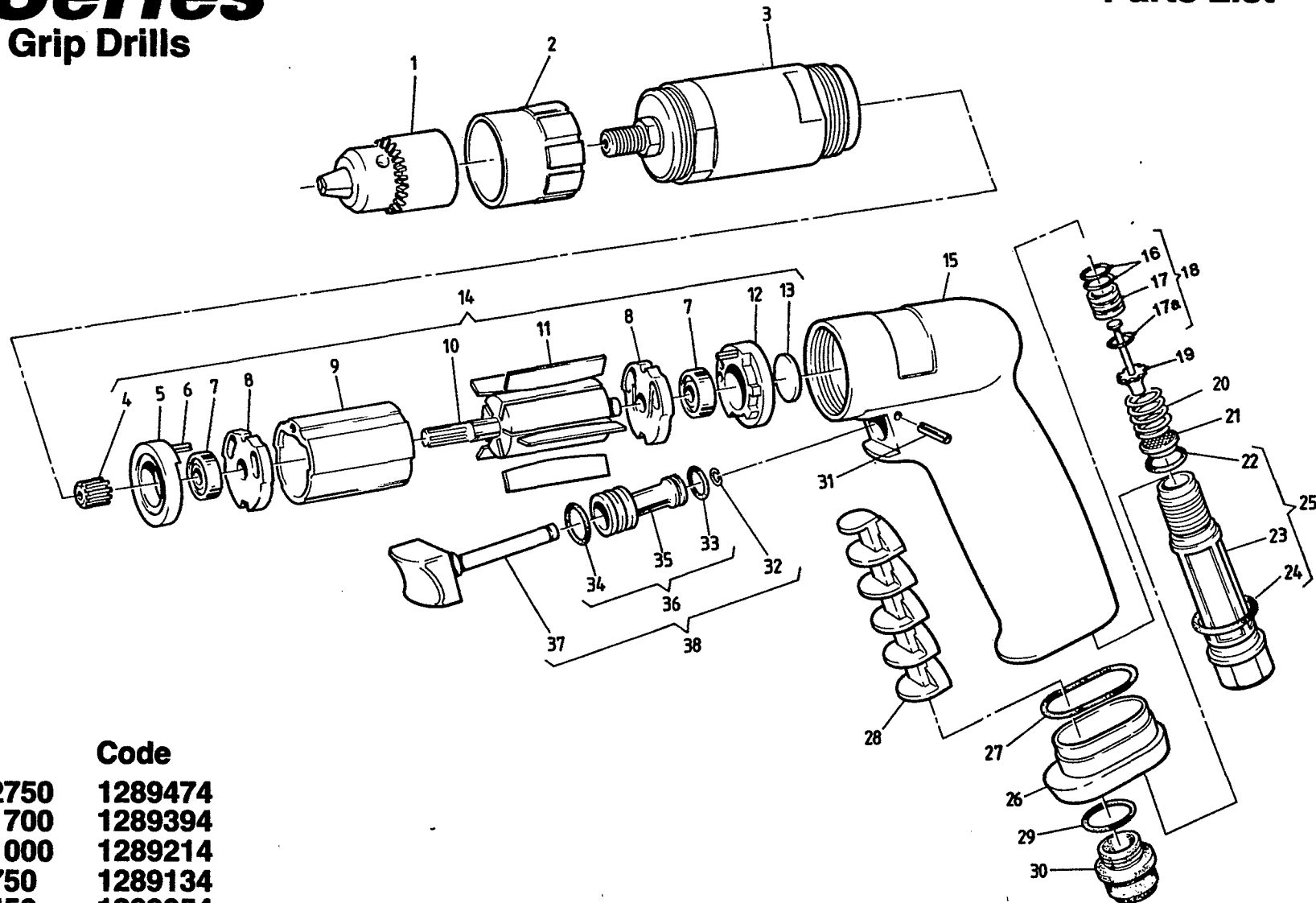


Desoutter

D Series

Pistol Grip Drills

Operating Instructions
 Servicing Instructions
 Parts List



Types	Code
D23-P-2750	1289474
D23-P-1700	1289394
D23-P-1000	1289214
D23-P-750	1289134
D23-P-450	1289054

REQUIREMENTS**Air Supply**

A water free and filtered air supply is required, at a pressure of 6 bar (87 lbf.in²), with a flow of 9.4 l/s (20 cu.ft/min); controlled by a pressure regulator selected from the Desoutter Air Line Service Equipment Catalogue.

Lubrication

Correct lubrication is vital for the maximum performance of the tool and an airline lubricator should be fitted into the system down stream of the filter.

Desoutter recommend the use of an ISO Viscosity Classified Oil, grade number ISO VG 15, in the lubricator.

OPERATING

The trigger action in these tools is progressive, this allows a low speed with a small control movement, ideal when starting a drilling operation.

Warning:

- 1) Always allow the tool to stop before removing work or resting tool.
- 2) Ensure that no loose articles of clothing or cleaning material can be caught by the rotating parts of the tool.
- 3) Always disconnect tool from the power supply before attempting any replacement, adjustment, servicing or dismantling.
- 4) Ensure that work piece is securely clamped before commencement of operation — clear all loose items from vicinity.

SERVICE REQUIREMENTS**General Notes**

Use the following lubricants:

Oil — ISO Viscosity Classified — ISO VG15, for motors.

Grease — BP FG00-EP, for motor bearings.

Grease — Duckhams Type Q5618, for gears and other bearings.

Silicone Grease — Molykote 33, for 'O' rings.

The following torque values **MUST** be used:

Items 2 & 30: Hand tighten

Item 25: 13.5 Nm (10 lbf.ft)

Items 101, 111, 112, 123 & 124: 34 Nm (25 lbf.ft)

Items 102, 113 & 125: 3.4 Nm (2.5 lbf.ft)

Apart for rear bearing housing removal tool, part no. 278883, only tools found in a normal workshop will be required to carry out a service.

Replace as necessary all 'O' rings, 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 thread on chuck guard (2) is left hand. All other threads in the tool are right hand.

To remove the chuck: Hold spindle nut with a spanner then using the chuck key as a lever unscrew the chuck.

TO DISMANTLE

By hand unscrew the chuck guard (2) then remove the chuck (1). Clamp the pistol grip body (15) in a soft jawed vice and unscrew the internal gear and nose, remove complete with the gearbox. The motor complete (14) can now be withdrawn from the pistol grip body.

NOTE: If the rear bearing housing (12) remains in the pistol grip use tool part no. 278883 to remove it.

Remove the pistol grip body from the vice, unscrew air inlet bolt (25) remove the exhaust cap (26) the internal components can now be withdrawn out of the base of the pistol grip.

To release valve assembly (38) drive out spring pin (31) and pull the valve stem/button (37).

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

TO ASSEMBLE**Sub-Assemblies**

Using the illustrations as a guide assemble the pistol grip and the planet cages.

The following instructions for the motor complete (14) must be followed.

Take the rotor (10) and place the rear bearing plate (8), with grooves to rotor, into position. Press bearing (7) 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 (9) over the rotor.

Locate the rotor blades (11) and lubricate, place the front bearing plate (8) in position, with grooves to rotor. Place this sub-assembly, gear end of rotor uppermost, onto a fixture which locates only on the rotor rear spigot. Align the location slots in both bearing plates with the pin holes in the cylinder and push on bearing (7). Press home until the bearing bottoms on the front bearing plate BUT do not preload the bearing. Locate the rear bearing housing, with its spring pin, onto the motor then press on the front bearing housing making sure that the spring pins are correctly located. Check for free rotation of the rotor.

Final Assembly

Enter the motor complete (14) into the pistol grip body (15), taking care that the rear bearing housing (12) remains in position as the motor is located.

Engage the gearbox (3) with the rotor (10) and screw into position, before final tightening check that the drive is free to rotate.

Replace the chuck (1) then fit the chuck guard hand tight. The tool can now be connected to the air supply and tested for correct operation.

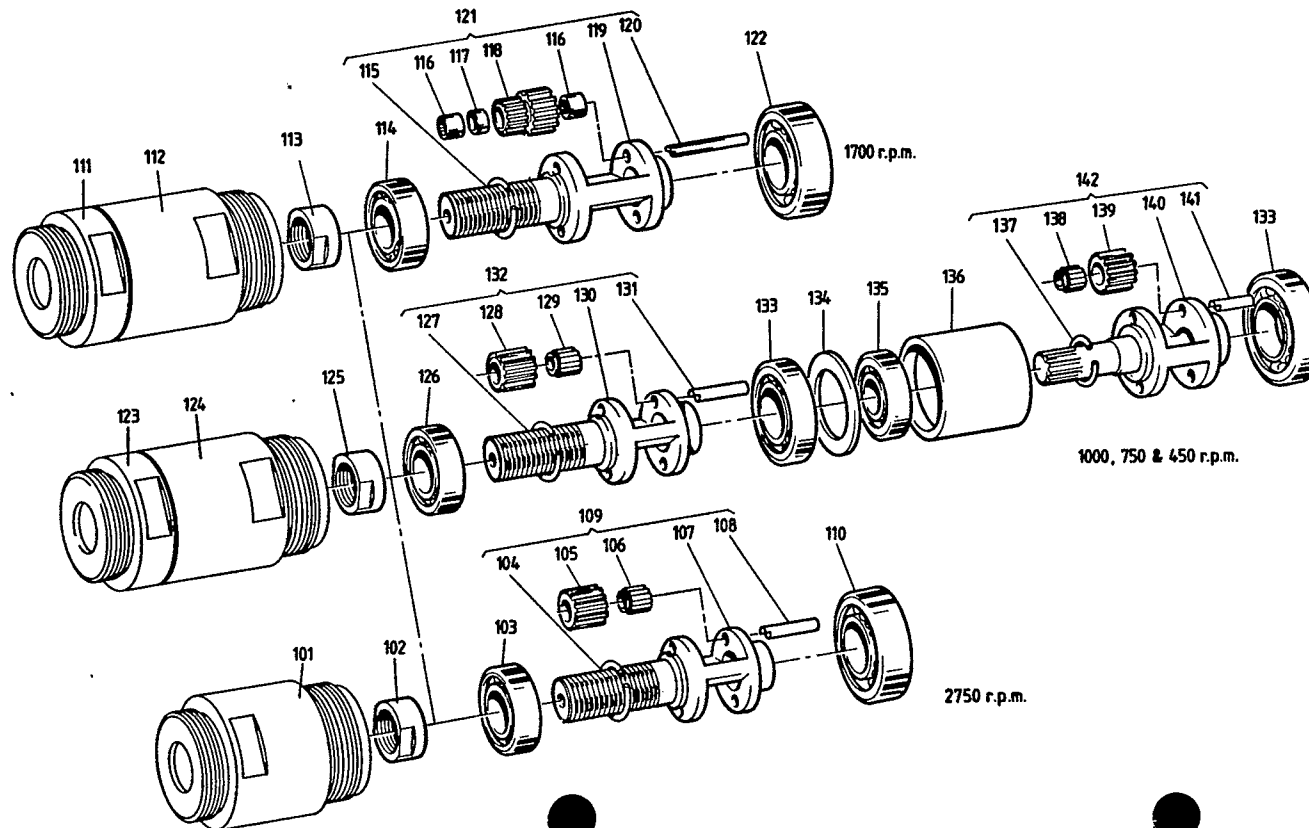
Service Record

Gearboxes Parts List

Item No.	Part No.	Description	Qty.	Item No.	Part No.	Description	Qty.	Item No.	Part No.	Description	Qty.
101	274023	Internal Gear & Nose—2750 rpm	1	121	63313	Planet Cage Complete—1700 rpm	1	*135	2423	Bearing	1
102	3113	Spindle Nut	1	*122	2413	Bearing	1	136	36713	Gear Ring—1000 & 750 rpm	1
*103	178543	Bearing	1	123	273993	Internal Gear & Nose—1000, 750 & 450 rpm	1	—	153603	Gear Ring—450 rpm	1
*104	25563	Circlip	1	124	274043	Clamp Sleeve	1	*137	25573	Circlip—1000 & 750 rpm	1
105	150813	Planet Wheel	2	125	3113	Spindle Nut	1	—	25563	Circlip—450 rpm	1
*106	502093	Needle Bearing	2	126	178543	Bearing	1	*138	502093	Needle Bearing	2
107	2793	Planet Cage	1	*127	25573	Circlip—1000 rpm	1	139	65383	Planet Wheel—1000 & 750 rpm	2
*108	1453	Planet Pin	2	—	37423	Circlip—750 & 450 rpm	1	—	150813	Planet Wheel—450 rpm	2
109	153613	Planet Cage Complete—2750 rpm	1	128	65383	Planet Wheel—1000 rpm	2	140	83123	Planet Cage—1000 rpm	1
*110	2413	Bearing	1	—	36703	Planet Wheel—750 & 450 rpm	2	—	81473	Planet Cage—750 rpm	1
111	289603	Internal Gear & Nose—1700 rpm	1	*129	502093	Needle Bearing	2	—	81443	Planet Cage—450 rpm	1
112	289613	Clamp Sleeve	1	130	2813	Planet Cage—1000 rpm	1	*141	1453	Planet Pin	2
113	3113	Spindle Nut	1	—	60663	Planet Cage—750 & 450 rpm	1	142	78053	Planet Cage Complete—1000 rpm	1
*114	178543	Bearing	1	*131	1453	Planet Pin	2	—	81483	Planet Cage Complete—750 rpm	1
*115	63323	Circlip	1	132	65393	Planet Cage Complete—1000 rpm	1	—	153593	Planet Cage Complete—450 rpm	1
*116	502093	Needle Bearing	4	—	60733	Planet Cage Complete—750 & 450 rpm	1				
117	238343	Spacer	2	*133	2413	Bearing	2				
118	238713	Planet Wheel	2	134	37623	Washer	1				
119	63333	Planet Cage	1								
*120	41693	Planet Pin	2								

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

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



Desoutter Limited,
319 Edgware Road, Colindale, London NW9 6ND.
Telephone: 01-205 7050 Telex: 21392

Item No.	Part No.	Description	Qty.
1	29032	Chuck	1
2	252993	Chuck Guard	1
3	See later section		
		Gearbox	1
4	65373	Pinion—1000 & 750 rpm	1
5	254893	Front Bearing Housing	1
*6	256123	Spring Pin	2
*7	33433	Bearing	2
8	254873	Bearing Plate	2
9	254853	Cylinder	1
10	257063	Rotor—2750 & 450 rpm	1
—	36663	Rotor—1700 rpm	1
—	98223	Rotor—1000 & 750 rpm	1
*11	36613	Rotor Blade	5
12	254913	Rear Bearing Housing with Pin 6	1
13	254903	End Cap	1
14	252763	Motor Complete—2750 & 450 rpm	1
—	252743	Motor Complete—1700 rpm	1
—	252783	Motor Complete—1000 & 750 rpm	1
15	257073	Pistol Grip	1
*16	202373	'O' Ring	2
17	292403	Valve Seat	1
17a	302373	'O' Ring	1
18	501203	Valve Seat Assembly	1
19	501093	Valve Assembly	1
20	501103	Spring	1
21	500933	Air Strainer	1
*22	500973	'O' Ring	1
23	500353	Air Inlet Bolt— $\frac{1}{4}$ in. BSP	As reqd
—	500343	Air Inlet Bolt— $\frac{1}{4}$ in. NPT	As reqd
*24	99853	'O' Ring	1
25	501193	Air Inlet Bolt Assembly— $\frac{1}{4}$ in. BSP	As reqd
—	501213	Air Inlet Bolt Assembly— $\frac{1}{4}$ in. NPT	As reqd
26	501383	Exhaust Cap	1
*27	52663	'O' Ring	1
28	501683	Exhaust Helix	1
*29	40533	'O' Ring	1
30	256433	Silencer—Sintered	1
*31	500913	Spring Pin	1
*32	500783	Circlip	1
*33	500953	'O' Ring	1
*34	500963	'O' Ring	1
35	500363	Valve Body	1
36	501173	Valve Body Assembly	1
37	501873	Valve Stem/Button Assembly	1
38	501963	Valve Assembly	1
39	257243	Pistol Grip Complete $\frac{1}{4}$ in. BSP	As reqd
—	257253	Pistol Grip Complete $\frac{1}{4}$ in. NPT	As reqd
—		Supplied Accessories	
—	29222	Clutch Key	1

Customer Notes

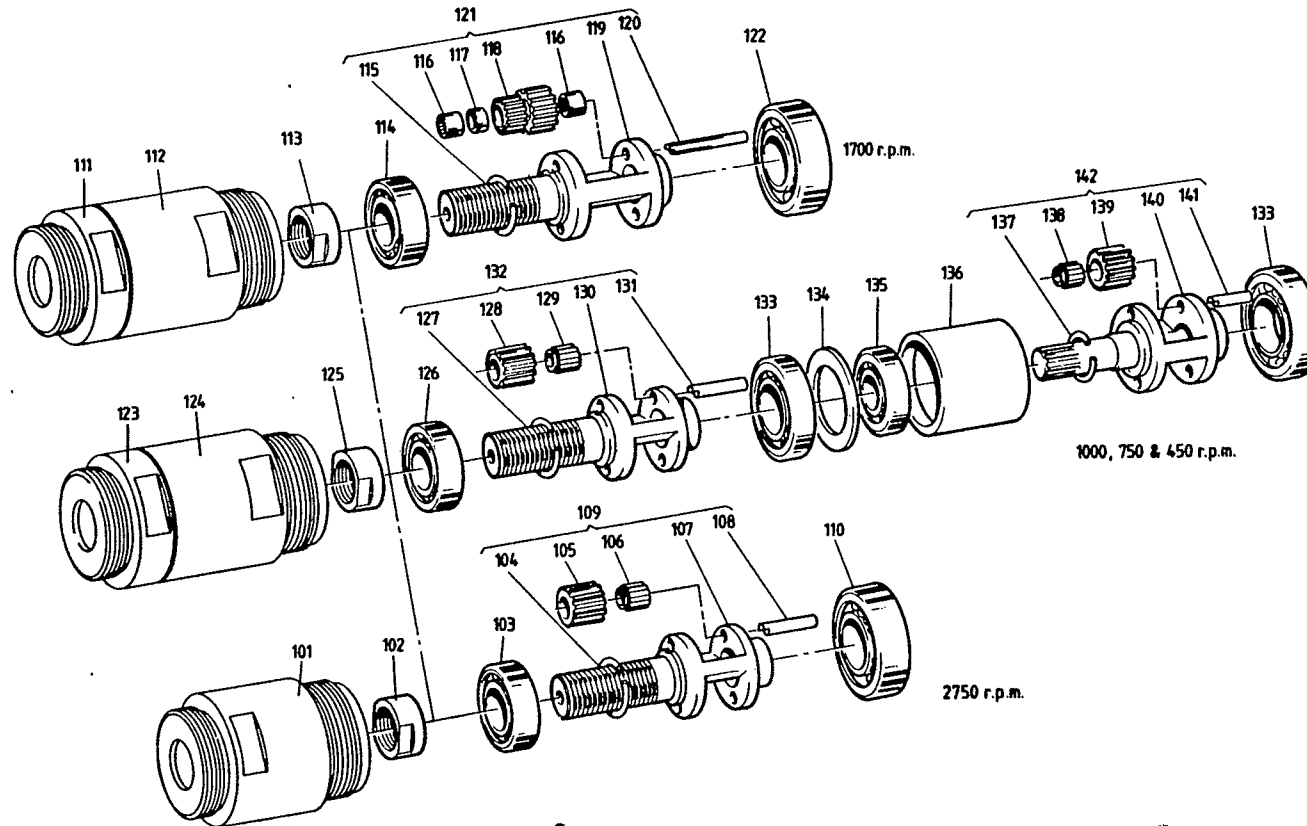
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Final Assembly

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Engage the gearbox (3) with the rotor (10) and screw into position, before final tightening check that the drive is free to rotate.

Replace the chuck (1) then fit the chuck guard hand tight. The tool can now be connected to the air supply and tested for correct operation.

Service Record