



**PARTS MANUAL**  
**Hino Diesel 250 H.P.**

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**NOTE:** Indented description indicate that these parts are included in preceding assembly.

**AR** = As Required      **NSS** = Not Sold Separate      **OPT** = Optional      **NS** = Not Shown

**NOTE:** Following symbols are located in **SYM** column.

- = AS REQUIRED
- = OPTIONAL
- ▮ = NOT SOLD SEPARATELY

**THESE PARTS BOOKS/FICHE CARD ARE COPYRIGHTED AND MAY NOT BE DISTRIBUTED OR REPRODUCED IN ANY OTHER FORMAT BY ANYONE OTHER THAN MERCURY MARINE WITHOUT THE PRIOR WRITTEN CONSENT OF MERCURY MARINE.**

Models covered by this Parts Manual

Model Part No.	Model Name	Year	Country	Starting Serial No.	Ending Serial No.
35812D9FS					9999999999999999

**CONTINUED ON NEXT PAGE ➡**

**TABLE OF CONTENTS:**

Model Part No.	Model Name	Year	Country	Starting Serial No.	Ending Serial No.
3581299GS					9999999999999999
3581299FS					9999999999999999
35812K9HS					9999999999999999
35812K9GS					9999999999999999
35812K9ES					9999999999999999
35812D9HS					9999999999999999
35822B9DS					9999999999999999
35822B9ES					9999999999999999
35822B9GS					9999999999999999
35822B9HS					9999999999999999
35822C9DS					9999999999999999
35822C9ES					9999999999999999
35822C9GS					9999999999999999
35822C9HS					9999999999999999
35822D9FS					9999999999999999
35822D9GS					9999999999999999
35822K9ES					9999999999999999
35822K9FS					9999999999999999
35822K9HS					9999999999999999
3582299ES					9999999999999999
3582299GS					9999999999999999
3582299HS					9999999999999999
3582299FS					9999999999999999
35822K9GS					9999999999999999
35822D9HS					9999999999999999
35822D9ES					9999999999999999
35822C9FS					9999999999999999
35822C9CS					9999999999999999
35822B9FS					9999999999999999
3581299HS					9999999999999999
3581299ES					9999999999999999
35812K9FS					9999999999999999
35812D9GS					9999999999999999
35812D9ES					9999999999999999
35812C9GS					9999999999999999
35812C9FS					9999999999999999
35812C9DS					9999999999999999
35812C9CS					9999999999999999
35812B9GS					9999999999999999
35812B9FS					9999999999999999
Last Row					9999999999999999
35812B9ES					9999999999999999
35812B9HS					9999999999999999
35812C9ES					9999999999999999
35812C9HS					9999999999999999



# REPLACEMENT PARTS ! WARNING !

Electrical, ignition and fuel system components on MerCruiser Engines and Stern Drives are designed and manufactured to comply with U.S. Coast Guard Rules and Regulations to minimize risks of fire or explosion. Use of replacement electrical, ignition or fuel system components, which do not comply to these rules and regulations, could result in a fire or explosion hazard and should be voided.

When servicing the electrical, ignition and fuel systems, it is extremely important that all components are properly installed and tightened. If not, any electrical or ignition component opening would permit sparks to ignite fuel vapors from fuel system leaks, if they existed.

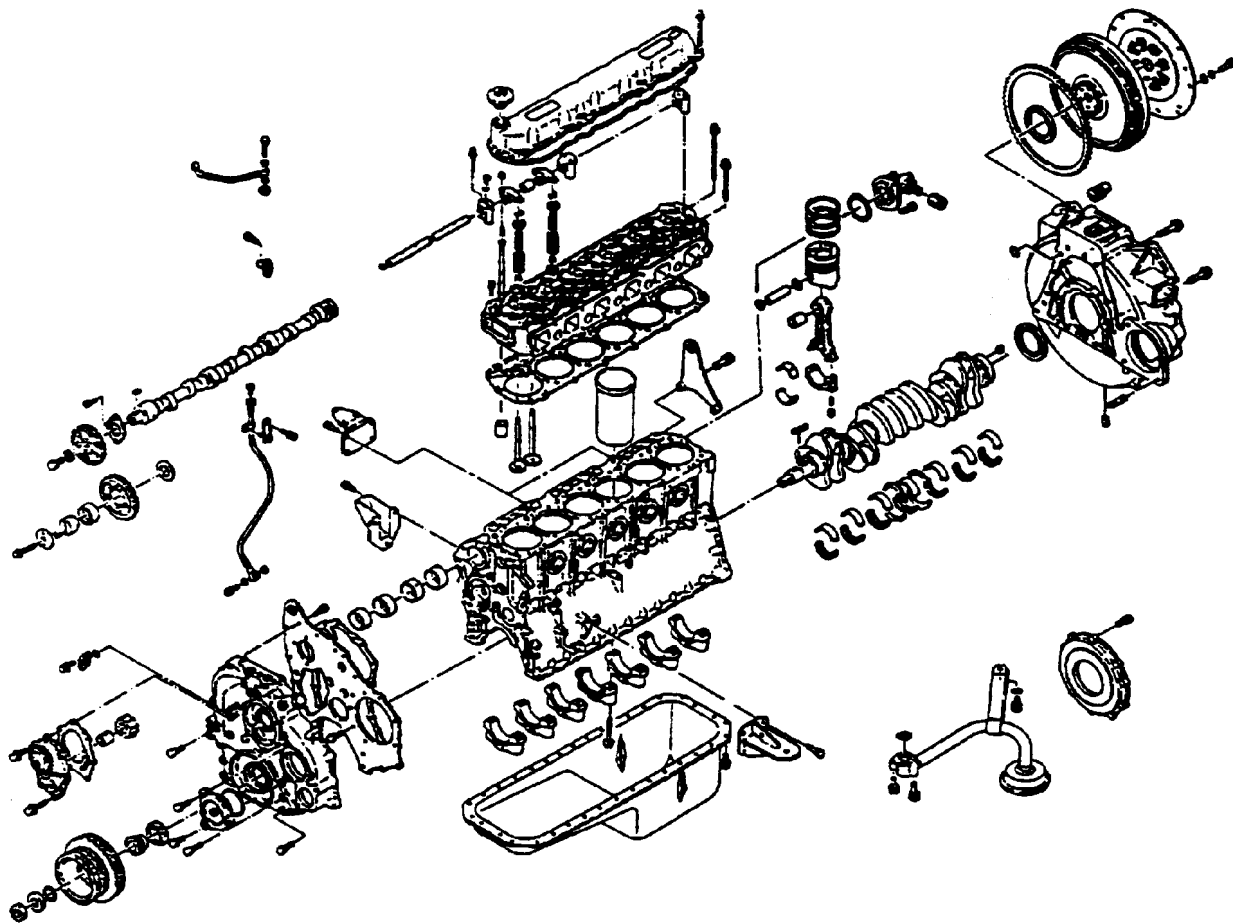
## ENGINE MECHANICAL COMPONENTS

Many of the engine mechanical components are designed for marine applications. Unlike automotive engines, marine engines are subjected to extended periods of heavy load and wide- open-throttle operation, therefore, require heavy-duty components. Special marine engine parts have design and manufacturing specifications, which are required to provide long life and dependable performance. Marine engine parts also must be able to resist the corrosive action of salt or brackish water that will rust or corrode standard automotive parts within a short period of time.

Failure to use recommended Mercury Precision Parts OR Quicksilver service replacement parts can result in poor engine performance and/or durability, rapid corrosion of parts subjected to salt water and possibly complete failure of the engine.

Use of parts other than recommended service replacement parts will void the warranty on those parts which are damaged as a result of the use of other than recommended parts.

# PARTIAL ENGINE

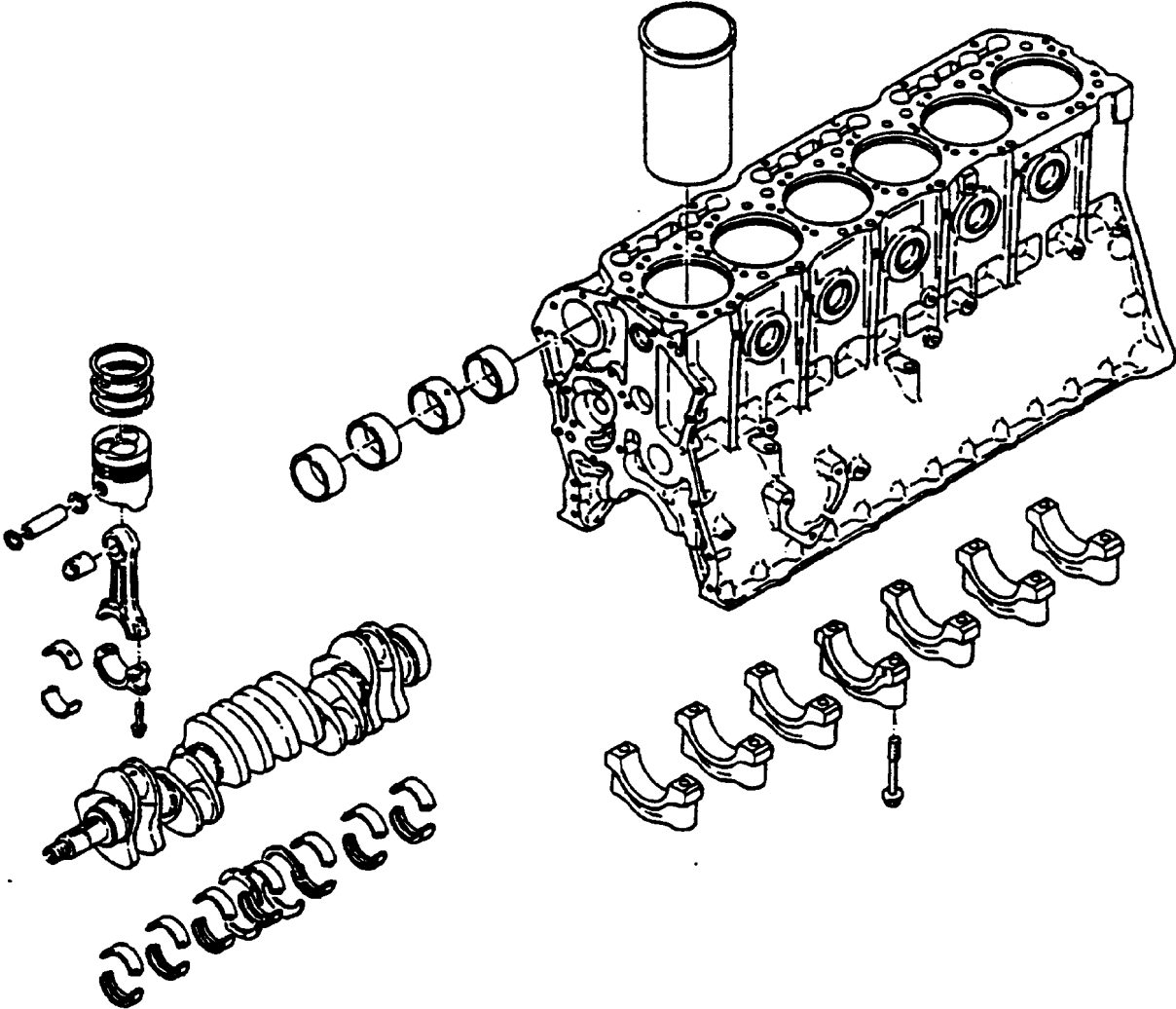


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# PARTIAL ENGINE

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	830801191		1	ENGINE ASSEMBLY, PARTIAL

# SHORT BLOCK



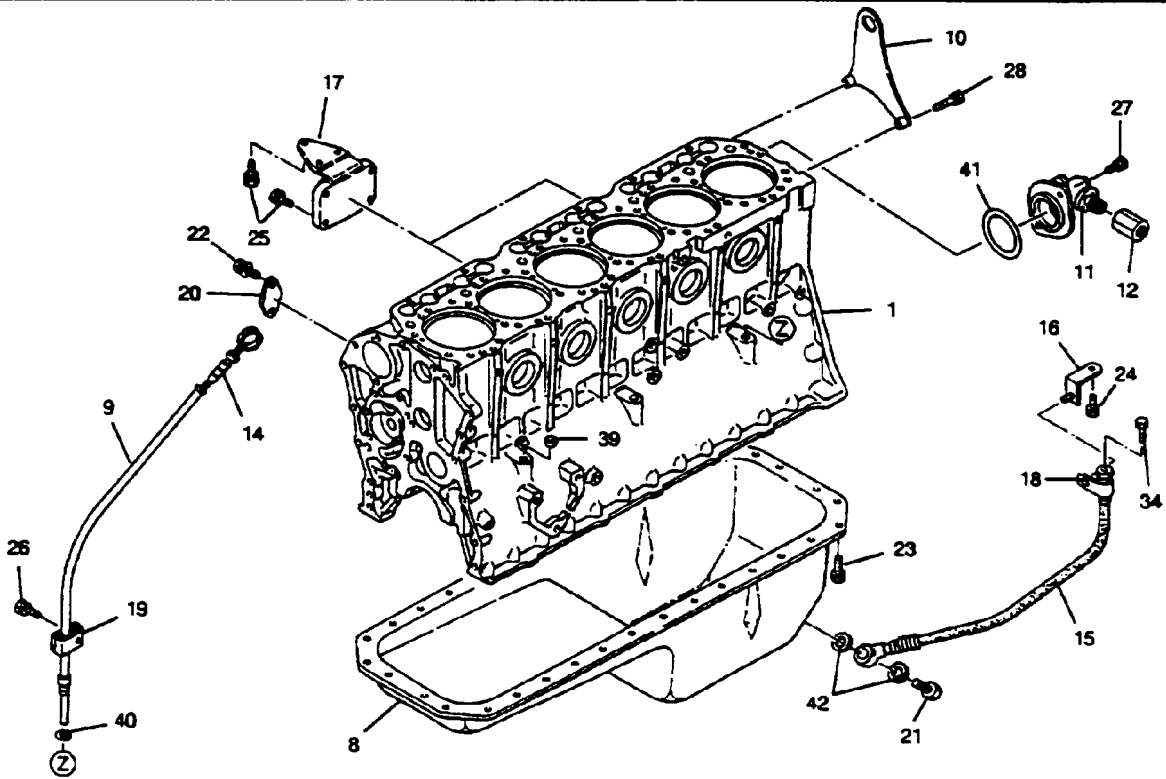
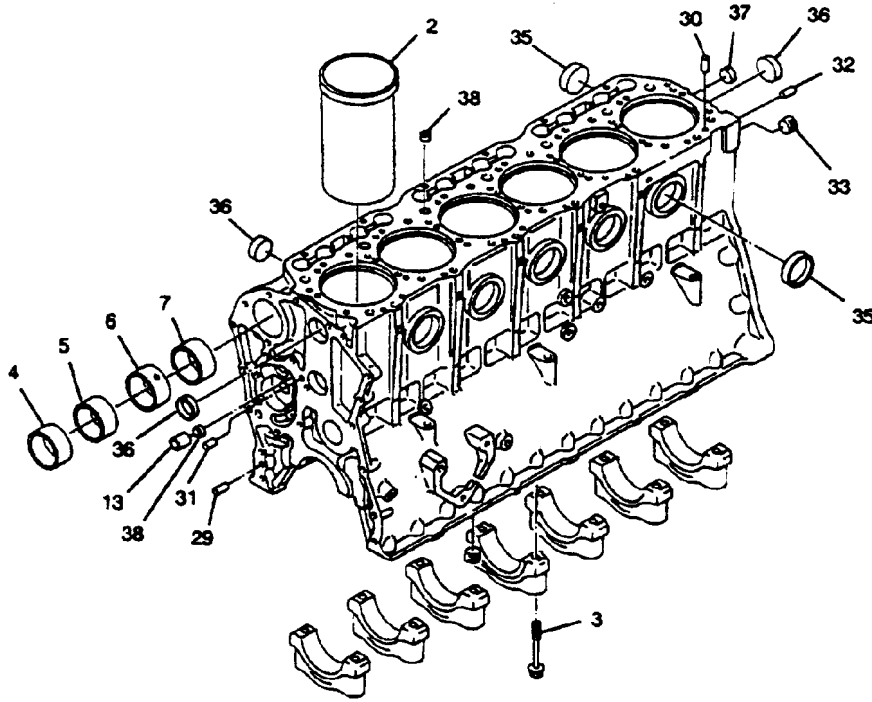
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# SHORT BLOCK

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	834004690		1	SHORT BLOCK ASSEMBLY

# CYLINDER BLOCK



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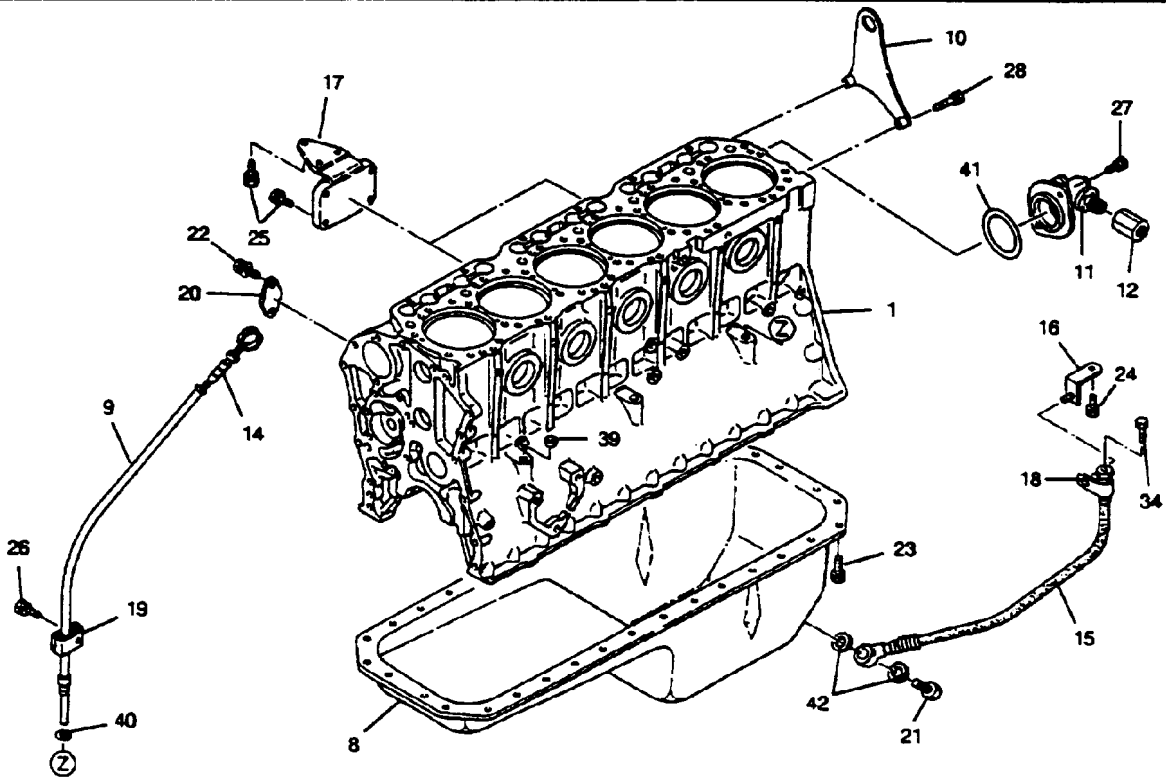
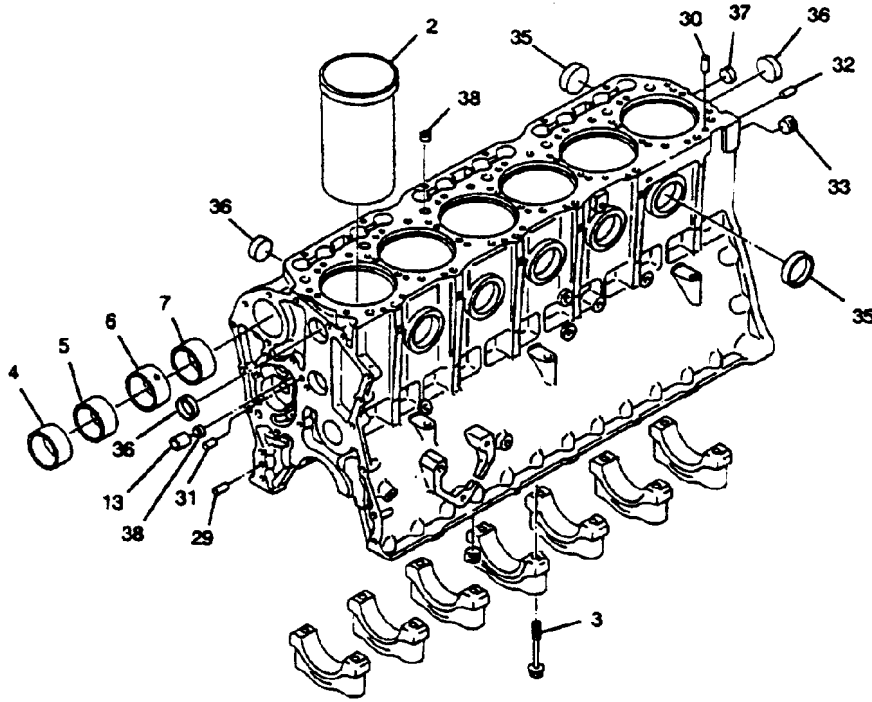
# CYLINDER BLOCK

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	834105020		1	BLOCK ASSEMBLY, Cylinder
2	834672220		6	LINER, Cylinder-Code W
-	834672230	●	AR	LINER, Cylinder-Code X
-	834672240	●	AR	LINER, Cylinder-Code Y
-	834672250	●	AR	LINER, Cylinder-Code Z
3	835211062		14	BOLT, Bearing CUP
4	31-838111180		1	BEARING, Camshaft- 1
5	31-838211190		1	BEARING, Camshaft- 2
6	23-838311130		1	BEARING, Camshaft- 3
7	838411120		1	BEARING, Camshaft- 4
8	831113220		1	PAN, Oil
9	831412550		1	GUIDE, Oil Level Gauge
10	832031040		1	HANGER, Engine
11	836401120		1	DRIVE, Tachometer
12	836941122		1	ADAPTER, Tachometer Sender
13	831171100		1	BUSHING, Oil Pump
14	833014760		1	GAGE, Oil Level
15	834611630		1	HOSE, Oil Removal
16	834921120		1	HOLDER, Clip
17	831521650		1	BRACKET, Exhaust Manifold
18	839041140		1	CLIP ASSEMBLY, Oil Tube
19	54-839042180		2	CLIP ASSEMBLY, Gage Guide
20	830211159		1	FLANGE
21	10-831918169		1	BOLT, Banjo
22	10-838108200		2	BOLT, Flange
23	838908110		34	BOLT, Oil Pan
24	10-838108200		1	BOLT, Clip
25	10-838108250		14	BOLT
26	838108400		1	BOLT, Clip
27	10-839108201		2	BOLT, Tachometer Drive
28	830912118		2	BOLT, Hanger
29	830408240		2	PIN
30	830408160		2	PIN
31	830405100		1	PIN
32	830912103		2	PIN
33	19-834999987		2	PLUG
34	19-832917111		1	PLUG, Oil Removal Hose
35	19-833950103		7	PLUG, Block
36	19-833936102		7	PLUG, Block

● = AS REQUIRED

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# CYLINDER BLOCK



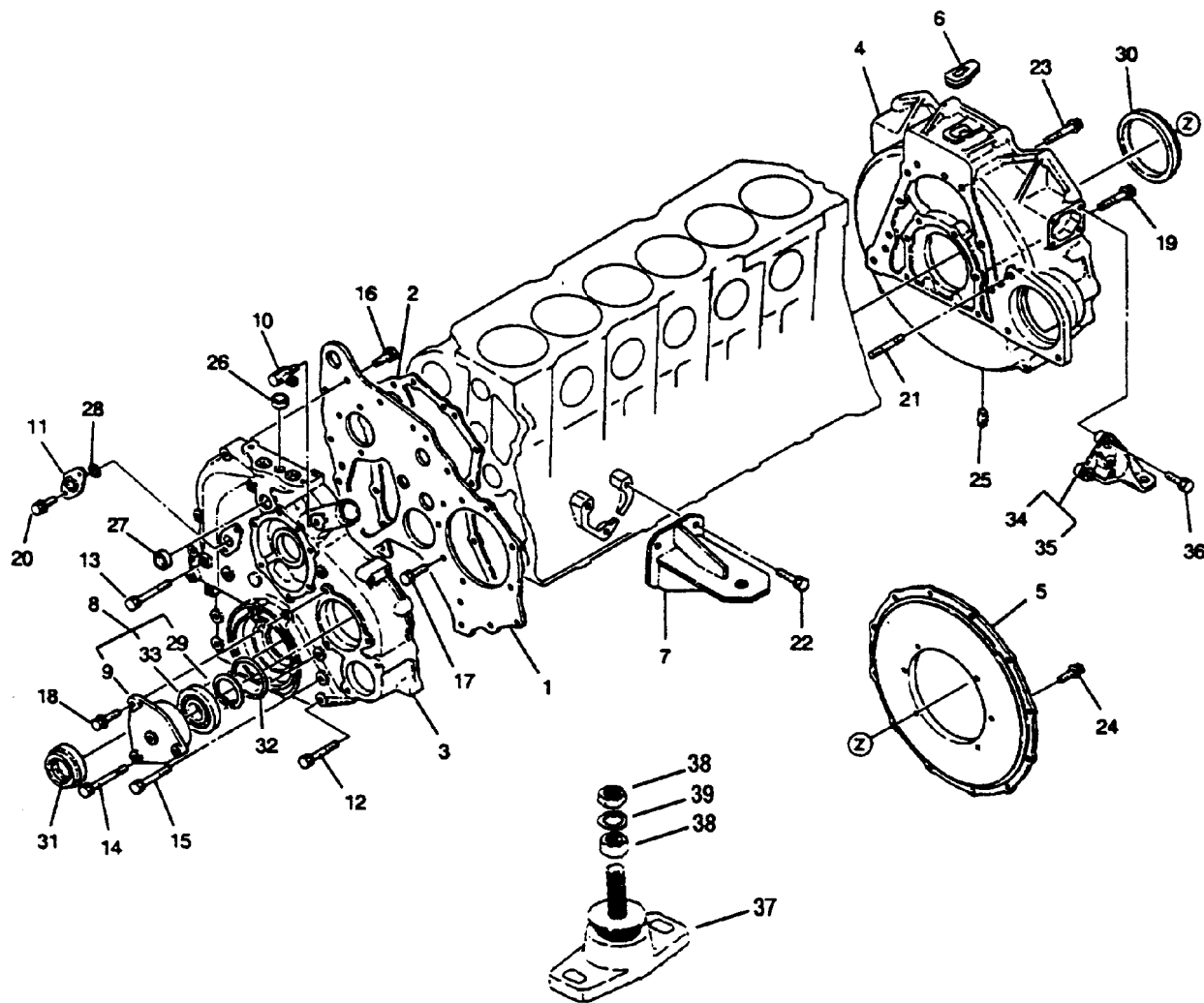
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# CYLINDER BLOCK

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
37	19-833924103		1	PLUG, Block
38	19-833917101		7	CUP PLUG, Block
39	19-833914101		2	PLUG, Block
40	25-834400925		1	O-RING, Gage Guide
41	25-835165103		1	O-RING, Drive Assembly
42	12-835918111		2	WASHER, Sealing

● = AS REQUIRED

# TIMING GEAR COVER AND FLYWHEEL HOUSING

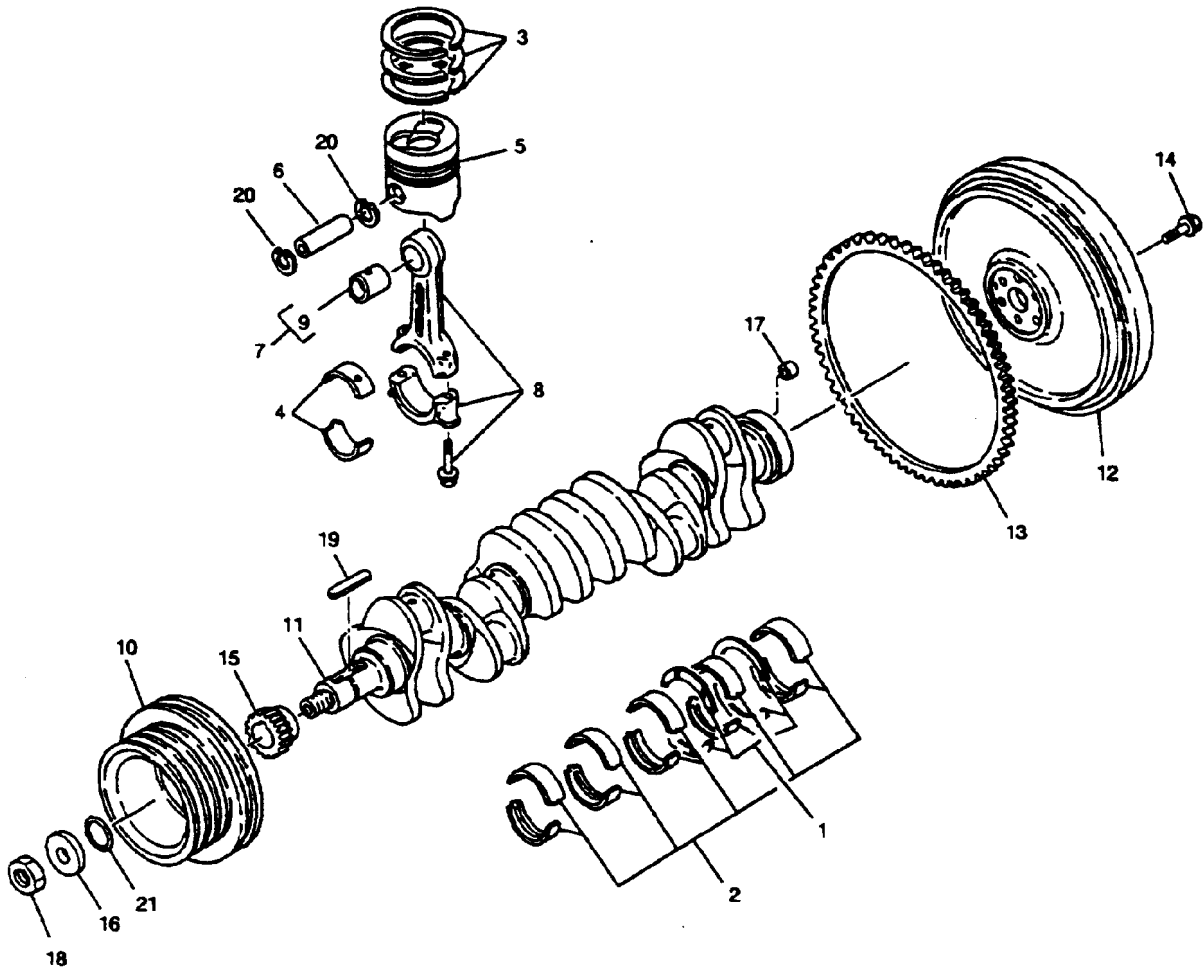


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# TIMING GEAR COVER AND FLYWHEEL HOUSING

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	833111330		1	PLATE, Timing Gear
2	27-833121170		1	GASKET, Plate
3	833223080		1	COVER, Timing Gear
4	833513380		1	HOUSING, Flywheel-Front
5	833514300		1	HOUSING, Flywheel-Rear
6	833611250		1	COVER, Timing Window
7	833011341		2	BRACKET, Engine Mount
8	836901101		1	CASE ASSEMBLY, Bearing
9	834999983		1	CASE, Bearing
10	833211020		1	JOINT, Water Hose
11	830211235		1	FLANGE
12	838108650		5	BOLT, Cover
13	10-838108850		3	BOLT, Cover
14	838108900		2	BOLT, Bearing Case
15	838108750		1	BOLT, Bearing Case
16	10-838108200		4	BOLT, Plate
17	838908110		4	BOLT, Plate
18	10-839108252		3	BOLT, Bearing Case
19	10-839108351		6	BOLT, Flywheel Housing
20	10-839108202		2	BOLT, Flange
21	835114350		1	STUD, Starter
22	830210300		6	BOLT AND WASHER, Bracket
23	831114402		8	BOLT, Flywheel Housing
24	831110351		12	BOLT, Flywheel Housing-Rear
25	19-832910115		1	PLUG
26	19-833922105		1	PLUG, Cover
27	833932102		1	CUP PLUG, Cover
28	25-834402135		1	O-RING, Flange
29	831372250		1	RING, Retainer
30	26-832800109		1	SEAL, Oil
31	26-832858104		1	SEAL, Oil
32	25-835181102		1	O-RING
33	830062070		1	BEARING
34	817177		1	MOUNT, Rear Right
35	817185		1	MOUNT, Rear Left
36	830114600		6	BOLT, Mount
37	817176		2	MOUNT ASSEMBLY, Isolator
38	11-831018090		4	NUT, Isolator Stud
39	13-68102		2	LOCKWASHER, (.750), (3/4")

# CRANKSHAFT AND PISTON ASSEMBLY



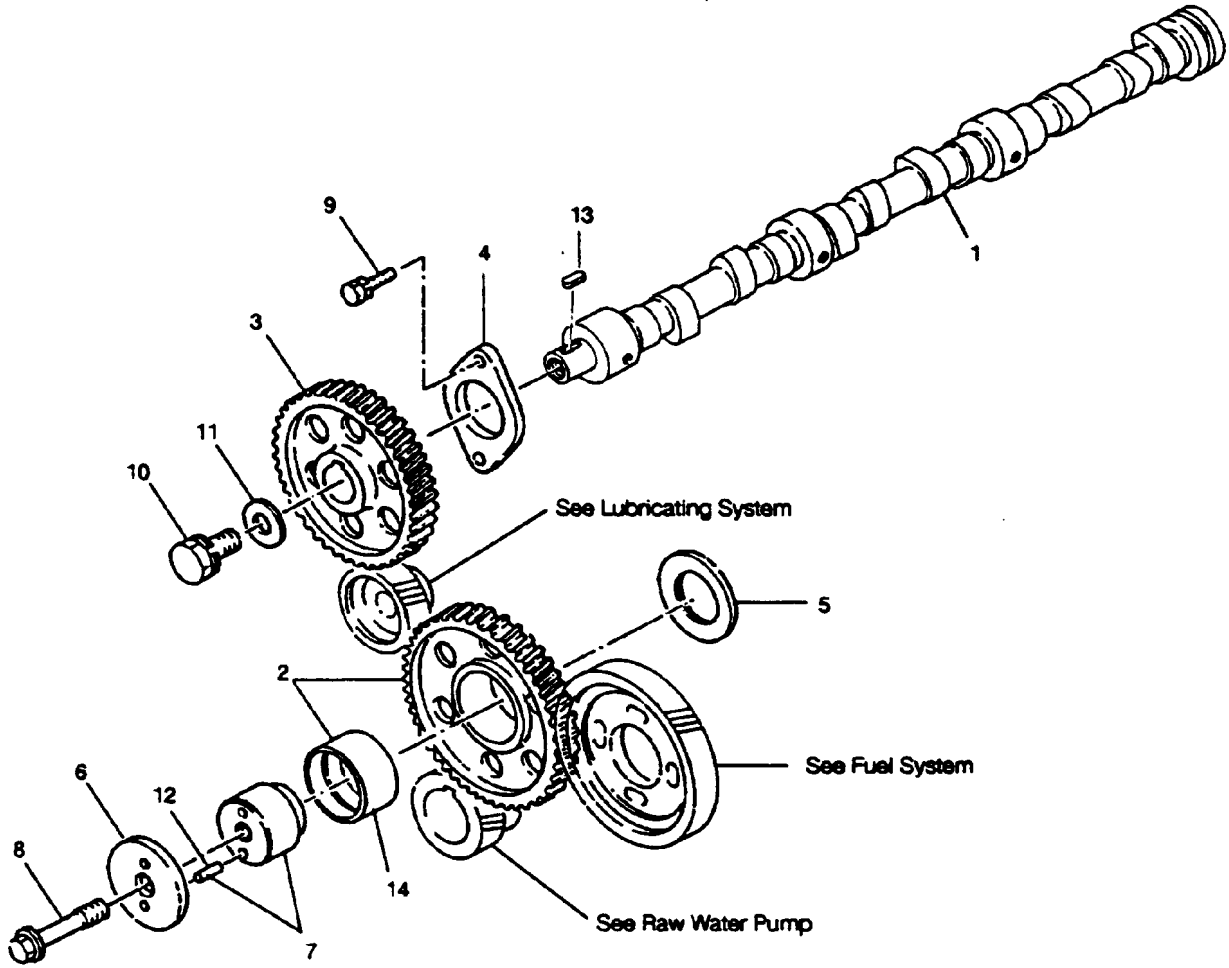
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# CRANKSHAFT AND PISTON ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	12-830111240		1	WASHER SET, Thrust (For One Engine)
2	837011770		1	BEARING SET, Main (For One Engine)
3	830112680		1	RING SET, Piston (For One Engine)
4	832011570		1	BEARING SET, Conrod (For One Engine)
5	832161781		6	PISTON
6	41-832511300		6	PIN, Piston
7	832601460		6	ROD ASSEMBLY, Connecting
8	832651371		12	BOLT, Conrod
9	832721290		6	BUSHING, Conrod Repair
10	834081260		1	PULLEY, Crankshaft
11	834111751		1	CRANKSHAFT
12	834502492		1	FLYWHEEL ASSEMBLY
13	834531270		1	GEAR, Flywheel
14	10-834551100		6	BOLT, Flywheel
15	835211110		1	GEAR, Crankshaft
16	23-830116148		1	SPACER
17	23-830129119		1	COLLAR
18	11-830927103		1	NUT, Pulley
19	28-833910111		1	KEY, Pulley
20	53-831937102		12	RING, Piston Pin Retaining
21	25-835141101		1	O-RING

# CAMSHAFT AND IDLER GEAR

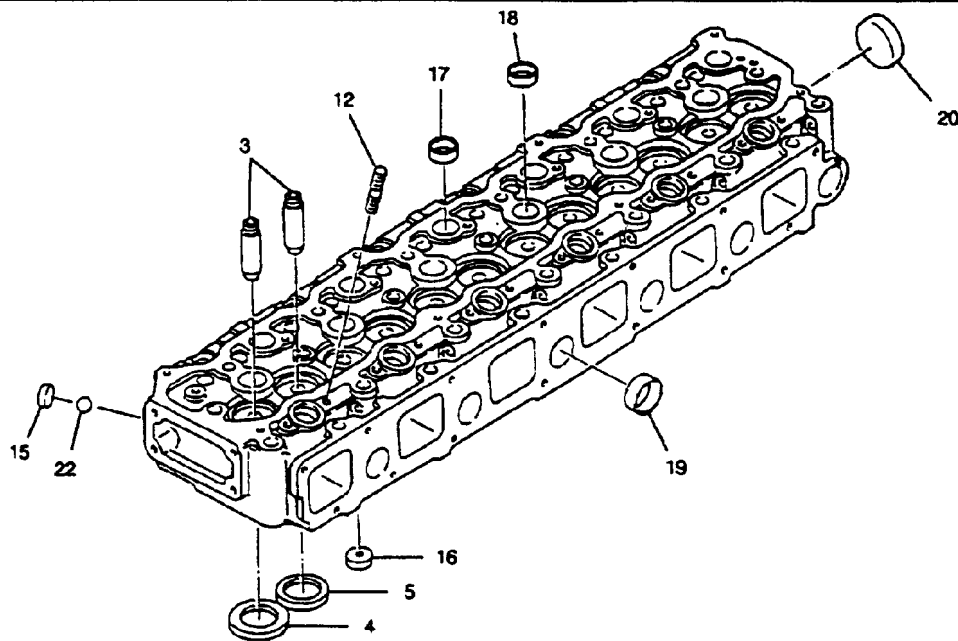
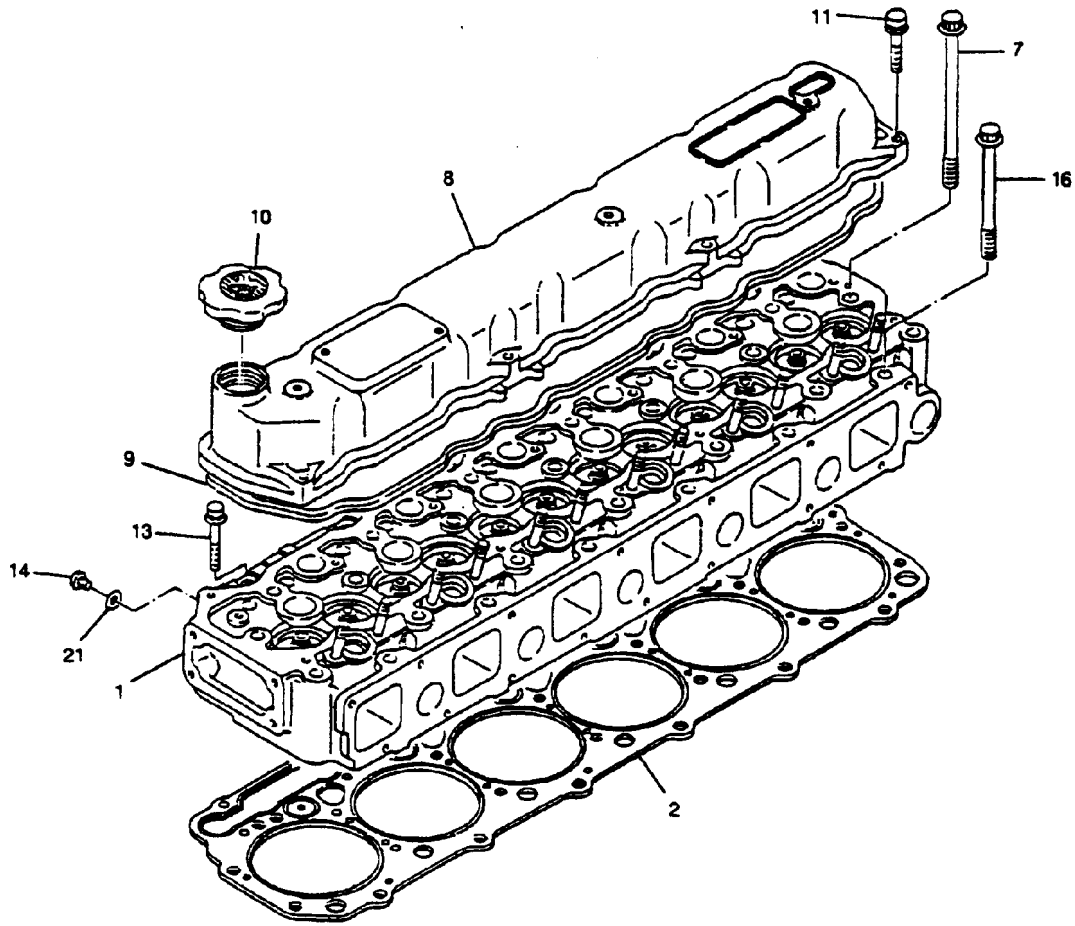


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# CAMSHAFT AND IDLER GEAR

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	835011052		1	CAMSHAFT
2	43-835051280		1	GEAR, Idler
3	835231400		1	GEAR, Camshaft
4	835711040		1	PLATE, Thrust
5	835721090		1	PLATE, Thrust
6	835721100		1	PLATE, Thrust
7	835801400		1	SHAFT ASSEMBLY, Idler Gear
8	830124244		1	BOLT, Idler Gear
9	10-838108250		2	BOLT, Plate
10	838114400		1	BOLT, Camshaft Gear
11	836214440		1	WASHER
12	830406100		2	PIN, Shaft
13	833307200		1	KEY, Camshaft Gear
14	836750124		1	BUSHING, Idler Gear

# CYLINDER HEAD

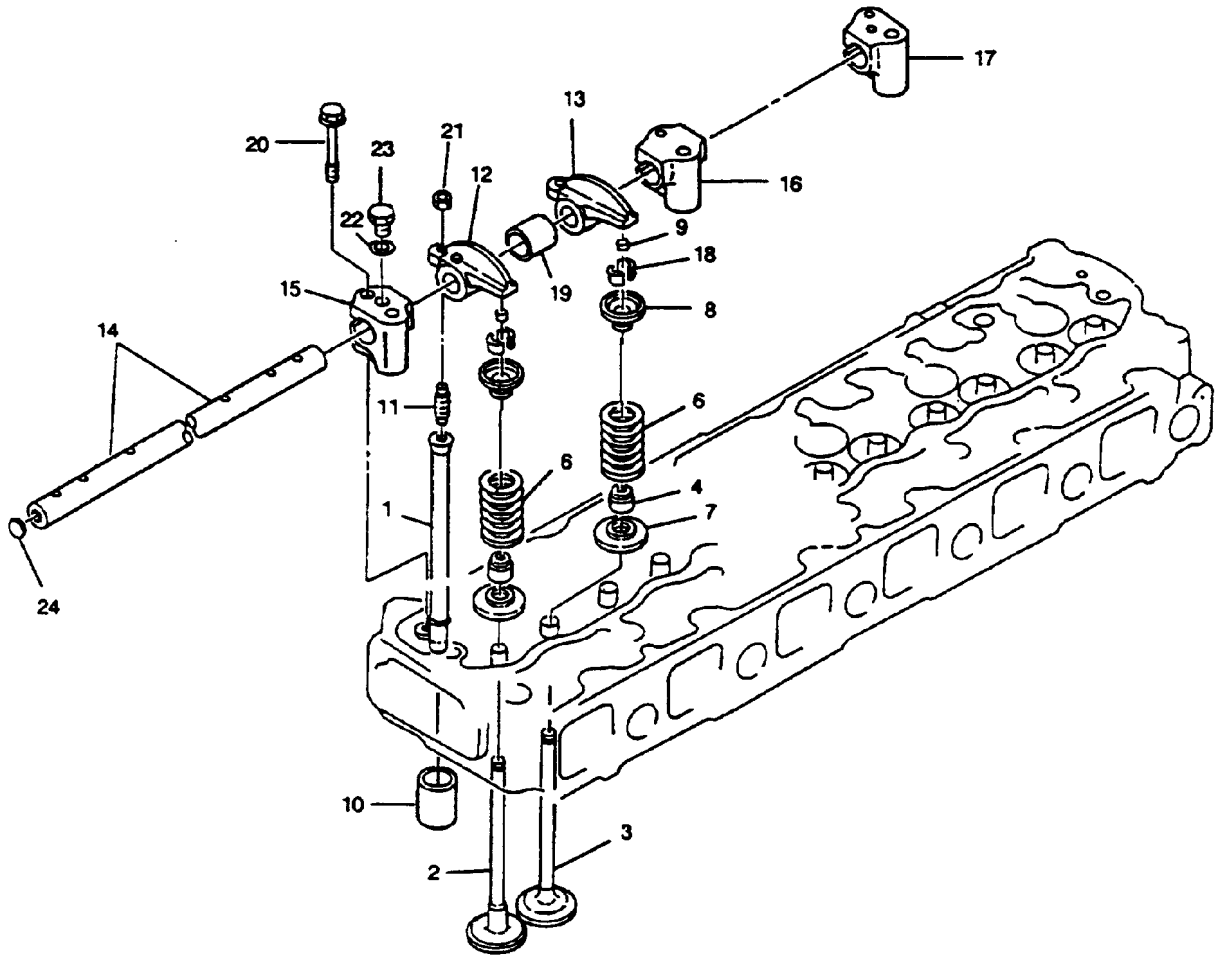


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# CYLINDER HEAD

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	831104390		1	HEAD ASSEMBLY, Cylinder
2	831151851		1	GASKET, Cylinder Head
3	23-831221140		12	BUSHING, Valve Guide Repair
4	831311210		6	SEAT, Valve-Intake
5	831351320		6	SEAT, Valve-Exhaust
6	10-831851440		19	BOLT, Cylinder Head
7	10-831851450		7	BOLT, Cylinder Head
8	832112340		1	COVER, Cylinder Head
9	832131560		1	GASKET, Cylinder Head Cover
10	831081100		1	CAP, Oil Filler
11	10-839108351		8	BOLT, Cylinder Head Cover
12	831108750		12	STUD, Nozzle Hold Down
13	10-831110401		6	BOLT, Cylinder Head
14	830912102		1	PLUG
15	19-833914101		6	PLUG, Expansion
16	19-833922107		6	CUP PLUG, Expansion
17	19-833924103		6	PLUG, Expansion
18	19-833926102		6	CUP PLUG, Expansion
19	19-833930105		6	PLUG, Expansion
20	19-833950103		1	PLUG, Expansion
21	12-835412100		1	WASHER, Sealing
22	830005080		1	BALL, Steel

# VALVE TRAIN

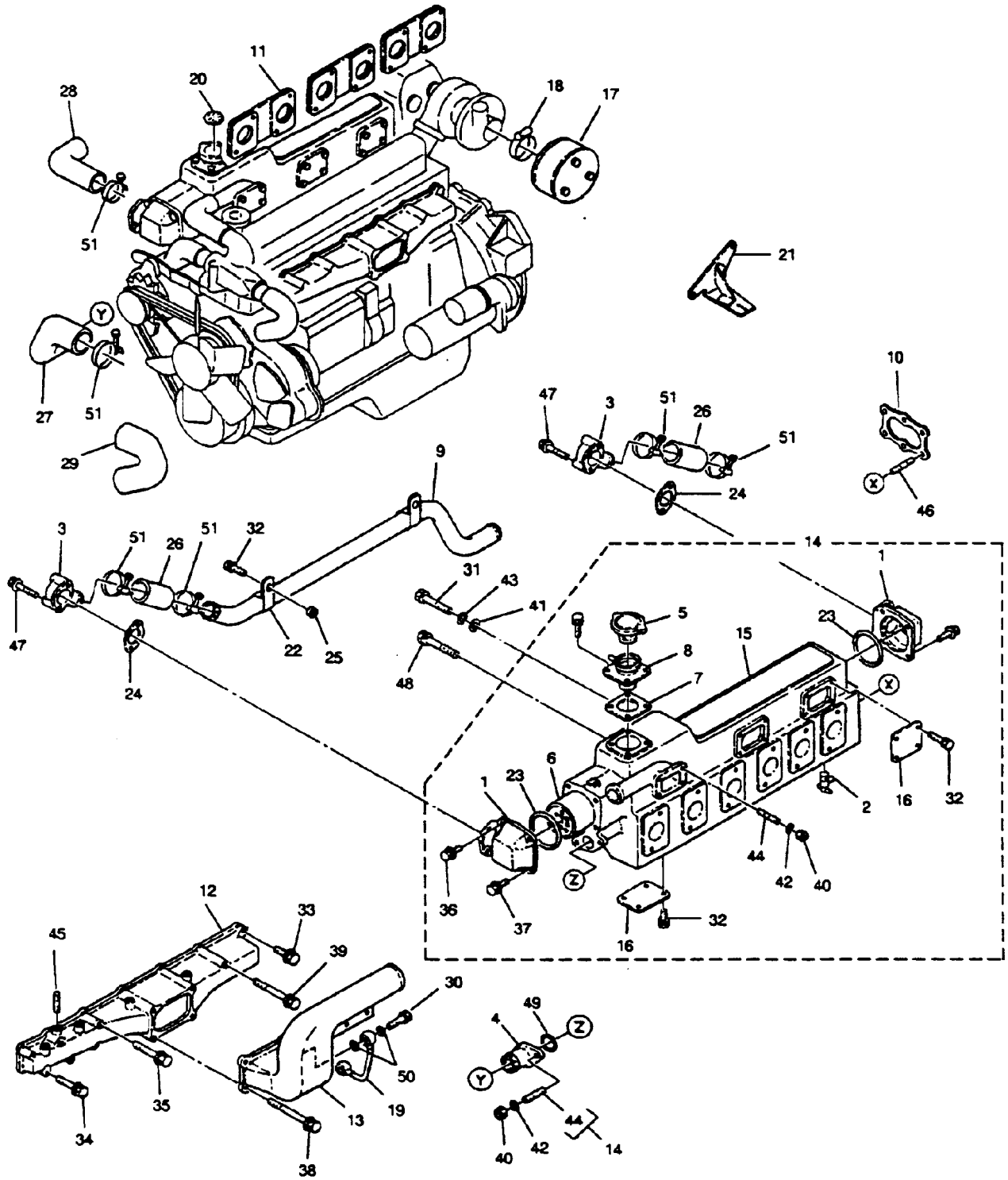


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# VALVE TRAIN

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	837081160		12	PUSH ROD
2	837111521		6	VALVE, Intake
3	837151570		6	VALVE, Exhaust
4	837191340		6	SEAL, Valve-Exhaust
5	837191350		6	SEAL, Valve-Intake
6	24-837311312		12	SPRING, Valve
7	12-837341210		12	SEAT, Valve Spring
8	837351260		8	SEAT, Valve Spring
9	19-837391030		12	CAP, Valve System
10	837511332		12	LIFTER, Valve
11	10-837871161		12	SCREW, Valve Adjust
12	838111610		6	ARM, Rocker-Intake
13	838111620		6	ARM, Rocker-Exhaust
14	839011200		1	SHAFT ASSEMBLY, Rocker Arm
15	839511560		1	SUPPORT, Rocker Shaft
16	839511570		5	SUPPORT, Rocker Shaft
17	839511580		1	SUPPORT, Rocker Shaft
18	830126119		24	LOCK, Spring Retainer
19	830129174		6	COLLAR
20	10-839108601		7	BOLT, Support
21	11-831908113		12	NUT, Adjust Screw
22	838005130		2	WASHER
23	839105080		2	SCREW, Set
24	833012160		2	PLUG, Expansion

# INTAKE AND EXHAUST SYSTEM



46521

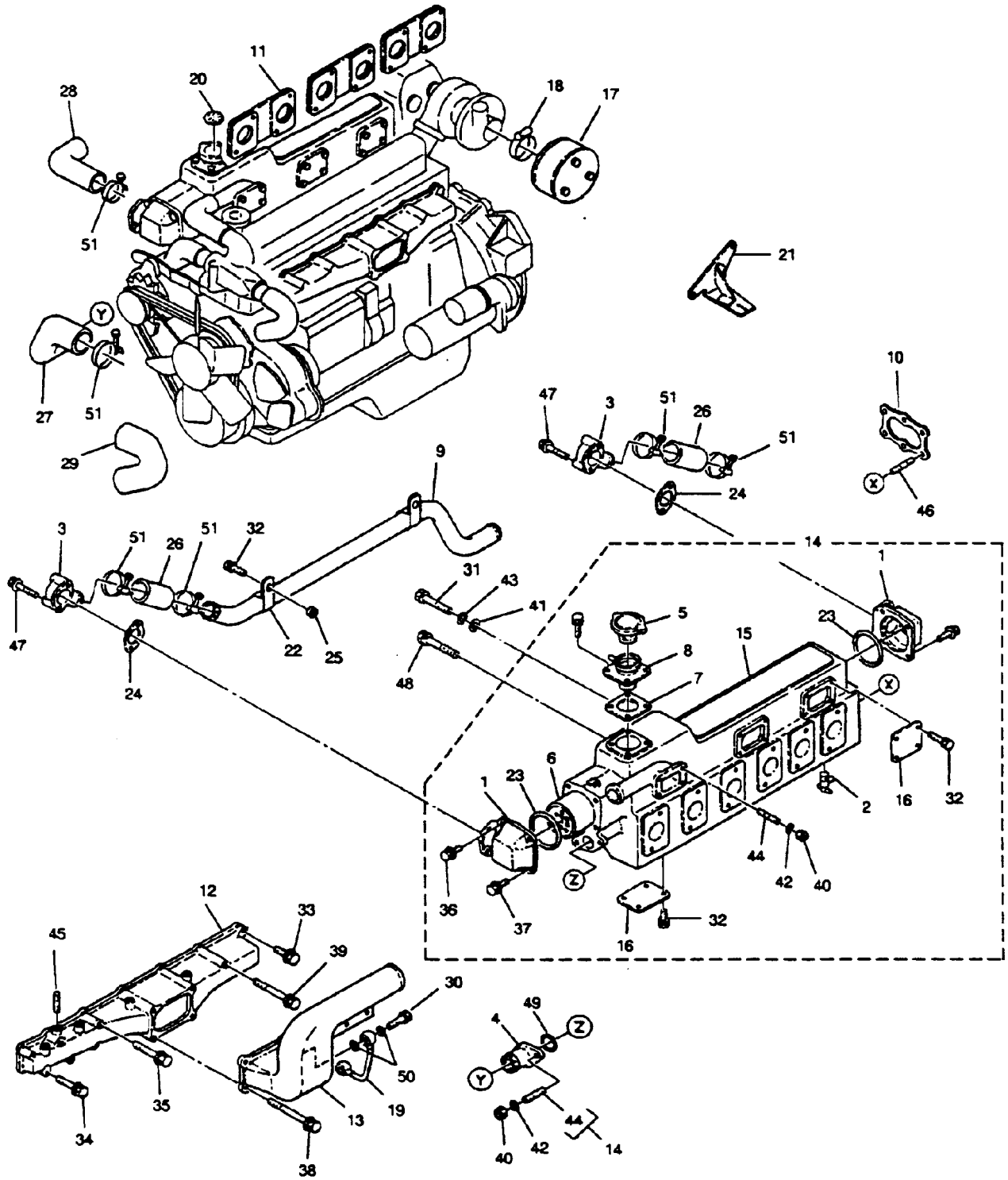


# INTAKE AND EXHAUST SYSTEM

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	832651250		2	COVER, End-Exhaust Manifold
2	22-830511090		1	PETCOCK, Water Drain
3	830873140		2	PIPE, Coolant
4	831131620		1	PIPE, Coolant
5	36-834011290		1	CAP, Pressure
6	834051080		1	ELEMENT, Heat Exchanger
7	27-834131040		1	GASKET, Seat
8	835851020		1	SEAT, Cap
9	836911670		1	PIPE, Coolant
10	27-831041090		1	GASKET, Exhaust
11	831041310		3	GASKET, Manifold
12	831112890		1	MANIFOLD, Intake
13	831134120		1	PIPE, Intake
14	831401211		1	MANIFOLD ASSEMBLY, Exhaust
15	831414001		1	MANIFOLD, Exhaust
16	831691150		6	PLATE, Cover
17	837204321		1	CLEANER ASSEMBLY, Air <b>SEE AIR CLEANER ASSEMBLY</b>
18	837711360		1	CLAMP, Air Cleaner
19	834611330		1	PIPE, Boost Compensator
20	37-835614470		1	PLATE, Caution
21	831043840		1	BRACKET, Throttle Control
22	839042660		2	CLIP
23	25-830115222		2	GASKET, End Cover
24	830115237		2	GASKET
25	830116107		2	SPACER, Pipe
26	830234133		2	HOSE, Water
27	32-830234364		1	HOSE, Water
28	32-830234365		1	HOSE, Water
29	830234366		1	HOSE, Water
30	832910189		1	BOLT, Banjo
31	10-832910229		6	BOLT, Exhaust Manifold
32	10-838108200		28	BOLT, Plate
33	10-839108351		3	BOLT, Intake Manifold
34	10-839108552		5	BOLT, Intake Manifold
35	10-839108652		1	BOLT, Intake Manifold
36	10-839108401		2	BOLT, End Cover
37	839108251		6	BOLT, End Cover
38	839908114		3	BOLT, Intake Manifold
39	839908121		2	BOLT, Intake Manifold
40	11-830108070		4	NUT

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# INTAKE AND EXHAUST SYSTEM

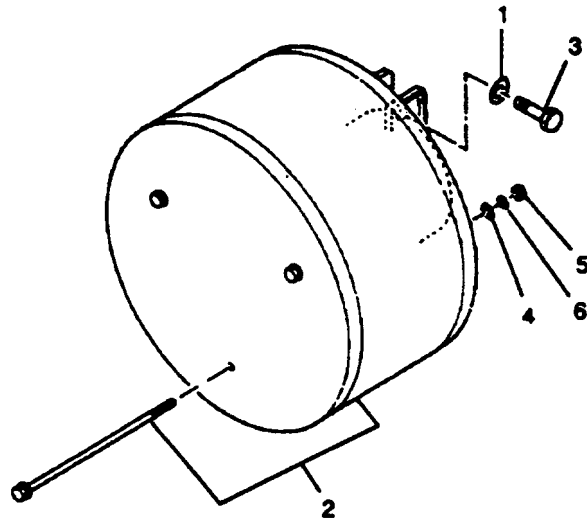


46521

# INTAKE AND EXHAUST SYSTEM

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
41	12-836010180		6	WASHER
42	13-838008200		4	LOCKWASHER
43	838010250		6	LOCKWASHER
44	830108180		4	STUD
45	831906106		5	STUD
46	16-836910103		6	STUD
47	10-831110602		4	BOLT
48	831910111		6	BOLT
49	834404535		2	O-RING
50	12-835910105		2	WASHER, Sealing
51	836945101		10	CLAMP, Hose

# AIR CLEANER ASSEMBLY

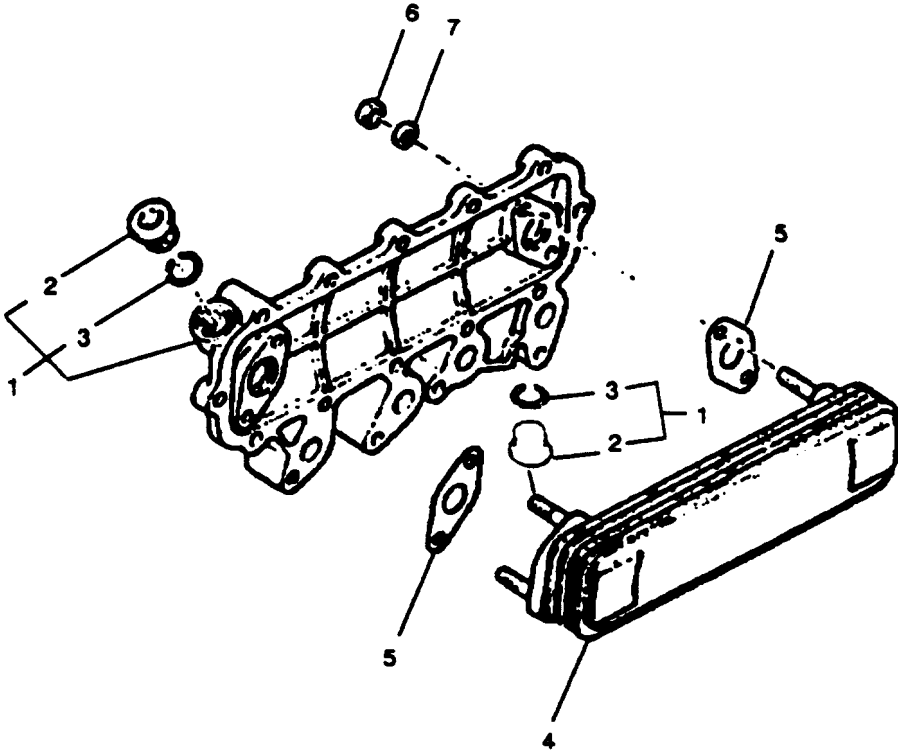


46523

# AIR CLEANER ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	837204321		1	CLEANER ASSEMBLY, Air
1	13-838008200		1	LOCKWASHER
2	838012660		2	ELEMENT, Air Cleaner
3	833008450		3	BOLT
4	836006140		6	WASHER
5	11-830106050		3	NUT
6	13-838006150		3	LOCKWASHER

# OIL COOLER ASSEMBLY

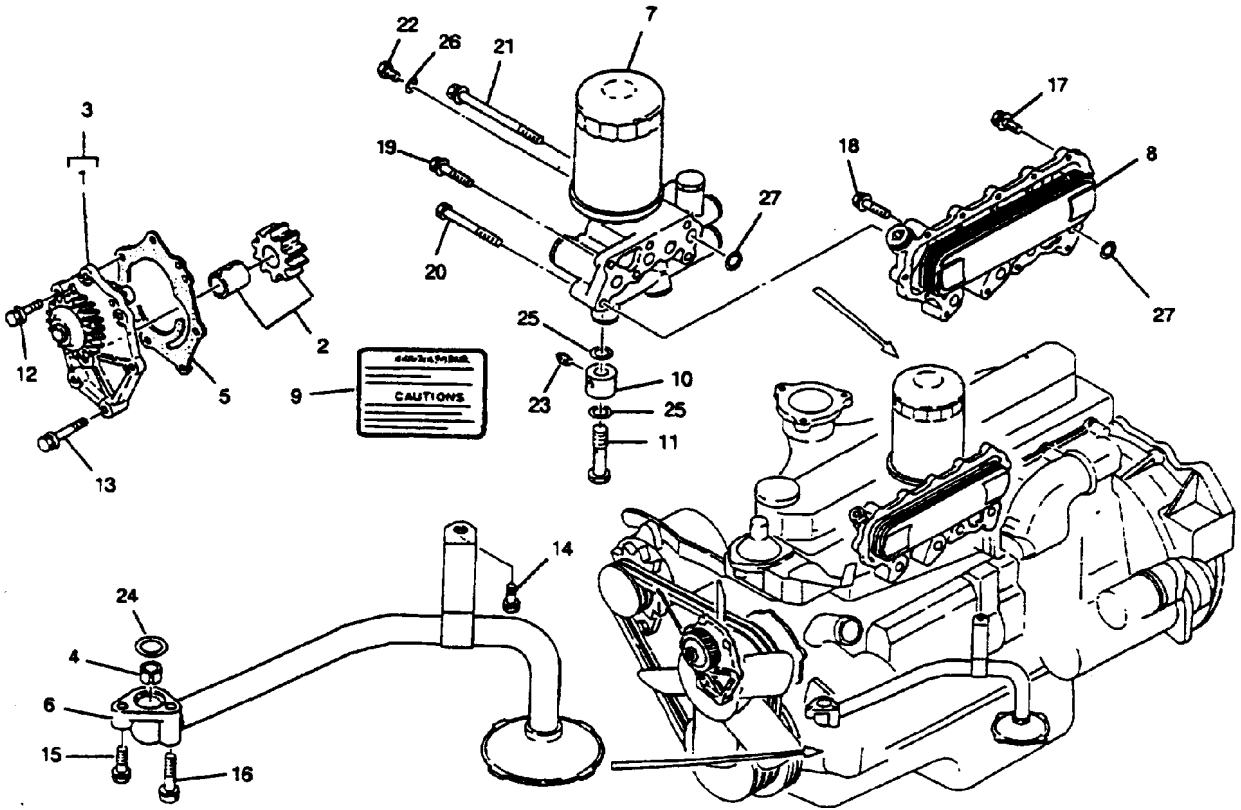


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# OIL COOLER ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	837101810		1	COOLER ASSEMBLY
1	837011470		1	CASE, Oil Cooler
2	830920102		2	PLUG
3	25-835118111		2	O-RING, Plug
4	837121530		1	ELEMENT, Oil Cooler
5	27-837171160		2	GASKET, Element
6	830908137		4	NUT
7	13-838008200		4	LOCKWASHER

# LUBRICATING SYSTEM



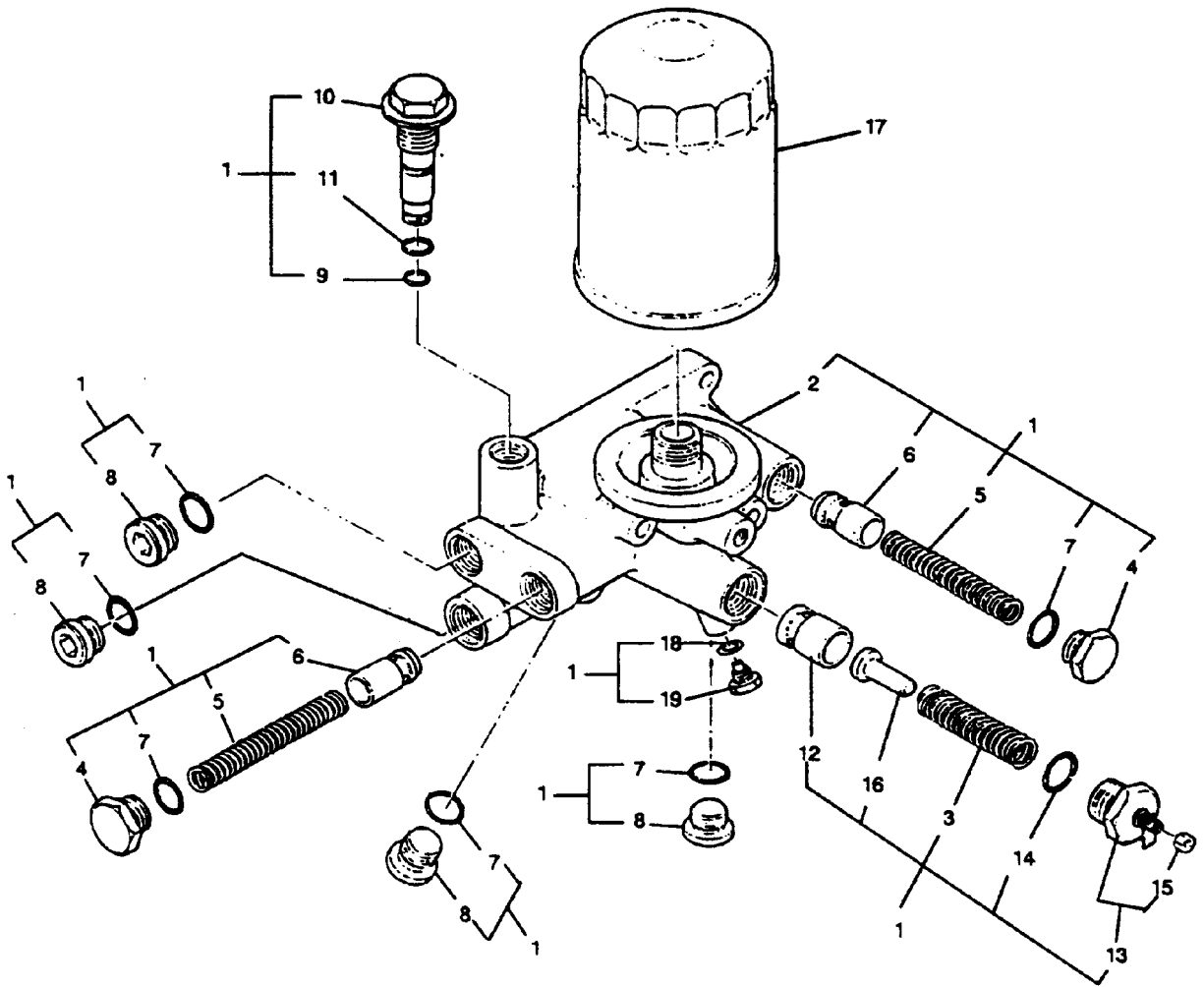
46525



# LUBRICATING SYSTEM

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	830121231		1	COVER ASSEMBLY, Oil Pump
2	43-834999992		1	GEAR ASSEMBLY, Oil Pump
3	831101541		1	PUMP ASSEMBLY, Oil
4	831141050		1	GUIDE, Ring
5	27-831191121		1	GASKET, Cover
6	834011520		1	PICK-UP ASSEMBLY, Oil Pump
7	836003490		1	BASE ASSEMBLY, Oil Filter <b>SEE OIL FILTER BASE ASSEMBLY</b>
8	837101810		1	COOLER ASSEMBLY, Oil <b>SEE OIL COOLER ASSEMBLY</b>
9	835818181		1	PLATE, Caution
10	22-830235130		1	CONNECTOR
11	10-831914237		11	BOLT, Connector
12	10-838108200		5	BOLT, Cover
13	838108350		2	BOLT, Cover
14	838908110		1	BOLT, Pick-UP Bracket
15	838108300		1	BOLT, Pick-UP
16	838108500		1	BOLT, Pick-UP
17	10-839108401		8	BOLT, Oil Cooler
18	839108551		2	BOLT, Oil Cooler
19	839108752		1	BOLT, Filter Base
20	839108002		2	BOLT, Filter Base
21	839908157		3	BOLT, Filter Base
22	830410110		1	PLUG, Filter Base
23	19-832910115		3	PLUG, Connector
24	25-834402135		1	O-RING, Pick-UP
25	12-835914110		3	WASHER, Sealing
26	12-835910105		1	WASHER, Sealing
27	25-835119101		8	O-RING, Oil Cooler & Base

# OIL FILTER BASE ASSEMBLY

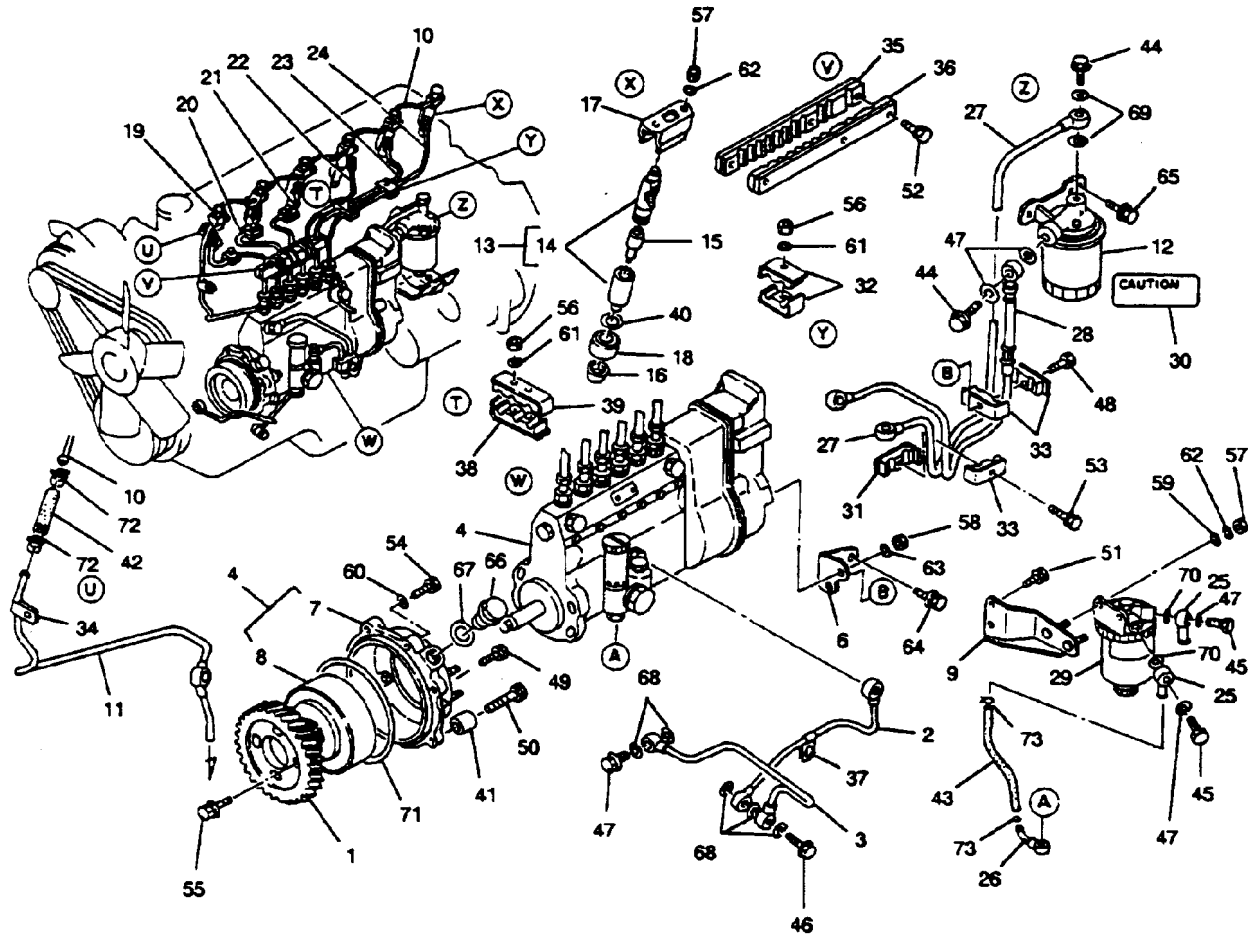


46526

# OIL FILTER BASE ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	836003490		1	BASE ASSEMBLY
1	836202570		1	BASE ASSEMBLY, Oil Filter
2	836122190		1	BASE, Oil Filter
3	24-836611160		1	SPRING, Switch
4	837161050		2	PLUG, Valve
5	24-836611250		2	SPRING, Oil Valve
6	836241200		6	VALVE, Pressure
7	25-835118111		6	O-RING
8	830920102		4	PLUG
9	25-835110111		1	O-RING
10	836431140		1	PLUG
11	25-835112116		1	O-RING
12	836241040		1	VALVE, Safety
13	836601020		1	PLUG ASSEMBLY, Filter By Pass
14	25-835120107		1	O-RING
15	11-830004030		1	NUT, Terminal
16	836041020		1	VALVE ASSEMBLY, Oil
17	836071630		1	FILTER, Oil-Spin On
18	25-835108101		1	O-RING
19	10-836431020		1	PLUG, Filter Drain

# FUEL SYSTEM



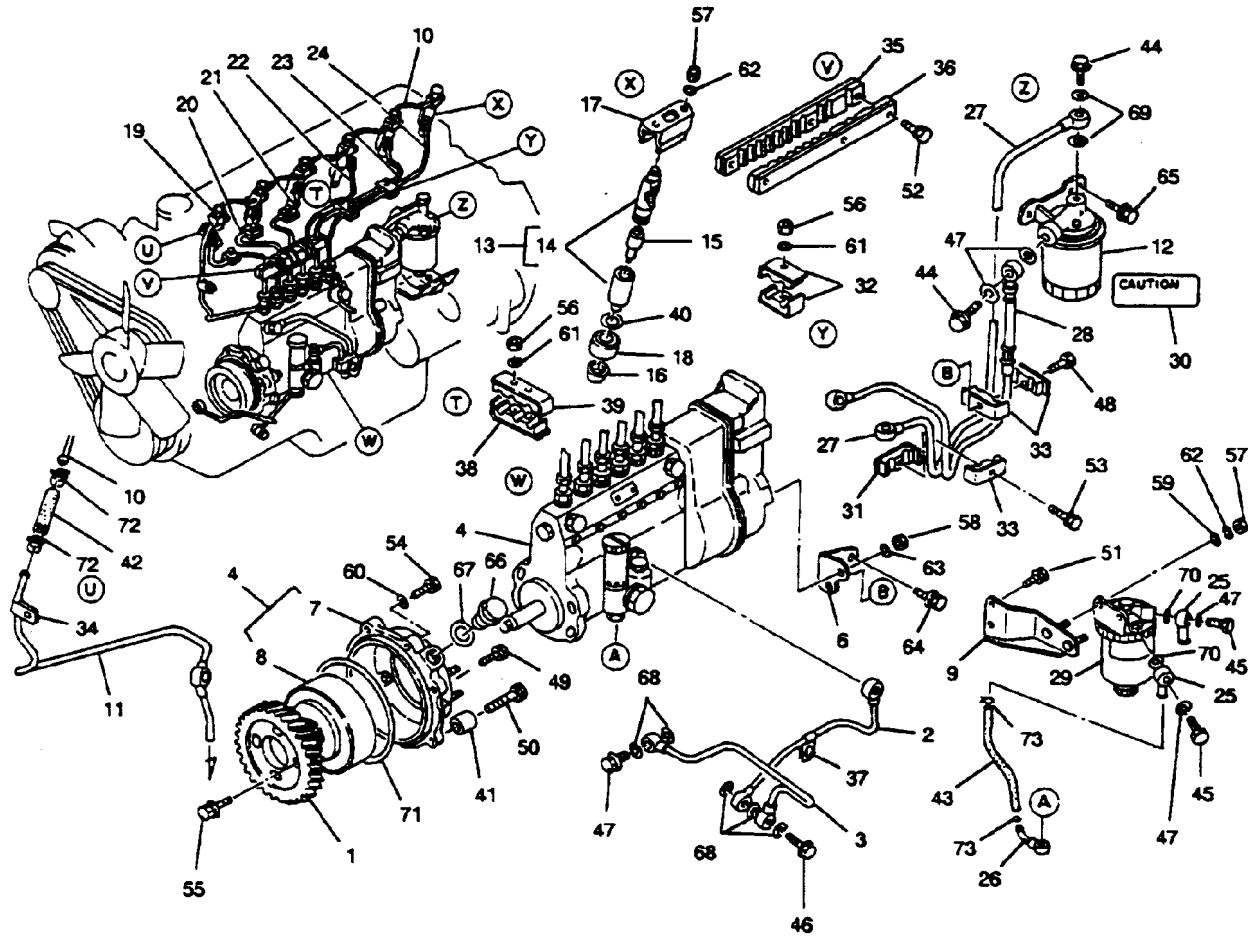
46527

# FUEL SYSTEM

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	836131280		1	GEAR, Pump Drive
2	32-837731321		1	PIPE, Oil
3	837731371		1	PIPE, Oil
4	830203521		1	PUMP ASSEMBLY, Injection
5	835601540		1	PUMP ASSEMBLY, Fuel Feed
6	833433770		1	BRACKET, Pump
7	835011020		1	COVER, Timer
8	836119999		1	FLANGE, Coupling
9	830311200		1	BRACKET, Separator
10	830811790		1	PIPE, Fuel Return
11	830831150		1	PIPE, Fuel
12	833002010		1	BASE ASSEMBLY, Filter <b>SEE AIR CLEANER ASSEMBLY</b>
13	836001780		6	NOZZLE ASSEMBLY, Injector
14	836201630		6	HOLDER ASSEMBLY, Nozzle Tip <b>SEE INJECTOR NOZZLE ASSEMBLY</b>
15	836402110		6	NOZZLE, Injector
16	836611140		6	GASKET, Nozzle
17	836651110		6	ADAPTER, Nozzle
18	25-836671070		6	RING, Packing
19	837111980		1	PIPE, Nozzle- 1
20	837121970		1	PIPE, Nozzle- 2
21	837131920		1	PIPE, Nozzle- 3
22	837141940		1	PIPE, Nozzle- 4
23	837151910		1	PIPE, Nozzle- 5
24	837161890		1	PIPE, Nozzle- 6
25	32-837811620		2	PIPE, Fuel
26	837811981		1	PIPE, Fuel
27	837821161		1	PIPE, Fuel Feed
28	838064251		1	HOSE, Fuel
29	838031080		1	SEPARATOR ASSEMBLY <b>SEE WATER SEPARATOR ASSEMBLY</b>
30	835818320		1	PLATE, Caution
31	839041900		1	CLIP
32	839041930		8	CLIP
33	839041940		3	CLIP
34	839042000		1	CLIP
35	839042190		1	CLIP
36	839042200		1	CLIP
37	839041170		1	CLIP
38	839042131		1	CLIP
39	839042141		1	CLIP
40	15-830111145		6	SHIM

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# FUEL SYSTEM

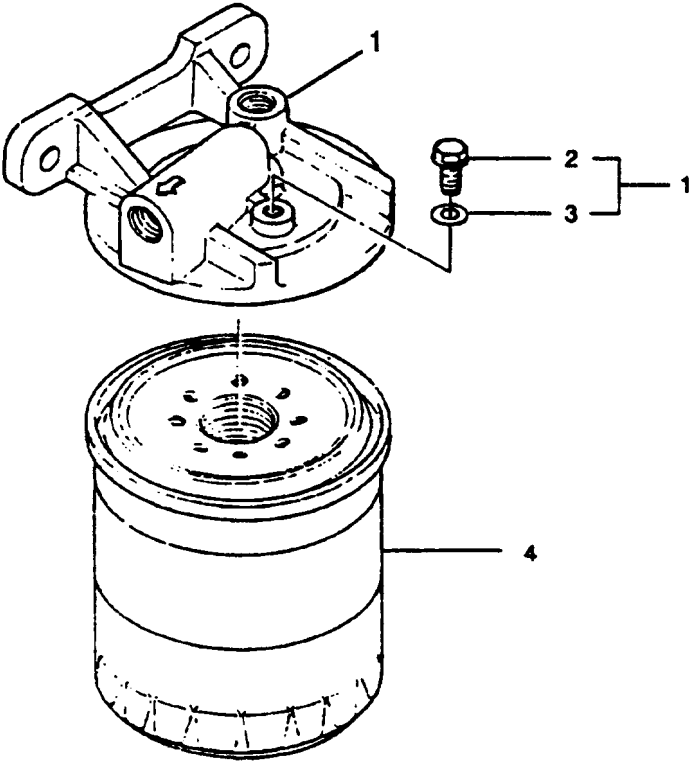


46527

# FUEL SYSTEM

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
41	830116199		1	SPACER
42	32-830231118		1	HOSE, Fuel
43	830562139		1	TUBE
44	10-831914184		2	BOLT, Banjo-Filter
45	10-831913101		2	BOLT, Banjo-Separator
46	10-832910234		1	BOLT, Banjo
47	832910245		1	BOLT, Banjo
48	838106350		1	BOLT, Clip
49	838108450		1	BOLT, Cover
50	838108600		1	BOLT, Cover
51	838908110		2	BOLT, Bracket
52	838106300		3	BOLT, Clip
53	839106253		1	BOLT, Clip
54	10-839108351		1	BOLT, Cover
55	839908143		4	BOLT, Gear
56	11-830106050		5	NUT, Clip
57	11-830108070		14	NUT, Nozzle Bracket
58	830110080		1	NUT, Bracket
59	12-836008180		2	WASHER, Flat
60	836208220		1	WASHER, Flat
61	13-838006150		5	LOCKWASHER
62	13-838008200		14	LOCKWASHER
63	838010250		1	LOCKWASHER
64	10-830110250		1	BOLT, Bracket
65	10-831110251		2	BOLT, Filter Base
66	19-831922102		1	PLUG, Timing Port
67	12-835422150		1	WASHER, Plug
68	12-835910105		6	WASHER, Sealing
69	12-835914104		6	WASHER, Sealing
70	12-835913110		2	WASHER, Sealing
71	25-835101125		1	O-RING, Cover
72	835410105		2	CLIP
73	835415104		2	CLIP

# FUEL FILTER BASE ASSEMBLY



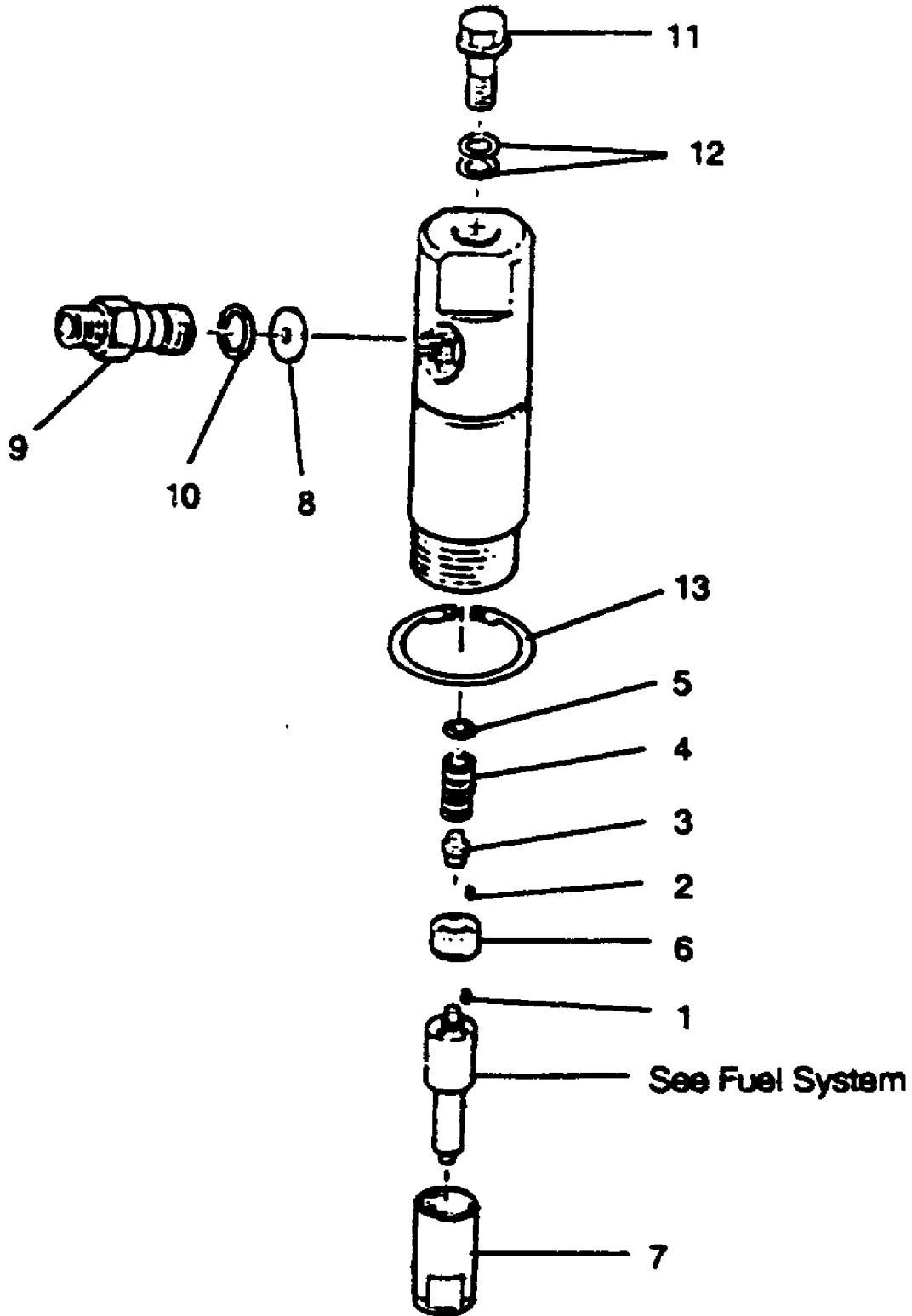
46528



# FUEL FILTER BASE ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	833002010		1	BASE ASSEMBLY
1	833101520		1	BASE ASSEMBLY, Filter
2	10-833161210		1	PLUG, Vent
3	27-833641040		1	GASKET, Plug
4	834011341		1	FILTER, Fuel-Spin-On

# INJECTOR NOZZLE ASSEMBLY

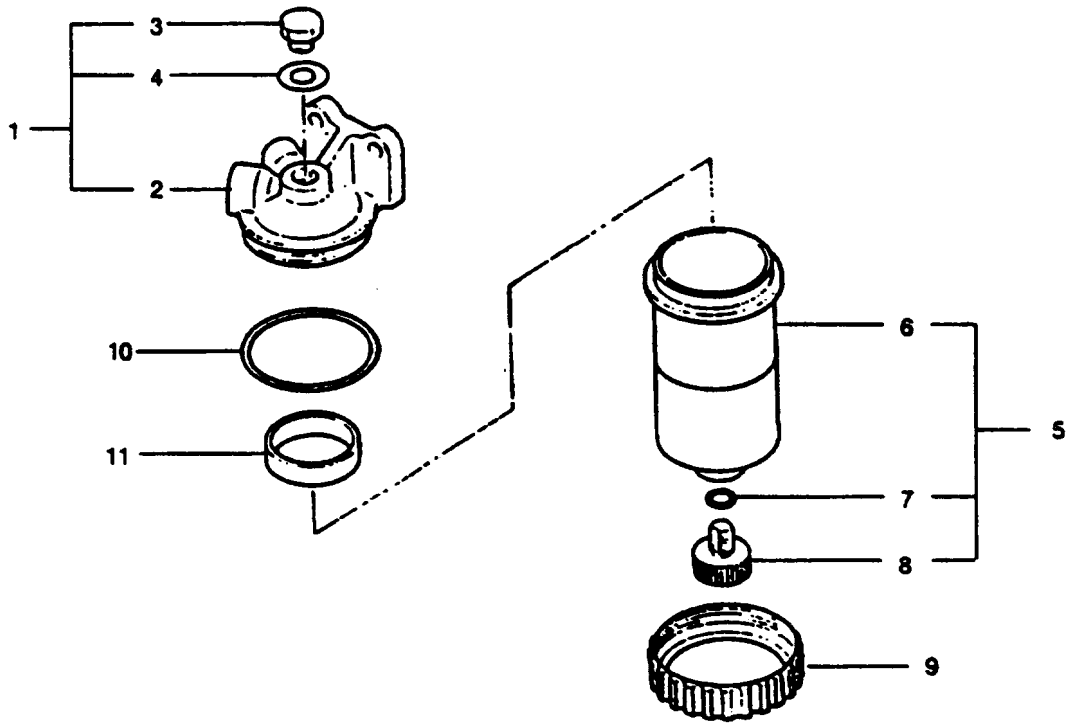


46529

# INJECTOR NOZZLE ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	836201630		1	HOLDER ASSEMBLY
1	17-836221070		2	PIN, Dowel
2	17-836221080		1	PIN, Dowel
3	836161190		1	PIN, Dowel
4	836151180		1	SPRING, Nozzle
5	NSS		-	NOT SOLD SEPARATE, SEE LOCAL SUPPLIER
6	836171560		1	DISTANCE PIECE
7	836331230		1	NUT, Nozzle Tip
8	12-836211080		1	WASHER
9	NSS		-	NOT SOLD SEPARATE, SEE LOCAL SUPPLIER
10	25-836671090		1	RING, Packing
11	10-838311410		1	BOLT, Banjo
12	27-838431870		2	GASKET, Sealing
13	838831080		1	RING, Retaining

# WATER SEPARATOR ASSEMBLY

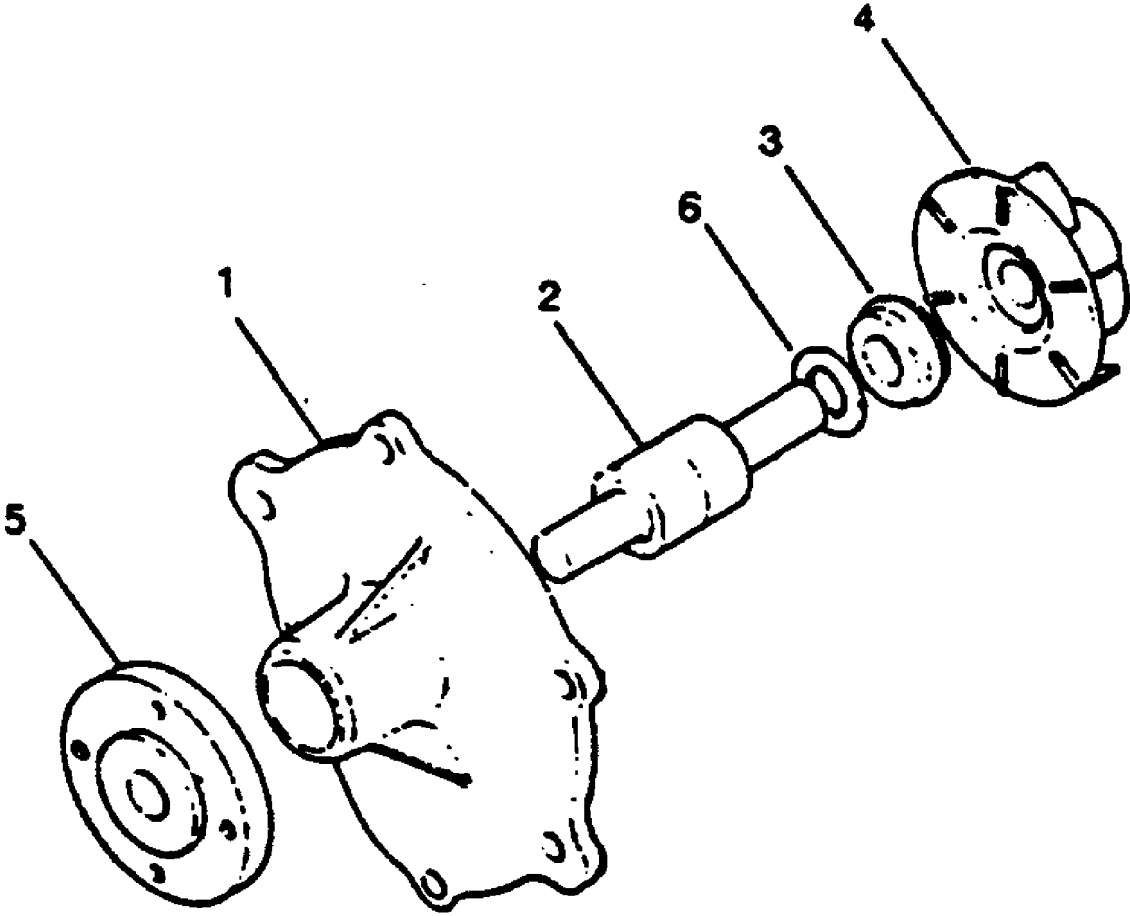


46530

# WATER SEPARATOR ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	838031080		1	SEPARATOR ASSEMBLY
1	833601010		1	COVER ASSEMBLY, Separator
2	833611011		1	COVER, Separator
3	10-833161030		1	PLUG, Vent
4	12-833641010		1	WASHER, Sealing, Plug
5	833701010		1	BODY ASSEMBLY, Separator
6	833711010		1	BODY, Separator
7	25-835109103		1	O-RING
8	19-833221030		1	PLUG, Drain
9	53-833621020		1	RING, Retaining
10	25-835159101		1	O-RING
11	23-833721010		1	FLOAT, Indicator

# COOLANT PUMP ASSEMBLY

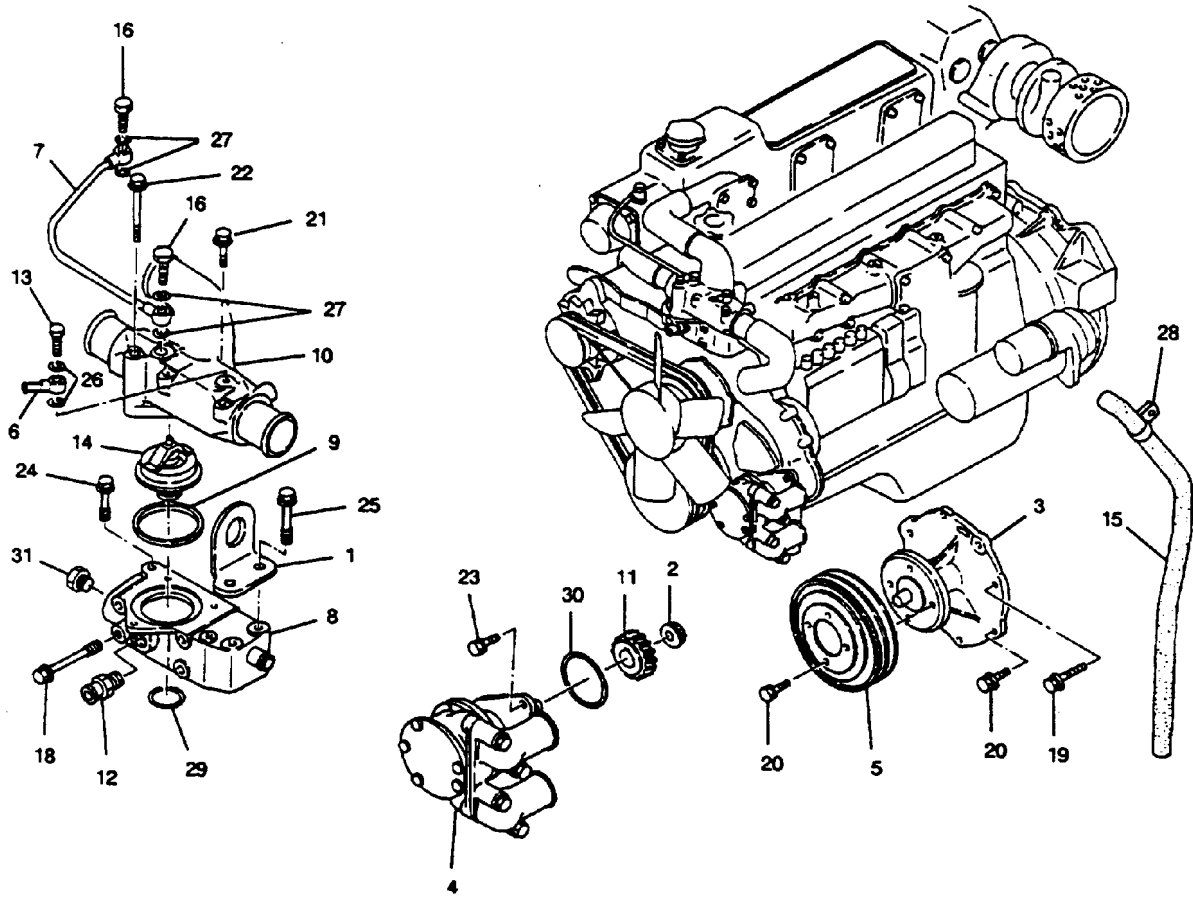


46532

# COOLANT PUMP ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	831002531		1	PUMP
1	831111602		1	CASE, Pump
2	831091160		1	SHAFT, Impeller
3	26-831041180		1	SEAL, Shaft
4	47-831311340		1	VANE
5	831711070		1	CENTER, Pulley
6	831471030		1	SLINGER

# COOLING SYSTEM



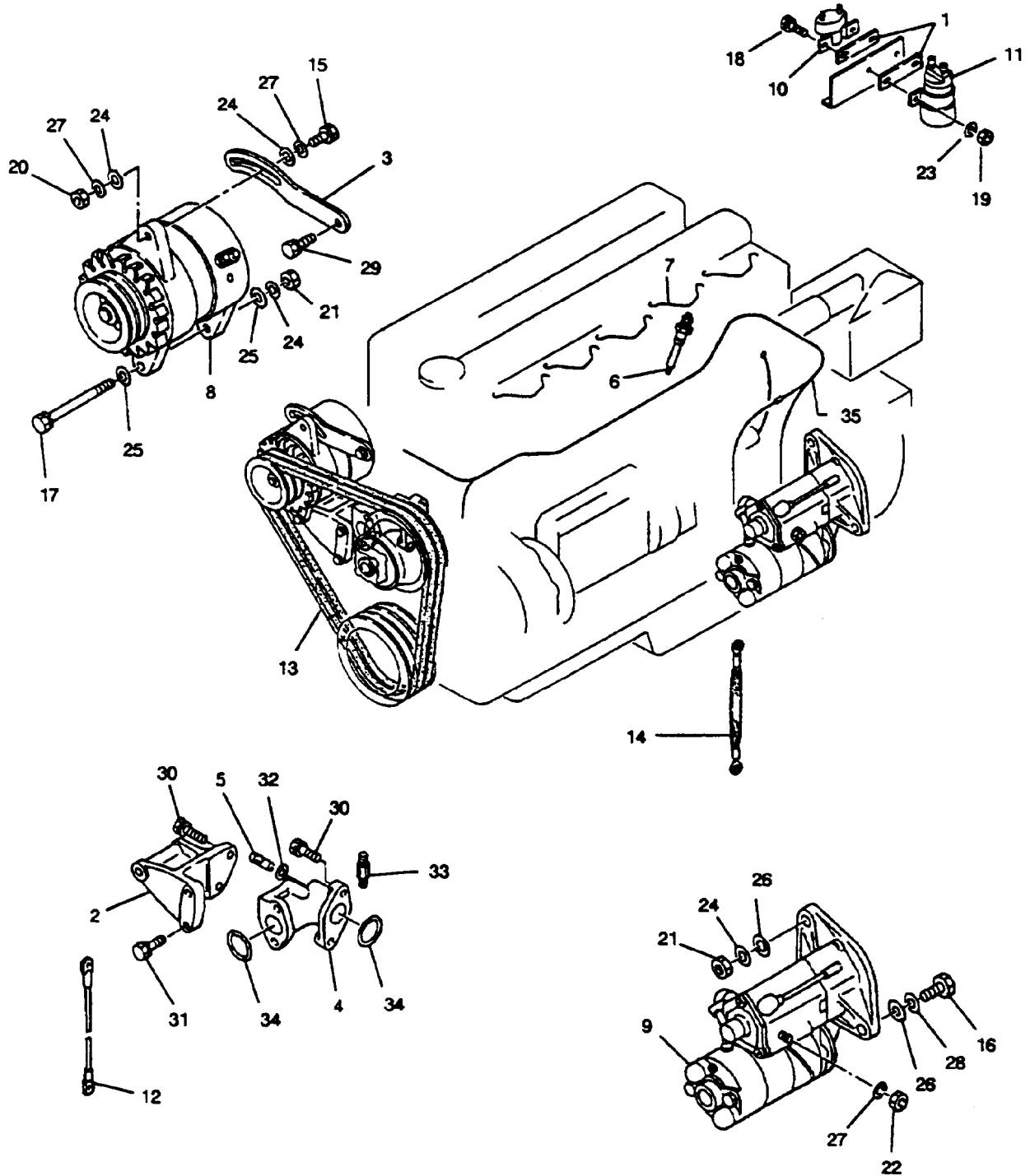
46533



# COOLING SYSTEM

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	832811580		1	HANGER, Engine
2	11-832661090		1	NUT, Gear
3	831002531		1	PUMP, Coolant-Circulating (See Page 33)
4	831003011		1	PUMP ASSEMBLY, Raw Water
NS	831311510		1	IMPELLER, Raw Water Pump
NS	831191410		1	GASKET, Impeller Cover
5	831732530		1	PULLEY, Coolant Pump
6	832681900		1	PIPE, Coolant By-Pass
7	832812360		1	PIPE, Air Escape
8	833011162		1	CASE ASSEMBLY, Thermostat
9	27-833251280		1	GASKET, Thermostat
10	833331621		1	MANIFOLD, Coolant
11	43-833511110		1	GEAR, Drive
12	833211020		1	JOINT, Water
13	10-830124303		1	BOLT, Banjo
14	830146177		1	THERMOSTAT
15	830236195		1	HOSE, Crankcase Vent
16	832912187		2	BOLT, Banjo
17	10-838108200		5	BOLT, Circulating Pump
18	10-838108850		4	BOLT, Housing
19	10-838108950		2	BOLT, Circulating Pump
20	10-839108201		4	BOLT, Pulley
21	10-839108252		2	BOLT, Manifold
22	839108851		1	BOLT, Manifold
23	10-830110250		2	BOLT, Raw Water Pump
24	831110751		1	BOLT, Housing
25	10-831110801		2	BOLT, Housing
26	12-835420150		2	WASHER, Sealing
27	12-835912111		4	WASHER, Sealing
28	836926107		1	CLAMP
29	835131112		2	O-RING
30	835160104		1	O-RING
31	835526117		1	JOINT

# ELECTRICAL PARTS

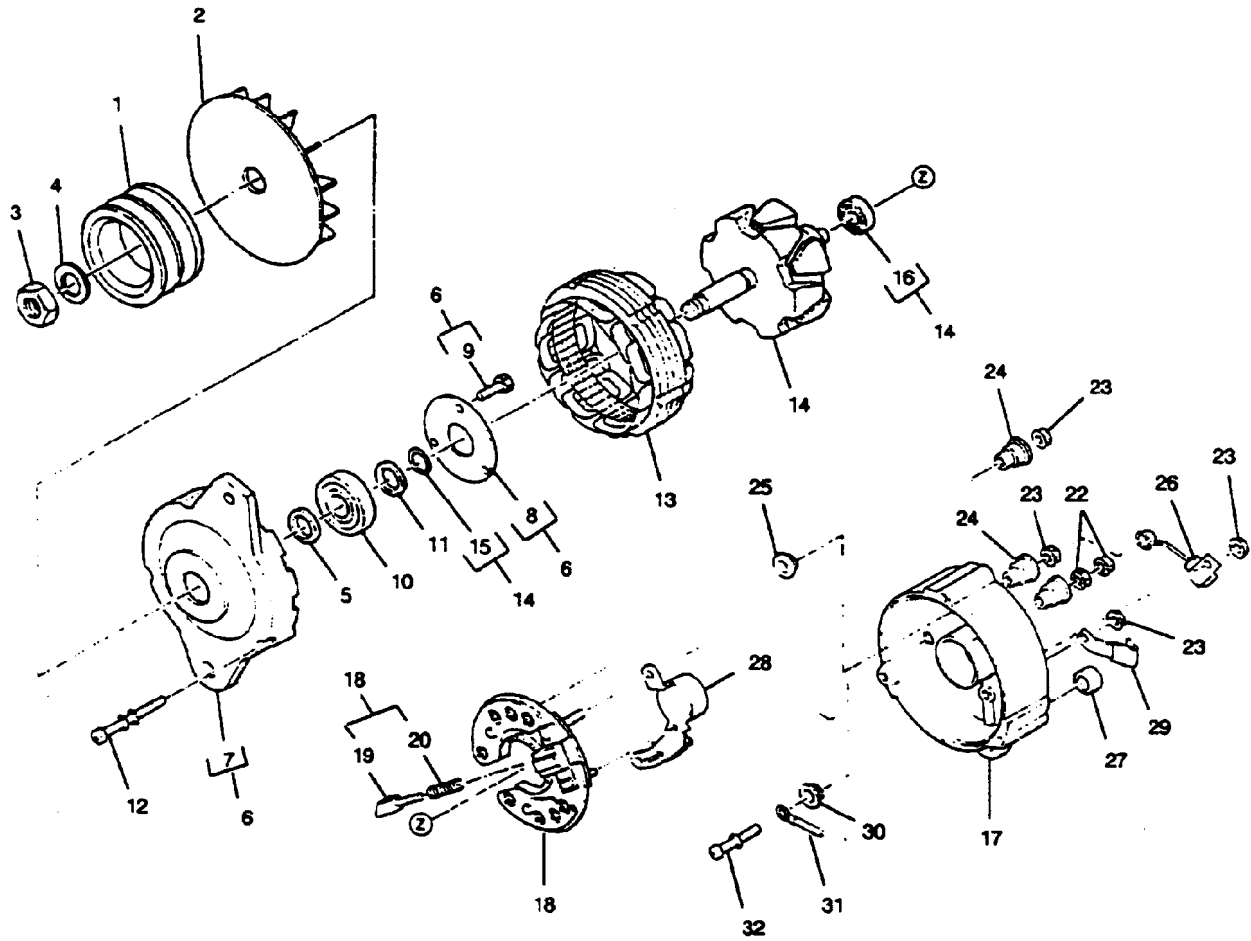


46534

# ELECTRICAL PARTS

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	834551130		2	PLATE, Mounting
2	835112400		1	BRACKET, Alternator
3	835122051		1	BRACE, Alternator
4	830231190		1	PIPE, Coolant
5	831811170		1	VALVE, Coolant
6	33-831101160		6	GLOW PLUG ASSEMBLY
7	831121151		5	WIRE, Glow Plug Ground
8	830401262		1	ALTERNATOR ASSEMBLY, With Regulator <b>SEE ALTERNATOR ASSEMBLY</b>
9	831001961		1	STARTER MOTOR ASSEMBLY <b>SEE STARTER ASSEMBLY</b>
10	834101220		1	RELAY ASSEMBLY, Starter
11	836201250		1	RELAY, Glow Plug
12	830642530		1	HARNESS ASSEMBLY
13	830149235		1	BELT SET, Alternator
14	830803108		1	STRAP, Ground
15	10-834999991		1	BOLT, Alternator Adjust
16	831114450		1	BOLT, Starter
17	831164401		1	BOLT, Alternator Pivot
18	839106302		2	BOLT, Relay
19	11-830106050		2	NUT, Relay
20	830110080		1	NUT, Alternator
21	11-830114110		2	NUT, Starter
22	11-830910141		1	NUT, Terminal
23	836006140		2	WASHER, Flat
24	12-836010330		2	SPACER, Flat
25	836014300		2	WASHER, Flat
26	12-836014270		2	WASHER, Flat
27	838010250		2	LOCKWASHER
28	13-838014350		3	LOCKWASHER
29	10-830110250		1	BOLT, Brace
30	10-830110300		4	BOLT, Bracket
31	831110901		2	BOLT, Bracket
32	25-835113103		1	O-RING, Sealing
33	832715200		1	CONNECTOR, Cooling Line
34	25-835144112		2	O-RING
35	F729456		1	HARNESS ASSEMBLY, Engine Wiring-STBD
	F729455		1	HARNESS ASSEMBLY, Engine Wiring-PORT

# ALTERNATOR ASSEMBLY

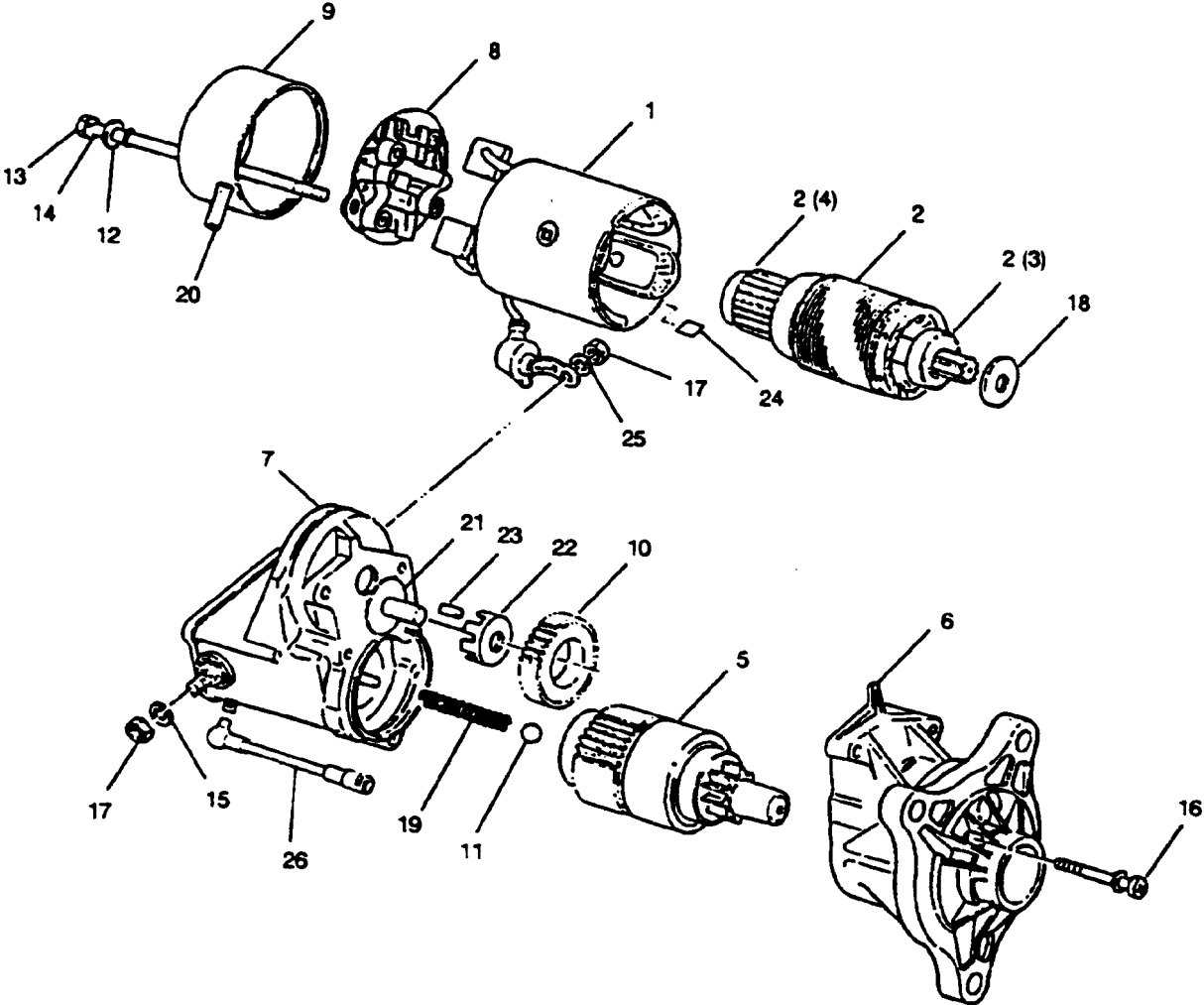


46535

# ALTERNATOR ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	830401262		1	ALTERNATOR ASSEMBLY, With Regulator
1	834311380		1	PULLEY, Drive
2	834411170		1	FAN, Alternator
3	831016080		1	NUT, Pulley
4	839016480		1	LOCKWASHER
5	834121140		1	COLLAR, Spacer
6	833101510		1	FRAME ASSEMBLY, End
7	833101510		1	FRAME ASSEMBLY, End
8	833121520		8	PLATE, Retainer
9	833621090		3	BOLT, Through
10	30-838120122		1	BEARING, Ball
11	834121150		1	COLLAR, Spacer
12	833171440		3	BOLT, Through
13	834101600		1	STATOR ASSEMBLY
14	833301530		1	ROTOR ASSEMBLY
15	833331030		1	RING, Spacer
16	838112102		1	BEARING, Rotor
17	833591810		1	FRAME, Rectifer
18	833561220		1	HOLDER
19	833711170		2	BRUSH
20	833761030		2	HOLDER, Brush
21	833871150		1	INSULATOR, Terminal
22	11-830106050		2	NUT, Terminal
23	830105040		4	NUT
24	833871160		2	INSULATOR, Terminal
25	833871170		1	INSULATOR, Terminal
26	833551180		1	CONDENSER
27	833511020		1	BUSHING, Frame
28	837001520		1	REGULATOR ASSEMBLY
29	834451190		1	CLAMP
30	833781600		1	INSULATOR, Terminal
31	833651080		1	WIRE, Lead
32	833641450		1	BOLT, Terminal

# STARTER ASSEMBLY

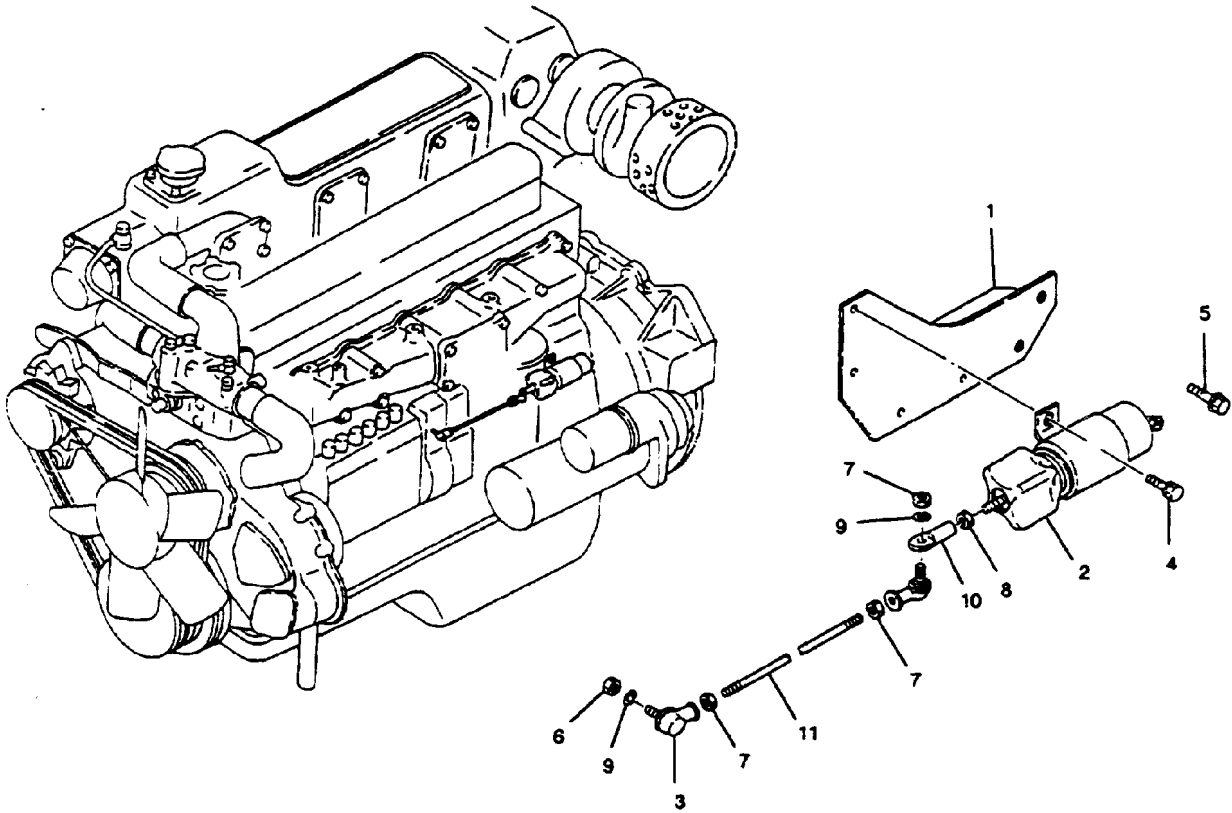


46536

# STARTER ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	831001961		1	STARTER MOTOR ASSEMBLY
1	831201310		1	YOKE ASSEMBLY
2	831601380		1	ARMATURE ASSEMBLY
3	832521190		1	BEARING
4	832521200		1	BEARING
5	830111260		1	CLUTCH
6	831151530		1	HOUSING, Drive
7	831501780		1	SWITCH ASSEMBLY, Magnetic
8	831401220		1	HOLDER, Brush
9	831301320		1	FRAME ASSEMBLY
10	832501040		1	PINION
11	832621090		1	HOLDER
12	832191100		2	WASHER
13	831121590		2	BOLT, Housing
14	832191110		2	WASHER
15	832191120		1	WASHER
16	831122100		3	BOLT, Housing
17	831010060		2	NUT, Terminal
18	831371080		1	FELT, Oil
19	832361030		1	SPRING, Switch
20	831541090		1	BOOT, Switch
21	831681280		1	RING, Retaining
22	831681290		1	RING, Retaining
23	832261020		5	ROLLER, Clutch
24	832661280		1	PLATE
25	832191130		1	WASHER
26	831711040		1	LEADWIRE

# STOP SOLENOID



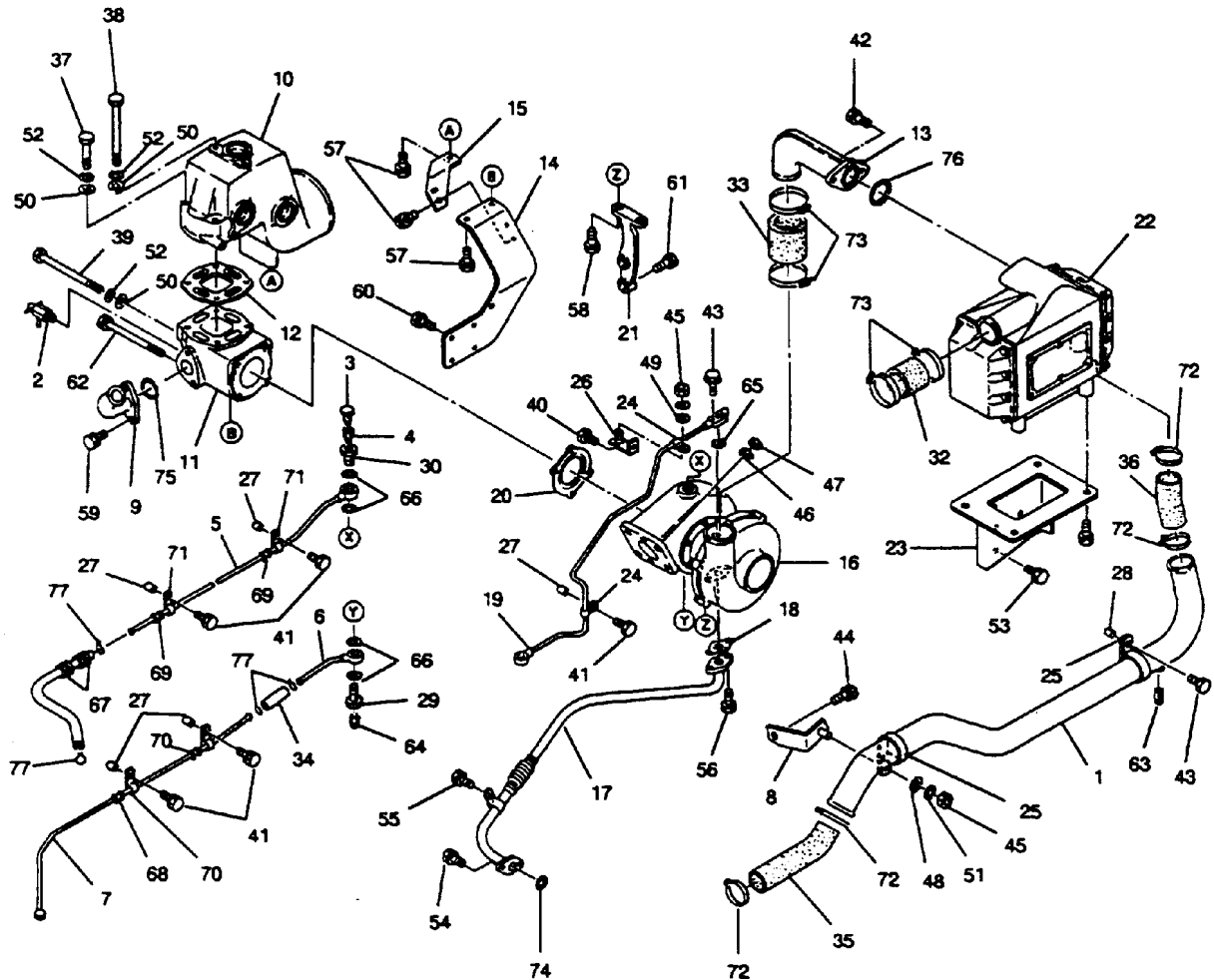
46539



# STOP SOLENOID

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	836011290		1	BRACKET, Solenoid
2	836801170		1	SOLENOID ASSEMBLY
3	832501020		1	JOINT ASSEMBLY, Rod End
4	10-839106202		2	BOLT, Solenoid
5	839108251		2	BOLT
6	11-830006050		1	NUT, Rod End
7	11-830106050		3	NUT, Rod End
8	11-830906125		1	NUT, Rod Lock
9	13-838006150		2	LOCKWASHER
10	835906118		1	CLEVIS
11	836030360		1	ROD

# TURBOCHARGER SYSTEM



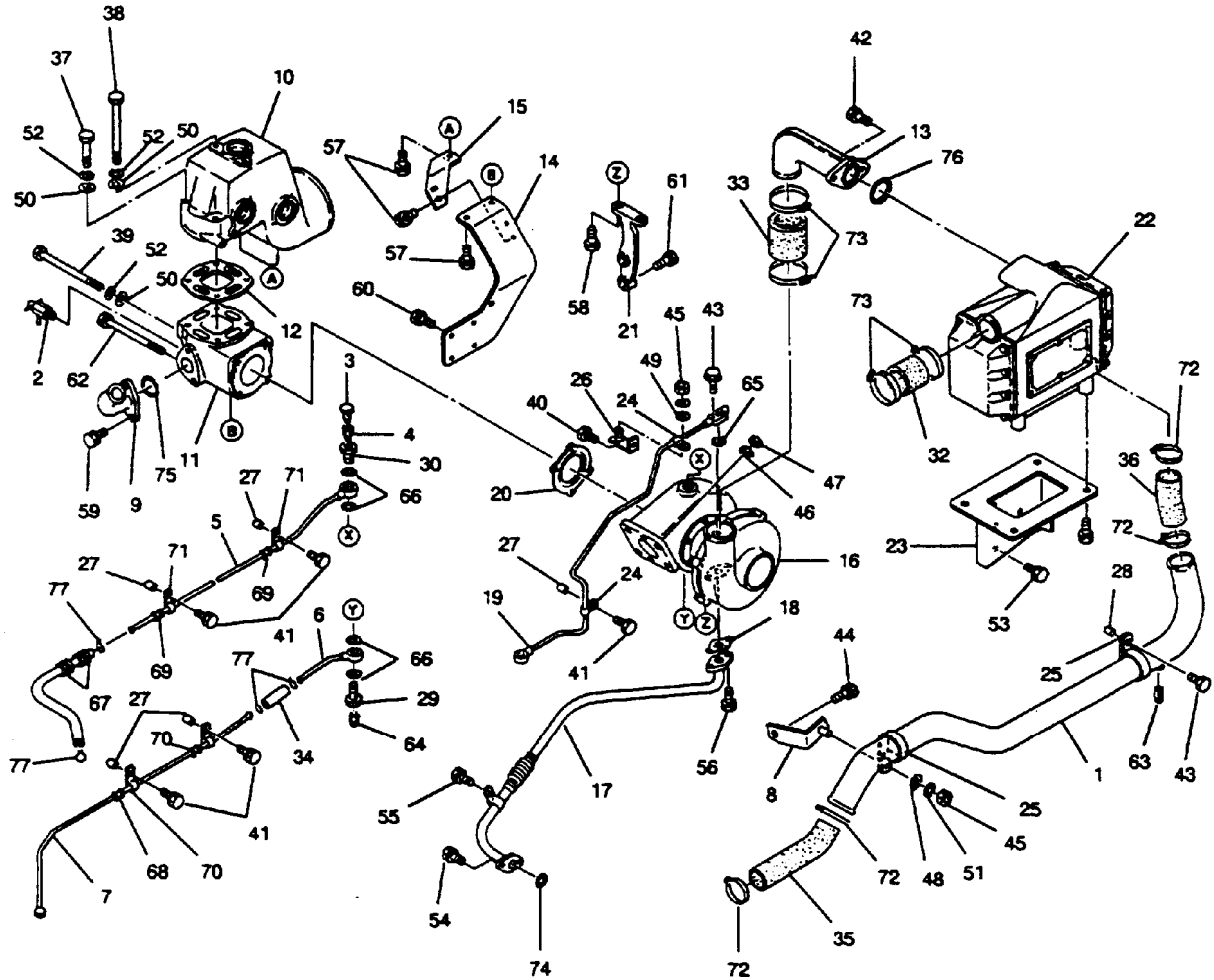
46540

# TURBOCHARGER SYSTEM

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	830231201		1	PIPE, Raw Water
2	22-830511100		1	COCK ASSEMBLY, Water Drain
3	22-831851110		1	BODY, Turbo
4	831881020		1	SEAT, Vent Screw
5	832682010		1	PIPE, Coolant
6	832682020		1	PIPE, Coolant
7	832682030		1	PIPE, Coolant
8	832691140		1	BRACKET, Pipe
9	836911660		1	PIPE, Coolant
10	830211111		1	PIPE ASSEMBLY, Exhaust
11	830211160		1	OUTLET, Exhaust
12	831041140		1	GASKET, Riser
13	831134130		1	PIPE, Intake
14	831521660		1	BRACKET, Exhaust Manifold
15	831521670		1	BRACKET, Exhaust Manifold
16	831002240		1	TURBOCHARGER ASSEMBLY <b>SEE TURBOCHARGER SYSTEM</b>
17	831071450		1	PIPE, Oil
18	27-831351070		1	GASKET, Oil Pipe
19	831711901		1	PIPE, Oil Inlet
20	27-831791090		1	GASKET, Turbo
21	831911040		1	BRACKET, Turbo
22	833001280		1	INTERCOOLER ASSEMBLY <b>SEE INTERCOOLER ASSEMBLY</b>
23	833021101		1	BRACKET, Intercooler
24	839041380		2	CLIP
25	839042660		2	CLIP
26	839934720		1	HOLDER, Clip
27	830116107		5	SPACER
28	830116221		1	SPACER
29	830124317		1	BOLT, Banjo
30	10-830124295		1	BOLT, Banjo
31	830154148		1	HOSE, Coolant
32	32-830233363		1	HOSE, Air
33	32-830233438		1	HOSE, Air
34	32-830234114		1	HOSE, Coolant
35	830234371		1	HOSE, Raw Water
36	830234434		1	HOSE, Raw Water
37	10-832910187		2	BOLT, Riser
38	10-832910195		2	BOLT, Riser
39	10-832910229		2	BOLT, Pipe
40	838908110		1	BOLT, Bracket

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# TURBOCHARGER SYSTEM

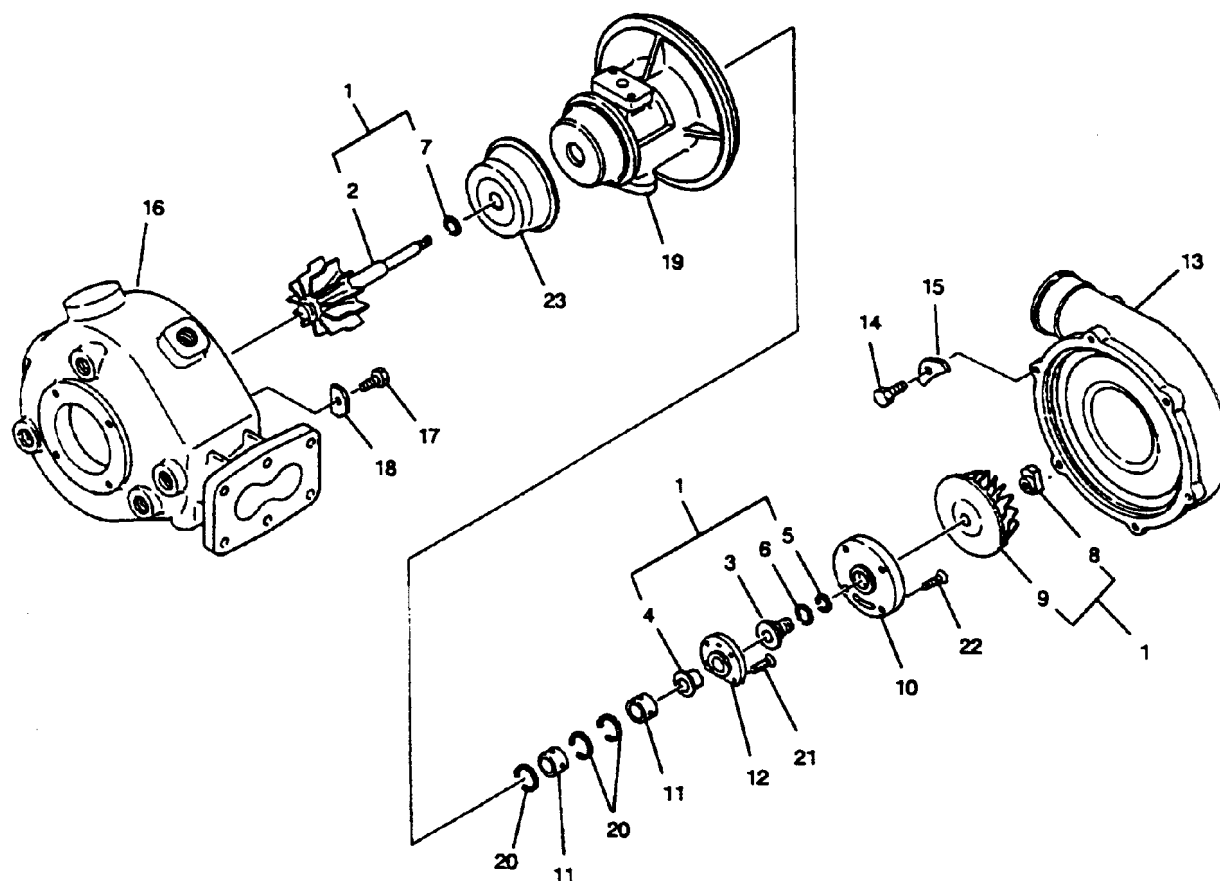


46540

# TURBOCHARGER SYSTEM

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
41	10-838108200		5	BOLT
42	839108251		2	BOLT, Pipe
43	10-839108302		3	BOLT
44	839110301		1	BOLT
45	11-830108070		3	NUT
46	11-830910141		6	NUT, Turbo
47	11-830910142		6	NUT, Jam-Turbo
48	836008140		2	WASHER, Flat
49	836008220		1	WASHER, Flat
50	12-836010220		6	WASHER, Flat
51	13-838008200		2	LOCKWASHER
52	838010250		6	LOCKWASHER
53	10-830114300		1	BOLT, Bracket
54	831010250		2	BOLT, Oil Tube
55	831110201		1	BOLT
56	10-831110251		2	BOLT, Oil Tube
57	831110252		6	BOLT
58	10-831110301		6	BOLT
59	10-831110301		2	BOLT
60	831114301		1	BOLT
61	831114401		2	BOLT
62	10-831910127		2	BOLT, Pipe
63	832217120		1	PLUG, Pipe
64	832917104		1	PLUG, Banjo Bolt
65	25-835113103		1	O-RING
66	12-835422150		4	WASHER, Sealing
67	25-837225161		2	GROMMET
68	837915105		2	GROMMET
69	837916106		2	GROMMET
70	54-836920111		2	CLAMP
71	836922103		2	CLAMP
72	836945101		4	CLAMP
73	836970103		4	CLAMP
74	25-835131103		1	O-RING
75	25-835135102		1	O-RING
76	25-835160102		1	O-RING
77	54-835424102		4	CLAMP, Hose

# TURBOCHARGER ASSEMBLY

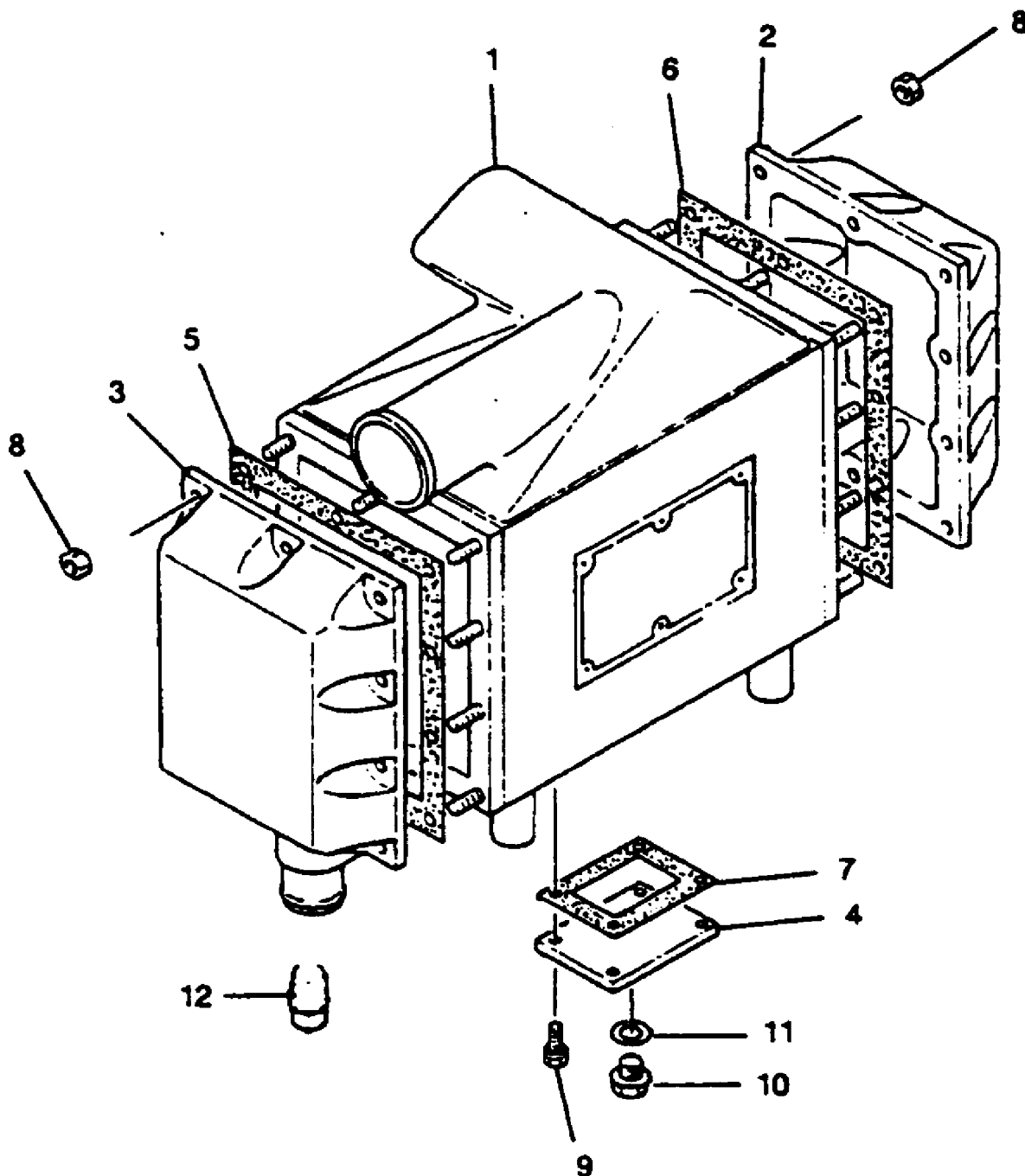


46541

# TURBOCHARGER ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	831002240		1	TURBOCHARGER ASSEMBLY
1	831501310		1	ROTOR ASSEMBLY
2	831151330		1	ROTOR, Turbine
3	831161040		1	THROWER, Oil
4	831421070		1	SPACER, Thrust
5	831241190		1	SEAL, Ring
6	831241180		1	SEAL, Ring
7	831241170		1	SEAL, Ring
8	831171140		1	NUT, Lock
9	831181111		1	IMPELLER, Blower
10	831271130		1	PLATE, Backing
11	831311110		2	BUSHING
12	831431060		1	BEARING, Inboard Thrust
13	831141140		1	CASE, Blower
14	831451280		6	BOLT, Housing
15	831231260		6	PLATE, Retainer
16	831111430		1	CASE, Turbine
17	831451190		6	BOLT
18	831231270		6	PLATE
19	831211250		1	CASE, Bearing
20	831321080		3	RING, Nozzle
21	831361120		4	SCREW
22	831361170		4	SCREW
23	831411150		1	PROTECTOR, Heat

# INTERCOOLER ASSEMBLY



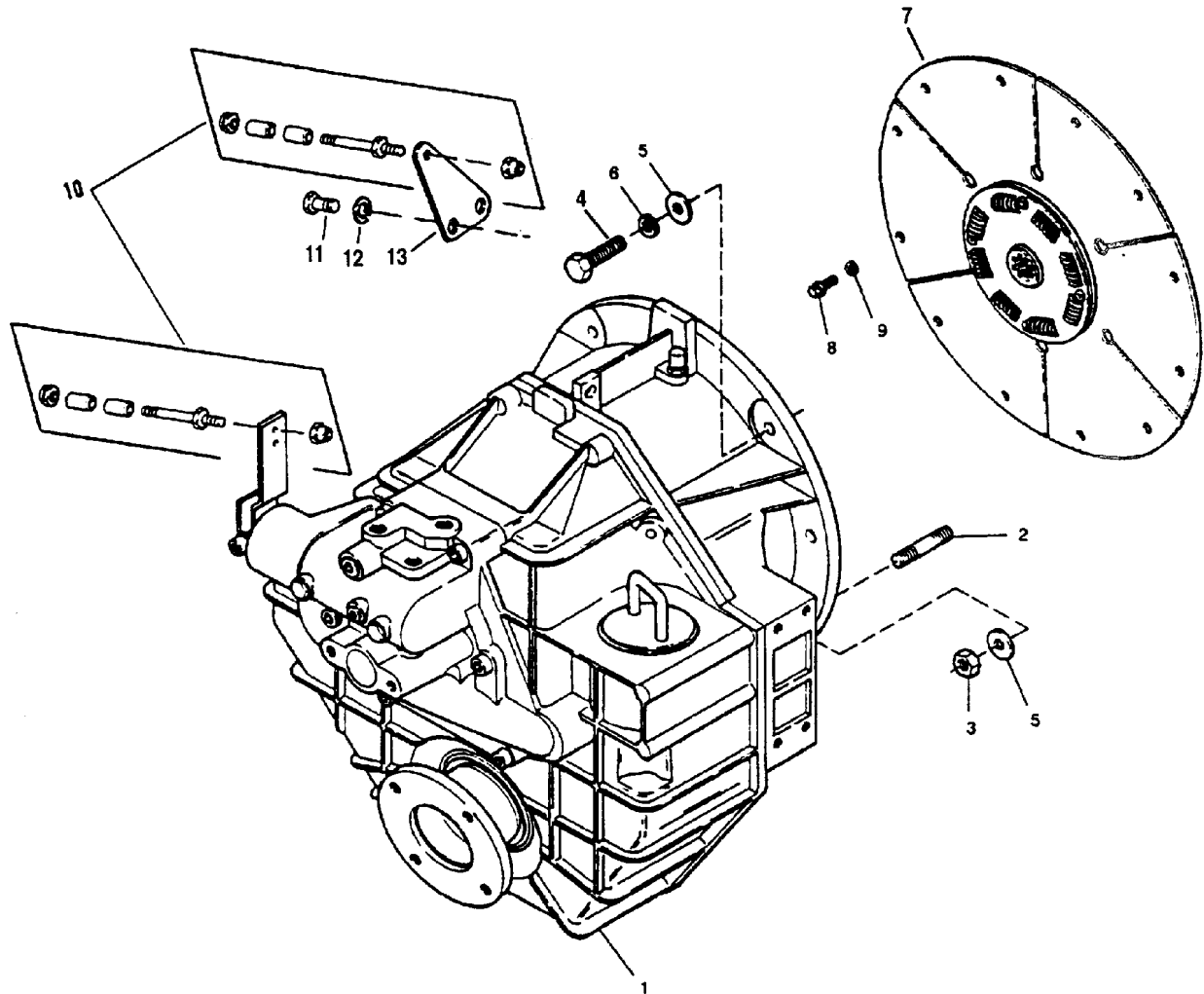
46542



# INTERCOOLER ASSEMBLY

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	833001280		1	INTERCOOLER ASSEMBLY
1	833041051		1	CORE ASSEMBLY
2	833051040		1	TANK ASSEMBLY
3	833151080		1	TANK ASSEMBLY
4	833171020		1	PLATE
5	27-833141040		1	GASKET, Tank
6	833141150		1	GASKET, Tank
7	27-833141050		1	GASKET, Plate
8	830908121		20	NUT, Tank
9	838106200		4	BOLT, Plate
10	19-834999994		1	PLUG, Drain
11	12-835908104		1	WASHER, Sealing
12	832917104		1	PLUG

# TRANSMISSION AND RELATED PARTS

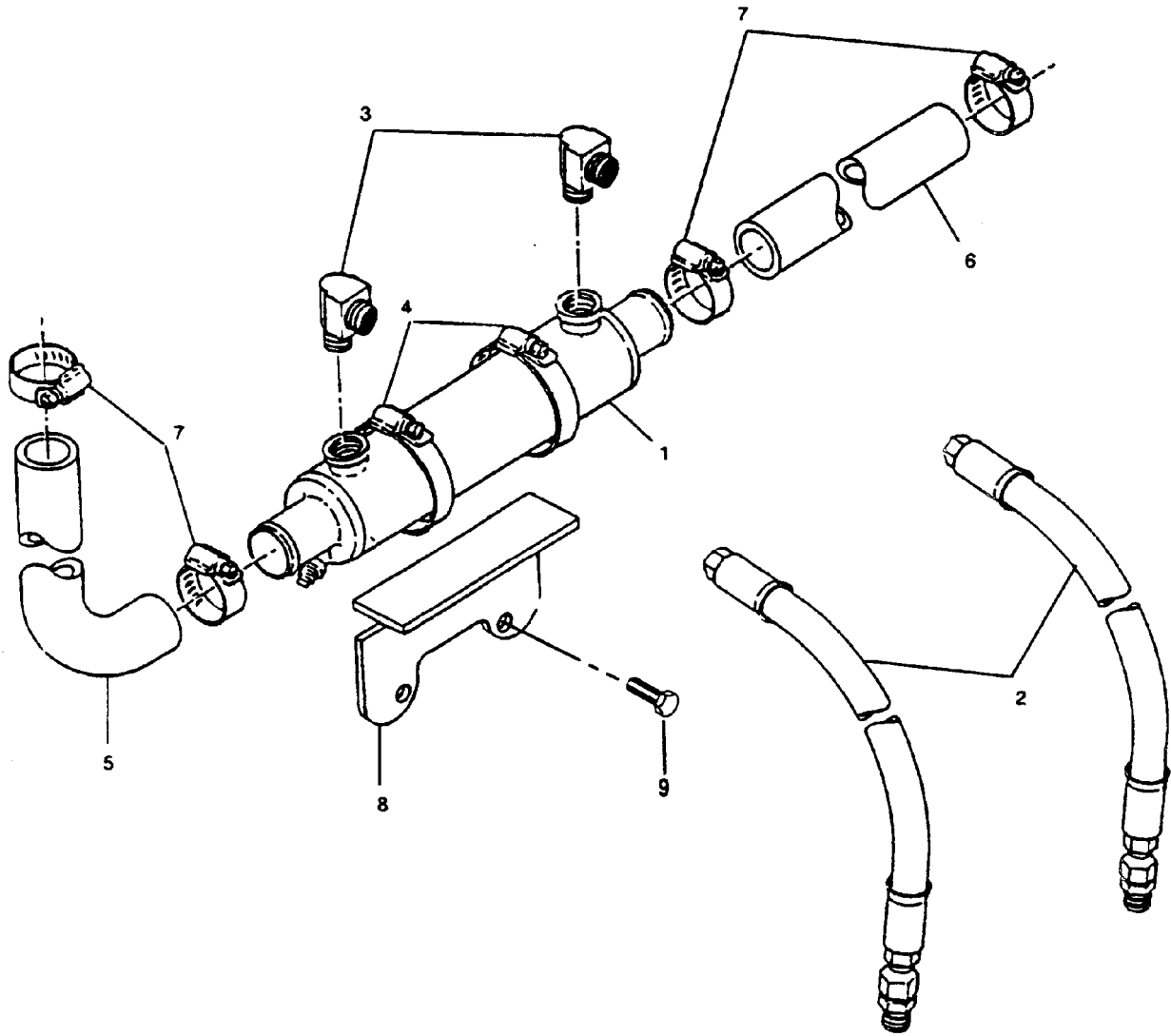


46543

# TRANSMISSION AND RELATED PARTS

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	18900A 1		1	TRANSMISSION, (1.5:1 Ratio), (1.5:1 Ratio) (Direct Drive)
	18901A 1		1	TRANSMISSION, (2.0:1 Ratio), (2.0:1 Ratio) (Direct Drive)
	18902A 1		1	TRANSMISSION, (2.5:1 Ratio), (2.5:1 Ratio) (Direct Drive)
	814437A 1		1	TRANSMISSION, (1.5:1 Ratio), (1.5:1 Ratio) (V-Drive)
	814438A 1		1	TRANSMISSION, (2.0:1 Ratio), (2.0:1 Ratio) (V-Drive)
	814439A 1		1	TRANSMISSION, (2.5:1 Ratio), (2.5:1 Ratio) (V-Drive)
2	16-91000 2		2	STUD, (M10 x 1.50 x 45)
3	F7066		2	NUT, Stud
4	10-40001195		4	SCREW, (M10 x 30)
5	12-27025		6	WASHER, Flat
6	13-F8153		4	WASHER
7	817178		1	DAMPER PLATE
8	10-832910241		6	BOLT, Damper Plate
9	838010250		6	LOCKWASHER
10	16-97477A 3		2	STUD KIT
11	10-40001124		2	SCREW, (M8 x 14), (M8 x 14)
12	13-40024 7		2	LOCKWASHER, (M8), (M8)
13	806238		1	BRACKET
NS	817166		1	BRACKET, Shifter
NS	F708821		1	LINKAGE KIT, Cable End

# TRANSMISSION COOLER



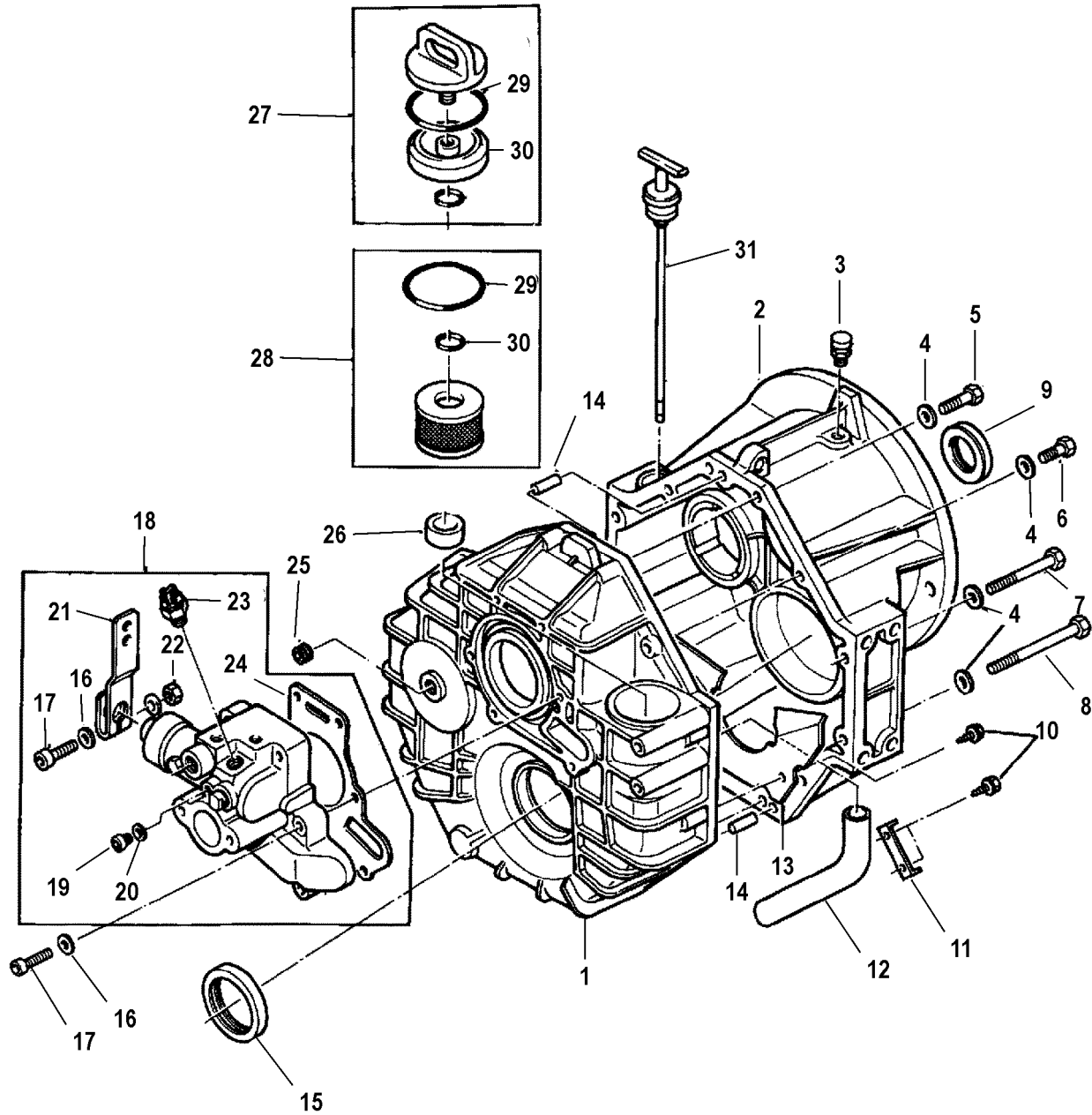
46545

# TRANSMISSION COOLER

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	817173		1	COOLER, Transmission
2	32-817172 1		1	HOSE ASSEMBLY, (8-1/4")
	32-817172 2		1	HOSE ASSEMBLY, (9")
3	F700580		2	FITTING, Brass
4	54-815504232		2	CLAMP, Worm Gear (2.50 Diameter), Cooler
5	32-817170		1	HOSE, Water (1-1/2 x 10")
6	32-817239 12		1	HOSE, Water (1-1/2 x 12")
7	54-815504222		4	CLAMP, Worm Gear (1.98 Diameter), Hose
8	817190		1	BRACKET, Oil Cooler
9	10-813282		2	SCREW, Oil Cooler Bracket

# Transmission

(Direct Drive) (Inboard) (P. 1/2)



14213

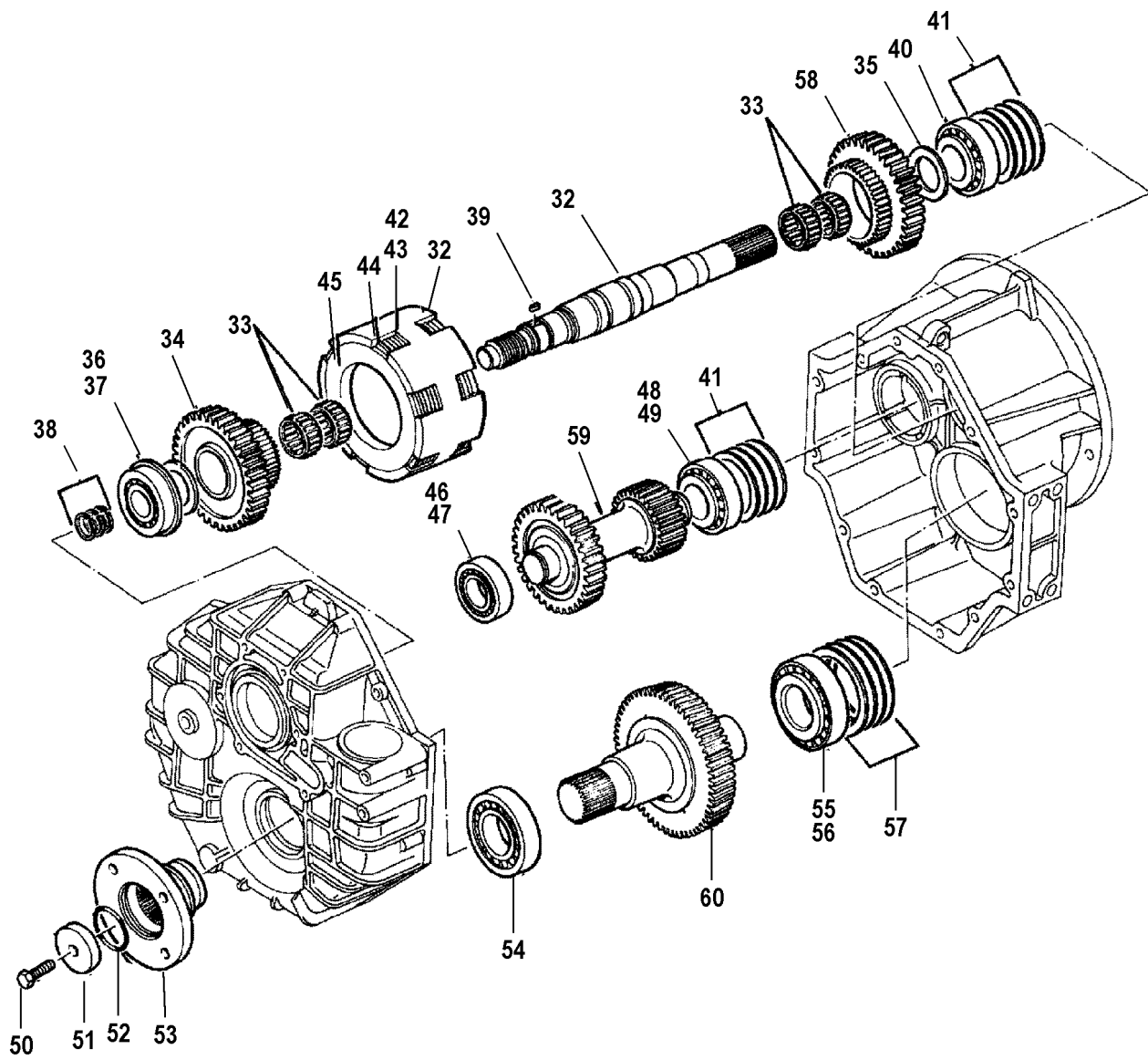
# Transmission

(Direct Drive) (Inboard) (P. 1/2)

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	18900A 1		1	TRANSMISSION, (1.5:1 Ratio)
-	18901A 1		1	TRANSMISSION, (2.0:1 Ratio)
-	18902A 1		1	TRANSMISSION, (2.5:1 Ratio)
1	813278		1	HOUSING
2	813279		1	COVER
3	813280		1	VENT CAP
4	13-813281		12	LOCKWASHER
5	10-813282		5	SCREW
6	10-813283		1	SCREW
7	10-813284		4	SCREW
8	10-813285		2	SCREW
9	26-813286		1	SEAL
10	10-813287		4	SCREW
11	813288		1	PLATE, Retaining
12	32-813289		1	HOSE
13	813290		1	PLATE, Baffle
14	17-813291		2	PIN, Dowel
15	26-813292		1	SEAL
16	13-813293		7	LOCKWASHER
17	10-813294		7	SCREW
18	813295		1	CONTROL BLOCK
19	10-813296		1	SCREW
20	12-813297		1	WASHER
21	813298		1	LEVER, Shift
22	11-813299		1	NUT
23	87-813300		1	SWITCH
24	27-813301		1	GASKET
25	22-813302		1	PLUG
26	12-813303		1	WASHER
27	431-811840		1	CAMSHAFT
28	35-815419		1	FLUID FILTER KIT
29	25-813407		1	O-RING
30	25-813406		1	O-RING
31	813305		1	DIPSTICK

# Transmission

(Direct Drive) (Inboard) (P. 2/2)



14214



# Transmission

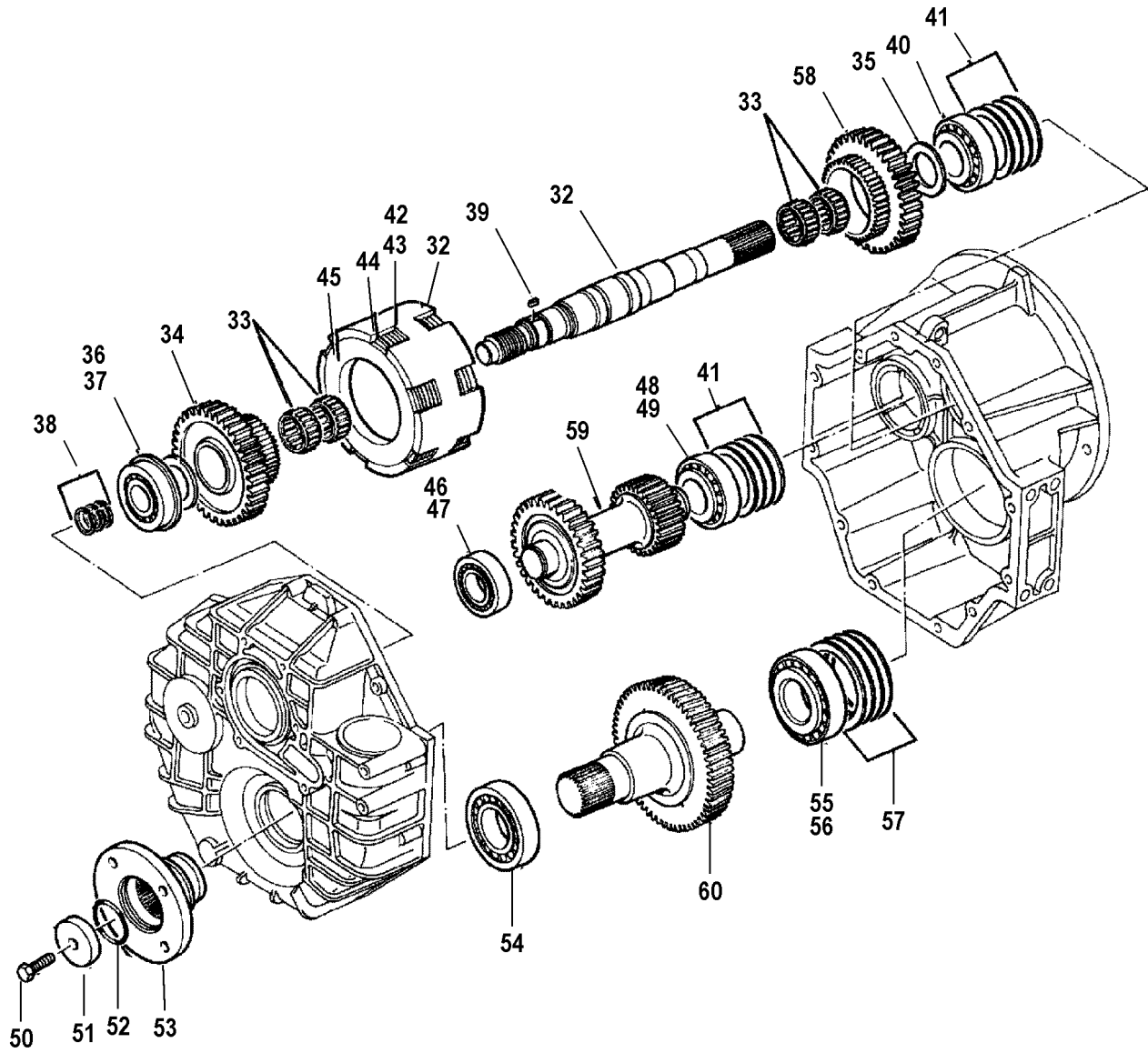
(Direct Drive) (Inboard) (P. 2/2)

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	18900A 1		1	TRANSMISSION, (1.5:1 Ratio)
-	18901A 1		1	TRANSMISSION, (2.0:1 Ratio)
-	18902A 1		1	TRANSMISSION, (2.5:1 Ratio)
32	813306		1	SHAFT, Input
33	31-813307		4	BEARING, Roller
34	43-813308		1	GEAR
35	12-813309		2	WASHER
36	31-813310		1	BEARING, Tapered Roller, Inner
37	31-813311		1	BEARING, Tapered Roller, Outer
38	53-813312		2	RING
39	28-813313		1	KEY
40	30-813314		1	BEARING
41	15-813315		1	SHIM, (.10 mm)
	15-813316		1	SHIM, (.15 mm)
	15-813317		1	SHIM, (.20 mm)
	15-813318		1	SHIM, (.50 mm)
42	813319		4	DISC
43	813320		5	DISC
44	53-813321		2	RING
45	813322		2	PRESSURE DISC
46	31-813323		1	BEARING, Tapered Roller, Inner
47	31-813324		1	BEARING, Tapered Roller, Outer
48	31-813325		1	BEARING, Tapered Roller, Inner
49	31-813326		1	BEARING, Tapered Roller, Outer
50	10-813327		1	SCREW
51	23-813328		1	SPACER
52	25-813329		1	O-RING
53	813330		1	FLANGE, Output
54	31-813331		1	BEARING, Tapered Roller
55	31-813332		1	BEARING, Tapered Roller, Inner
56	31-813333		1	BEARING, Tapered Roller, Outer
57	15-813334		1	SHIM, (.10 mm)
	15-813335		1	SHIM, (.15 mm)
	15-813336		1	SHIM, (.30 mm)
	15-813337		1	SHIM, (.50 mm)
58	43-813338		1	GEAR, (1.5:1 Ratio)
59	813339		1	SHAFT, Intermediate, (1.5:1 Ratio)
60	813340		1	SHAFT, Output, (1.5:1 Ratio)
58	43-813341		1	GEAR, (2.0:1 Ratio)
59	813342		1	SHAFT, Intermediate, (2.0:1 Ratio)

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# Transmission

(Direct Drive) (Inboard) (P. 2/2)



14214

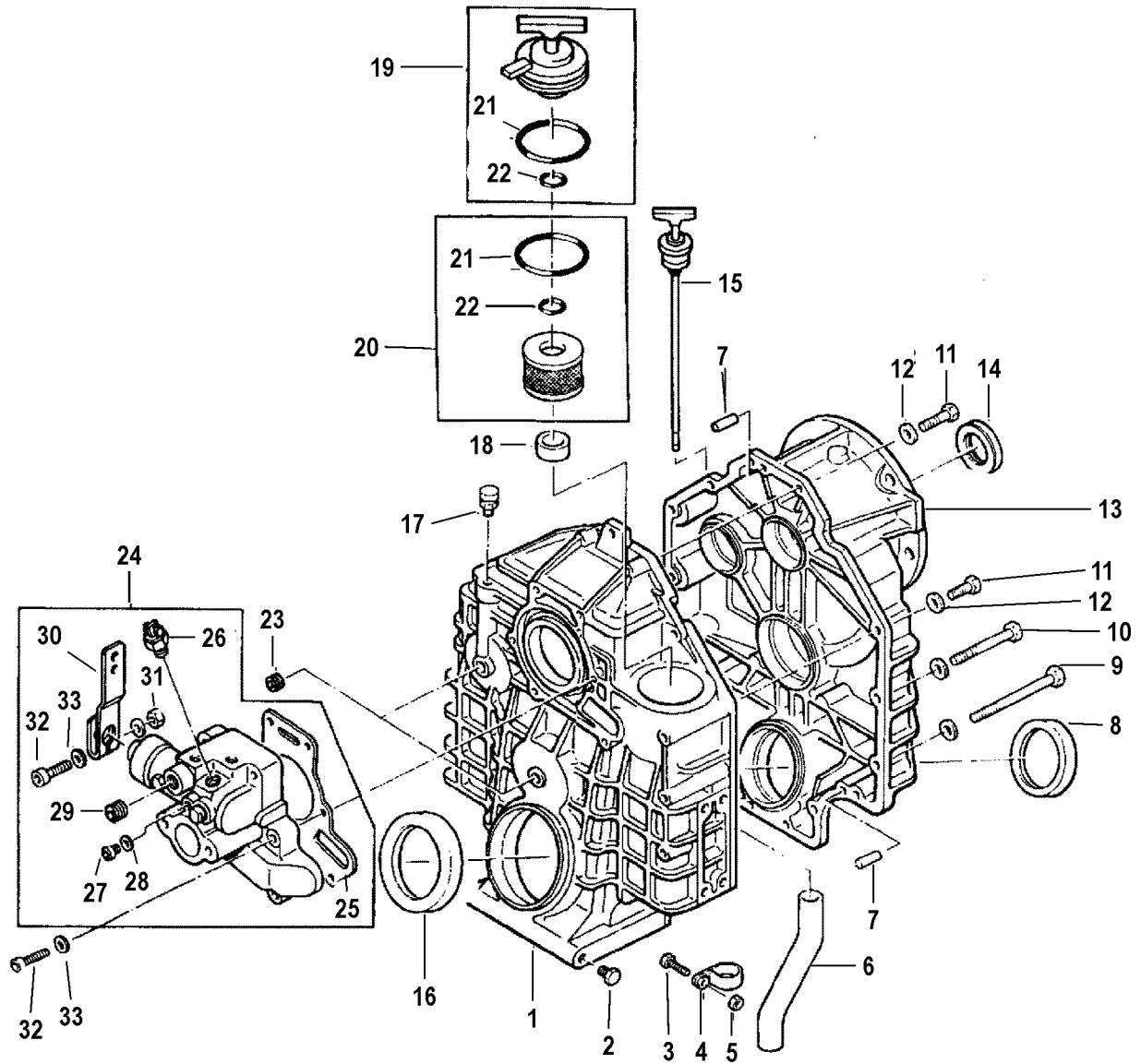
# Transmission

(Direct Drive) (Inboard) (P. 2/2)

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
60	813343		1	SHAFT, Output, (2.0:1 Ratio)
58	43-813344		1	GEAR, (2.5:1 Ratio)
59	813345		1	SHAFT, Intermediate, (2.5:1 Ratio)
60	813346		1	SHAFT, Output, (2.5:1 Ratio)

# Transmission

(V-Drive) (Inboard) (P. 1/2)



14215

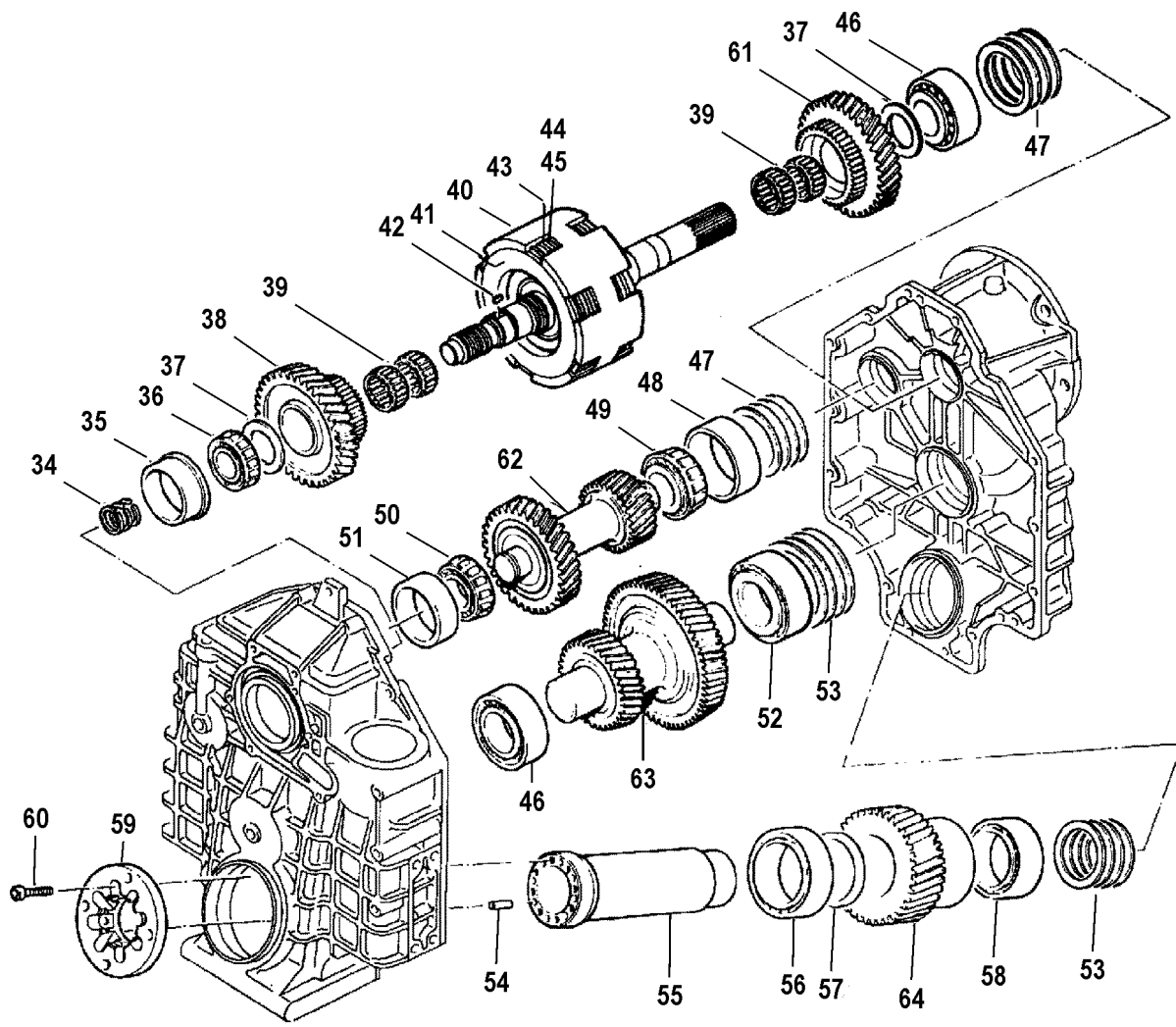
# Transmission

(V-Drive) (Inboard) (P. 1/2)

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	814437A 1		1	TRANSMISSION, (1.5:1 Ratio)
-	814438A 1		1	TRANSMISSION, (2.0:1 Ratio)
-	814439A 1		1	TRANSMISSION, (2.5:1 Ratio)
1	811961		1	HOUSING, Control Side
2	19-811966		1	PLUG
3	10-811953		1	SCREW
4	54-811965		1	CLAMP
5	11-811954		1	NUT
6	32-811962		1	HOSE, Suction
7	17-813291		2	PIN, Dowel
8	26-811957		1	SEAL
9	10-813285		2	SCREW
10	10-813284		2	SCREW
11	10-813282		12	SCREW
12	13-813281		16	LOCKWASHER
13	811960		1	HOUSING, Input Side
14	26-813286		1	SEAL
15	811964		1	DIPSTICK
16	26-811956		1	SEAL
17	813280		1	VENT CAP
18	12-813303		1	WASHER
19	36-811963		1	COVER KIT, (Inc. Reference #21 And 22)
20	35-815419		1	FLUID FILTER KIT
21	25-813407		1	O-RING
22	25-813406		1	O-RING
23	22-813302		2	PLUG
24	813295		1	CONTROL BLOCK
25	27-813301		1	GASKET
26	87-813300		1	SWITCH
27	10-813296		1	SCREW
28	12-811958		1	WASHER
29	22-811959		1	PLUG
30	813298		1	LEVER, Shift
31	11-813299		1	NUT
32	10-813294		7	SCREW
33	13-813293		7	LOCKWASHER

# Transmission

(V-Drive) (Inboard) (P. 2/2)



14216

# Transmission

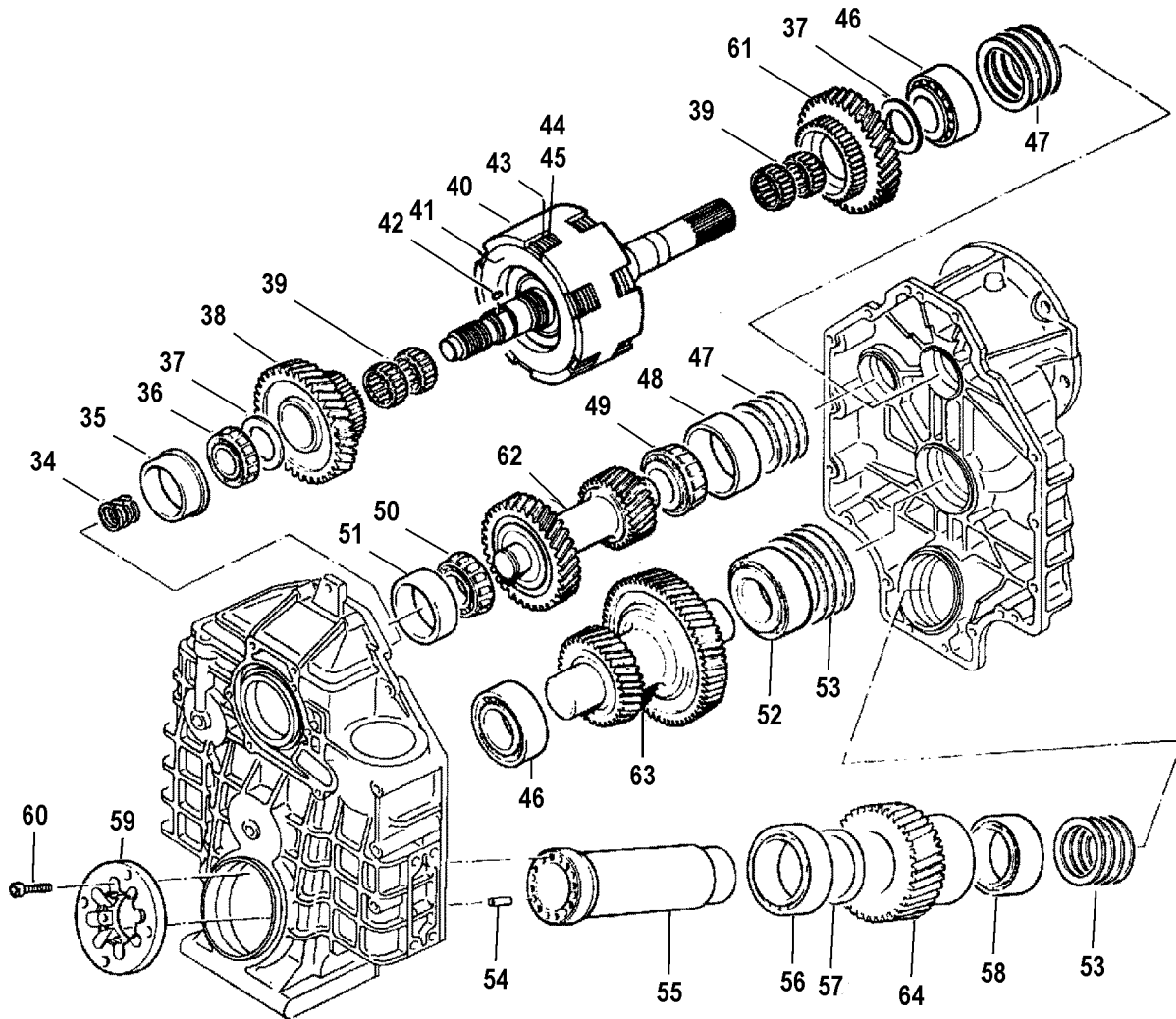
(V-Drive) (Inboard) (P. 2/2)

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
-	814437A 1		1	TRANSMISSION, (1.5:1 Ratio)
-	814438A 1		1	TRANSMISSION, (2.0:1 Ratio)
-	814439A 1		1	TRANSMISSION, (2.5:1 Ratio)
34	53-813312		3	RING
35	31-811970		1	BEARING, Tapered Roller Cup
36	31-811969		1	BEARING, Tapered Roller Cone
37	12-811967		2	WASHER
38	43-813308		1	GEAR
39	31-813307		4	BEARING, Roller
40	813306		1	SHAFT, Input
41	813322		2	PRESSURE DISC
42	28-813313		1	KEY
43	53-813321		2	RING
44	813319		8	DISC
45	813320		10	DISC
46	30-811968		2	BEARING, Ball
47	15-813315		1	SHIM, (.10 mm)
	15-813316		1	SHIM, (.15 mm)
	15-813317		1	SHIM, (.20 mm)
	15-813318		1	SHIM, (.50 mm)
48	31-811979		1	BEARING, Tapered Roller Cup
49	31-811978		1	BEARING, Tapered Roller Cone
50	31-811971		1	BEARING, Tapered Roller Cone
51	31-811977		1	BEARING, Tapered Roller Cup
52	31-811972		1	BEARING, Tapered Roller
53	15-811973		2	SHIM, (.10MM)
	15-811974		2	SHIM, (.15MM)
	15-811975		2	SHIM, (.30MM)
	15-811976		2	SHIM, (.50MM)
54	17-811984		4	PIN, Dowel
55	811980		1	SHAFT, Output
57	12-811981		1	WASHER
58	31-811986		1	BEARING, Tapered Roller
59	811982		1	FLANGE
60	10-811983		8	SCREW
61	43-811987		1	GEAR, (1.5:1 Ratio)
62	811951		1	SHAFT, Reversing, (1.5:1 Ratio)
63	811952		1	SHAFT, Intermediate, (1.5:1 Ratio)
64	43-811950		1	GEAR, (1.5:1 Ratio)
61	43-811949		1	GEAR, (2.0:1 Ratio)

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# Transmission

(V-Drive) (Inboard) (P. 2/2)



14216

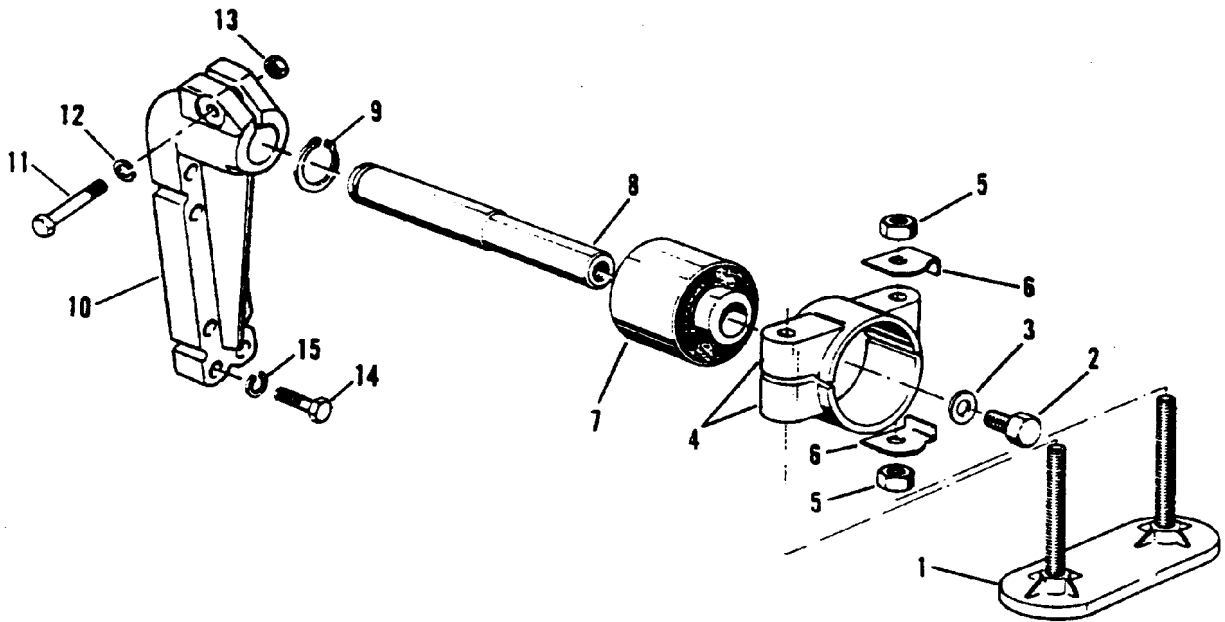


# Transmission

(V-Drive) (Inboard) (P. 2/2)

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
62	811947		1	SHAFT, Reversing, (2.0:1 Ratio)
63	811948		1	SHAFT, Intermediate, (2.0:1 Ratio)
64	43-811950		1	GEAR, (2.0:1 Ratio)
61	43-811949		1	GEAR, (2.5:1 Ratio)
62	811947		1	SHAFT, Reversing, (2.5:1 Ratio)
63	811946		1	SHAFT, Intermediate, (2.5:1 Ratio)
64	43-811945		1	GEAR, (2.5:1 Ratio)

# TRANSMISSION MOUNTING (V - DRIVE)



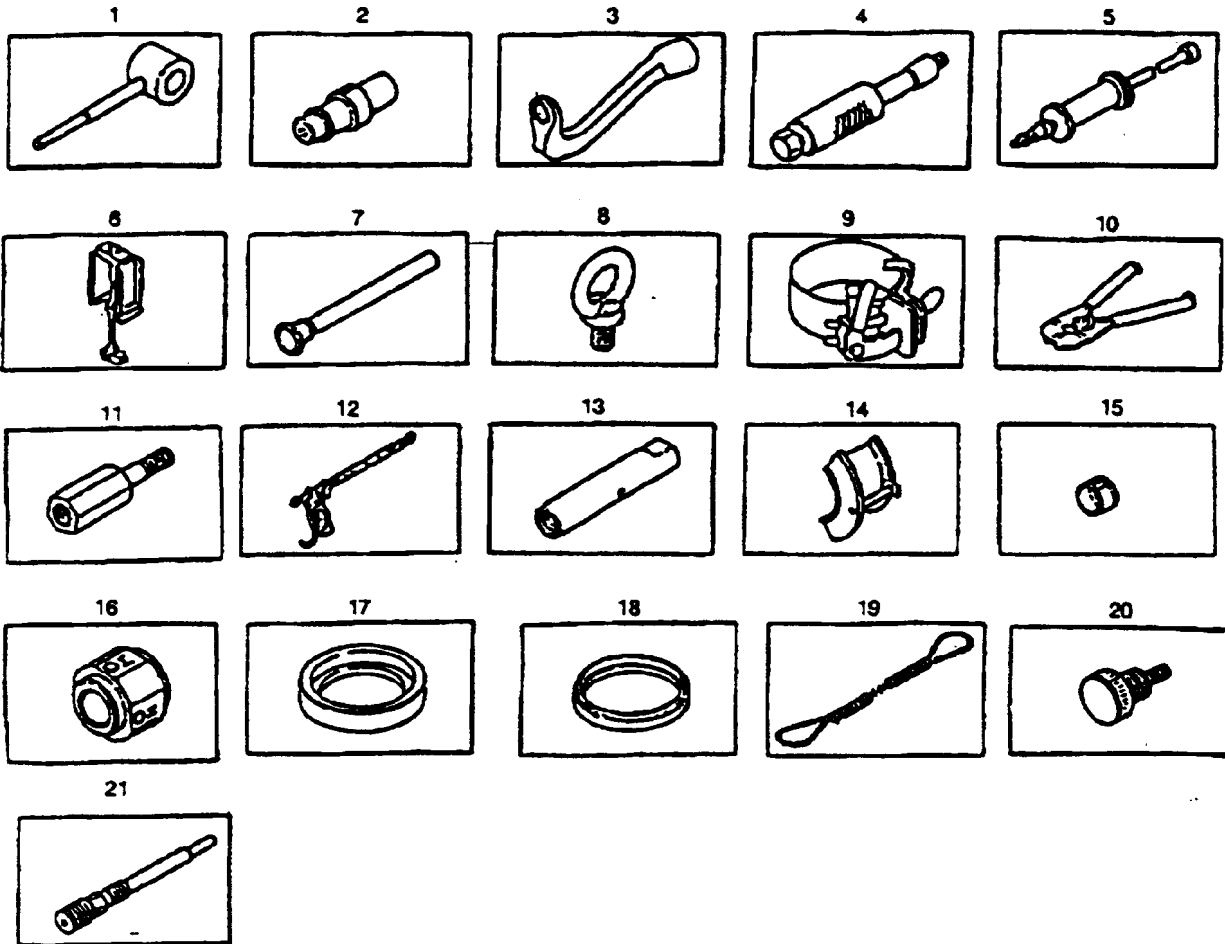
46547

# TRANSMISSION MOUNTING

(V - DRIVE)

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	801765040		2	BASE
2	10-809913815		2	SCREW
3	12-809936436		2	WASHER
4	801765035		2	HOUSING
5	11-809923100		8	NUT
6	14-801765045		8	WASHER
7	23-801763874		2	BUSHING
8	17-816913		2	PIN
9	53-809934175		2	RING
10	814158 1		2	BRACKET
11	10-809913859		2	SCREW
12	13-809931076		2	LOCKWASHER
13	11-809922113		2	NUT
14	10-806195		8	SCREW, (M12 x 45)
15	13-809933127		8	LOCKWASHER
-	805925		2	BRACKET, Transmission Mount

# SPECIAL TOOLS

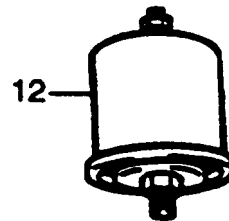
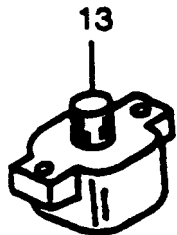
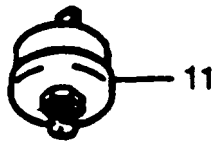
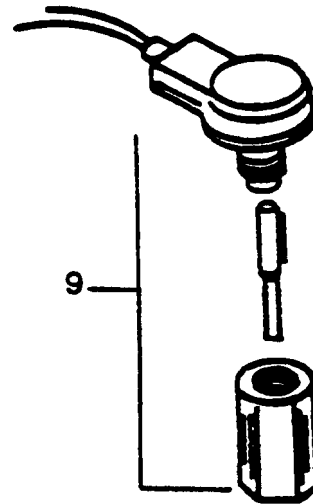
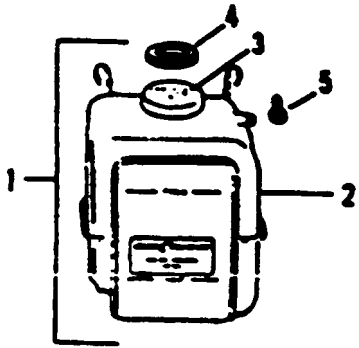


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# SPECIAL TOOLS

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	91-834021450		1	PRESS, Conn. Rod Bushing
2	91-834021460		1	PRESS, Conn. Rod Bushing
3	834111260		1	WRENCH, Cylinder Head
4	834201100		1	PULLER ASSEMBLY, Idler Gear
5	91-834201442		1	SLIDE HAMMER, Slide Hammer
6	834201460		1	PULLER ASSEMBLY, Cylinder Liner
7	834311010		1	TOOL, Valve Lapping
8	834331070		1	EYEBOLT, Lifting-Cylinder Head
9	91-834411260		1	COMPRESSOR TOOL, Piston Ring
10	91-834421180		1	EXPANDER, Piston Ring
11	91-834621130		1	ADAPTER, Nozzle
12	834701022		1	COMPRESSOR TOOL, Valve Spring
13	91-834721650		1	TOOL, Valve Seal Installation
14	834801120		1	PRESS, Cylinder Liner
15	91-834811120		1	GUIDE, Conn. Rod Bushing
16	91-834811130		1	GUIDE, Conn. Rod Bushing
17	91-834821530		1	PRESS, Crank Oil Seal-Front
18	91-834821540		1	PRESS, Crank Oil Seal-Rear
19	834911010		1	WIRE, Wire-Lifting
20	835122100		1	TOOL, Inj. Pump Timing
21	91-835521051		1	ADAPTER, Compression Gage

# MISCELLANEOUS ENGINE PARTS



46549

# MISCELLANEOUS ENGINE PARTS

REF. NO.	PART NO.	SYM.	QTY.	DESCRIPTION
1	71587A10		1	RECOVERY KIT, Coolant, Coolant
2	71587A11		1	BOTTLE, Plastic
3	72058		1	CAP, Coolant Bottle
4	27-71614		1	GASKET, Cap
5	10-85181		2	BOLT, (1/4-10 x 1-1/2")
6	32-77457 2		1	HOSE, (48.00 Inches Bulk), (48")
7	817156		1	SENDER, Water Temperature
	F733431		1	SENDER, Water Temperature (Dual)
NS	22-52382	■	1	BUSHING, Reducer-Water Sender
8	84-817157		1	SWITCH, Water Temperature
9	817189		1	SENDER, Tachometer
10	87-817169		1	SWITCH, Oil Pressure Alarm
11	817165		1	INTERRUPTOR, Circuit
12	817164		1	SENDER, Oil Pressure
13	59816		1	BREAKER, Circuit
NS	F733521	■	1	BRACKET, Circuit Breaker
NS	10-90074	■	2	SCREW, (#8-32 x .750), (8-32 x 3/4")-Circuit Breaker Mount
NS	54-78945	■	3	J CLAMP, Wire Harness Support
NS	F733455	■	5	TERMINAL, Male
NS	19-817187	■	1	PLUG, Two Pin
NS	19-817188	■	1	PLUG, Three Pin
NS	84-817193	■	1	BOOT, Insulating-Starter
NS	22-817191	■	1	CONNECTOR, Hose (1/8-27 NPTF)
NS	54-816311	■●	AR	TIE STRAP, (8.00 Inches), (8")
NS	92-78373 12	●■	AR	PAINT, Black-Spray Touch UP (12 Cans per Case)
NS	92-822886 12	●■	AR	PAINT, Black-Brush Touch UP (12 Bottles per Box)
NS	805630	■	1	BRACKET, Throttle
NS	10-89766	■	2	SCREW, (#10-32 x .620) Stainless Steel, (10-32 x 5/8")-Throttle Bracket
NS	13-26996	■	2	LOCKWASHER, (#10) Stainless Steel, (#10)-Throttle Bracket
NS	11-68219	■	2	NUT, (#10-32) Stainless Steel, (10-32)-Throttle Bracket
NS	89-817230	■	1	SOLENOID ASSEMBLY

● = AS REQUIRED

■ = NOT SOLD SEPARATELY

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18900A 1	TRANSMISSION.....	69	-	817178	DAMPER PLATE.....	63	7
18901A 1	TRANSMISSION.....	63	1	817185	MOUNT.....	11	35
18901A 1	TRANSMISSION.....	67	-	817189	SENDER.....	83	9
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18902A 1	TRANSMISSION.....	69	-	830105040	NUT.....	49	23
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71587A11	BOTTLE.....	83	2	830110080	NUT.....	47	20
72058	CAP.....	83	3	830111260	CLUTCH.....	51	5
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801765040	BASE.....	79	1	830114600	BOLT.....	11	36
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805925	BRACKET.....	79	-	830116107	SPACER.....	21	25
806238	BRACKET.....	63	13	830116107	SPACER.....	55	27
811946	SHAFT.....	77	63	830116199	SPACER.....	35	41
811947	SHAFT.....	77	62	830116221	SPACER.....	55	28
811947	SHAFT.....	77	62	830121231	COVER ASSEMBLY.....	29	1
811948	SHAFT.....	77	63	830124244	BOLT.....	15	8
811951	SHAFT.....	75	62	830124317	BOLT.....	55	29
811952	SHAFT.....	75	63	830126119	LOCK.....	19	18
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811961	HOUSING.....	73	1	830146177	THERMOSTAT.....	45	14
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813298	LEVER.....	73	30	830234371	HOSE.....	55	35
813305	DIPSTICK.....	67	31	830234434	HOSE.....	55	36
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813306	SHAFT.....	75	40	830311200	BRACKET.....	33	9
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814438A 1	TRANSMISSION.....	73	-	830912118	BOLT.....	7	28
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831043840	BRACKET.....	21	21	831541090	BOOT.....	51	20
831071450	PIPE.....	55	17	831601380	ARMATURE ASSEMBLY.....	51	2
831081100	CAP.....	17	10	831681280	RING.....	51	21
831091160	SHAFT.....	43	2	831681290	RING.....	51	22
831101541	PUMP ASSEMBLY.....	29	3	831691150	PLATE.....	21	16
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831110351	BOLT.....	11	24	831811170	VALVE.....	47	5
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831311510	IMPELLER.....	45	NS	832917104	PLUG.....	61	12
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831421070	SPACER.....	59	4	833051040	TANK ASSEMBLY.....	61	2
831431060	BEARING.....	59	12	833101510	FRAME ASSEMBLY.....	49	6
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833591810	FRAME.....	49	17	835818320	PLATE.....	33	30
833601010	COVER ASSEMBLY.....	41	1	835851020	SEAT.....	21	8
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837141940	PIPE .....	33	22	839108251	BOLT .....	53	5
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