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YOUR ONE STOP SUPERSTORE FOR DIESEL ENGINE PARTS

SHOP NOW

A large, dark blue, semi-transparent image of interlocking gears is positioned on the right side of the page, extending from the top right corner towards the bottom.

UNIVERSAL ATOMIC DIESEL

MODEL 15

5411(11H.P.)

SEA WATER COOLED

PARTS MANUAL

200138

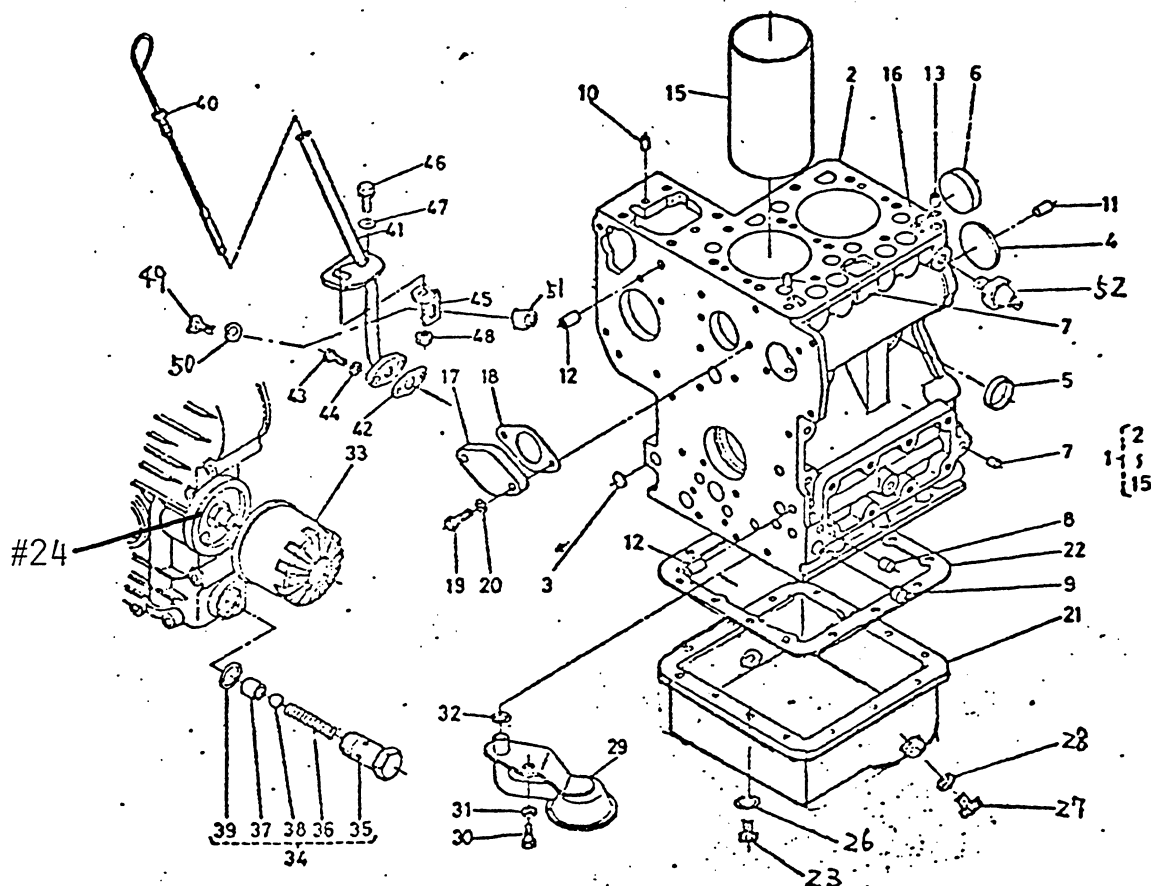
Universal Motors

For Serial No. Prior to 300072

	<u>Page No.</u>
CRANKCASE GROUP-GASKET SET	1 - 1A - 2 - 3
CYLINDER HEAD GROUP	4
GEAR CASE GROUP	5 - 6
BEARING CASE GROUP	7
HEAD COVER GROUP	8
BREATHER GROUP	9 - 9A
CAMSHAFT GROUP	10 -11
VALVE, ROCKER ARM GROUP	12
PISTON, CRANKSHAFT GROUP	13-13A-14
FLYWHEEL GROUP	15
NOZZLE HOLDER GROUP	16
FUEL CAMSHAFT GROUP	17
SPEED CONTROL PLATE GROUP	18
GOVERNOR GROUP	19
NOZZLE GROUP	20
INJECTION PUMP GROUP	21
STARTER GROUP	22 -23
FUEL FILTER GROUP	24
ENGINE MOUNT GROUP	25
TRANSMISSION GROUP	26 -26A
COUPLINGS	26B
THROTTLE LINKAGE CONTROL GROUP	27
DYNAMO GROUP	28
INLET MANIFOLD GROUP	29
EXHAUST MANIFOLD GROUP	30
THERMOSTAT	31
WATER PUMP	32-32A-32B
SPARE PARTS KIT	33
INSTRUMENT PANEL	33
WIRING DIAGRAM	34

CRANKCASE GROUP

Serial No. Prior to 300072

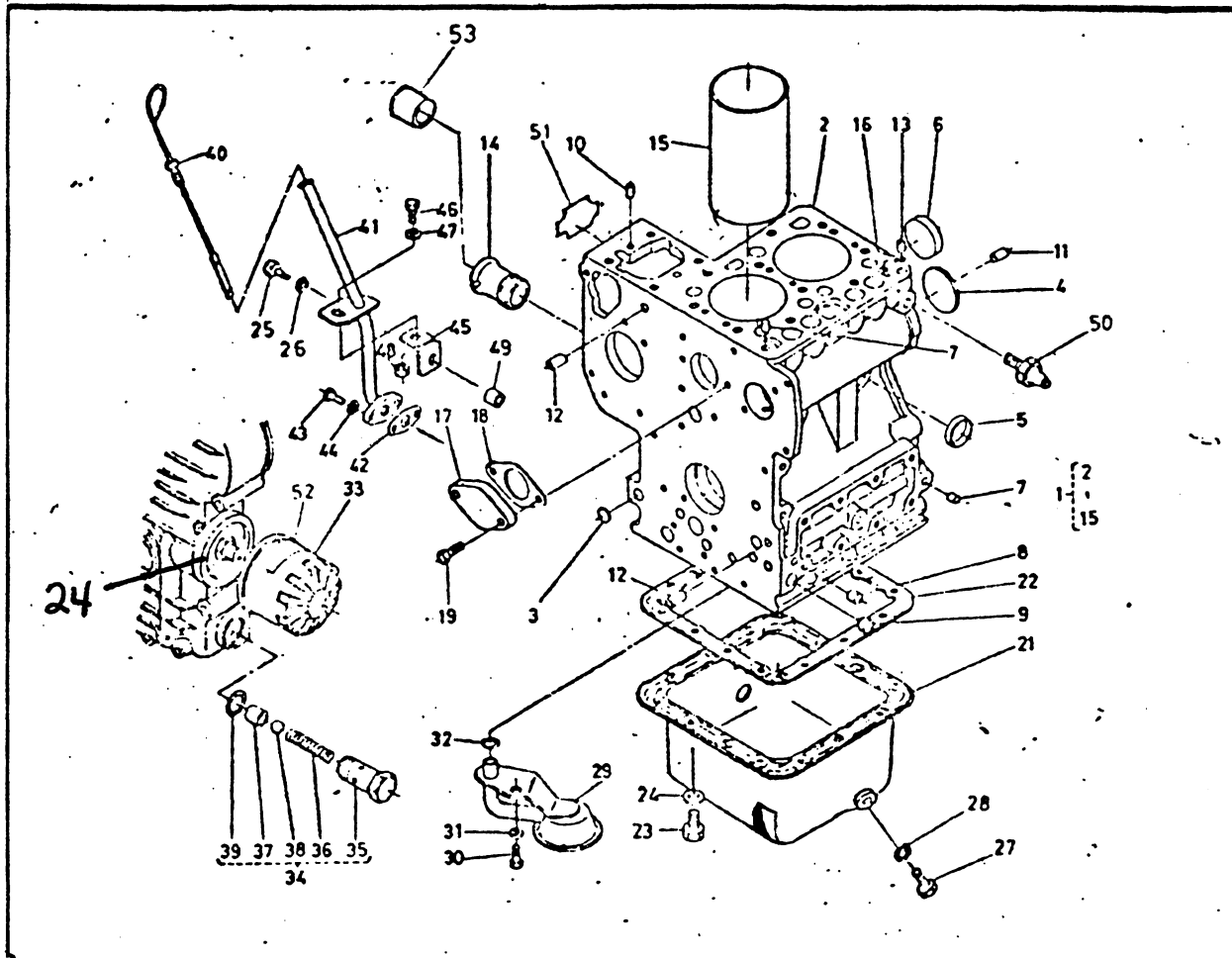


FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299351	Assembly, Crankcase	1
2		Crankcase	1
3	299352	Plug, Expansion	3
4	299353	Plug, Expansion	1
5	299354	Cap, Sealing 299906	3
6	299355	Cap, Sealing 299907	1
7	299356	Plug, Pin	5
8	299357	Plug, Pin	3
9	299358	Plug, Blind	1
10	299359	Pin, Straight	2
11	299360	Pin, Straight	2
12		Pin, Pipe	1
13	300716	Pin, Pipe	2
14			
15	299361	Liner, Cylinder	2
16	299362	O Ring	1
17	299363	Cover, Water 301755	1
18	299364	Gasket, Water Cover	1
19	299365	Bolt	2
20		Washer, Spring	2
21	299366	Oil Pan	1
22	299367	Gasket, Oil Pan	1
23	299368	Bolt	14
24	299412	PIPE JOINT FOR FILTER	

CRANKCASE GROUP

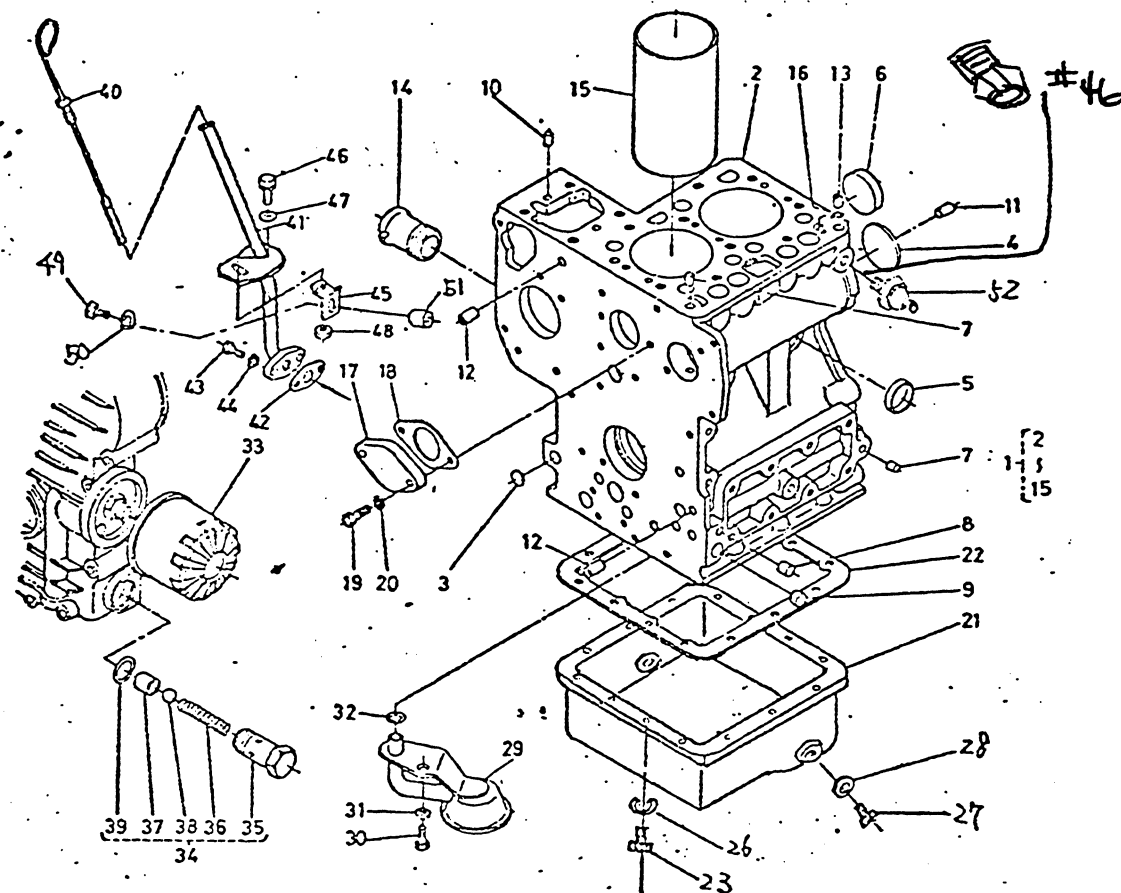
FROM SERIAL NO. 300072 TO



ITEM	PART NO.	DESCRIPTION	UNIT
1	299351	Assembly, Crankcase	1
2	N/A	Crankcase/order by No. 1	1
3	299352	Plug, Expansion	3
4	299353	Plug, Expansion	1
5	299354	Cap, Sealing. 299906	3
6	299355	Cap, Sealing. 299907	1
7	299356	Plug, Pin	5
8	299357	Plug, Pin	3
9	299358	Plug, Blind	1
10	299359	Pin, Straight	2
11	299360	Pin, Straight	2
12	N/A	Pin, Pipe	1
13	N/A	Pin, Pipe	2
14			
15	299361	Liner, Cylinder	2
16	299362	O Ring	1
17	299363	Cover, Water(not Interchangeable w/299363.	1
18	299364	Gasket, Water Cover	1
19	299753	Bolt(must use w/299751)	2
20			
21	299365	Oil Pan . . . 301151	1
22	299367	Gasket, Oil Pan	1
23	299368	Bolt	14
24	299412	PIPE JOIN IT FOR FILTER	

301755

CRANKCASE GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

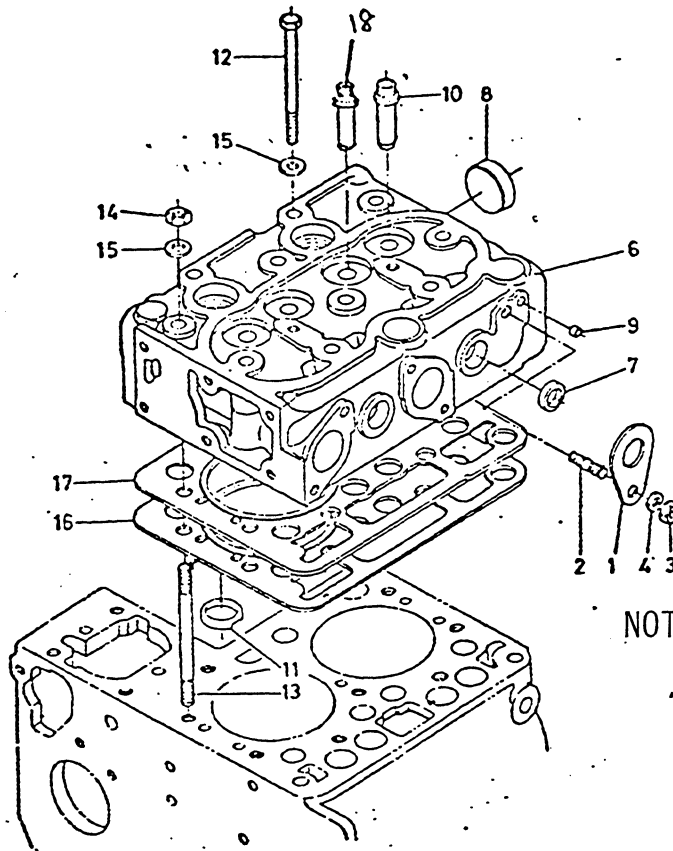
ITEM	PART NO.	DESCRIPTION	UNIT
25			
26	299369	Washer, Spring	14
27	299370	Plug	1
28	299371	Gasket	1
29	299372	Filter, Oil PUMP	1
30	N/A	Bolt	1
31	N/A	Washer, Spring	1
32	299373	O Ring	1
33	299381	Cartridge, Oil	1
34	299374	Relief Valve Assembly	1
35	299375	Body, Relief Valve	1
36	N/A	Spring	1
37	N/A	Seat, Valve	1
38	N/A	Ball	1
39	299376	O Ring	1
40	299377	Gauge, Oil (Dipstick)	1
41	299225	Dipstick Tube	1
42	299226	Dipstick Tube Gasket	1
43	299379	Bolt	2
44	299380	Washer, Spring	2
45			
46	299726	ADAPTOR, MM TO 1/8 NPT	
47			
48			

This diagram shows an exploded view of a mechanical assembly. The main component is a rectangular block with various ports and mounting points. A cylindrical component is mounted on top. To the left, a complex assembly with a fan-like structure is shown. Below the main block, a rectangular base or housing is depicted. Numerous small components, including screws, bolts, and washers, are shown in their relative positions to the main assembly. The parts are numbered as follows:

- 1: Small circular component on the right side.
- 2: Small circular component on the right side.
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- 49: Small circular component on the right side.

[illegible]

CYLINDER HEAD GROUP

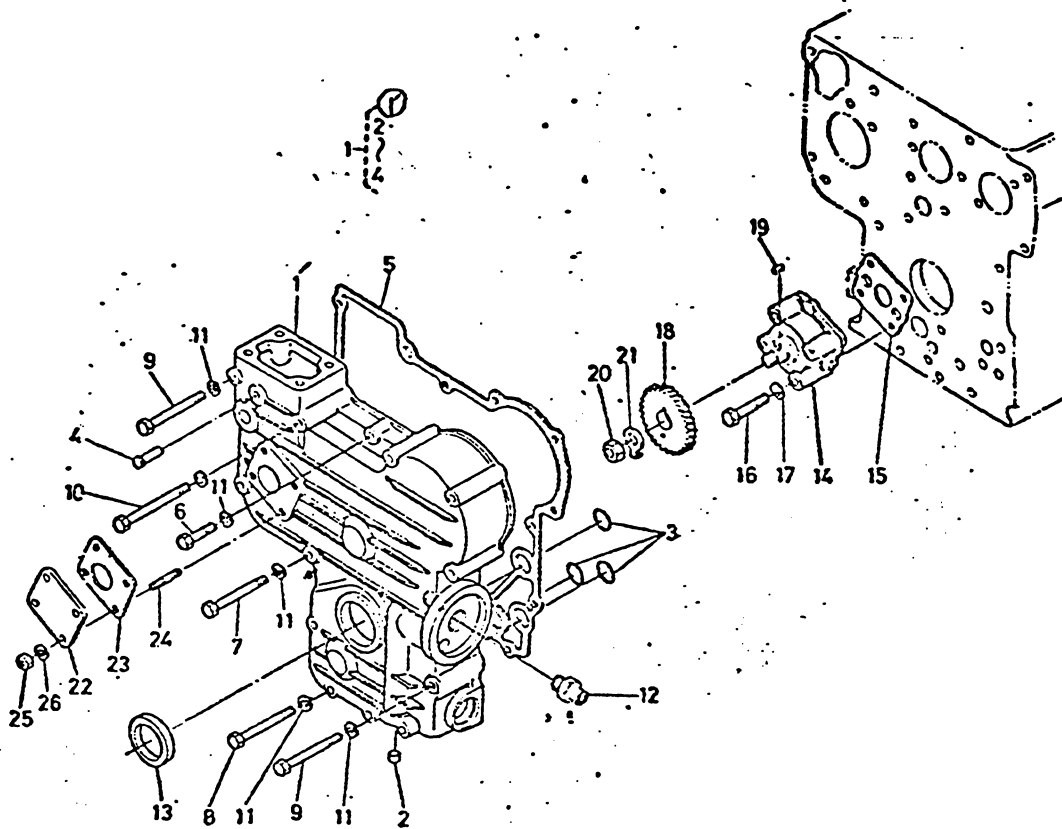


NOTE: P/N 299382 CYLINDER HEAD ASSY
CONSISTS OF ITEM #'S
6,7,8,9,10,11, 18

FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	N/A	Hook, Engine	2
2	N/A	Stud	2
3	N/A	Nut	2
4	N/A	Washer, Spring	2
5	299382	Assembly, Cylinder Head	1
6	N/A	Cylinder Head SFF #5	1
7	299382	Cap, Sealing 299905 18mm	3
8	299382	Cap, Sealing 299906 18mm	1
9	299385	Plug, Blind	2
10	299386	Guide, Valve	2
11	299387	Combustion Chamber	2
12	299388	Bolt, Cylinder Head	8
13	299389	Stud, Cylinder Head	2
14	299390	Nut, Cylinder Head	2
15	299391	Washer, Plain	10
16	299392	Gasket, Cylinder Head	1
17	299393	Shim, Cylinder Head Gasket	1
18	299394	Guide, Exhaust Valve	2
19			
20			
21			
22			
23			
24			

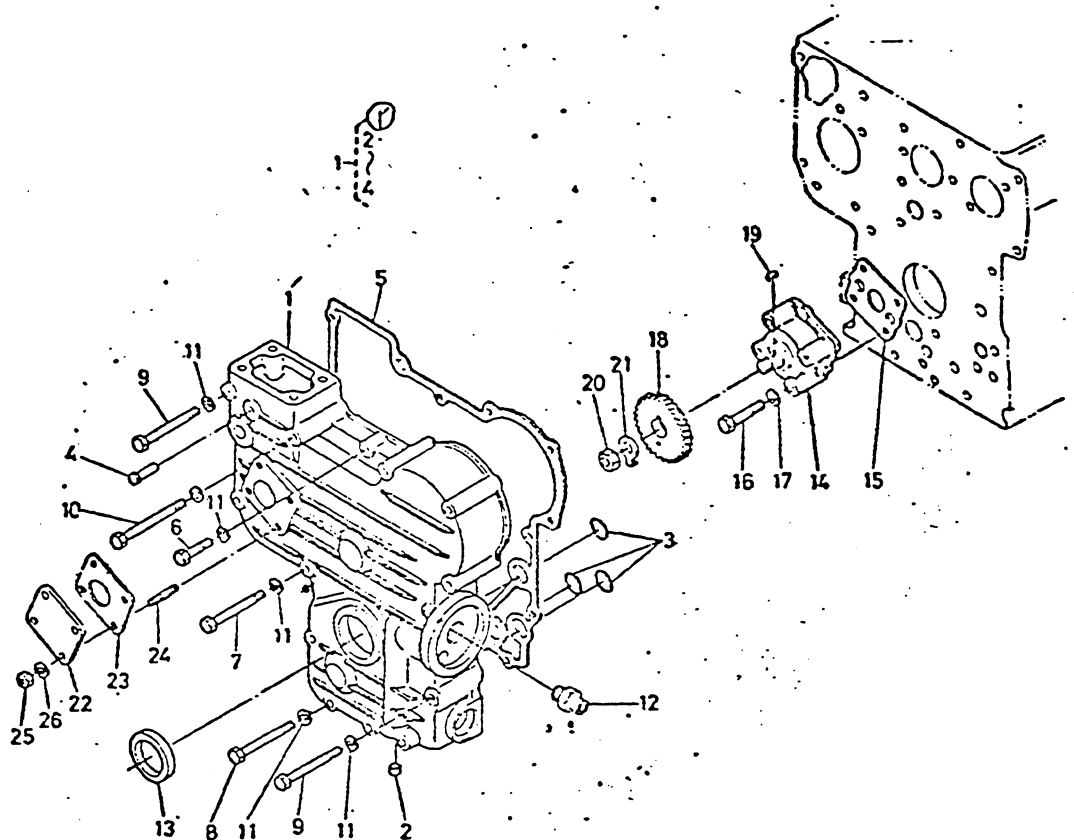
GEAR CASE GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299411	Assembly, Gear Case	1
2	299395	Plug, Pin	2
3	299396	O Ring	3
4	N/A	Pin, Start Spring	1
5	299397	Gasket, Gear Case	1
6	299398	Bolt	1
7	299399	Bolt	4
8	299400	Bolt	7
9	299401	Bolt	1
10	299402	Bolt	1
11	299403	Washer, Spring	14
12	299412	Pipe, Joint	1
13	299404	Seal, Oil	1
14	299405	Assembly, Oil Pump	1
15	299406	Gasket, Oil Pump	1
16	N/A	Bolt	4
17	N/A	Washer, Spring	4
18	299407	Gear, Oil Pump Drive	1
19	299408	Key, Feather	1
20	299409	Nut	1
21	299413	Washer, Claw	1
22	N/A	Cover	1
23	299410	Gasket	1
24	N/A	Stud	4

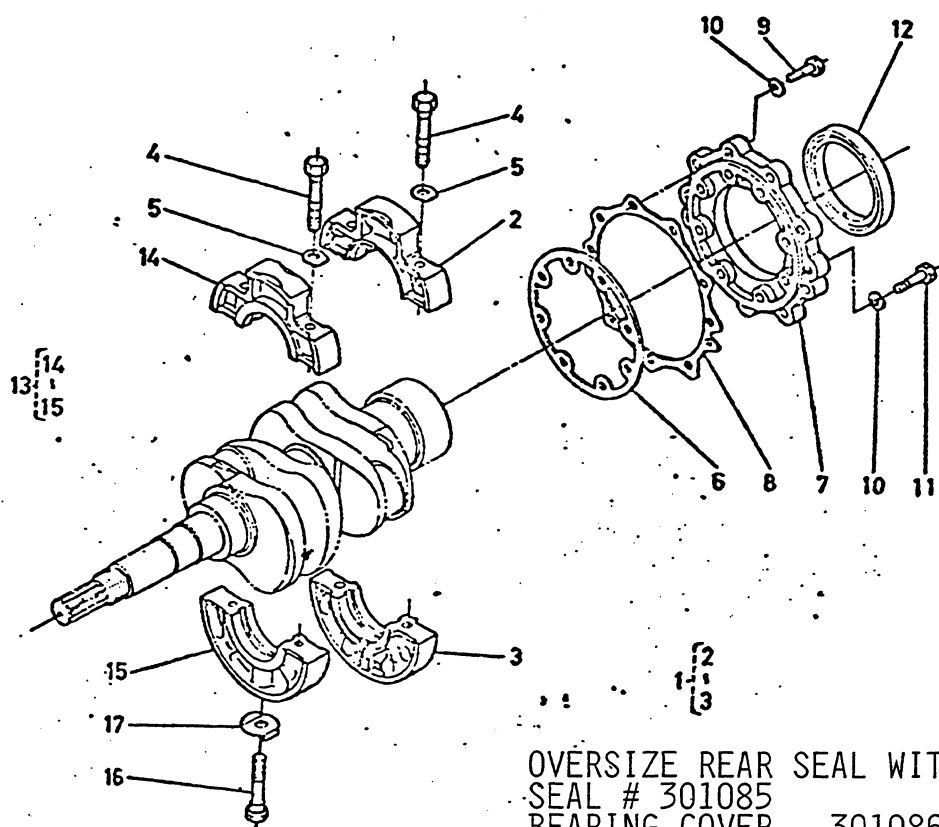
GEAR CASE GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
25	N/A	Nut	4
26	N/A	Washer, Spring	4
27			
28			
29			
30			
31			
32			
33			
34			
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48			

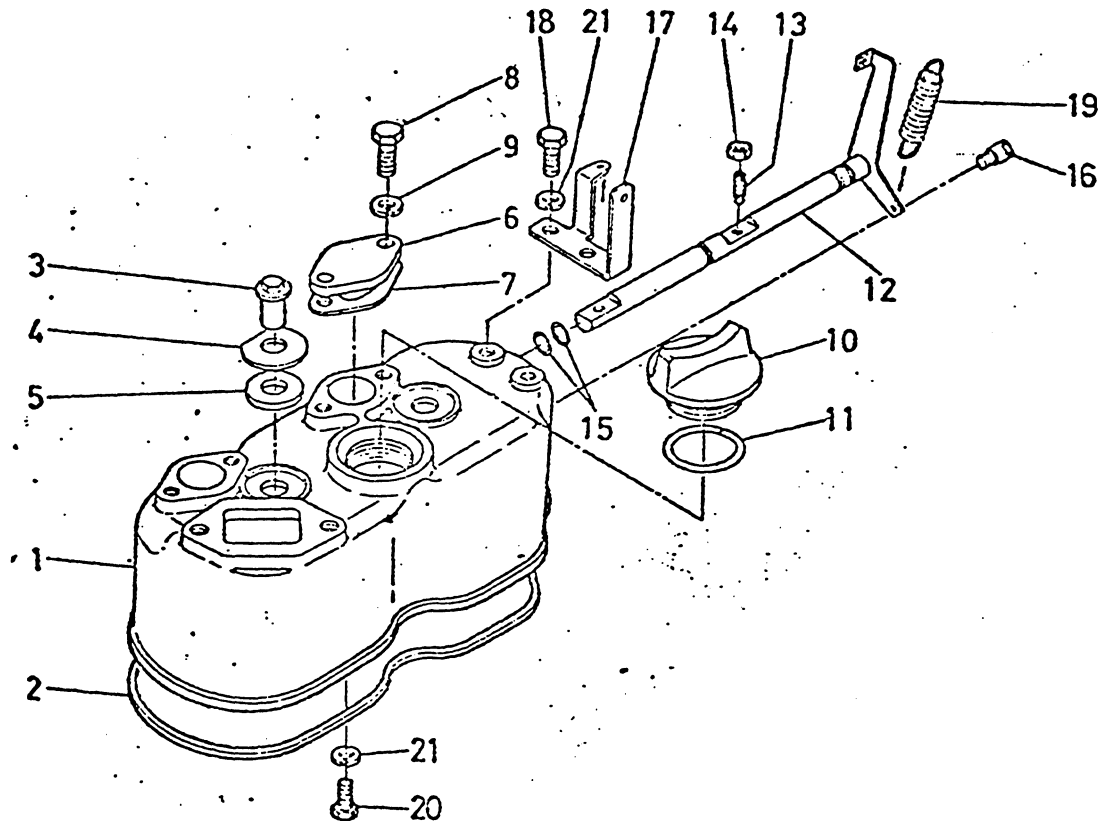
BEARING CASE GROUP



FROM SERIAL NO. 230248 300000 TO 230416 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299414	Assembly Case, Main Bearing	1
2	N/A	Case, Main Bearing/order by Item #1	1
3	N/A	Case, Main Bearing/order by Item #1	1
4	299415	Bolt, Bearing Case	4
5	299416	Washer, Bearing Case	4
6	299417	Gasket, Bearing Case	1
7	XXX XXX	Cover, Bearing Case 300144	1
8	299418	Gasket, Bearing Case Cover	1
9	N/A	Bolt	9
10	N/A	Washer, Spring	17
11	N/A	Bolt	8
12	299419	Seal, Oil REAR	1
13	299420	Assembly Case, Main Bearing	1
14	N/A	Case, Main Bearing/order by Item #13	1
15	N/A	Case, Main Bearing/order by Item #13	1
16	N/A	Bolt, Bearing Case	1
17	299421	Washer, Bearing Case	1
18			
19			
20			
21			
22			
23			
24			

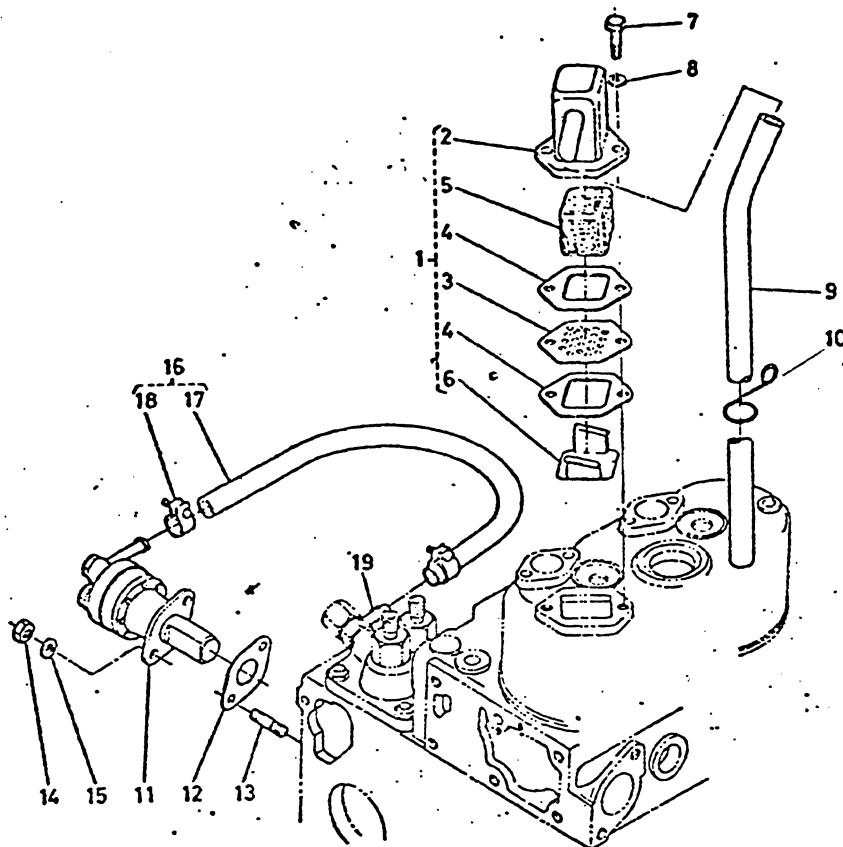
HEAD COVER GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299455	Cover, Cylinder Head	1
2	299456	Gasket, Head Cover	1
3	299457	Nut, Head Cover	2
4	299458	Washer, Head Cover	2
5	299459	Gasket, Nut	2
6	299460	Cover, Decompression Hole	2
7	299461	Gasket	2
8	299462	Bolt	4
9	299463	Washer, Spring	4
10	299464	Plug, Oil Filler	1
11	299465	O Ring	1
12	299466	Assembly Shaft, Decompression	1
13	299467	Bolt, Decompression	2
14	299468	Nut	2
15	299469	O Ring	2
16	N/A	Stopper, Decompression Shaft	1
17	299470	Holder, Decompression Wire	1
18	N/A	Bolt	2
19	299471	Spring, Decompression	1
20	N/A	Bolt	1
21	N/A	Washer, Spring	3
22			
23			
24			

BREATHER GROUP

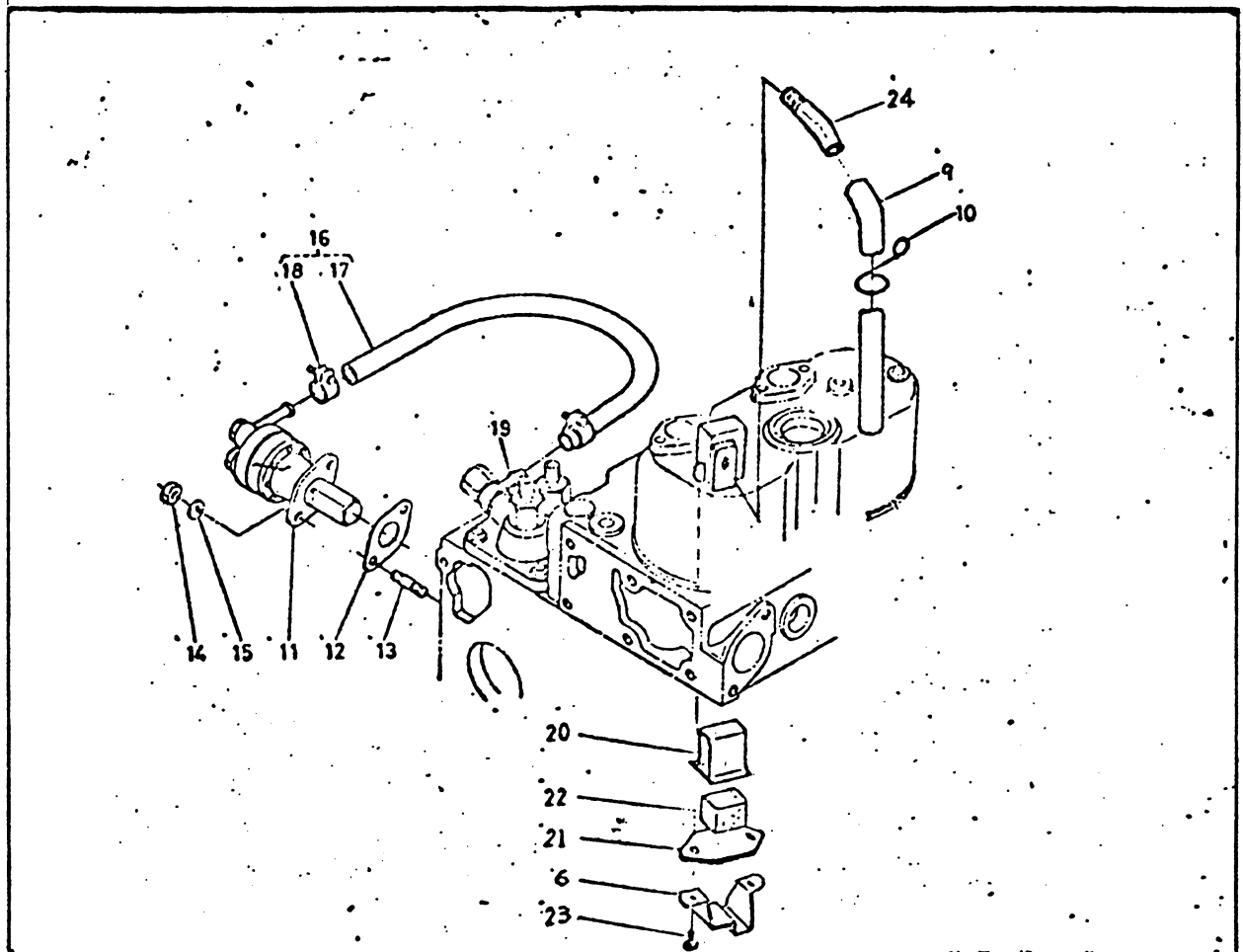


FROM SERIAL NO. 230248 300000 TO 230416 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299422	Assembly, Breather	1
2	N/A	Breather	1
3	N/A	Plate, Element	1
4	299423	Gasket, Cover	2
5	N/A	Element, Breather	1
6	N/A	Oil Shield, Breather	1
7	N/A	Bolt	2
8	N/A	Washer, Spring	2
9	299424	Pipe, Breather	1
10	N/A	Clamp, Pipe	1
11	299425	Assembly Pump, Fuel	1
12	299426	Gasket, Fuel Pump	1
13	N/A	Stud	1
14	N/A	Nut	1
15	N/A	Washer, Spring	1
16	299427	Assembly Pipe, Fuel	1
17	N/A	Pipe, Fuel	1
18	N/A	Clip, Pipe	2
19	299428	Joint, Eye	1
20	300528	FUEL RETURN BRACKET	
21	299831	HOSE, 3/16" I.D. X 3-1/2" LONG	
22			
23			
24			

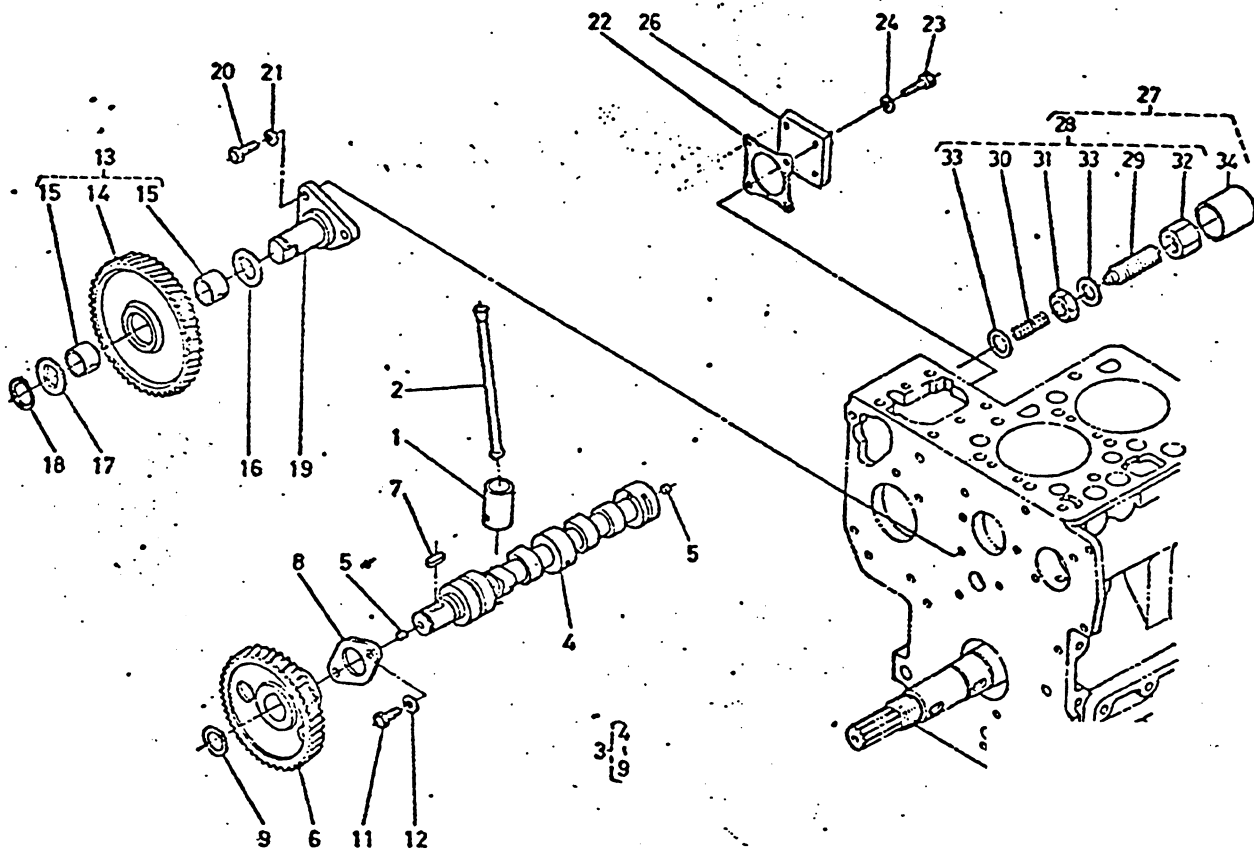
BREATHER GROUP

FROM SERIAL NO. 300072 TO



ITEM	PART NO.	DESCRIPTION	UNIT
1			
2			
3			
4			
5			
6	N/A	Oil Shield, Breather.	1
7			
8			
9	299424	Pipe, Breather.	1
10	N/A	Clamp, Pipe	1
11	299425	Assembly, Fuel Pump	1
12	299426	Gasket, Fuel Pump	1
13	N/A	Stud.	2
14	N/A	Nut	2
15	N/A	Washer, Spring	2
16	299427	Assembly, Pipe Fuel	1
17	N/A	Pipe, Fuel/order by no. 16	1
18	N/A	Clip, Pipe	2
19	299428	Joint, Eye	1
20	N/A	Plate 1, Element	1
21	N/A	Plate 2, Element	1
22	N/A	Element, Breather	1
23	N/A	Screw, With Washer	2
24	N/A	Joint, Breather Pipe	1

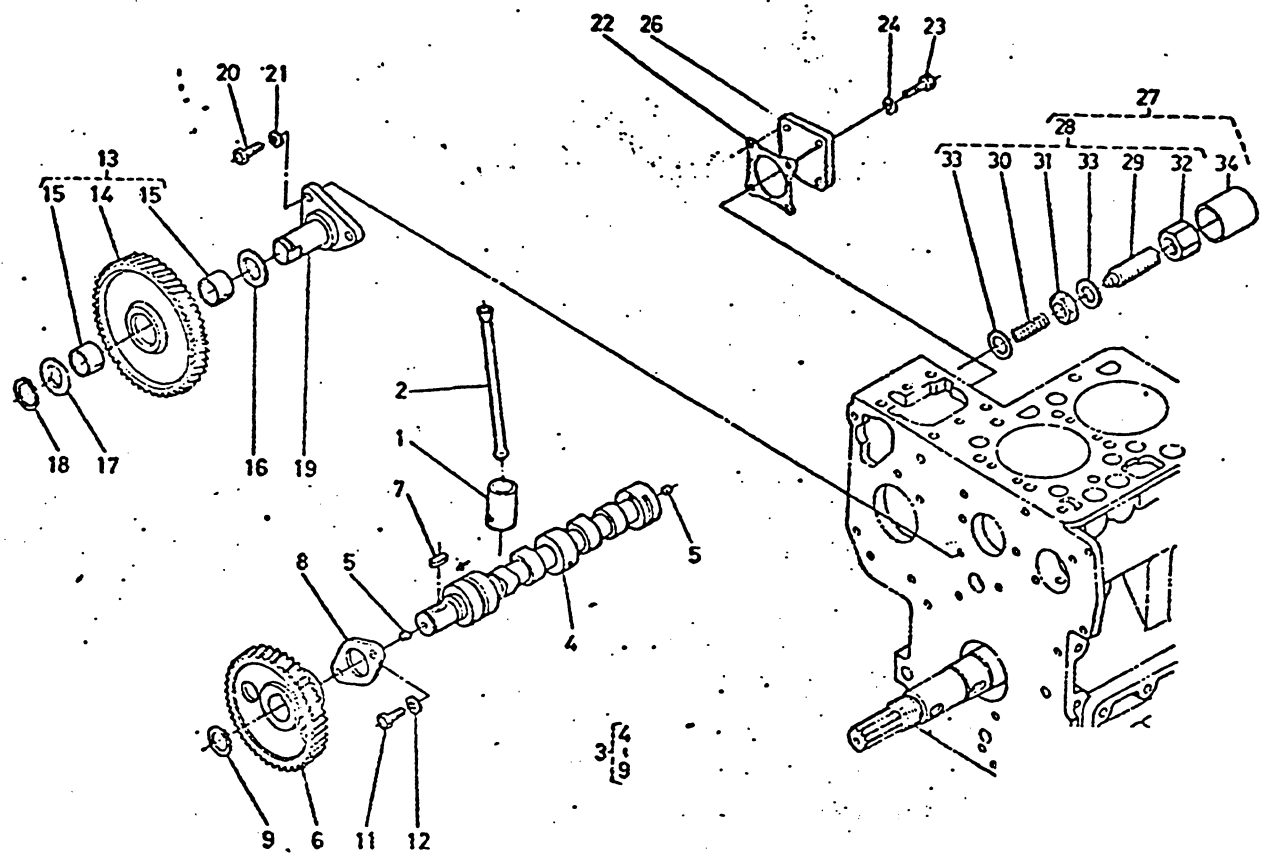
CAMSHAFT GROUP.



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299472	Tappet	4
2	299473	Rod, Push	4
3	299474	Camshaft Assembly	1
4	N/A	Camshaft	1
5	N/A	Plug, Blind	2
6	299475	Gear, Camshaft	1
7	299476	Key, Feather	1
8	299477	Stopper, Camshaft	1
9	N/A	Cir-Clip, External	1
10	N/A		
11	N/A	Bolt	2
12	N/A	Washer, Spring	2
13	299478	Idle Gear Assembly	1
14	N/A	Idle Gear	1
15	299479	Bushing, Idle Gear	2
16	299480	Collar 1, Idle Gear	1
17	299481	Collar 2, Idle Gear	1
18	299482	Cir-Clip, Idle Gear	1
19	299483	Shaft, Idle Gear	1
20	N/A	Bolt	3
21	N/A	Washer, Spring	3
22	299484	Gasket, O/P Pump	1
23	299485	Bolt	4
24	N/A	Washer, Spring	4

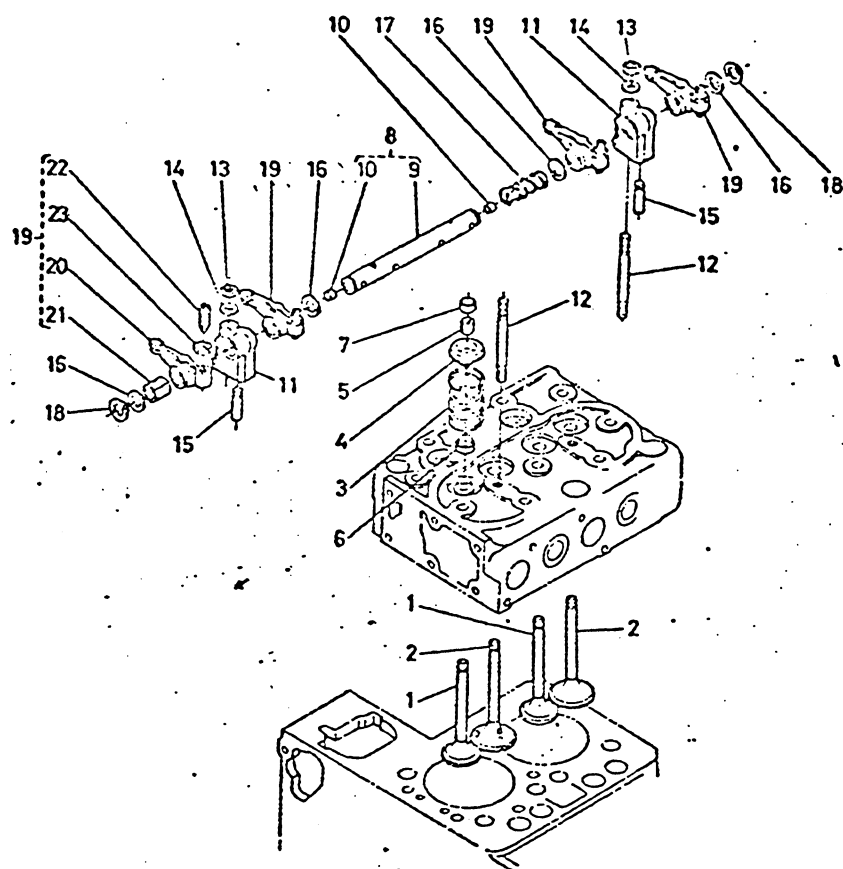
CAMSHAFT GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
25	N/A		
26	299486	Cover	1
27	N/A	Assembly Idling	1
28	N/A	Adjusting Bolt Assembly	1
29	N/A	Adjusting Bolt	1
30	N/A	Spring	1
31	N/A	Nut	1
32	N/A	Nut	1
33	N/A	Gasket	2
34	N/A	Cap	1
35			
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VALVE, ROCKER ARM GROUP

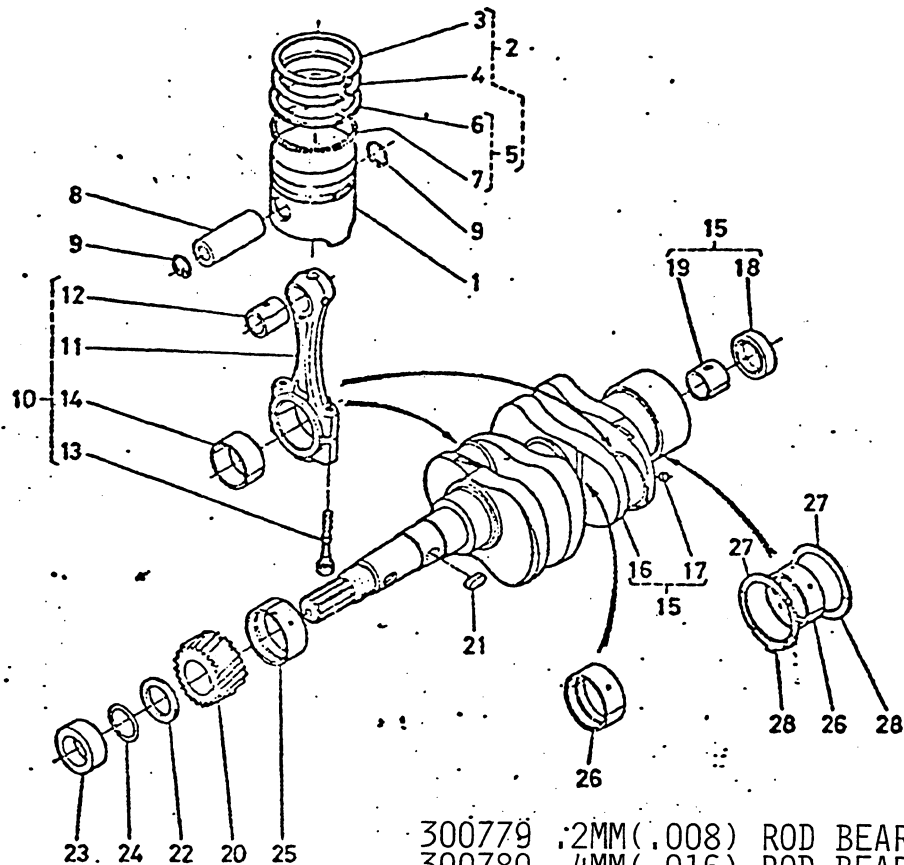


FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299436	Valve, Inlet	2
2	299437	Valve, Exhaust	2
3	299438	Spring, Valve	4
4	299439	Retainer, Valve Spring	4
5	299440	Collet, Valve Spring	8
6	299441	Seal, Valve Stem	4
7	299442	Cap, Valve	4
8	299443	Assembly Shaft, Rocker	1
9	N/A	Rocker Arm Shaft	1
10	N/A	Set Screw	2
11	299444	Bracket, Rocker Arm	2
12	299445	Stud	2
13	299446	Nut	2
14	N/A	Washer Plain	2
15	299447	Set Screw	1
16	299448	Washer	4
17	299449	Spring, Rocker Arm	1
18	299450	Cir-Clip, External	2
19	299451	Rocker Arm Assembly	4
20	N/A	Rocker Arm	4
21	299452	Bushing, Rocker Arm	4
22	299453	Screw, Adjusting	4
23	299454	Nut	4
24			

PISTON, CRANKSHAFT GROUP

Serial No. Prior to 300072



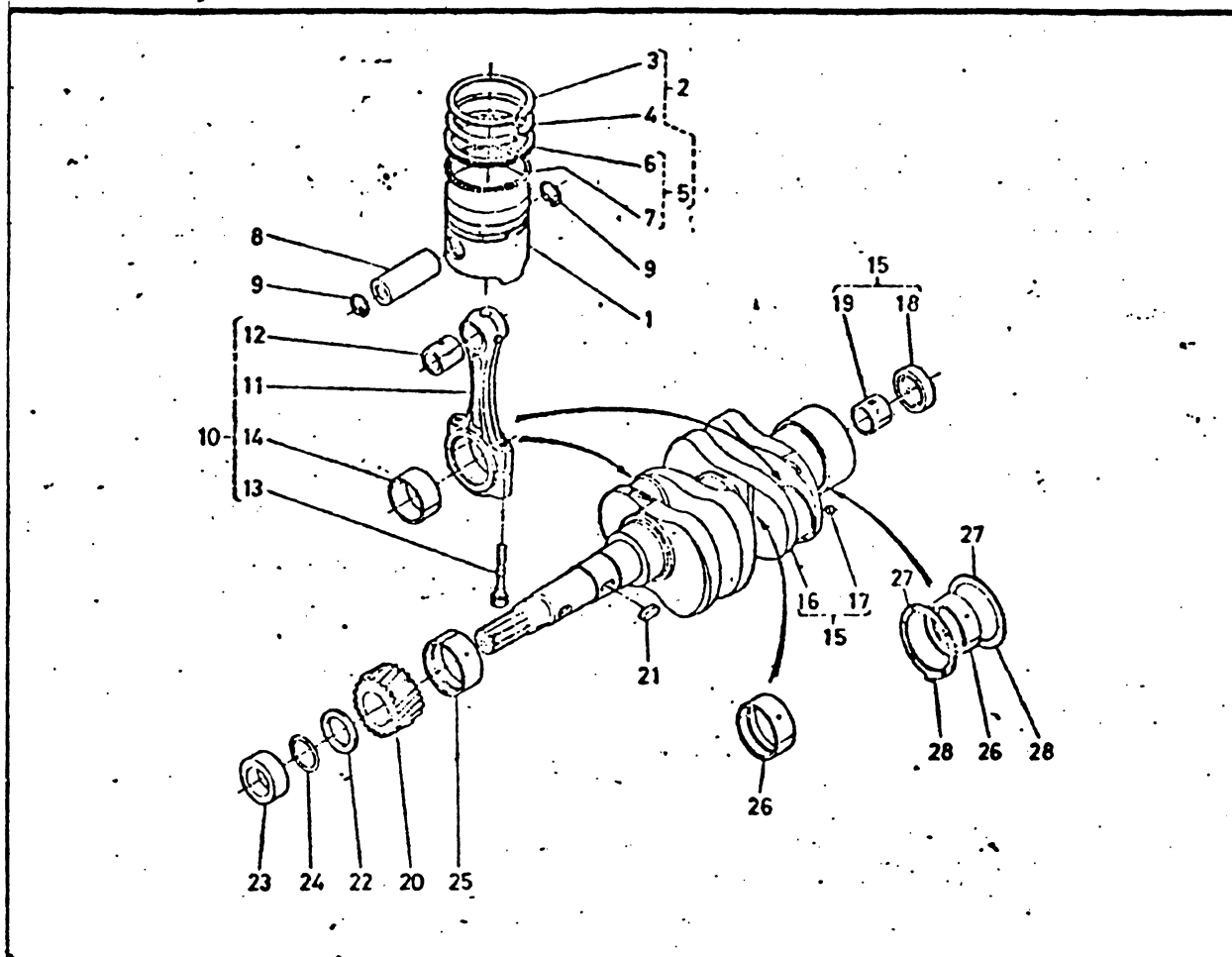
300779 .2MM(.008) ROD BEARING - 2
300780 .4MM(.016) ROD BEARING - 2

FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299487	Piston	2
2	299488	Assembly, Piston Ring	2
3	N/A	Compression Ring	2
4	N/A	Compression Ring	2
5	N/A	Oil Plug Assembly	2
6	N/A	Oil Ring	2
7	N/A	Expander, Oil Ring	2
8	299489	Piston Pin	2
9	299490	Cir-Clip, Piston Pin	4
10	299491	Connecting Rod Assembly	2
11	N/A	Connecting Rod	2
12	299492	Bushing, Piston Pin	2
13	299493	Bolt, Connecting Rod	4
14	299494	Connecting Rod Bearing 4 HALVES (P/PKG)	XX 2
15	299495	Crankshaft Assembly	1
16	N/A	Crankshaft	1
17	N/A	Plug, Pin	2
18	XXXXXXX	Seal, Oil 299949	1
19	XXXXXXX	Bearing 299950	1
20	N/A	Gear, Crankshaft	1
21	299496	Key, Feather	1
22	N/A	Oil Slinger	1
23	299498	Collar Crankshaft	1
24	299499	O Ring	1

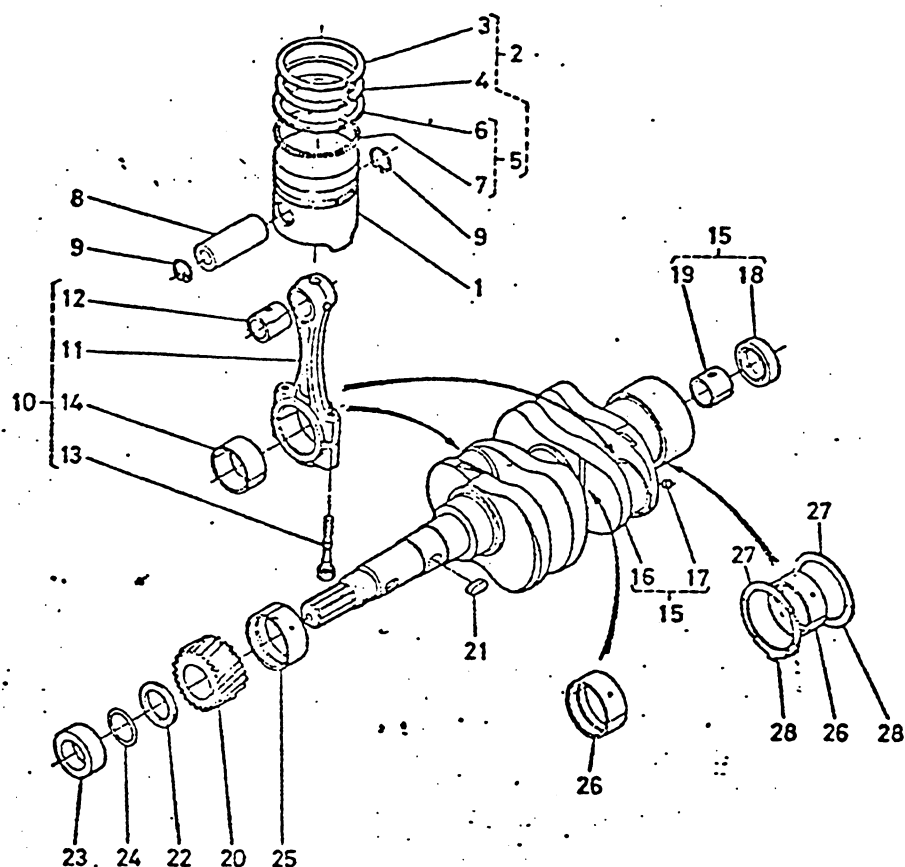
PISTON, CRANKSHAFT GROUP

FROM SERIAL NO. 300072 TO



ITEM	PART NO.	DESCRIPTION	UNIT
1 . . .	299487 . . .	Piston	2
2 . . .	299488 . . .	Assembly, Piston Ring	2
3 . . .	N/A . . .	Compression Ring	2
4 . . .	N/A . . .	Compression Ring	2
5 . . .	N/A . . .	Assembly, Oil Ring	2
6 . . .	N/A . . .	Oil Ring	2
7 . . .	N/A . . .	Expander, Oil Ring	2
8 . . .	299489 . . .	Piston Pin	2
9 . . .	299490 . . .	Cir-Clip, Piston Pin	4
10 . . .	299491 . . .	Assembly, Connecting Rod	2
11 . . .	N/A . . .	Connecting Rod/order by no. 10	2
12 . . .	299492 . . .	Bushing, Piston Pin	2
13 . . .	299493 . . .	Bolt, Connecting Rod	4
14 . . .	299494 . . .	Bearing, Connecting Rod	4
15 . . .	299495 . . .	Assembly, Crankshaft	1
16 . . .	N/A . . .	Crankshaft/order by no. 15	1
17 . . .	N/A . . .	Plug, Pin	2
18 . . .	N/A . . .	Seal, Oil	1
19 . . .	N/A . . .	Bearing	1
20 . . .	N/A . . .	Gear, Crankshaft	1
21 . . .	299496 . . .	Key, Feather	1
22 . . .	N/A . . .	Oil Slinger	1
23 . . .	299498 . . .	Collar Crankshaft	1

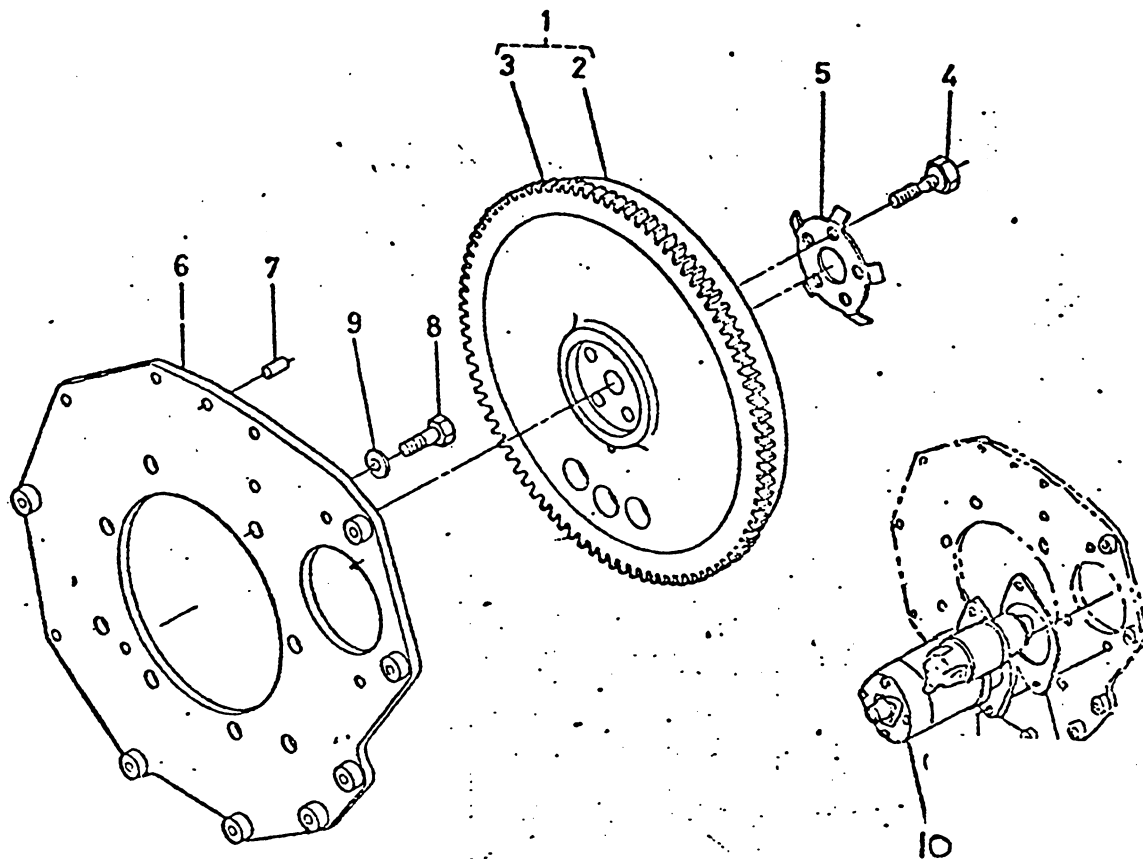
PISTON, CRANKSHAFT GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
25	299500	Bearing, Crankshaft	1
26	299501	Bearing, Crankshaft	4
27	299502	Bearing, Side	2
28	299503	Bearing, Side	2
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
25	40 300752	.2MM UNDERSIZE	1
25	41 300753	.4MM " "	1
26	42 300754	.2MM " "	2
26	43 300755	.4MM " "	2
44			
1	45 301835	.5MM OVERSIZE	2
2	46 301836	.5MM OVERSIZE RINGS (SET)	2
47			
48			

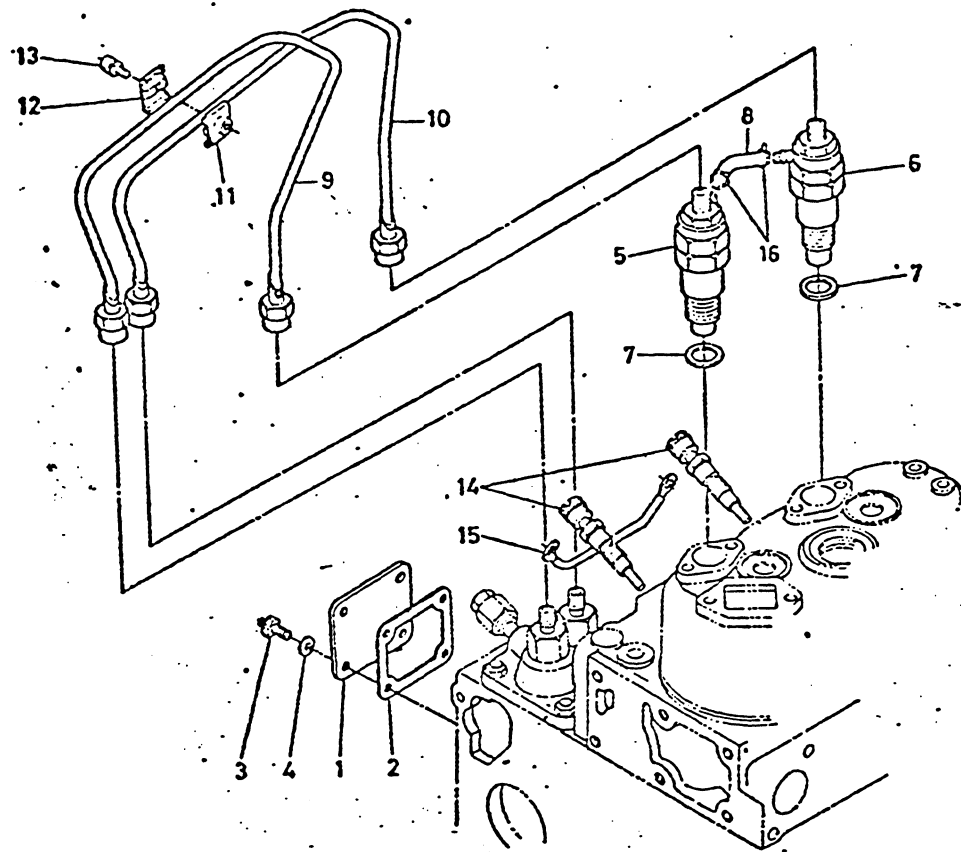
FLYWHEEL GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299504	Assembly, Flywheel	1
2	N/A	Flywheel	1
3	299505	Ring Gear	1
4	299506	Bolt, Flywheel	5
5	299507	Washer, Flywheel	1
6	299508	Plate, Rear End	1
7	299509	Pin, Straight	1
8	299510	Bolt	8
9	299511	Washer, Spring	8
10	299512	Starter Assembly	1
11	299513	Gasket	1
12	299514	Bolt	2
13	299515	Washer, Spring	2
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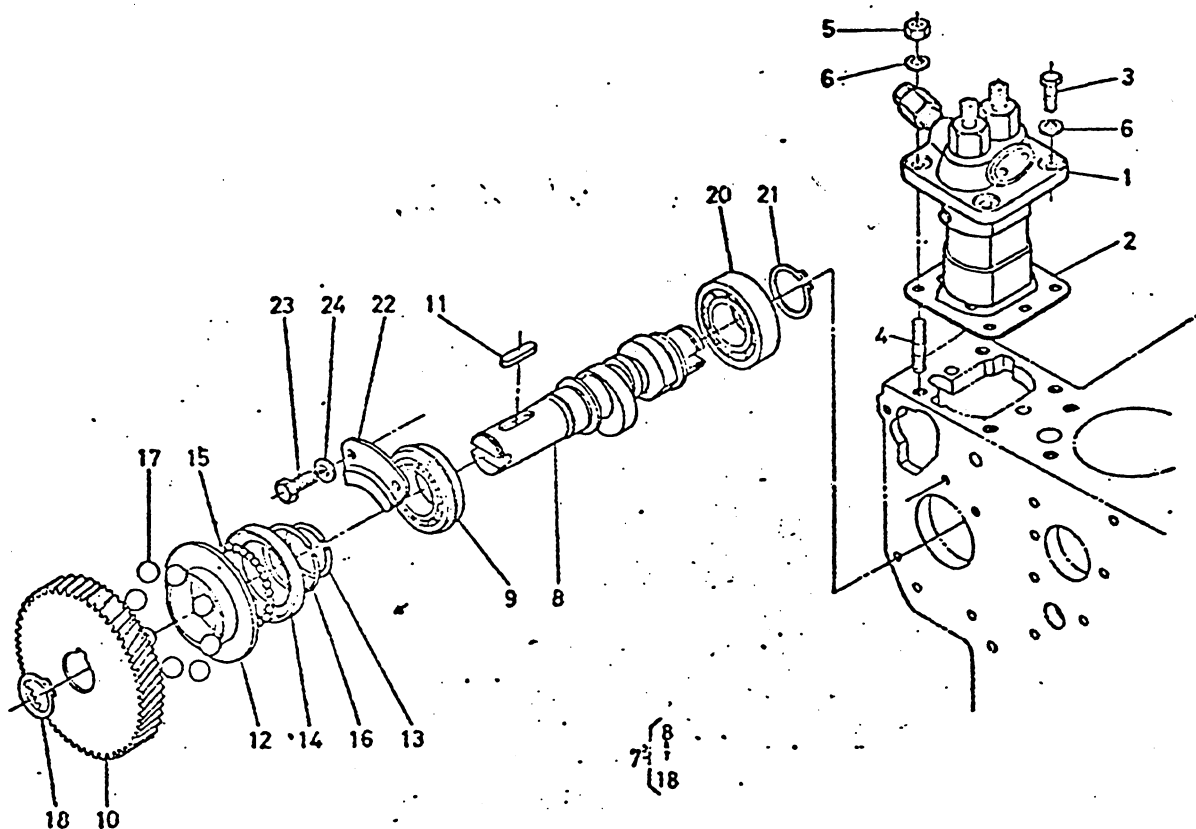
NOZZLE HOLDER GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	N/A	Cover, Injection Pump	1
2	299516	Gasket, Breather	1
3	N/A	Bolt	4
4	N/A	Washer, Spring	4
5	298787	Nozzle Holder Assembly 298787	1
6	298788	Nozzle Holder Assembly 298788	1
7	299519	Gasket	2
8	299520	Pipe, Fuel Over Flow	1
9	299521	Pipe, Injection	1
10	299522	Pipe, Injection	1
11	N/A	Clamp, Pipe	1
12	N/A	Clamp, Pipe	1
13	N/A	Screw With Washer	1
14	299685	Glow Plug	2
15	299523	Cord, Glow Plug	1
16	299524	Clip, Pipe	2
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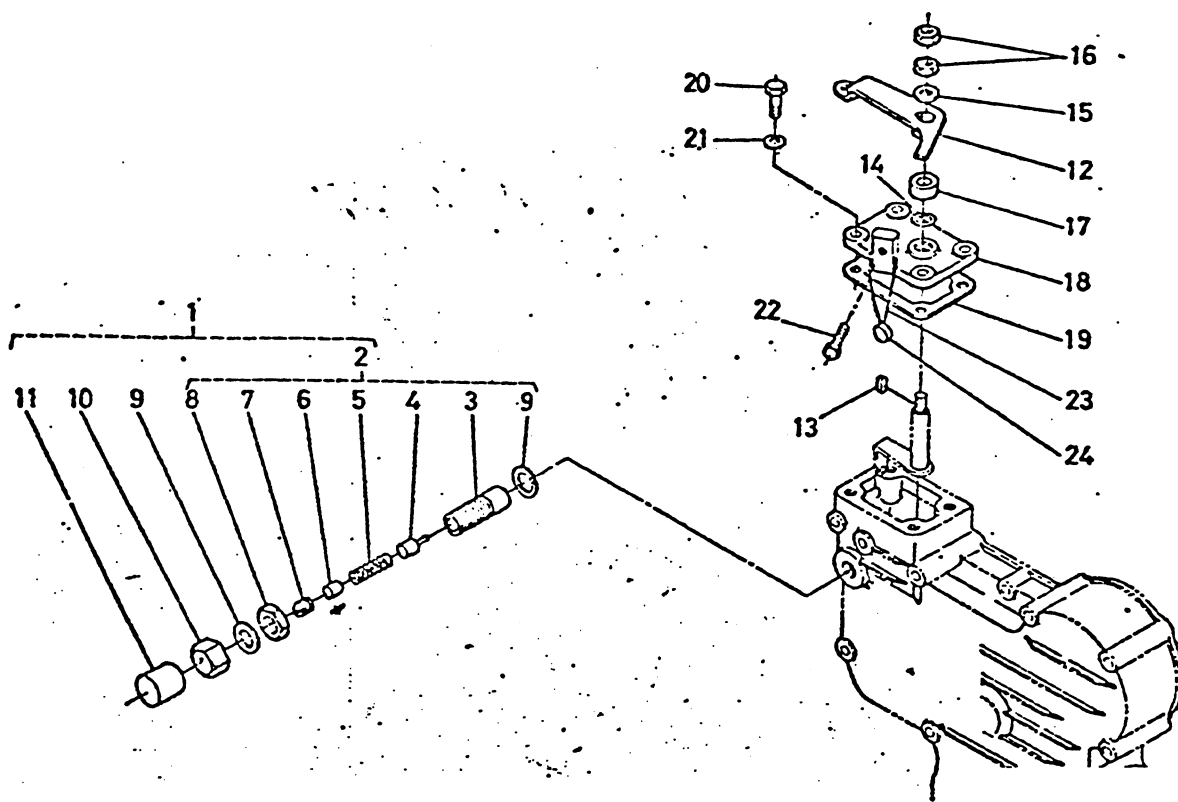
FUEL CAMSHAFT GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299525	Assembly Pump, Injection	1
2	299526	Shim, Injection	5
3	299527	Bolt	2
4	299528	Stud	2
5	299529	Nut	2
6	N/A	Washer, Spring	2
7	299530	Fuel Camshaft Assembly	1
8	N/A	Fuel Camshaft	1
9	N/A XXXX	Bearing, Ball 300195	1
10	N/A	Gear, Injection Pump	1
11	299531	Key, Feather	1
12	N/A	Sleeve, Governor	1
13	N/A	Cir-Clip, Sleeve	1
14	299532	Case, Governor Ball	1
15	299533	Ball	30
16	N/A	Cir-Clip, Case	1
17	299534	Ball	8
18	299535	Cir-Clip, External	1
19			
20	299536	Bearing, Ball	1
21	299537	Cir-Clip, External	1
22	N/A	Stopper, Camshaft	1
23	N/A	Bolt	2
24	N/A	Washer, Spring	2

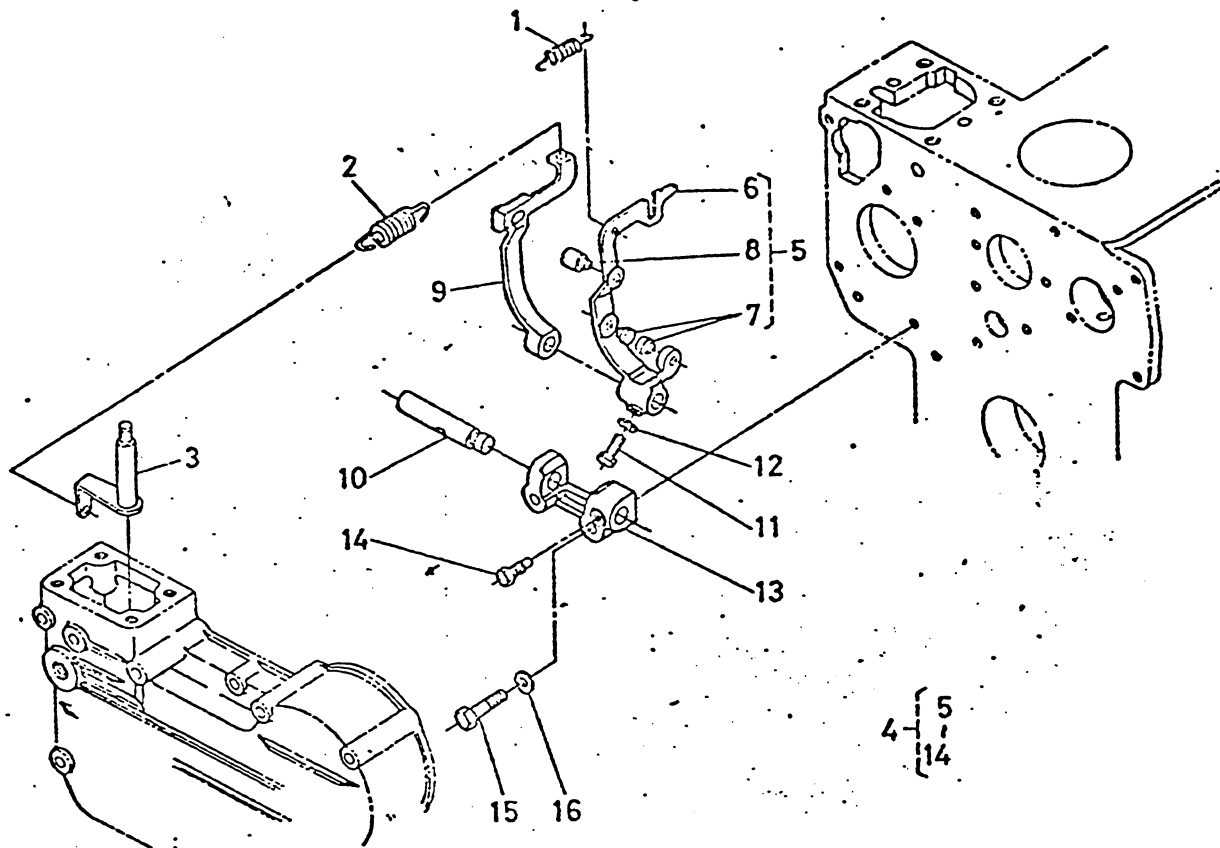
SPEED CONTROL PLATE GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299538	Assembly Apparatus, Fuel	1
2	N/A	Fuel Assembly Apparatus	1
3	N/A	Body, Fuel Apparatus	1
4	N/A	Pin, Fuel Apparatus	1
5	N/A	Spring	1
6	N/A	Spacer	1
7	N/A	Set Screw	1
8	N/A	Nut, Lock	1
9	N/A	Gasket	2
10	N/A	Nut, Cap	1
11	N/A	Cap	1
12	299539	Lever, Speed Control	1
13	299540	Key, Feather	1
14	299541	O Ring 299541	1
15	299542	Washer, Plain	1
16	299543	Nut	2
17	299544	Plate, Friction 299544	1
18	N/A	Plate, Speed Control	1
19	299545	Gasket, Control Plate	1
20	N/A	Bolt	4
21	N/A	Washer, Spring	4
22	N/A	Stopper	1
23	299546	Wire	1
24	299547	Lead, Sealing	1

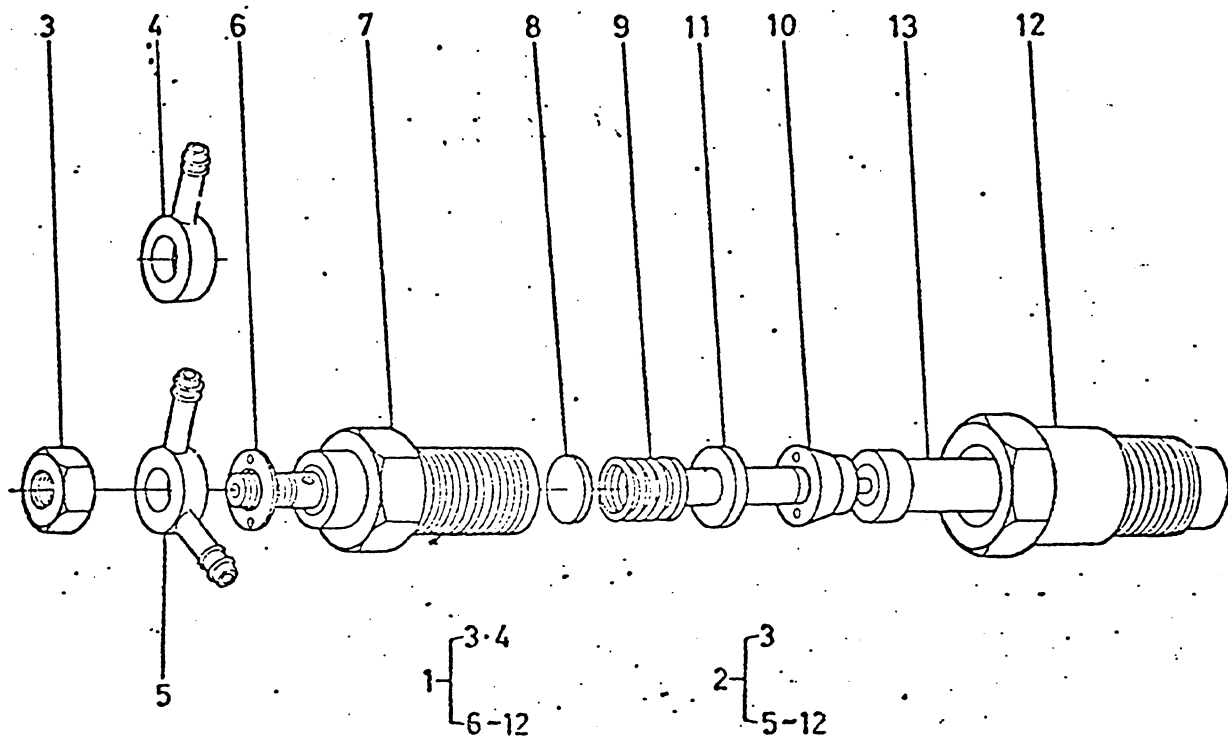
GOVERNOR GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
XX	N/A	Spring, Start 298828	1
XX	N/A	Spring 301356	1
XX	N/A	Governor Lever Assembly 300691	1
4	N/A	Fork Lever Assembly	1
5	N/A	Fork Lever Assembly	1
6	N/A	Fork Lever	1
7	N/A	Pin, Fork Lever	2
8	N/A	Pin, Fork Lever	1
9	N/A	Fork Lever	1
10	N/A	Shaft, Fork Lever	1
11	N/A	Bolt	1
12	N/A	Washer, Spring	2
13	N/A	Fork Lever Holder	1
14	N/A	Bolt	1
15	N/A	Bolt	2
16	N/A	Washer, Spring	2
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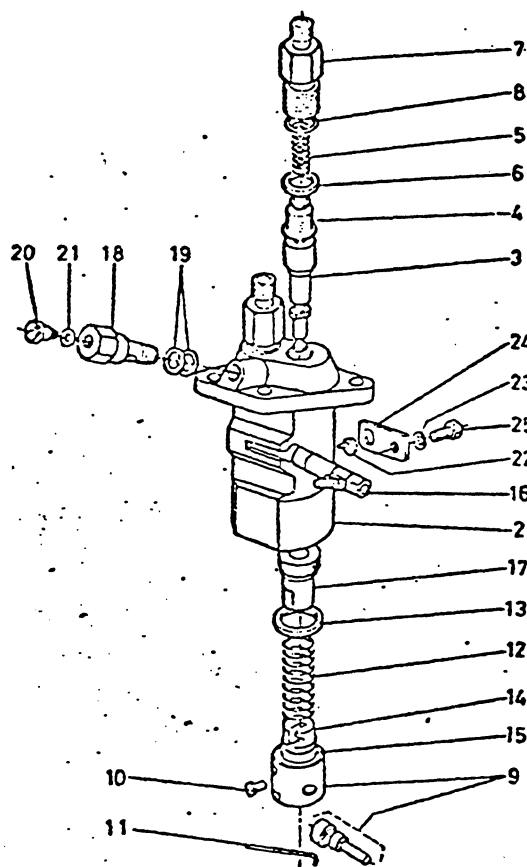
NOZZLE GROUP



FROM SERIAL NO. 230248 300000 TO 230416 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	XXXX	Nozzle Holder Assembly 299787	1
2	XXXX	Nozzle Holder Assembly 299788	1
3	N/A	Nut	1
4	N/A	Joint, Eye	1
5	N/A	Joint, Eye	1
6	XXXXXX	Washer, Plain 301137	1
7	N/A	Nozzle Holder Body	1
8	N/A	Washer, Adjusting	1
9	N/A	Spring, Nozzle	1
10	N/A	Piece, Distance	1
11	N/A	Rod, Push	1
12	N/A	Nut, Nozzle	1
13	N/A	Piece, Nozzle	1
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INJECTION PUMP GROUP

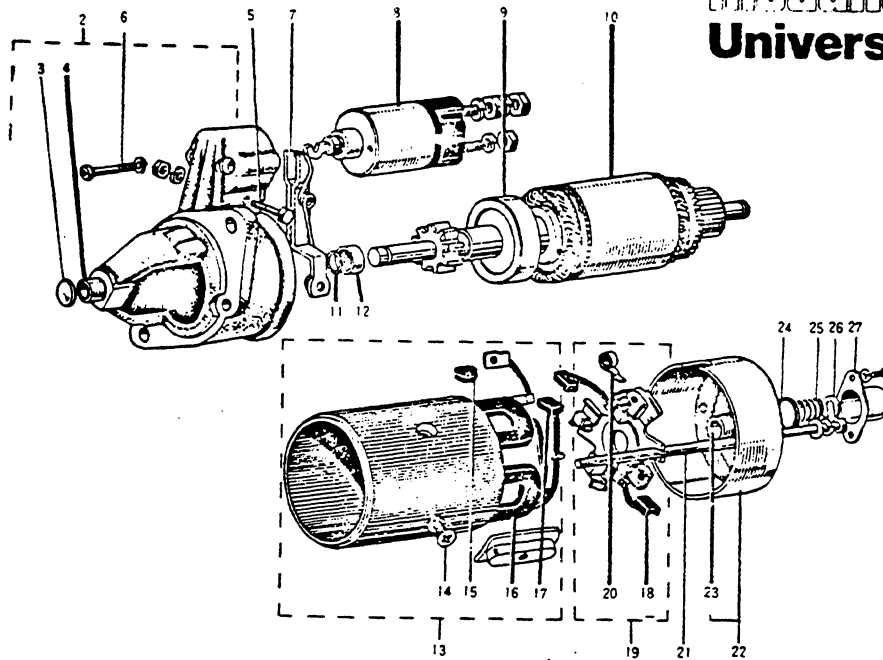


FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299525	Injection Pump Assembly	1
2	N/A	Housing, Pump	1
3	N/A	Element, Pump	2
4	N/A	Valve, Delivery	2
5	N/A	Spring, Delivery Valve	2
6	N/A	Gasket, Delivery Valve	2
7	N/A	Holder, Delivery Valve	2
8	N/A	O Ring	2
9	N/A	Tappet Assembly	2
10	N/A	Pin, Tappet Guide	2
11	N/A	Pin, Clamp	2
12	N/A	Spring, Plunger	2
13	N/A	Seat, Spring Upper	2
14	N/A	Seat, Spring Under	2
15	N/A	Shim	1
16	N/A	Rack, Control	1
17	N/A	Sleeve, Control	2
18	XXXXXXX	Screw 301163	1
19	XXXXXXX	Gasket 299873	2
20	299748	Screw, Air Bleeder	1
21	299749	Gasket	1
22	N/A	Collar	1
23	N/A	Washer, Spring	1
24	N/A	Plate, Adjust	1
25	N/A	Bolt, Plate Adjust	1

STARTER GROUP

medalist
Universal Motors

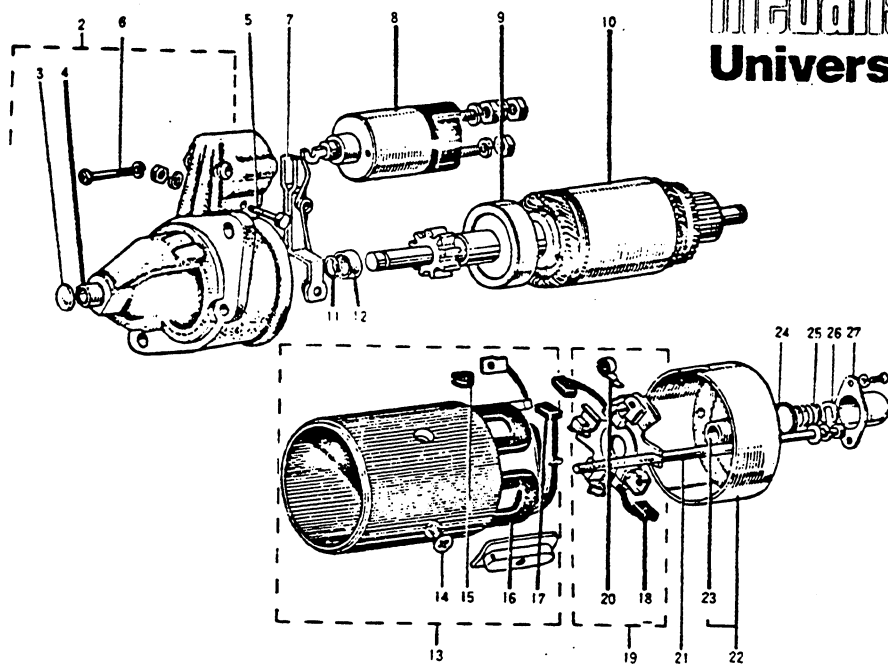


FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299512	Starter Assembly	1
2	N/A	Frame, Drive End	1
3	N/A	Plug, Expansion	1
4	N/A	Bushing	1
5	N/A	Bolt, Set	1
6	N/A	Bolt	2
7	N/A	Lever, Drive	1
8	SEE NOTES ++	Solenoid 300538 WITH STUDS OR 299771	1
9	N/A	Clutch, Over Running WITH SCREWS)	1
10	N/A	Armature	1
11	N/A	Pin, Snap	1
12	N/A	Collar	1
13	N/A	Yoke	1
14	N/A	Bolt, Set	4
15	N/A	Gasket	1
16	N/A	Coil, Field	1
17	N/A	Brush	2
18	N/A	Brush	2
19	N/A	Holder, Brush	1
20	N/A	Spring, Brush	1
21	N/A	Bolt, Through	2
22	N/A	Frame, End	1
23	N/A	Bushing	1
24	N/A	Gasket	1

STARTER GROUP (CONTINUED)

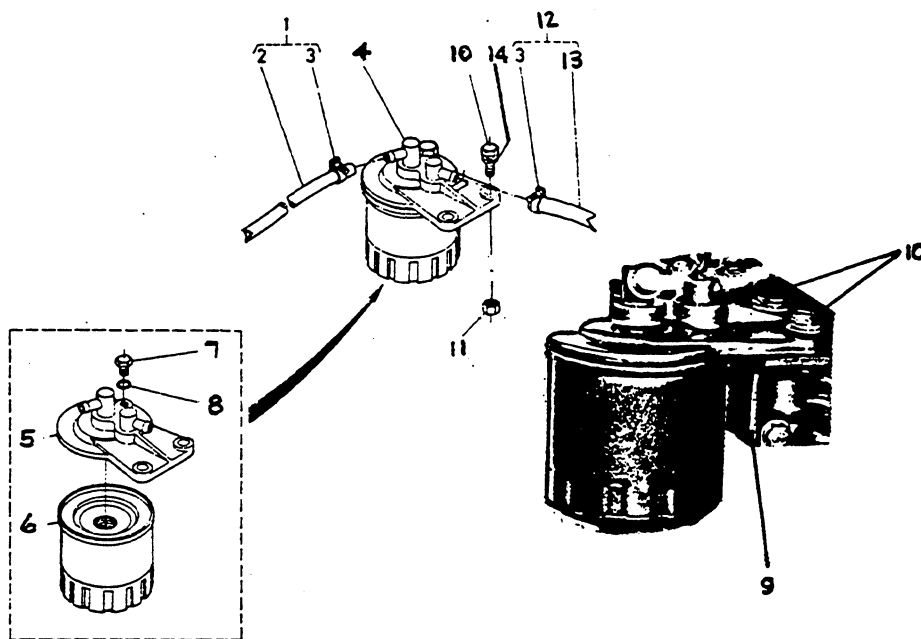
medalist
Universal Motors



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
25	N/A	Spring, Return	1
26	N/A	Washer	1
27	N/A	Cap, End Frame	1

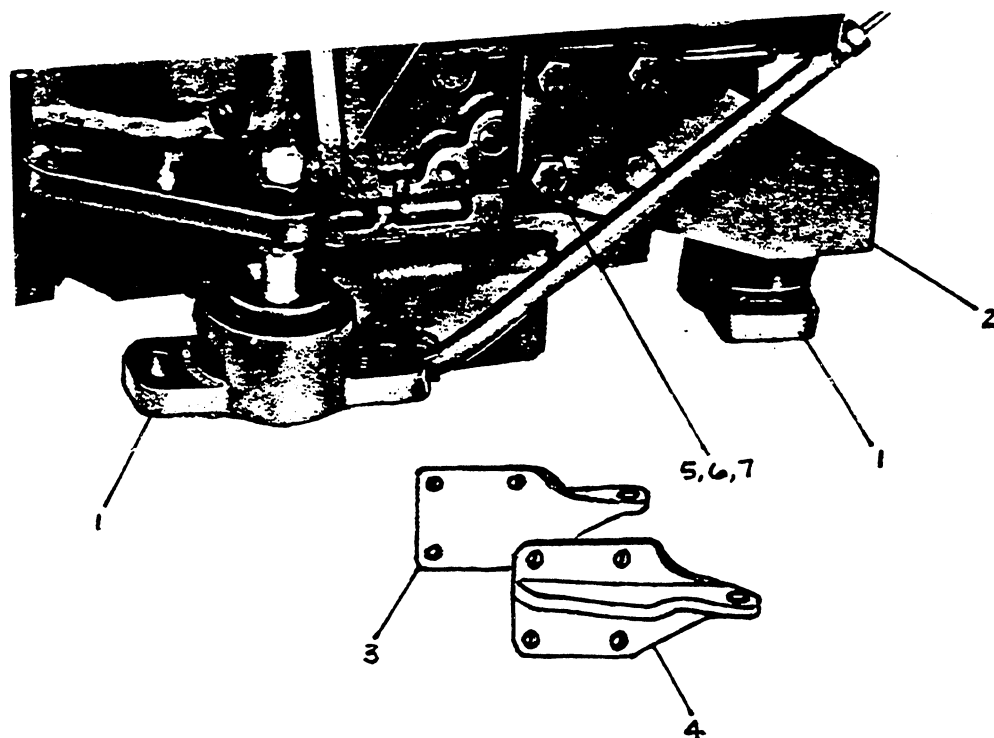
FUEL FILTER GROUP



FROM SERIAL NO. 230248 300000 TO 230416 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	N/A	Fuel Pipe Assembly	1
2	N/A	Fuel Pipe	1
3	298605	Clip, Pipe	2
4	298853	Fuel Filter Assembly	1
5	N/A	Cover, Filter	1
6	298854	Fuel Filter Element	1
7	XXXXXXX	Plug, Filter Breather 299855	1
8	XXXXXXX	O Ring 299856	1
9	299029	Bracket, Filter	1
10	231059	Bolt	2
11	230142	Nut	2
12	N/A	Fuel Pipe Assembly	1
13	298567	Pipe, Fuel Filter To Engine	1
14	298461	Lock Washer	2
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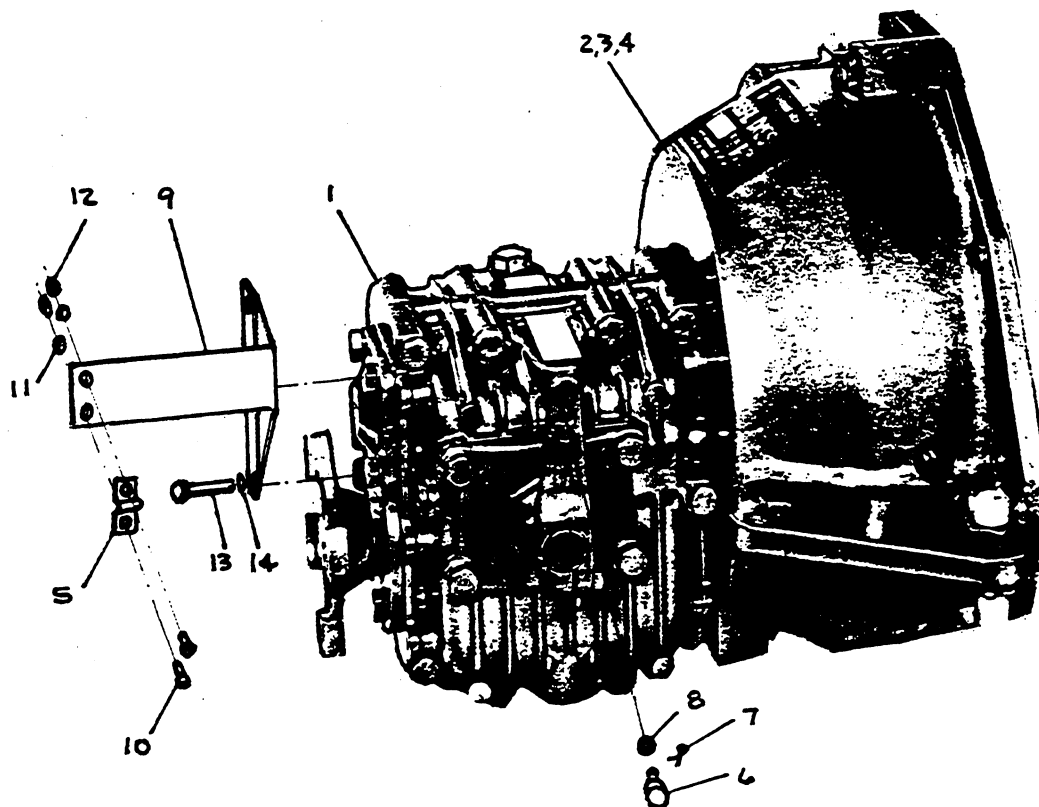
ENGINE MOUNT GROUP



FROM SERIAL NO. 230248 300000 TO 230416 300071

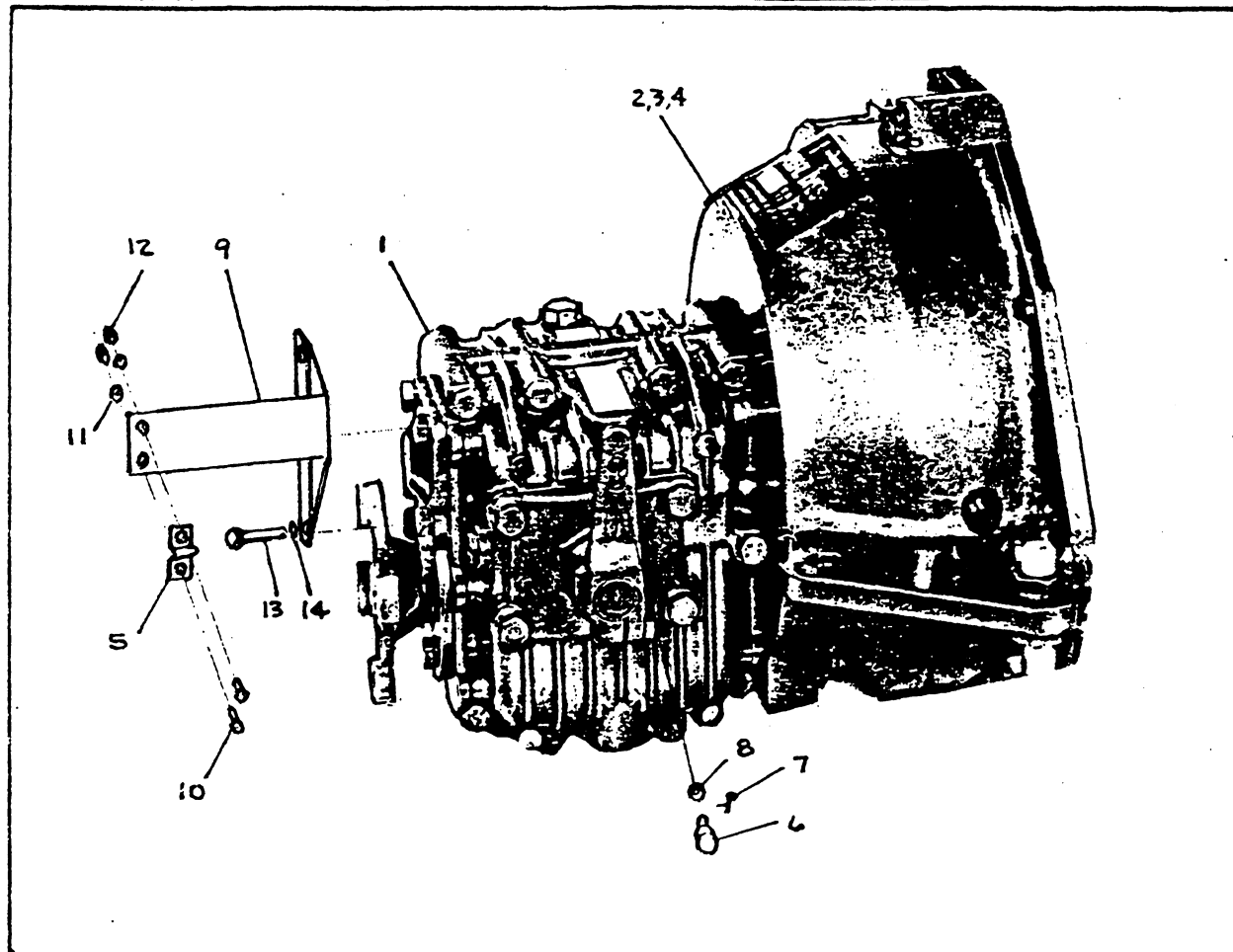
1A

ITEM	PART NO.	DESCRIPTION	UNIT
1	289232	Flexible Mount (3 and 4 Point)	3or4
2	299102	Mounting Bracket Front (3 Point)	1
3	299254	Engine Mount-Port (4 Point)	1
4	299256	Engine Mount-Starboard (4 Point)	1
5	298506	Hex Hd Cap Screw 10MM x 1.25 x 30MM	8
6	298463	Lock Washer 10MM	8
7	298456	Flat Washer 10MM	8
8			
XX	300514	FLEX MOUNT (SOFTER)	3/4
10			
XX	300284	16" MOUNT PORT SIDE	1
XX	300286	16" MOUNT STARBOARD SIDE	1
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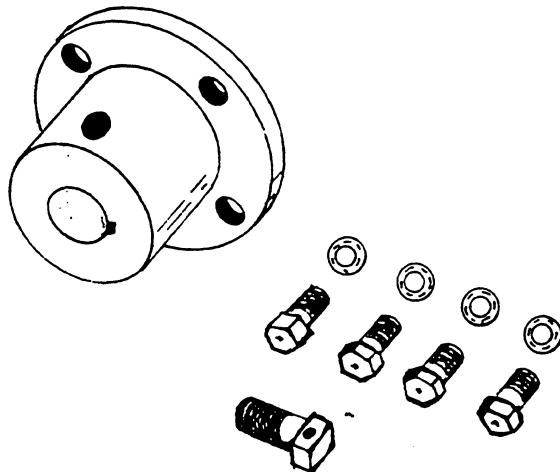


FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299155	Reverse Gear Box Complete 300115 HBW-50	1
2	299100	Bell Housing	1
3	299156	Damper-Reverse Gear (not shown)	1
4	299157	Plate - Damper Mt'g. (not shown)	1
5	298897	Clamp-Shift Cable to Control Brkt.	1
6	298898	Pivot-Shift Cable to Reverse Gear Lever	1
7	230281	Cotter Pin - 3/32 x 1/2"	1
8	231874	Flat Washer 1/4	1
9	299160	Shift Control Mounting Bracket 300427	1
10	231224	Rd. Hd. Mach. Screw (#10-32 x 1/2")	2
11	231890	Lock Washer, Split (#10-32 Screw)	2
12	230138	Hex Nut (#10-32)	2
13	287895	Hex Hd Cap Screw (8MM x 1.25 x 16MM)	2
14	298461	Lock Washer (8MM Screw)	2
15	298468	Hex Hd Cap Scr. (Trans. to Bell Housing)	N/S 6
16	231875	Flat Washer 5/16 (Trans. to Bell Housing)	N/S 6
17	298461	Washer, Lock 8MM (Trans. to Bell Housing)	N/S 6
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ITEM	PART NO.	DESCRIPTION	UNIT
1 . . .	299155	Reverse Gear Box Complete 300115 HBW50.	1
2 . . .	299100	Bell Housing 300945	1
3 . . .	299156 . . .	Damper-Reverse Gear (not shown)	1
4 . . .	299157 . . .	Plate-Damper Mt'g (not shown)	1
5 . . .	298897 . . .	Clamp-Shift Cable to Control Bracket. . .	1
6 . . .	299690 . . .	Pivot-Shift Cable to Reverse Gear Lever .	1
7 . . .	230281 . . .	Cotter Pin - 3/32 x 1/2"	1
8 . . .	231874 . . .	Flat Washer - 1/4"	1
9 . . .	299160	Shift Control Mounting Bracket 300427 .	1
10 . . .	231224 . . .	Rd. Hd. Machine Screw-#10-32 x 1/2" . . .	2
11 . . .	231890 . . .	Lock Washer, Split-#10-32 Screw	2
12 . . .	299290 . . .	Hex Nut-#10-32.	2
13 . . .	281906	Hex Hd. Cap Screw-8MM x 1.25 x 16MM 298895	2
14 . . .	298461 . . .	Lock Washer-8MM Screw	2
15 . . .	298468 . . .	Hex Hd. Cap Screw(trans. to Bell Hsg.N/S)	6
16 . . .	231875 . . .	Flat Washer-5/16(trans. to Bell Hsg.N/S).	6
17 . . .	298461 . . .	Washer, Lock 8MM(trans. to Bell Hsg.N/S).	6
300733 ASSEMBLY DRAWING			

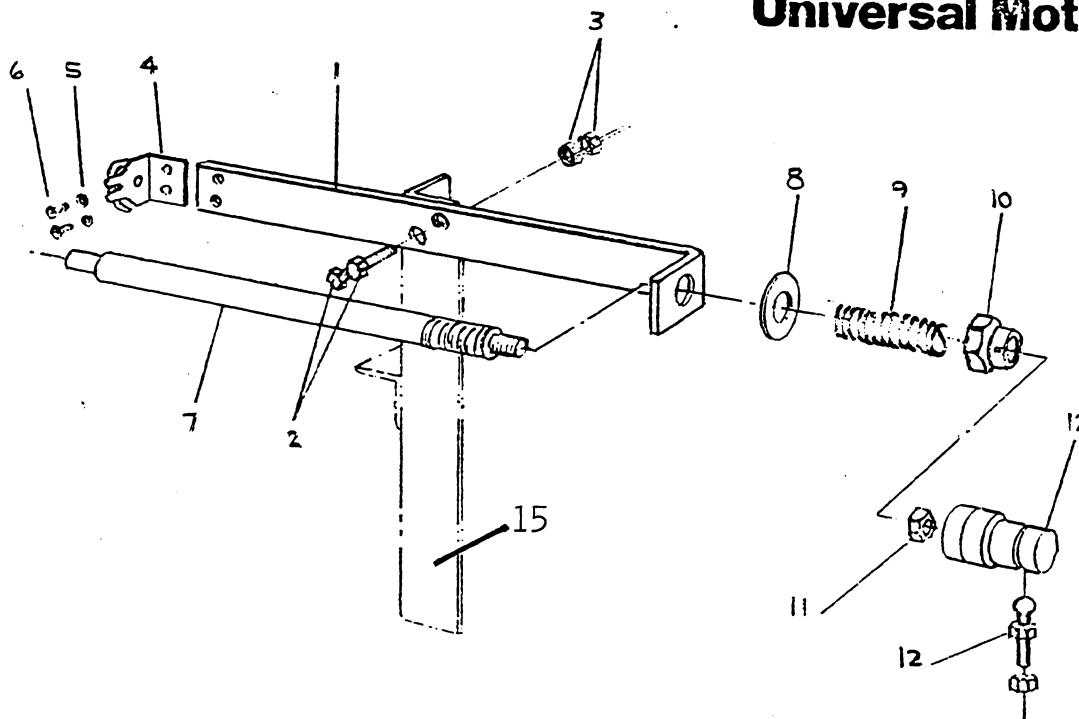


ITEM	PART NO.	DESCRIPTION	UNIT
** 256741	299640	Rigid Coupling 3/4"	
** 256742	299641	Rigid Coupling 7/8"	
** 256743	299642	Rigid Coupling 1"	
** 256744	299643	Rigid Coupling 1-1/8"	
** 256745	299644	Rigid Coupling 1-1/4"	
	238162	Screw-Sq.Hd. 3/8 - 16 x 1"	2
	XXXXX 299548	31631 Screw-Hex Hed. 3/8 - 24 x 1-1/4"	4
	231910	Washer-Shake Procf	4
	XXXXX 230189	31767 Nut-Jam 3/8-24	4
	298568	Flexible Coupling 3/4" - 1/4" Key	
	298569	Flexible Coupling 7/8" - 1/4" Key	
	298484	Flexible Coupling 1" - 1/4" Key	
	298570	Flexible Coupling 1-1/8" - 1/4" Key	
	299300	Flexible Coupling 1-1/4" - 5/16" Key	

** COUPLING KIT - CONTIANS HARDWARE AND COUPLING

THROTTLE LINKAGE CONTROL GROUP

medalist
Universal Motors

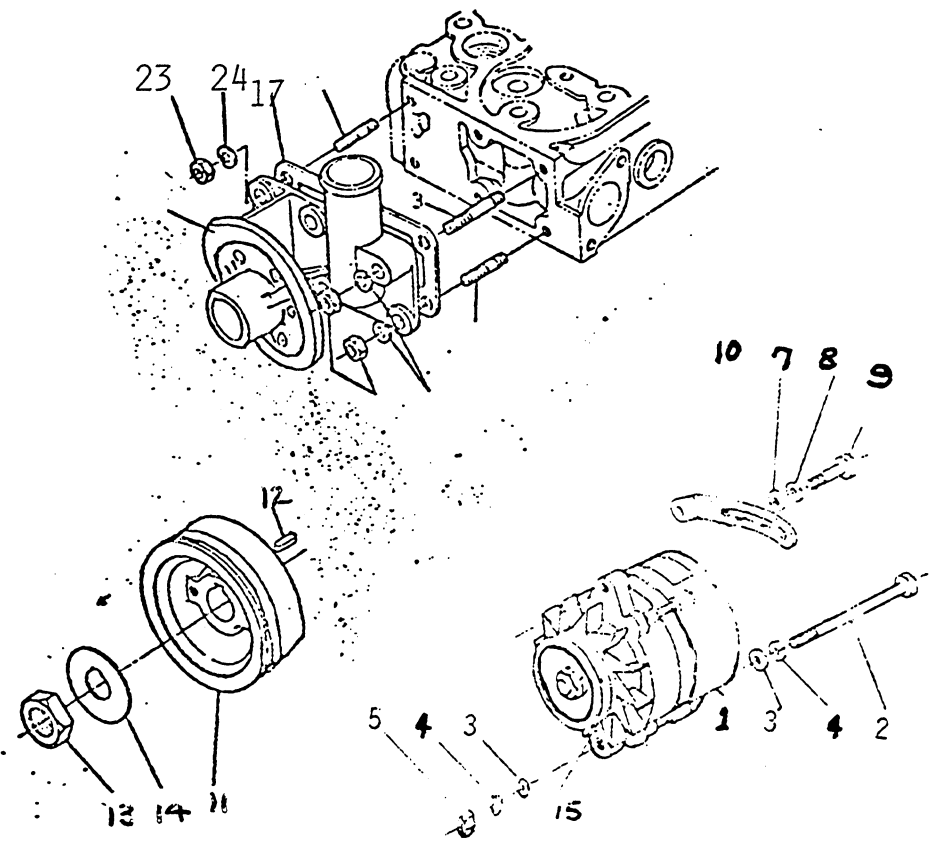


REVERSE THROTTLE KIT - 256746

FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	298637-B	Bracket, Throttle Cable Mtg.	1
2	231035	Hex Hd Cap Screw (1/4-20 x 3/4 Lg.)	2
3	230257	Lock Nut, Flexlock (1/4-20)	2
4	298630	Cable Hook Clip	1
5	231890	Lock Washer, Split (#10)	2
6	231224	Rd Hd Mach Screw (#10-32 x 1/2" Lg.)	2
7	298638 299027	Stud, Throttle Control Linkage	1
8	231875	Flat Washer SAE 5/16	1
9	298886	Spring, Throttle Stop	1
10	298610	Lock Nut, Flexlock (5/16 x 24)	1
11	230138	Hex Nut (#10-32)	1
12	298629	Ball Joint, Throttle Linkage	1
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15	299187	THROTTLE CONTROL SUPPORT BRACKET	
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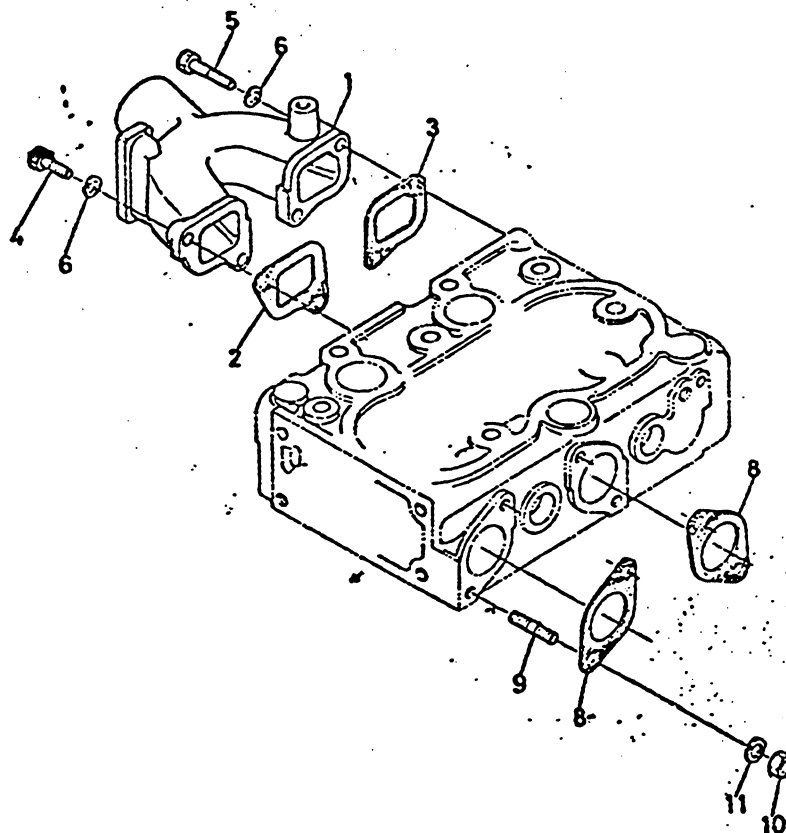
DYNAMO GROUP



FROM SERIAL NO. 230248 TO 230416
300000 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	302280		
2	231093	Hex Hd Capscrew 3/8-16 x 3-3/4"	1
3	231878	Washer 3/8"	2
4	285305	Washer - Split Lock 3/8"	2
5	230144	Hex Nut 3/8-16	1
*	299095	Alternator Pivot Bracket	1
7	231856	Washer - Flat 5/16"	1
8	298461	Washer - Lock (8mm Screw)	3
9	231057	Hex Hd Capscrew (5/16'18 x 3/4)	1
10	299698	Alternator Adjusting Arm	1
11	299548	Pulley, Fan Drive	1
12	299549	Key, Feather	1
13	299550	Nut, Crankshaft	1
14	299551	Washer, Crankshaft	1
15	298972	Alternator-55 Amp.	
16	299036	V-BELT - 300804	
17	299035	GASKET	
18	298903	TACH TAP KIT	
19		*Not Shown	
20	299761	ELBOW	
21			
22			
23	15812	NUT	
24	31783	LOCKWASHER	

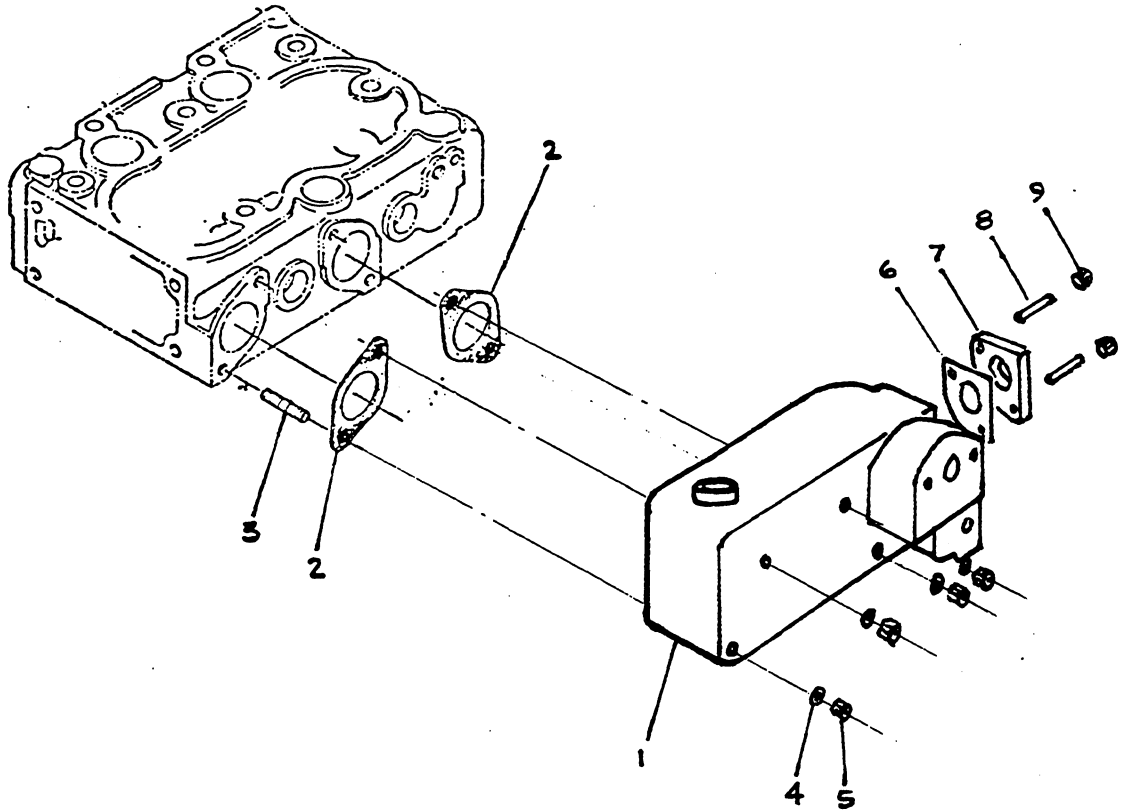
INLET MANIFOLD GROUP



FROM SERIAL NO. 230248 300000 TO 230416 300071

ITEM	PART NO.	DESCRIPTION	UNIT
1	299429	Manifold, Inlet	1
2	299430	Gasket, Inlet Manifold	1
3	299431	Gasket, Inlet Manifold	1
4	299432	Bolt	3
5	299433	Bolt	1
6	299434	Washer, Spring	4
7			
8	299435	Gasket, Exhaust Manifold	2
9	N/A	Stud	4
10	N/A	Nut	4
11	299434	Washer, Spring	4
12			
13	299750	AIR FILTER	
14	301049	ELEMENT, AIR FILTER	
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EXHAUST MANIFOLD GROUP

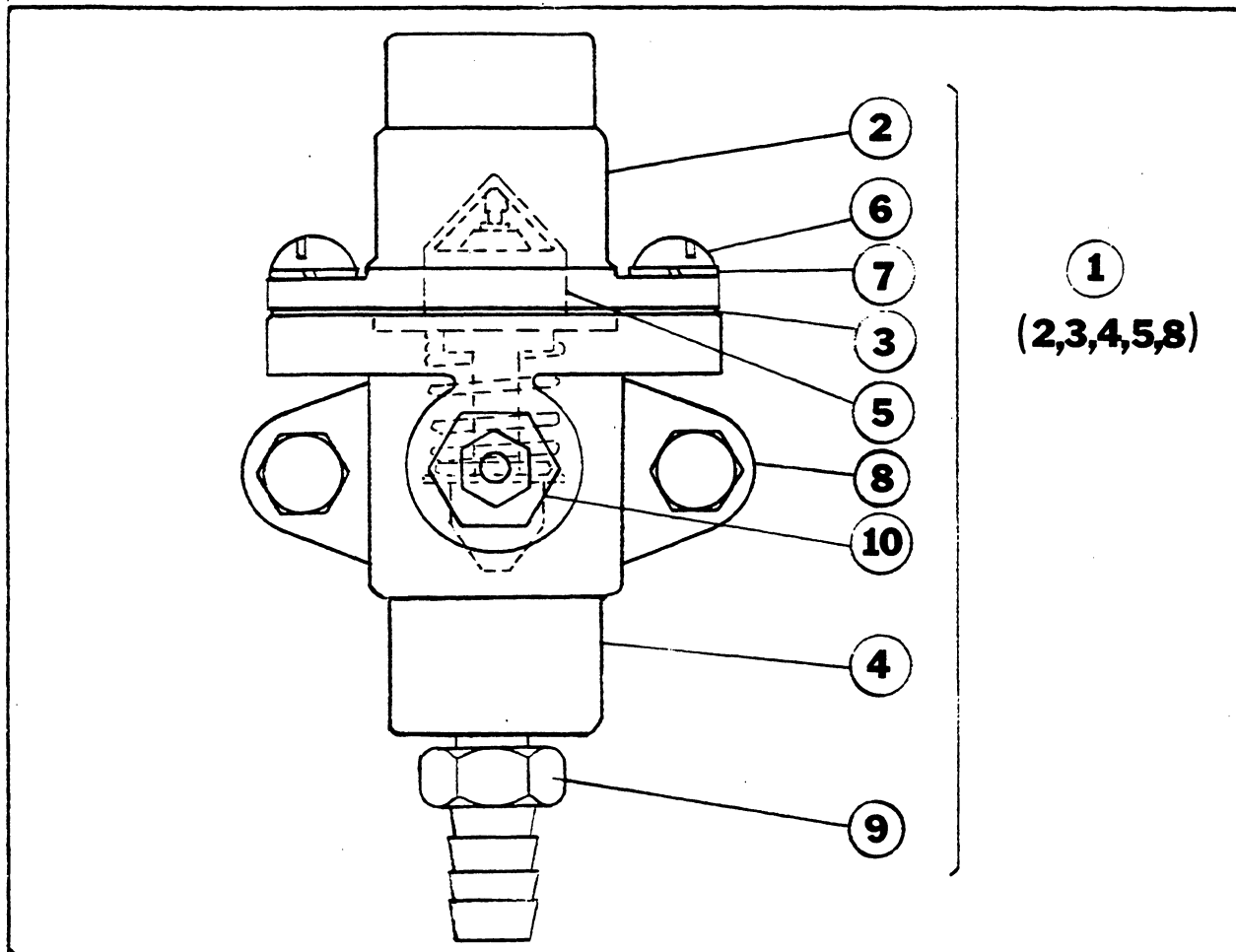


FROM SERIAL NO. 230248 TO 230416
300000 300071

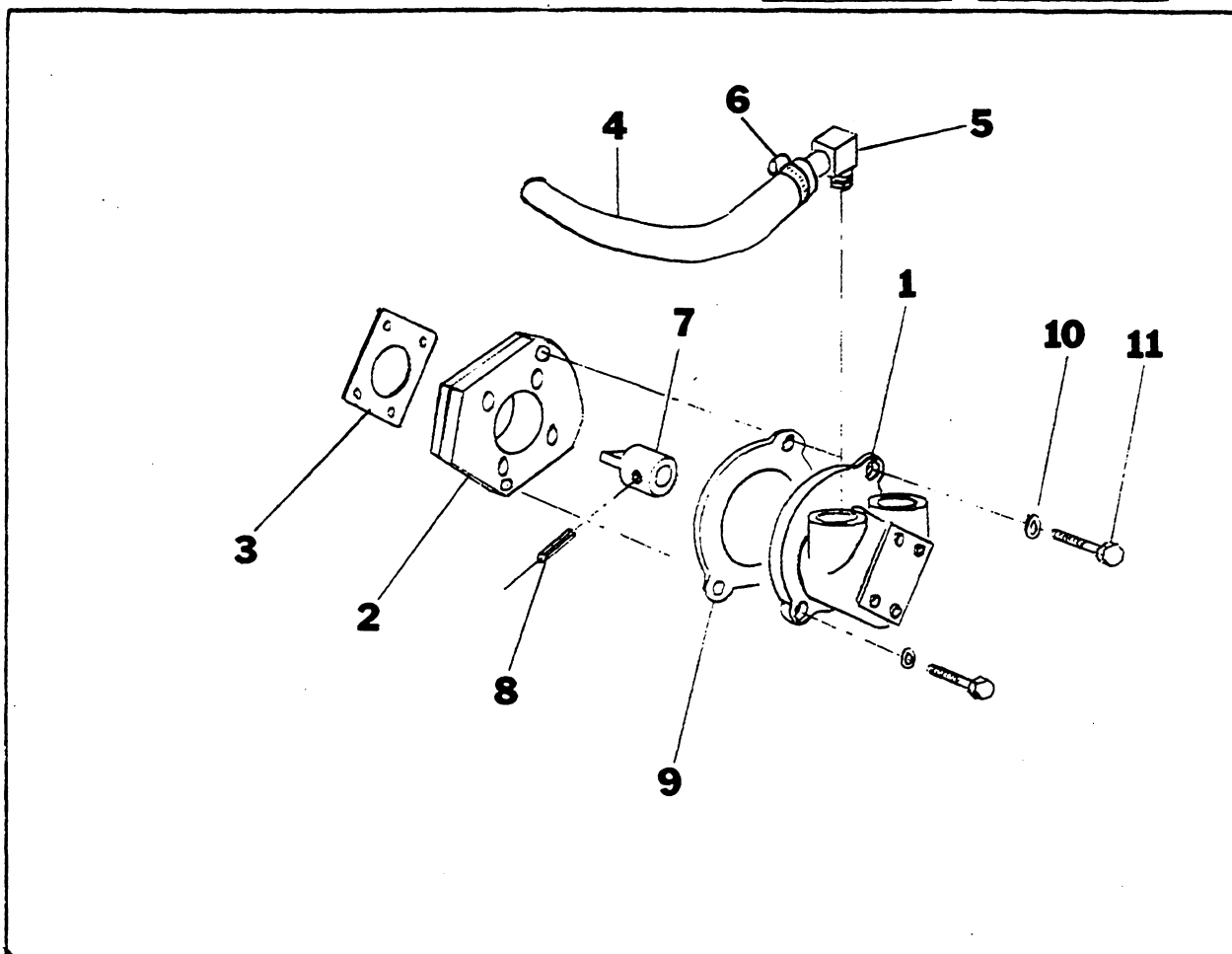
OPTIONS

ITEM	PART NO.	DESCRIPTION	UNIT
1	299179-D	Manifold 300418	1
2	299435	Gasket, Exhaust Manifold	2
3	299435	Stud, Exhaust Manifold 299040	4
4	299434	Washer, Spring	4
5	N/A	Nut	4
6	299182-A	Gasket, Exhaust Flange	1
7	299181-A	Exhaust Flange 299230	1
8	299159-A	Stud (3/8-16 x 3/8-24) 298974	2
9	230147	Nut 3/8-16	2
10	299944	WATER COOLED RISER 1-1/4"	
11	300113	NIPPLE H.D. 1-1/2" X CLOSE	
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THERMOSTAT GROUP



ITEM	PART NO.	DESCRIPTION	UNIT
1 . . .	299624	Thermostat Assembly	1
2 . . .	X299043	Housing, Thermostat . 299177	1
3 . . .	261144	Gasket.	1
4 . . .	X299043	Outlet Housing, Thermostat . 299043	1
5 . . .	275965	Element, Thermostat . . 145°	1
6 . . .	294376	Machine Screw 1/4-20 Brass	2
7 . . .	231828	Lock Washer 1/4 Brass	2
8 . . .	299048	Gasket, MTG	1
9 . . .	241021	Hose Fitting, Straight	1
10 . . .	299066	Temperature Sender	1
	241022	Tee-Hose Fitting	1
	241019	90° El Fitting - 3/8 MPT to 1/2" Hose	1
	295292	Washer - Lock 5/8"	4
	231880	Washer Flat - 5/8"	8



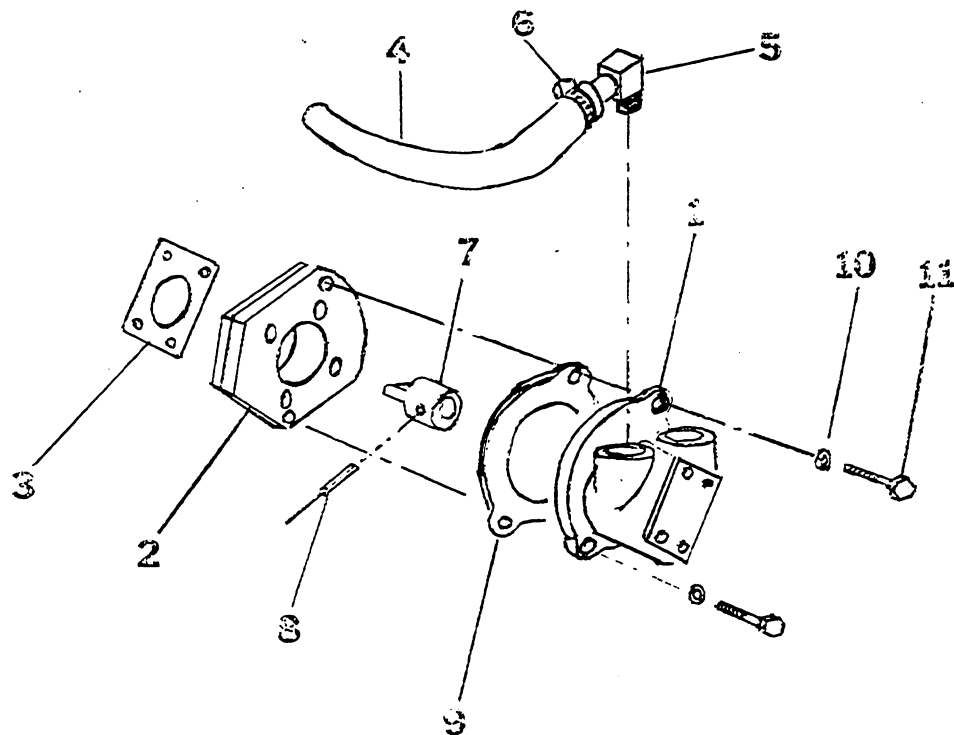
<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
1 . . .		Pump	1
2 . . .	298477	Adapter Plate	1
3 . . .	298485	Gasket, Adapter Plate	1
4 . . .	299162	Hose 1/2" Pump To Engine	1
5 . . .	241019	Fitting 90° 1/2" Hose	1
6 . . .	374747	Clamp 1/2" Hose	1
7 . . .	298478	Coupling Adaptor	1
8 . . .	230371	Roll Pin 3/16 Dia. x 7/8 Lg.	1
9 . . .	261044 300253	Gasket.	1
10 . . .	285305	Washer.	2
11 . . .	231080	Cap Screw	2

When replacing pump impeller order "water pump repair kit"
 Part No. 298416-A. Kit consists of: impeller, lip seal,
 gasket and retaining ring

295626 COVER GASKET
 295628 IMPELLER
 298416 IMPELLER KIT WITH SEALS
 301788 SHAFT (NEW STYLE)

WATER PUMP GROUP

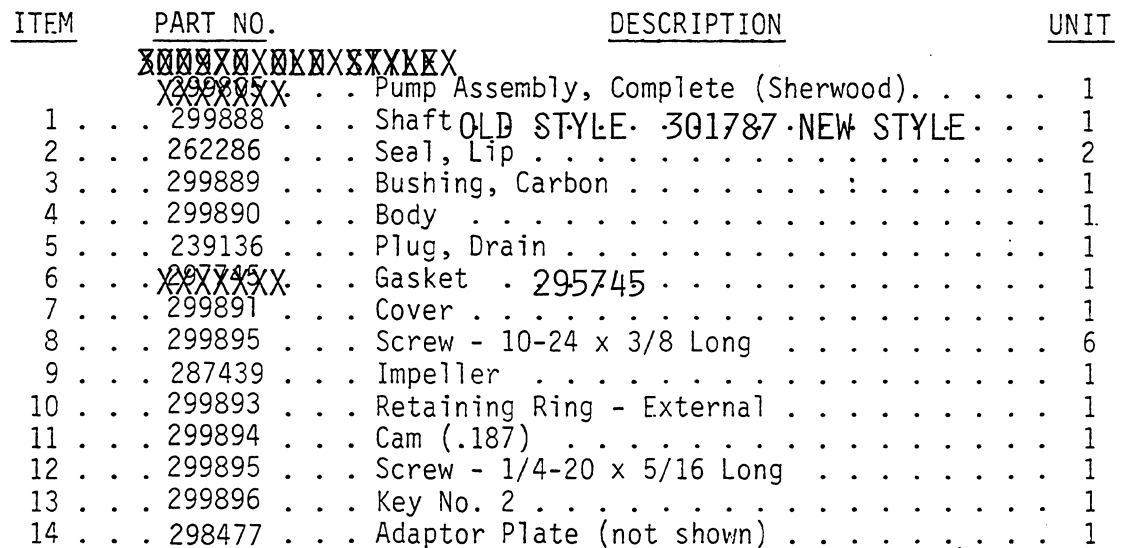
To Serial No 301032 To 305358



<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
1	298890	Pump - Oberdorfer	1
2	298477	Adapter Plate	1
3	298485	Gasket, Adapter Plate	1
4	299162	Hose 1/2" Pump To Engine	1
5	241019	Fitting 90° 1/2" Hose	1
6	374747	Clamp 1/2" Hose	1
7	298478	Coupling Adaptor	1
8	230371	Roll Pin 3/16 Dia. x 7/8 Lg.	1
9	261044 300253	Gasket	1
10	285305	Washer	2
11	231080	Cap Screw	2
12	298889	Cam - Not Shown	1

When replacing pump impeller order "water pump repair kit"
 Part No. 298416-A. Kit consists of: impeller, lip seal,
 gasket and retaining ring.

STARTING WITH SERIAL NO. 305359



INSTRUMENT PANEL

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
298559	Instrument Panel Complete	Optional
298572	Panel	1
298385	Ammeter	1
299240	Oil Indicator Light	1
298383	Temperature Gauge	1
299190	Ignition Switch	1
299650	Blower Switch	1
299754	Blower Switch Plate	1
299839	Glo Plug Switch	1
299755	Glo Plug Switch Plate	1
299756	Caution Plate	1
299651	Fuse - 10A	1
299066	Temperature Sender - 1/4"	1
298584	Panel Harness	1
298585 300675	10 Ft. Extension Harness	1
298586	Engine Wire Harness	1
298663	OIL SENDER OR	
299732	Instrument Panel Complete with 299263 Tachometer and All Other Components Listed Above.	
256811	SPARE PARTS KIT B	
256748	Spare Parts Kit A	Optional
256735	Gasket Set	Optional

Universal Diesel

ENGINE CONNECTIONS

PANEL CONNECTIONS

