

## **Mehrzylinder Dieselmotoren YSD490-Serie**

Wassergekühlte, Direkteinspritzende 4-Zylinder Reihen-Dieselmotoren

---

## **Explosionszeichnungen Ersatzteilverzeichnis**

DE Y1311 Stand November 2013

Gültig für:

Kurzbezeichnung	Modell	Art.Nr.
YSD490	ED4W4R-2540-15U	-
	ED4W4R-2540-30U	-

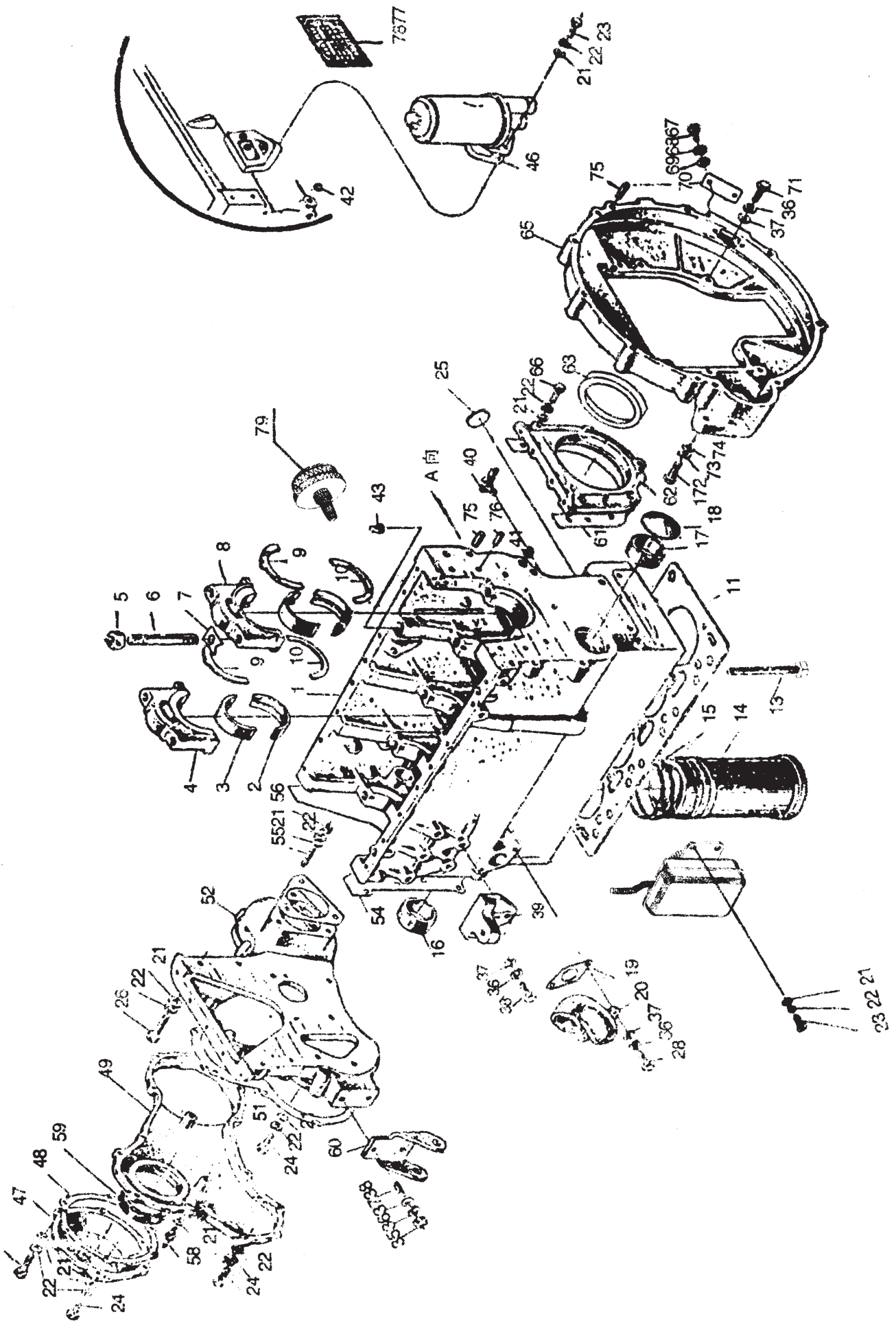


## Inhaltsverzeichnis

1. Kurbelgehäuse	4
2. Zahnräder - Timing	6
3. Kolben - Pleuel	7
4. Zylinderkopf, Thermostat und Krümmer	8
5. Kurbelwelle und Schwung	10
6. Ventiltrieb und Nockenwelle	11
7. Ölwanne	12
8. Ventildeckel	13
9. Treibstoffsystem	14
10. Schmiersystem	15
11. Kühlsystem	16
12. Elektrik, Ölfilter und Luftfilter	18

1. Kurbelgehäuse

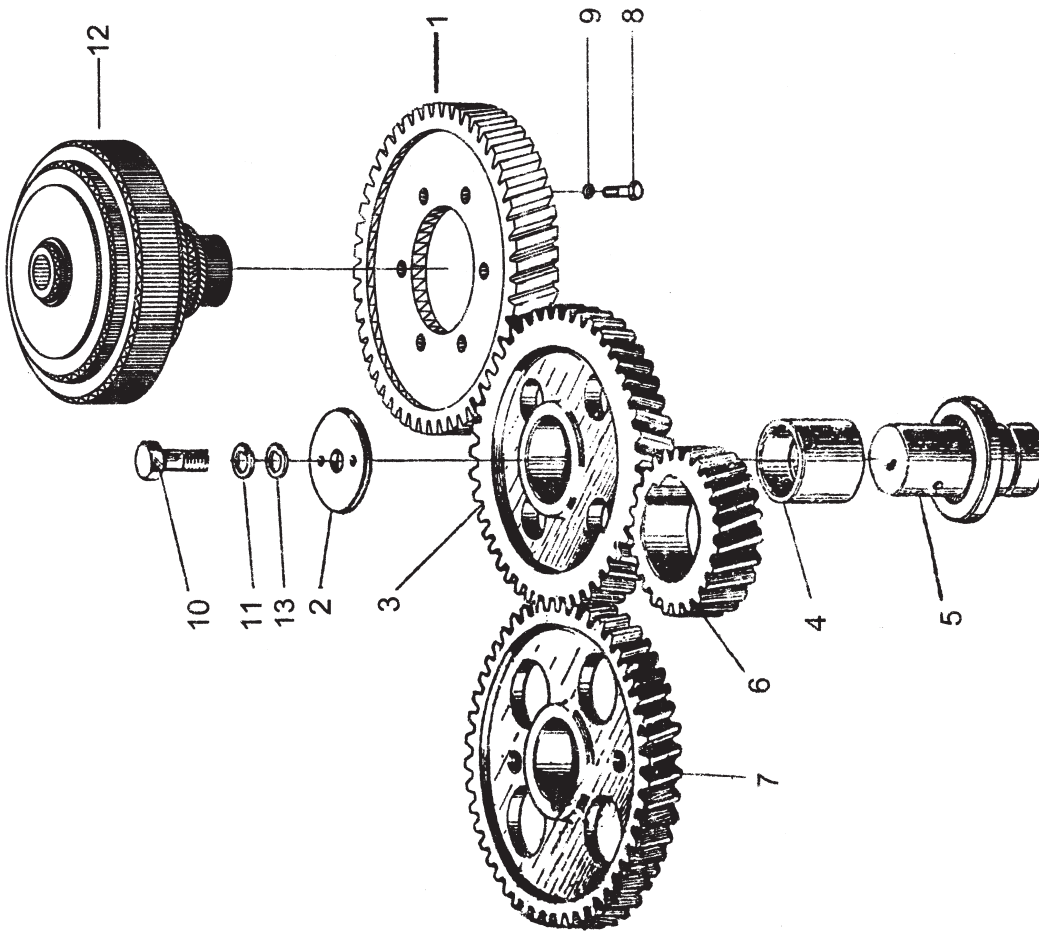
26



Nr.	Parts Nr.	Description	Qty
1	YSD4900-01111C	Cylinder block	1
2	YSD4900-01015	Main bearing, upper half	5
3	YSD4900-01016	Main bearing, lower half	5
4	YSD4900-01112	Main bearing cap	4
5	YSD4900-01114	Main bearing stud	10
6	YSD4900-01115	Main bearing stud lock washer	10
7	YSD4900-01113	Rear main bearing cap	1
8	YSD4900-01008	Crankshaft thrust bearing, lower half	2
9	YSD4900-01007	Crankshaft thrust bearing, upper half	2
10	YSD4900-01020a	Cylinder head gasket	1
11	YSD4900-01004	Long cylinder head stud	14
12	YSD4900-01005	Short cylinder head stud	4
13	YSD4900-01003	Cylinder liner	4
14	YSD4900-01002	Water seal	12
15	YSD4900-01023	Front camshaft bush	1
16	YSD4900-01024	Middle camshaft bush	1
17	YSD4900-01025b	Rear camshaft bush	1
18	YSD4900-01103	Plug	1
19	YSD4900-01011	Inlet pipe gasket	1
20	YSD4900-01013	Inlet pipe	1
21	GB848-85	Washer 8-140HV	52
22	GB93-87	Spring washer 8	52
23	GB5783-86	Bolt M8x20	7
24	GB5783-86	Bolt M8x16	14
25	Y480G-01104	Plug	7
26	GB5783-86	Bolt M8x25	5
27	GB898-88	Bolt M8x20	2
28	YSD4900-01200a	Breathing filter	1
29	GB93-87	Spring washer 10	8
30	GB848-85	Washer 10-140HV	8
31	GB5783-86	Bolt M10x30	8
32	YSD4900-01017	Front mounting bracket	2
33	Y485Q-16-01300	Drain cock	1
34	YSD4900-01014a	Union pipe	1
35	YSD4900-01105a	Screw plug (I)	2
36	Y480G-01106a	Screw plug (II)	5
37	YSD4900-01101	Plug	1
38	YSD4900-01004	Oil filter gasket	1

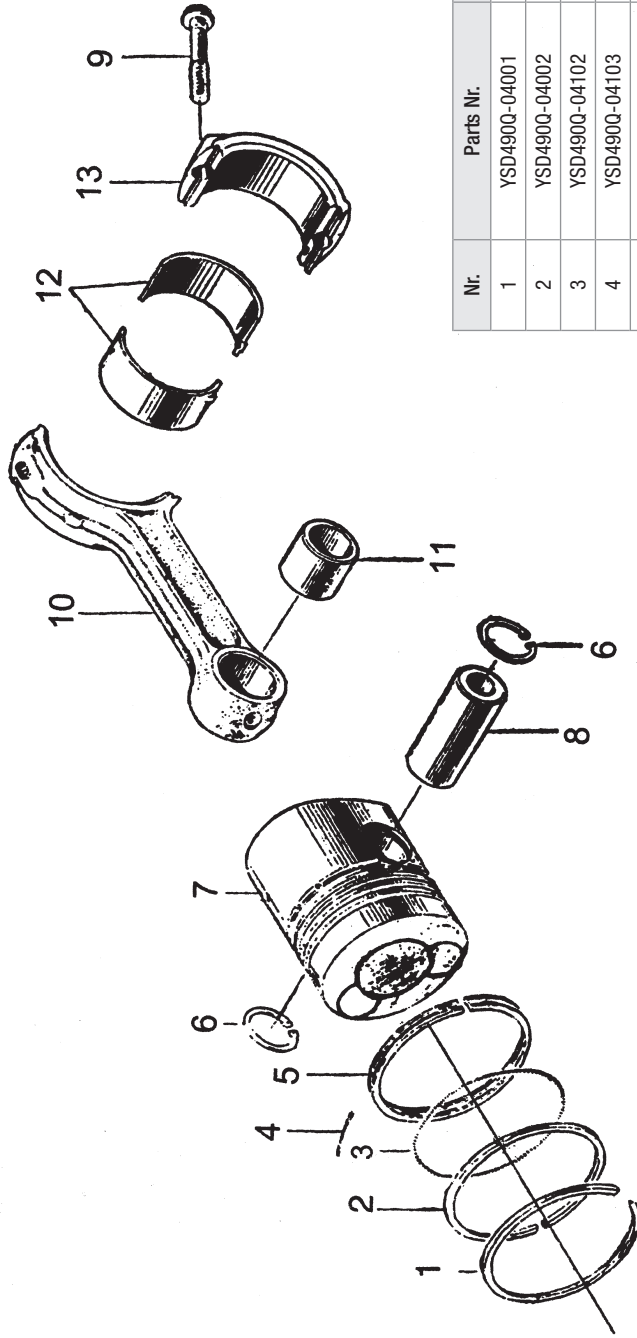
Nr.	Parts Nr.	Description	Qty
37	YSD4900-02017	Front cover	1
38	YSD4900-02016	Front cover of timing gear case	1
39	YSD4900-02013a	Front cover gasket of timing gear case	1
40	YSD4900-02014	Timing gear case cover gasket	1
41	YSD4900-02001	Timing gear casing	1
42	YSD4900-01001	Timing gear case gasket	1
43	GB898-88	Stud M8x28	3
44	GB6170-86	Nut M8	3
45	YSD4900-02015	Pointer	1
46	HG4-692-67	Oil seal SG60x80x12	1
47	YSD4900-12006	Generator bracket	1
48	YSD4900-01009a	Real oil seal cover gasket	1
49	YSD4900-01012a	Real oil seal cover	1
50	HG4-692-67	Oil seal SG100x130x12	1
51	YSD4900-01010a	Flywheel housing	1
52	GB5783-86	Bolt M8x30	5
53	GB818-85	Bolt M6x12	2
54	GB93-87	Spring washer 6	2
55	GB97.1-85	Washer 6-140HV	2
56	YSD4900-01019	Inspection cover	1
57	GB5783-86	Bolt M12x35	6
58	GB5783-86	Bolt M10x30	2
59	GB93-87	Spring washer 10	2
60	GB848-85	Washer 10-140HV	2
61	GB119-86	Pin B10x20	2
62	GB119-86	Pin B8x20	3
63	Y480G-01500	Sensor for oil gauge	1
64	GB6170-86	Nut M10	2

## 2. Zahnräder - Timing



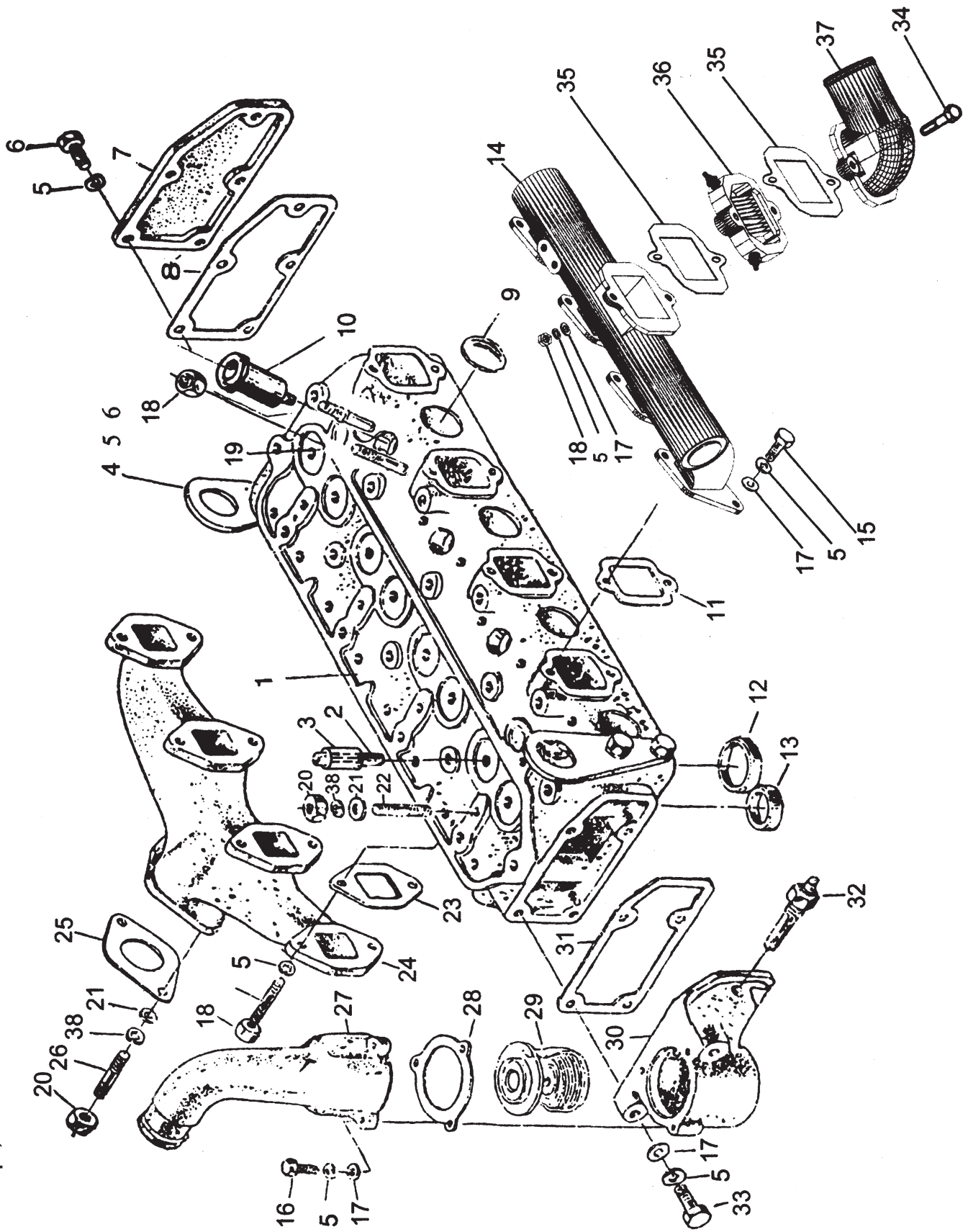
Nr.	Parts Nr.	Description	Qty
1	YSD490Q-02003a	Fuel injection pump timing gear	1
2	YSD490Q-02008	Idle gear clamp	1
3	YSD490Q-02005a	Idle gear	1
4	YSD490Q-02006	Idle gear bush	1
5	YSD490Q-02007	Idle gear shaft	1
6	YSD490Q-02009a	Crankshaft timing gear	1
7	YSD490Q-02011a	Camshaft timing gear	1
8	GB5783-86	Bolt M6x16	6
9	GB93-87	Washer 6	6
10	GB5782-86	Bolt M8x55	2
11	GB93-87	Washer 8	2
12	YSD490Q-02100	Automatic adjusting device of the fuel supply angle in advance	1
13	GB848-85	Washer 8-140HV	2

### 3. Kolben - Pleuel



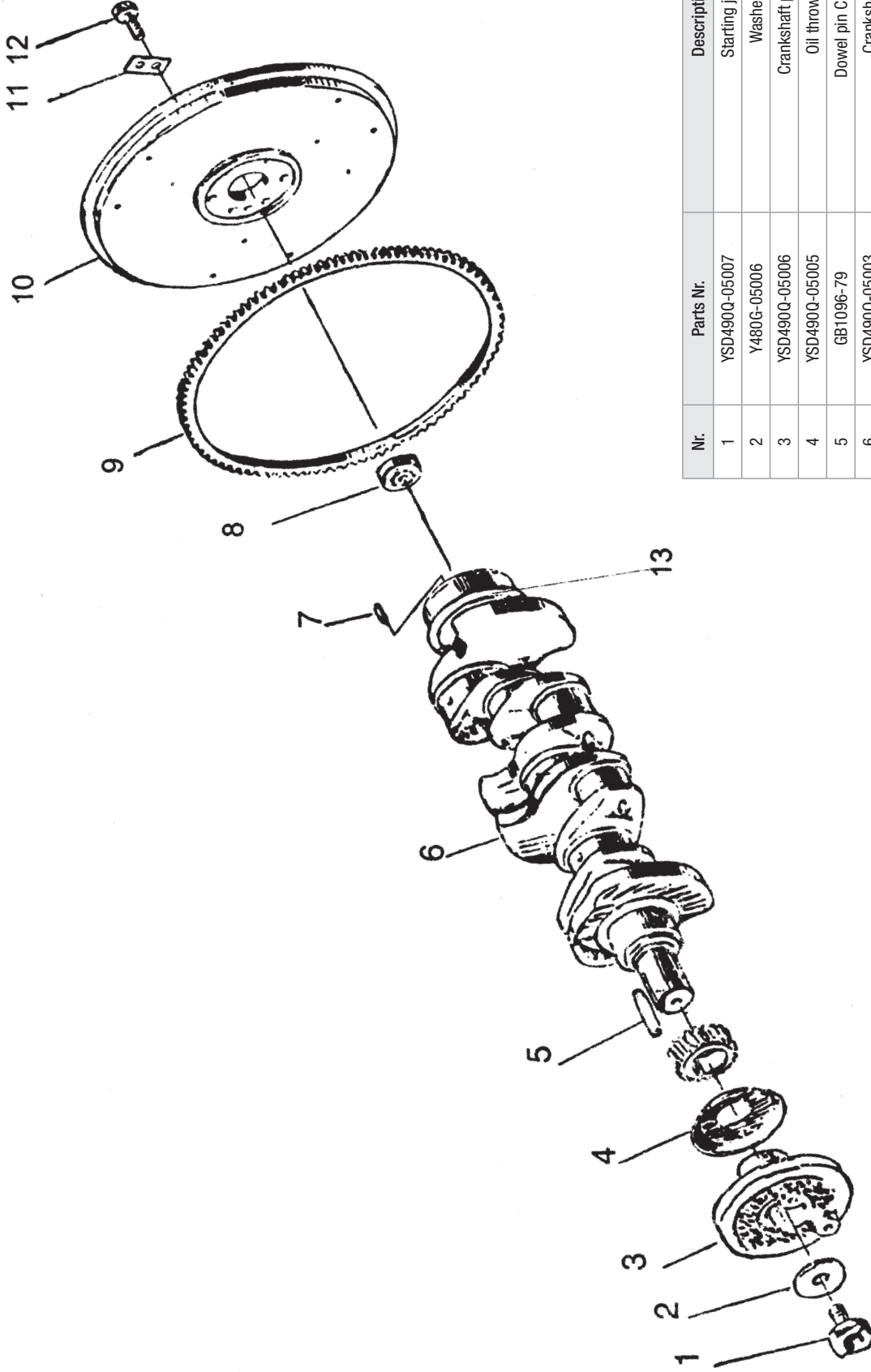
Nr.	Parts Nr.	Description	Qty
1	YSD4900-04001	1st compression ring	4
2	YSD4900-04002	2nd compression ring	4
3	YSD4900-04102	Spring	4
4	YSD4900-04103	Spring lock	4
5	YSD4900-04101	Oil ring	4
6	Y488-04006	Piston pin snap ring	8
7	YSD4900-04005	Piston	4
8	YSD4900-04004	Piston pin	4
9	YSD4900-04204	Connecting rod bolt	8
10	YSD4900-04202	Connecting rod	4
11	YSD4900-04201	Connecting rod bush	4
12	YSD4900-04003	Connecting rod bearing, upper and lower halves	8
13	YSD4900-04203	Connecting rod cap	4

4. Zylinderkopf, Thermostat und Krümmer



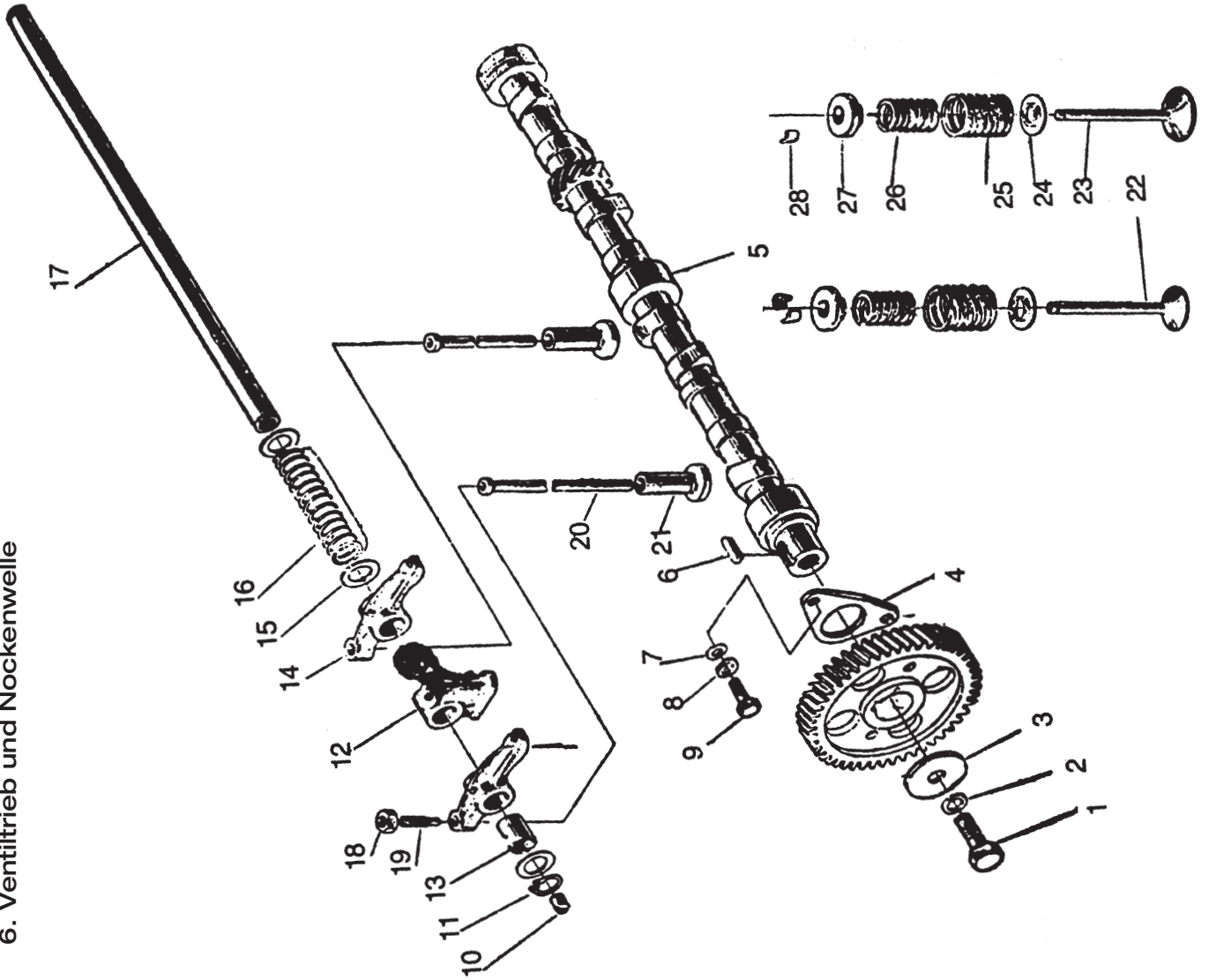
Nr.	Parts Nr.	Description	Qty
1	YSD4900-03101	Cylinder head	1
2	YSD4900-03102	Valve guide	8
3	Y485-03021	Oil seal	8
4	YSD4900-03011	Lifting eye	2
5	GB93-87	Spring washer 8	37
6	GB5783-86	Bolt M8x18	5
7	YSD4900-03002a	Rear cover	1
8	YSD4900-03023	Gasket	1
9	Y480G-01103	Plug D25	4
10	YSD4900-03105a	Injector sleeve	4
11	YSD4900-03013	Intake manifold gasket	4
12	YSD4900-03103	Intake valve seat	4
13	YSD4900-03104	Exhaust valve seat	4
14	YSD4900-07100	Intake manifold	1
15	GB5783-86	Bolt M8x20	12
16	GB5783-86	Bolt M8x25	2
17	GB848-85	Washer 8-140HV	39
18	GB6170-86	Nut M8	16
19	GB898-88	Stud M8x45	8
20	GB6170-86	Nut M10	6
21	GB848-85	Washer 10-140HV	6
22	YSD4900-03001	Valve rocker bracket stud	4
23	YSD4900-03006	Gasket	4
24	YSD4900-08001	Exhaust manifold	1
25	YSD4900-08002a	Gasket	1
26	GB5783-86	Bolt M10x30	2
27	YSD4900-11301	Thermostat cover	1
28	YSD4900-11302	Gasket	1
29	Y480G-11303a	Thermostat	1
30	YSD4900-11304	Thermostat housing	1
31	YSD4900-03016	Thermostat housing gasket	1
32	YS475-11300	Water temp sensor	1
33	GB5783-86	Bolt M8x35	3
34	GB5783-86	Bolt M8x50	1
35	YSD4900-07004	Intake bend pipe gasket	2
36	YSD4900-07200	Electricity heating unit	1
37	YSD4900-07005	Intake bend pipe	1
38	GB93-87	Washer 10	6

# 5. Kurbelwelle und Schwung

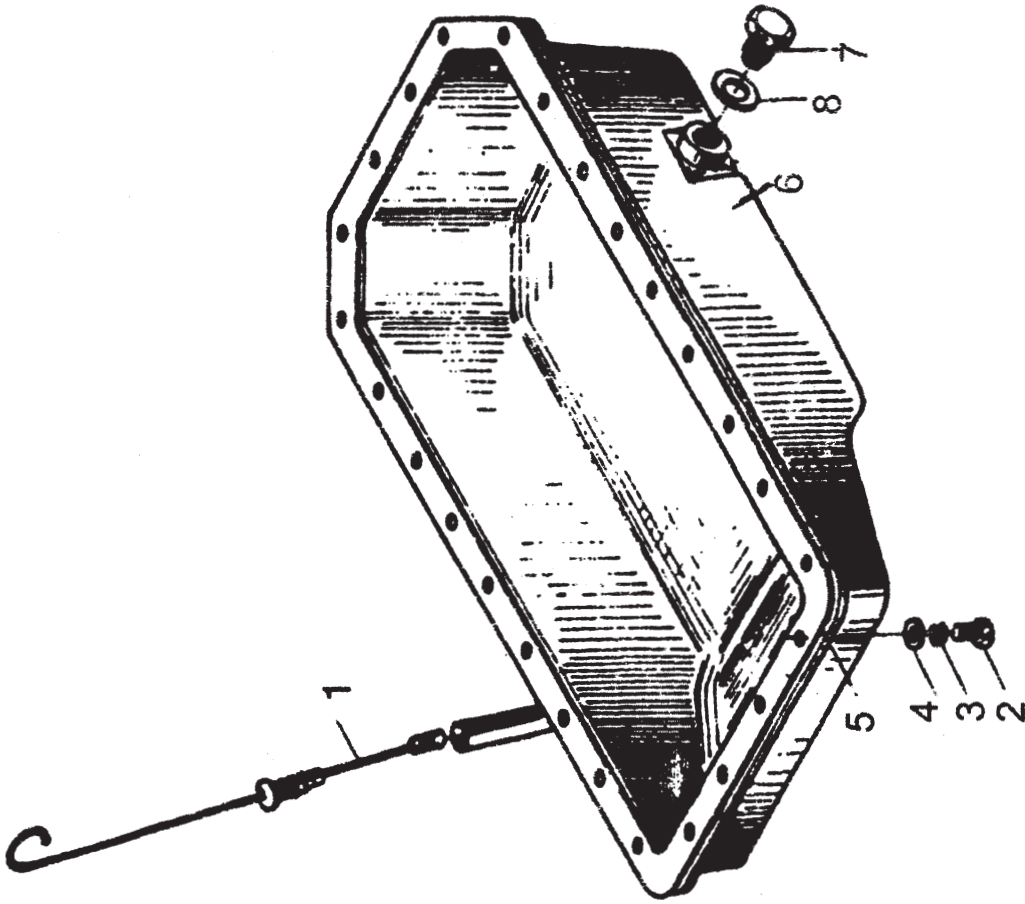


Nr.	Parts Nr.	Description	Qty
1	YSD490Q-05007	Starting jaw	1
2	Y480G-05006	Washer	1
3	YSD490Q-05006	Crankshaft pulley	1
4	YSD490Q-05005	Oil thrower	1
5	GB1096-79	Dowel pin C12x63	1
6	YSD490Q-05003	Crankshaft	1
7	GB119-86	Dowel pin B10x20	1
8	GB/T276-94	Ball bearing 6203-Z	1
9	YSD490Q-05102	Flywheel gear ring	1
10	YSD490Q-05101	Flywheel	1
11	YSD490Q-05001	Flywheel bolt lock washer	3
12	YSD490Q-05002	Flywheel bolt	6
13	YSD490Q-05004	Oil thrower (rear)	1

## 6. Ventiltrieb und Nockenwelle



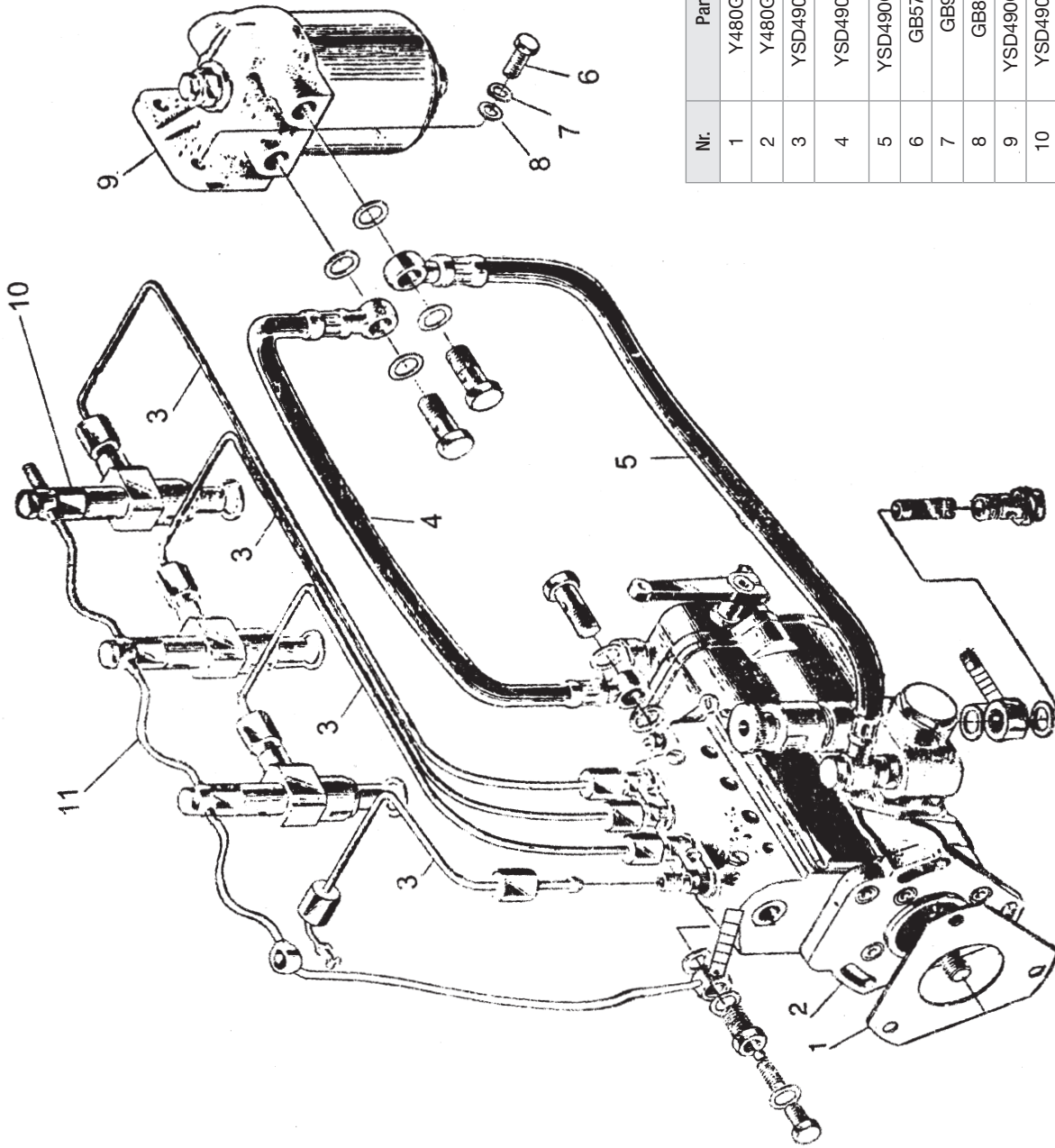
Nr.	Parts Nr.	Description	Qty
1	GB5783-86	Bolt 12x35	1
2	GB93-87	Spring washer 12	1
3	YSD490Q-02012	Camshaft timing gear damping plate	1
4	YSD490Q-02010	Camshaft thrust plate	1
5	YSD490Q-06001	Camshaft	1
6	GB1096-79	Flat key C8x22	1
7	GB848-85	Washer 8-140HV	2
8	GB93-87	Spring washer 8	2
9	GB5783-86	Bolt M8x20	2
10	Y480G-01105b	Screw plug (I)	2
11	GB894.1-86	Retainer 18	2
12	YSD490Q-03202	Rocker shaft bracket	3
13	YSD490Q-03207	Rocker shaft rear bracket	1
14	YSD490Q-03212	Rocker arm bush	8
15	YSD490Q-03211	Rocker	8
16	YSD490Q-03206	Washer	8
17	YSD490Q-03204	Rocker shaft spacer spring	3
18	YSD490Q-03205a	Rocker shaft	1
19	GB6171-86	Nut M8x1	8
20	YSD490Q-03201	Adjusting screw	8
21	YSD490Q-06003	Push rod	8
22	YSD490Q-06002	Valve tappet	8
23	YSD490Q-03015	Exhaust valve	4
24	YSD490Q-03014	Intake valve	4
25	YSD490Q-03010	Valve spring lower seat	8
26	YSD490Q-03007	Outer valve spring	8
27	YSD490Q-03017	Inner valve spring	8
28	YSD490Q-03009	Valve spring upper seat	8
29	YSD490Q-03008	Valve collets	16



Nr.	Parts Nr.	Description	Qty
1	YSD490Q-01400b	Oil dipstick unit	1
2	GB5783-86	Bolt M8x25	25
3	GB93-87	Spring washer 8	25
4	GB848-85	Washer 8-140HV	25
5	YSD490Q-01018	Oil sump gasket	1
6	YSD490Q-01700	Oil sump unit	1
7	Y480Q-01703	Drain screw plug	1
8	Y480G-01704a	Washer	1

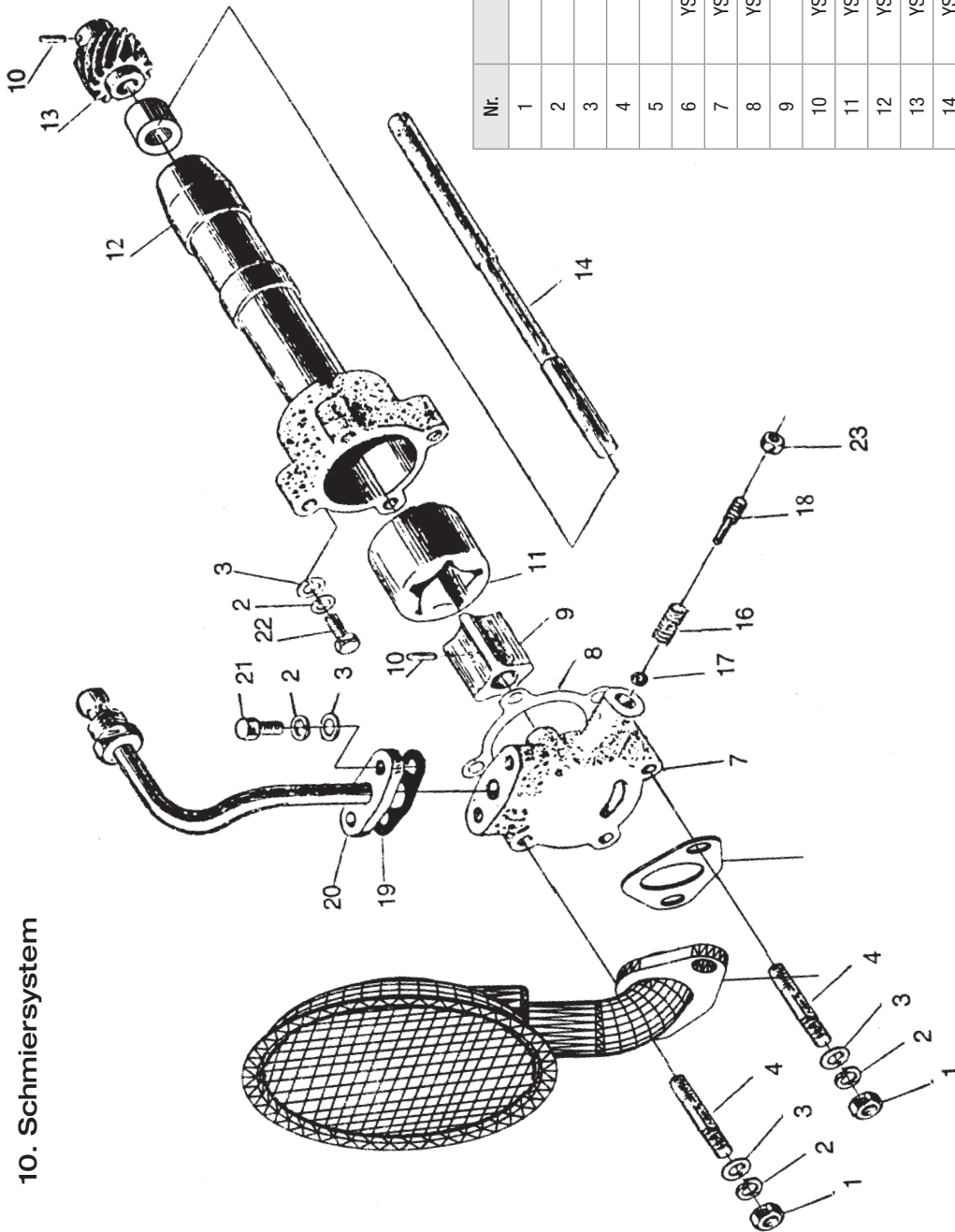


# 9. Treibstoffsystem

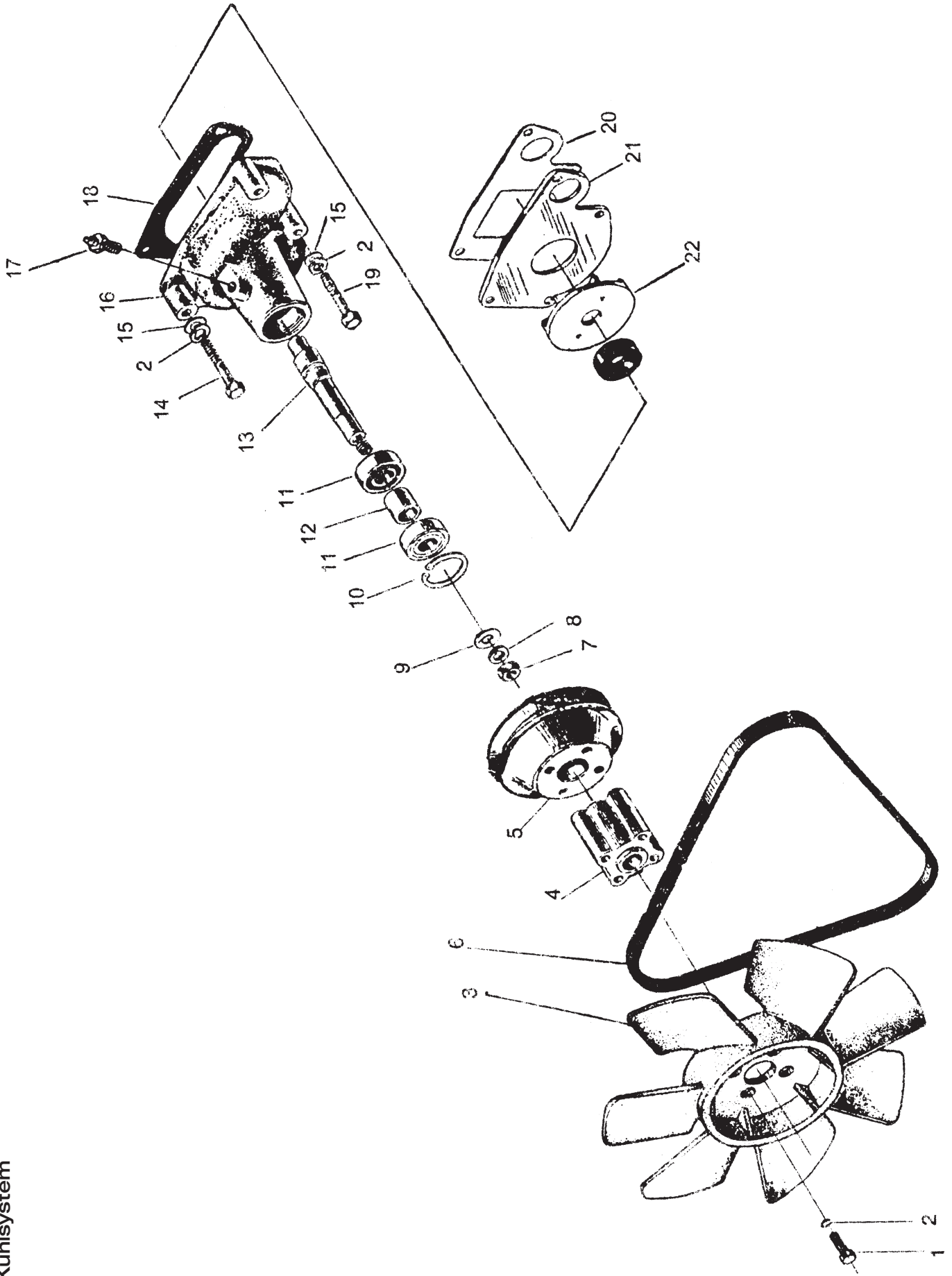


Nr.	Parts Nr.	Description	Qty
1	Y480G-02002	Fuel injection pump gasket	1
2	Y480G-10100	Fuel injection pump	1
3	YSD490Q-10500	High pressure fuel pipe	1
4	YSD490Q-10800	Fuel feed pipe from fuel filter to fuel injection pump	1
5	YSD490Q-10900a	Fuel feed from fuel supply pump to fuel filter	1
6	GB5783-86	Bolt M8x20	2
7	GB93-87	Spring washer 8	2
8	GB848-85	Washer 8-140HV	2
9	YSD490Q-10600a	C0708A Fuel filter	1
10	YSD490Q-10700	Fuel injector	4
11	Y480G-10400	Fuel return pipe	1

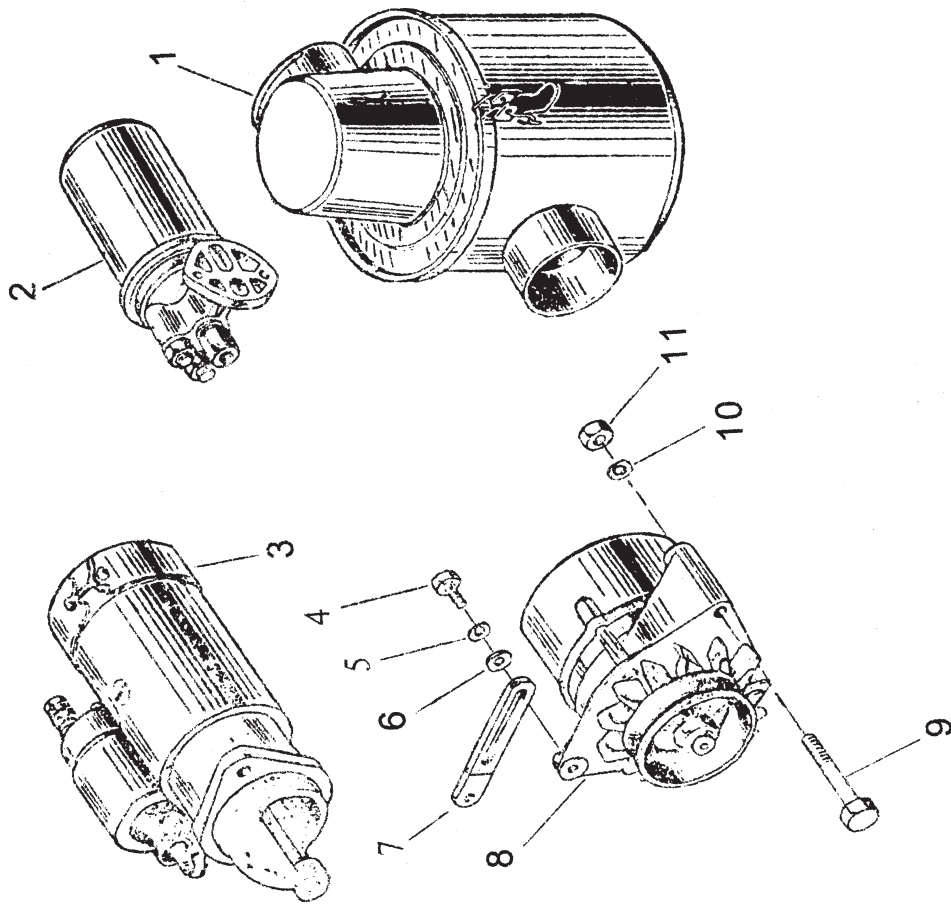
# 10. Schmiersystem



Nr.	Parts Nr.	Description	Qty
1	GB6170-86	Nut M8	4
2	GB859-87	Spring washer 8	6
3	GB848-85	Washer 8-140HV	6
4	GB899-88	Stud M8x35	2
5	GB899-88	Stud M8x40	2
6	YSD490Q-09105	Oil pump cover	1
7	YSD490Q-09107	Oil pump washer	1
8	YSD490Q-09122	Inner rotor	1
9	GB119-86	Pin A4x18	2
10	YSD490Q-09108	Outer rotor	1
11	YSD490Q-09132	Oil pump housing	1
12	YSD490Q-09101	Oil pump driving gear	1
13	YSD490Q-09121	Oil pump shaft	1
14	YSD490Q-09103	Relief valve spring	1
15	G8308-89	Steel ball	1
16	YSD490Q-09002	Oil outlet pipe flange gasket	1
17	YSD490Q-09200	Lubricating oil line unit	1
18	GB5783-86	Bolt M8x20	2
19	GB5783-86	Bolt M8x30	1
20	YSD490Q-09102	Adjusting bolt	1
21	GB6176-86	Nut M14x1.5	1
22	YSD490Q-09131	Oil pump shaft bush	1
23	YSD490Q-09104	Gasket	1
24	YSD490Q-09110	Gauze filter weldment	1

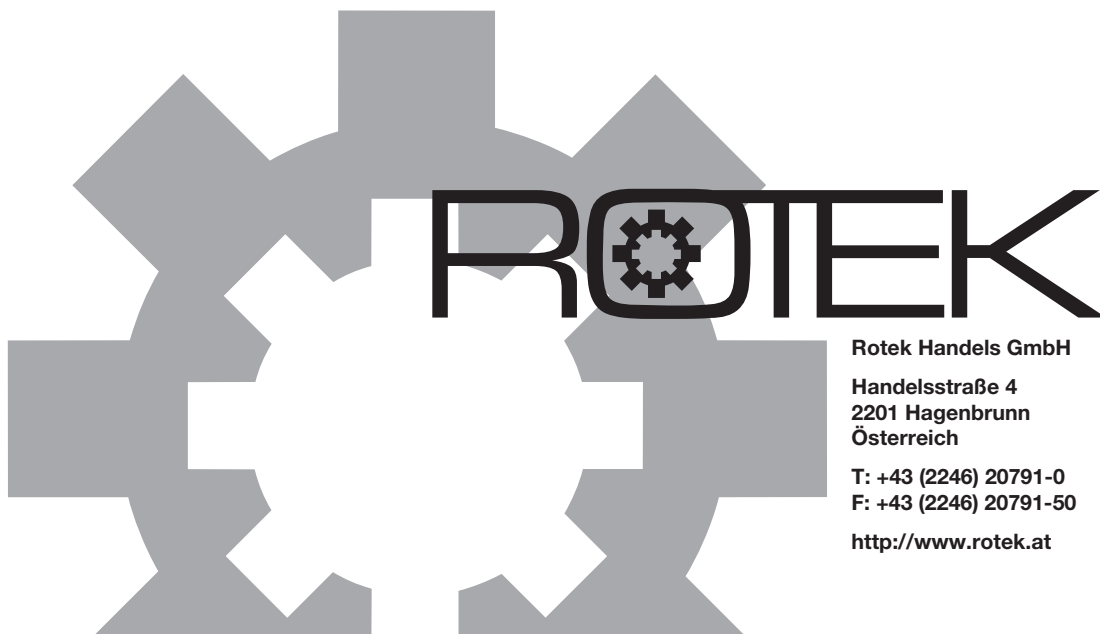


Nr.	Parts Nr.	Description	Qty
1	GB5782-86	Bolt M8x45	4
2	GB93-87	Spring washer 8	8
3	YSD490Q-11003	Fan	1
4	YSD490Q-11001	Spacer	1
5	YSD490Q-11112	Pulley	1
6	HG4-401-74	V-belt	1
7	GB6170-86	Nut M10	1
8	GB7244-87	Spring washer 10	1
9	YSD490Q-11101	Washer	1
10	GB893.1-86	Retainer 40	1
11	GB/T276-94	Ball bearing 6203-Z	2
12	YSD490Q-11104	Bearing space sleeve	1
13	YSD490Q-11106	Pump shaft	1
14	GB5783-86	Bolt M8x60	1
15	GB848-85	Washer 8-140HW	4
16	YSD490Q-11103	Pump housing	1
17	GB1152-79	Grease cup M10x1	1
18	YSD490Q-11107	Gasket	n.B.
19	GB5783-86	Bolt M8x55	3
20	YSD490Q-01022	Gasket	1
21	YSD490Q-11108	Lining plate	1
22	YSD490Q-11105a	Pump impeller	1



Nr.	Parts Nr.	Description	Qty
1	YSD490Q-15000	Air filter assy	1
2	YSD490Q-09300	Oil filter assy	1
3	Y480G-12300	Starter	1
4	GB5783-86	Bolt M8x25	1
5	GB93-87	Spring washer 8	1
6	GB848-85	Washer 8-140HV	1
7	YSD490Q-12001	Bracket	1
8	YSD490Q-12100	Generator JFT1A	1
9	GB5782-86	Bolt M10x90	1
10	GB93-87	Spring washer 10	1
11	GB6170-86	Nut M10	1





**Rotek Handels GmbH**

**Handelsstraße 4  
2201 Hagenbrunn  
Österreich**

**T: +43 (2246) 20791-0  
F: +43 (2246) 20791-50**

**<http://www.rotetek.at>**

---