



**Parts List
M-50**

Part number 200149
Edition 1
October, 1990



UNIVERSAL ENGINE DATA

Model	Cubic Inches	Horsepower	# Cylinders	Weight	Block Model	Years	Approx. Qty. Sold
M-12.....	24.4.....	10.....	2.....	175.....	Z-400.....	83-88.....	1200
** M2-12.....	26.....	11.....	2.....	175.....	Z-430.....	87-Current.....	320
M-15.....	31.....	11.....	2.....	245.....	Z-500.....	82-83.....	370
M-18.....	34.8.....	14.....	2.....	255.....	Z-600.....	83-88.....	2400
M-20.....	45.....	16.....	2.....	365.....	Z-751.....	82-83.....	230
** M3-20.....	38.9.....	18.....	3.....	235.....	D-640.....	88-Current.....	525
M-25.....	52.....	21.....	3.....	285.....	D-850.....	81-86.....	3650
M-25XP.....	57.....	23.....	3.....	285.....	D-950.....	86-Current.....	3100
M-30.....	68.....	24.....	3.....	425.....	D-1101&1102.....	83-87.....	400
** M4-30.....	52.....	25.....	4.....	270.....	Y-850.....	88-Current.....	470
M-35.....	75.5.....	30.....	4.....	335.....	V-1200.....	87-Current.....	280
M-40.....	91.....	32.....	4.....	545.....	V-1502.....	82-Current.....	360
M-50.....	115.....	44.....	4.....	545.....	V-1902.....	82-Current.....	520
<hr/>							
* 5411(M15).....	31.....	11.....	2.....	245.....	Z-500.....	77-82.....	2900
* 5416(M20).....	45.....	16.....	2.....	365.....	Z-751.....	76-82.....	1000
* 5421(M25).....	52.....	21.....	3.....	285.....	D-850.....	78-81.....	1000
* 5424(M30).....	68.....	24.....	3.....	425.....	D-1101.....	77-83.....	1050
* 5432(M40).....	91.....	32.....	4.....	490.....	V-1501.....	78-82.....	650
* 5444(M50).....	115.....	44.....	4.....	545.....	V-1902.....	80-82.....	280

* These models have been discontinued. The models that replace them are in parenthesis.

** Mini series.



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HOW TO ORDER PARTS

WHEN ORDERING PARTS, SPECIFY MODEL AND SERIAL NUMBER OF ENGINE.

This information is absolutely essential for the correct execution of your order. We do not hold ourselves responsible for errors or delays where this is lacking.

SERIAL NUMBER LOCATIONS

Stamped on upper left hand corner of block - ignition side - facing flywheel end (front of engine).

Stamped in block directly above flywheel housing, under front oil filler.

On engine nameplate located on reverse gear housing cover.

On engine nameplate located on engine manifold.

RETURNED PARTS

Parts may be returned for credit subject to authorization by the factory, factory inspection and acceptance upon receipt, and a 15% Re-Stocking charge.

A return goods authorization number must be requested from the factory prior to returning the parts.

All return shipments must be fully PREPAID and clearly marked with shipper's name and address.

LOSS OR DAMAGE IN TRANSIT

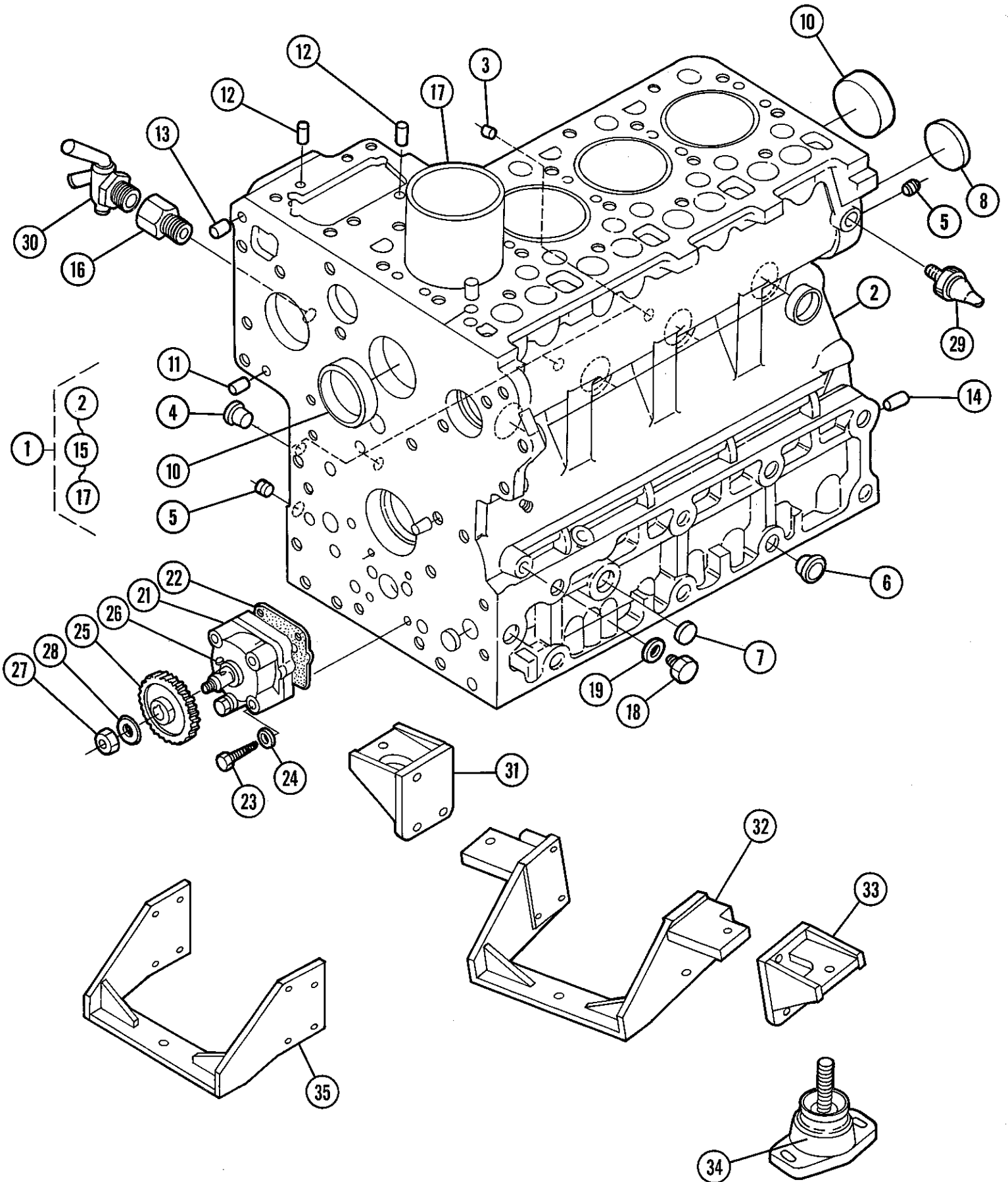
Our responsibility ceases upon delivery of shipments to the common carrier. Any claims for loss or damage in transit must be filed with the transportation company.

SHORTAGE CLAIMS

All claims for shortage must be filed within ten (10) days after receipt of shipment and must be accompanied by packing list.

ALL ORDERS FOR REPAIR PARTS MUST BE PLACED THROUGH OUR DISTRIBUTOR/DEALER IN YOUR AREA.

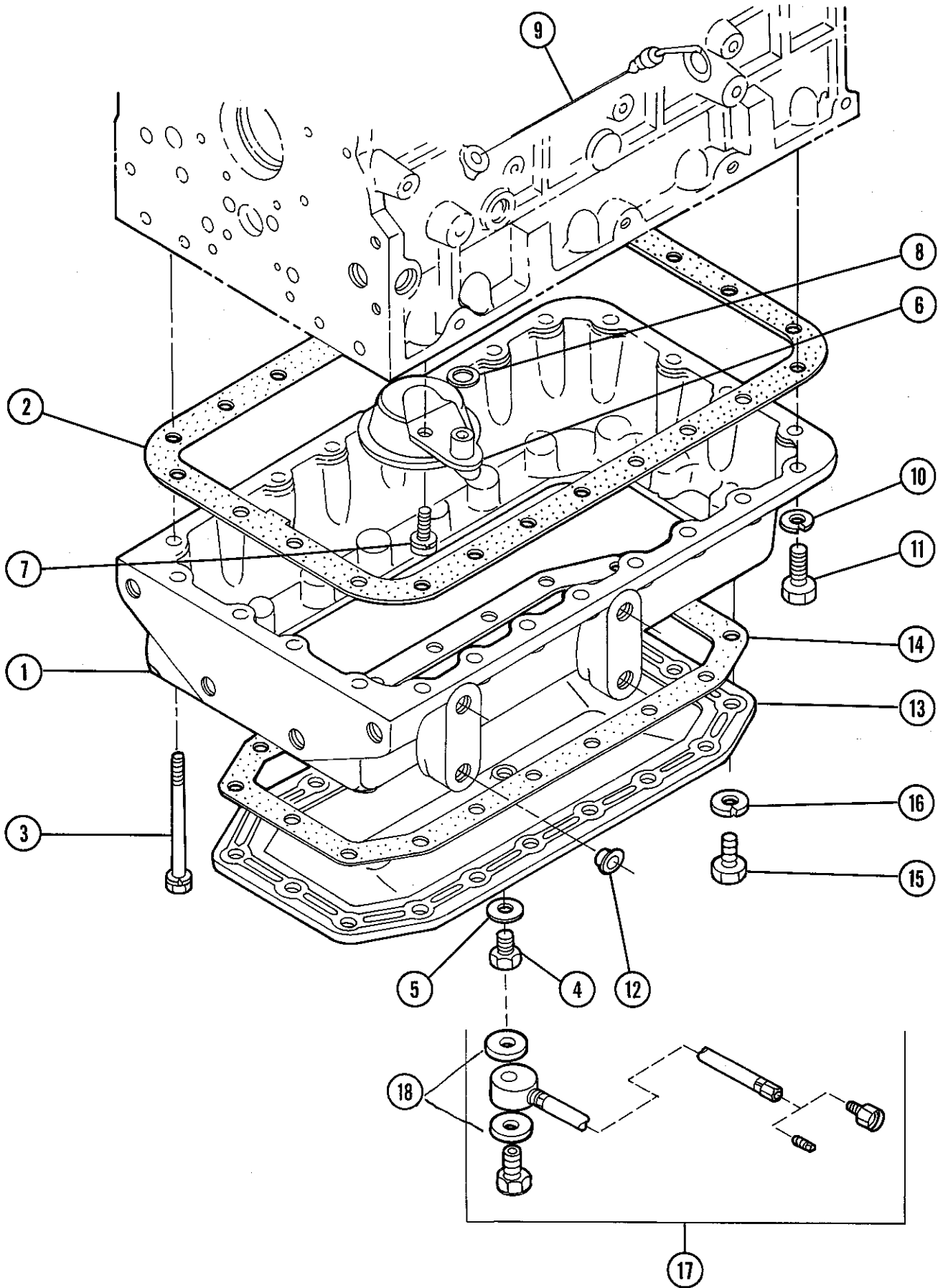
CRANKCASE GROUP



CRANKCASE GROUP

Item	Part No.	Unit	Description
1	299957	1	Crankcase Assembly
2			Use #1
3	302587	6	Plug
4	301696	19	Plug
5	302588	2	Plug
6	301697	1	Plug
7	299352	3	Plug
8	299353	1	Plug
9	299897	6	Sealing Cap
10	299958	2	Sealing Cap
11	301700	2	Straight Pin
12	299359	2	Straight Pin
13	301701	2	Straight Pin
14	301702	1	Straight Pin
15	301485	1	Pipe Pin
16	301918	1	Drain Cock Joint
17	299960	4	Cylinder Liner
18	298658	1	Plug
19	298659	1	Gasket
20	299362	1	O-Ring
21	299961	1	Oil Pump Assembly
22	298756	1	Pump Gasket
23	299433	4	Bolt
24	299369	4	Lockwasher
25	299963	1	Pump Gear
26	298758	1	Key
27	298759	1	Nut
28	298760	1	Washer
29	301206	1	Oil Pressure Sender
30	302554	1	Drain Cock
31	299812	1	Star Board Mount
32	298515	1	3-4 Mount 1901 Blocks
32A	301103	1	3-4 Mount 1902 Blocks
33	299811	1	Port Mount
34	300583	4	Flex Mounts
35	301367	1	Three Point Mount

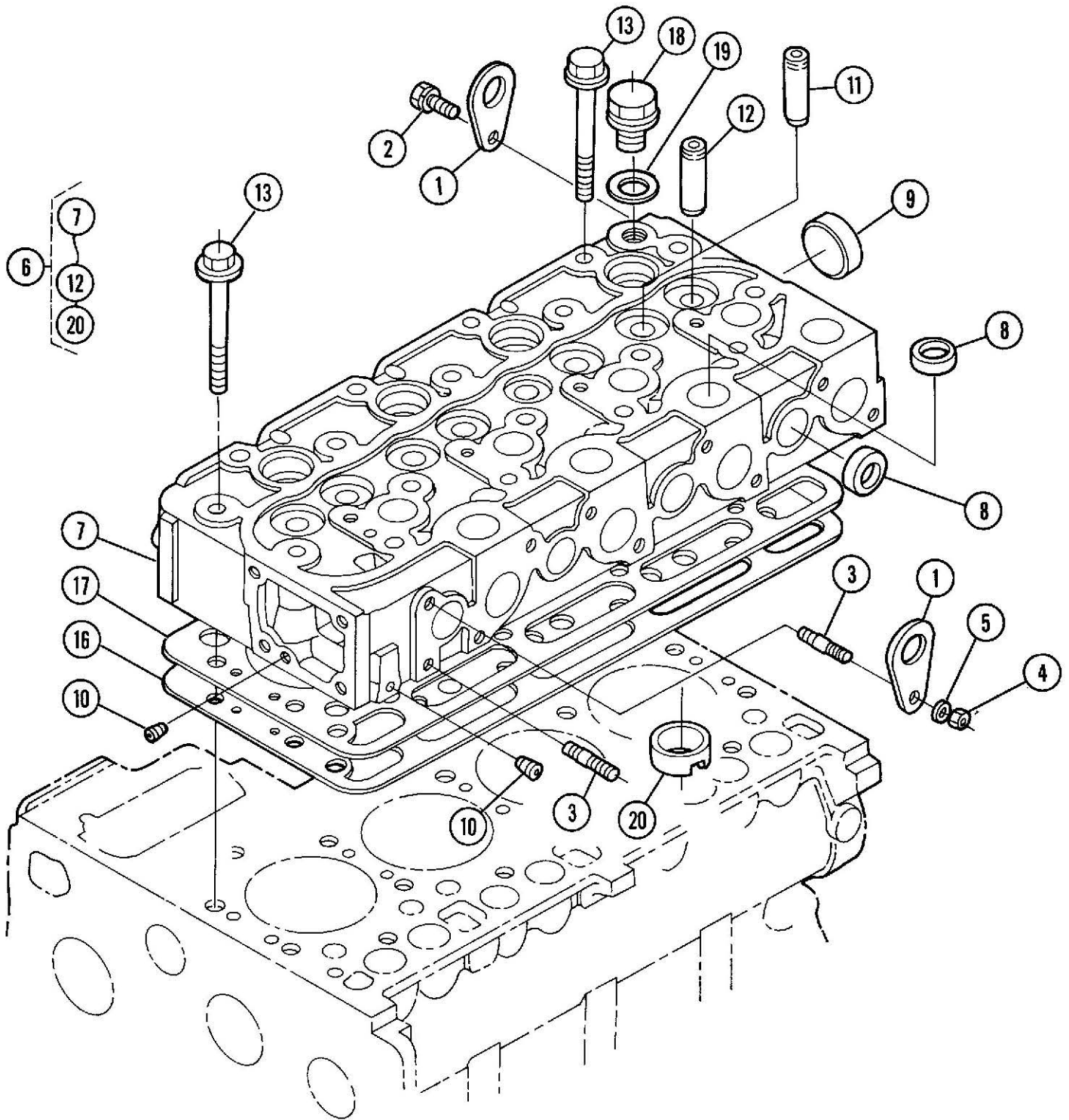
OIL PAN GROUP



OIL PAN GROUP

Item	Part No.	Unit	Description
1	299565	1	Oil Pan
2	299553	1	Pan Gasket
3	300018	13	Bolt
4	298660	1	Drain Plug
5	299371	1	Drain Plug Gasket
6	302530	1	Oil Filter
7	301294	1	Bolt
8	299967	1	O-Ring
9	299968	1	Dipstick
10	302531	24	Lockwasher
11	301748	12	Bolt
12	301717	8	Plug
13	299564	1	Oil Pan Cover
14	299560	1	Pan Gasket
15	299969	18	Bolt
16	299583	18	Lockwasher
17	300724	1	Oil Drain Kit
18	301431	2	Washer Oil Drain Kit

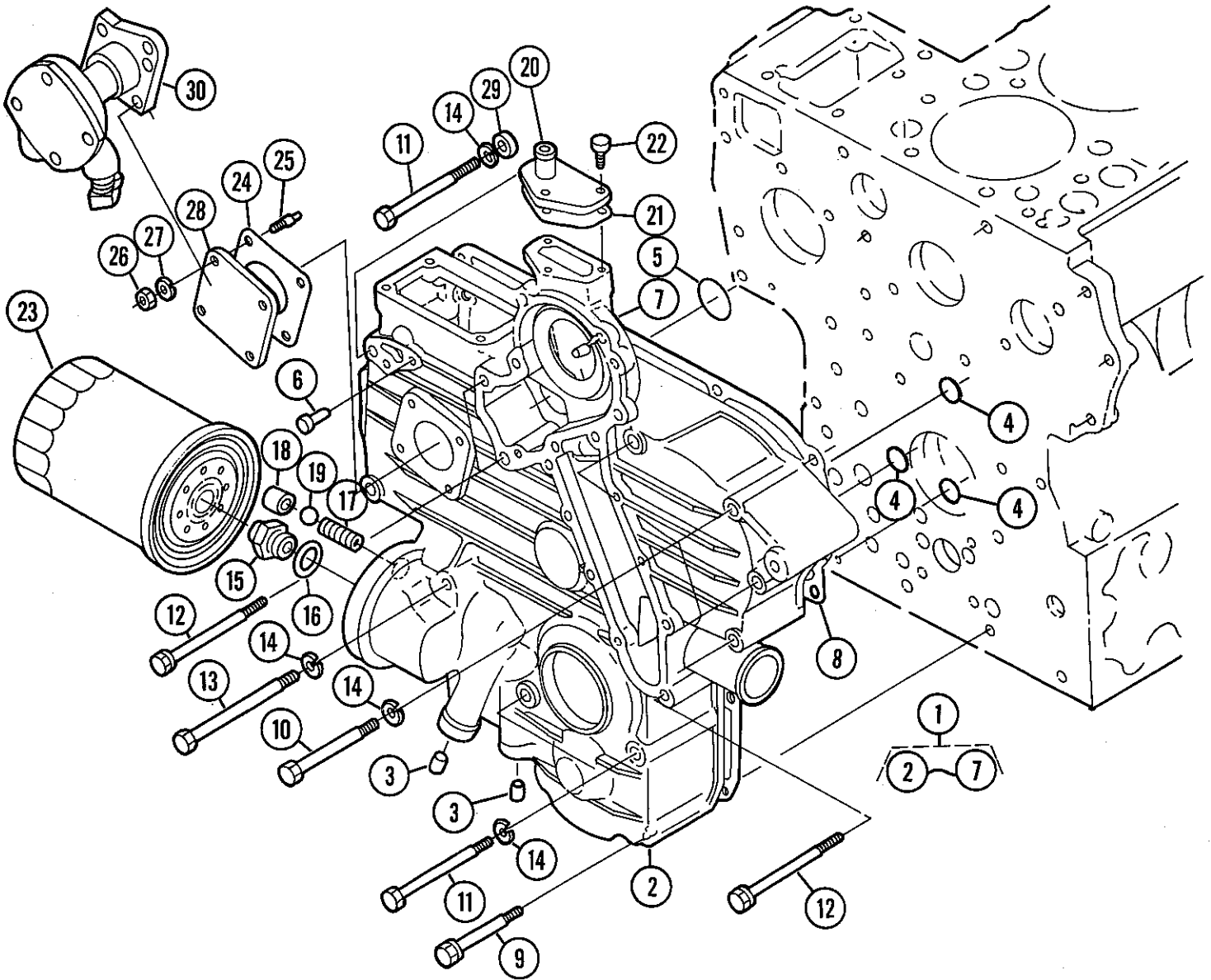
CYLINDER HEAD GROUP



CYLINDER HEAD GROUP

Item	Part No.	Unit	Description
1	298666	2	Lifting Eye
2	301294	1	Bolt
3	301703	2	Stud
4	301297	1	Nut
5	299583	1	Lockwasher
6	299971	1	Cylinder Head Assembly
7			Order #6
8	299898	12	Sealing Cap
9	299899	1	Sealing Cap
10	302589	2	Plug
11	302590	4	Intake Valve Guide
12	302591	4	Exhaust Valve Guide
13	301772	16	Head Bolt
14			Order #13 Stud
15			Order #13 Nut
16	299972	1	Cylinder Head Gasket
17	299973	1	Cylinder Head Shim
18	302528	1	Plug
19	299975	1	Seal Washer
20	302529	4	Combustion Chamber

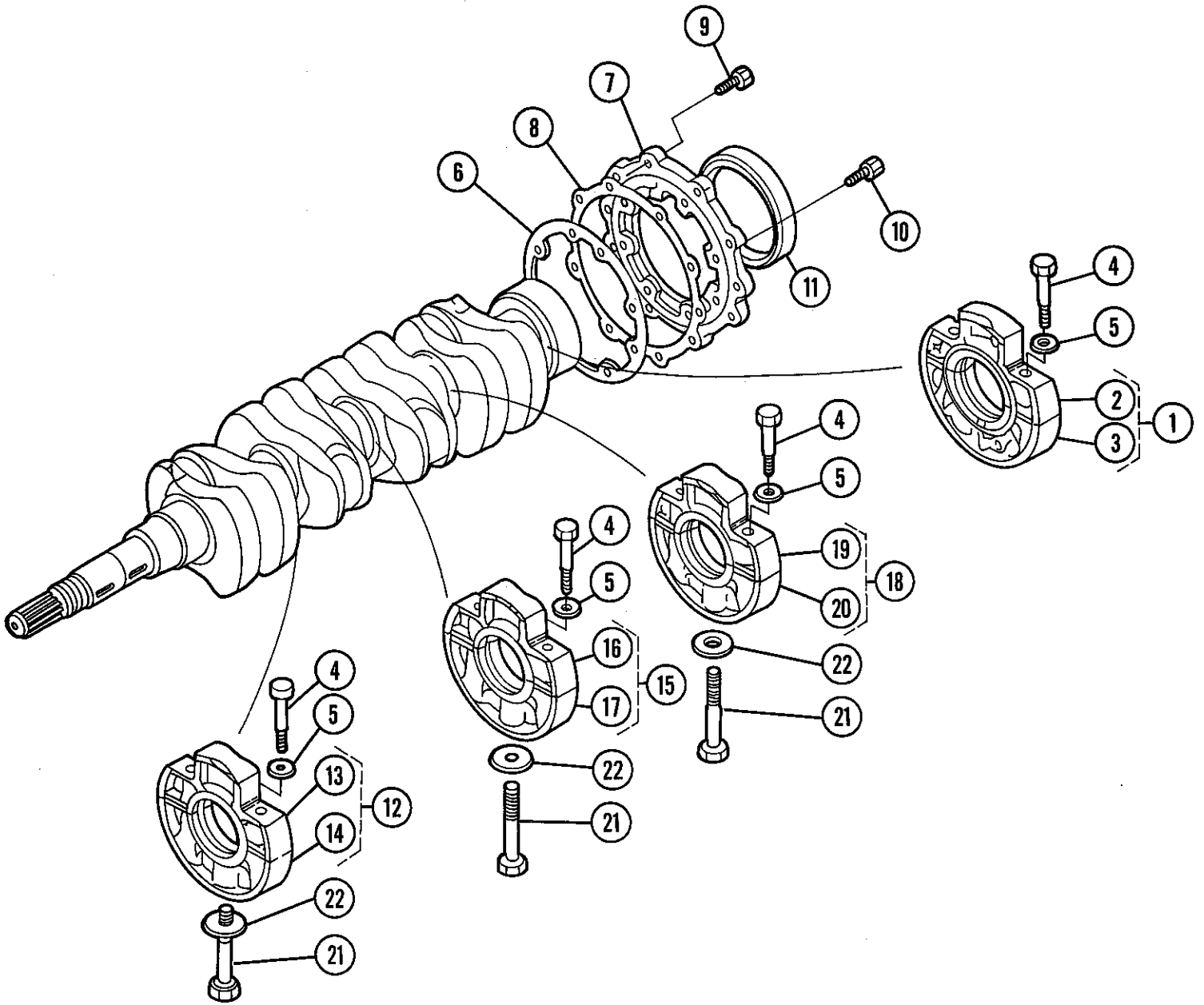
GEAR CASE GROUP



GEAR CASE GROUP

Item	Part No.	Unit	Description
1	299976	1	Gear Case Assembly
2			Order #1
3	302593	2	Plug
4	299559	3	O-Ring
5	302594	1	O-Ring
6	301489	1	Pin
7	301701	2	Straight Pin
8	298675	1	Case Gasket
9	299980	2	Bolt
10	299981	5	Bolt
11	299982	3	Bolt
12	299984	3	Bolt
13	299983	2	Bolt
14	299583	23	Lockwasher
15	299985	1	Pipe Joint
16	299986	1	Washer
17	299987	1	Spring
18	299989	1	Valve Seat
19	299988	1	Ball
20	299990	1	Flange
21	299991	1	Flange Gasket
22	302617	3	Bolt
23	299927	1	Oil Filter
24	300253	1	Gasket
25	298683	4	Stud
26	298684	4	Nut
27	299369	4	Lockwasher
28	301682		RV Generators Only
29	299582	1	Washer
30	301357	1	Oberdorfer Pump Marine Engines & Generators
30A	300986	1	Sherwood Pump Marine Engines & Generators

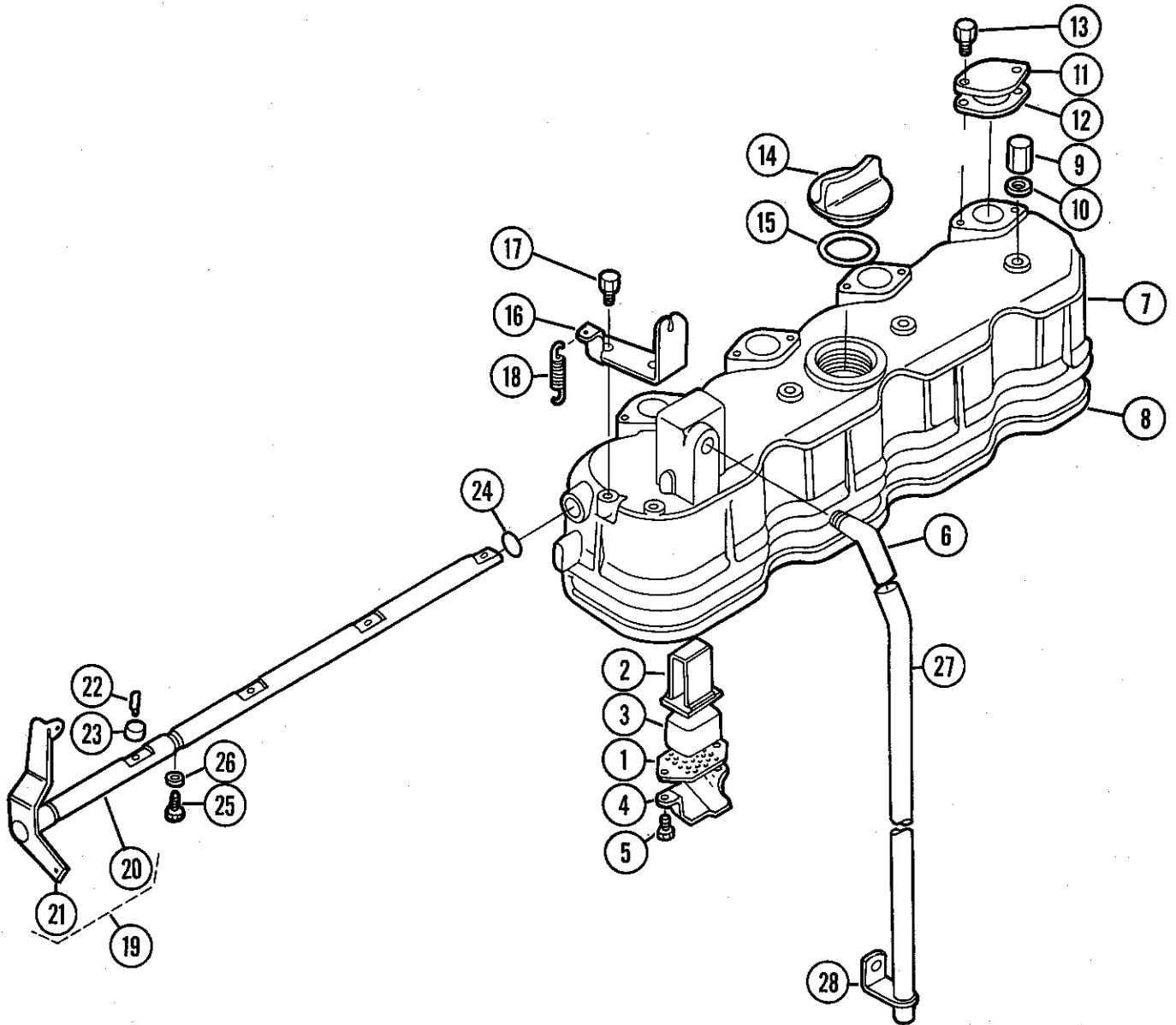
MAIN BEARING CASE GROUP



MAIN BEARING CASE GROUP

Item	Part No.	Unit	Description
1	301775	1	Main Bearing Case
2			Order #1
3			Order #1
4	302595	8	Bearing Case Bolt
5	299993	8	Washer
6	298689	1	Bearing Gasket
7	301036	1	Bearing Cover
8	298691	1	Cover Gasket
9	301785	8	Bolt
10	302596	8	Bolt
11	301035	1	Oil Seal
12	302597	1	Main Bearing Case
13			Order #11
14			Order #11
15	302598	1	Main Bearing Case
16			Order #15
17			Order #15
18	301917	1	Main Bearing Case
19			Order #18
20			Order #18
21	298697	3	Bolt
22	299996	3	Washer

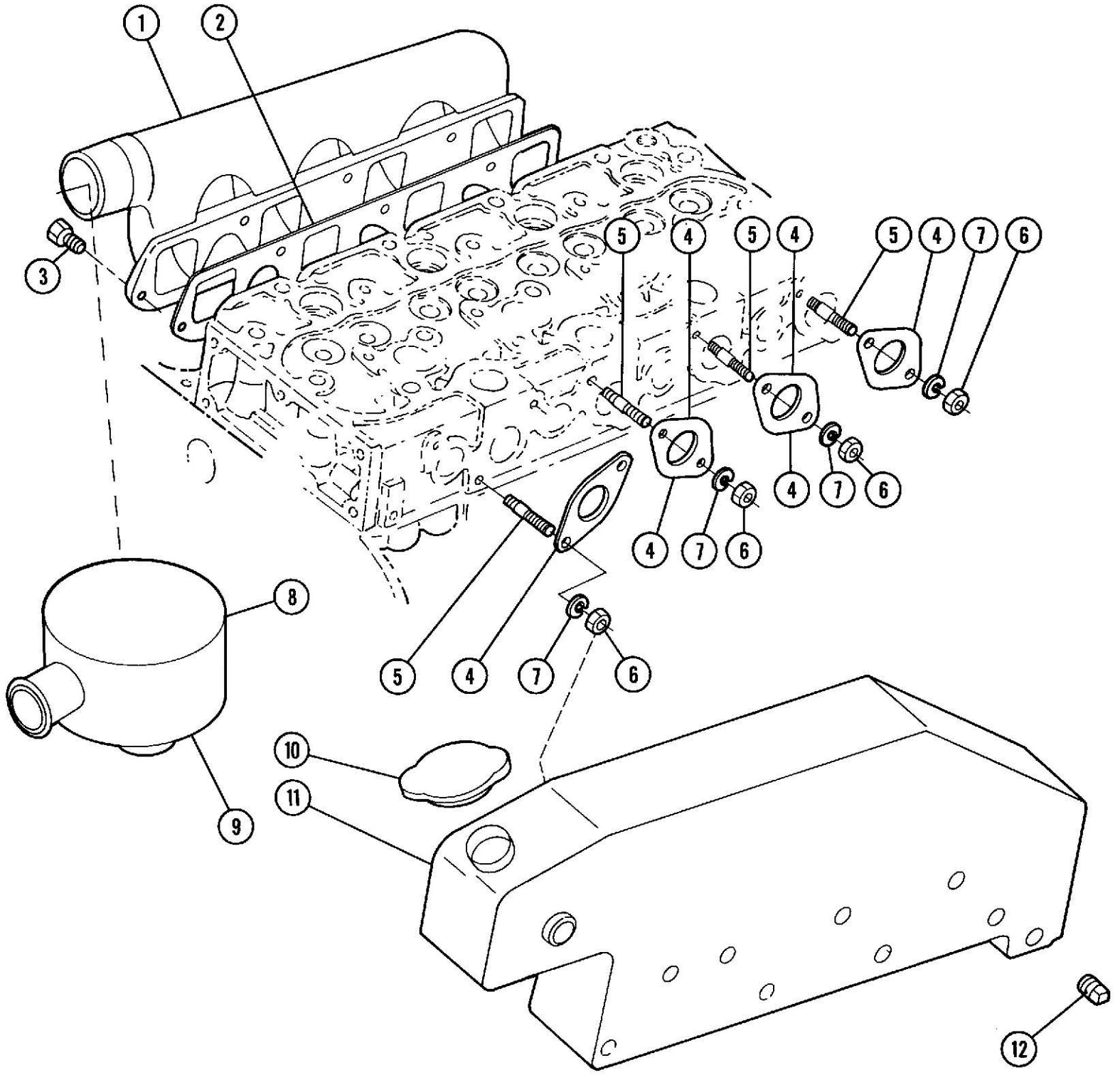
HEAD COVER GROUP



HEAD COVER GROUP

Item	Part No.	Unit	Description
1	302602	1	Element Plate #1
2	301392	1	Element Plate #2
3	300148	1	Breather Element
4	301709	1	Breather Oil Shield
5	301710	2	Screw with Washer
6			Not Available
7	300000	1	Head Cover
8	300001	1	Cover Gasket
9	300002	4	Cap Nut
10	301495	4	Gasket
11	302603	4	Hole Cover 1902 Blocks
11A	298729	4	Hole Cover 1901 Blocks
12	298730	4	Cover Gasket
13	302604	8	Bolt
14	298739	1	Oil Filler Plug
15	298740	1	O-Ring
16	298733	1	Wire Holder
17	302604	2	Bolt
18	302605	1	Spring
19	301711	1	Shaft Assembly
20			Order #19
21			Order #19
22	298736	4	Bolt
23	298737	4	Nut
24	298738	1	O-Ring
25	298732	1	Bolt
26	299369	1	Lock Washer
27	300013	1	Breather Pipe
28			Not Available

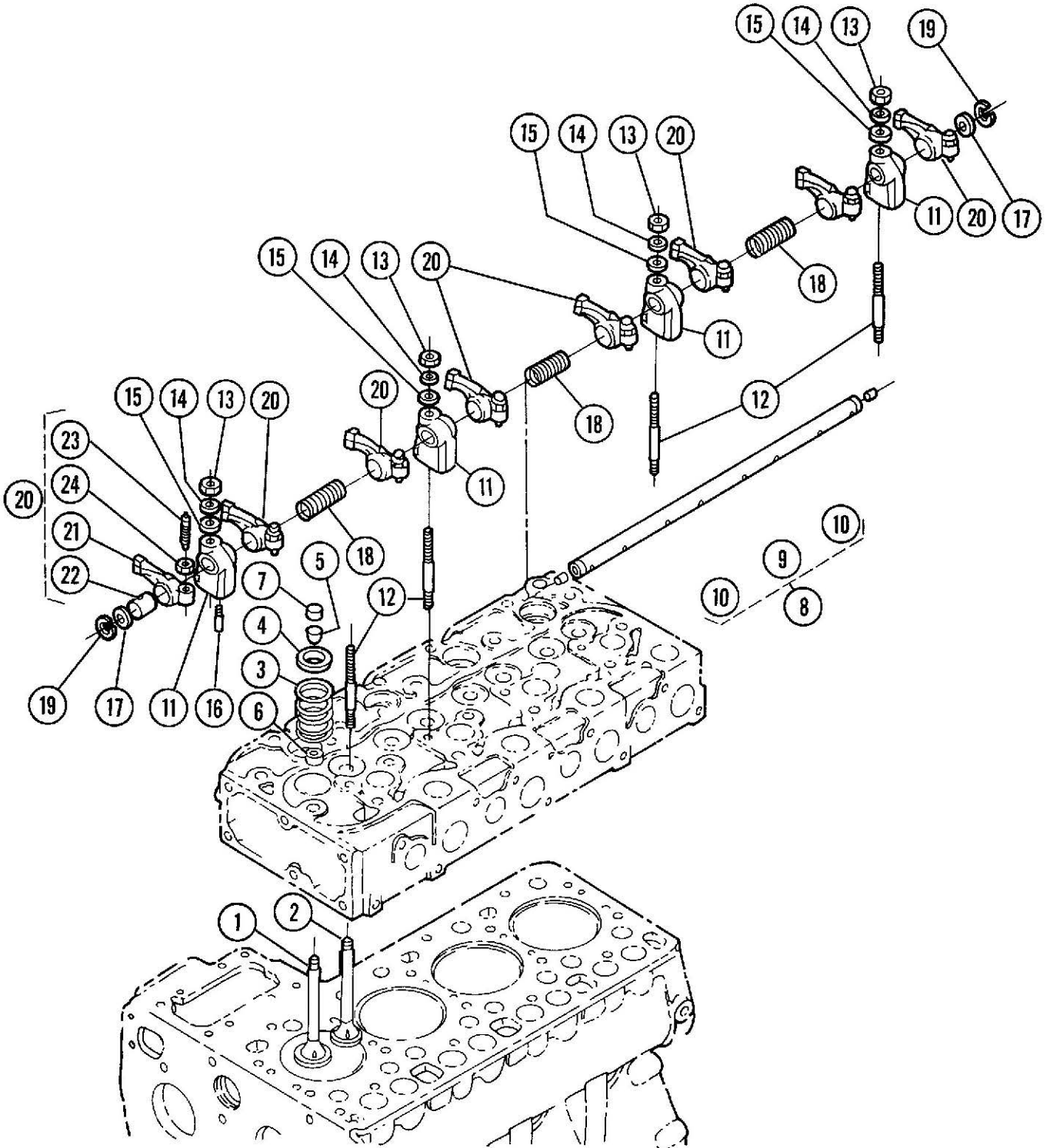
INLET MANIFOLD GROUP



INLET MANIFOLD GROUP

Item	Part No.	Unit	Description
1	299997	1	Intake Manifold
2	299998	1	Manifold Gasket
3	302599	7	Bolt
4	298707	4	Exhaust Manifold Gasket
5	298635	8	Stud
6	301297	8	Nut
7	299583	8	Lockwasher
8	301139	1	Air Filter
9	301049	1	Filter Element
10	299956	1	Radiator Cap
11	299886	1	Exhaust Manifold
12	239136	1	Plug

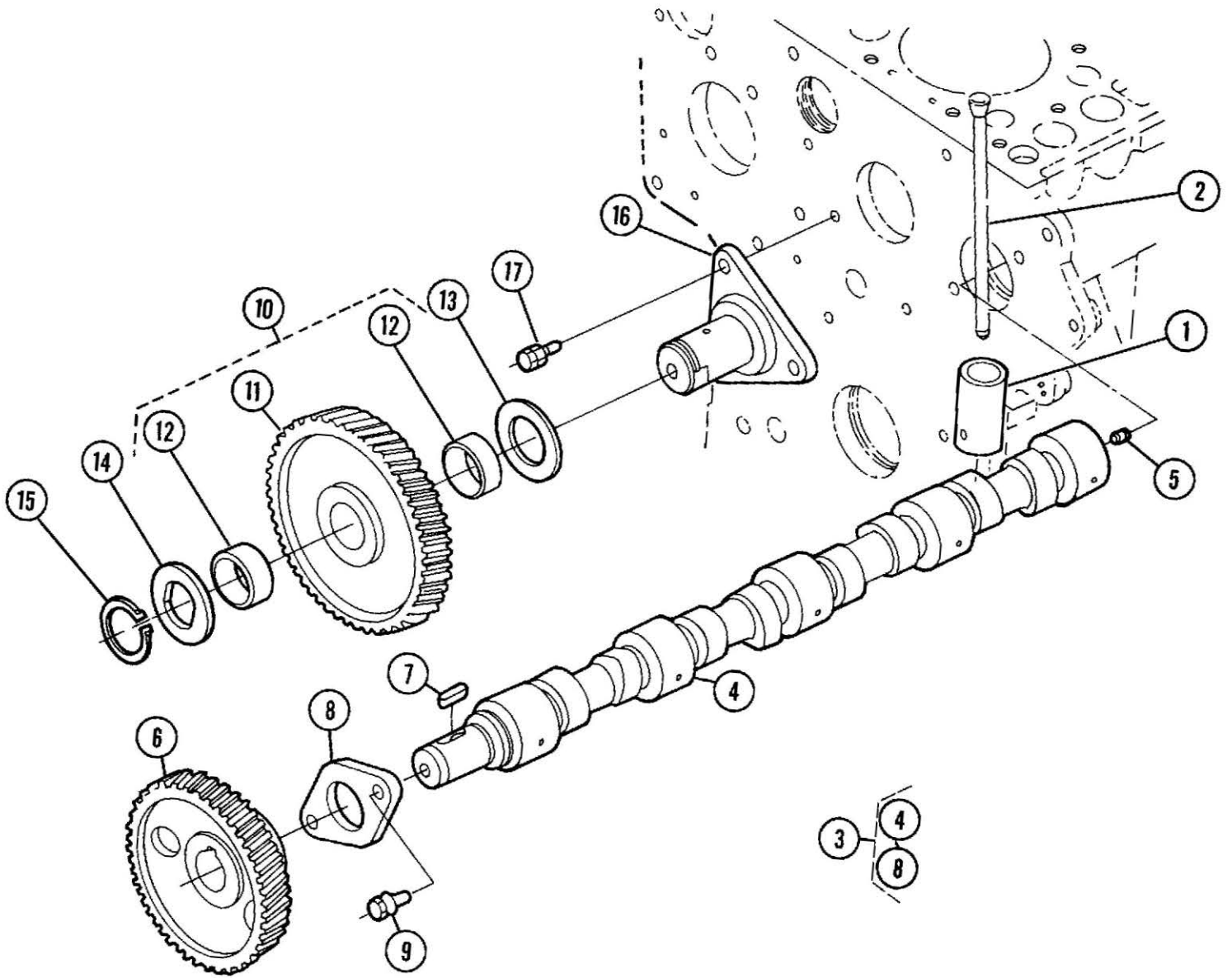
VALVE ROCKER ARM GROUP



VALVE ROCKER ARM GROUP

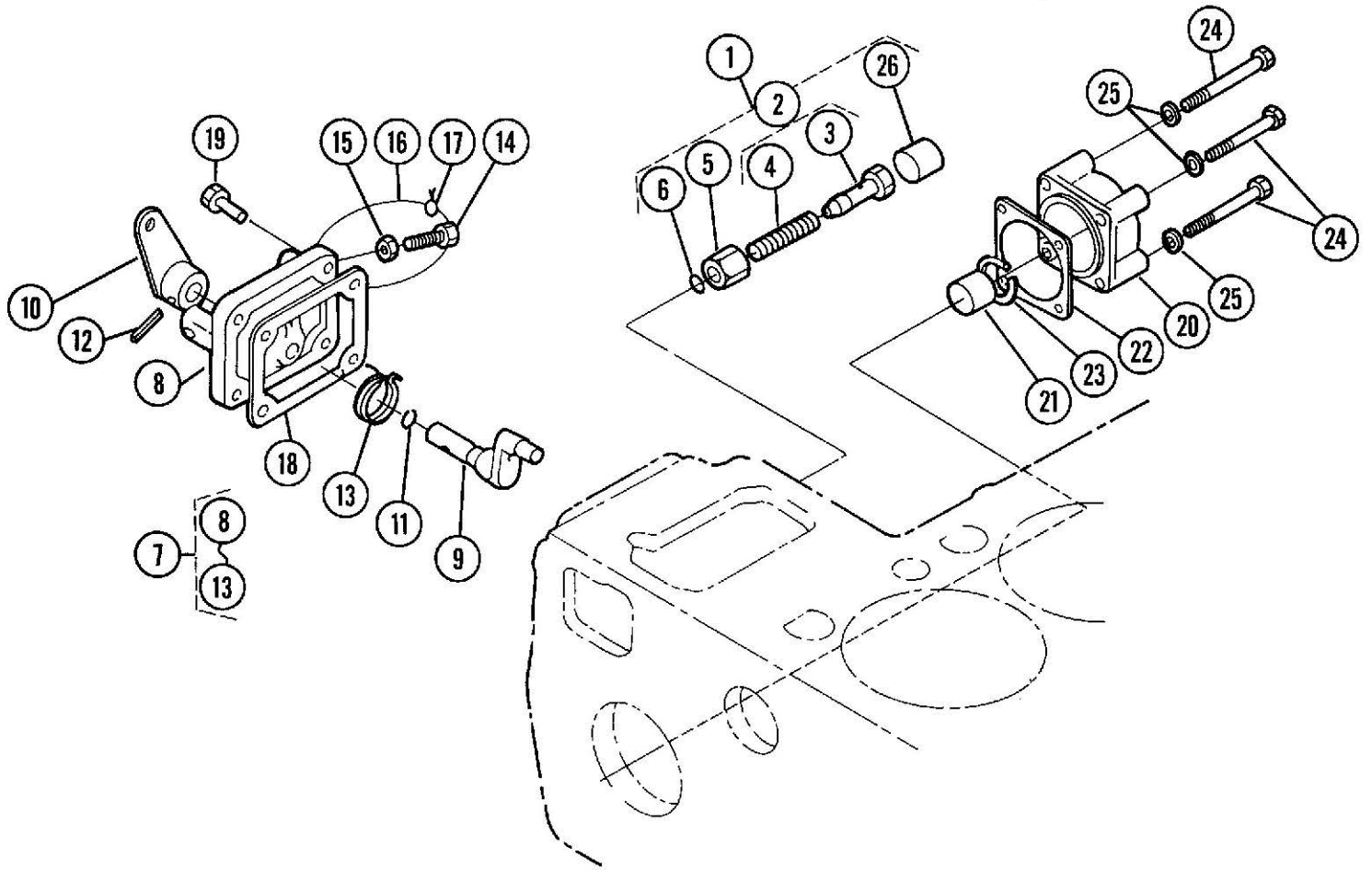
Item	Part No.	Unit	Description
1	298709	4	Intake Valve
2	298710	4	Exhaust Valve
3	298711	8	Valve Spring
4	298712	8	Spring Retainer
5	298713	16	Valve Spring Collet
6	298714	8	Valve Stem Seal
7	298715	8	Valve Cap
8	299566	1	Rocker Arm Shaft Assembly
9			Order #8
10	301705	2	Set Screw
11	302600	4	Rocker Arm Bracket
12	299999	4	Stud
13	301297	4	Nut
14	299583	4	Lockwasher
15	299582	4	Washer
16	298719	1	Set Screw
17	298720	2	Rocker Arm Shaft Washer
18	298721	3	Rocker Arm Spring
19	298722	2	Cir-Clip
20	302601	8	Rocker Arm Assembly
21			Order #20
22	301706	8	Rocker Arm Bushing
23	301707	8	Adjusting Screw
24	301708	8	Nut

CAMSHAFT GROUP



CAMSHAFT GROUP

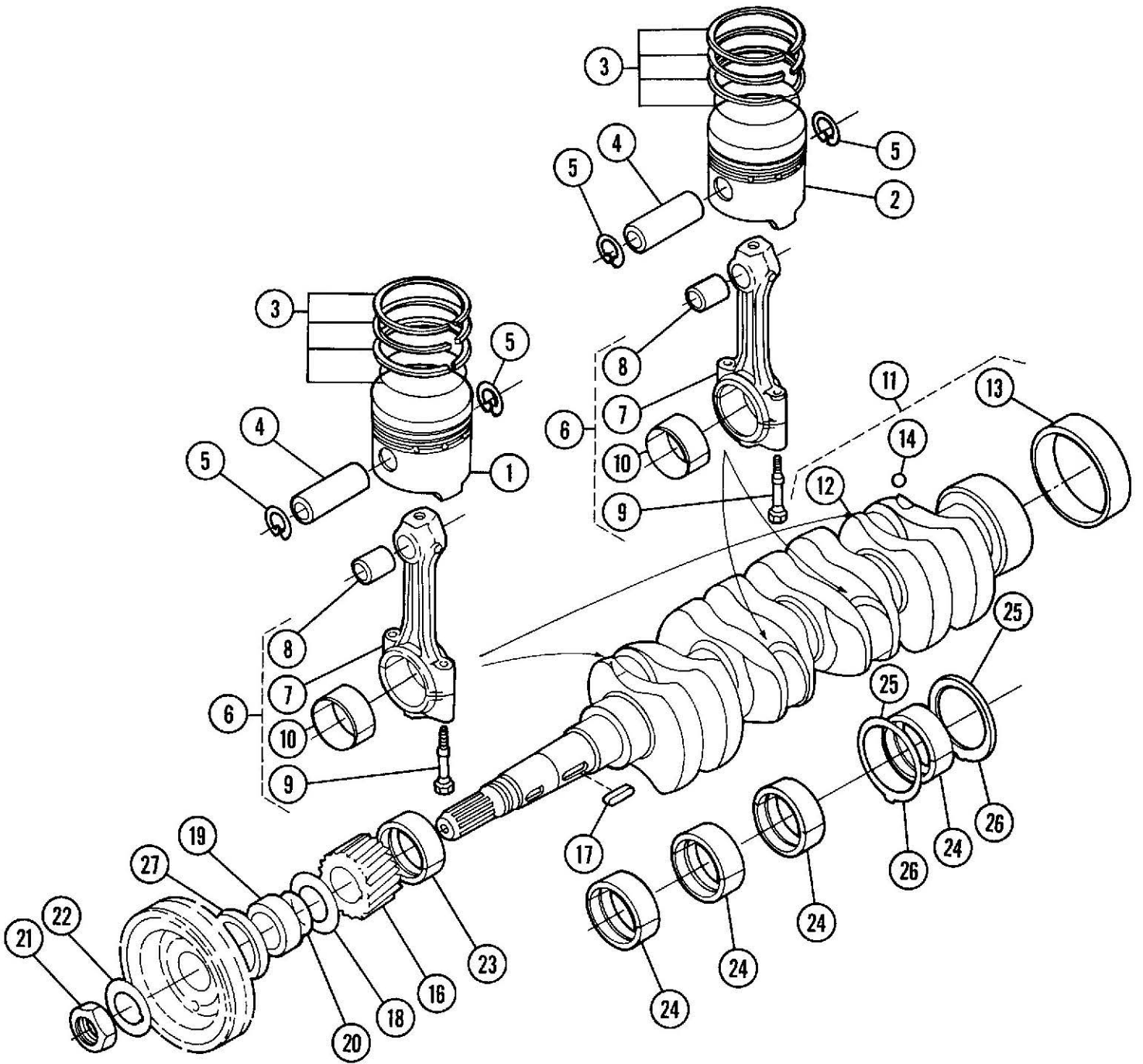
Item	Part No.	Unit	Description
1	298741	8	Tappet
2	298472	8	Push Rod
3	302533	1	Camshaft Assembly
4	298871	1	Camshaft
5	301713	2	Set Screw
6	300006	1	Camshaft Gear
7	299606	1	Key
8	298747	1	Camshaft Stopper
9	302606	2	Bolt
10	298750	1	Idler Gear Assembly
11			Order #10
12	300007	2	Idler Gear Bushing
13	302608	1	Collar #1
14	302608	1	Collar #2
15	298753	1	Cir-Clip
16	298754	1	Idler Gear Shaft
17	302606	3	Bolt



ENGINE STOP LEVER GROUP

Item	Part No.	Unit	Description
1	302550	1	Idler Apparatus Assembly
2	301732	1	Adjusting Bolt Assembly
3			Order #2
4			Order #2
5	301735	1	Nut
6	301736	1	O-Ring
7	300035	1	Engine Stop Lever Assembly
8	301737	1	Injection Pump Cover
9	301738	1	Lever Shaft
10	300111	1	Stop Lever
11	301496	1	O-Ring
12	301498	1	Spring Pin
13	301499	1	Spring
14	298826	1	Stopper
15	298684	1	Nut
16			Not Available
17			Not Available
18	298786	1	Pump Cover Gasket
19	302618	4	Bolt
20	302619	1	Fuel Camshaft Cover
21	300023	1	Collar
22	302551	1	Gasket
23	300025	1	Cir-Clip
24	301740	4	Bolt
25	299413	4	Lockwasher
26	301418	1	Cap

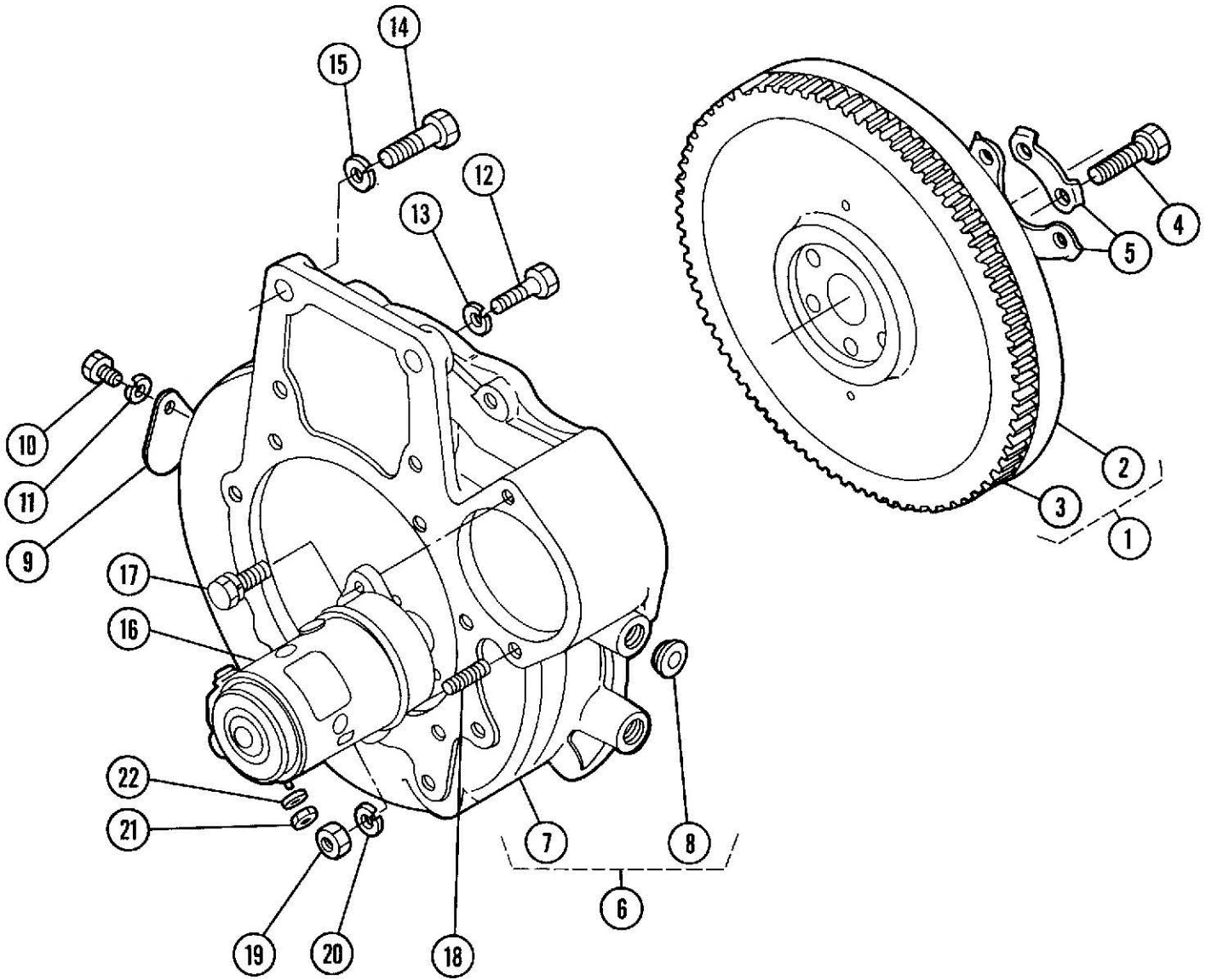
PISTON, CRANKSHAFT GROUP



PISTON, CRANKSHAFT GROUP

Item	Part No.	Unit	Description
1	302534	2	Piston After 1986
1A	302535	2	Piston .05 MM Oversize
1B	300009	4	Piston Before 1986
2	302536	2	Piston After 1986
2A	302537	2	Piston .05 MM Oversize
3	302538	4	Piston Ring Assembly
3A	302539	4	Piston Ring Assembly .05 MM Oversize
3B	300010	4	Piston Ring Assembly
4	298764	4	Piston Pin
5	298765	8	Cir-Clip Piston Pin
6	300011	4	Connecting Rod Assembly
7			Order #6
8	301714	4	Piston Pin Bushing
9	300014	8	Connecting Rod Bolt
10	300015	4	Connecting Rod Bearing
10A	302610	4	Rod Bearing .02 MM Oversize
10B	302611	4	Rod Bearing .04 MM Oversize
10C	301038	4	Rod Bearing .02 MM Oversize
10D	301039	4	Rod Bearing .04 MM Oversize
11	301778	1	Crankshaft Assembly
12			Order #11
13	301030	1	Crankshaft Sleeve
14	302540	4	Plug Pin
14A	302541	4	Ball
15			Not Available
16	300017	1	Crankshaft Gear
17	298746	1	Key
18	300019	1	Oil Slinger
19	301779	1	Collar
20	298773	1	O-Ring
21	298836	1	Nut
22	298837	1	Washer
23	298775	1	Bearing
23A	301040	1	Bearing .02 MM Oversize
23B	301041	1	Bearing .04 MM Oversize
24	298776	4	Bearing
24A	301042	4	Bearing .02 MM Oversize
24B	301043	4	Bearing .04 MM Oversize
25	302199	1	Crank Pulley w/Pilot & Tapped
25A	302947	1	Crank Pulley 154mm Dia. (inc. F.W.P. R.P.M.)

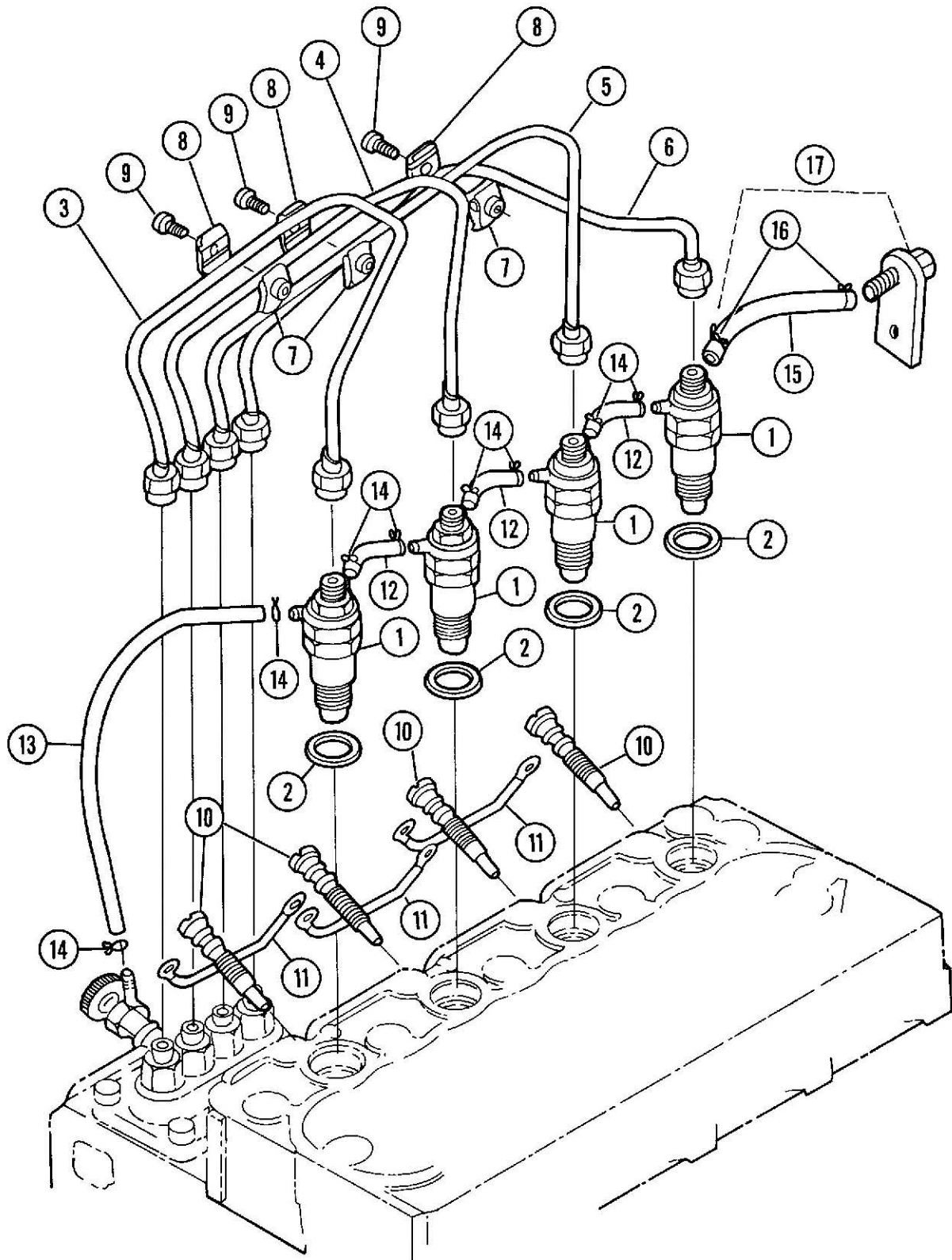
FLYWHEEL GROUP



FLYWHEEL GROUP

Item	Part No.	Unit	Description
1	299611	1	Flywheel Complete
2			Order #1
3	302544	1	Ring Gear
4	298780	6	Bolt
5	298781	3	Lockwasher
6	298875	1	Flywheel Housing
7			Order #6
8	301717	4	Plug
9	301718	1	Cover
10	299485	1	Bolt
11	299583	1	Lockwasher
12	301719	11	Bolt
13	299511	11	Lockwasher
14	301720	2	Bolt
15	301721	2	Lockwasher
16	299574	1	Starter
17	301722	1	Bolt
18	301723	1	Stud
19	301724	1	Nut
20	299511	1	Lockwasher
21	300208	1	Nut
22	299583	1	Lockwasher

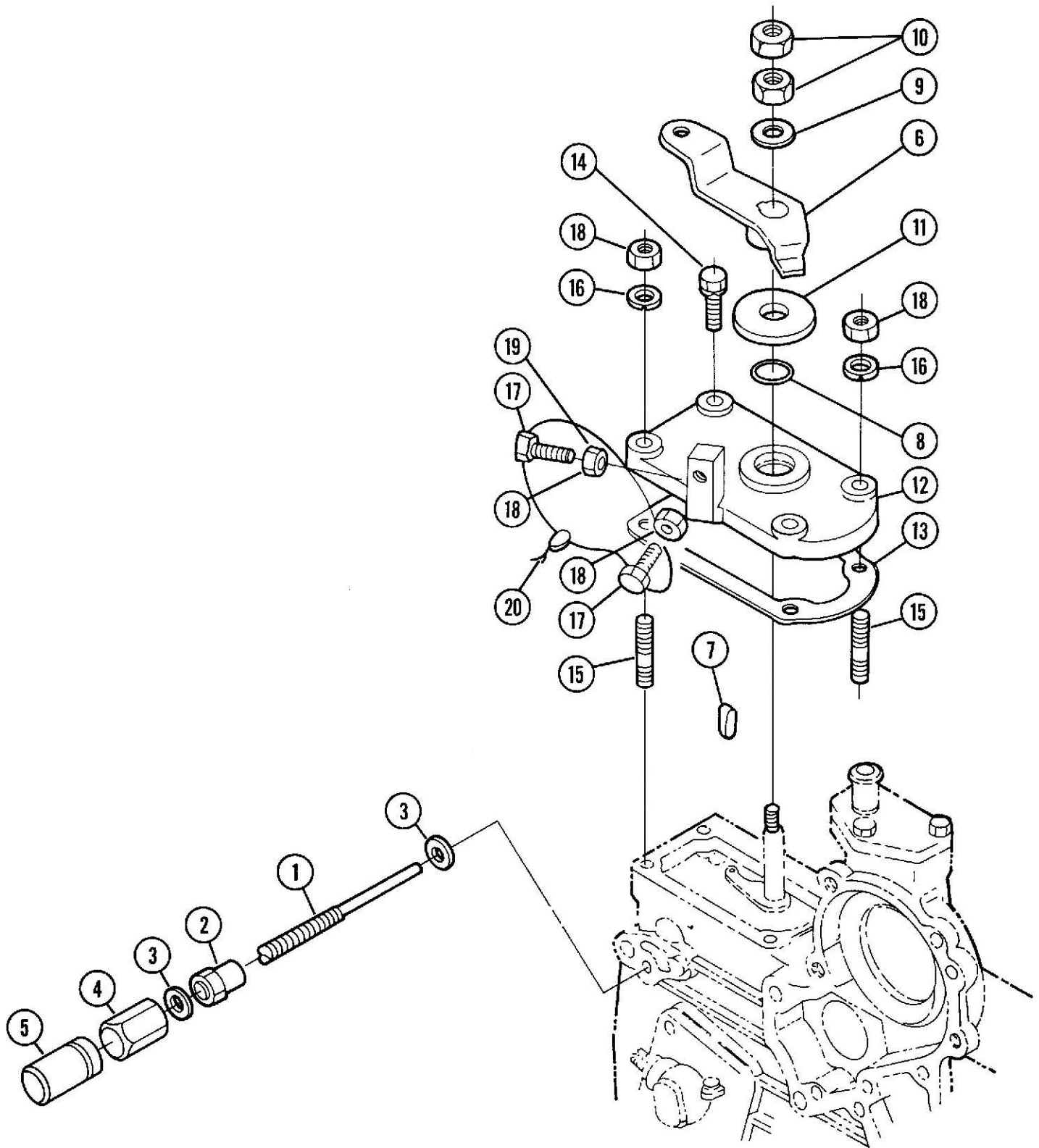
NOZZLE HOLDER GROUP



NOZZLE HOLDER GROUP

Item	Part No.	Unit	Description
1	299567	4	Injectors
2	298789	4	Gasket
3	302545	1	Injection Pipe #1
4	302546	1	Injection Pipe #2
5	301781	1	Injection Pipe #3
6	301782	1	Injection Pipe #4
7	301306	3	Pipe Clamp
8	301307	3	Pipe Clamp
9	298794	3	Screw with Washer
10	300052	4	Glow Plug
11	298796	3	Glow Plug Wire
12	298784	3	Overflow Fuel Pipe
13	302547	1	Overflow Hose
14	302484	8	Clamp
15	299831	1	Hose
16	302269	2	Clamp
17	256747	1	Return Hose Assembly
18	301895	1	Fuel Return Assy *Spec. 15050 UM 100 nuts both ends for UL.

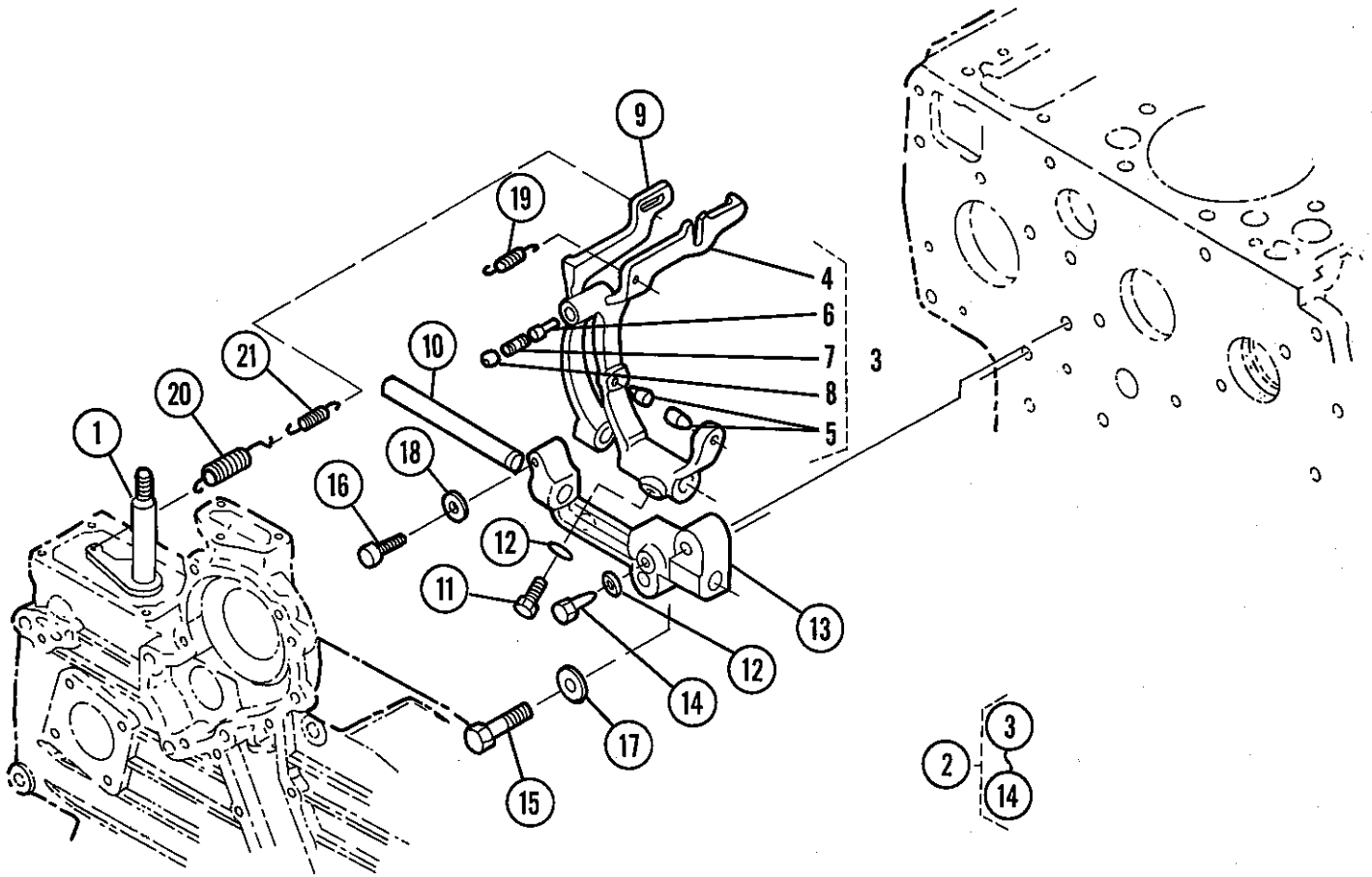
SPEED CONTROL PLATE GROUP



SPEED CONTROL PLATE GROUP

Item	Part No.	Unit	Description
1	301730	1	Adjusting Bolt
2	301731	1	Nut
3	301241	2	Gasket
4	301504	1	Cap Nut
5	302485	1	Cap
6	302616	1	Speed Control Lever
7	298820	1	Key
8	298821	1	O-Ring
9	300031	1	Washer
10	302549	2	Nut
11	298822	1	Plate
12	301945	1	Speed Control Plate
13	298824	1	Gasket
14	302617	2	Bolt
15	298683	2	Stud
16	299369	2	Lockwasher
17	298826	2	Stopper
18	298684	4	Nut
19			Not Available
20			Not Available

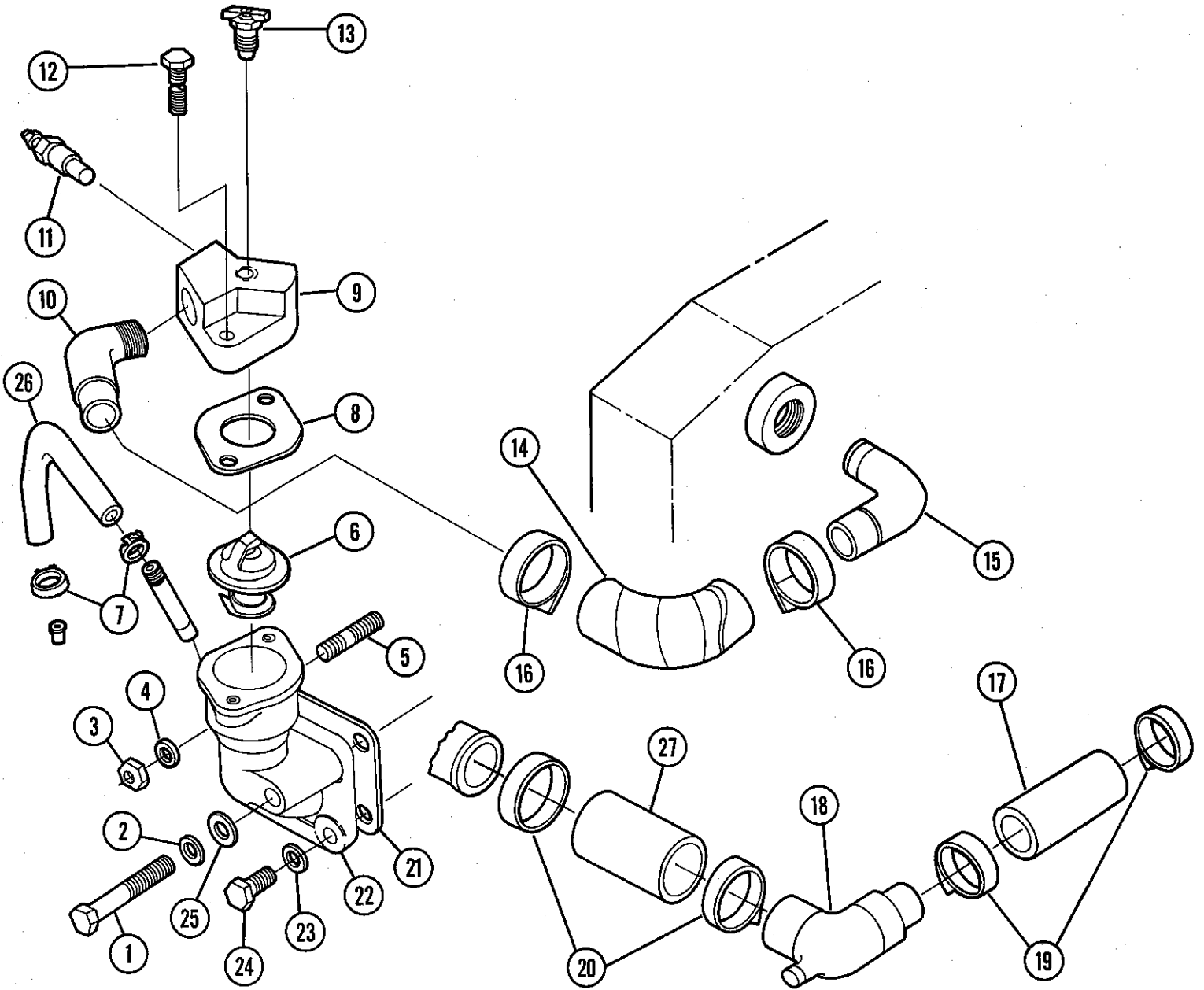
GOVERNOR GROUP



GOVERNOR GROUP

Item	Part No.	Unit	Description
1	301726	1	Governor Lever Assembly
2	301727	1	Fork Lever Assembly
3	300026	1	Fork Lever Assembly
4			Order #3
5			Order #3
6			Order #3
7			Order #3
8			Order #3
9	301728	1	Fork Lever
10	298832	1	Fork Lever Shaft
11	298833	1	Bolt
12	299369	2	Lockwasher
13	298834	1	Fork Lever Holder
14	298732	1	Bolt
15	301729	2	Bolt
16	302615	1	Bolt
17	299582	2	Washer
18	301561	1	Washer
19	300027	1	Spring
20	300028	1	Spring
21	300029	1	Spring

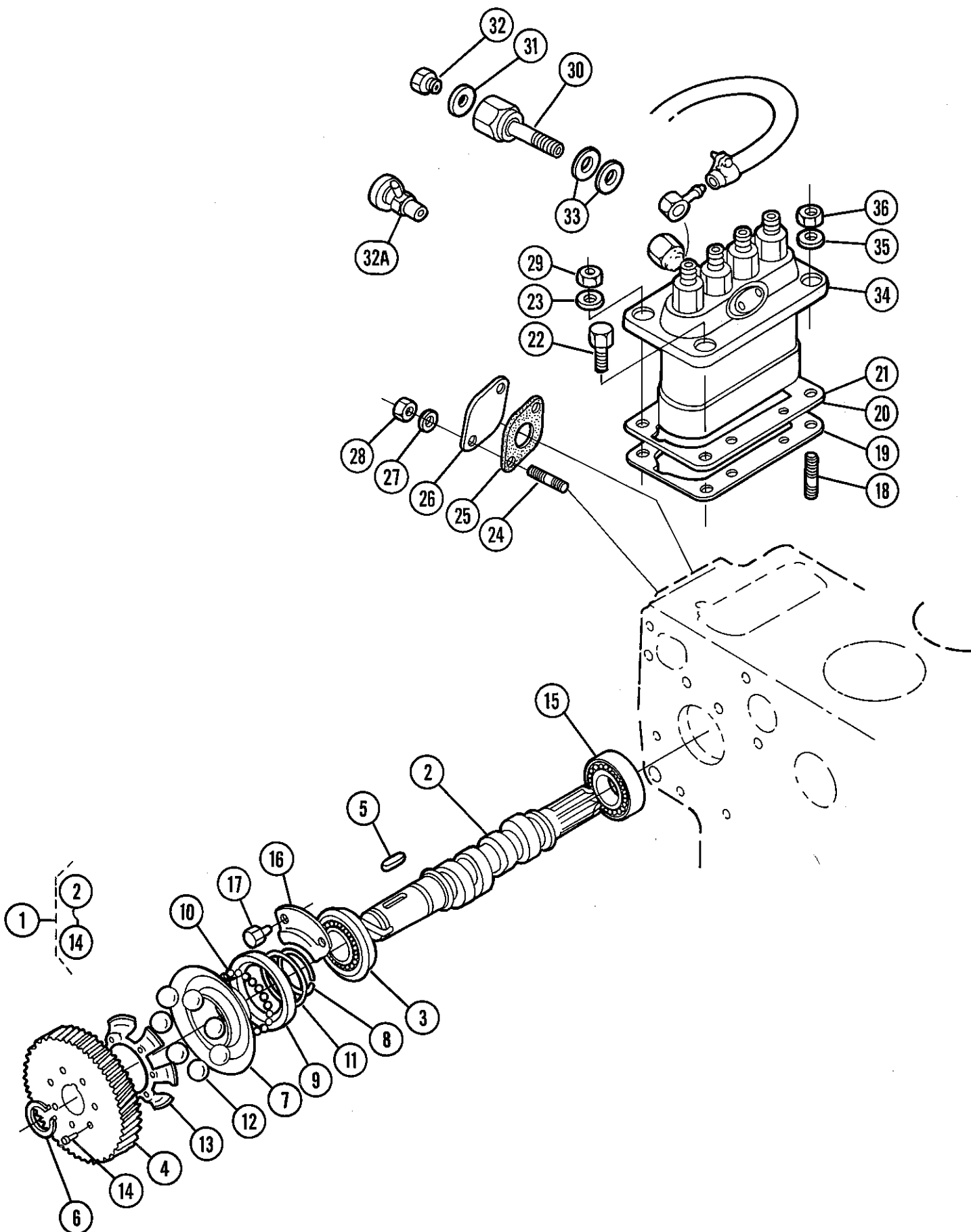
WATER FLANGE GROUP



WATER FLANGE GROUP

Item	Part No.	Unit	Description
1	299981	1	Bolt
2	299583	2	Lockwasher
3	301297	1	Nut
4	299583	1	Lockwasher
5	302558	1	Stud
6	299798	1	Thermostat
7	298842	2	Clamp
8	298843	1	Gasket
9	298583	1	Thermostat Housing
10	298644	1	Elbow
11	299066	1	Temp Sender
12	301748	2	Bolt
13	239138	1	Drain Cock
14	301341	1	Hose
15	298644	1	Elbow
16	298648	2	Clamp
17	300455	1	Hose
18	300932	1	Elbow
19	298648	2	Clamp
20	298604	2	Clamp
21	300040	1	Gasket
22	300039	1	Water Flange
23	299583	2	Lockwasher
24	299527	2	Bolt
25	299582	1	Washer
26	302560	1	Hose
27	300828	1	Hose

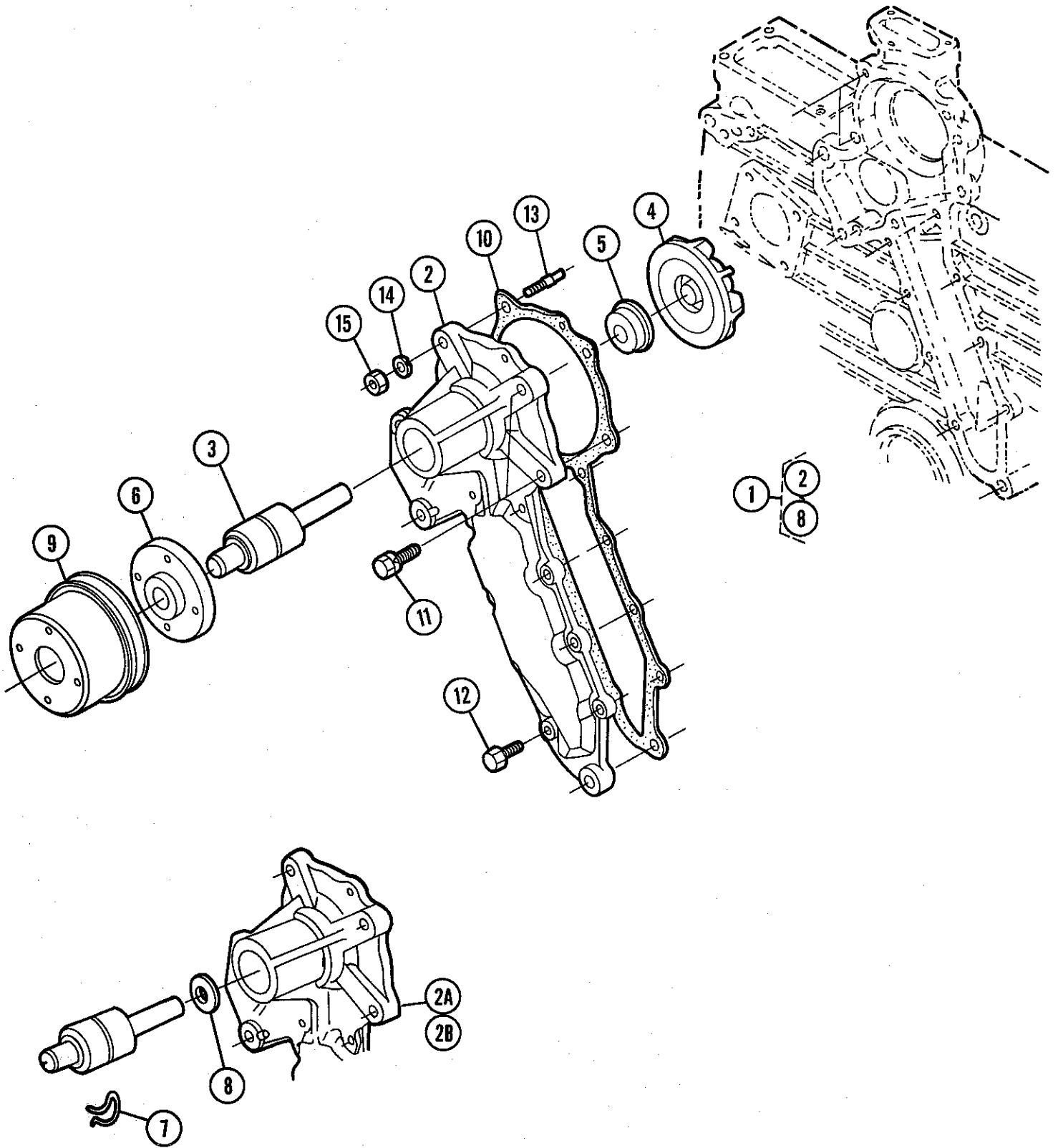
FUEL CAMSHAFT GROUP



FUEL CAMSHAFT GROUP

Item	Part No.	Unit	Description
1	302548	1	Fuel Campshaft Assembly
2	301725	1	Fuel Camshaft
3	301317	1	Ball Bearing
4	299575	1	Injection Pump Gear
5	298801	1	Key
6	298810	1	Cir-clip
7	298802	1	Sleeve
8	298803	1	Cir-clip
9	298804	1	Ball Case
10	298805	39	Ball
11	298806	1	Cir-clip
12	299579	7	Ball
13	299577	1	Ball Guide
14	298809	7	Rivet
15	300021	1	Ball Bearing
16	298812	1	Camshaft Stopper
17	301548	2	Bolt
18	302558	2	Stud
19	302557	1	Injection Shim
20	302559	1	Injection Shim
21	299580	3	Injection Shim
22	301294	4	Bolt
23	299583	2	Lockwasher
24	301509	2	Stud
25	297872	1	Fuel Pump Gasket
26	299822	1	Cover
27	299542	2	Lockwasher
28	298684	2	Nut
29	301297	2	Nut
30	300057	1	Filling
31	301164	1	Washer
32	299748	1	Screw
32A	300050	1	Bleed Screw Assembly
33	299873	2	Gasket
34	300731	1	Injection Pump Assembly
35	299583	2	Lockwasher
36	301297	2	Nut

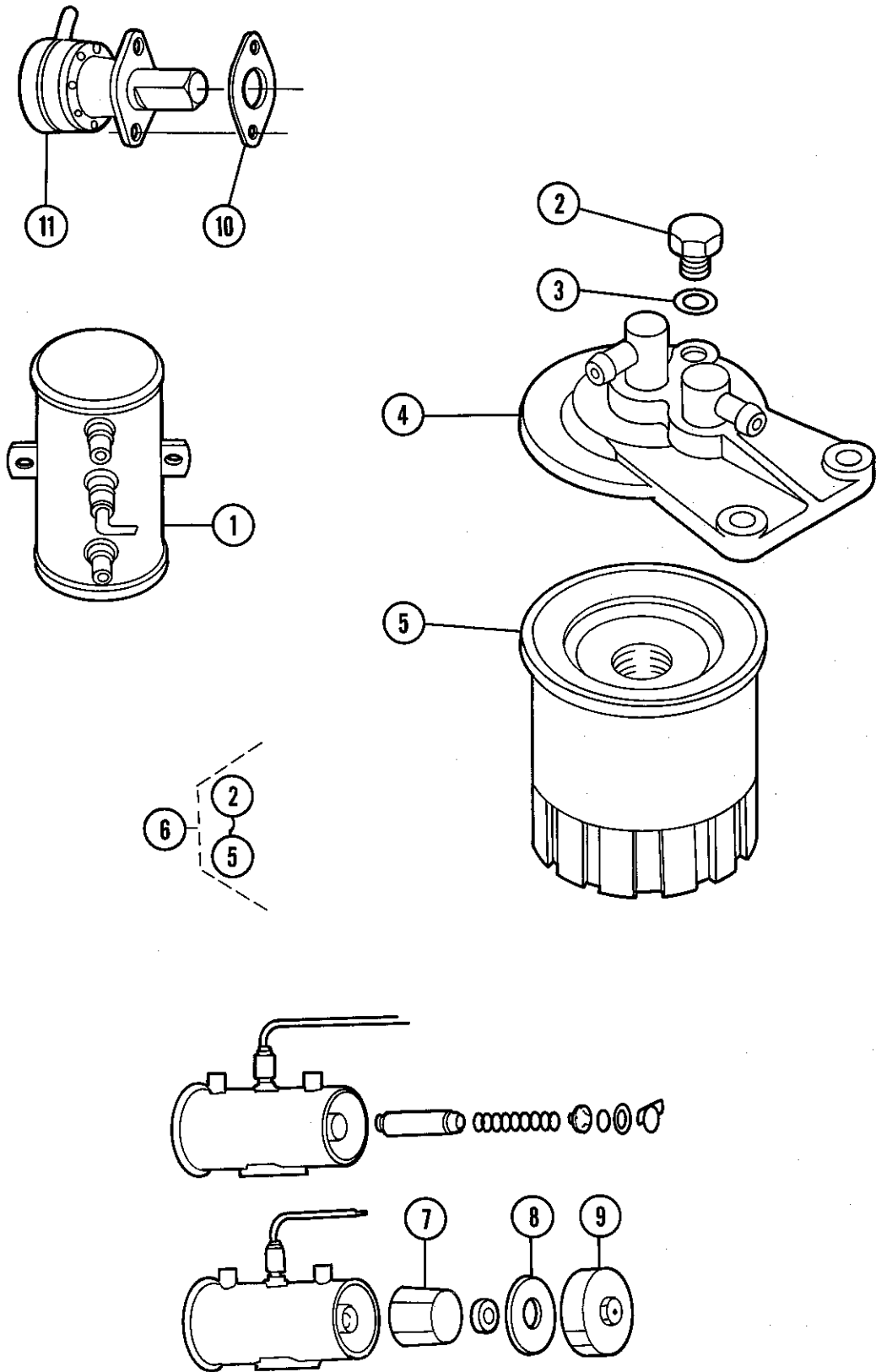
WATER PUMP GROUP



WATER PUMP GROUP

Item	Part No.	Unit	Description
1	300041	1	Water Pump Assembly
2			Order #1
2A	298845	1	Water Pump Assembly
2B	298846	1	Pump Gasket
3	300042	1	Bearing
4	300043	1	Impeller
5	300044	1	Seal
6	301743	1	Pulley Flange
7	300045	1	Snap Ring
8	301744	1	Slinger
9	301745	1	Pulley
10	300047	1	Gasket
11	302596	2	Bolt
12	302618	8	Bolt
13	301746	2	Stud
14	299583	2	Lockwasher
15	301297	2	Nut

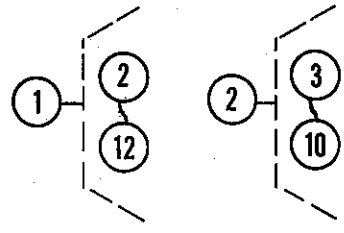
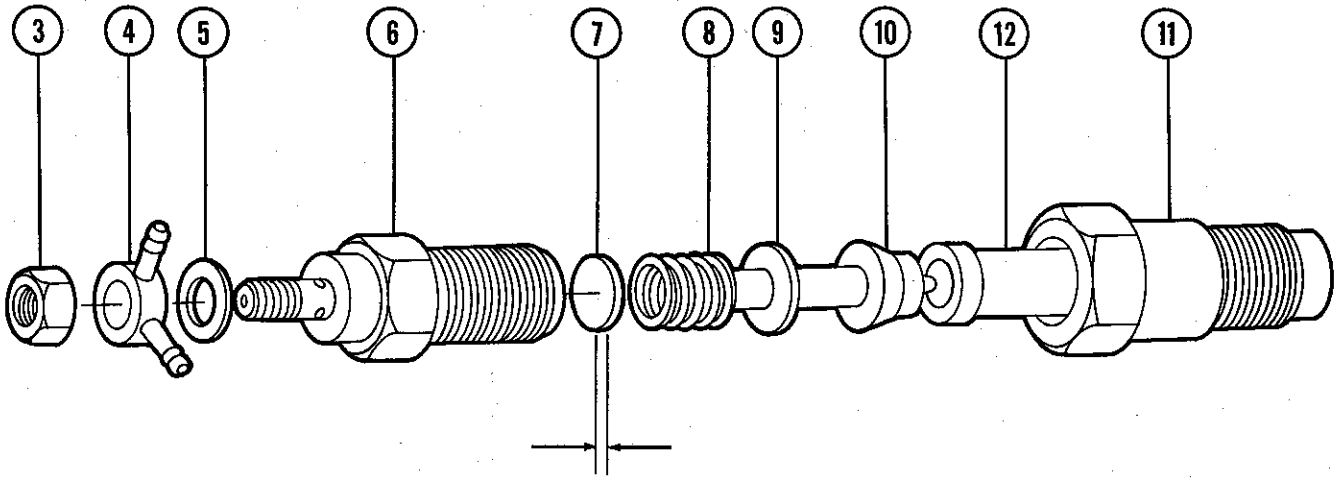
FUEL FILTER GROUP



FUEL FILTER GROUP

Item	Part No.	Unit	Description
1	301385	1	Electric Fuel Pump
2	299855	1	Bleed Screw
3	299856	1	O-Ring
4	301602	1	Fuel Filter Cover
5	298854	1	Fuel Filter
6	298853	1	Fuel Filter Assembly
7	300128	1	Filter & Geilt
8	299639	1	Gasket
9	299803	1	Cap
10	299426	1	Gasket Early Models
11	299425	1	Mechanical Fuel Pump Early Models

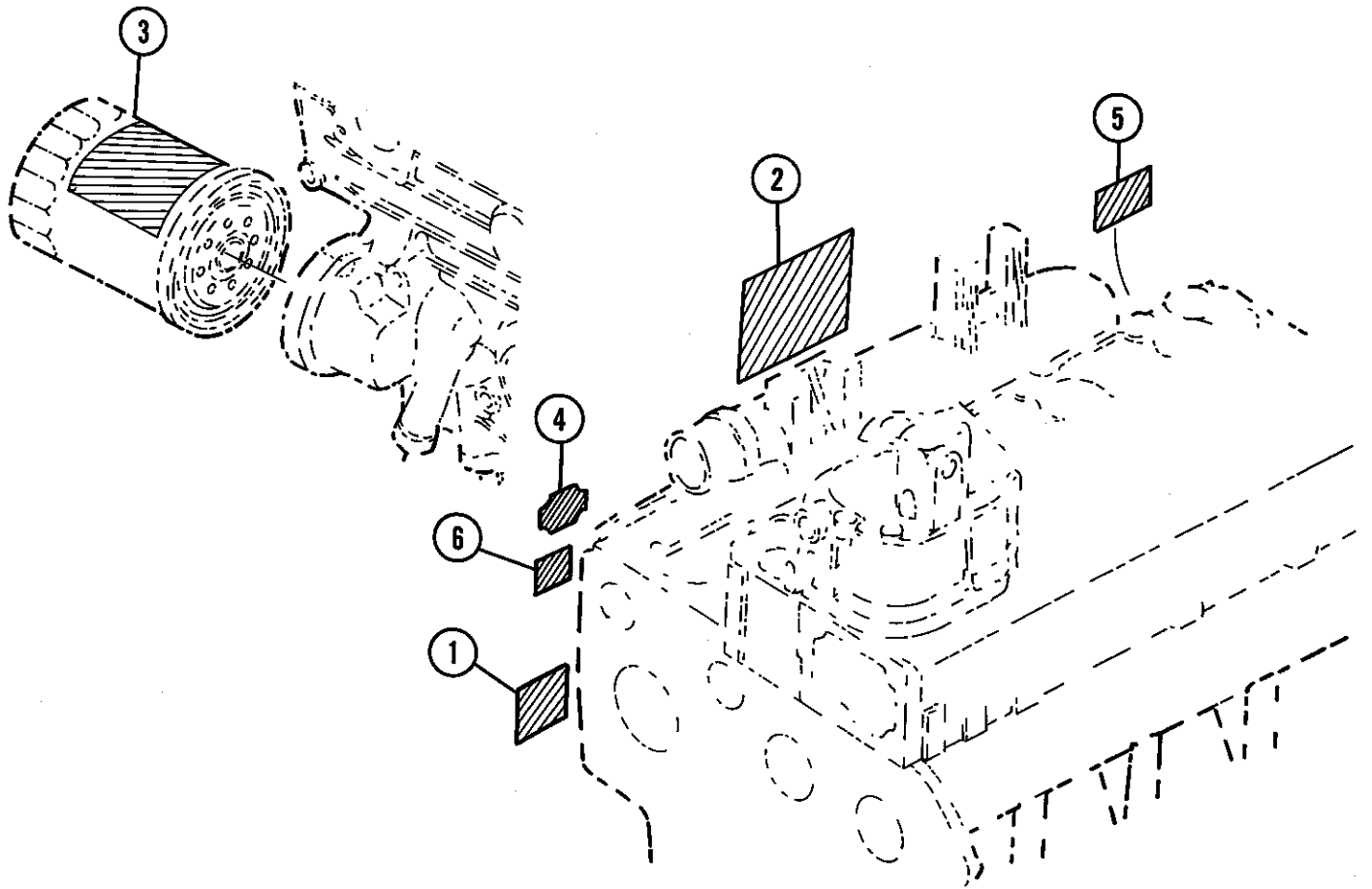
NOZZLE HOLDER



NOZZLE HOLDER

Item	Part No.	Unit	Description
1	299567	4	Injectors
2			Order #1
3	301508	4	Nut
4	301162	4	Eye Joint
5	301137	4	Washer
6			Order #1
7	301509	4	Adjusting Washer
8	301510	4	Spring
9	301511	4	Distance Piece
10	301512	4	Push Rod
11	301513	4	Nozzle Nut
12	301514	4	Nozzle Piece

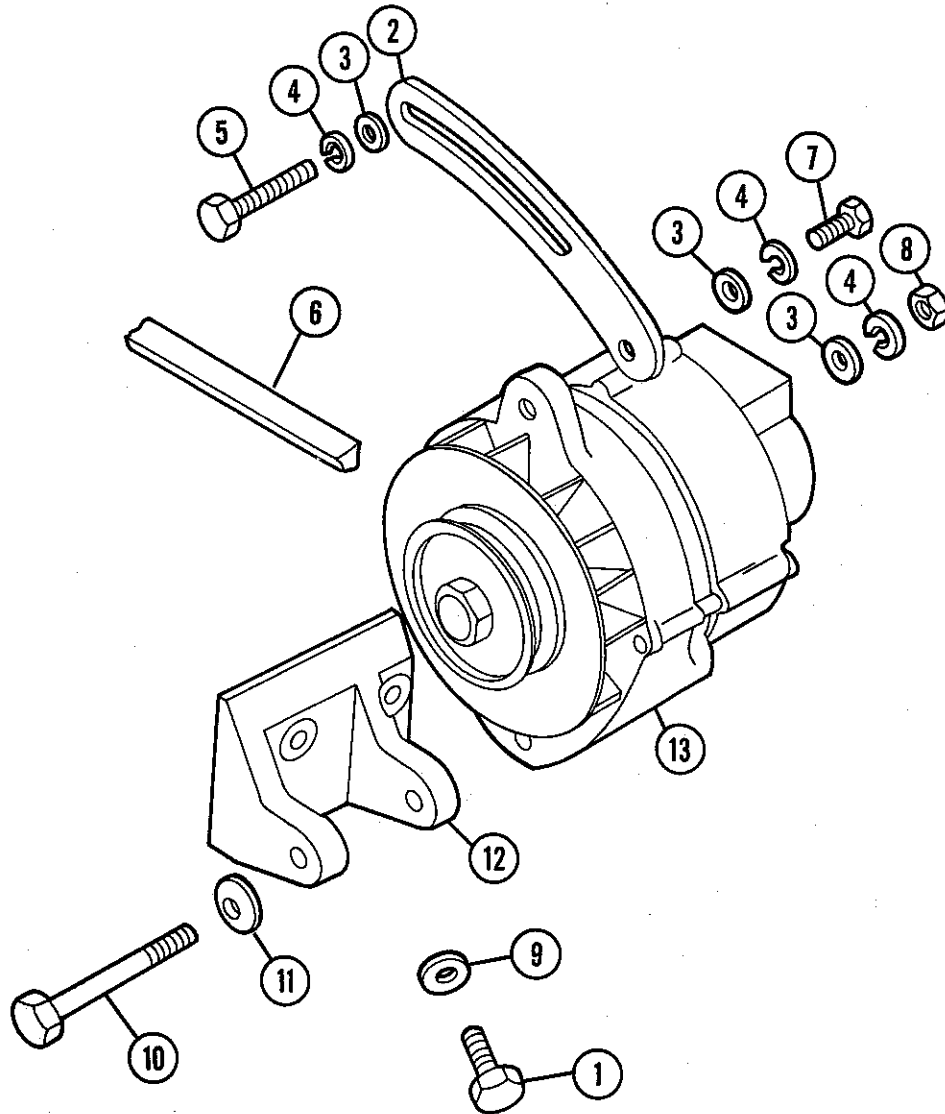
NAME PLATE GROUP



NAME PLATE GROUP

Item	Part No.	Unit	Description
1	298851	1	Glow Plug Label
2	299609	1	Oil Label
3	298850	1	Instruction Label
4	298849	1	Instruction Label
5	298847	1	Drainage Label
6	298627	1	Hurth Rev. Gear Date Plate
7	299158	1	Hurth Rev. Gear Cube Date Plate
8	300268	1	Engine Serial and Model Plate

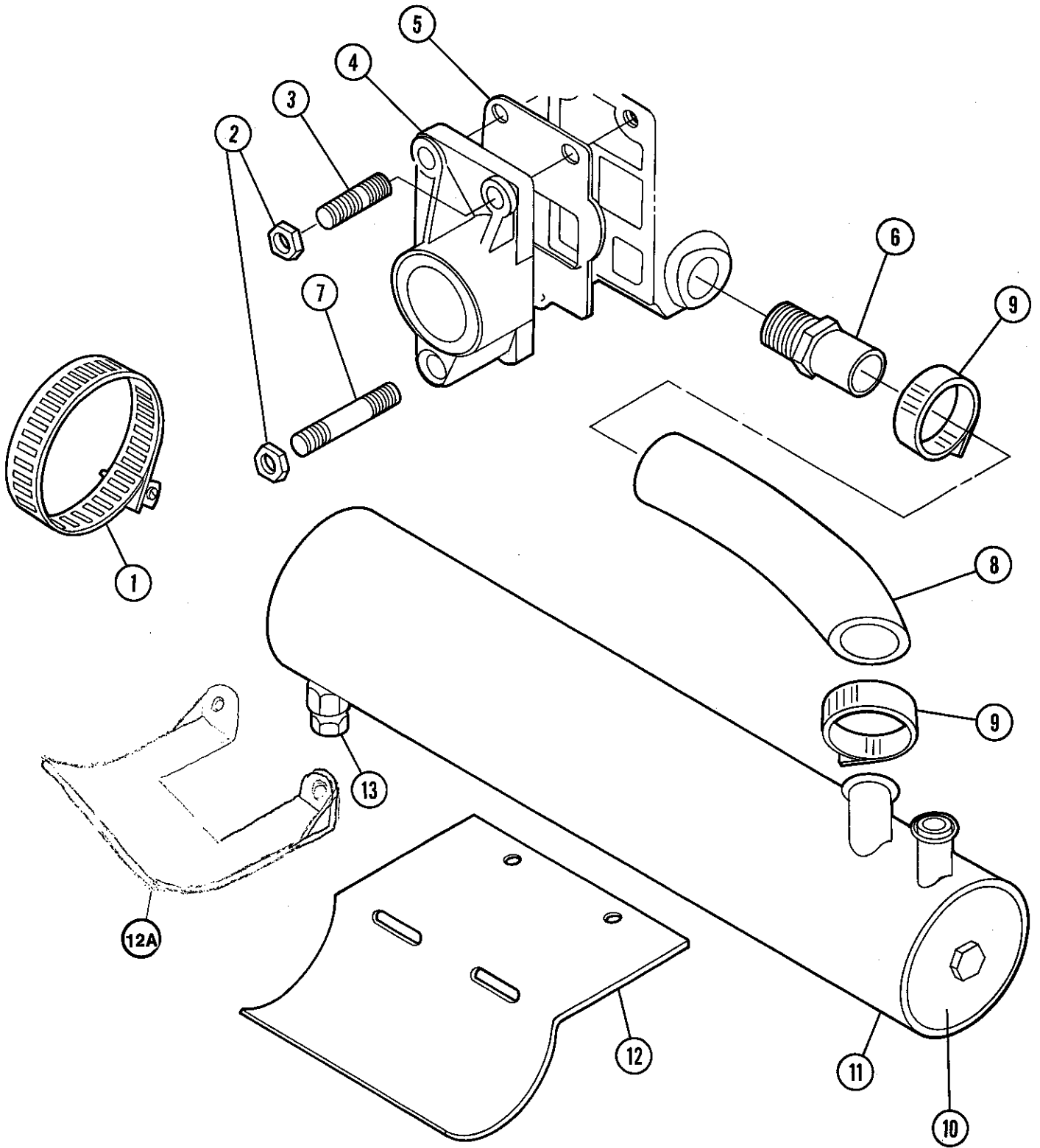
ALTERNATOR GROUP



ALTERNATOR GROUP

Item	Part No.	Unit	Description
1	298468	2	Bolt
2	299809	1	Adjusting Arm
3	231876	3	Washer
4	285305	3	Lockwasher
5	231057	1	Bolt
6	239648	1	V-Belt
7	231057	1	Bolt
8	230144	1	Nut
9	298461	2	Lockwasher
10	231093	1	Bolt
11	231876	1	Washer
12	298521	1	Alternator Bracket
13	300800	1	Alternator Before 88
13A	302280	1	Alternator After 88
13B	300746	1	12V 72AMP Alt.

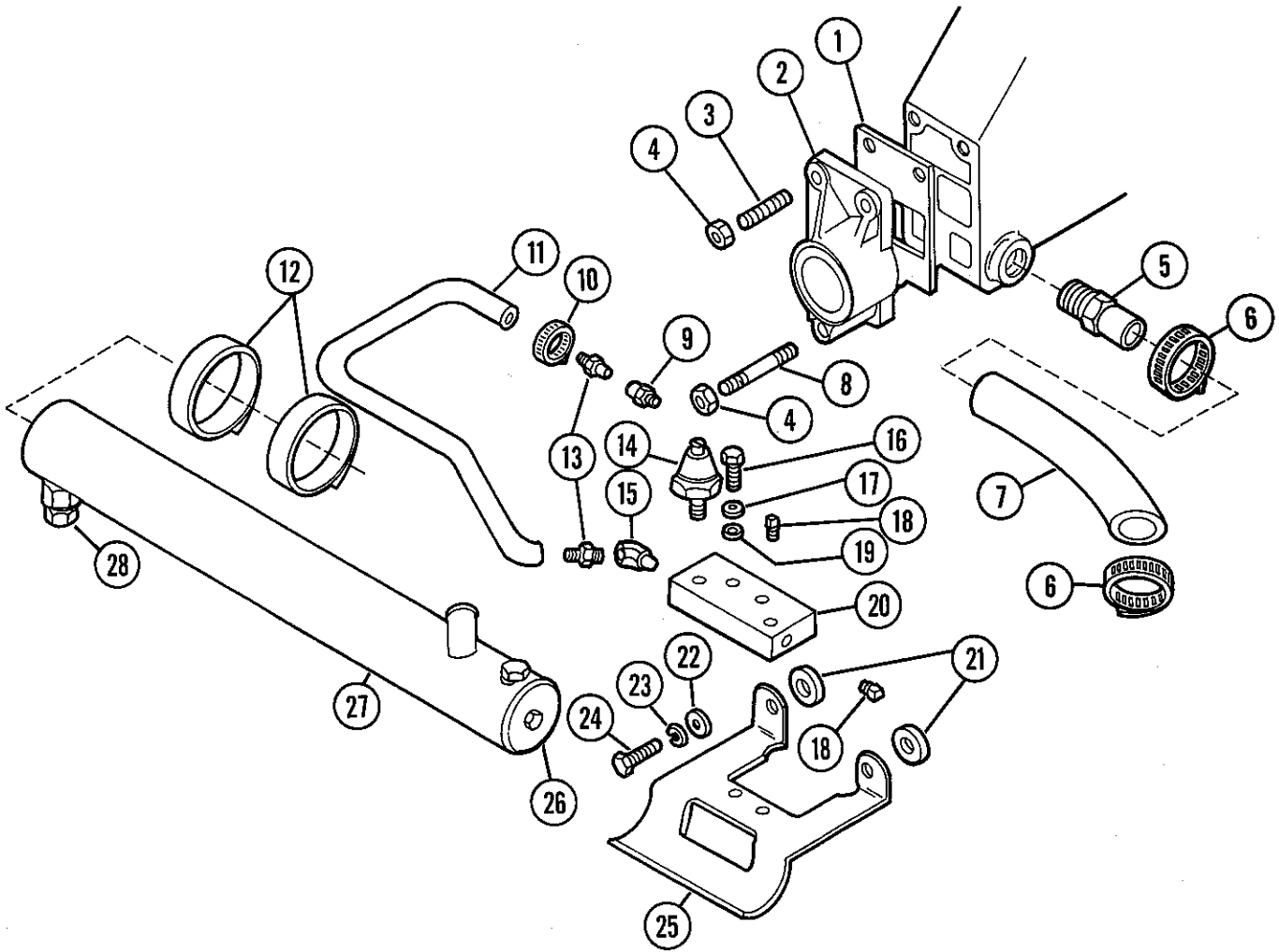
HEAT EXCHANGER GROUP — NEW STYLE



HEAT EXCHANGER GROUP

Item	Part No.	Unit	Description
1	299837	2	Clamp
2	230147	3	Nut
3	276440	2	Stud
4	299788	1	Exhaust Flange 1 ½ in. Standard
4A	298599	1	Exhaust Flange 1 ¼ in.
5	298600	1	Gasket
6	286075	1	Hose Connector
7	298974	1	Stud
8	299079	1	Hose
9	298648	2	Clamp
10	301457	1	Cap and Gasket
11	299818	1	Heat Exchanger 3" x 17"
12	301683	1	Exchanger Bracket 3"
12A	299852	1	Exchanger Bracket Old Style 2" & 3"
13	301068	1	Zinc 3/8 NPT x 1 1/2 x 1/2 D

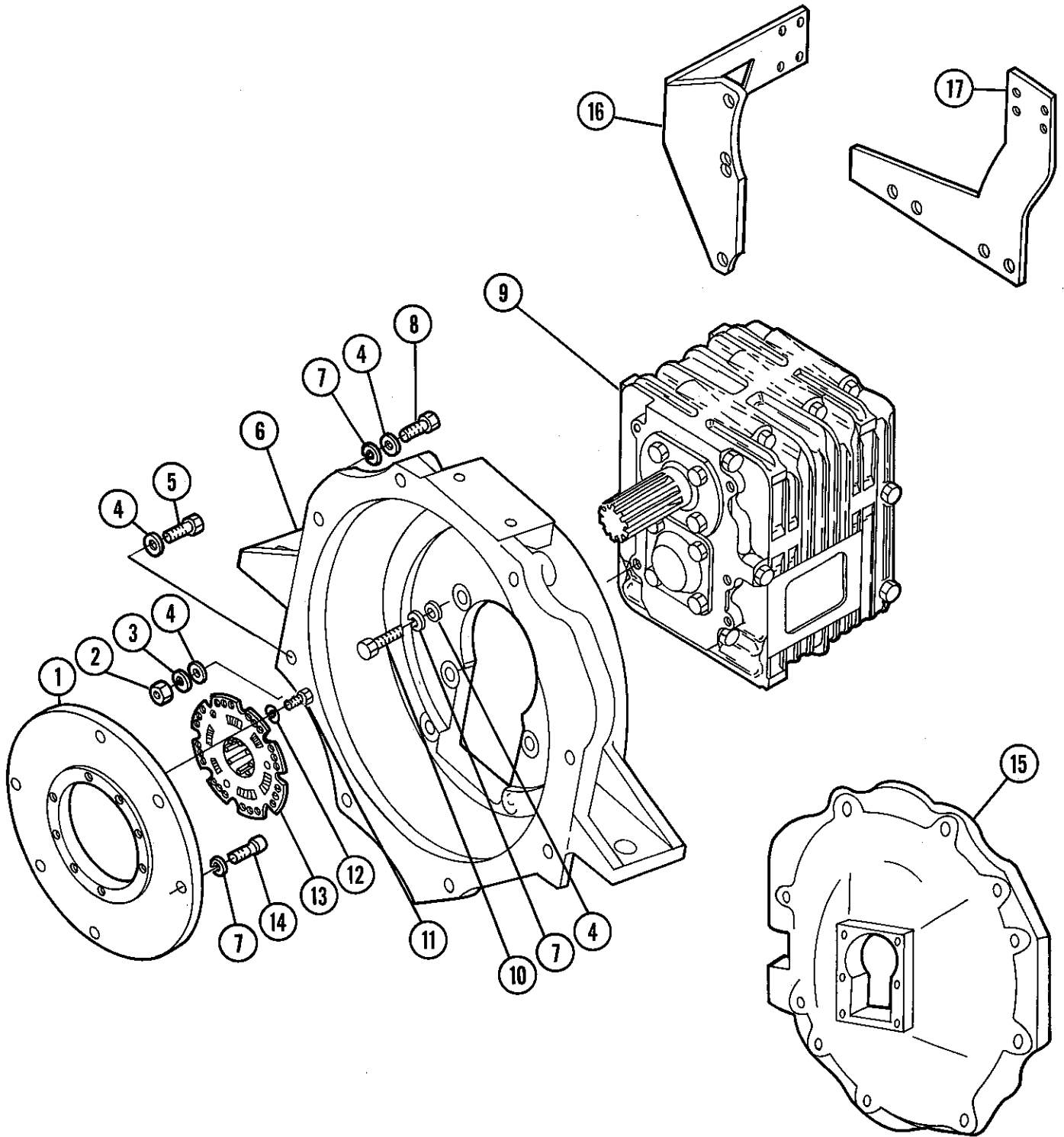
HEAT EXCHANGER GROUP — OLD STYLE



HEAT EXCHANGER GROUP — OLD STYLE

Item	Part No.	Unit	Description
1	298600	1	Gasket - Exhaust Flange
2	299788	1	Exhaust Flange
3	276440	2	Stud 3/8-16 x 1-7/16
4	230147	3	Hex Nut 3/8-24
5	286075	1	Hose Connector 3/4 MPT
6	298648	2	Hose Clamp No. 2
7	299079		Wire Flex Hose 7/8 I.D. x 10-3/4 Lg.
8	298974	1	Stud 3/8-16 & 24 x 2-5/8
9	299726	1	Adapter 1/8-28 x 1/8-27 FPT
10	298605	1	Clamp - Hose 1/2" Hose
11	299745	1	Hose 1/4 I.D. x 6-1/2 Lg.
12	294386	2	Hose Clamp No. 28
13	299342	2	Connector 1/8-27 x 1/4 Hose
14	299964	1	Oil Switch
15	299271	1	Elbow 45*
16	231037	2	Screw Hex Head Cap 1/4-20 x 1"
17	231907	2	Washer - Int. Lock
18	239136	2	Pipe Plug 1/8 Brass
19	231874	2	Washer - Plain 1/4
20	299700	1	Oil Manifold
21	231059	4	Heat Exchanger Bracket Spacer
22	231875	2	Washer - Plain 8mm
23	298461	2	Split Lock Washer 8mm
24	299189	2	Hex Head Cap Screw 8mm x 35mm
25	299852	1	Heat Exchanger Bracket
26	299838	1	Cover Plate & Gasket
27	299049	1	Heat Exchanger 2" x 16"
28	301069	1	Zinc Drain Plug 1/8 NPT x 1 7/8 x 3/16 D

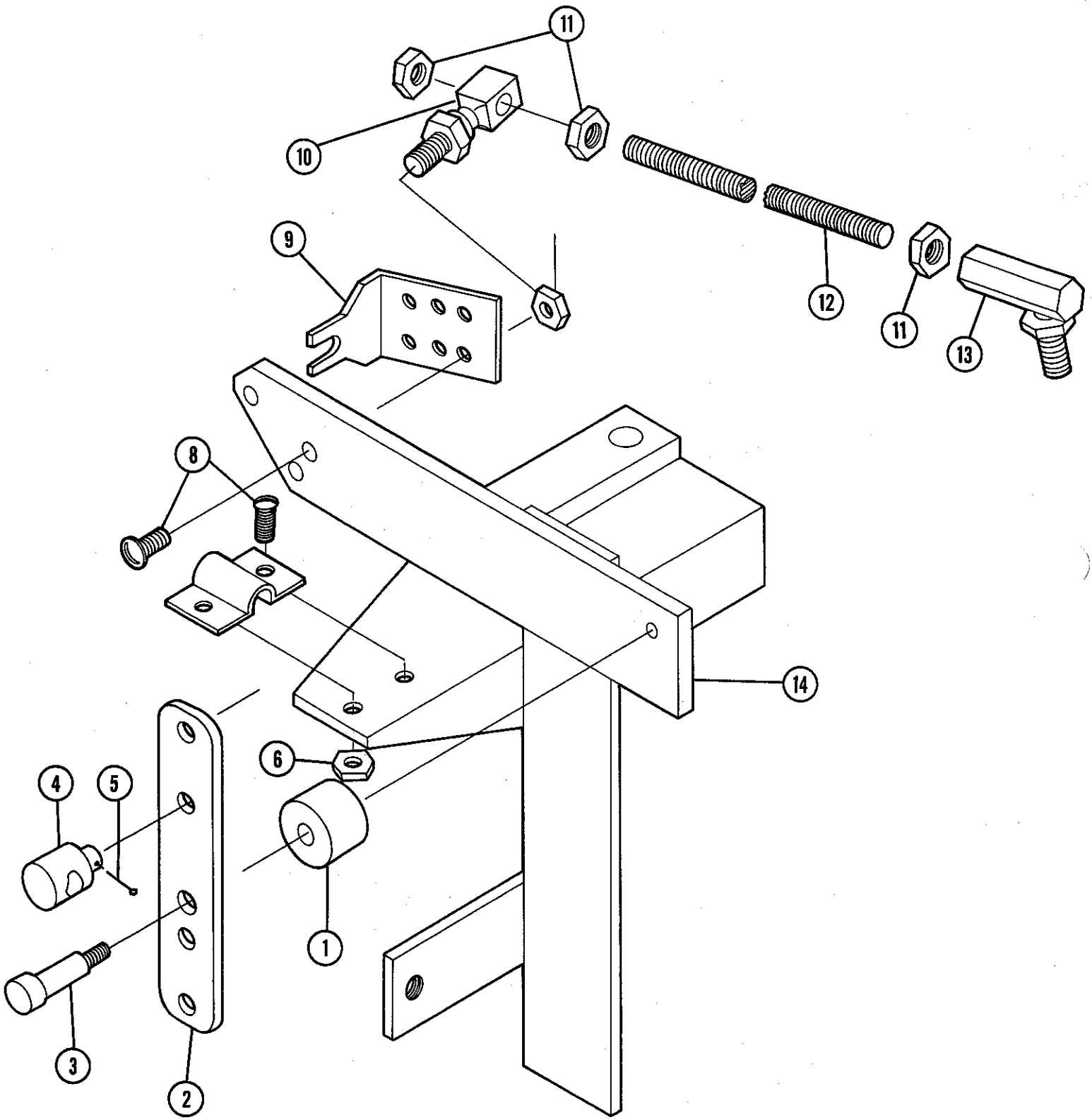
BELL HOUSING GROUP



BELL HOUSING GROUP

Item	Part No.	Unit	Description
1	298505	1	Dampner Mounting Plate
2	230141	1	Nut
3	231891	1	Washer
4	231875	14	Washer
5	231061	1	Bolt
6	300811	1	Bell Housing
7	298461	6	Lockwasher
8	298539	6	Bolt
9	300117	1	HBW 150 Transmission
10	298468	6	Bolt
11	298458	8	Bolt
12	298459	8	Lockwasher
13	298454	1	Dampner Plate
14	298460	6	Bolt
15	298523	1	Bell Housing Old Style
16	300427	1	Shift Bracket
17	300244	1	Vertical Shift Bracket
	299942	1	HBW 150 V-Drive Not Shown

THROTTLE BRACKET GROUP

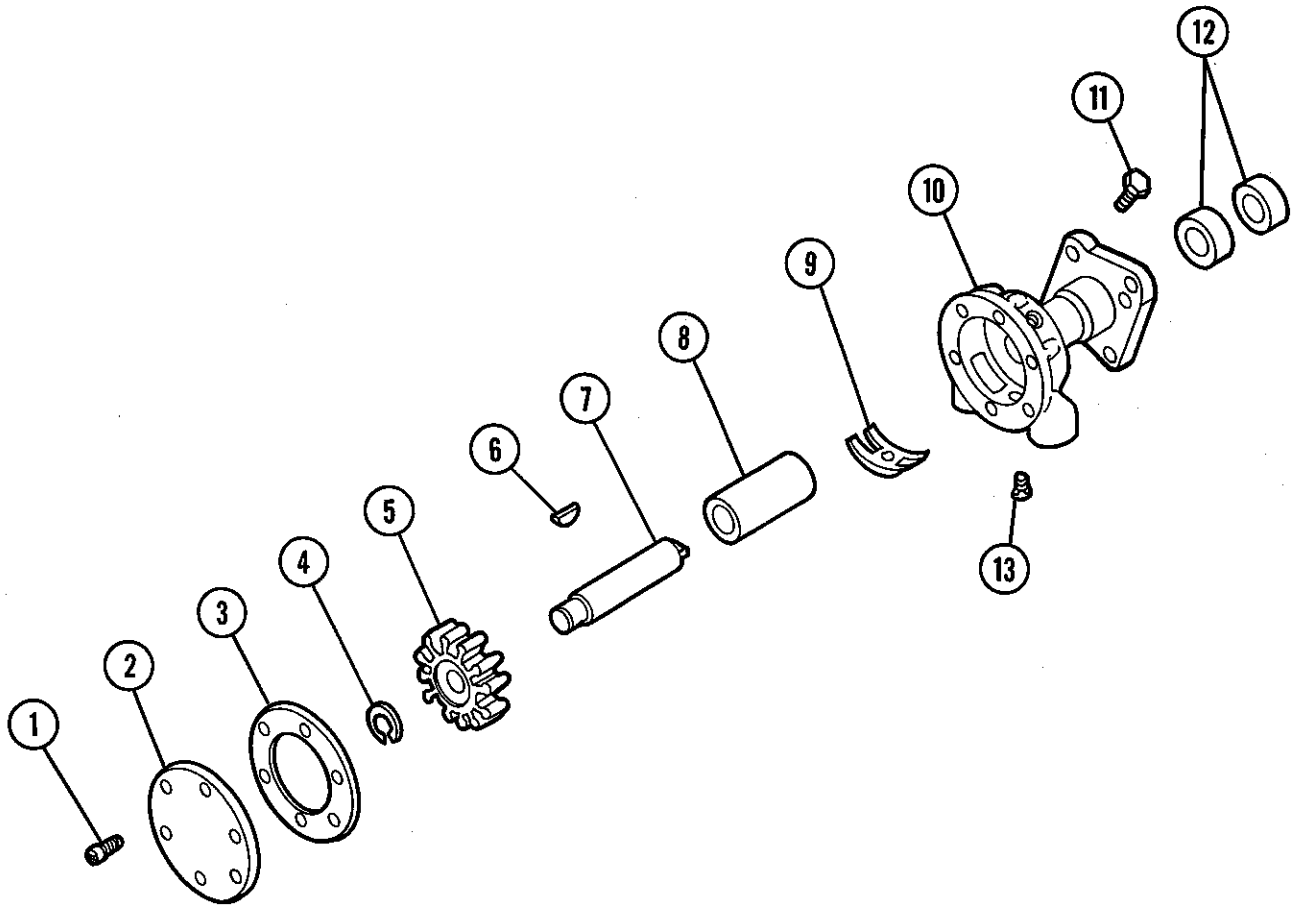


THROTTLE BRACKET GROUP

Item	Part No.	Unit	Description
1	300090	1	Lever Spacer
2	300826	1	Throttle Lever
3	231452	1	Shoulder Bolt
4	299019	1	Cable Pivot
5	300281	1	Cotter Pin
6	015434	3	Nut
7	299653	1	Clamp
8	015360	4	Bolt
9	298630	1	Cable Hook Clip
10	300825	1	Throttle Swivel
11	230184	4	Nut
12	300829	1	Throttle Rod
13	299767	1	Ball Joint
14	300824	1	Bracket

SHERWOOD WATER PUMP

300986

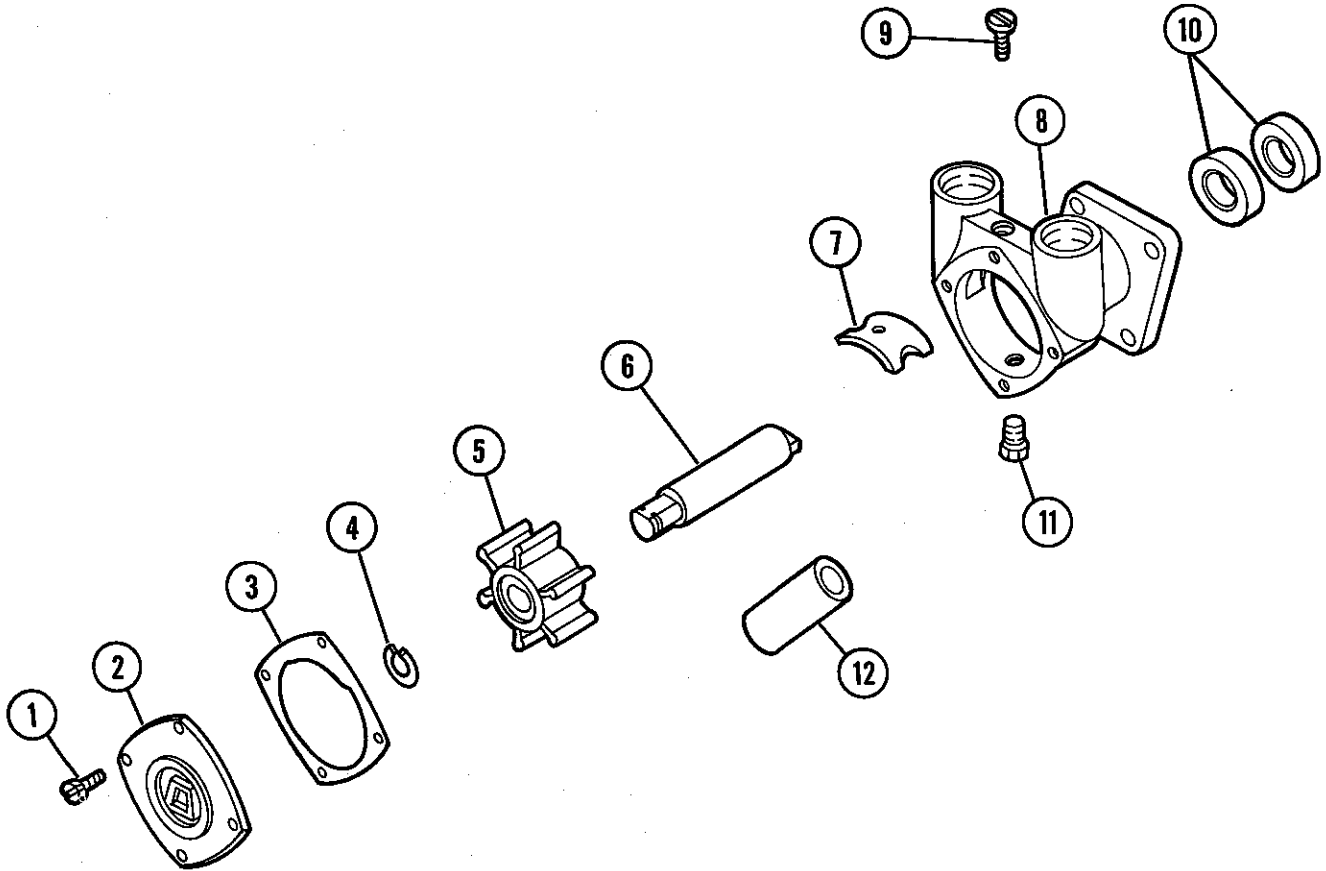


300986 Pump Assembly

Item	Part No.	Unit	Description
1	299895	6	Cover Screws
2	299891	1	Pump Cover
3	295745	1	Cover Gasket
4	299893	1	Impeller Snap Ring
5	287439	1	Impeller
6	299896	1	Key
7	299888	1	Pump Shaft Old Style
7A	301787	1	Pump Shaft New Style
8	299889	1	Water Seal
9	299894	1	Cam
10	299890	1	Pump Body
11	299895	1	Cam Locking Screw
12	262286	2	Oil Seal
13	239136	1	Drain Plug

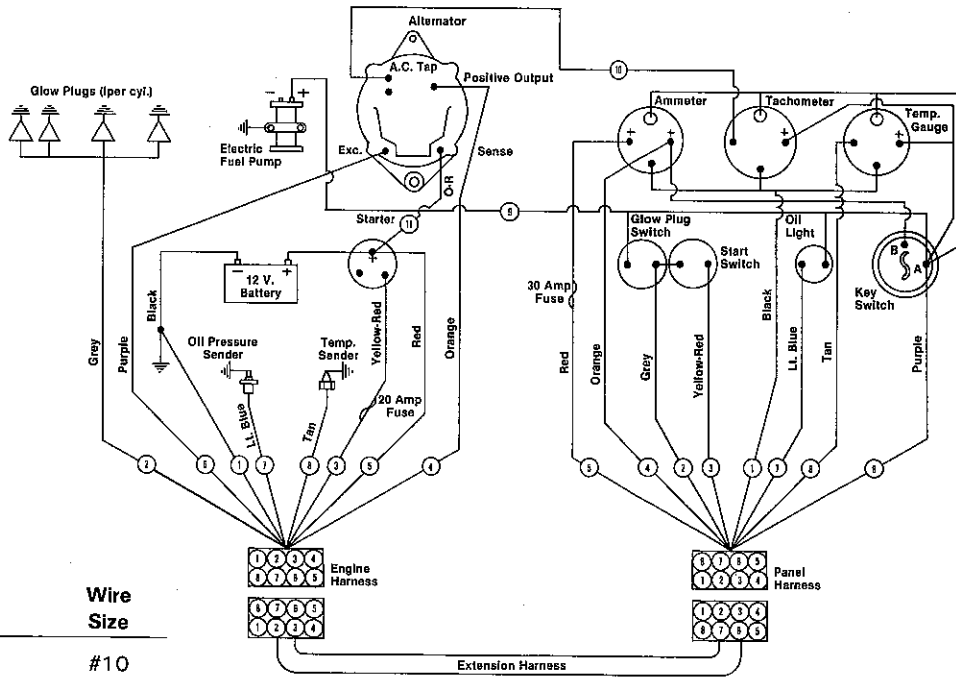
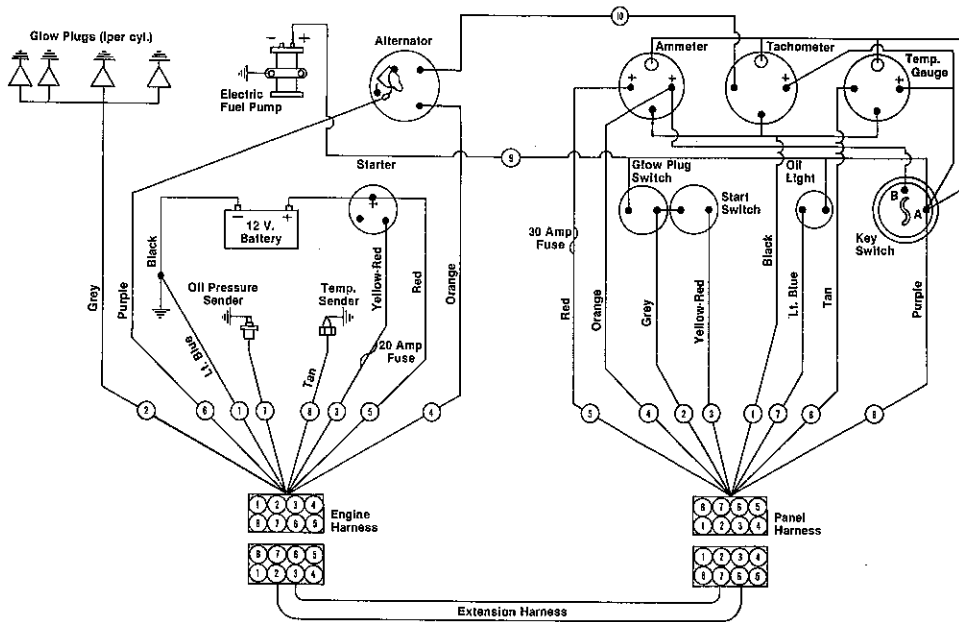
OBERDORFER WATER PUMP

301357



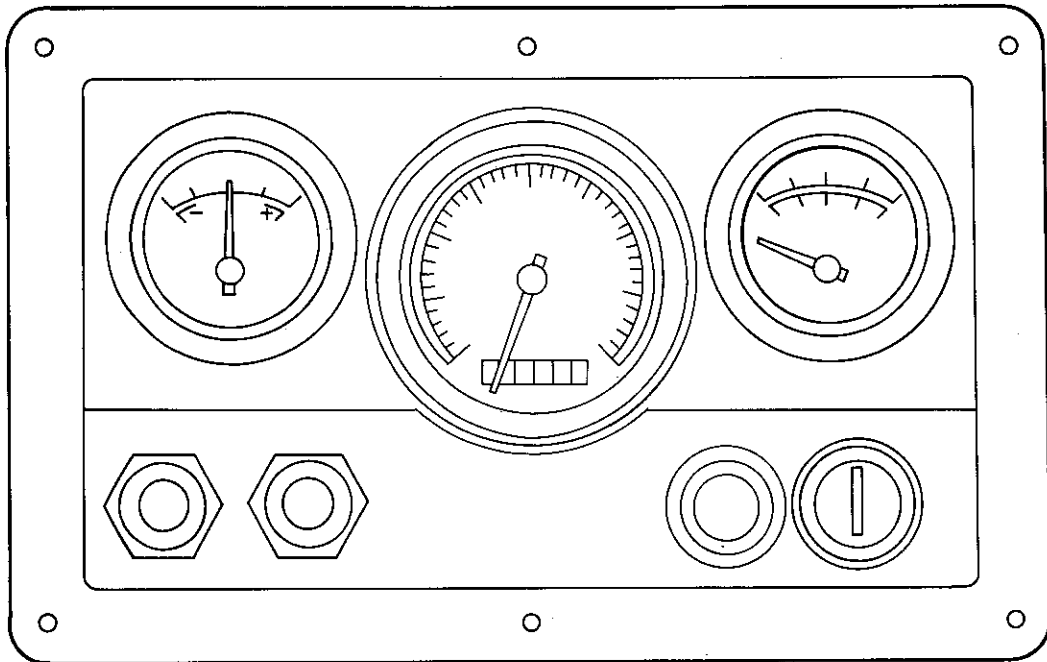
Item	Part No.	Unit	Description
1	296580	4	Cover Screws
2	296578	1	Pump Cover
3	295626	1	Cover Gasket
4	295629	1	Impeller Snap Ring
5	295628	1	Impeller
6	296575	1	Pump Shaft Old Style
6A	301788	1	Pump Shaft New Style
7	298889	1	Cam
8		1	Pump Body
9	296580	1	Cam Locking Screw
10	295627	2	Oil Seal
11	296576	1	Drain Plug
12	302322	1	Carbon Bushing

WIRING DIAGRAM

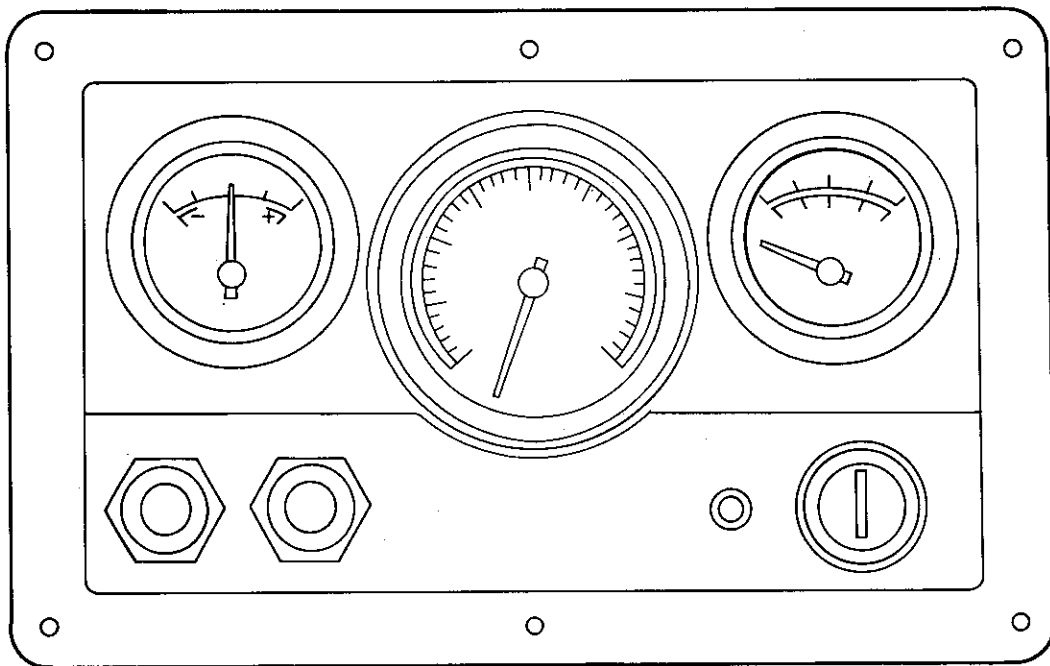


Wire No.	Color	Wire Size
1	Black	#10
2	Grey	10
3	Yellow-Red	16
4	Orange	10
5	Red	10
6	Purple	16
7	Lt. Blue	16
8	Tan	16
9	Open	14
10	Grey	16
11	Orange-Red	14

NOVATRON PANELS



300690 CUSTOM PANEL
(With Tachometer - Hour Meter and Alarms)

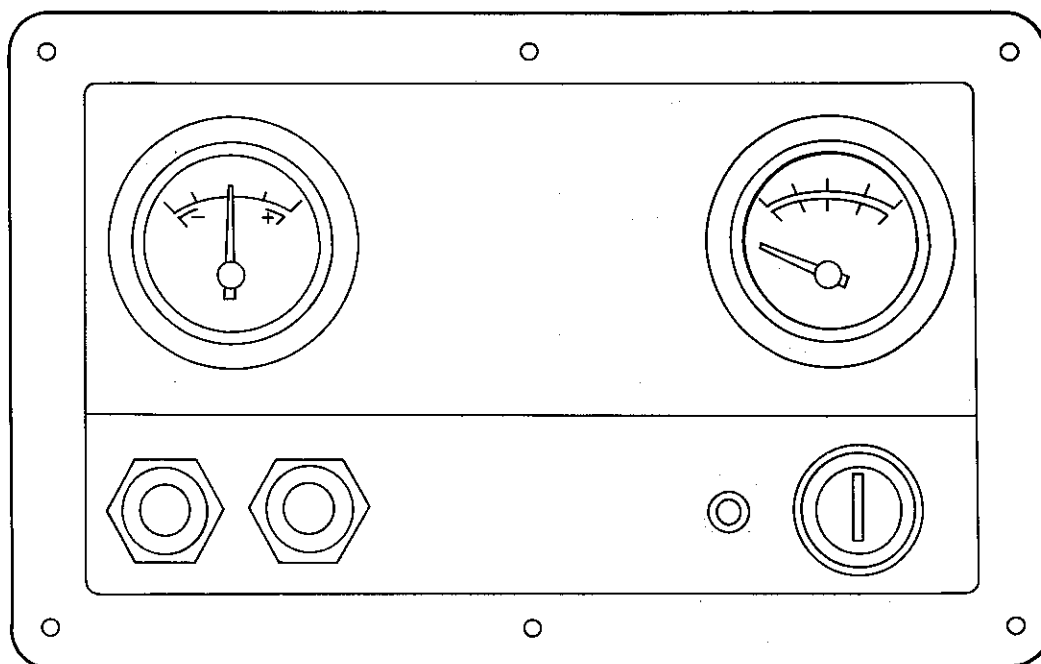


300685 DELUXE PANEL
(With Tachometer)

Medalion Panel no longer available.

Novatron Gauges and Switches for replacement.

NOVATRON PANELS



300680 STANDARD PANEL
(No Tachometer)

NOVATRON INSTRUMENT PANEL		
Part No.	Unit	Description
300690	Optional	Special Deluxe Panel-Tachometer w/Hourmeter w/Warning Light and Buzzer
301101	Optional	Blank Panel w/Holes
300685	Optional	Deluxe Panel - w/Tachometer
301100	1	Blank Panel w/Holes
300680	1	Standard Panel
301099	1	Blank Panel w/Holes
300668	1	Ammeter
300669	1	Oil Light
300670	1	Temperature Gauge
300671	1	Ignition Switch
300672	2	Glow and Start Button
300673	1	35 Amp Circuit Breaker
300674	1	10 Amp Circuit Breaker
300675	1	10 Foot Extension Harness
300676	1	Panel Harness Assembly
300684	Optional	Tachometer for 300685 Panel
300687	Optional	Tachmeter w/Hourmeter for 300690 Panel
300688	Optional	Buzz Light for 300690 Panel
300689	Optional	Tachometer Wire for 300690 Panel
300708	Optional	5 Foot Extension Harness
298586	Optional	Engine Harness

256774
B SPARE PARTS KIT M-50

256915
A SPARE PARTS KIT M-50

<p>Valve Grind Gasket Set M-50 256835</p>
<p>Top Gasket Set M-50 256784</p>

STANDARD COUPLING KITS		
	Rigid	Flex
3/4"	256741	298568
7/8"	256742	298569
1"	256743	298484
1-1/8"	256744	298570
1-1/4"	256745	299300

V-DRIVE COUPLING KITS		
	Rigid	Flex
3/4"	256775	256780
7/8"	256776	256781
1"	256777	256782
1-1/8"	256778	256783
1-1/4"	256779	N/A