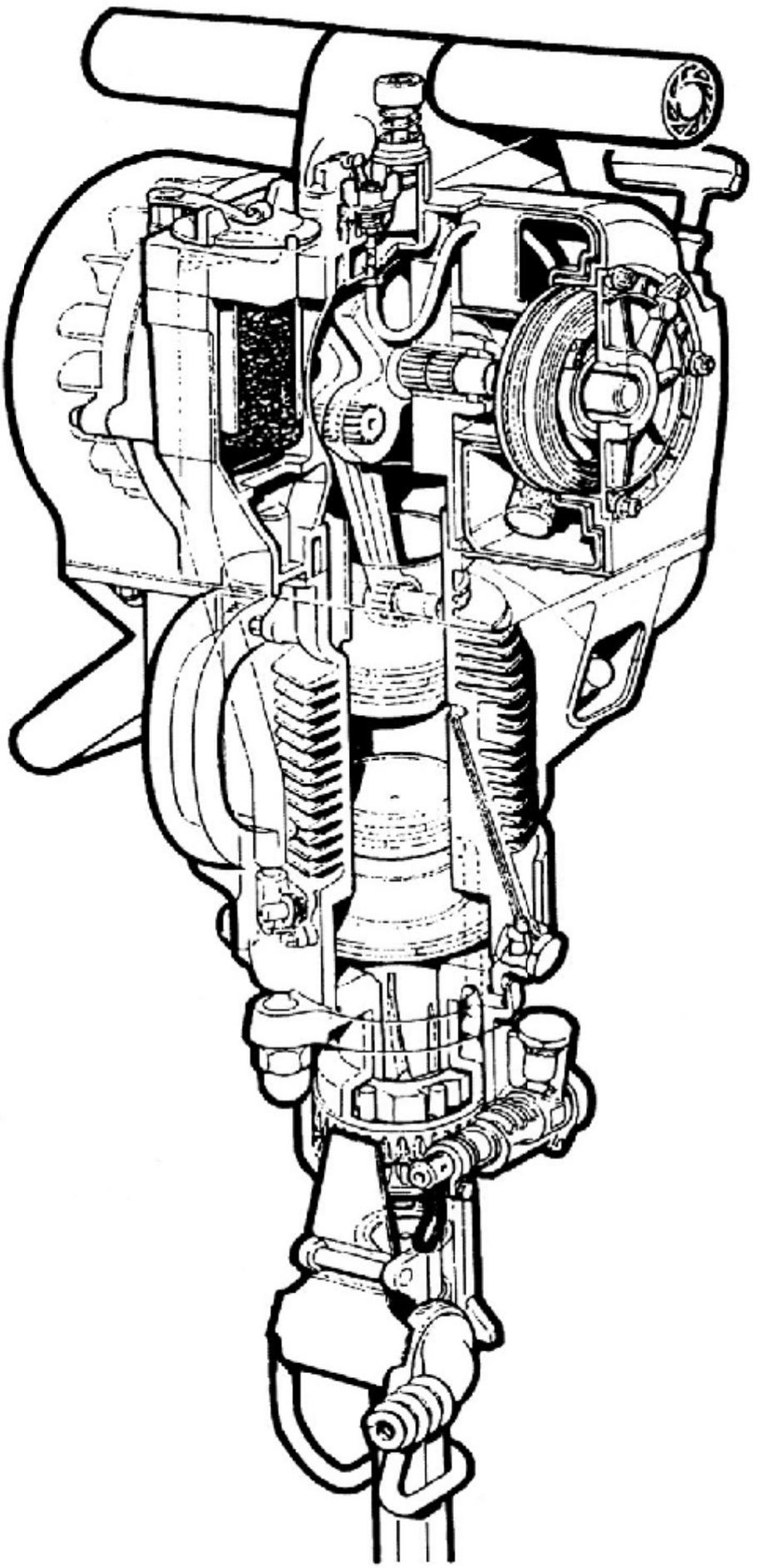


YN27 YN27C SERVICE MANUAL



YN27
YN27C
YN27P
**INTERNAL
COMBUSTION
ROCK DRILL**

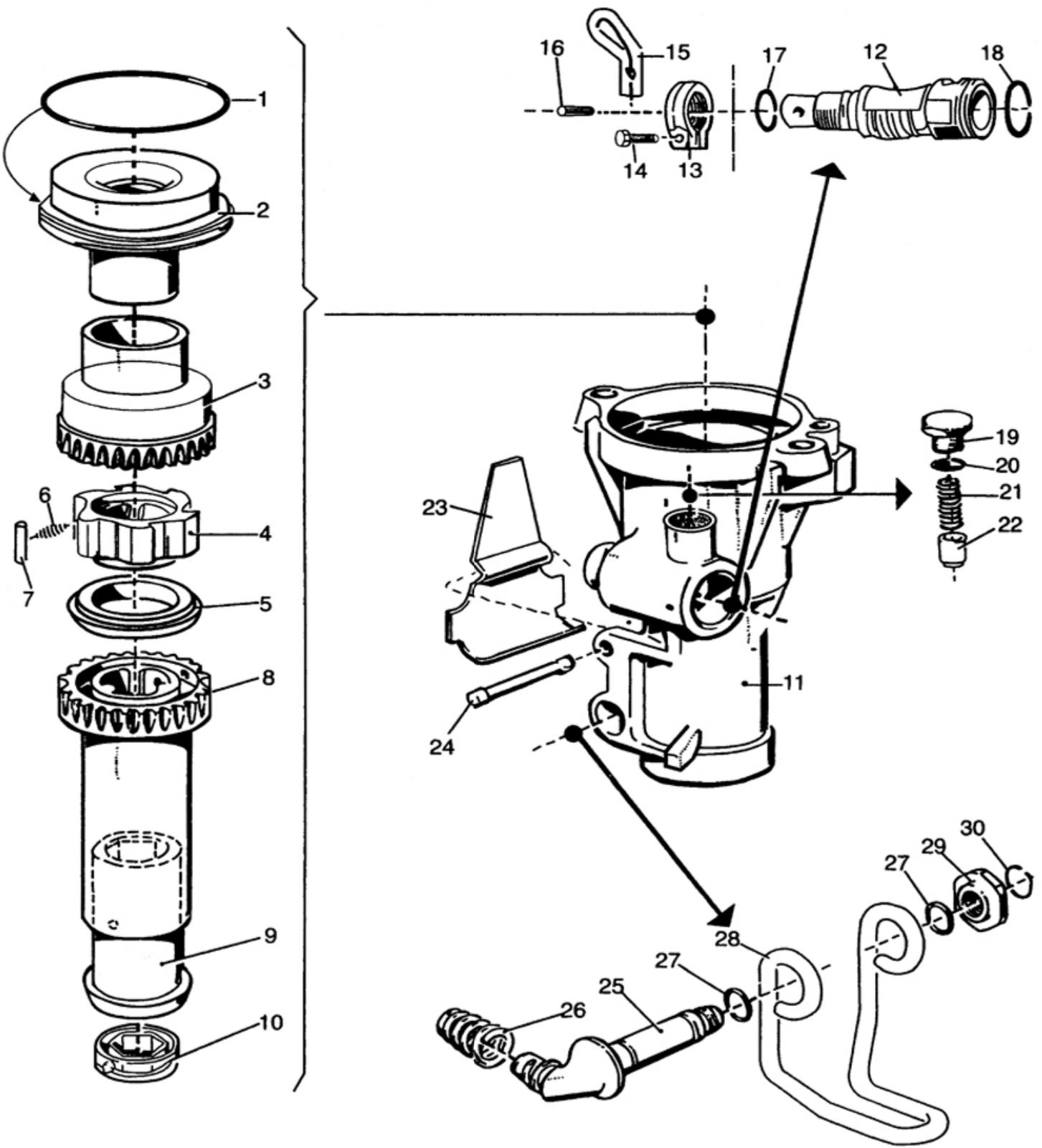
SERVICE MANUAL



Design and specifications are
subject to change without notice

2005.9

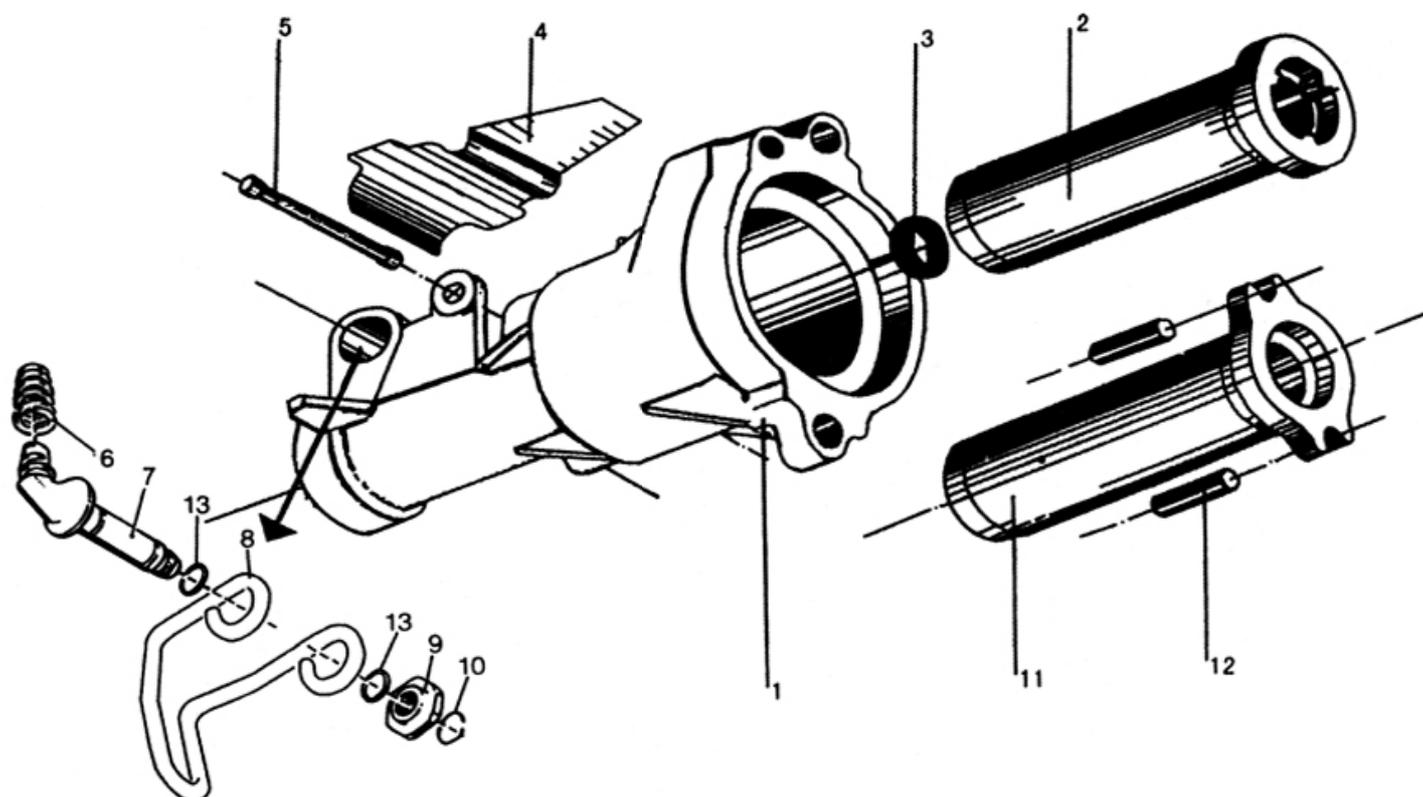
Drill chuck parts



Drill chuck parts

Serial NO.	Part No.	Part Name	Quantity
1	YN27C--O1.4	"O"ring	1
2	YN27C--01.5	Upper guide	1
3	YN27C--01.6	Lower guide	1
4	YN27C-01.7	Ratchet	1
5	YN27C-01.8	Guide sleeve	1
6	YN27C-01.9a	Olive spring	6
7	YN27C-01.11	Needle	6
8	YN27C-01.12	Rotating sleeve	1
9	YN27C-01.13b	Hexagonal rotating sleeve	1
10	YN27C-01.14	Hexagonal seal ring	1
11	YN27C-01.15	Drill chuck cover	1
12	YN27C-01.16	Conversion shaft	1
13	YN27C-01.17	Lock nut	1
14	M5x20 GB70-86	Round head screw	1
15	YN27C-01.19	Bayonet lock	1
16	4x16 GB879-86	Round pin	1
17	YN27C-01.21	"O"ring	1
18	YN27C-01.22	"O"ring	1
19	YN27C-01.23	Round pin	1
20	YN27C-01.24	"O"ring	1
21	YN27C-01.25	Spring	1
22	YN27C-01.26	Alignment pin	1
23	YN27C-01.27	Yoke spring	1
24	YN27C-01.28	Yoke spring pin	1
25	YN27C-01.29	Yoke shaft	1
26	YN27C-01.30	Foot spring	1
27	YN27C-01.31	"O"sping	2
28	YN30A-01.6	Yoke	1
29	YN27C-01.33	Steel cup	1
30	YN27C-01.34	Retainer	1

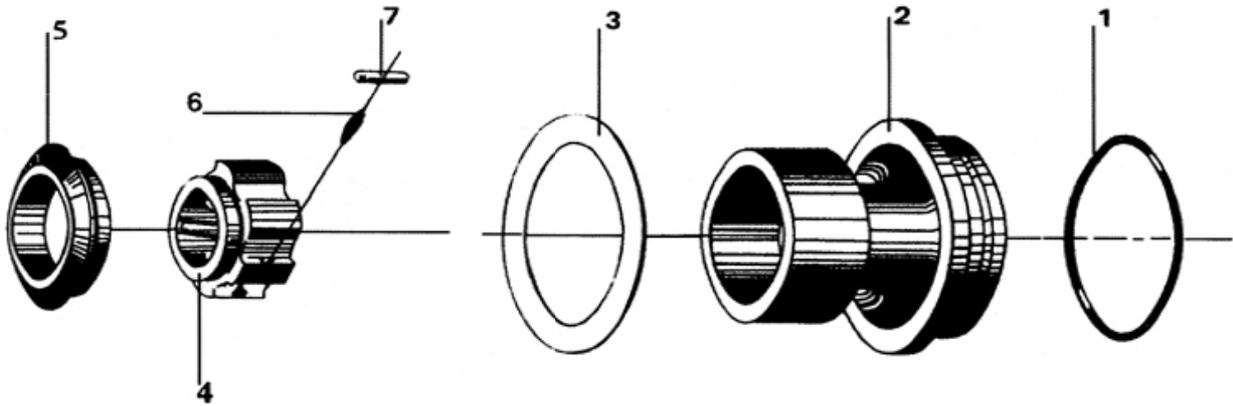
Diagram of drill chuck parts



Drill chuck parts

SerialNo.	Part No.	Part Name	Quantity
1	YN27-01.1	Drill chuck cover	1
2	YN30A-01.3a	Rotating sleeve	1
3	YN30-01.12	Hexagonal seal ring	1
4	YN30A-01.5	Yoke spring	1
5	YN30A-01.4	Yoke spring pin	1
6	YN30A-01.9	Foot spring	1
7	YN27C-01.29	Yoke shaft	1
8	YN30A-01.6	Yoke	1
9	YN27C-01.33	Steel cup	1
10	YN27C-01.34	Retainer	1
11	YN30A-FJ01	Hammer sleeve	1
12	10 x 20 GB879-86	Round pin	2
13	YN27C-01.31	"O"ring	2

Rotation mechanism parts

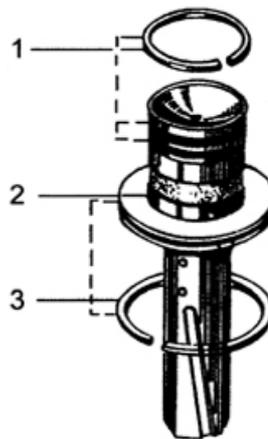


Rotation mechanism parts

YN27

Serial No.	Part No.	Part Name	Quantity
1	YN30A - 02.1	"O"ring	1
2	YN30A - 02.2	Piston guide	1
3	YN30A - 02.8	Paper pad	1
4	YN27C - 01.7	Ratchet	1
5	YN27 - 02.4	Guide sleeve	1
6	YN27C - 01.9a	Olive spring	6
7	YN27C - 01.11	Needle	6

Hammer piston parts

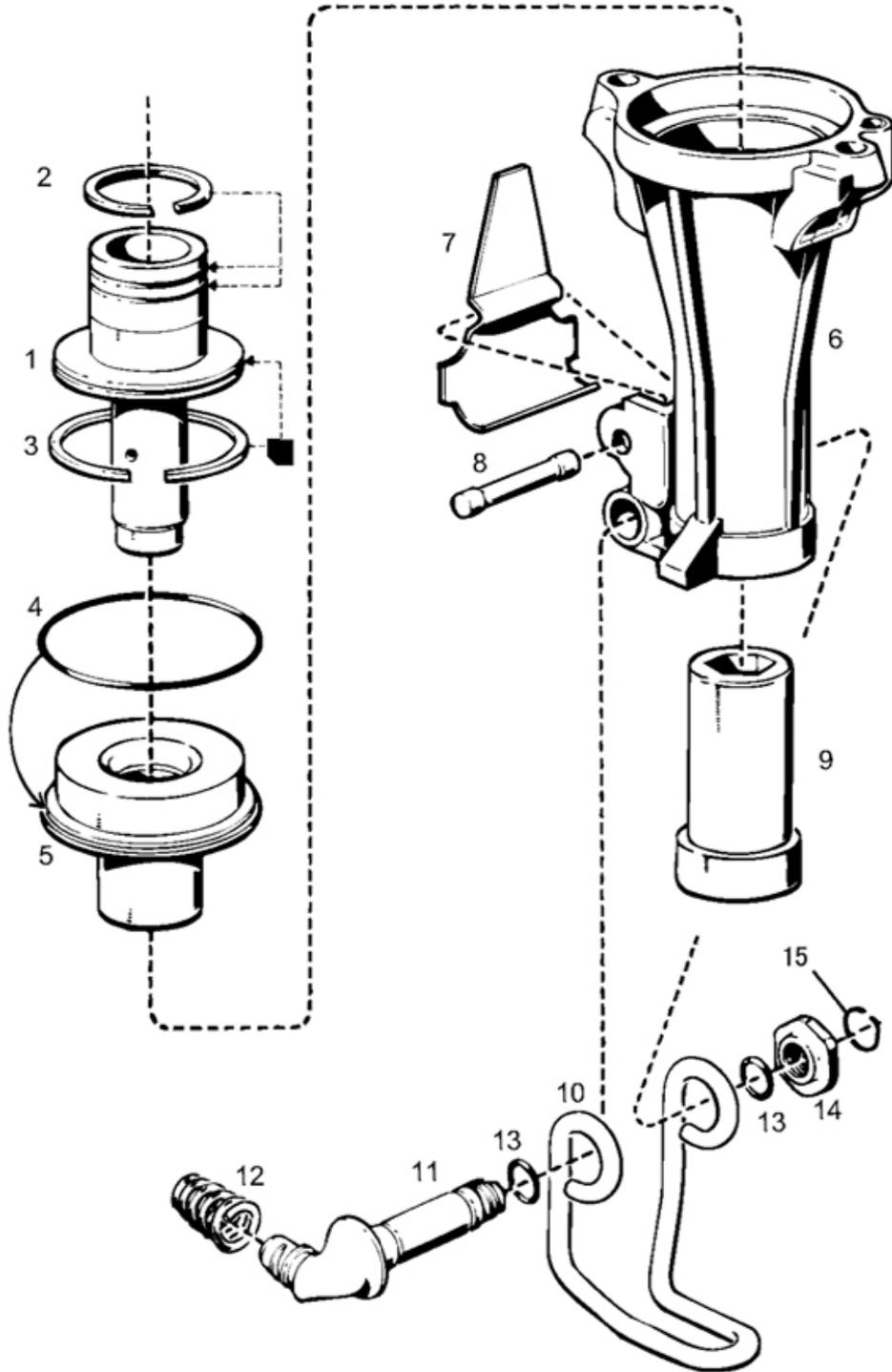


Hammer piston

YN27C

Serial No.	Part No.	Part Name	Quantity
1	YN30- 05.2	Upper ring for hammer piston	2
2	YN27C- 01.1	Hammer piston	1
3	YN30- 05.3	Lower ring for hammer piston	1

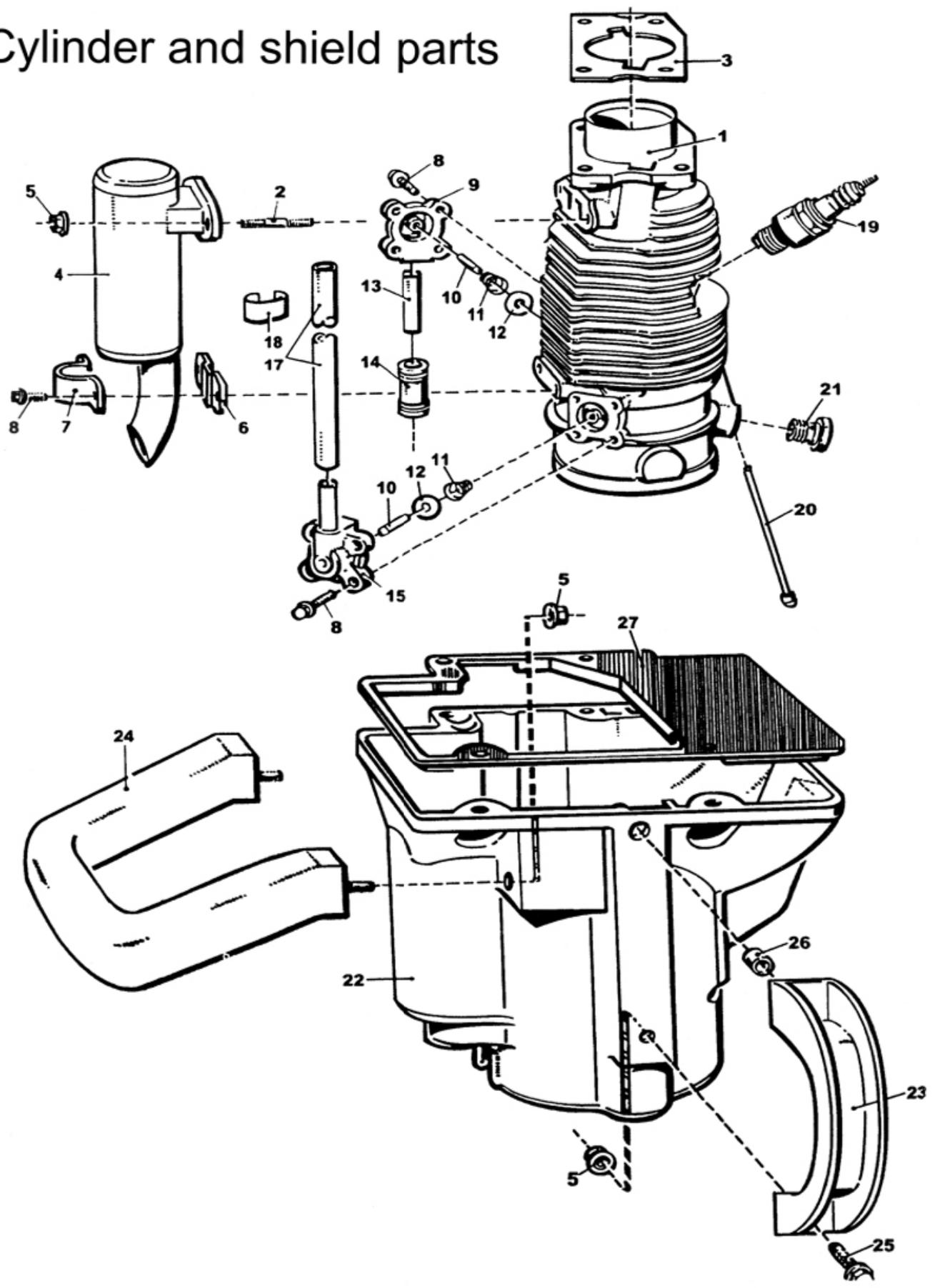
Breaker chuck parts



Breaker chuck parts

Serial No.	Part No.	Part Name	Quantity
1	YN27P-01.1	Hammer piston	1
2	YN27P-01.2	Uppre ring for hammer piston	2
3	YN27P-01.3	Lower ring for hammer piston	1
4	YN27P-01.4	"O"ring	1
5	YN27P-01.5	Upper guide	1
6	YN27P-01.6	Breaker chuck cover	1
7	YN27P-01.7	Yoke spring	1
8	YN27P-01.8	Yoke sping pin	1
9	YN27P-01.9	Hexagonal rotating sleeve	1
10	YN27P-01.10	Yoke	1
11	YN27P-01.11	Yoke shaft	1
12	YN27P-01.12	Foot spring	1
13	YN27P-01.13	"O"ring	2
14	YN27P-01.14	Steel cup	1
15	YN27P-01.15	Retainer	1

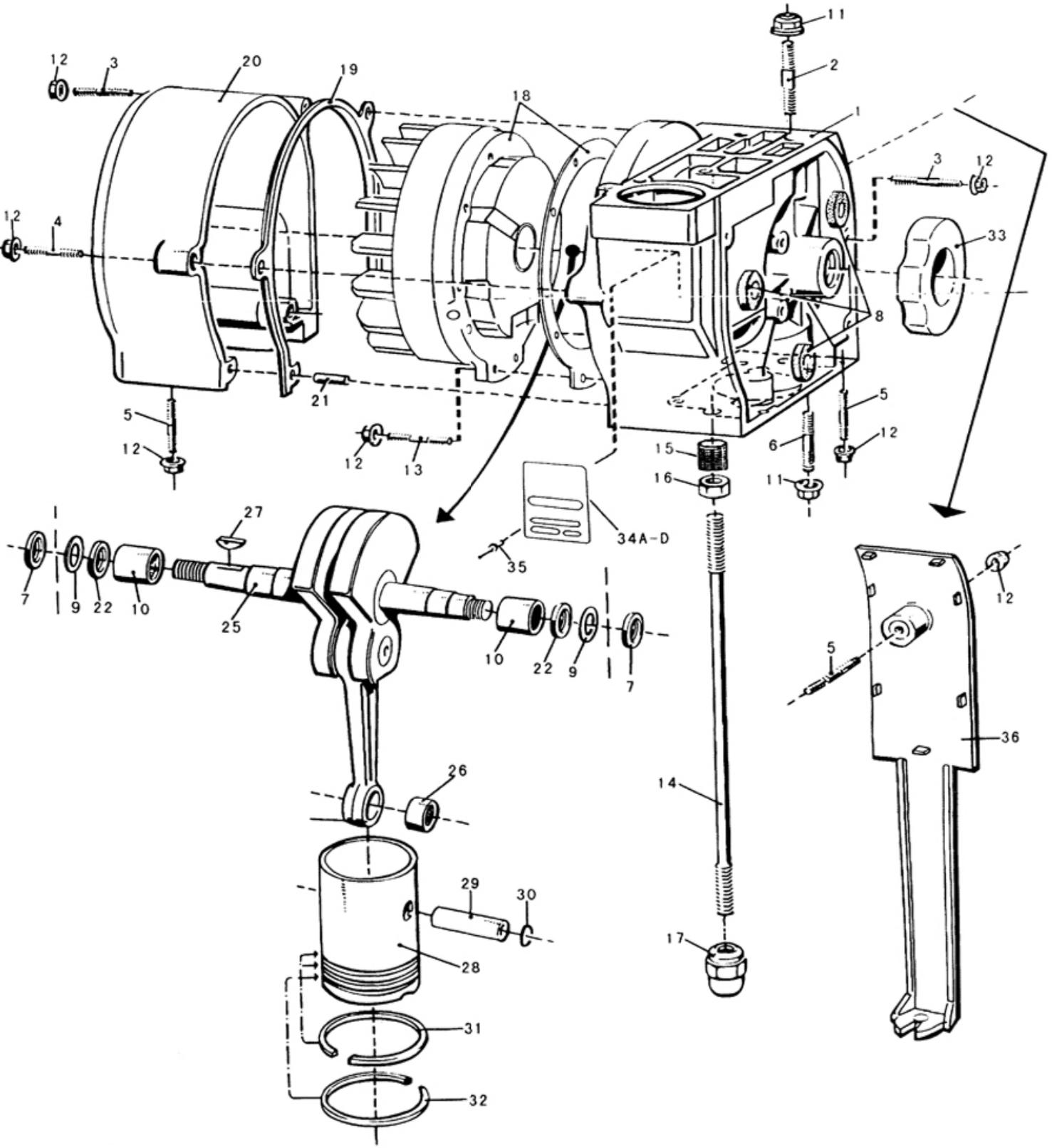
Cylinder and shield parts



Cylinder and shield parts

Serial No.	Part No.	Part Name	Quantity
1	YN27C - 02.1	Cylinder	1
2	M6 x 26 GB901-88	Stud	2
3	YN30 - 03.7	Cylinder pad	1
4	YN27C - 02.4	Exhaust pipe connector	1
5	BM6 GB6187 -86	Hexagon nut	6
6	YN27C - 02.6	Washer	1
7	YN27 - 03.5	Exhaust pipe clamp	1
8	M5 x 14 GB5789 - 86	Round head inner hexagonal screw	10
9	YN27C - 02.9	Blow valve seat	1
10	5 x 12 GB119 - 86	Round pin	2
11	YN27C - 02.11	Conical spring	2
12	YN27C - 02.12	Valve plate	2
13	YN30 - 03.5	Road pin	1
14	YN27C - 02.14.1	Rubber pipe	1
15	YN27C - 02.16	Intake valve seat	1
17	YN27C - 12.17	Suction duct	1
18	YN27C - 02.18	Vent pipe clamp	1
19	A4117	Spark plug	1
20	YN27C - 02.20	Cleaning needle	1
21	YN27C - 02.21	Air inlet valve	1
22	YN27C - 02.22	Shield	1
23	YN27 - 04.5	Handle	1
24	YN27 - 04.1a	Handle	1
25	M6 x 20 GB5787- 86	Hexagonal nut	1
26	YN27 - 04.4	Alignment sleeve	2
27	YN27 - 04.3	Shield paper pad	1

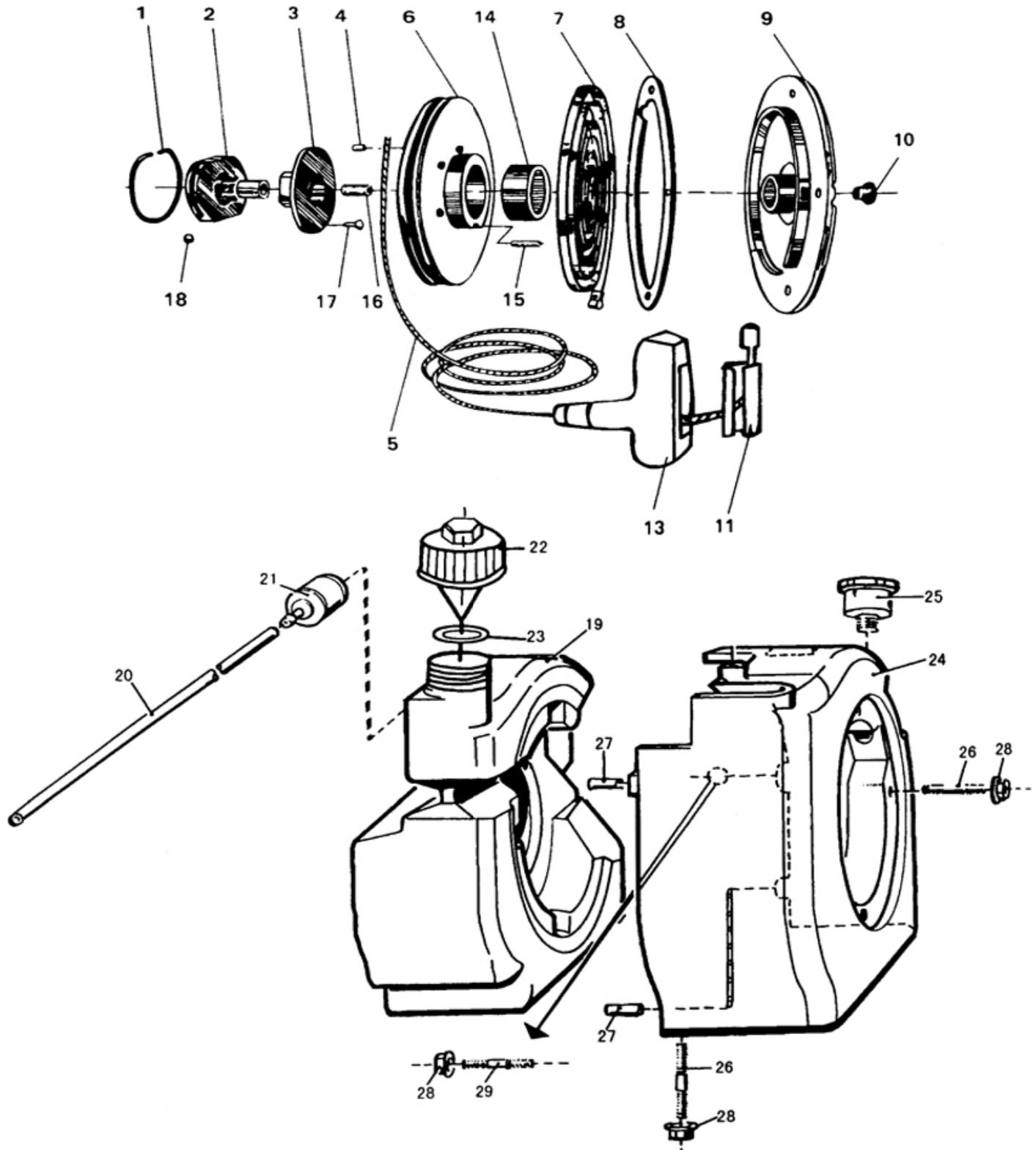
Crankshaft case and crankshaft parts



Crankshaft case and crankshaft parts

Serial No.	Part No.	Part Name	Quantity
1	YN27C - 03.1	Crankshaft case	1
2	AM8 x 50 GB900-88	Finished stud	3
3	AM6 x18 GB900-88	Finished stud	2
4	AM6 x 36 GB900-88	Finished stud	2
5	AM6 x 20 GB900-88	Finished stud	3
6	AM8 x 22 GB900-88	Finished stud	4
7	YN27C - 03.25	Seal ring	2
8	YN27 - 06.18	Washer	3
9	30GB893-86	Spring retainer	2
10	YN27C - 03.23	Needle Bearing	2
11	M8 GB6187- 86	Hexagonal thick nut	7
12	M6 GB6187- 86	Hexagonal thick nut	18
13	AM6 x 14 GB900-88	Finished stud	10
14	YN27C - 03.14	Screw lever	2
15	YN30 - 06.13 YN27C - 03.15	Spring washer	2
16	M12x1.25 GB6170-86	Hexagonal thick nut	2
17	YN27C - 03.17	Prevailing torque type hexagon nut with nylon insert	2
18	YN27C - 04.1	Flywheel and Magneto bed plate parts	1
19	YN27- 06.3	Cover pad	1
20	YN27 - 06. 1.1	Cover for crankshaft case	1
21	B6 x 16 GB119	Round pin	1
22	YN27C - 03.9	Pad	2
25	YN27C - 03.26	Crankshaft and connecting rod part	1
26	7947/15	Needle bearing	1
27	4 x 6 GB1099- 79	Key	1
28	YN30- 07.8	Piston	1
29	YN30- 07.3	Piston pin	1
30	YN30- 07.2	Spring retainer	2
31	YN30- 07.4	Lower ring of engine piston	2
32	YN30 - 07.5	Upper ring of engine piston	1
33	YN27C - 03.34	Spongy washer	
34	YN27 - 06.4 YN27C - 03.35	Name plate	1
35	2 x 6 GB827	Pivot	4
36	YN27- 06.12	Rubber pad	1

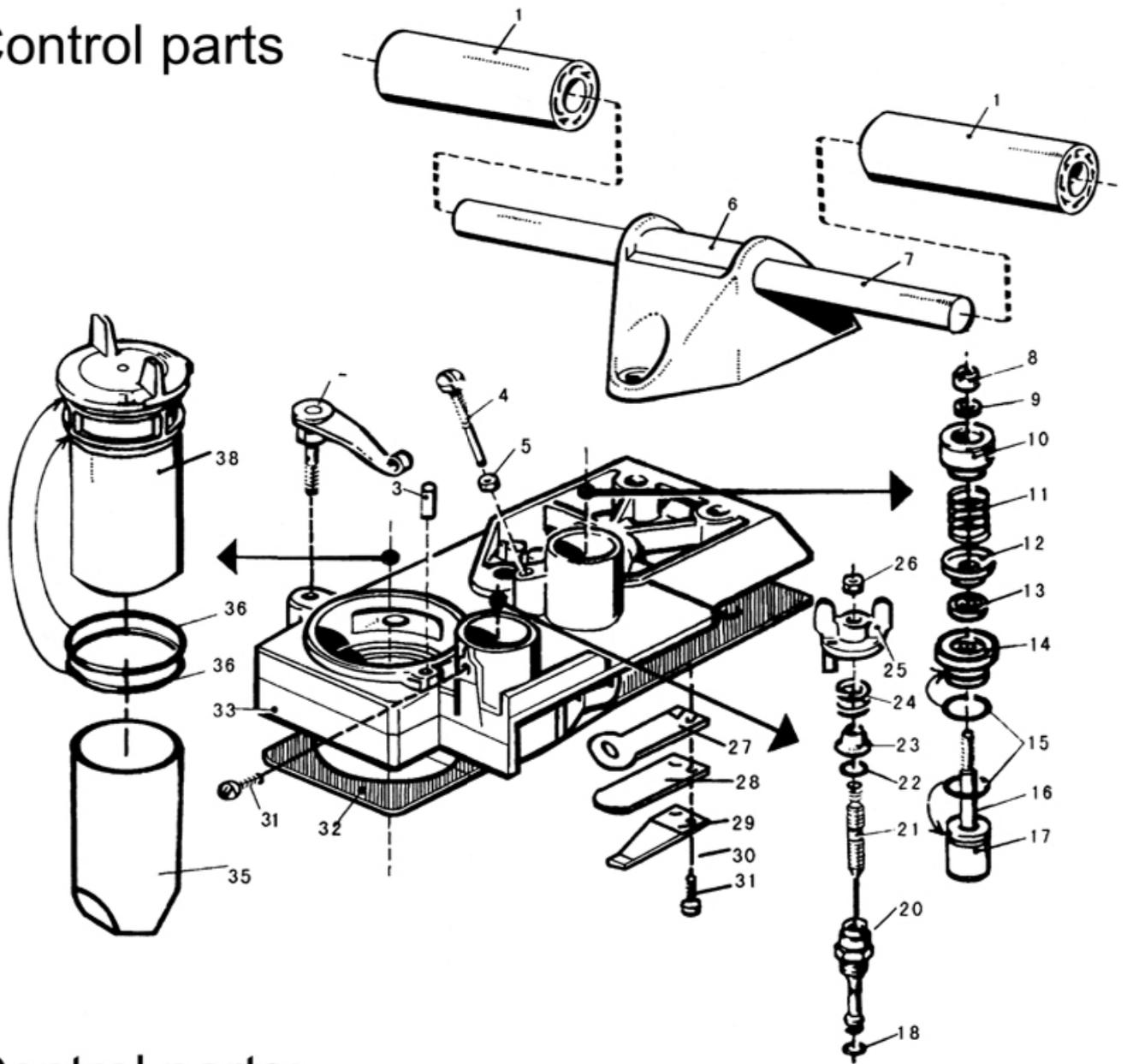
Starter and gasoline tank parts



Starter and gasoline tank parts

Serial No.	Part No.	Part Name	Quantity
1	YN30- 11.14a	Spring ring	1
2	YN27C-05.1	Clutch body	1
3	YN30- 11.10	Clutch	1
4	M6x6 GB77-85	Fastening screw	1
5	YN30- 11.1.1	Starter wire rope	1
6	YN30 - 11.9	Starter pulley	1
7	YN27C - 05.11	Starter spring	1
8	YN30-11.7	Paper pad	1
9	YN27-11.4	Starter cover	1
10	YN30-11.6	Rubber knob	1
11	YN27C - 05.10	Handle Accessory	1
13	YN27C - 05.9	Starter Handle	1
14	YN30- 11.13	Needle bearing	1
15	5jc4 x20 GB119	Round pin	1
16	M12 x 15 GB77-85	Flat head fastening screw	1
17	4x14 GB869-86	Counter-sunk rivet	4
18	8 GB308-77	Steel ball	4
19	YN27C - 05.12	Gasoline tank	1
20	YN27 - 10.8	Oil pipe	1
21	YN30 - 10.8.2	Gasoline filter	1
22	YN27- 10.5a.1	Gasoline tank cover	1
23	26 x 2.4 GB1235-87	"O" ring	1
24	YN27- 06.6	Gasoline tank shield	1
25	YN27C - 05.25	Guide rope piles	1
26	AM6x16 GB900-88	Finishhed stud	5
27	6jc4x18 GB119-86	Round pin	2
28	M6 GB6187-86	Hexagonal thick nut	7
29	AM6x32 GB900-88	Finish hed stud	2

Control parts

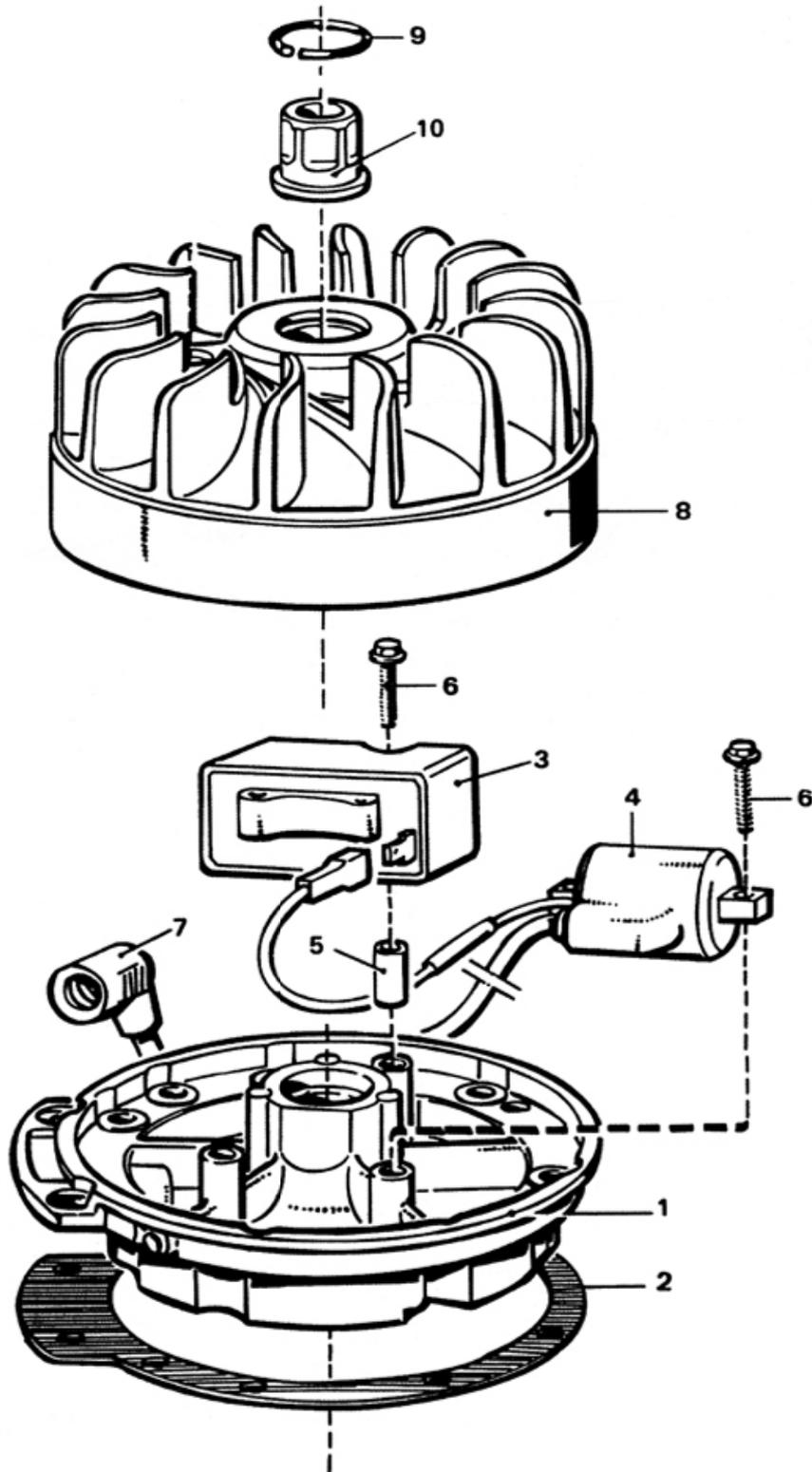


Control parts:

Serial No.	Part No.	Part Name	Quantity
1	YN27-12.6	Handle sleeve	2
2	YN27-12.7	Gland nut	1
3	4x10 GB119-86	Round pin	1
4	YN27C - 06.4	Set screw	1
5	BM5 GB6172 - 86	Hexagonal nut	1

Serial No.	Part No.	Part Name	Quantity
6	YN27-12.2	Handle seat	1
7	YN27-12.2.1	Handle	1
8	AM5 GB6171 - 86	Hexagonal groove nut	1
9	5 GB93 - 87	Spring washer	1
10	YN27C - 06.18	Button	1
11	YN27C - 06.19	Spring	1
12	YN27C - 06.20	Spring seat	1
13	YN27C - 06.21	Seal	1
14	YN27C - 06.22	Throttle seat	1
15	19x2.4 GB1235	"O"-ring	2
16	YN27C - 06.15.1	Throttle valve head lever rod	1
17	YN27C - 06.15	Throttle	1
18	YN27 - 12.14	Rubber pad	1
19	M8 GB6172 - 86	Hexagonal nut	1
20	YN27 - 12.13a	Fuel valve seat	1
21	YN27C - 06.26	Needle valve	1
22	8x1.9 GB1235	"O"-ring	1
23	YN27C 06.24	Lining sleeve	1
24	YN27C - 06.28	Needle valve spring	1
25	YN27C - 06.25	Fuel valve wing nut	1
26	M4 GB6172 - 84	Hexagonal nut	1
27	YN27 - 12.4	Pad	2
28	YN30 - 12.8	Check valve plate	2
29	YN30 - 12.9	Check valve Flapper	2
30	4 GB93 - 87	Spring washer	5
31	M4x10 GB65-85	Round head screw	5
32	YN27 - 12.8	Paper pad	1
33	YN27 - 12.1	Control part	1
35	YN27C - 06.23	Filter core	1
36	55x3.1 GB1235	"O"-ring	2
38	YN27 - 13.1	Air filter cap	1

Flywheel and Magneto parts



Flywheel and Magneto parts

Serial No.	Part No.	Part Name	Quantity
1	YN27C - 04.1	Magneto bed plate	1
2	YN30 - 06.11	Paper pad	1
3	YN27 - 08.1	Controller	1
4	YN27 - 08.3	Ignition coil	1
5	YN27 - 08.9	Controller fixed sleeve	1
6	M5 x 30 GB5789-86	Round head inner hexagonal screw	4
7	YN27C - 04.7	Spark plug clamp	1
8	YN27C - 04.8	Flywheel	1
9	28 GB895-76	Single coil spring lock washer	1
10	YN27C - 04.11	Hexagonal nut	1

Lubrication and Cooling Action

Fuel used by the drill is 9:1, that is a mixed oil in the proportion 9 parts of gasoline to 1 part of lubricating oil. In operation, mixed oil enters into the crankshaft case in fog to lubricate all parts of the crank shaft and the cylinder. During burning, gasoline burns, most of lubricating oil flow into all touching parts through the cylinder space to make them get complete lubrication.

The cylinder of engine is cooled by wind from the flywheel through the surface of emitting heat plates.

Operation

(1) Preparation before starting:

Preparing with mixed oil, drill rod, bit, funnel with filter net, some service tools and spark plug etc.

1. Gasoline: Use gasoline of RQ-60 or RQ-70, that is No.60 or No.70.

2. Lubricating oil: Use lubricating oil No.15(HQ-15) or HQ-157 including in additive 30% lubricating oil NO.8 at lower temperature.

3. Length of drill rods and diameter of the carbide percussive drill bit: When drilling, a group of drill rod length with different size should be prepared in order to operate conveniently and safely. They are 0.6m, 1.1m, 1.6m, 2.0m, 2.6m, 3.0m, selecting them according to the depth of hole. In operating, 0.6 is used to drill