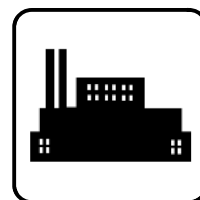


Service Parts

Engine



Engine Models:

Mitsubishi S12R-Y1PTA
S12R-Y2PTAW
Kohler D1250

Generator Models:

1250REOZM
1250REOZMB
1250REOZMD
1250ROZMC

KOHLER[®]
POWER SYSTEMS

9001
KOHLER
POWER SYSTEMS
NATIONALLY REGISTERED

TP-6283 7/07b

Table of Contents

Description	Page
Introduction	3
Number System Significance	3
Illustrations	3
How to Find Part Numbers	3
Specification Number Index	4
Group 1: Cylinder Head	6
Group 4: Valve Mechanism and Rocker Cover	7
Group 5: Camshaft	8
Group 7.1: Crankcase Assembly	9
Group 7.2: Crankcase Bearings	10
Group 7.3: Crankcase Covers	11
Group 11: Timing Gear Case	12
Group 13: Oil Pan	13
Group 14: Engine Mounting	14
Group 17: Piston and Connecting Rod	15
Group 20: Crankshaft, Flywheel, and Damper	16
Group 23: Timing Gear	18
Group 25.1: Accessory Drive, Front	19
Group 25.2: Accessory Drive, Rear	21
Group 30: Intake System	22
Group 32.1: Exhaust System	23
Group 32.2: Exhaust Elbow	24
Group 32.3: Exhaust Cover	25
Group 33.1: Turbocharger	26
Group 33.2: Turbocharger Components	27
Group 35: Oil Pump	28
Group 36.1: Oil Strainer	29
Group 36.2: Oil Thermostat	30
Group 36.3: Oil Pipes	31
Group 39: Oil Cooler	32
Group 40.1: Oil Filter	33
Group 40.2: Oil Filter Assembly	35
Group 40.3: Bypass Filter Piping	36
Group 42: Oil Filler and Level Gauge	38
Group 43: Breather	39
Group 45: Water Pump	40
Group 46.1: Thermostat and Covers	41
Group 46.2: Water Pipes	42
Group 48: Fan Drive	44
Group 50.1: Intercooler Thermostat	45
Group 50.2: Intercooler Pipes	46
Group 50.3: Intercooler Bypass Pipes	47
Group 53: Intercooler Pump	48
Group 55: Air Cooler	49
Group 61.1: Fuel Injection Pump	51
Group 61.2: Control Shaft	52
Group 61.3: Injector Nozzle Assembly	54
Group 61.4: Fuel Injection Pipes	55
Group 61.5: Fuel Leak and Feed Piping	57
Group 61.6: Injection Pump, Right Side	58
Group 61.7: Injection Pump, Left Side	62
Group 61.8: Feed Pump	66
Group 62.1: Fuel Filter Piping	67
Group 62.2: Fuel Filter	68
Group 63: Governor	69
Group 66: Starter	71
Group 68.1: Alternator Mounting	72
Group 68.2: Alternator	73
Group 71: Turning Gear	74
Group 87: Stop System	75
Group 90: Boost Sensor	77
Group 94.1: Overhaul Gasket Kit	78
Group 94.2: Overhaul Gasket Kit	79
Group 94.3: Oil Seal Kit	80

Introduction

This manual lists service replacement parts for engines used on 1250REOZM/ROZMC and 1250REOZMB/REOZMD generator sets.

Information in this publication represents data available at the time of print. The generator set manufacturer reserves the right to change this publication and the products represented without notice and without any obligation or liability whatsoever.

This manual includes the following main sections:

Table of Contents. Lists the sections of the manual.

Introduction (and other information sections). Contains introductory material about part numbers, illustrations, and hardware.

Group Parts Lists. Lists the part numbers of parts in the groups.

Number System Significance

This manual uses the following numbering systems:

Group Number. A unique number representing a parts group needed to assemble a generator set function. For example, Group 1 is the Cylinder Head Group.

Part Number. The part number identifies an individual assembly, subassembly, component, or accessory kit.

Illustrations

Illustrations (or exploded-view drawings) best representing the widest range of variations accompany most groups in this manual. Illustrations do not depict all details and may not show all parts. Do not use illustrations for assembly or disassembly.

How to Find Part Numbers

Use the following steps to locate a service replacement part.

1. **Identify the group** most likely to include the service part number.
2. **Page forward to locate the group** identified in step 1 or find the appropriate page in the Table of Contents.
3. **Find the part on the illustration** and note the item number of the part or **find the part description in the parts list.**

Specification Number Index

Group Title	<i>Cylinder Head</i>	<i>Valve Mechanism</i>	<i>Rocker Cover</i>	<i>Camshaft</i>	<i>Crankcase Assembly</i>	<i>Crankcase Bearings</i>	<i>Crankcase Covers</i>	<i>Timing Gear Case</i>	<i>Oil Pan</i>	<i>Engine Mounting</i>	<i>Piston and Connecting Rod</i>	<i>Crankshaft and Flywheel</i>	<i>Timing Gear</i>	<i>Accessory Drive, Front</i>
Group No.	1	4	4	5	7.1	7.2	7.3	11	13	14	17	20	23	25.1
Variation Number														

Model														
1250REOZM/1250ROZMC														
S12R-Y1PTA-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1250REOZMB/1250REOZMD														
S12R-Y2PTAW	2	2	2	1	2	2	2	2	2	1	2	2	2	2

Group Title	<i>Accessory Drive, Rear</i>	<i>Intake System</i>	<i>Exhaust System</i>	<i>Exhaust Elbow</i>	<i>Exhaust Cover</i>	<i>Turbocharger</i>	<i>Turbocharger Components</i>	<i>Oil Pump</i>	<i>Oil Strainer</i>	<i>Oil Thermostat</i>	<i>Oil Pipes</i>	<i>Oil Cooler</i>	<i>Oil Filter</i>	<i>Oil Filter Assembly</i>
Group No.	25.2	30	32.1	32.2	32.3	33.1	33.2	35	36.1	36.2	36.3	39	40.1	40.2
Variation Number														

Model														
1250REOZM/1250ROZMC														
S12R-Y1PTA-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1250REOZMB/1250REOZMD														
S12R-Y2PTAW	2	2	2	2	2	2	1	1	2	2	2	2	2	2

Specification Number Index

Group Title	<i>Bypass Filter Piping</i>	<i>Oil Filler and Level Gauge</i>	<i>Breather</i>	<i>Water Pump</i>	<i>Thermostat and Covers</i>	<i>Water Pipes</i>	<i>Fan Drive</i>	<i>Intercooler Thermostat</i>	<i>Intercooler Pipes</i>	<i>Intercooler Bypass Pipes</i>	<i>Intercooler Pump</i>	<i>Air Cooler</i>	<i>Fuel Injection Pump</i>	<i>Control Shaft</i>
Group No.	40.3	42	43	45	46.1	46.2	48	50.1	50.2	50.3	53	55	61.1	61.2
	Variation Number													

Model														
1250REOZM/1250ROZMC														
S12R-Y1PTA-2	—	1	1	1	1	1	1	—	—	—	—	1	1	1
1250REOZMB/1250REOZMD														
S12R-Y2PTAW	1	1	2	2	2	2	1	1	1	1	1	2	2	2

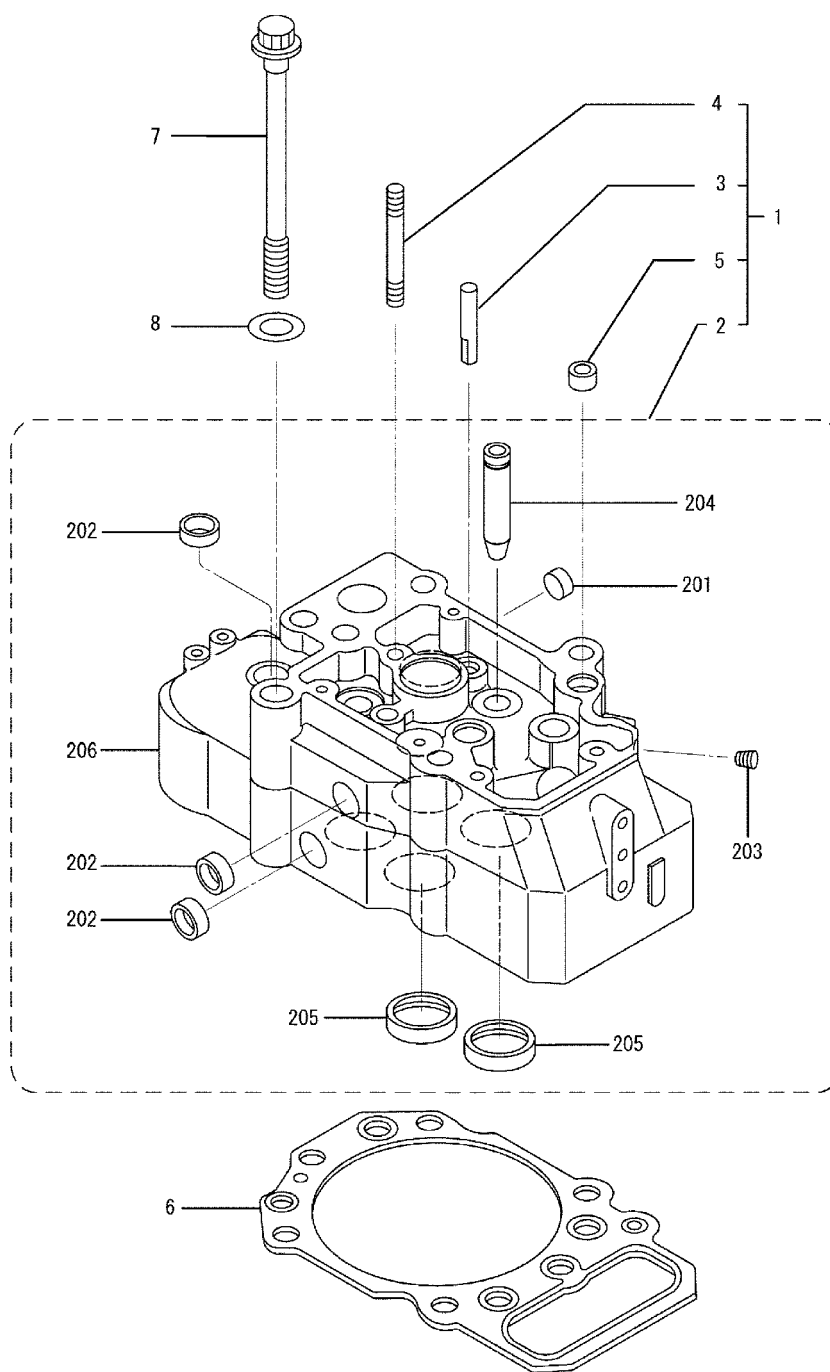
Group Title	<i>Injector Nozzle Assembly</i>	<i>Fuel Injection Pipes</i>	<i>Fuel Leak and Feed Piping</i>	<i>Injection Pump, Right</i>	<i>Injection Pump, Left</i>	<i>Feed Pump</i>	<i>Fuel Filter Piping</i>	<i>Fuel Filter</i>	<i>Governor</i>	<i>Starter</i>	<i>Alternator Mounting</i>	<i>Alternator</i>	<i>Turning Gear</i>
Group No.	61.3	61.4	61.5	61.6	61.7	61.8	62.1	62.2	63	66	68.1	68.2	71
	Variation Number												

Model														
1250REOZM/1250ROZMC														
S12R-Y1PTA-2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1250REOZMB/1250REOZMD														
S12R-Y2PTAW	2	2	1	2	2	1	1	1	2	1	2	1	1	1

Group Title	<i>Stop System</i>	<i>Boost Sensor</i>	<i>Overhaul Gasket Kit</i>	<i>Overhaul Gasket Kit</i>	<i>Oil Seal Kit</i>								
Group No.	87	90	94.1	94.2	94.3								
	Variation Number												

1250REOZM/1250ROZMC														
S12R-Y1PTA-2	1	—	1	1	1									
1250REOZMB/1250ROZMD														
S12R-Y2PTAW	2	1	TBD	TBD	TBD									

Group 1: Cylinder Head



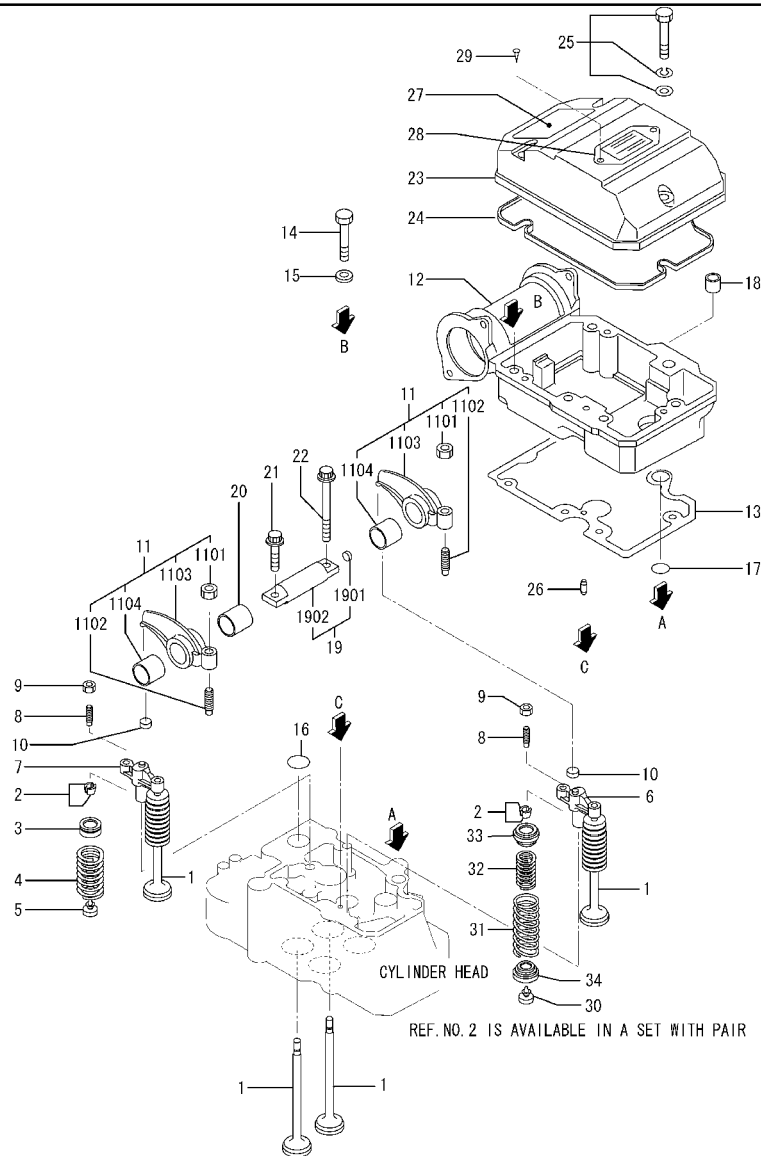
6283-1

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM31263	Head assembly, cylinder	12	12	205	GM36997	Seat, valve, 0.6 oversized	AR	AR
2	X	Head subassembly, cylinder	12	12	206	X	Head, cylinder	12	12
201	GM14490	Cap, sealing	12	12	3	GM14625	Guide	24	24
202	GM15518	Cap, sealing	84	84	4	GM21689	Stud	12	12
203	GM15520	Plug, tapered	12	12	5	GM14916	Pin, dowel	12	12
204	GM15590	Guide, valve	48	48	6	GM21688	Gasket, cylinder head	12	
205	GM15602	Seat, valve, exhaust	48	48	6	GM57186	Gasket, cylinder head		12
205	GM36996	Seat, valve, 0.3 oversized	AR	AR	7	GM14917	Bolt	72	72
					8	GM14628	Washer	72	72

AR As Required

X Part is not sold separately.

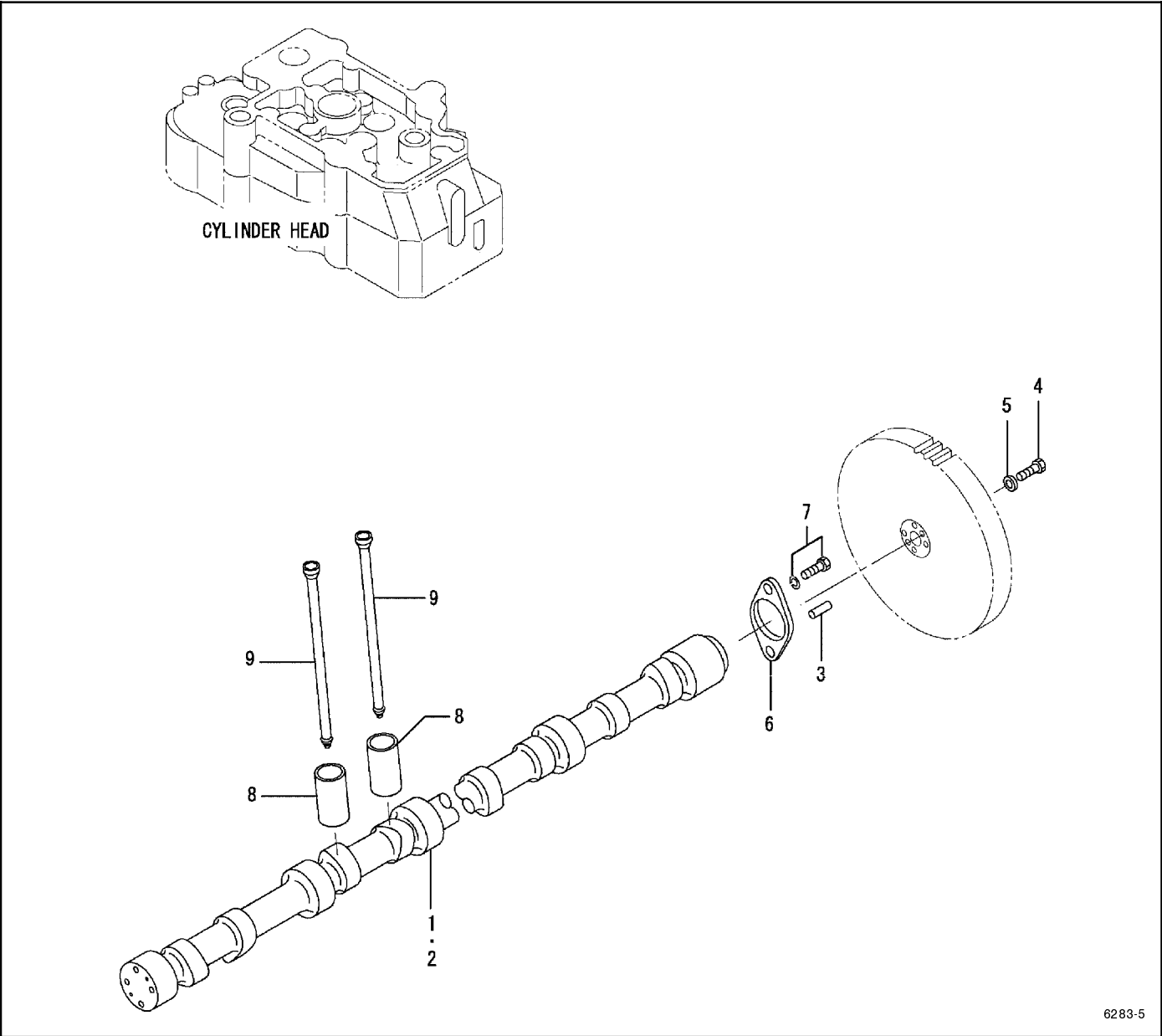
Group 4: Valve Mechanism and Rocker Cover



6283-4.1

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM21693	Valve	48	48	17	GM21611	O-ring	12	12
2	GM14570	Cotter	96	96	18	GM14916	Pin, dowel	12	12
3	GM14918	Rotator	24	24	19	GM37000	Shaft assembly, rocker	12	12
4	GM15606	Spring, valve	24	24	1901	GM14489	Cap, sealing	12	12
5	GM31269	Seal, valve stem	24		1902	X	Shaft, rocker	12	12
5	GM14626	Seal, valve stem		24	20	GM15605	Spacer, rocker	12	
6	GM31265	Bridge, exhaust	12		20	GM57607	Spacer, rocker		12
6	GM37190	Bridge, exhaust		12	21	GM16045	Bolt, flange	12	12
7	GM36998	Bridge, inlet	12	12	22	GM15609	Bolt	12	12
8	GM14893	Screw	24	24	23	GM21692	Cover, rocker	12	12
9	GM15166	Nut	24	24	24	GM15617	O-ring, rocker cover	12	12
10	GM14557	Cap	24	24	25	GM22113	Bolt w/washer	36	36
11	GM21691	Rocker assembly	24		26	GM15186	Pin	12	12
11	GM57606	Rocker assembly		24	27	GM34066	Plate, caution	1	
1101	GM15167	Nut	24	24	28	X	Plate, caution	1	
1102	GM14892	Screw	24	24	29	GM37001	Rivet, screw	4	
1103	X	Rocker	24	24	30	GM31269	Seal, valve stem	24	24
1104	GM15615	Bushing, rocker	24	24	31	GM37002	Spring, exhaust	24	24
12	GM36999	Case, rocker	12	12	32	GM31271	Spring, valve exhaust	24	24
13	GM31267	Packing, rocker case	12	12	33	GM31272	Rotor, exhaust	24	24
14	GM15959	Bolt	60	60	34	GM31273	Retainer	24	24
15	GM36363	Washer	60	60	X Part is not sold separately.				
16	GM31268	O-ring	12	12					

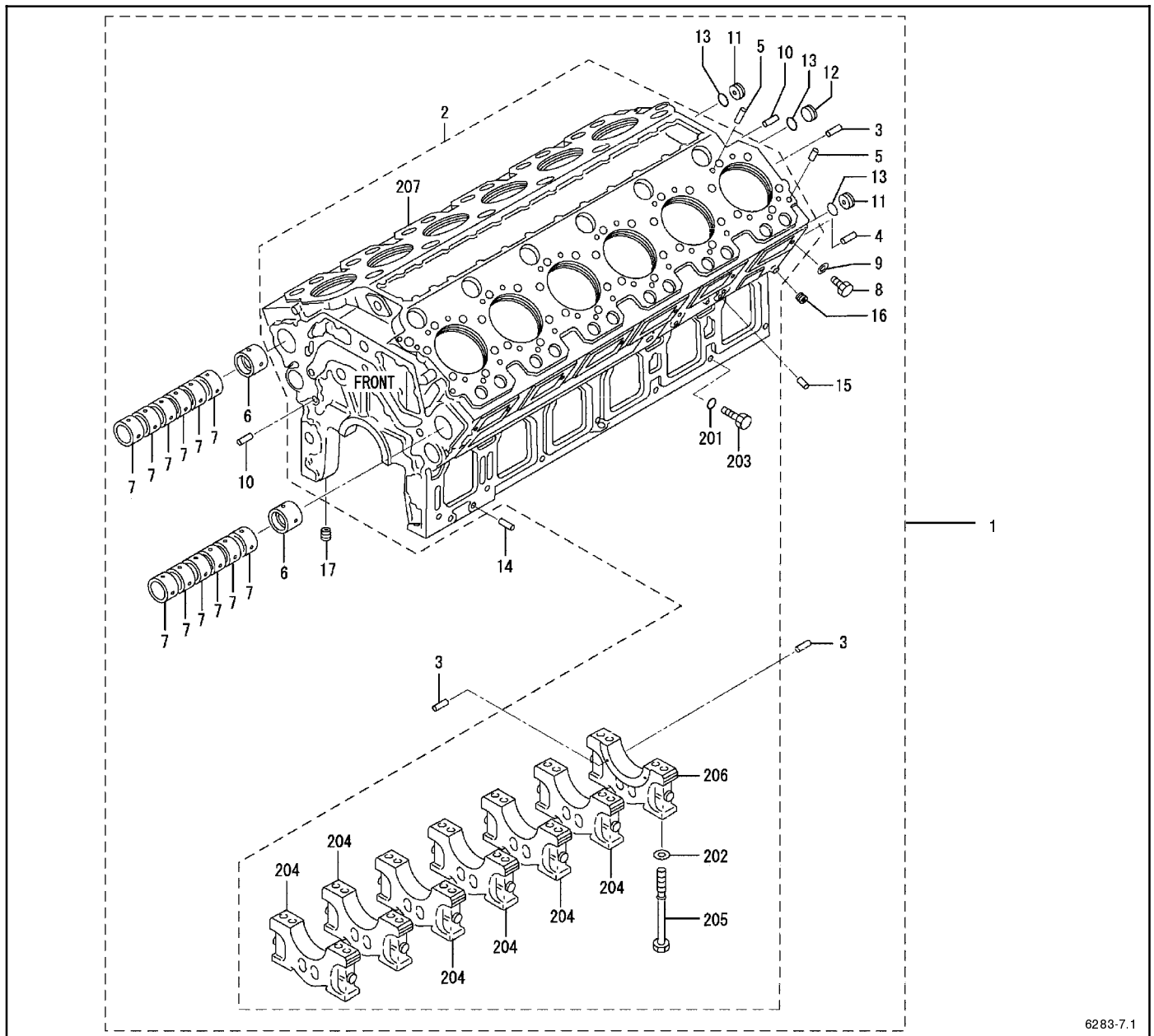
Group 5: Camshaft



6283-5

Item	Part No.	Description	Qty.
			Var.
1	GM37003	Camshaft, left side	1
2	GM37004	Camshaft, right side	1
3	GM15187	Pin	4
4	GM31619	Bolt	8
5	GM36363	Washer	8
6	GM15618	Plate, cam thrust	2
7	GM15151	Bolt	4
8	GM15621	Tappet	24
9	GM37005	Rod, push	24

Group 7.1: Crankcase Assembly

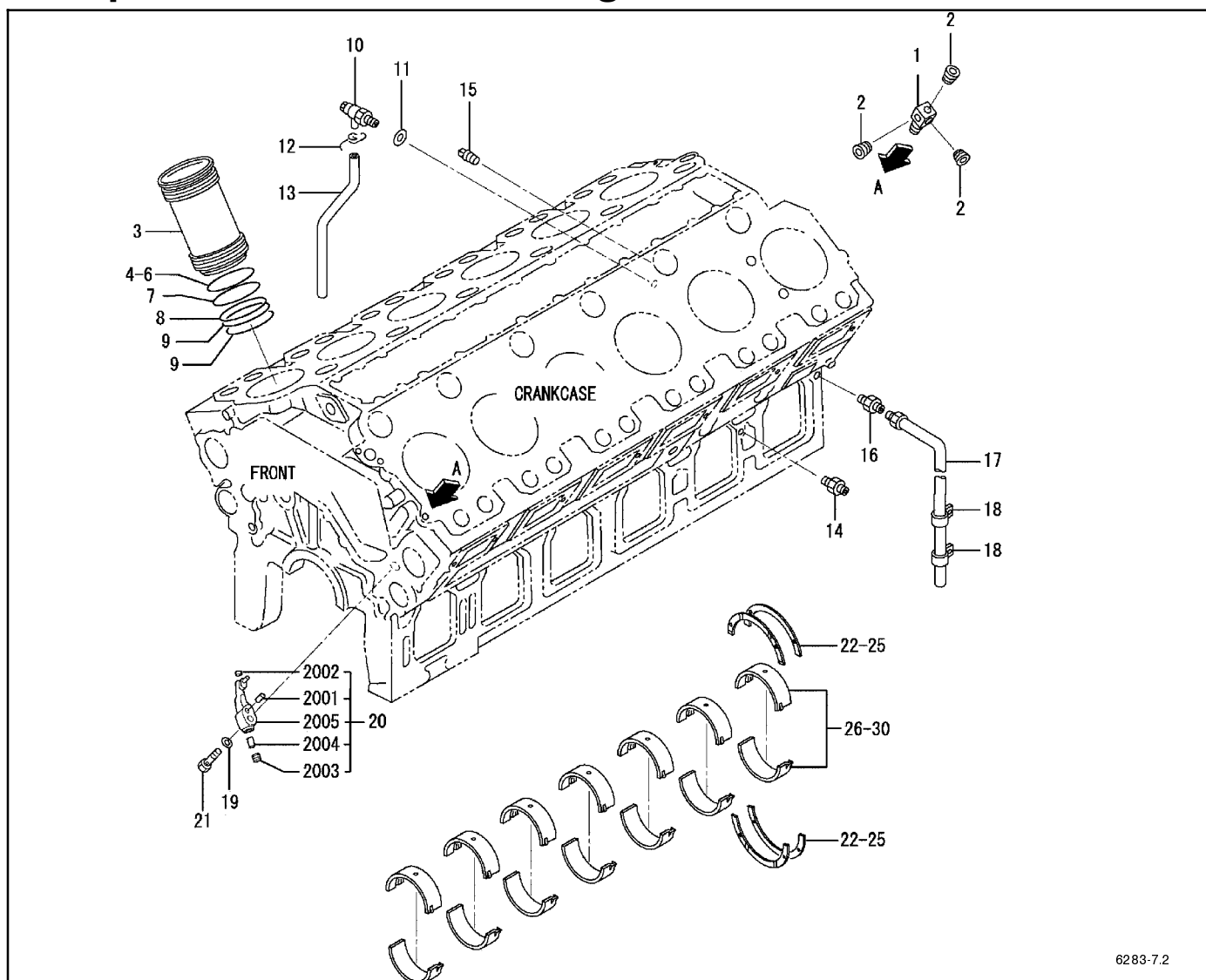


6283-7.1

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM37006	Crankcase assembly	1		6	GM15625	Bushing, cam	2	2
1	GM57608	Crankcase assembly		1	7	GM15626	Bushing, cam	12	12
2	X	Crankcase subassembly	1	1	8	GM15627	Bolt set	14	14
201	GM14508	O-ring	14	14	9	GM14529	Washer, sealing	14	14
202	GM14571	Washer	28	28	10	GM14562	Pin, dowel	2	2
203	GM21745	Bolt, cap side	14	14	11	GM15622	Plate, nozzle	2	2
204	X	Cap, bearing	6	6	12	GM14610	Plate	1	1
205	GM21748	Bolt, bearing cap	28	28	13	GM14511	O-ring	3	3
206	X	Cap, bearing	1	1	14	GM15190	Pin, dowel	4	4
207	X	Crankcase	1	1	15	GM15187	Pin	4	4
3	GM21746	Pin, dowel	6	6	16	GM14496	Plug, tapered	2	2
4	GM37007	Pin, dowel	2	2	17	GM14497	Plug, tapered	1	1
5	GM14563	Pin, dowel	24	24					

X Part is not sold separately.

Group 7.2: Crankcase Bearings



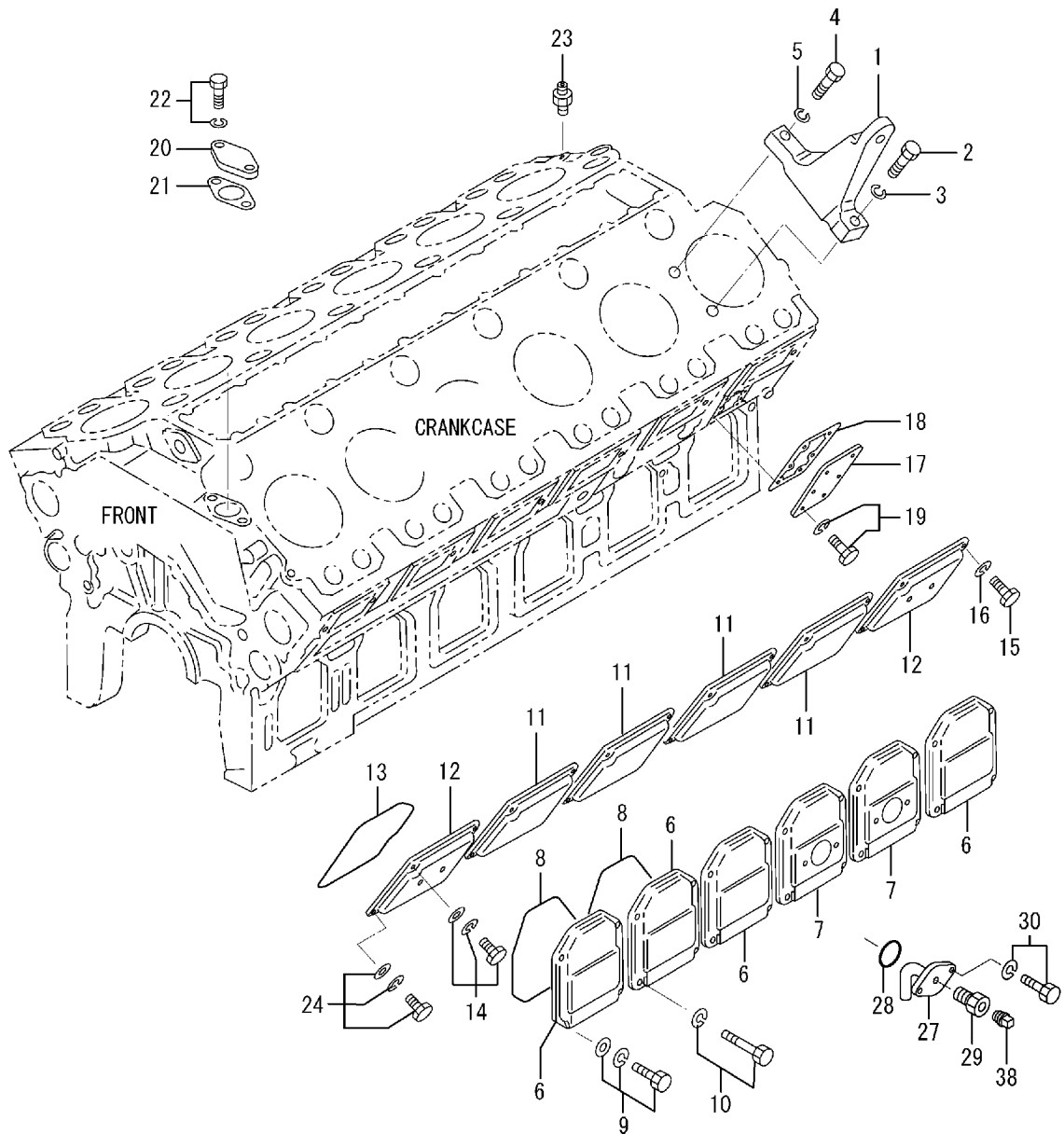
6283-7.2

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM21832	Connector	1	1	18	GM57611	Clip	12	2
2	GM15246	Plug, tapered	3	3	19	GM14887	Washer	12	12
3	GM37008	Liner, cylinder	12	12	20	GM31621	Nozzle assembly	12	12
4	GM21695	Ring, liner, 1.00 mm	AR	AR	2001	GM15186	Pin	12	12
5	GM21696	Ring, liner, 0.05 mm	AR	AR	2002	GM21629	Screw, set	12	12
6	GM21697	Ring, liner, 0.15 mm	AR	AR	2003	GM21630	Screw, set	12	12
7	GM15641	O-ring, liner	12	12	2004	GM21654	Valve, check	12	12
8	GM15591	O-ring, liner	12	12	2005	X	Body, nozzle	12	12
9	GM15592	O-ring, liner	24	24	21	GM21747	Bolt, eye	12	12
10	GM14622	Cock, drain	2		22	GM21756	Bearing, thrust, standard	4	4
10	GM57191	Cock, drain		2	23	GM21757	Bearing, thrust, 0.25 oversize	4	4
11	GM14532	Washer, sealing	2	2	24	GM21758	Bearing, thrust, 0.50 oversize	4	4
12	GM14558	Clamp	2	2	25	GM21759	Bearing, thrust, 0.75 oversize	4	4
13	GM14620	Pipe, drain	2	2	26	GM21751	Bearing set, standard	7	7
14	GM16029	Connector	2	2	27	GM21752	Bearing set, 0.25 undersize	7	7
15	GM15246	Plug, tapered	1	1	28	GM21753	Bearing set, 0.50 undersize	7	7
16	GM15230	Connector	1	1	29	GM21754	Bearing set, 0.75 undersize	7	7
17	GM22031	Pipe	1	1	30	GM21755	Bearing set, 1.00 undersize	7	7
18	GM15082	Clip	2						

AR As Required

X Part is not sold separately.

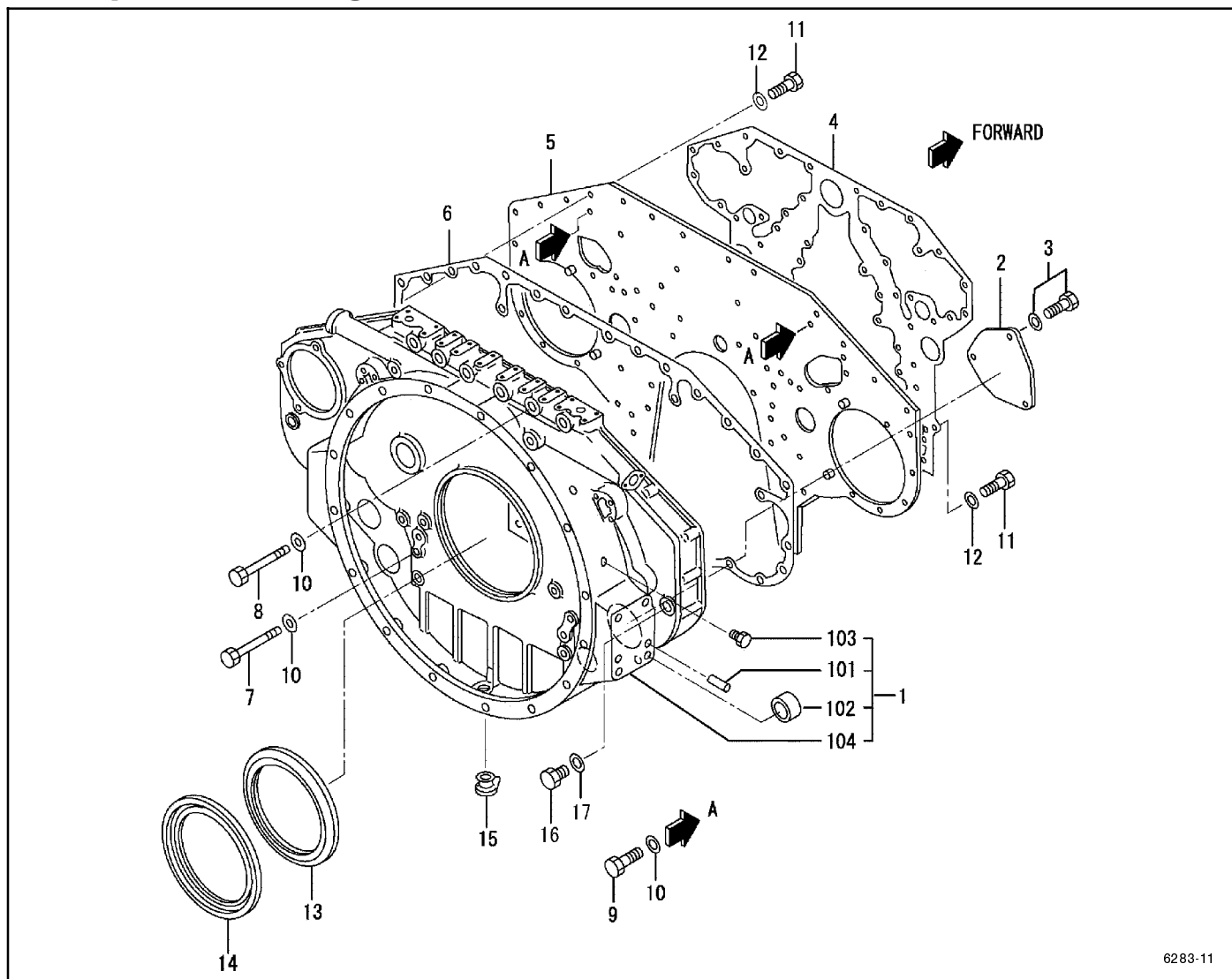
Group 7.3: Crankcase Covers



6283-7.3

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM21750	Hanger	4	4	15	GM15115	Bolt	4	4
2	GM15125	Bolt	4	4	16	GM15180	Washer, spring	4	4
3	GM15184	Washer, spring	4	4	17	GM31622	Cover	2	2
4	GM22099	Bolt	4	4	18	GM21929	Packing	2	2
5	GM22120	Washer, spring	4	4	19	GM15150	Bolt w/washer	12	12
5	GM15182	Washer, spring	4	4	20	GM14895	Cover	1	1
6	GM21699	Cover, side	10	10	21	GM21667	Packing	1	1
7	GM21700	Cover, side	2	2	22	GM15151	Bolt w/washer	2	2
8	GM15642	O-ring	12	12	23	GM16030	Connector	1	1
9	GM15157	Bolt w/washer	43	43	24	GM15156	Bolt w/washer	24	24
10	GM22109	Bolt w/washer	1	1	27	GM57609	Connector		1
11	GM21702	Cover, cam room	9	9	28	GM14516	O-ring		1
12	GM21703	Cover, cam room	3	3	29	GM15085	Connector		1
13	GM15643	O-ring	12	12	30	GM15141	Bolt		2
14	GM15157	Bolt w/washer	20	20	38	GM15246	Plug, tapered		2

Group 11: Timing Gear Case

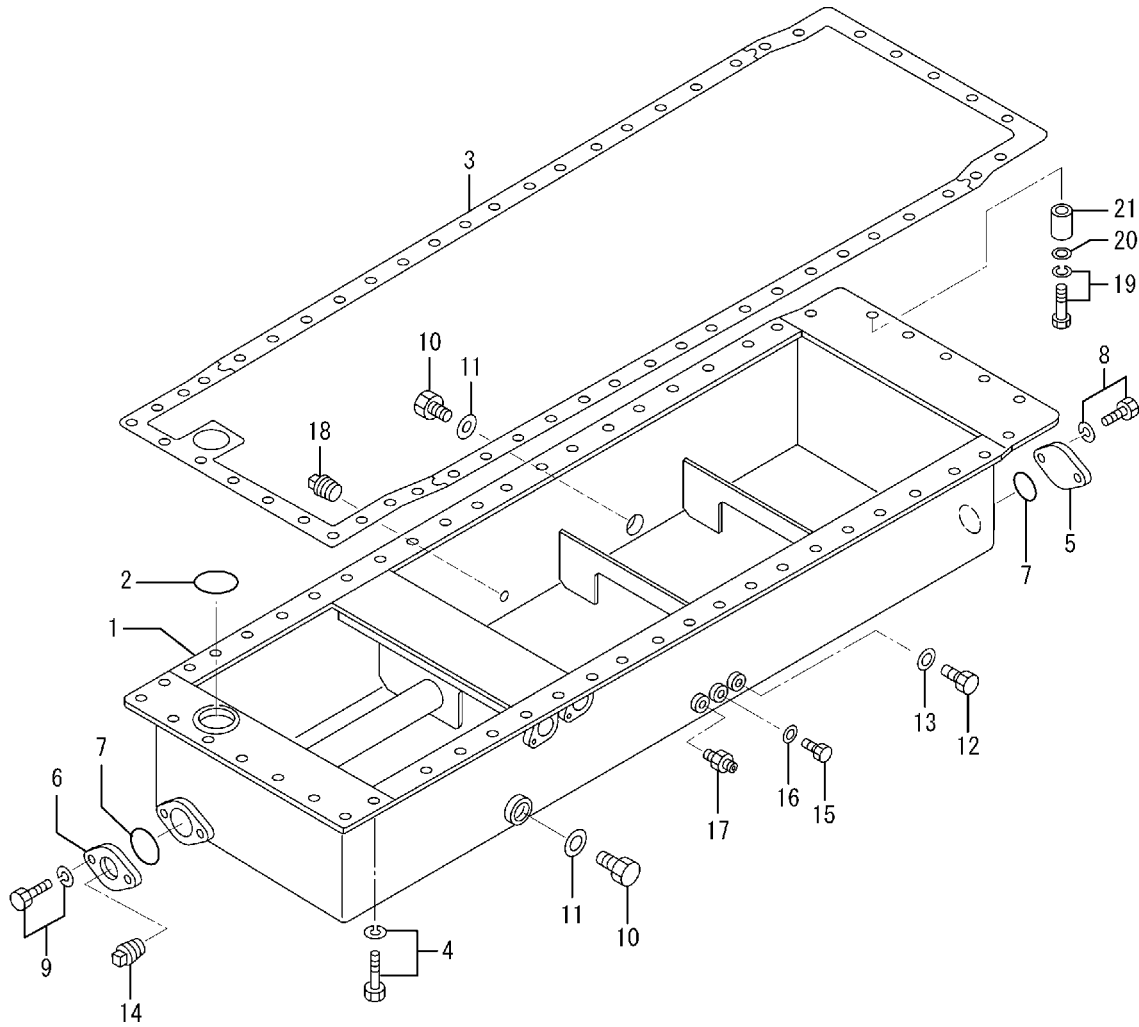


6283-11

Item	Part No.	Description	Qty.	
			1	2
1	GM37010	Case assembly, timing	1	
101	GM57612	Case assembly, timing		1
101	GM22123	Pin, dowel	4	4
102	GM14521	Bushing	1	1
103	GM14901	Plug	1	1
104	X	Case, timing gear	1	1
2	GM21912	Cover	1	1
3	GM15149	Bolt w/washer	3	3
4	GM21761	Gasket	1	1
5	GM21764	Plate, rear	1	1
6	GM21763	Gasket	1	1
7	GM21635	Bolt	10	10
8	GM21634	Bolt	6	6
9	GM15123	Bolt	2	2
10	GM14559	Washer	18	18
11	GM15107	Bolt	34	34
12	GM36363	Washer	34	34
13	GM21683	Slinger	1	1
14	GM14958	Oil seal	1	1
15	GM14459	Plug	1	1
16	GM15239	Plug, drain	1	1
17	GM14532	Washer, sealing	2	2

X Part is not sold separately.

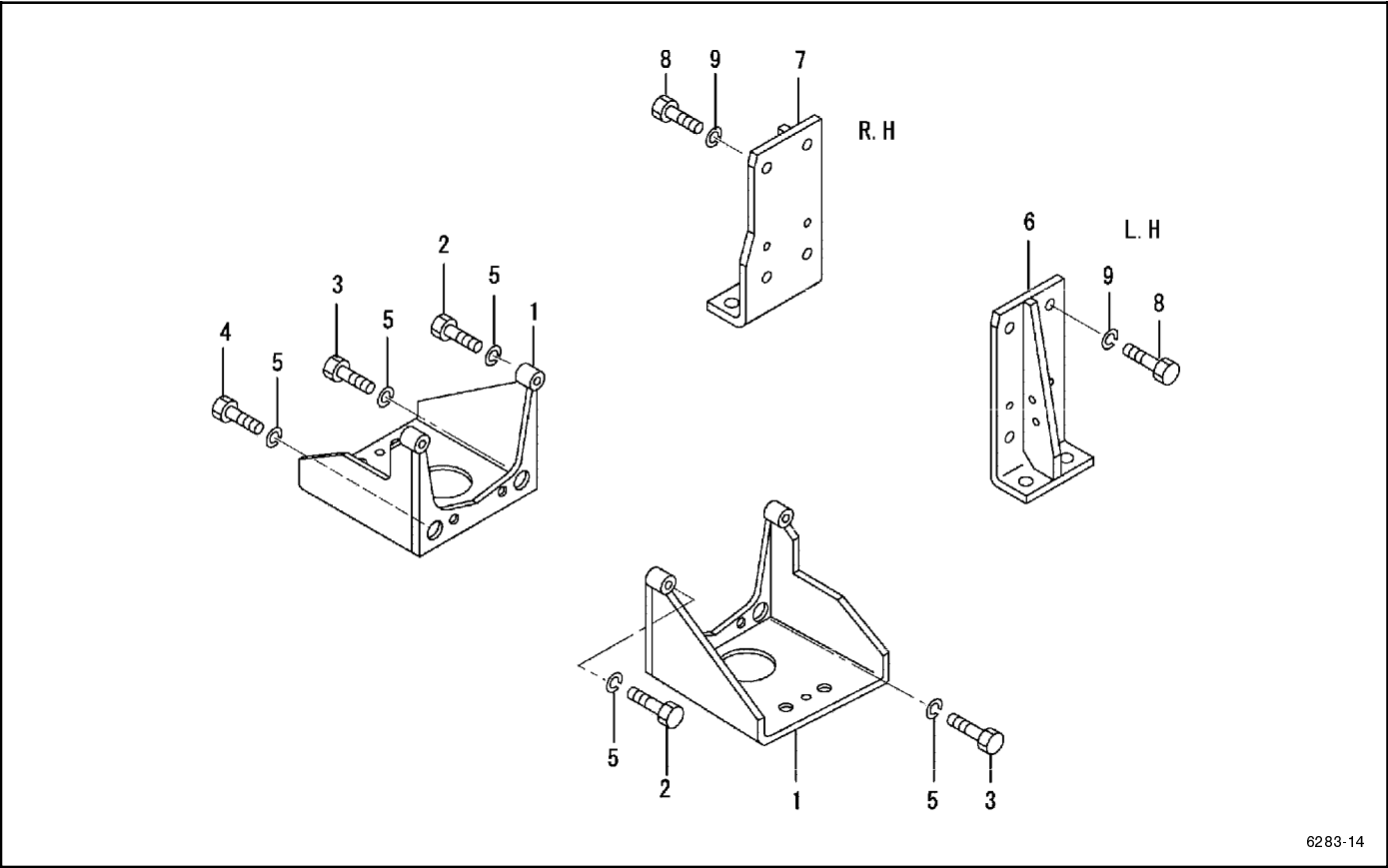
Group 13: Oil Pan



6283-13

Item	Part No.	Description	Qty.	
			1	2
1	GM37011	Pan, oil	1	1
2	GM14519	O-ring	1	1
3	GM37012	Packing, oil pan	1	1
4	GM15152	Bolt w/washer	48	48
5	GM14627	Cover	1	1
6	GM22028	Flange	1	
6	GM57613	Flange		1
7	GM14517	O-ring	2	2
8	GM15150	Bolt w/washer	2	2
9	GM15151	Bolt w/washer	2	2
10	GM15241	Plug, drain	2	2
11	GM14534	Washer, sealing	2	2
12	GM15239	Plug, drain	1	1
13	GM14532	Washer, sealing	1	1
14	GM22128	Plug, tapered	1	1
15	GM15238	Plug, screw	1	1
16	GM14531	Washer, sealing	1	1
17	GM16030	Connector	1	1
18	GM16035	Plug, tapered	1	1
19	GM22109	Bolt w/washer	6	6
20	GM15175	Washer	6	6
21	GM37013	Collar	6	6

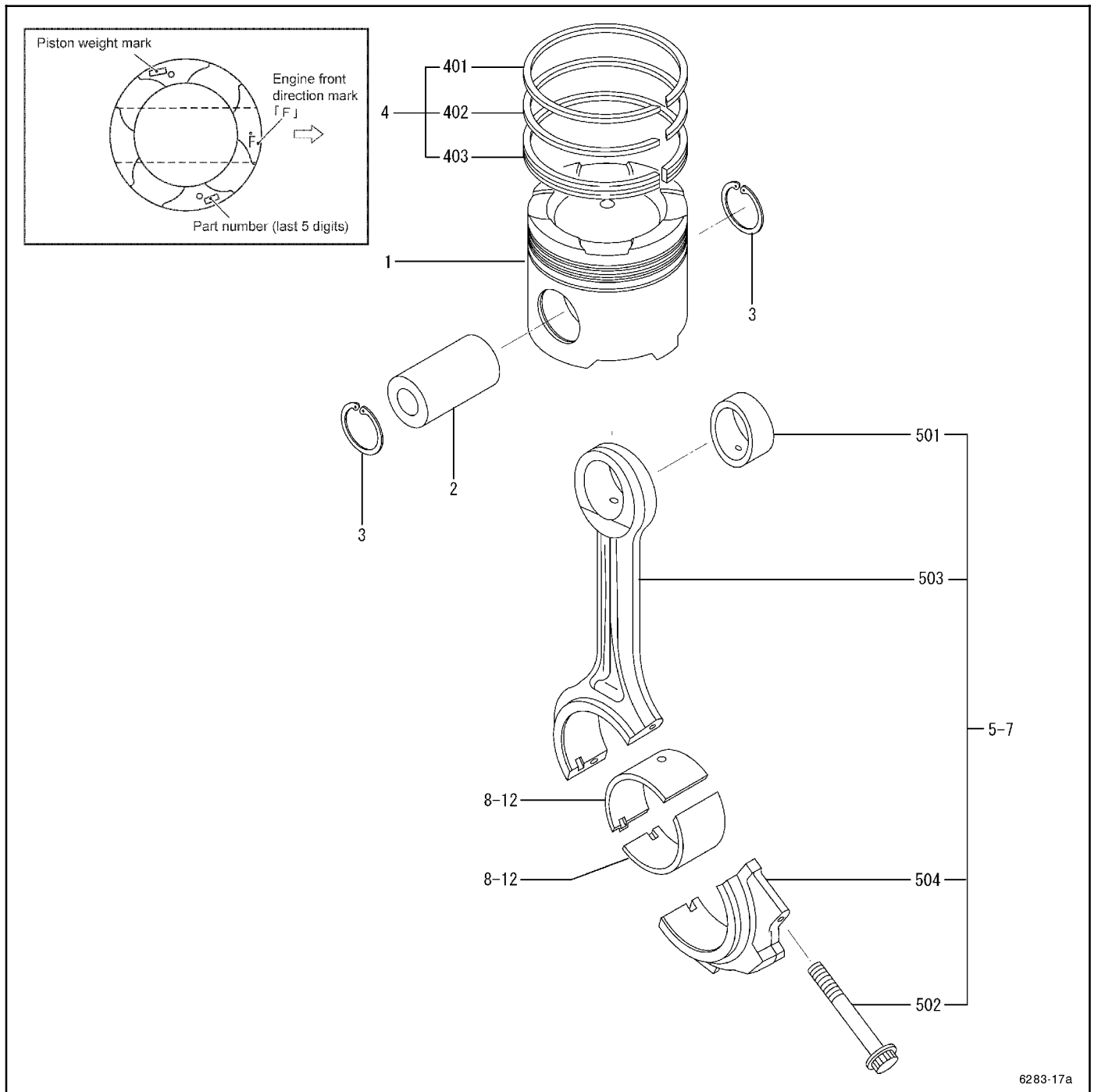
Group 14: Engine Mounting



6283-14

Item	Part No.	Description	Qty.
			Var. 1
1	GM21767	Bracket, mounting	2
2	GM22103	Bolt	4
3	GM22102	Bolt	3
4	GM22101	Bolt	1
5	GM15184	Washer, spring	8
6	GM37014	Bracket, mounting	1
7	GM37015	Bracket, mounting	1
8	GM36369	Bolt	8
9	GM15184	Washer, spring	8

Group 17: Piston and Connecting Rod



6283-17a

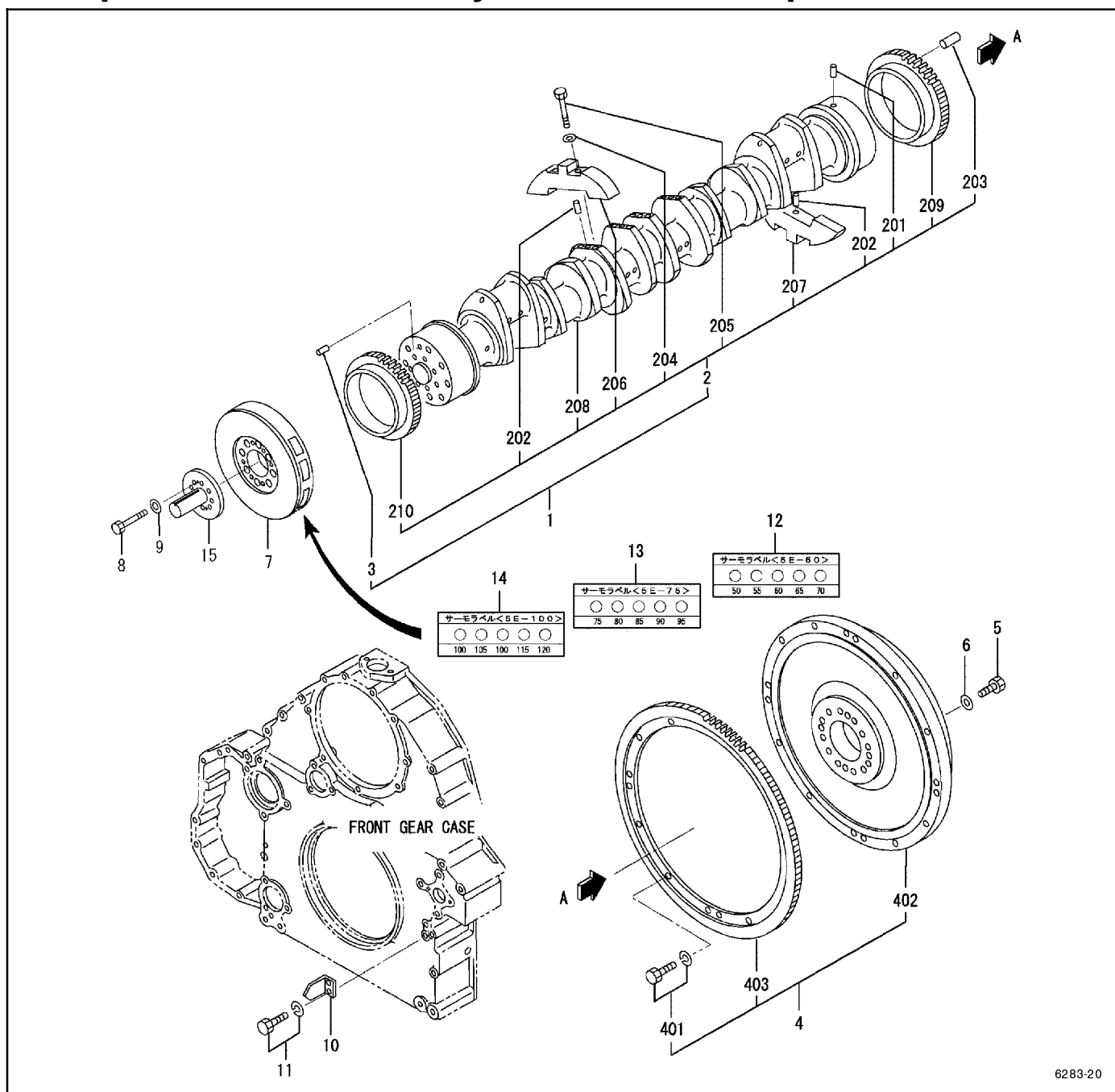
Item	Part No.	Description	Qty.	
			1	2
1	GM31307	Piston*	12	12
1	GM57614	Piston*	12	12
2	GM21706	Pin, piston	12	12
3	GM16019	Ring, snap	24	24
4	GM21705	Ring set, piston	12	12
401	X	Ring, compression	12	12
402	X	Ring, compression	12	12
403	X	Ring, oil	12	12
5	GM37016	Connecting rod assembly, std	12	12
501	GM21707	Bushing, connecting rod	12	12
502	GM21713	Bolt, connecting rod	24	24

Item	Part No.	Description	Qty.	
			1	2
503	X	Connecting rod	12	12
504	X	Cap, connecting rod	12	12
6	GM37017	Connecting rod assy, 14.05 kg	12	12
7	GM37018	Connecting rod assy, 14.20 kg	12	12
8	GM21708	Bearing, connecting rod, std.	24	24
9	GM21709	Bearing, connecting rod, US 0.25	24	24
10	GM21710	Bearing, connecting rod, US 0.50	24	24
11	GM21711	Bearing, connecting rod, US 0.75	24	24
12	GM21712	Bearing, connecting rod, US 1.00	24	24

X Part is not sold separately.

* Include weight when ordering. Weight is stamped on top of piston.

Group 20: Crankshaft, Flywheel, and Damper

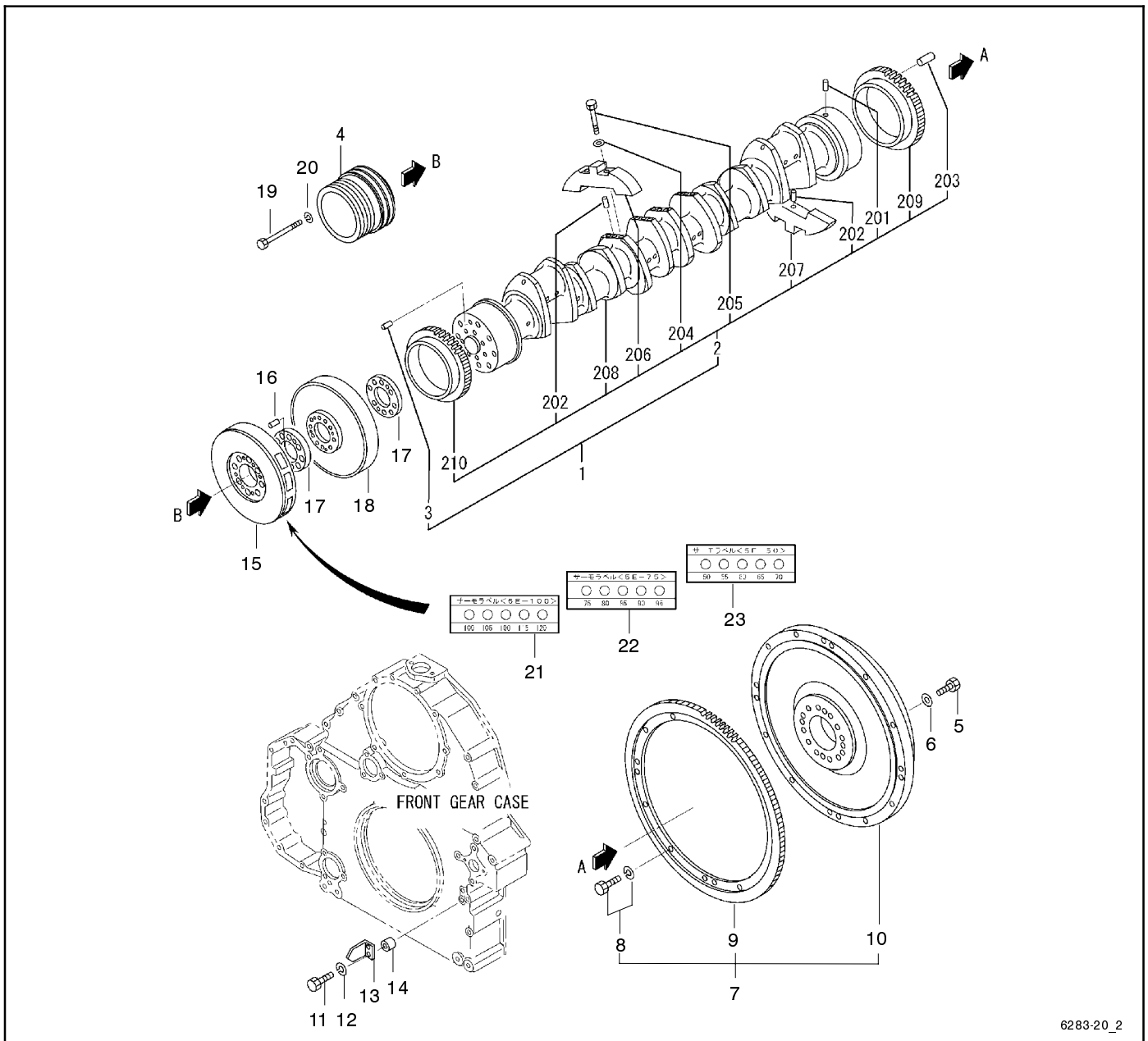


6283-20

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM37019	Crankshaft assembly	1	401	GM15145	Bolt w/washer	12
2	X	Crankshaft subassembly	1	402	X	Flywheel	1
201	GM15185	Pin, dowel	1	403	GM37022	Gear, ring	1
202	GM15190	Pin, dowel	8	5	GM15966	Bolt	12
203	GM21666	Pin, dowel	2	6	GM14628	Washer	12
204	GM14628	Washer	16	7	GM37023	Damper assembly	1
205	GM21684	Bolt	16	8	GM37024	Bolt	8
206	X	Weight, balance	7	9	GM14628	Washer	8
207	X	Weight, balance	1	10	GM37025	Pointer	1
208	X	Crankshaft	1	11	GM15149	Bolt w/washer	2
209	GM37020	Gear, crankshaft	1	12	GM34135	Label set, thermo, 50-70 deg. C	1
210	GM34124	Gear, crankshaft	1	13	GM14584	Label set, thermo, 75-95 deg. C	1
3	GM15190	Pin, dowel	2	14	GM14585	Label set, thermo, 100-120 deg. C	1
4	GM37021	Flywheel assembly	1	15	GM37026	Shaft	1

X Part is not sold separately.

Group 20: Crankshaft, Flywheel, and Damper

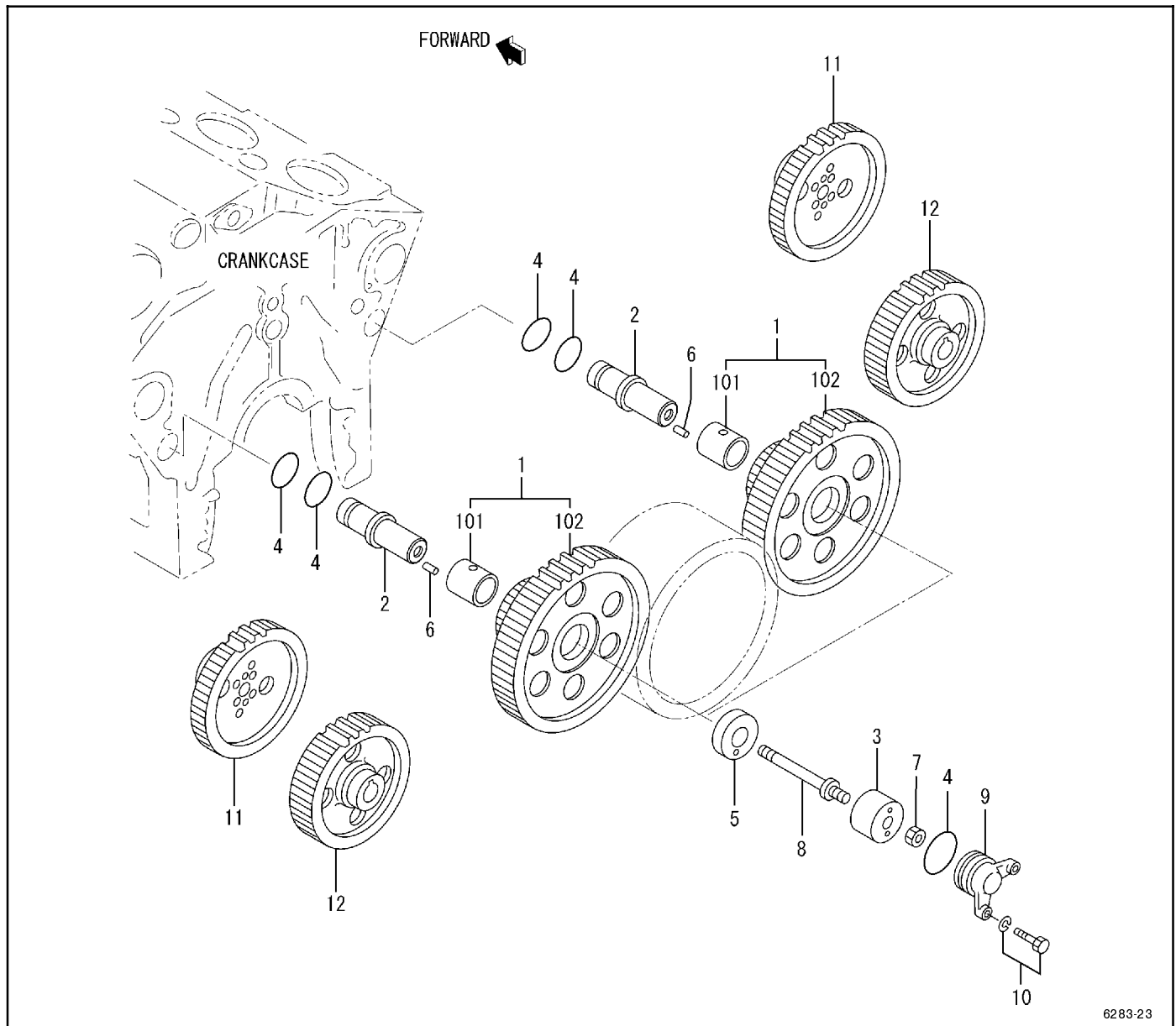


6283-20_2

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM37019	Crankshaft assembly	1	8	GM15145	Bolt, w/washer	12
2	X	Crankshaft subassembly	1	9	X	Flywheel	1
201	GM15185	Pin, dowel	1	10	GM37022	Gear, ring	1
202	GM15190	Pin, dowel	8	11	GM15114	Bolt	2
203	GM21666	Pin, dowel	2	12	GM15180	Washer, spring	2
204	GM14628	Washer	16	13	GM14960	Pointer	1
205	GM21684	Bolt	16	14	GM14993	Boss	2
206	X	Weight, balance	7	15	GM37023	Damper	1
207	X	Weight, balance	1	16	GM57617	Pin, dowel	2
208	X	Crankshaft	1	17	GM14962	Spacer, damper	2
209	GM37020	Gear, crankshaft	1	18	GM14961	Damper	1
210	GM34124	Gear, crankshaft	1	19	GM14551	Bolt	8
3	GM15190	Pin, dowel	2	20	GM14628	Washer	8
4	GM57615	Pulley, crankshaft	1	21	GM57319	Label set 75 deg. C to 95 deg. C	1
5	GM15966	Bolt	12	22	GM57320	Label set 100 deg. C to 120 deg. C	1
6	GM14628	Washer	12	23	GM57321	Label set 50 deg. C to 70 deg. C	1
7	GM57616	Flywheel assy.	7				

X Part is not sold separately.

Group 23: Timing Gear

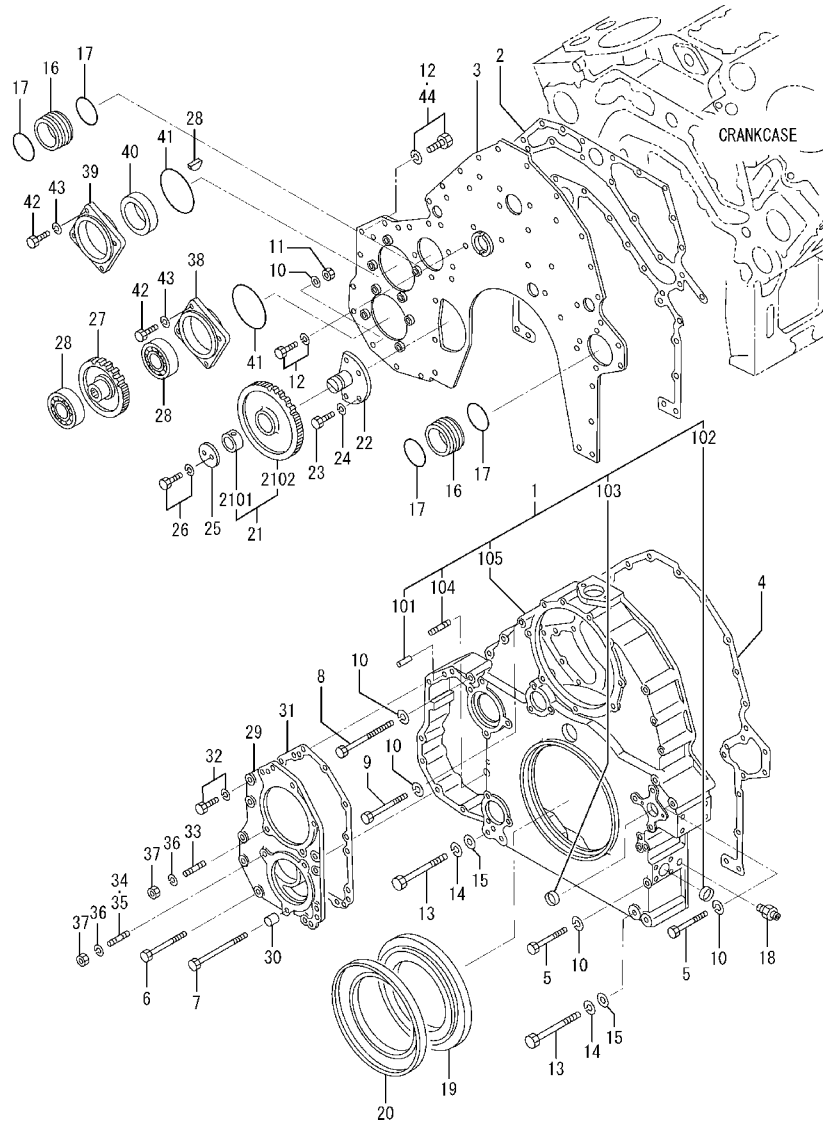


6283-23

Item	Part No.	Description	Qty.	
			1	2
1	GM31624	Gear assembly, idler	2	2
1	GM57618	Gear assembly, idler		2
101	GM31625	Bushing, idler	2	
101	GM57619	Bushing, idler		2
102	X	Gear, idler	2	2
2	GM37027	Shaft, idler	2	
2	GM57620	Shaft, idler		2
3	GM37028	Collar	2	2
4	GM14517	O-ring	6	6
5	GM21780	Plate thrust	2	2
6	GM37007	Pin, dowel	2	2
7	GM31627	Nut, idler collar	2	2
8	GM21787	Bolt, idler	2	2
9	GM14963	Cover	2	2
10	GM15151	Bolt w/washer	4	4
11	GM21784	Gear, camshaft	2	2
12	GM21785	Gear, injection pump	2	2

X Part is not sold separately.

Group 25.1: Accessory Drive, Front

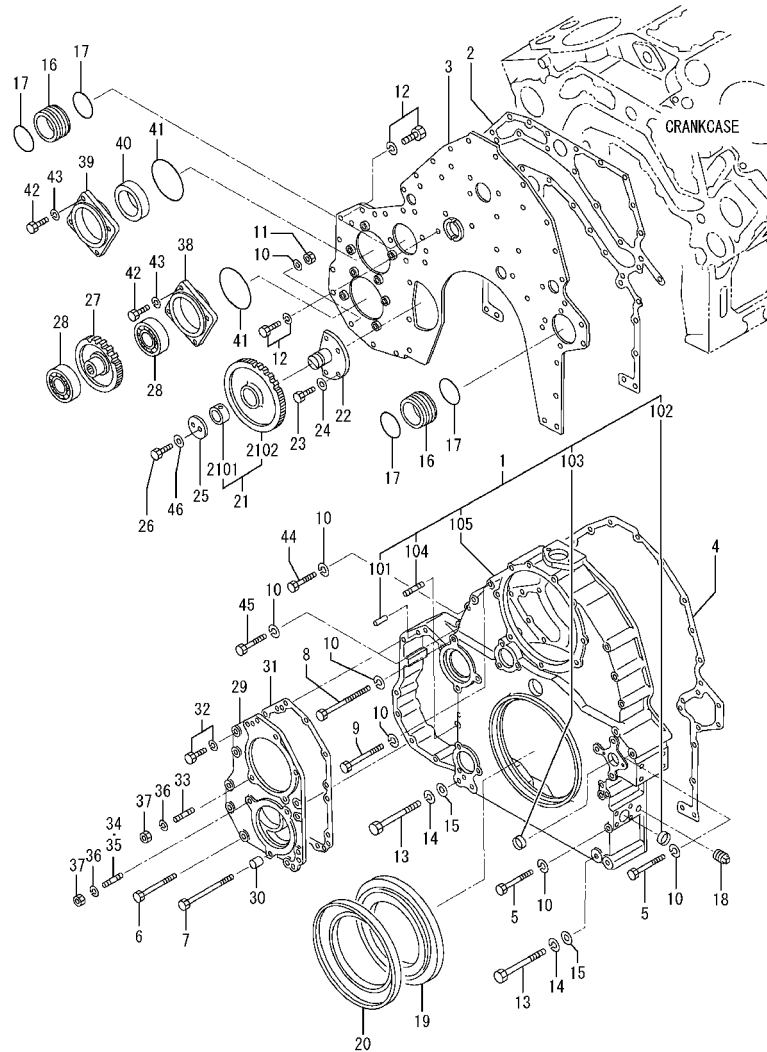


6283-25.1

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM37029	Case assembly, gear	1	2101	GM14896	Bushing	1
101	GM15187	Pin	2	2102	X	Gear, idler	1
102	GM21602	Cap, sealing	1	22	GM37030	Shaft, idler	1
103	GM21603	Cap, sealing	2	23	GM15109	Bolt	4
104	GM21631	Stud	2	24	GM15180	Washer, spring	4
105	X	Case, gear	1	25	GM14568	Plate	1
2	GM21798	Packing	1	26	GM15140	Bolt w/washer	2
3	GM21802	Plate, front	1	27	GM37031	Gear, oil pump	1
4	GM21800	Packing	1	28	GM15259	Bearing, ball	2
5	GM14545	Bolt	10	29	GM21801	Plate	1
6	GM22096	Bolt	6	30	GM15802	Pin, dowel	1
7	GM14546	Bolt	1	31	GM21796	Packing	1
8	GM15121	Bolt	3	32	GM15152	Bolt w/washer	4
9	GM15120	Bolt	1	33	GM21631	Stud	2
10	GM15180	Washer, spring	21	34	GM21633	Stud	2
11	GM15167	Nut	4	35	GM21632	Stud	2
12	GM15150	Bolt w/washer	27	36	GM15180	Washer, spring	6
13	GM14548	Bolt	4	37	GM15165	Nut	6
14	GM22120	Washer, spring	4	38	GM21789	Cover	1
14	GM15182	Washer, spring	4	39	GM37032	Cover, bearing	1
15	GM21149	Washer	4	40	GM15195	Seal, oil	1
16	GM21865	Coupling	2	41	GM21623	O-ring	2
17	GM15205	O-ring	4	42	GM15107	Bolt	8
18	GM15230	Connector	1	43	GM15180	Washer, spring	8
19	GM21686	Slinger	1	44	GM15979	Bolt w/washer	2
20	GM14920	Seal, oil	1				
21	GM14964	Gear assembly, idler	1				

X Part is not sold separately.

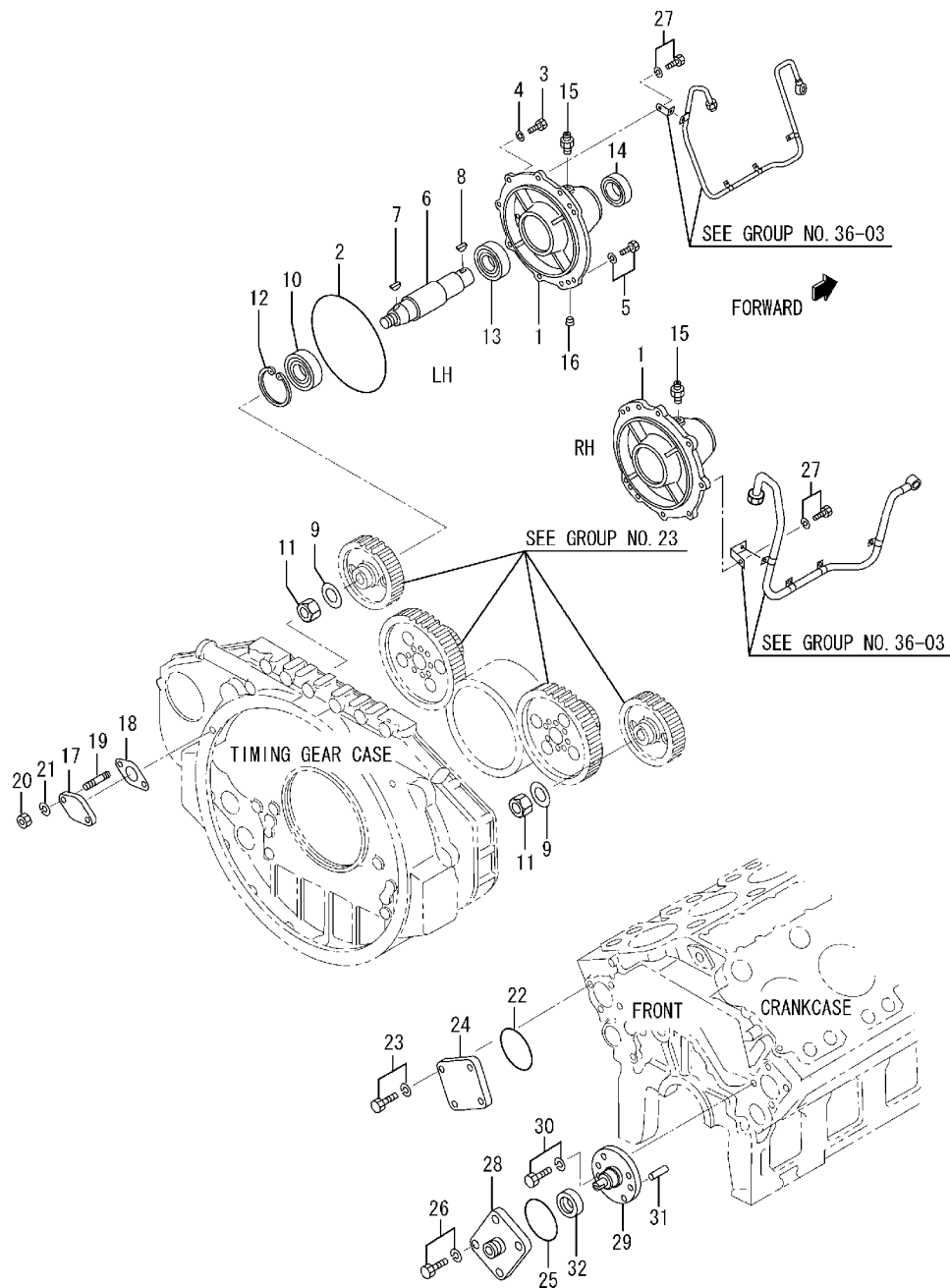
Group 25.1: Accessory Drive, Front, continued



6283-25.1_2

Item	Part No.	Description	Qty. Var. 2	Item	Part No.	Description	Qty. Var. 2
1	GM57648	Case assembly, gear	1	2102	X	Gear, idler	1
101	GM15187	Pin	2	22	GM37030	Shaft, idler	1
102	GM21602	Cap, sealing	1	23	GM15109	Bolt	4
103	GM21603	Cap, sealing	2	24	GM36363	Washer	4
104	GM21631	Stud	2	25	GM14568	Plate	1
105	X	Case, gear	1	26	GM15955	Bolt	2
2	GM21798	Packing	1	27	GM37031	Gear, oil pump	1
3	GM21802	Plate, front	1	28	GM15259	Bearing, ball	2
4	GM21800	Packing	1	29	GM21801	Plate	1
5	GM14545	Bolt	6	30	GM15802	Pin, dowel	1
6	GM22096	Bolt	5	31	GM21796	Packing	1
7	GM14546	Bolt	1	32	GM15152	Bolt	4
8	GM15121	Bolt	3	33	GM21631	Stud	2
9	GM15120	Bolt	1	34	GM21633	Stud	2
10	GM15180	Washer, spring	18	35	GM21632	Stud	2
11	GM15167	Nut	4	36	GM15180	Washer, spring	6
12	GM15150	Bolt	27	37	GM15165	Nut	6
13	GM14548	Bolt	4	38	GM21789	Cover	1
14	GM22120	Washer, spring	4	39	GM37032	Cover, bearing	1
14	GM15182	Washer, spring	4	40	GM15195	Seal, oil	1
15	GM21149	Washer	4	41	GM21623	O-ring	2
16	GM21865	Coupling	2	42	GM15107	Bolt	8
17	GM15205	O-ring	4	43	GM15180	Washer, spring	8
18	GM15246	Plug, tapered	1	44	GM15110	Bolt	1
19	GM21686	Slinger	1	45	GM15113	Bolt	1
20	GM14920	Seal, oil (part of kit GM50933)	1	45	GM42348	Bolt	1
21	GM14964	Gear assembly, idler	1	46	GM31310	Washer	2
2101	GM14896	Bushing	1	X Part is not sold separately.			

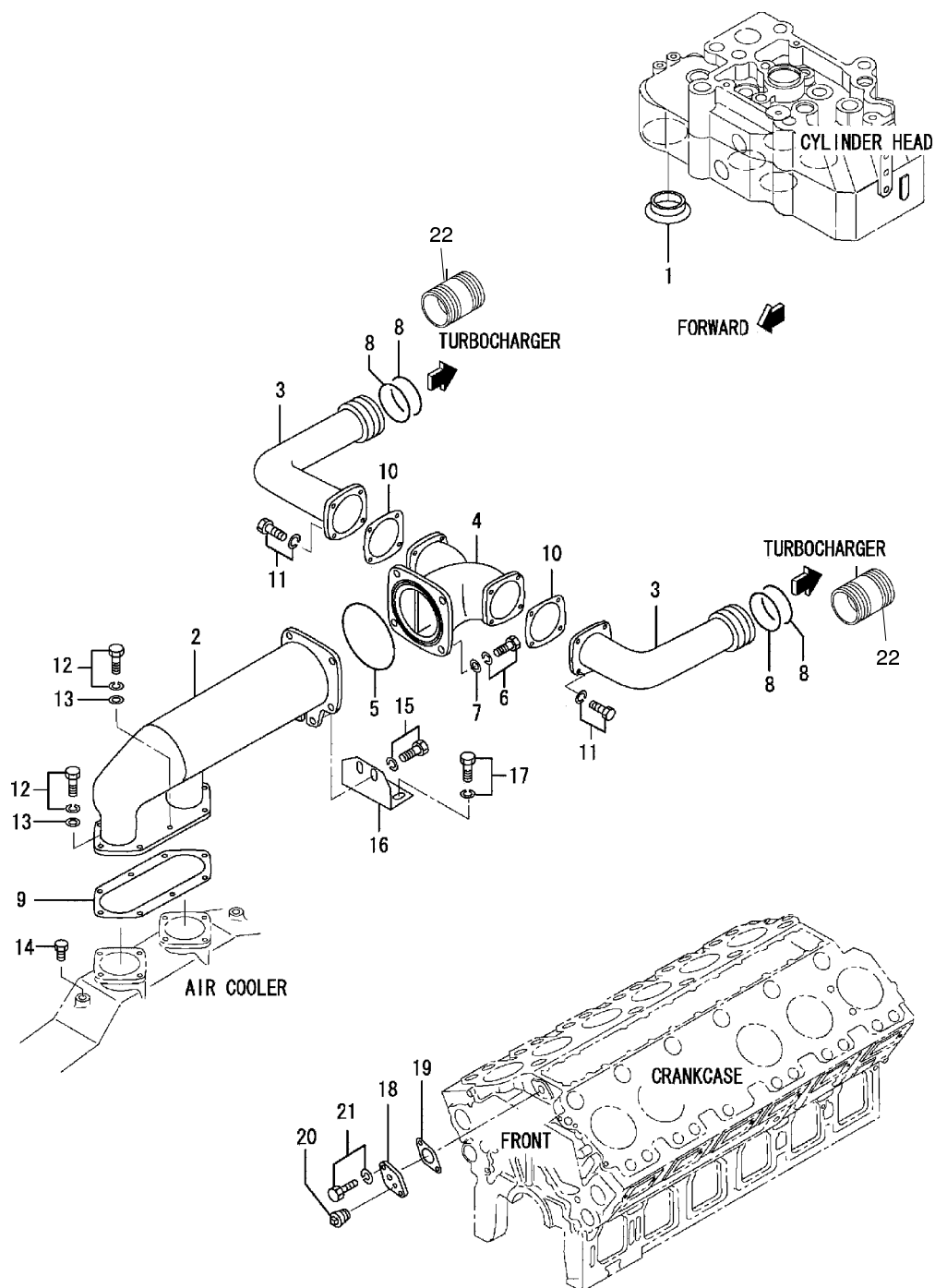
Group 25.2: Accessory Drive, Rear



6283-25.2

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM37033	Case, drive	2	2	18	GM37035	Gasket, tach drive	1	1
2	GM15686	O-ring	2	2	19	GM22106	Stud	2	2
3	GM15111	Bolt	8	8	20	GM15163	Nut	2	2
4	GM36363	Washer	10	10	21	GM15178	Washer, spring	2	2
5	GM15152	Bolt w/washer	4	4	22	GM21622	O-ring	1	1
6	GM21793	Shaft, drive	2	2	23	GM15151	Bolt w/washer	4	4
7	GM15998	Key, woodruff	2	2	24	GM21794	Cover	1	1
8	GM15192	Key, woodruff	2	2	25	GM21622	O-ring	1	1
9	GM21714	Washer	2	2	26	GM15151	Bolt w/washer	4	4
10	GM16039	Bearing, ball	2	2	27	GM15112	Bolt	2	2
11	GM22088	Nut	2	2	28	GM21792	Case, oil seal	1	1
12	GM16021	Ring, snap	2	2	29	GM21716	Coupling	1	
13	GM16037	Bearing, ball	2	2	29	GM57649	Coupling		1
14	GM37034	Seal, oil	2	2	30	GM15150	Bolt w/washer	2	2
15	GM15869	Connector	2	2	31	GM15187	Pin	2	2
16	GM14496	Plug, tapered	2	2	32	GM15193	Seal, oil	1	1
17	GM15549	Cover	1	1					

Group 30: Intake System

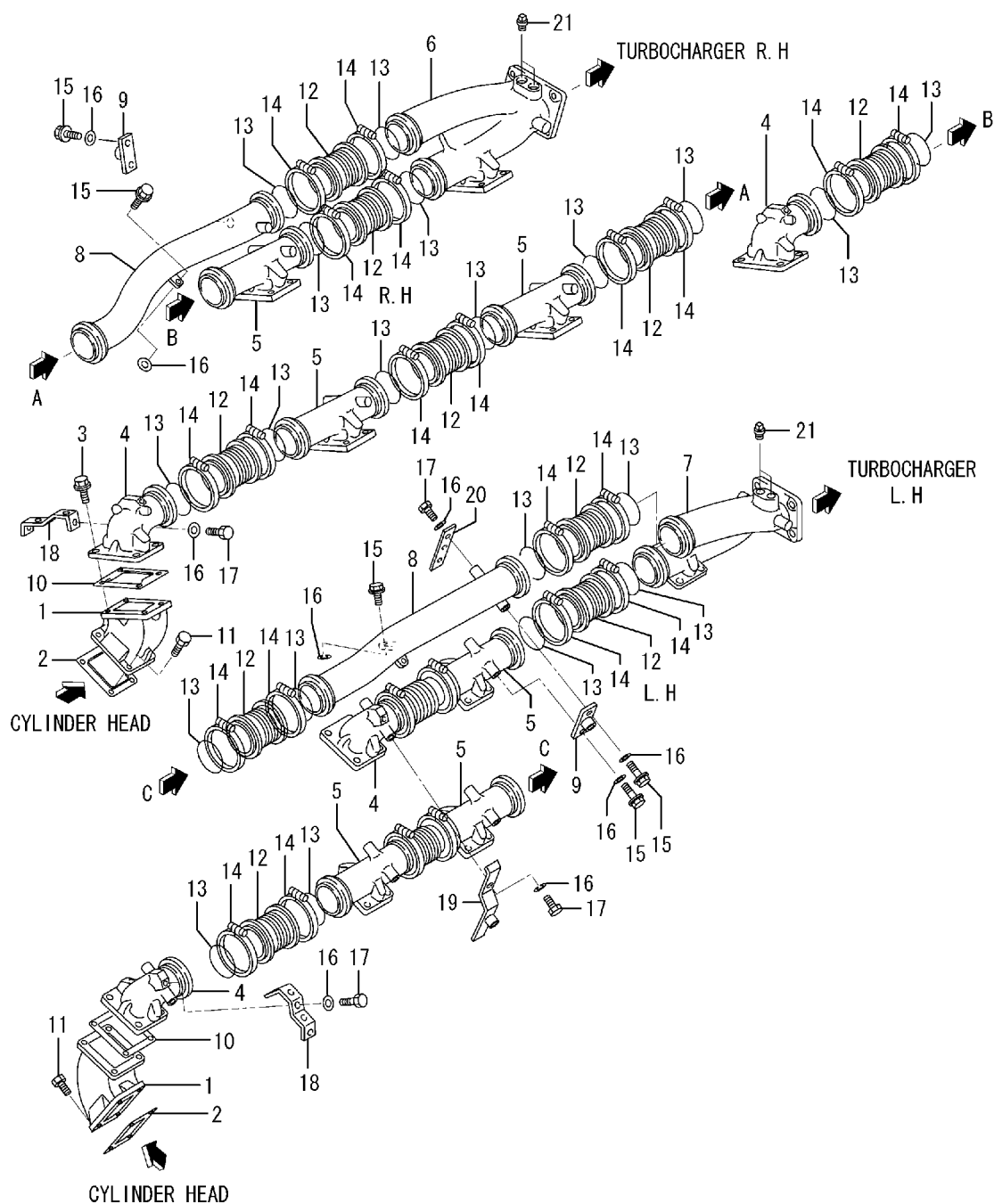


6283-30.1

Item	Part No.	Description	Qty.	
			1	2
1	GM15693	Packing	12	12
2	GM37036	Duct, air	1	1
3	GM37037	Duct, air	2	
4	GM57650	Duct, air		2
5	GM37038	Duct, air	1	1
6	GM37039	O-ring	1	1
7	GM36453	Bolt, w/washer	4	4
8	GM15175	Washer	4	4
9	GM14648	O-ring	4	4
10	GM37040	Packing, duct	1	1
11	GM37041	Packing	2	2
12	GM36706	Bolt, w/washer	8	8

Item	Part No.	Description	Qty.	
			1	2
12	GM15144	Bolt w/washer	8	8
13	GM15174	Washer, plain	8	8
14	GM37042	Plug	2	2
15	GM15982	Bolt w/washer	2	2
16	GM37043	Stay, duct	1	1
17	GM15140	Bolt w/washer	2	2
18	GM37044	Cover	1	1
19	GM21730	Gasket	1	1
20	GM15246	Plug, tapered	2	2
21	GM15150	Bolt w/washer	2	2
22	GM57651	Connector		2

Group 32.1: Exhaust System

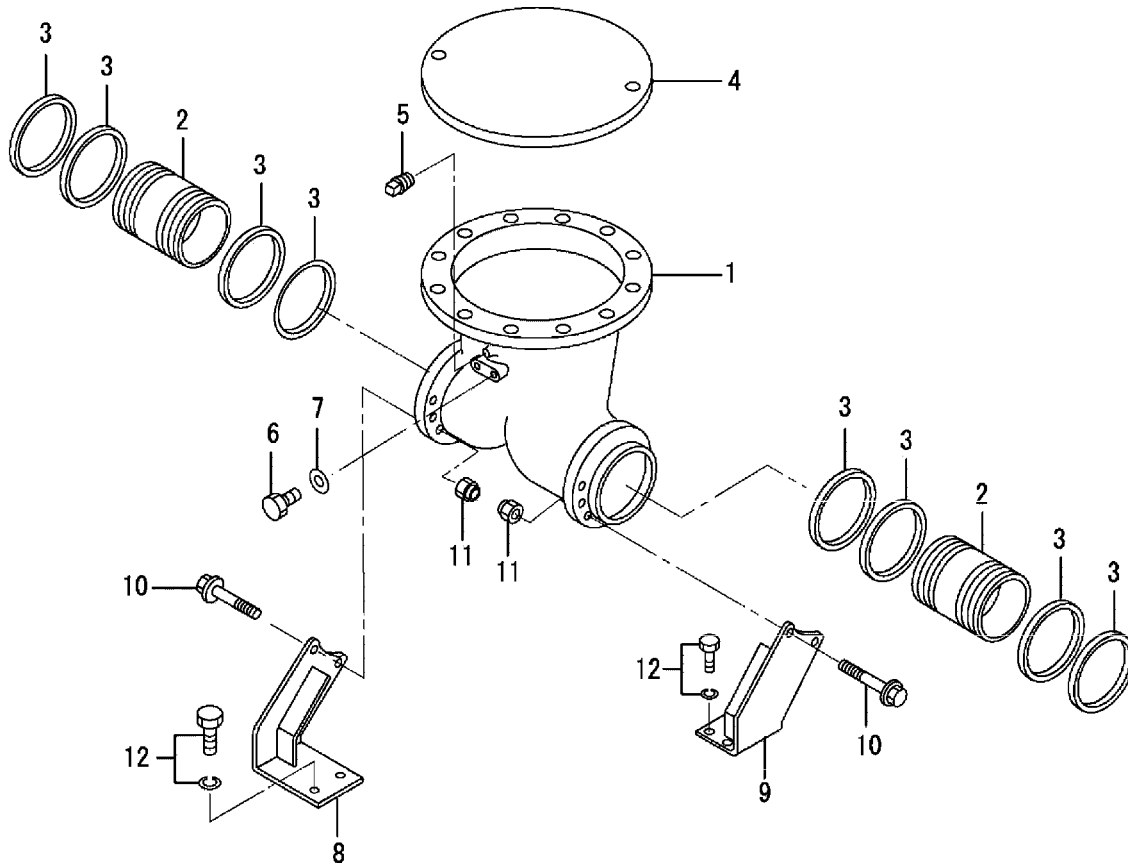


6283-32.1

Item	Part No.	Description	Qty.	
			1	2
1	GM31642	Connector, exhaust	12	12
2	GM15700	Gasket, exhaust	12	
2	GM57203	Gasket, exhaust		12
3	GM21719	Bolt	48	48
4	GM37045	Manifold, exhaust	4	4
5	GM37046	Manifold, exhaust	6	6
6	GM37047	Manifold, exhaust	1	1
7	GM37048	Manifold, exhaust	1	1
8	GM37049	Manifold, exhaust	2	2
9	GM37050	Stay, manifold	2	2
10	GM21807	Gasket, exhaust	12	12
11	GM21658	Bolt	48	48

Item	Part No.	Description	Qty.	
			1	2
12	GM31326	Joint, flexible	12	12
13	GM14592	Gasket joint	24	24
14	GM15081	Coupling assembly	24	24
15	GM21658	Bolt	6	6
16	GM31649	Washer	16	16
17	GM31651	Bolt	10	10
18	GM37051	Stay, manifold	2	2
19	GM37052	Stay, manifold	2	2
20	GM37053	Stay, manifold	2	2
21	GM15246	Plug, tapered	4	4

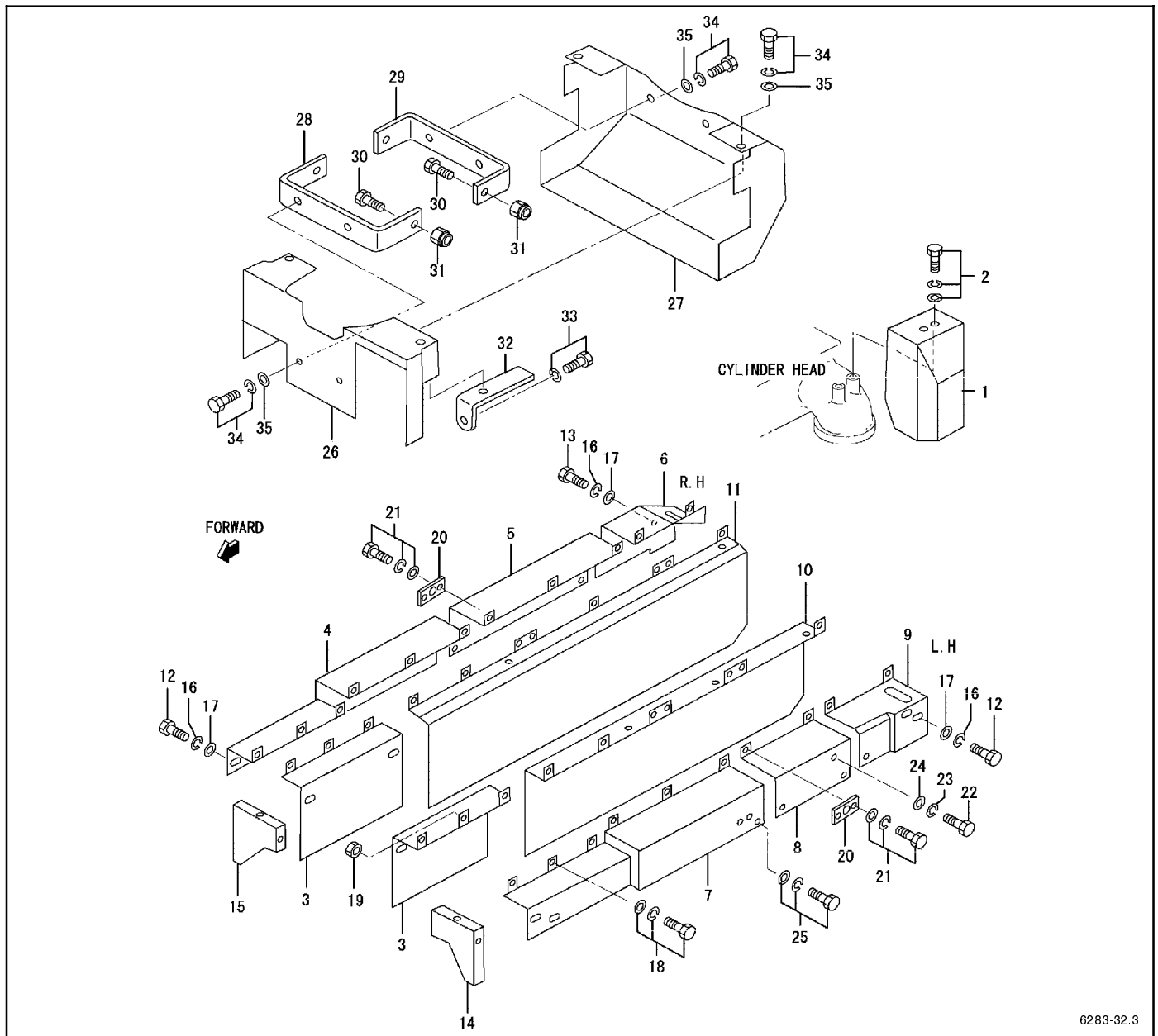
Group 32.2: Exhaust Elbow



6283-32.2

Item	Part No.	Description	Qty.	
			1	2
1	GM37054	Pipe, exhaust	1	
1	GM57652	Pipe, exhaust		1
2	GM37055	Joint, exhaust pipe	2	2
3	GM37056	Ring, seal	8	8
4	GM37057	Cover	1	1
5	GM15246	Plug, tapered	1	1
6	GM14994	Plug	2	
6	GM22026	Plug		2
7	GM22025	Gasket	2	2
8	GM37058	Stay, exhaust pipe	1	1
9	GM37059	Stay, exhaust pipe	1	1
10	GM14552	Bolt	4	4
11	GM31325	Nut, self-locking	4	4
12	GM15151	Bolt w/washer	8	8

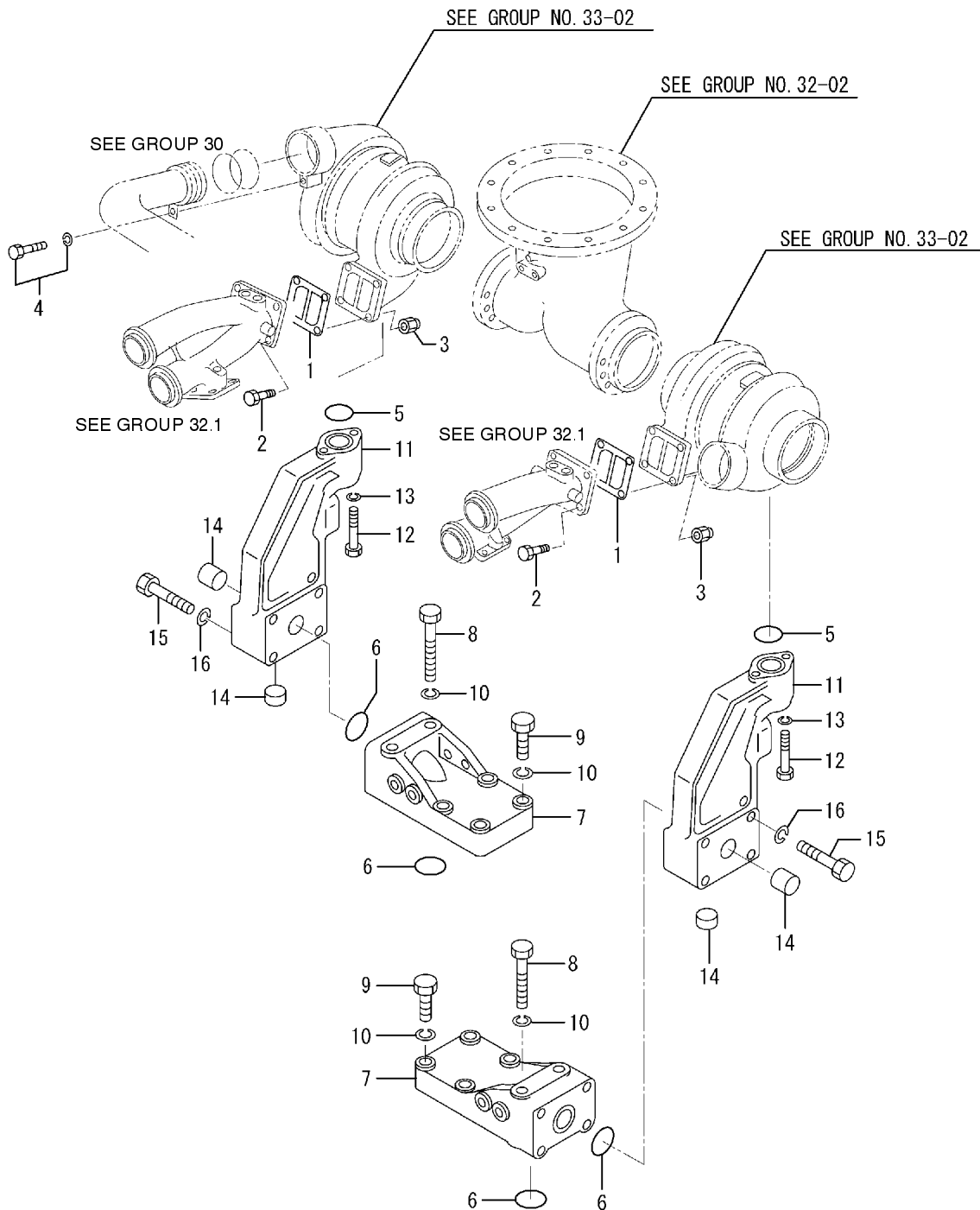
Group 32.3: Exhaust Cover



62 83-32.3

Item	Part No.	Description	Qty.	
			1	2
1	GM15702	Insulator	12	12
2	GM15980	Bolt w/washer	24	24
3	GM37060	Insulator	2	2
4	GM37061	Insulator	1	1
5	GM37062	Insulator	1	1
6	GM37063	Insulator	1	1
6	GM57653	Insulator	1	1
7	GM37064	Insulator	1	1
8	GM37065	Insulator	1	1
9	GM37066	Insulator	1	1
10	GM37067	Insulator	1	1
11	GM37068	Insulator	1	1
11	GM57654	Insulator	2	1
12	GM15924	Bolt	2	2
13	GM14594	Bolt	2	2
14	GM37069	Cover	1	1
15	GM37070	Cover	1	1
16	GM15179	Washer, spring	4	4
17	GM15174	Washer, plain	4	4
18	GM15153	Bolt w/washer	20	20
19	GM15164	Nut	20	20
20	GM37071	Plate, insulator	4	4
21	GM15153	Bolt w/washer	6	6
22	GM31646	Bolt	8	8
22	GM57655	Bolt	8	8
23	GM15179	Washer, spring	8	8
24	GM31649	Washer	8	8
25	GM15153	Bolt w/washer	8	8
26	GM37072	Insulator	1	1
27	GM37073	Insulator	1	1
28	GM37074	Stay	1	1
29	GM37075	Stay	1	1
30	GM14552	Bolt	4	4
31	GM31325	Nut, self-locking	4	4
32	GM22081	Plate	2	2
33	GM15140	Bolt w/washer	2	2
34	GM15139	Bolt w/washer	8	8
35	GM15174	Washer, plain	8	8

Group 33.1: Turbocharger

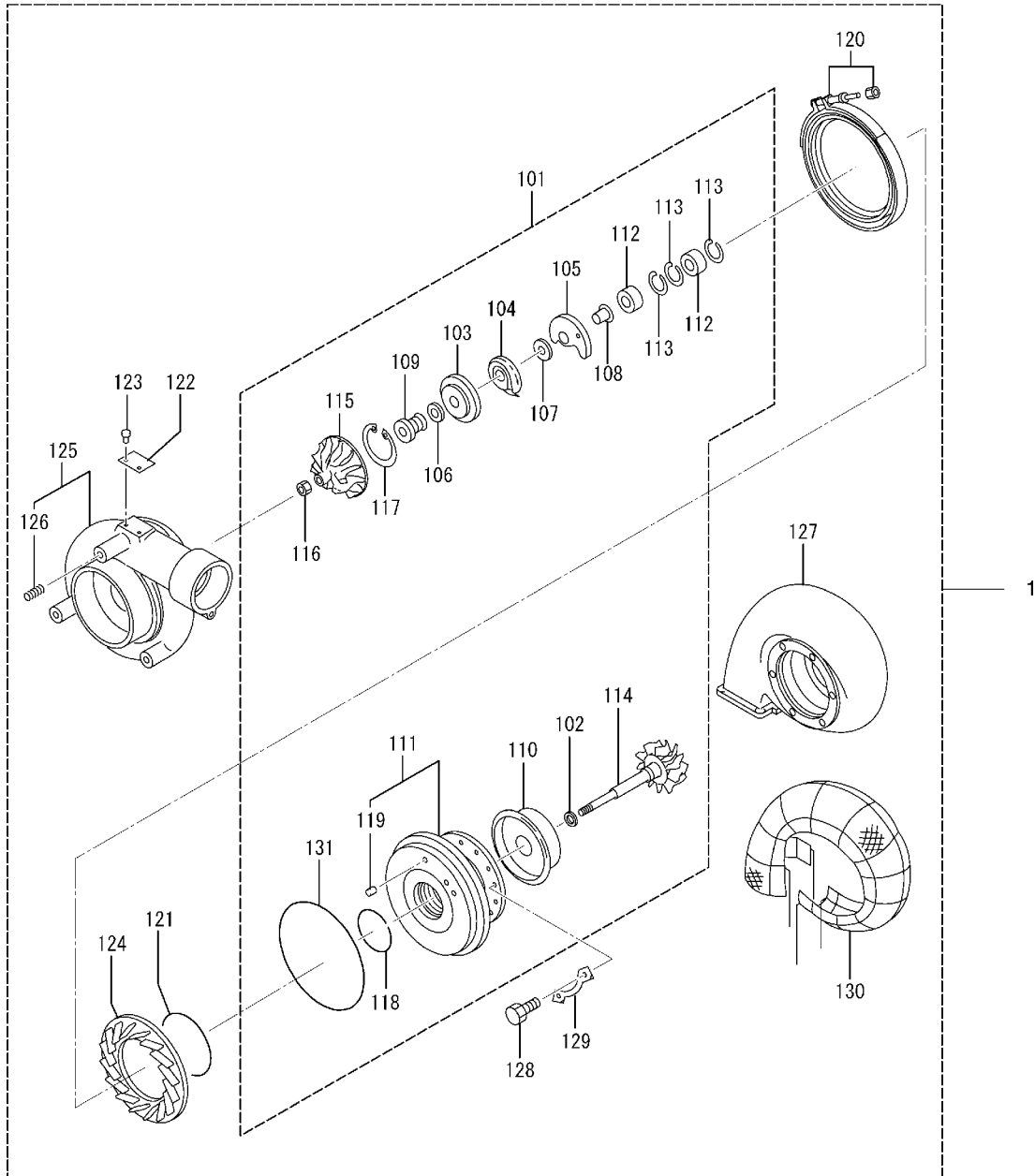


6283-33.1

Item	Part No.	Description	Qty.	
			1	2
1	GM31329	Gasket, turbocharger	2	2
2	GM15530	Bolt	8	8
3	GM31325	Nut, self-locking	8	8
4	GM15158	Bolt w/washer	2	2
5	GM14515	O-ring	2	2
6	GM14515	O-ring	4	4
7	GM21957	Bracket	2	2
8	GM22095	Bolt	4	4
9	GM15112	Bolt	8	8

Item	Part No.	Description	Qty.	
			1	2
10	GM15180	Washer, spring	12	12
11	GM37076	Bracket	2	
11	GM57656	Bracket		2
12	GM36622	Bolt	4	4
13	GM15179	Washer, spring	4	4
14	GM14490	Cap, sealing	4	
14	GM57657	Cap, sealing		4
15	GM22100	Bolt	8	8
16	GM22120	Washer, spring	8	8
16	GM21149	Washer, plain		6

Group 33.2: Turbocharger Components

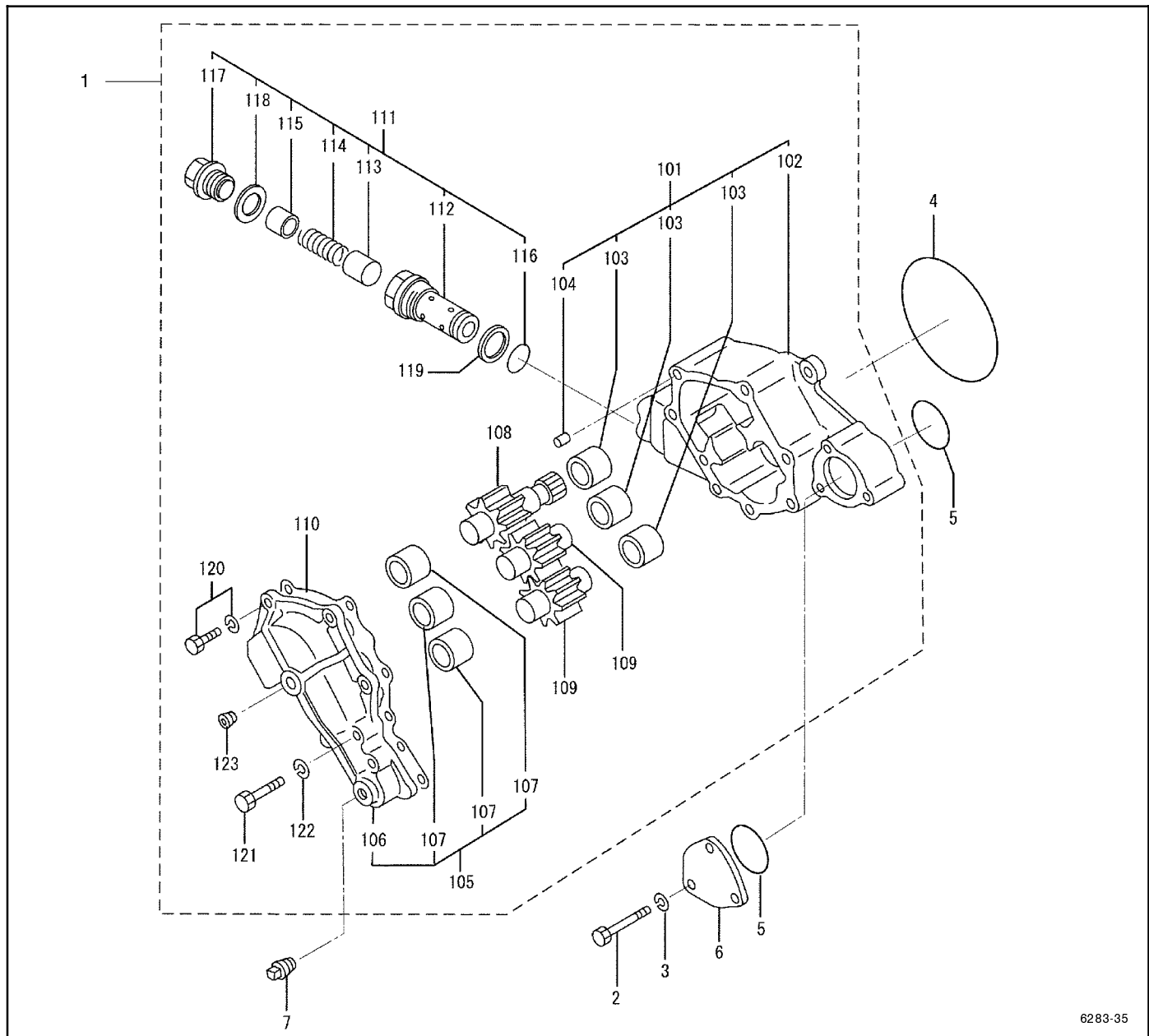


6283-33.2

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM37077	Turbocharger assembly	1	116	GM31339	Nut, lock	2
1	GM37078	Turbocharger assembly	1	117	GM15043	Ring, snap	2
101	GM31332	Cartridge assembly	2	118	GM15050	O-ring (insert)	2
102	GM37079	Ring, seal	2	119	GM15949	Pin, spring	4
103	GM15931	Insert	2	120	GM15945	Clamp assembly	2
104	GM15932	Deflector	2	121	GM15948	O-ring	2
105	GM15933	Bearing	2	122	X	Nameplate	2
106	GM15936	Ring	2	123	GM14481	Rivet, screw	4
107	GM15940	Ring	2	124	GM31340	Diffuser	2
108	GM15941	Ring	2	125	GM31341	Cover	2
109	GM15943	Sleeve	2	126	GM31342	Coil	12
110	GM31333	Plate, back turbine	2	127	GM31343	Housing, turbine	2
111	GM31334	Housing assembly, brg	2	128	GM15069	Bolt	16
112	GM31335	Bearing	4	129	GM31344	Plate, clamp	8
113	GM31336	Ring, snap	6	130	GM37080	Lagging	2
114	GM31337	Rotor assembly	2	131	GM31345	O-ring	2
115	GM31338	Wheel, compressor	2				

X Part is not sold separately.

Group 35: Oil Pump

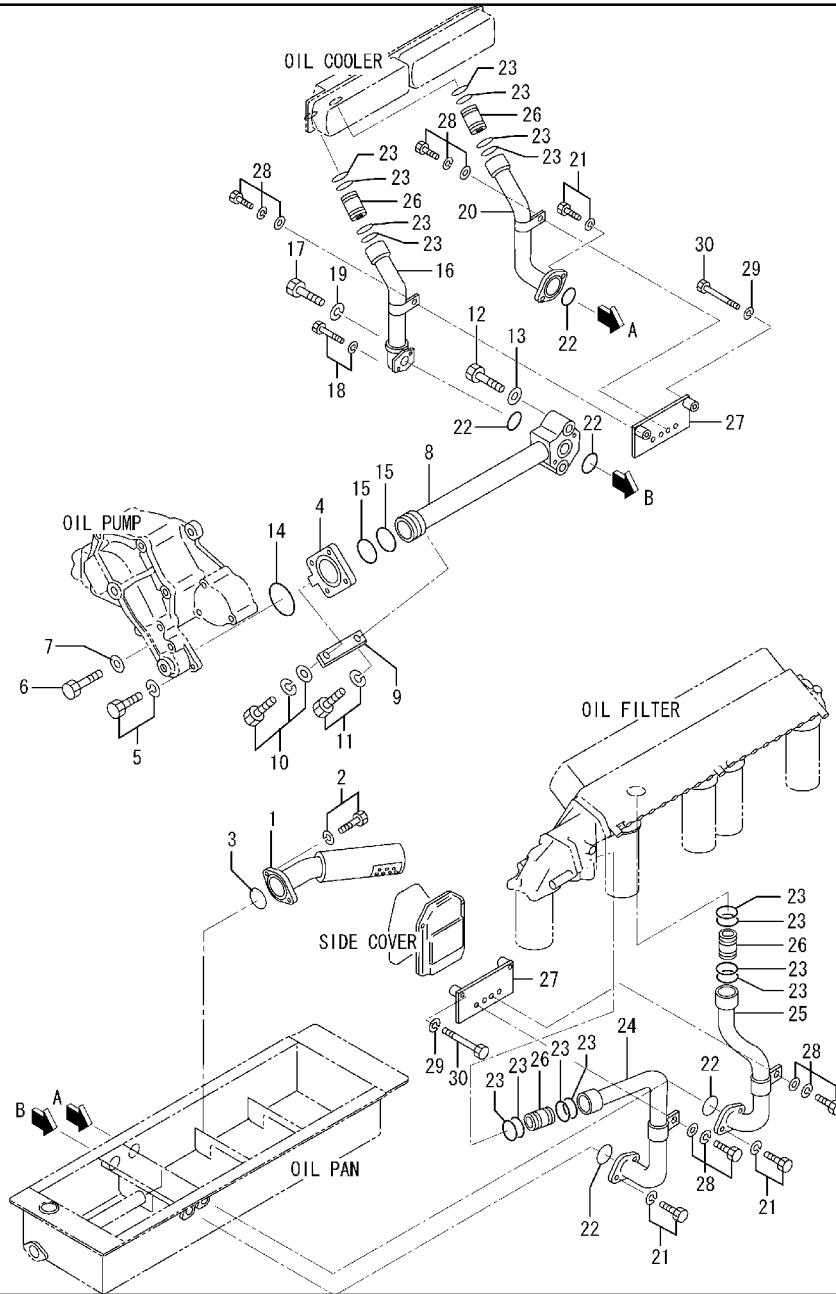


6283-35

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM31676	Pump assembly, oil	1	115	GM21721	Stopper	3
101	GM31677	Case assembly	1	116	GM21816	O-ring	3
102	X	Case	1	117	GM21817	Plug	3
103	X	Bushing	3	118	GM14533	Washer, sealing	3
104	X	Pin, dowel	2	119	GM21628	Washer, sealing	3
105	GM21823	Cover assembly, oil pump	1	120	GM15143	Bolt w/washer	6
106	X	Cover	1	121	GM15958	Bolt	2
107	X	Bushing	3	122	GM15179	Washer, spring	2
108	GM21818	Shaft and gear	1	123	GM21605	Plug, tapered	1
109	GM21820	Shaft and gear	2	2	GM22095	Bolt	3
110	GM21819	Packing	1	3	GM15180	Washer, spring	3
111	GM21821	Valve assembly	3	4	GM21624	O-ring	1
112	GM37081	Case, valve	3	5	GM14518	O-ring	2
113	GM21672	Valve	3	6	GM21815	Cover, oil pump	1
114	GM21720	Spring	3	7	GM22128	Plug, tapered	1

X Part is not sold separately.

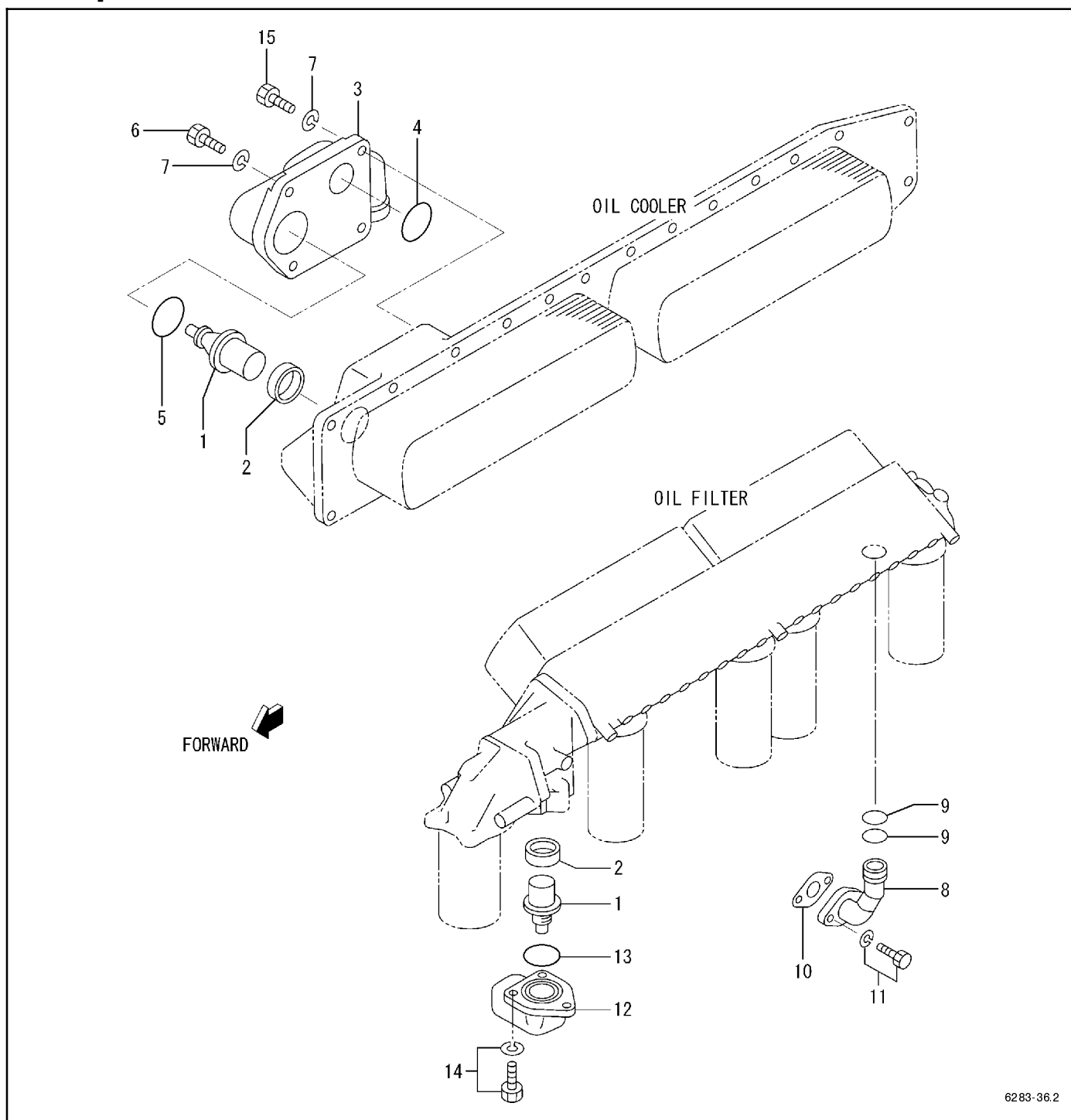
Group 36.1: Oil Strainer



6283-36.1

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM21828	Strainer, oil	1	1	16	GM37082	Pipe, oil	1	1
2	GM15151	Bolt w/washer	2	2	17	GM22092	Bolt	1	1
3	GM14519	O-ring	1	1	18	GM15141	Bolt w/washer	1	1
4	GM21827	Connector	1	1	19	GM15179	Washer, spring	1	1
5	GM15142	Bolt w/washer	2	2	20	GM37083	Pipe, oil	1	1
6	GM15958	Bolt	2	2	21	GM15141	Bolt w/washer	6	6
7	GM15179	Washer, spring	2	2	22	GM21619	O-ring	5	5
8	GM21826	Pipe, oil	1	1	23	GM21616	O-ring	16	16
9	GM21665	Stay	1	1	24	GM37084	Pipe, oil	1	1
10	GM15153	Bolt w/washer	1	1	24	GM57658	Pipe, oil		1
11	GM15140	Bolt w/washer	1	1	25	GM37085	Pipe, oil	1	1
12	GM15119	Bolt	2	2	26	GM37086	Coupling	4	4
13	GM15180	Washer, spring	2	2	27	GM37087	Bracket, clamp	2	2
14	GM14519	O-ring	1	1	28	GM15156	Bolt w/washer	4	4
15	GM21620	O-ring	2	2	29	GM15180	Washer, spring	4	4
					30	GM15118	Bolt	4	4

Group 36.2: Oil Thermostat

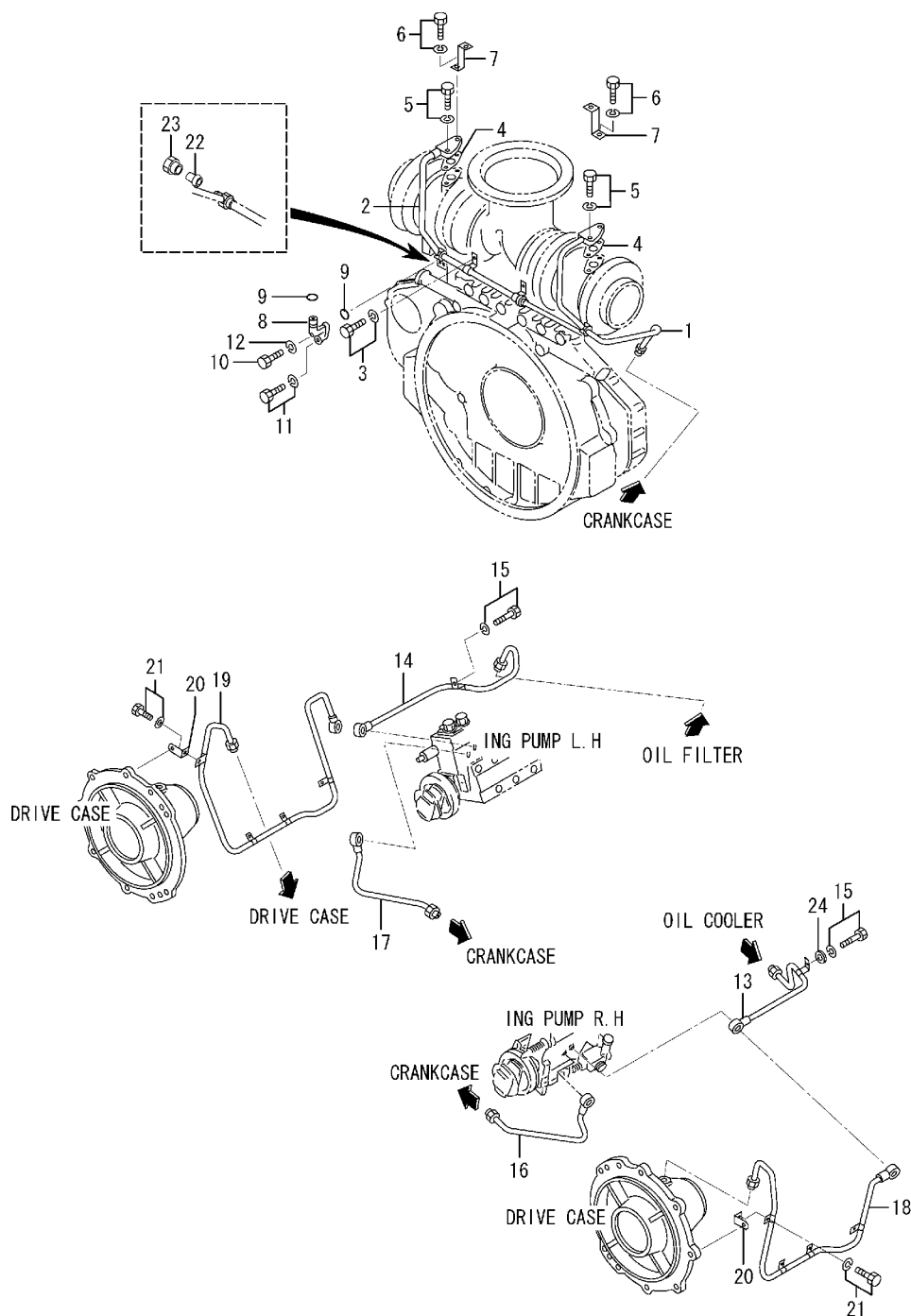


6283-36.2

Item	Part No.	Description	Qty.	
			1	2
1	GM21844	Thermostat, oil	2	2
2	GM21724	Seal, thermostat	2	2
3	GM37088	Connector	1	1
4	GM21617	O-ring	1	1
5	GM21621	O-ring	1	1
6	GM15120	Bolt	3	3
7	GM15180	Washer, spring	4	4
8	GM21837	Pipe, oil	1	
8	GM57659	Pipe, oil		1

Item	Part No.	Description	Qty.	
			1	2
9	GM21616	O-ring	2	2
10	GM21668	Gasket	1	1
11	GM15140	Bolt w/washer	2	2
12	GM37089	Connector	1	1
13	GM14519	O-ring	1	1
14	GM15150	Bolt w/washer	3	3
15	GM37090	Bolt	1	1

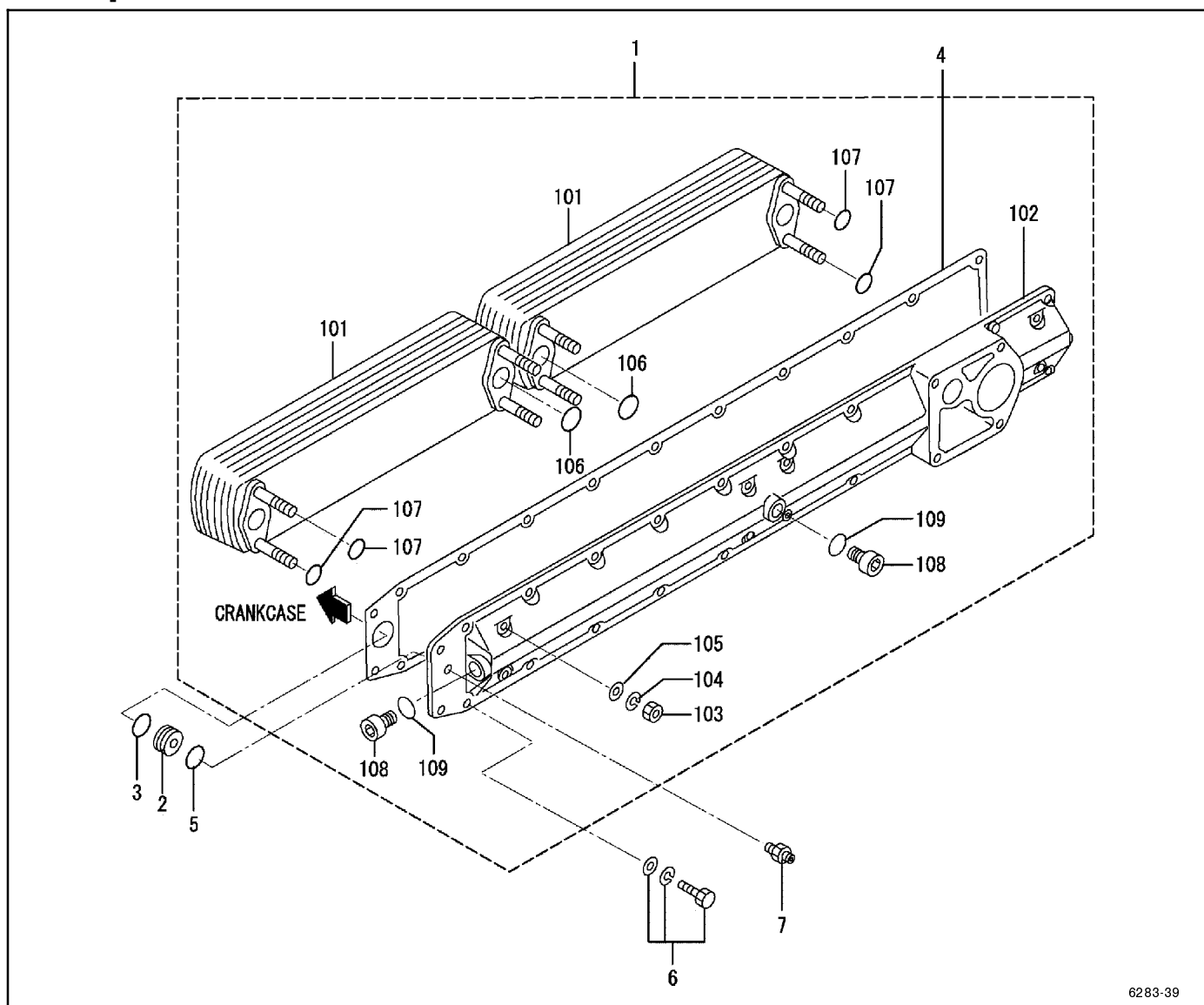
Group 36.3: Oil Pipes



6283-36.3

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM37091	Pipe, oil	1	1	13	GM37094	Pipe, oil	1	1
2	GM37092	Pipe, oil	1	1	14	GM37095	Pipe, oil	1	1
3	GM15139	Bolt w/washer	2	2	15	GM15975	Bolt w/washer	1	1
4	GM34216	Packing	2	2	16	GM37096	Pipe, drain	1	1
5	GM15981	Bolt w/washer	2	2	17	GM37097	Pipe, drain	1	1
6	GM15161	Bolt w/washer	2	2	18	GM37098	Pipe, oil	1	1
7	GM37093	Stay	2	2	19	GM37099	Pipe, oil	1	1
8	GM21983	Connector, drain	2	2	20	GM37100	Stay, oil pipe	2	2
9	GM15528	O-ring	4	4	21	GM31680	Bolt w/washer	2	2
10	GM15958	Bolt	2	2	22	GM37101	Plug, pipe	1	
11	GM15141	Bolt w/washer	2	2	23	GM37102	Nut, union	1	
12	GM15179	Washer, spring	2	2	24	GM37103	Spacer	1	1

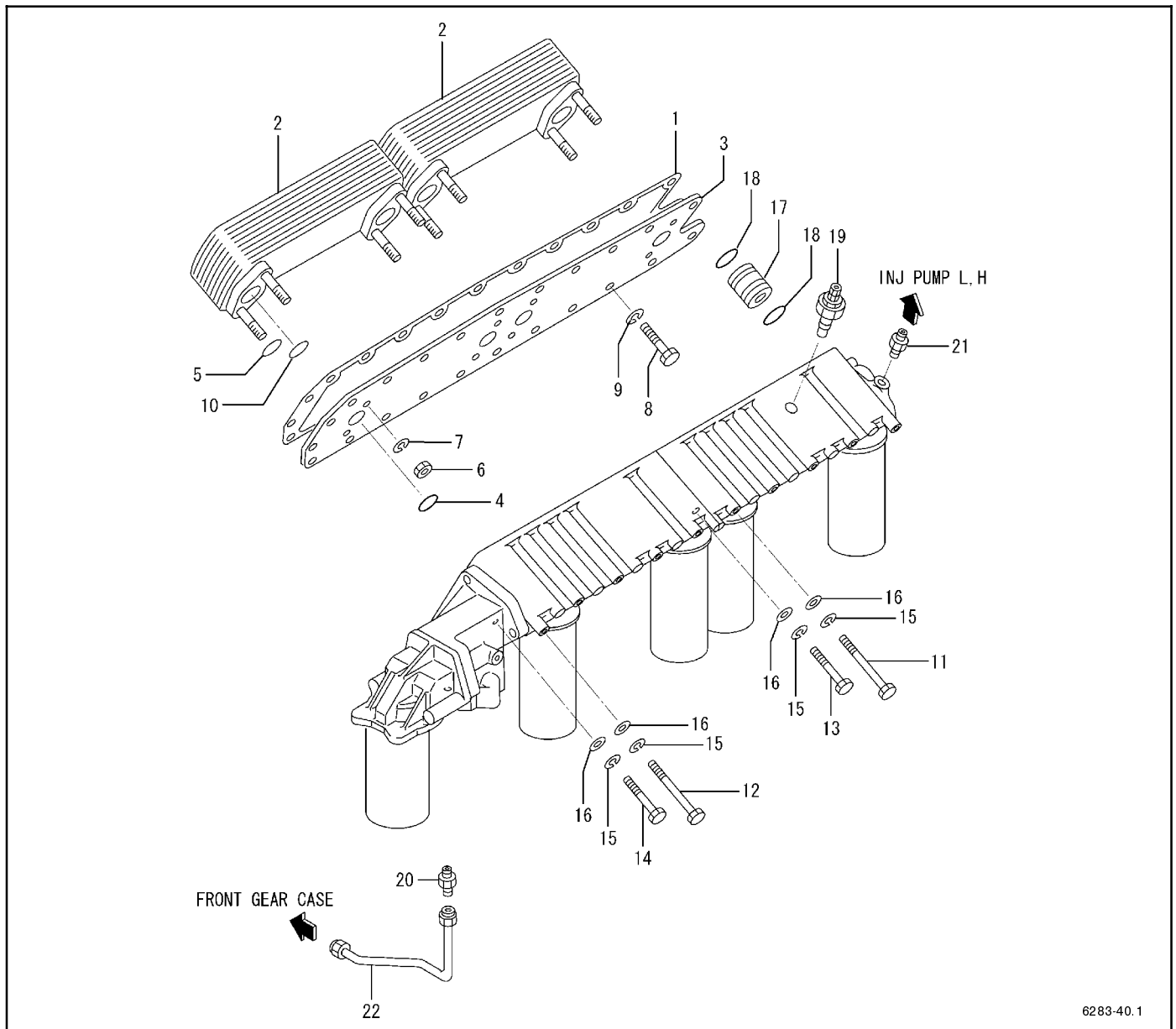
Group 39: Oil Cooler



6283-39

Item	Part No.	Description	Qty.	
			1	2
1	GM37104	Cooler assembly, oil	1	
1	GM57660	Cooler assembly, oil		1
101	GM37105	Element, oil	2	
101	GM57661	Element, oil		2
102	GM37106	Cover, oil cooler	1	1
103	GM15164	Nut	8	
103	GM15263	Nut		8
104	GM15179	Washer, spring	8	
105	GM15174	Washer, plain	8	
106	GM15266	O-ring, oil	4	4
107	GM21610	O-ring	8	8
108	GM16042	Plug	3	3
109	GM15265	O-ring	3	3
2	GM15622	Plate, nozzle	1	1
3	GM14511	O-ring	1	1
4	GM21839	Packing, oil cooler	1	1
5	GM21614	O-ring	1	1
6	GM22114	Bolt w/washer	18	18
7	GM16028	Connector	1	1
7	GM16027	Connector	1	1

Group 40.1: Oil Filter

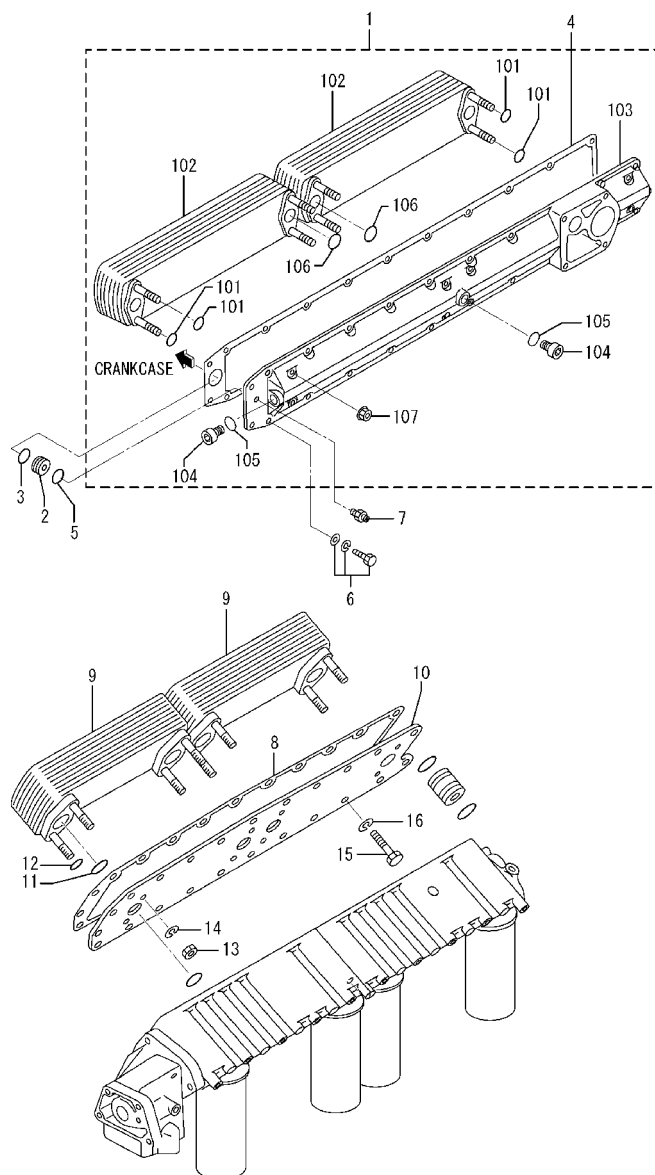


6283-40.1

Item	Part No.	Description	Qty. Var.
1	GM31681	Gasket, oil cooler	1
2	GM37107	Element, oil cooler	2
3	GM37108	Plate, oil cooler	1
4	GM14515	O-ring	4
5	GM21610	O-ring	8
6	GM22118	Nut, self-locking	8
7	GM15179	Washer, spring	8
8	GM15107	Bolt	3
9	GM15180	Washer, spring	3
10	GM14515	O-ring	4
11	GM16043	Bolt	8
12	GM22129	Bolt	2

Item	Part No.	Description	Qty. Var.
13	GM15120	Bolt	8
14	GM22096	Bolt	2
15	GM15180	Washer, spring	20
16	GM15175	Washer	20
17	GM21846	Coupling	1
18	GM21616	O-ring	2
19	GM21722	Alarm, oil filter	1
20	GM15230	Connector	1
21	GM16028	Connector	1
21	GM16027	Connector	1
22	GM21835	Pipe, drain	1

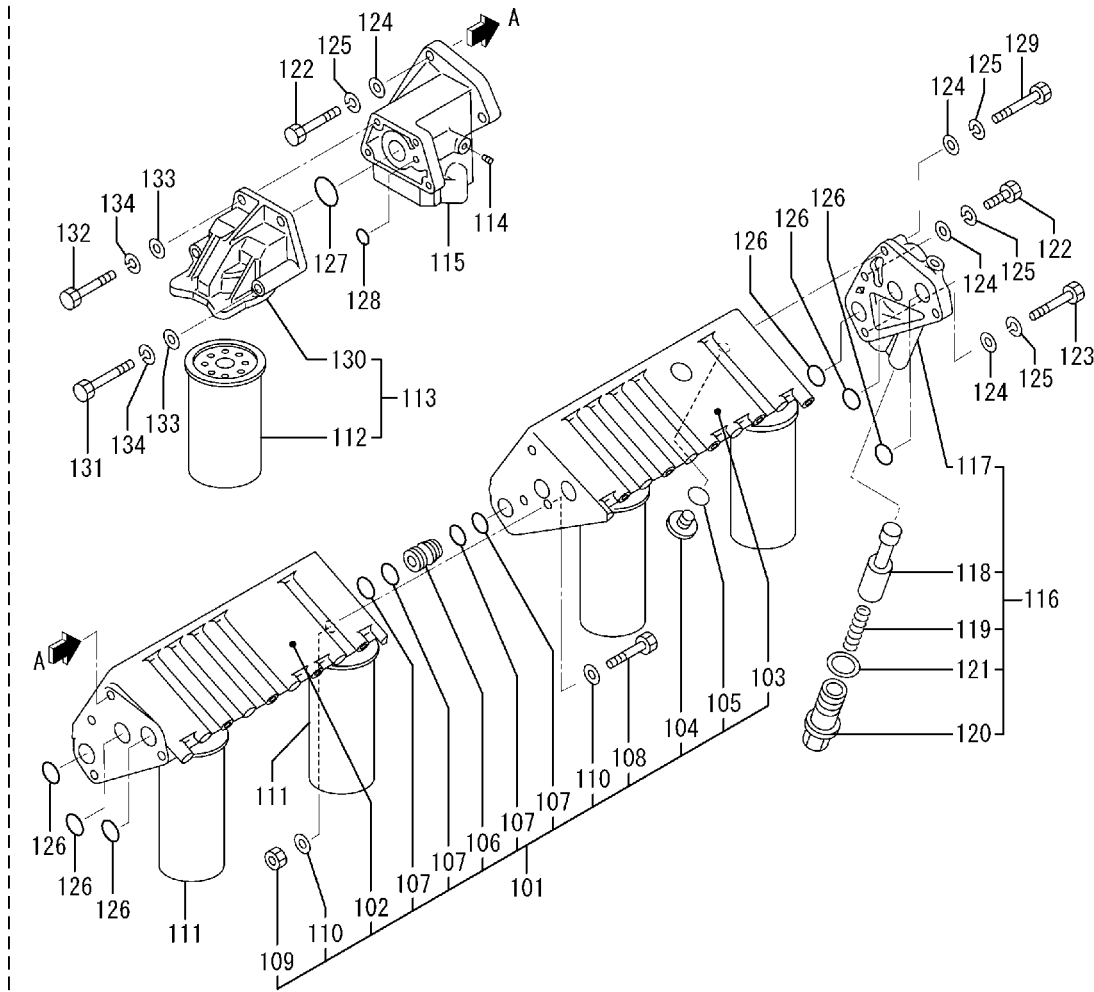
Group 40.1: Oil Filter, continued



6283-40.1_2

Item	Part No.	Description	Qty. Var. 2	Item	Part No.	Description	Qty. Var. 2
1	GM57660	Oil cooler assembly	1	6	GM22114	Bolt w/washer	18
101	GM21610	O-ring	8	7	GM16028	Connector	1
102	GM57661	Element, oil cooler	2	7	GM16027	Connector	1
103	GM37106	Cover, oil cooler	1	8	GM31681	Gasket, oil cooler	1
104	GM16042	Plug	3	9	GM57662	Element, oil cooler	2
105	GM15265	O-ring	3	10	GM37108	Plate, oil cooler	1
106	GM15266	O-ring, oil	4	11	GM14515	O-ring	4
107	GM15263	Nut, flange	8	12	GM21610	O-ring	8
2	GM15622	Plate, nozzle	1	13	GM22118	Nut, self-locking	8
3	GM14511	O-ring	1	14	GM15179	Washer, spring	8
4	GM21839	Packing, oil cooler	1	15	GM15107	Bolt	3
5	GM21614	O-ring	1	16	GM15180	Washer, spring	3

Group 40.2: Oil Filter Assembly

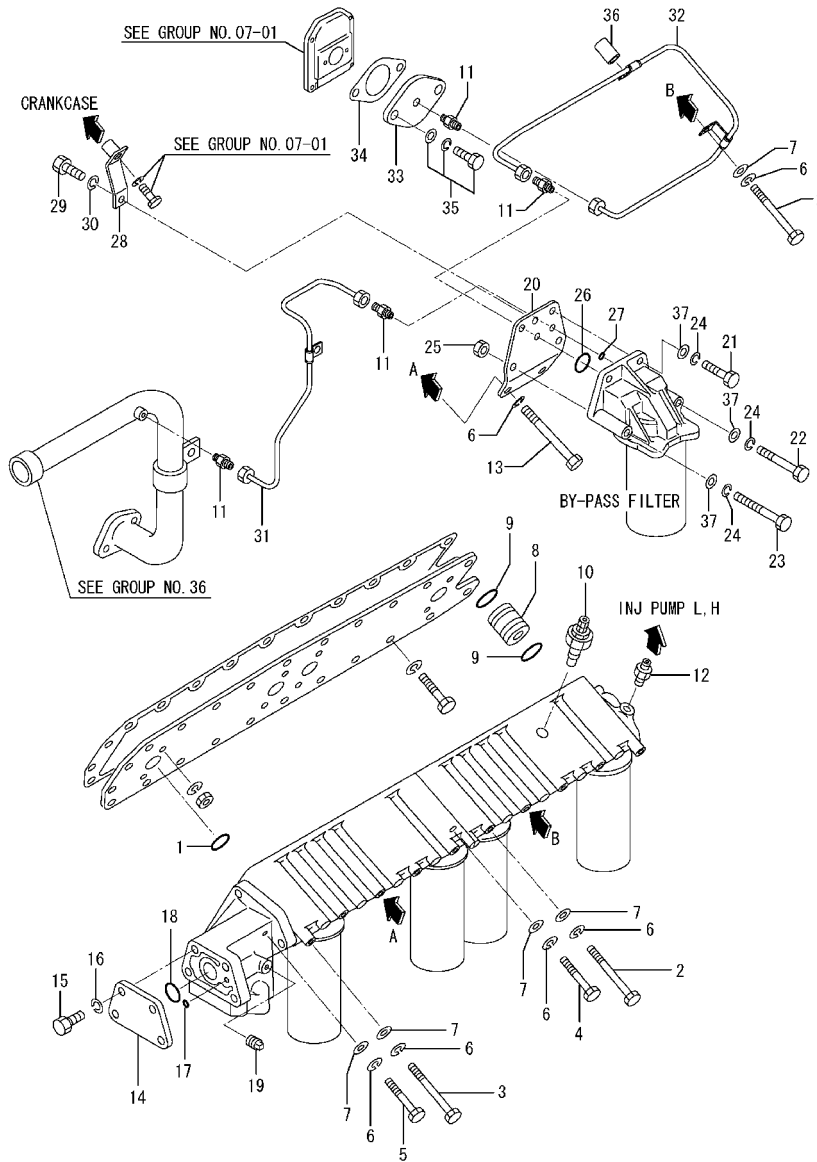


6283-40.2

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM37109	Filter assembly, oil	1	1	118	GM21854	Valve, oil relief	1	1
101	GM37110	Bracket assembly	1	1	119	GM21855	Spring	1	1
102	X	Bracket subassembly	1	1	120	GM21856	Cap	1	1
103	X	Bracket subassembly	1	1	121	GM21857	Packing	1	1
104	GM37111	Plug	5	5	122	GM15110	Bolt	6	6
105	GM37112	O-ring	5	5	123	GM15116	Bolt	1	1
106	GM21847	Coupling, filter	3	3	124	GM15175	Washer	2	2
107	GM21616	O-ring	12	12	125	GM15180	Washer, spring	2	2
108	GM36646	Bolt, locking wire	2	2	126	GM21617	O-ring	6	6
109	GM15163	Nut	2	2	127	GM21616	O-ring	1	1
110	GM15173	Washer, plain	4	4	128	GM34228	O-ring	1	1
111	GM13949	Filter, oil	4	4	129	GM15119	Bolt	1	1
112	GM13950	Filter, oil	1	1	130	GM37114	Bracket assembly	1	1
113	GM21848	Filter assembly, bypass	1	1	131	GM37115	Bolt	2	2
114	GM15242	Plug, tapered	3	3	131	GM14539	Bolt		2
115	GM37113	Adapter assembly	1	1	132	GM15956	Bolt	2	2
116	GM21853	Adapter assembly	1	1	133	GM15174	Washer, plain	4	4
117	X	Body assembly	1	1	134	GM15179	Washer, spring	4	4

X Part is not sold separately.

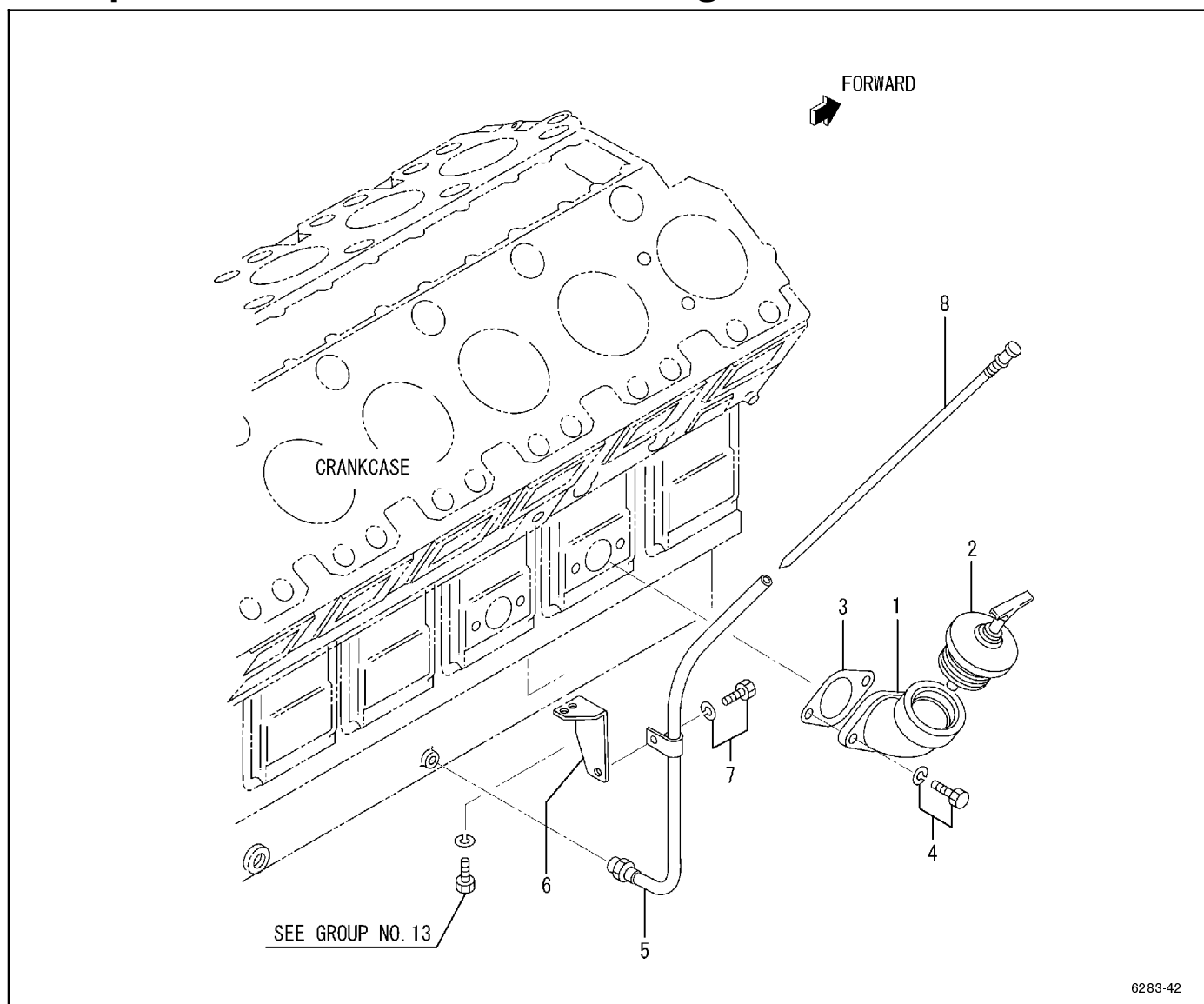
Group 40.3: Bypass Filter Piping



6283-40.3

Item	Part No.	Description	Qty. Var. 1	Item	Part No.	Description	Qty. Var. 1
1	GM14515	O-ring	4	19	GM15246	Plug, tapered	1
2	GM16043	Bolt	6	20	GM57665	Bracket	1
3	GM22129	Bolt	2	21	GM15955	Bolt	2
4	GM15120	Bolt	8	22	GM22094	Bolt	1
5	GM22096	Bolt	2	23	GM57666	Bolt	1
6	GM15180	Washer, spring	20	24	GM15179	Washer, spring	4
7	GM15175	Washer	18	25	GM15164	Nut	1
8	GM21846	Coupling	1	26	GM21616	O-ring	1
9	GM21616	O-ring	2	27	GM34228	O-ring	1
10	GM21722	Alarm, oil filter	1	28	GM57667	Stay, bracket	1
11	GM15230	Connector	4	29	GM57668	Bolt	1
12	GM16027	Connector	1	30	GM15179	Washer, spring	1
13	GM57663	Bolt	2	31	GM57669	Pipe, oil (inlet)	1
14	GM57664	Cover, oil filter	1	32	GM57670	Pipe, oil (outlet)	1
15	GM15955	Bolt	4	33	GM31321	Cover	1
16	GM15179	Washer, spring	4	34	GM21668	Gasket	1
17	GM21616	O-ring	1	35	GM15154	Bolt	2
18	GM34228	O-ring	1	36	GM57671	Spacer	1
				37	GM15174	Washer, plain	4

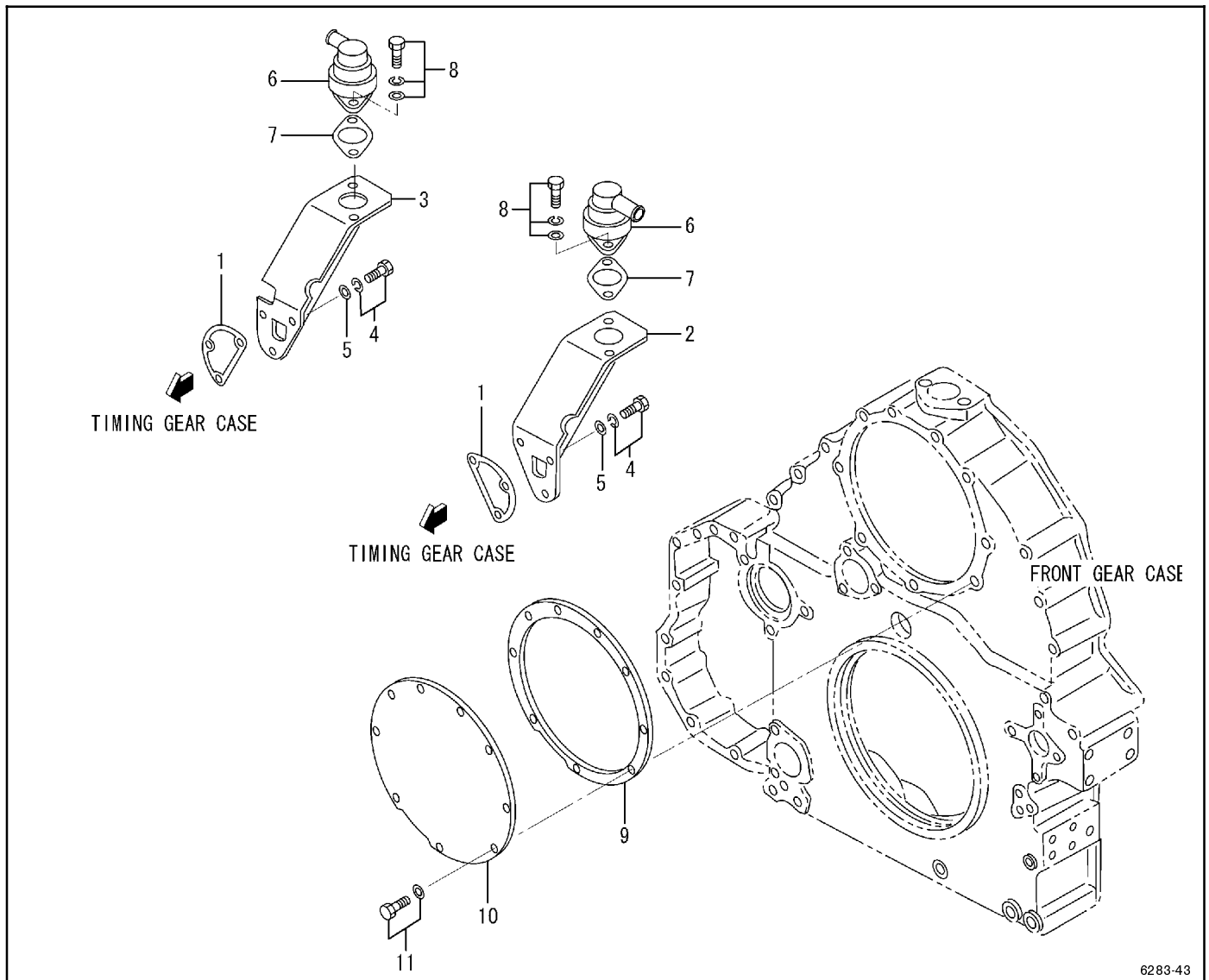
Group 42: Oil Filler and Level Gauge



6283-42

Item	Part No.	Description	Qty. Var.
1	GM14602	Elbow	1
2	GM14633	Cap, oil	1
3	GM21668	Gasket	1
4	GM15141	Bolt w/washer	2
5	GM37116	Guide, oil level gage	1
6	GM37117	Stay	1
7	GM15139	Bolt w/washer	1
8	GM15742	Gauge	1

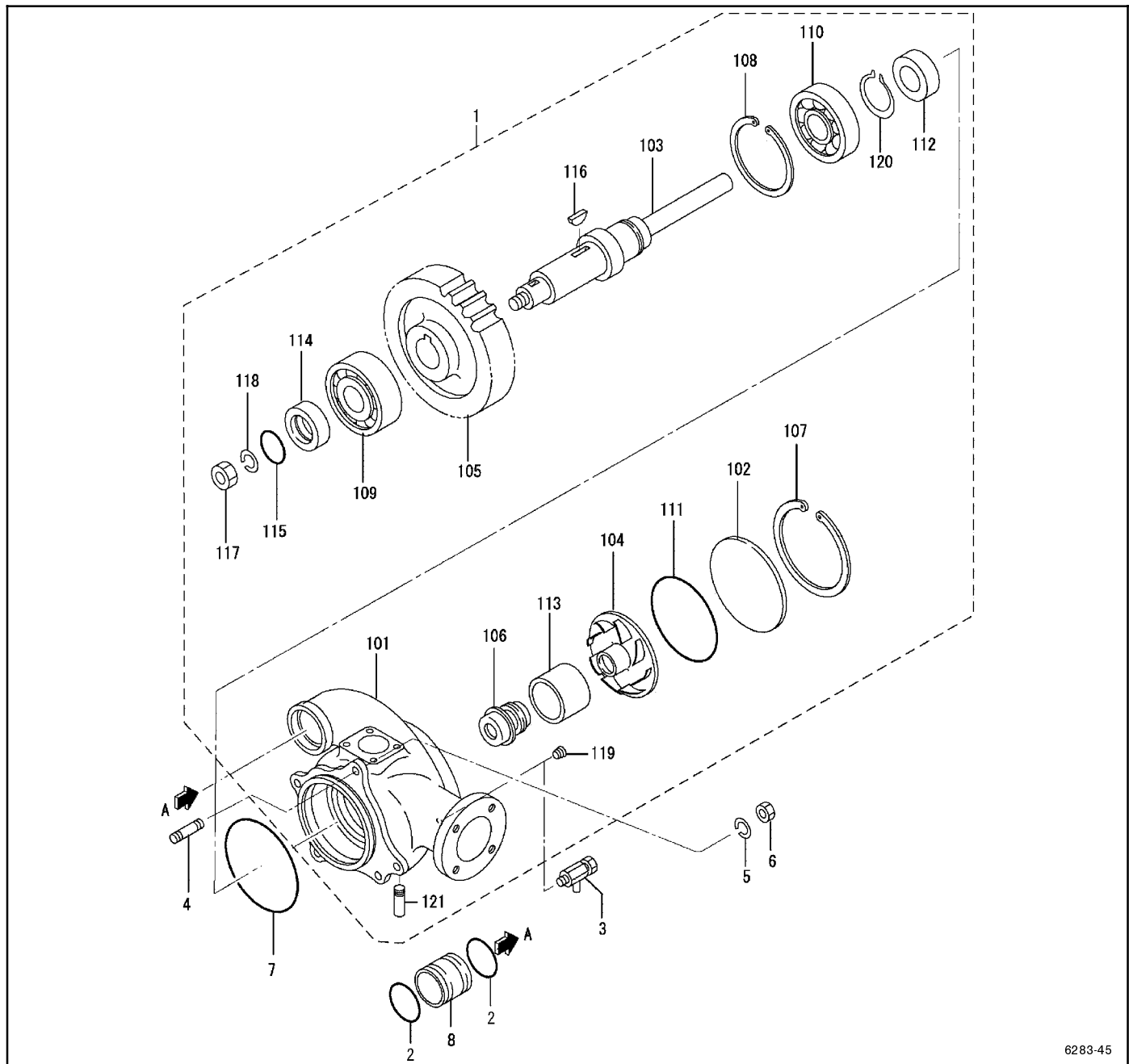
Group 43: Breather



6283-43

Item	Part No.	Description	Qty.	
			1	2
1	GM21762	Gasket	2	2
2	GM21859	Pipe, breather left side	1	1
3	GM21860	Pipe, breather right side	1	1
4	GM15149	Bolt w/washer	6	6
5	GM15175	Washer	6	6
6	GM21681	Breather	2	2
7	GM37118	Packing	2	2
8	GM15155	Bolt w/washer	4	4
9	GM21862	Gasket, breather	1	1
10	GM37119	Cover	1	
10	GM57672	Bracket		1
10	GM15156	Bolt w/washer (not shown)		4
11	GM15151	Bolt w/washer	9	9

Group 45: Water Pump

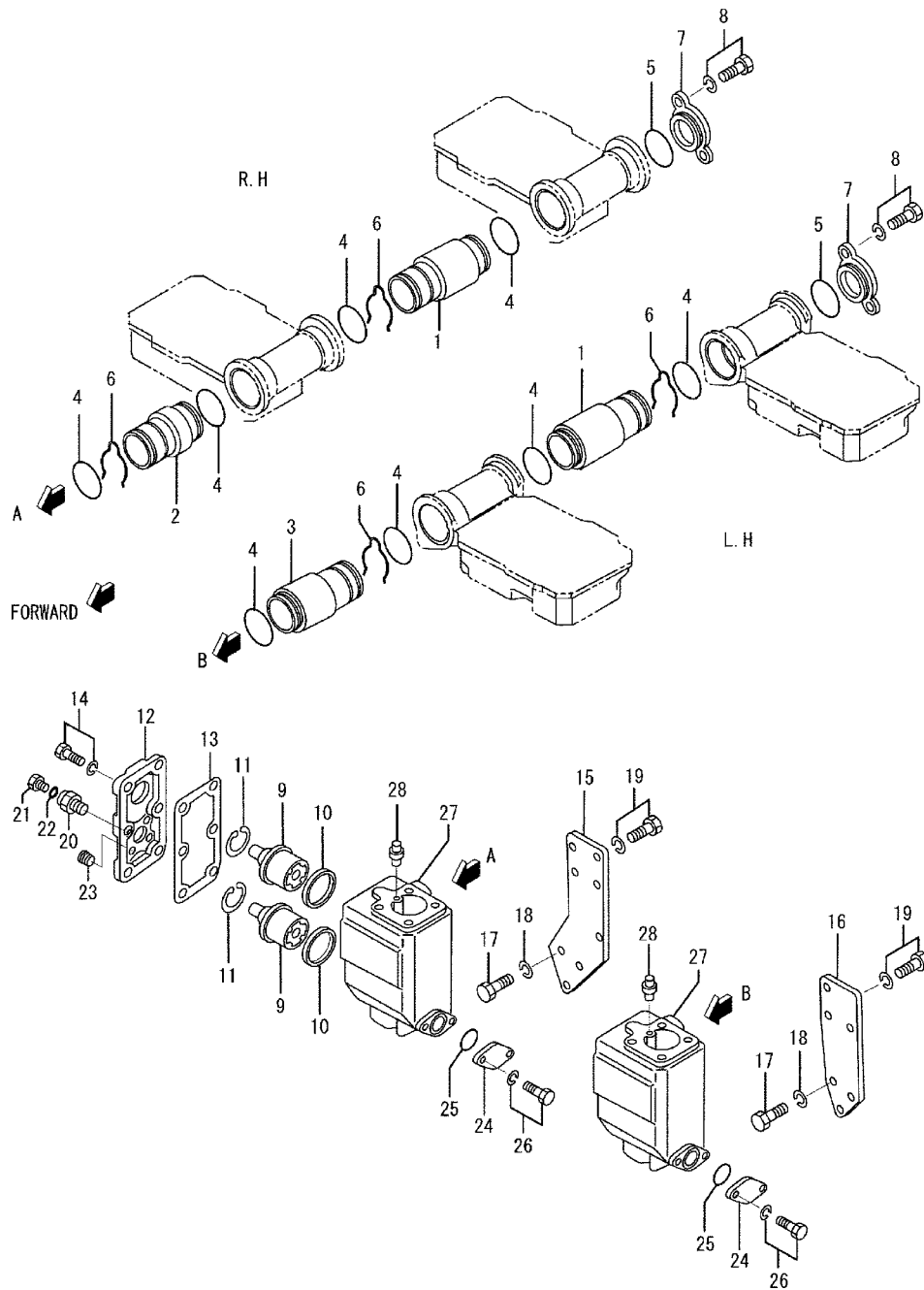


6283-45

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM37120	Pump assembly, water	1	1	115	GM15213	O-ring	1	1
101	X	Case, water pump	1	1	116	GM15192	Key, woodruff	1	1
102	GM14927	Cover	1	1	117	GM15988	Nut, jam	1	1
103	GM14982	Shaft, water pump	1	1	118	GM15995	Washer, spring	1	1
104	GM14983	Impeller	1	1	119	GM15242	Plug, tapered	1	1
105	GM14467	Gear, head	1	1	120	GM15219	Ring, snap	1	1
106	GM31685	Seal, unit	1	1	121	GM37122	Pipe	1	1
107	GM14928	Ring, snap	1	1	2	GM15208	O-ring	2	2
108	GM15223	Ring, snap	1	1	3	GM21660	Valve, drain	1	
109	GM15259	Bearing, ball	1	1	3	GM57237	Valve, drain		1
110	GM15260	Bearing, ball	1	1	4	GM14537	Stud	3	3
111	GM15210	O-ring	1	1	5	GM15180	Washer, spring	3	3
112	GM14921	Seal, oil	1	1	6	GM15165	Nut	3	3
113	GM14980	Ring	1	1	7	GM21625	O-ring	1	1
114	GM14981	Sleeve	1	1	8	GM14985	Coupling	1	1

X Part is not sold separately.

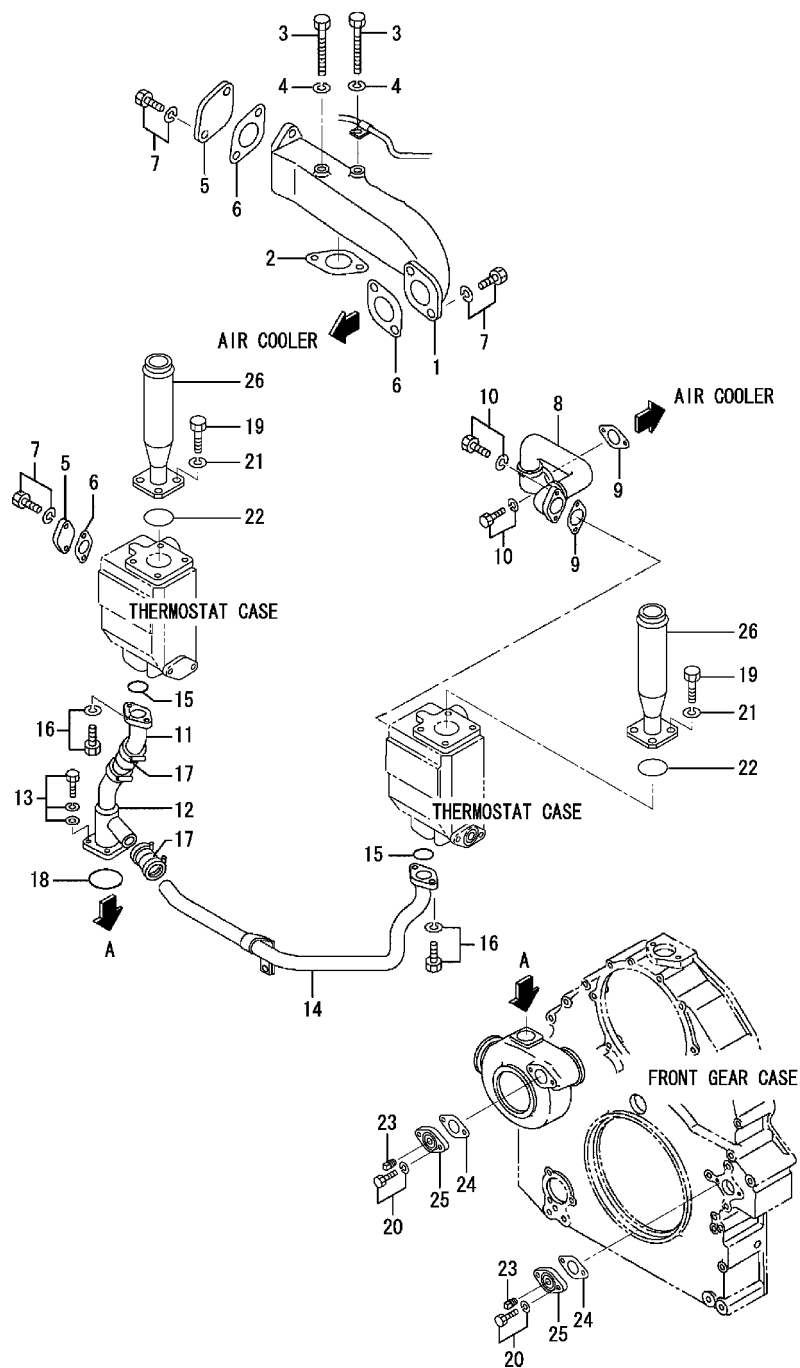
Group 46.1: Thermostat and Covers



6283-46.1

Item	Part No.	Description	Qty.	
			1	2
1	GM21866	Connector	10	10
2	GM21867	Connector, right hand	1	1
3	GM21868	Connector, left hand	1	1
4	GM21723	O-ring	24	24
5	GM31388	O-ring	2	2
6	GM15772	Ring, snap	12	12
7	GM31389	Cover	2	2
8	GM15141	Bolt w/washer	4	4
9	GM31390	Thermostat	4	4
10	GM15764	Seal	4	4
11	GM15763	Ring, snap	4	4
12	GM21728	Cover	2	2
13	GM31391	Packing	2	2
14	GM15142	Bolt w/washer	12	12
15	GM21873	Bracket, thermostat	1	1
16	GM21874	Bracket, thermostat	1	1
17	GM15963	Bolt	6	6
18	GM22120	Washer, spring	6	6
19	GM15182	Washer, spring	6	6
20	GM15143	Bolt w/washer	8	8
21	GM15857	Connector	1	1
22	GM15238	Plug, screw	1	1
23	GM14531	Washer, sealing	1	1
24	GM16033	Plug	7	7
25	GM21726	Cover	2	2
26	GM16005	O-ring	2	2
27	GM15142	Bolt w/washer	4	4
28	GM21729	Case, thermostat	2	2
29	GM15588	Valve	2	2

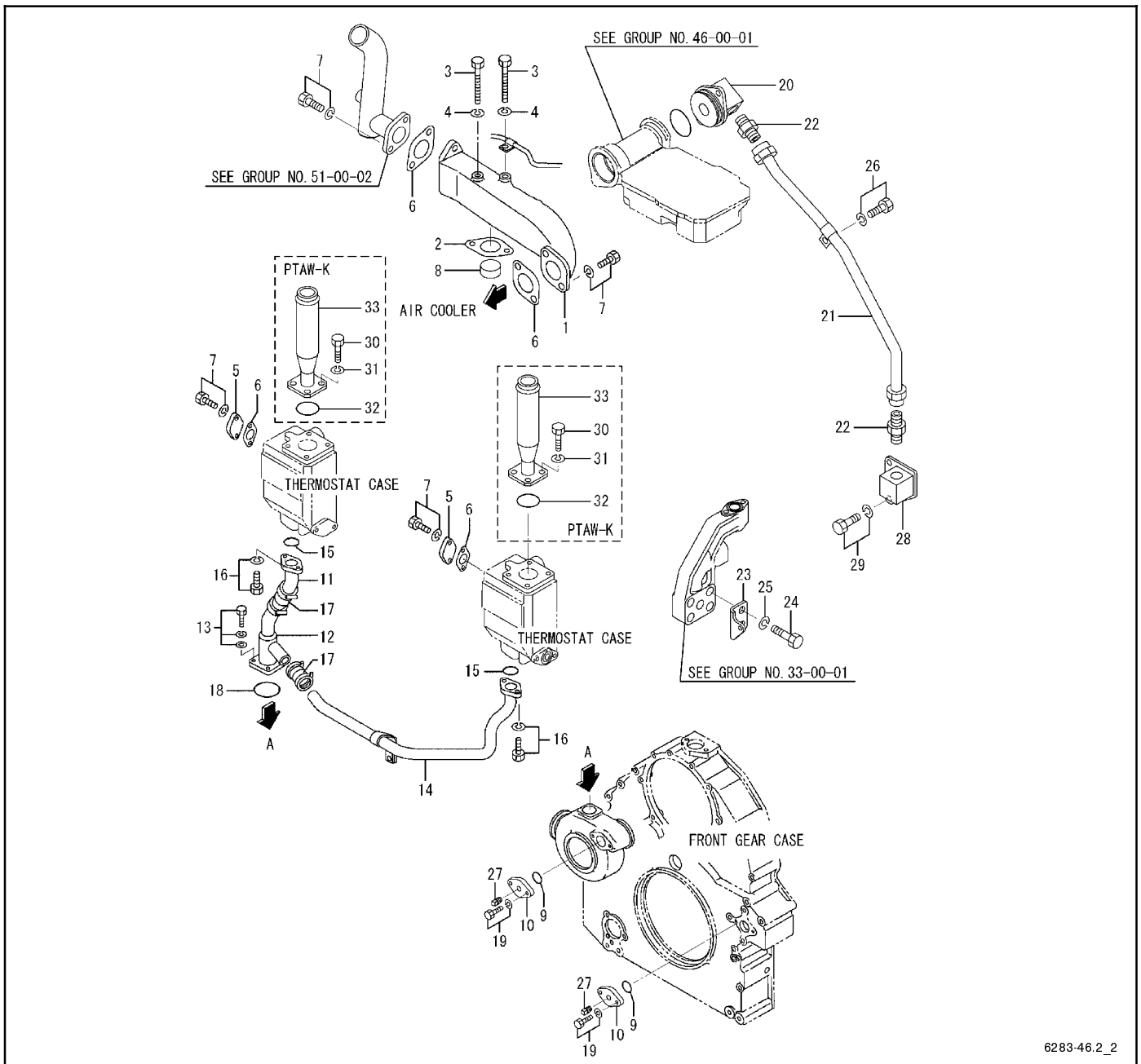
Group 46.2: Water Pipes



6283-46.2

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM37123	Connector, water	1	14	GM21869	Pipe, bypass	1
2	GM21667	Packing	1	15	GM16005	O-ring	2
3	GM15121	Bolt	2	16	GM15141	Bolt w/washer	4
4	GM15180	Washer, spring	2	17	GM21604	Coupling	2
5	GM14627	Cover	2	18	GM15200	O-ring	1
6	GM31397	Gasket	3	19	GM21147	Bolt	8
7	GM15151	Bolt w/washer	6	20	GM15150	Bolt w/washer	4
8	GM37124	Pipe, water	1	21	GM15179	Washer, spring	8
9	GM31397	Gasket	2	22	GM15205	O-ring	2
10	GM15151	Bolt w/washer	4	23	GM15247	Plug, tapered	2
11	GM21875	Pipe	1	24	GM31397	Gasket	2
12	GM21870	Pipe	1	25	GM14471	Cover	2
13	GM15154	Bolt w/washer	4	26	GM37125	Pipe, water	2

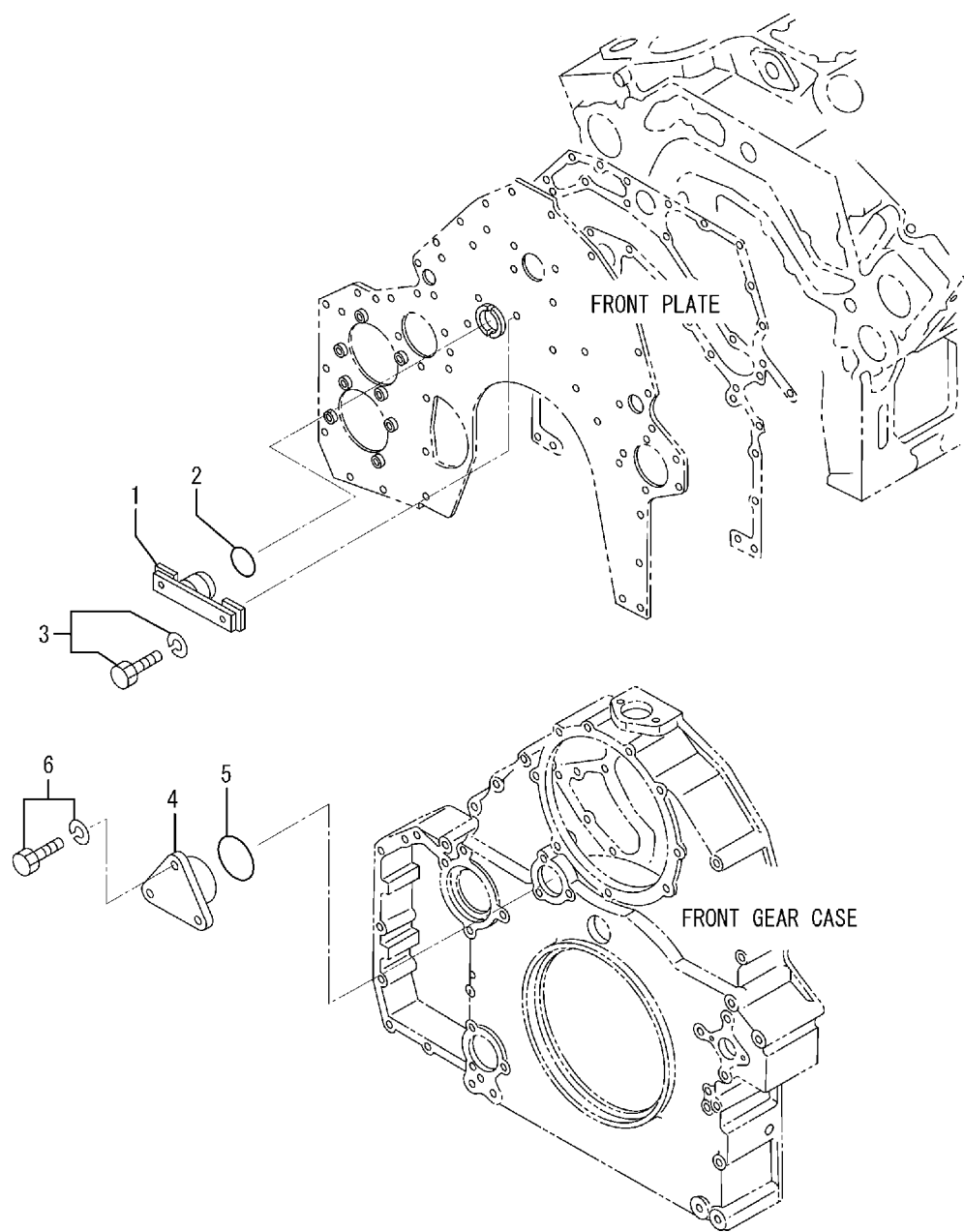
Group 46.2: Water Pipes



6283-46.2_2

Item	Part No.	Description	Qty. Var. 2	Item	Part No.	Description	Qty. Var. 2
1	GM37123	Connector, water	1	18	GM15200	O-ring	1
2	GM21667	Packing	1	19	GM15150	Bolt	4
3	GM15121	Bolt	2	20	GM57674	Connector	1
4	GM15180	Washer, spring	2	21	GM57675	Pipe	1
5	GM14627	Cover	2	22	GM22127	Connector	2
6	GM31397	Gasket	4	23	GM57676	Stay, pipe	1
7	GM15151	Bolt	8	24	GM57677	Bolt	2
8	GM15519	Cap, sealing	1	25	GM22120	Washer, spring	2
9	GM15204	O-ring	2	25	GM15182	Washer, spring	2
10	GM14471	Cover	2	26	GM15139	Bolt w/washer	1
11	GM21875	Pipe	1	27	GM15247	Plug, tapered	2
12	GM21870	Pipe	1	28	GM57678	Stay	1
13	GM15154	Bolt	4	29	GM15152	Bolt	2
14	GM21869	Pipe, bypass	1	30	GM21147	Bolt	?
15	GM16005	O-ring	2	31	GM15179	Washer, spring	?
16	GM15141	Bolt	4	32	GM15205	O-ring	?
17	GM21604	Coupling	2	33	GM37125	Pipe, water	?

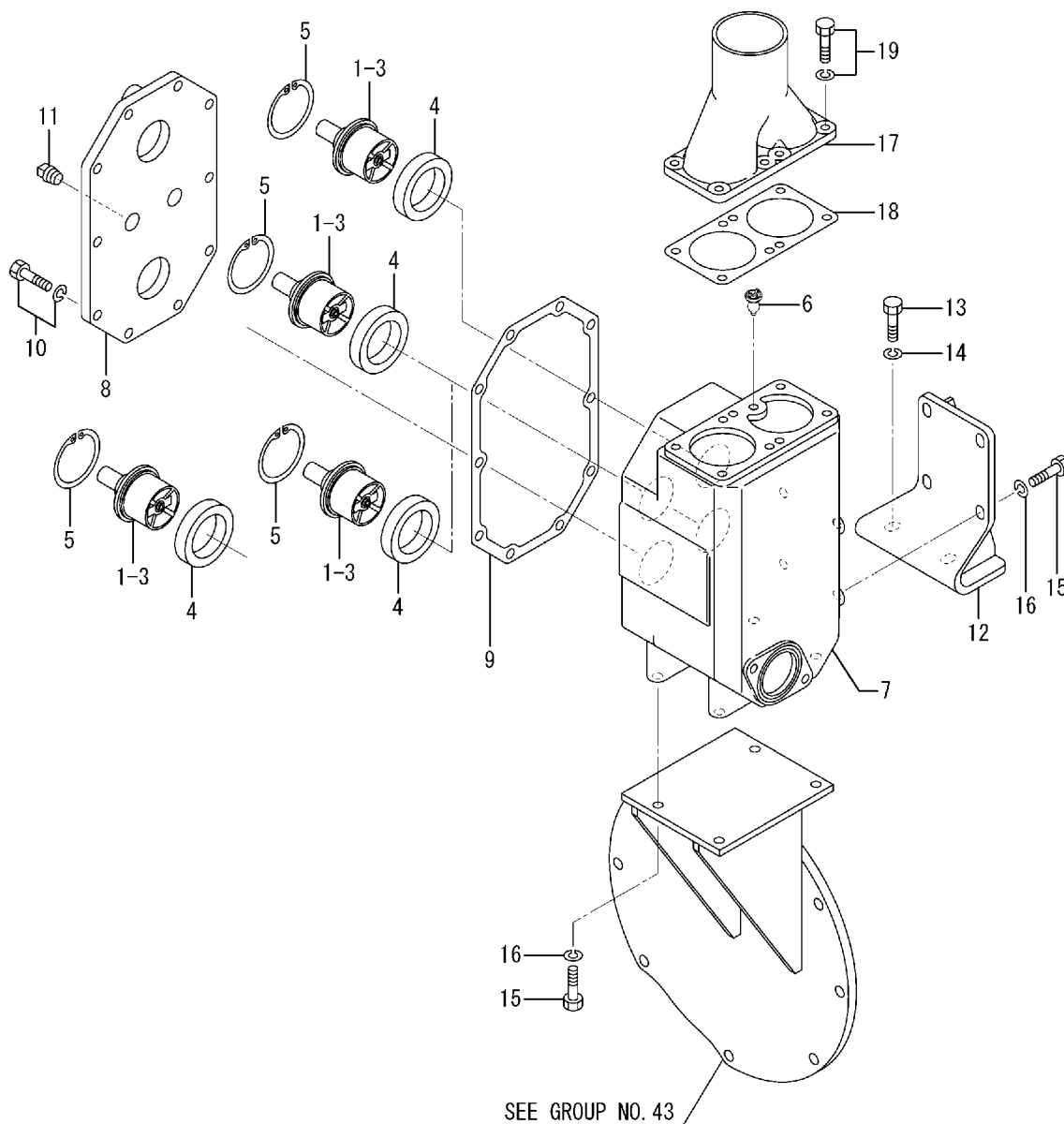
Group 48: Fan Drive



6283-48

Item	Part No.	Description	Qty.
			Var.
1	GM21876	Plug, case	1
2	GM21618	O-ring	1
3	GM15979	Bolt w/washer	2
4	GM21670	Flange	1
5	GM14517	O-ring	1
6	GM15151	Bolt w/washer	3

Group 50.1: Intercooler Thermostat

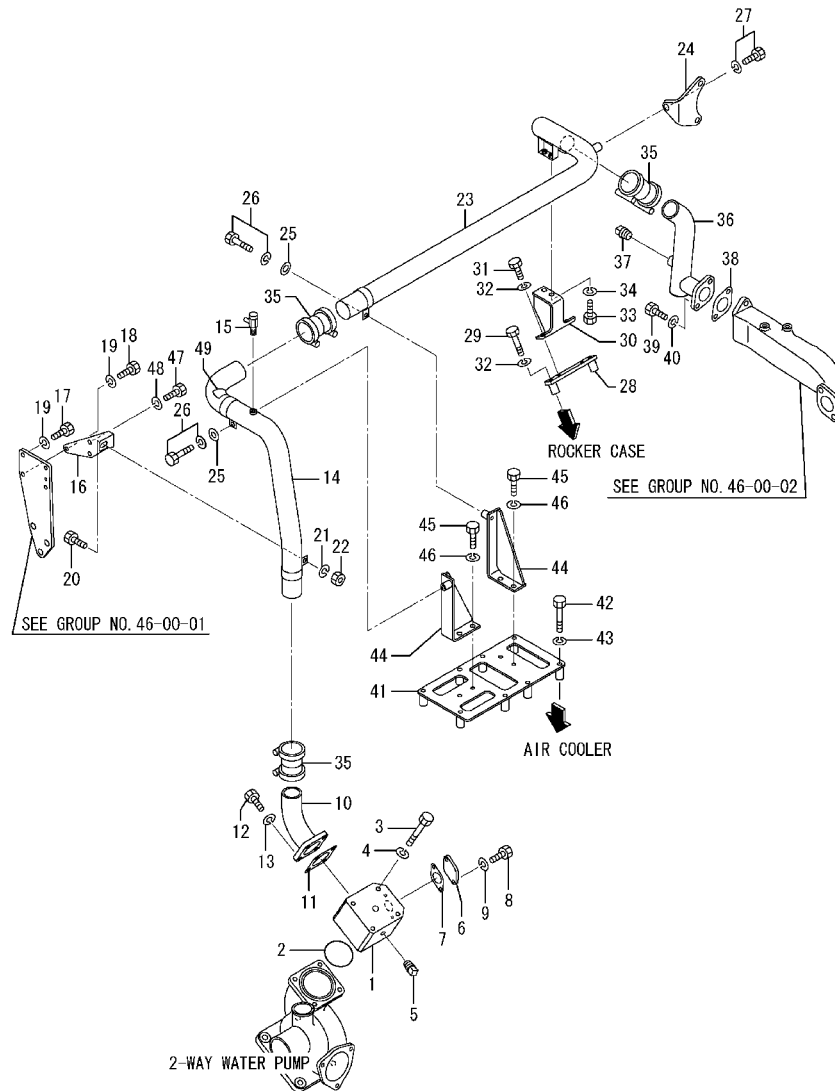


6283-50.1

Item	Part No.	Description	Qty. Var.
1	GM57845	Thermostat	4
4	GM15764	Seal	4
5	GM15763	Ring, snap	4
6	GM15588	Valve	1
7	GM57846	Case, thermostat	1
8	GM57847	Cover, thermostat	1
9	GM57848	Packing, cover	1
10	GM15142	Bolt w/washer	10

Item	Part No.	Description	Qty. Var.
11	GM15247	Plug, tapered	2
12	GM57849	Stay, thermo case	1
13	GM15107	Bolt	2
14	GM15180	Washer, spring	2
15	GM15955	Bolt	8
16	GM15179	Washer, spring	8
17	GM34234	Cover, thermo	1
18	GM13945	Gasket, thermostat	1
19	GM15138	Bolt w/washer	8

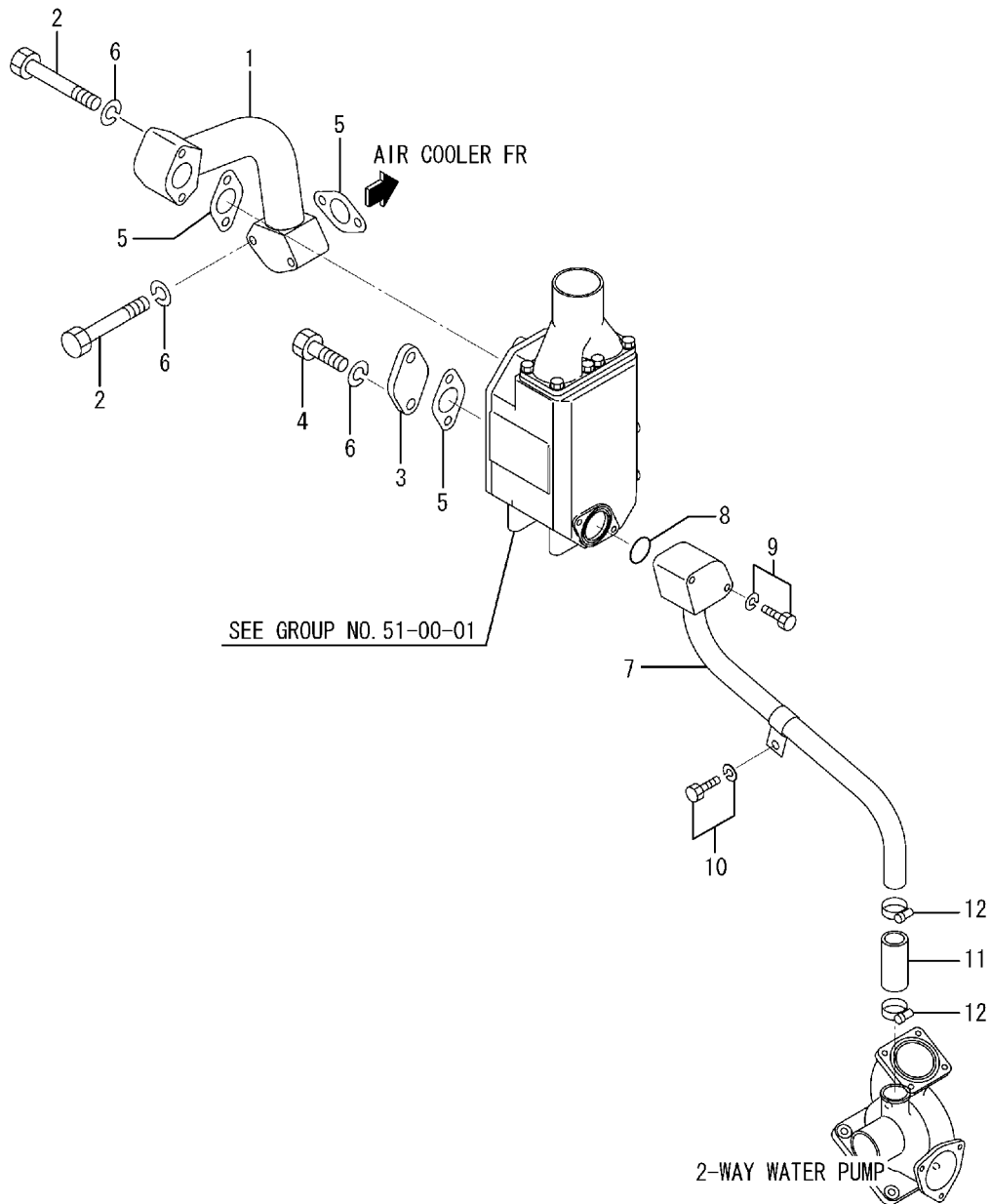
Group 50.2: Intercooler Pipes



6283-50.2

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM57850	Connector, washer	1	26	GM15161	Bolt w/washer	2
2	GM57851	O-ring	1	27	GM15150	Bolt	1
3	GM57852	Bolt	4	28	GM57859	Bracket	1
4	GM15180	Washer, spring	4	29	GM57860	Bolt	2
5	GM15247	Plug, tapered	2	30	GM57861	Bracket	1
6	GM14627	Cover	1	31	GM22091	Bolt	2
7	GM31397	Gasket	2	32	GM15179	Washer, spring	4
8	GM15107	Bolt	2	33	GM57836	Bolt	2
9	GM15180	Washer, spring	2	34	GM15180	Washer, spring	2
10	GM57853	Pipe, water	1	35	GM37247	Coupling	3
11	GM57854	Gasket	1	36	GM57862	Pipe, water	1
12	GM15108	Bolt	4	37	GM15247	Plug, tapered	1
13	GM15180	Washer, spring	4	38	GM31397	Gasket	1
14	GM57855	Pipe, water	1	39	GM15108	Bolt	2
15	GM57237	Cock, drain	1	40	GM15180	Washer, spring	2
16	GM57856	Stay, pipe	1	41	GM57863	Bracket, water pipe	1
17	GM15103	Bolt	2	42	GM57480	Bolt	8
18	GM15955	Bolt	1	43	GM15179	Washer, spring	8
19	GM15179	Washer, spring	3	44	GM57864	Stay, water pipe	2
20	GM15955	Bolt	1	45	GM57836	Bolt	4
21	GM15179	Washer, spring	1	46	GM15180	Washer, spring	4
22	GM15164	Nut	1	47	GM36474	Bolt	2
23	GM57857	Pipe, water	1	48	GM15179	Washer, spring	2
24	GM57858	Stay, pipe	1	49	GM37248	Label, caution	1
25	GM31310	Washer	2				

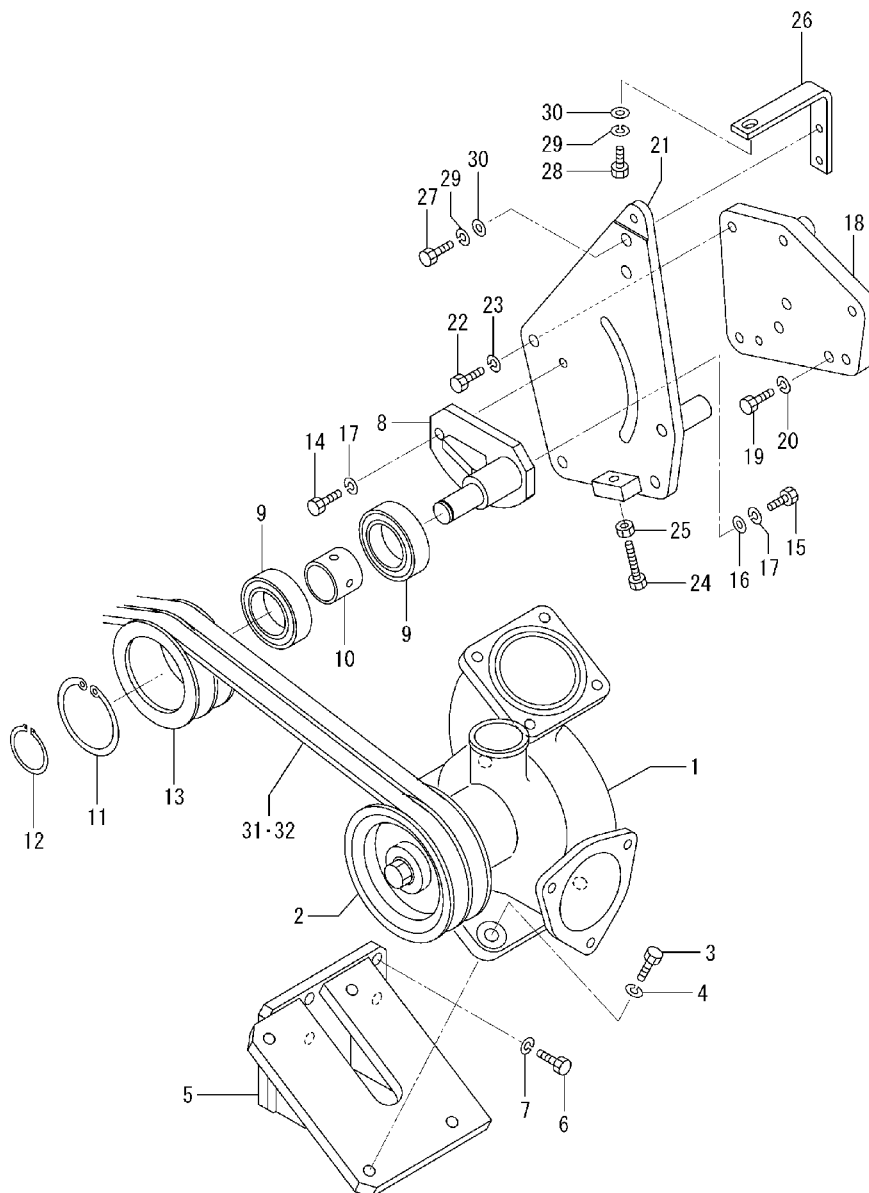
Group 50.3: Intercooler Bypass Pipes



6283-50.3

Item	Part No.	Description	Qty.
			Var. 1
1	GM57865	Pipe, water	1
2	GM22095	Bolt	4
3	GM14627	Cover	1
4	GM15107	Bolt	2
5	GM31397	Gasket	3
6	GM15180	Washer, spring	6
7	GM57866	Pipe, bypass	1
8	GM16005	O-ring	1
9	GM57867	Bolt, w/washer	2
10	GM15140	Bolt	1
11	GM15775	Hose	1
12	GM15522	Clamp	2

Group 53: Intercooler Pump

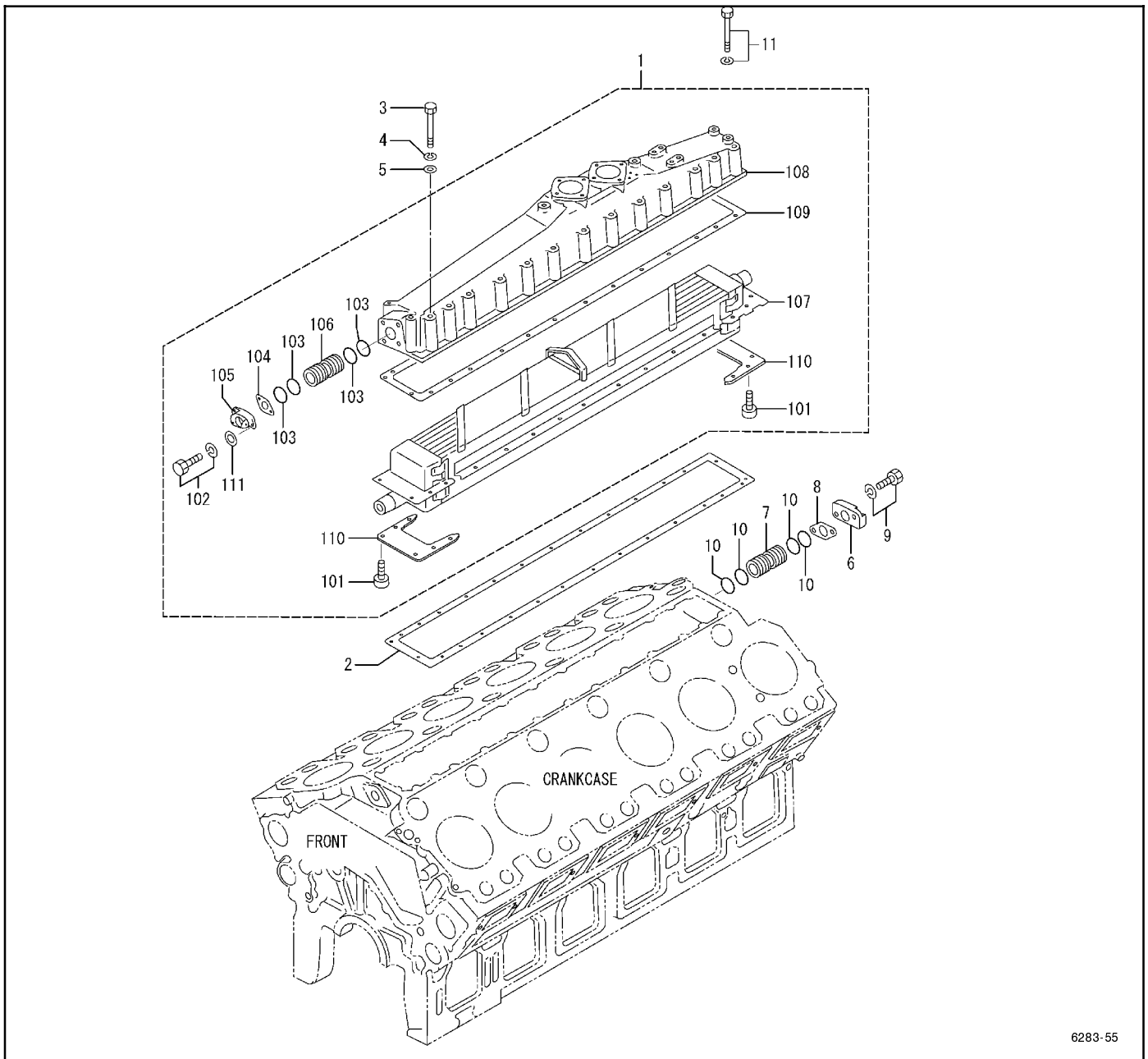


6283-53

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM57868	Pump assembly, water	1	17	GM15180	Washer, spring	2
2	GM57869	Pulley, water pump	1	18	GM57879	Plate, tension	1
3	GM57870	Bolt	4	19	GM57663	Bolt	5
4	GM15181	Washer, spring	4	20	GM15180	Washer, spring	5
5	GM57871	Bracket	1	21	GM57880	Bracket, tension	1
6	GM15109	Bolt	4	22	GM57827	Bolt	4
7	GM15180	Washer, spring	4	23	GM15180	Washer, spring	4
8	GM57872	Bracket, tension	1	24	GM57360	Bolt	1
9	GM57873	Bearing, ball	2	25	GM15167	Nut	1
10	GM57874	Spacer	1	26	GM57881	Stay	1
11	GM57875	Ring, snap	1	27	GM21147	Bolt	2
12	GM57876	Ring, snap	1	28	GM15955	Bolt	1
13	GM57877	Pulley, tension	1	29	GM15179	Washer, spring	3
14	GM15109	Bolt	1	30	GM15174	Washer, plain	3
15	GM15112	Bolt	1	31	GM55490	V-belt (L=1960)	1
16	GM57878	Washer	1	32	GM55491	V-belt (L=2000)	1

Intercooler pump belt:(Qty 1=set of 2)
 GM55491: Engine serial number before 14209
 GM98766: Engine serial number 14209 and after

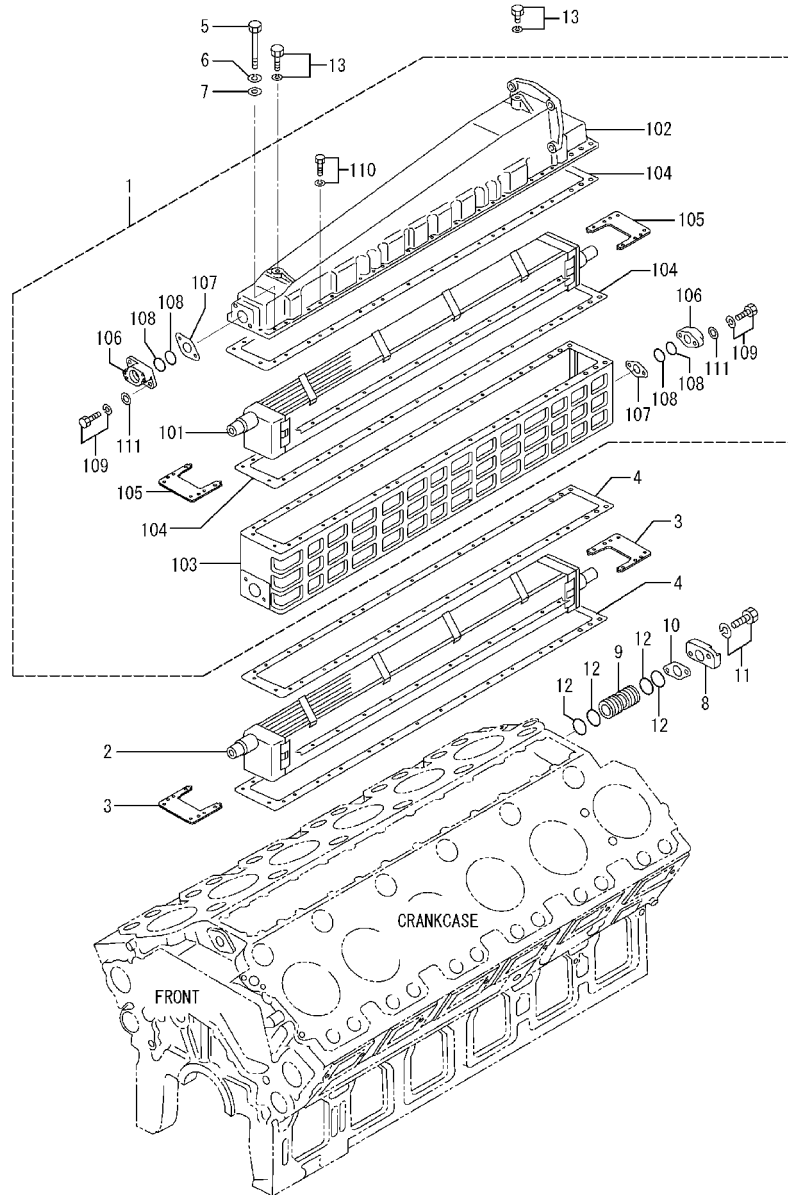
Group 55: Air Cooler



6283-55

Item	Part No.	Description	Qty. Var. 1	Item	Part No.	Description	Qty. Var. 1
1	GM37126	Cooler assembly, air	1	111	GM15174	Washer, plain	2
101	GM37127	Screw, machine	16	2	GM37133	Gasket	1
102	GM15142	Bolt w/washer	2	3	GM14541	Bolt	30
103	GM14513	O-ring	4	4	GM15179	Washer, spring	30
104	GM15794	Gasket	1	5	GM31649	Washer	30
105	GM31408	Connector	1	6	GM31408	Connector	1
106	GM37128	Pipe assembly	1	7	GM31409	Pipe, air cooler	1
107	GM37129	Element, air cooler	1	8	GM21730	Gasket	1
108	GM37130	Cover	1	9	GM15151	Bolt w/washer	2
109	GM37131	Gasket	1	10	GM14513	O-ring	4
110	GM37132	Plate	2	11	GM15142	Bolt w/washer	2

Group 55: Air Cooler, continued

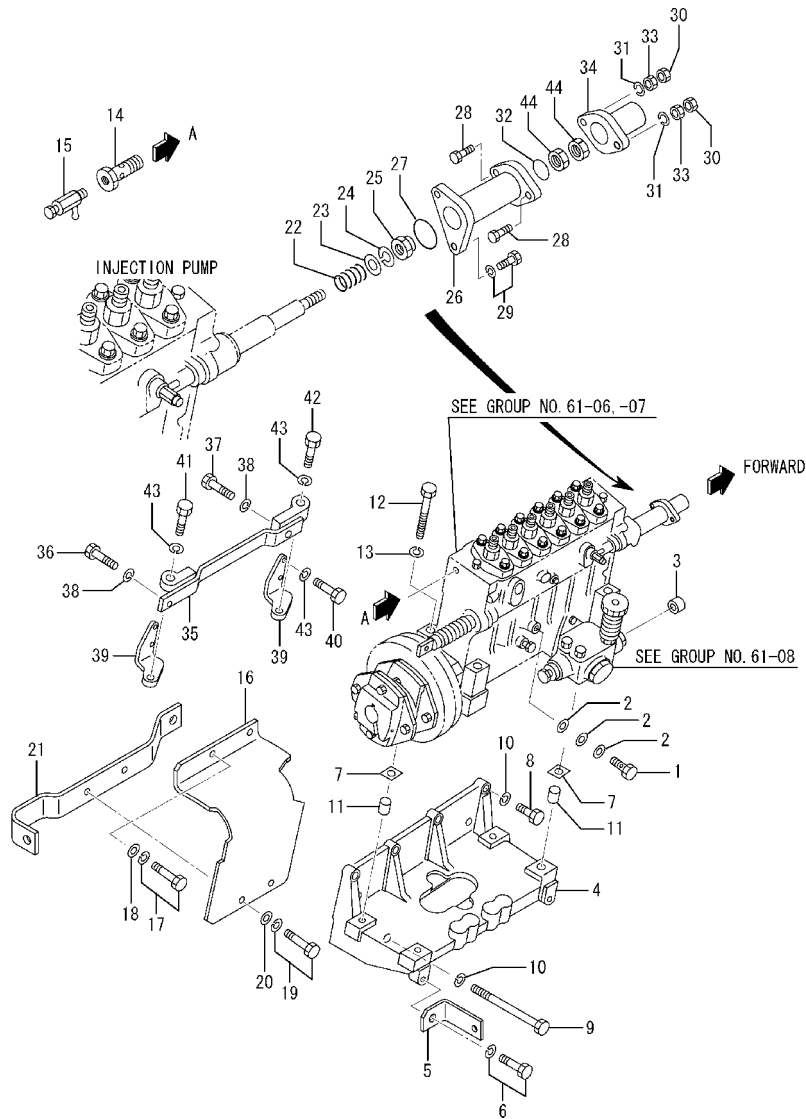


6283-55_2

Item	Part No.	Description	Qty. Var.
1	GM57679	Cooler assembly, air	1
101	GM57680	Element, air cooler	1
102	GM57681	Cover	1
103	GM57682	Case	1
104	GM57683	Gasket	2
105	GM57684	Plate	2
106	GM15797	Connector	2
107	GM21730	Gasket	2
108	GM14513	O-ring	4
109	GM15142	Bolt w/washer	4
110	GM15161	Bolt w/washer	12
111	GM15174	Washer, plain	16

Item	Part No.	Description	Qty. Var.
2	GM57680	Element, air cooler	1
3	GM57681	Plate	2
4	GM37133	Gasket	2
5	GM14541	Bolt	22
6	GM15179	Washer, spring	22
7	GM31649	Washer	22
8	GM31408	Connector	1
9	GM31409	Pipe, air cooler	1
10	GM21730	Gasket	1
11	GM15151	Bolt	2
12	GM14513	O-ring	4
13	GM15142	Bolt w/washer	2

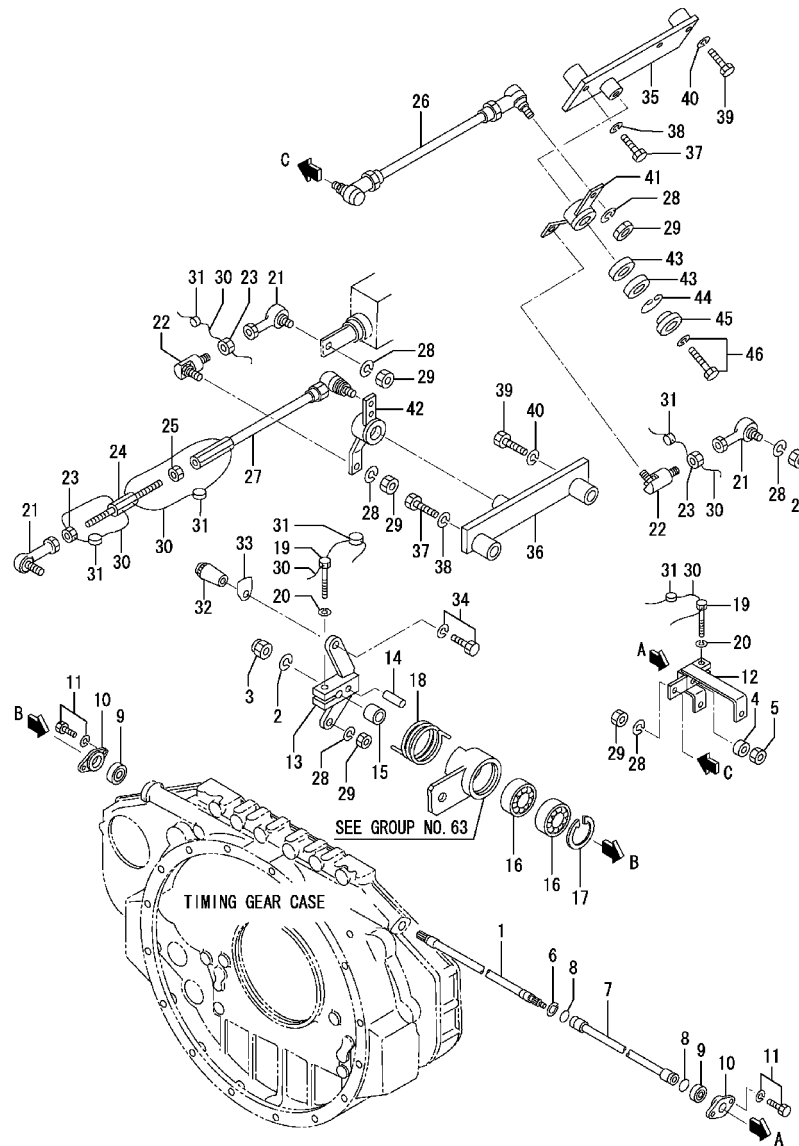
Group 61.1: Fuel Injection Pump



6283-61.1

Item	Part No.	Description	Qty.		Item	Part No.	Description	Qty.	
			1	2				1	2
1	GM21682	Bolt, eye	2	2	22	GM21735	Spring return	2	2
2	GM14529	Washer, sealing	6	6	23	GM15174	Washer, plain	2	2
3	GM15803	Spacer	2	2	24	GM15179	Washer, spring	2	2
4	GM37134	Bracket, injection pump	2	2	25	GM22119	Nut, self-locking	2	2
5	GM21899	Stay, pipe	1	1	26	GM31417	Case, spring	2	2
6	GM15151	Bolt w/washer	1	1	27	GM21613	O-ring	2	2
7	GM31690	Shim	4	4	28	GM31415	Bolt	4	4
8	GM15112	Bolt	10	10	29	GM15976	Bolt w/washer	4	4
9	GM22096	Bolt	4	4	30	GM31420	Nut, self-locking	4	4
10	GM15180	Washer, spring	14	14	31	GM15178	Washer, spring	4	4
11	GM15802	Pin, dowel	4	4	32	GM31419	O-ring	2	2
12	GM15121	Bolt	8	8	33	GM31416	Nut, tamper proof	4	4
13	GM15180	Washer, spring	8	8	34	GM31418	Cap, rack set	2	2
14	GM15917	Bolt, eye	2	2	35	GM37135	Stay, injection pump	2	2
15	GM57685	Bolt, eye	2	2	36	GM15961	Bolt	2	2
16	GM15552	Air vent	2	2	37	GM22097	Bolt	2	2
17	GM21895	Cover, coupling	2	2	38	GM15181	Washer, spring	4	4
18	GM15149	Bolt w/washer	4	4	39	GM37136	Stay, injection pump	4	4
19	GM15175	Washer	4	4	40	GM15108	Bolt	8	8
20	GM15139	Bolt w/washer	4	4	41	GM15110	Bolt	2	2
21	GM15141	Bolt w/washer	4	4	42	GM15112	Bolt	2	2
22	GM15174	Washer, plain	4	4	43	GM15180	Washer, spring	12	12
23	GM21884	Stay cover	2	2	44	GM22116	Nut, jam	4	4

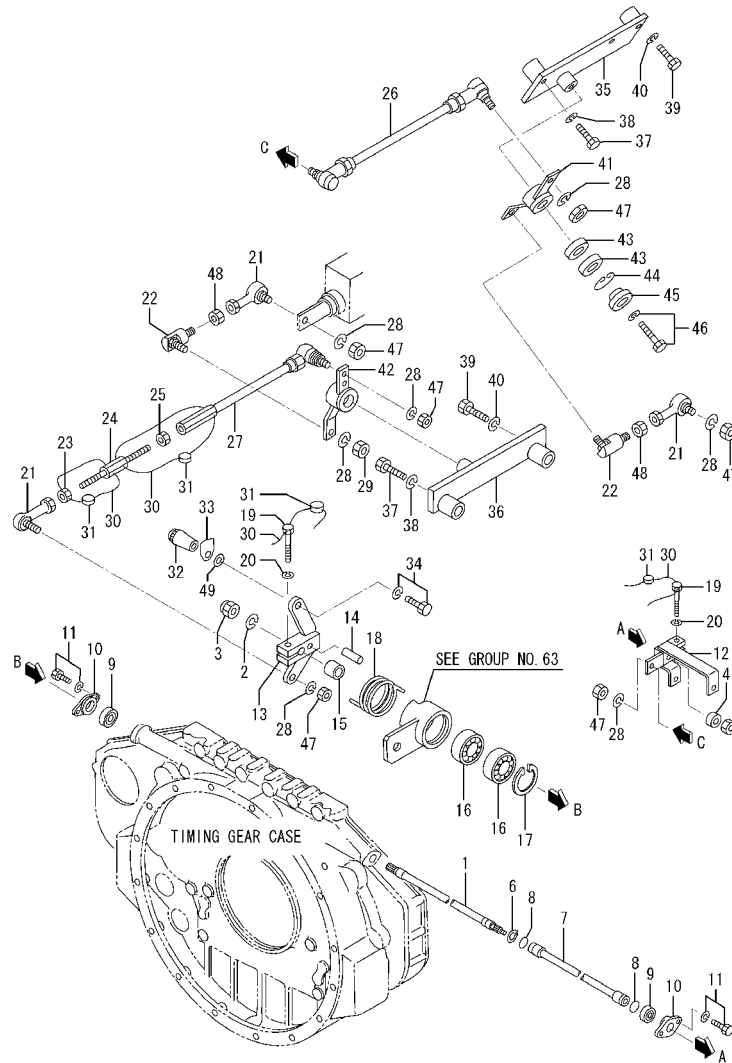
Group 61.2: Control Shaft



6283-61.2

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM21889	Shaft, control	1	24	GM22027	Rod	1
2	GM15179	Washer, spring	1	25	GM15531	Nut, lock	1
3	GM22119	Nut, self-locking	1	26	GM21892	Link, right hand	1
4	GM21907	Spacer	1	27	GM21893	Link, left hand	1
5	GM21908	Nut, lock	1	28	GM15178	Washer, spring	6
6	GM22126	Ring, snap	1	29	GM31420	Nut, self-locking	6
7	GM21885	Pipe	1	30	GM31470	Wire, seal	6
8	GM34256	O-ring	2	31	GM15001	Seal	6
9	GM36644	Bearing, ball	2	32	GM14474	Grip	1
10	GM14913	Cover	2	33	GM36653	Plate, caution	1
11	GM15137	Bolt w/washer	4	34	GM15975	Bolt w/washer	1
12	GM37137	Lever	1	35	GM21890	Bracket, lever, right hand	1
13	GM37138	Lever	1	36	GM21891	Bracket, lever, left hand	1
14	GM21883	Pin, dowel	1	37	GM21887	Bolt, lever bracket	2
15	GM15088	Spacer	1	38	GM15181	Washer, spring	2
16	GM15257	Bearing, ball	2	39	GM15115	Bolt	2
17	GM15220	Ring, snap	1	40	GM15180	Washer, spring	2
18	GM21661	Spring	1	41	GM37139	Lever, link	1
19	GM15127	Bolt	2	42	GM21886	Lever, link	1
20	GM15178	Washer, spring	2	43	GM15256	Bearing, ball	4
21	GM21676	Joint, ball	3	44	GM16017	Ring, snap	2
22	GM21742	Joint, ball	2	45	GM14608	Plate, end	2
23	GM52476	Nut, lock	3	46	GM15144	Bolt w/washer	2

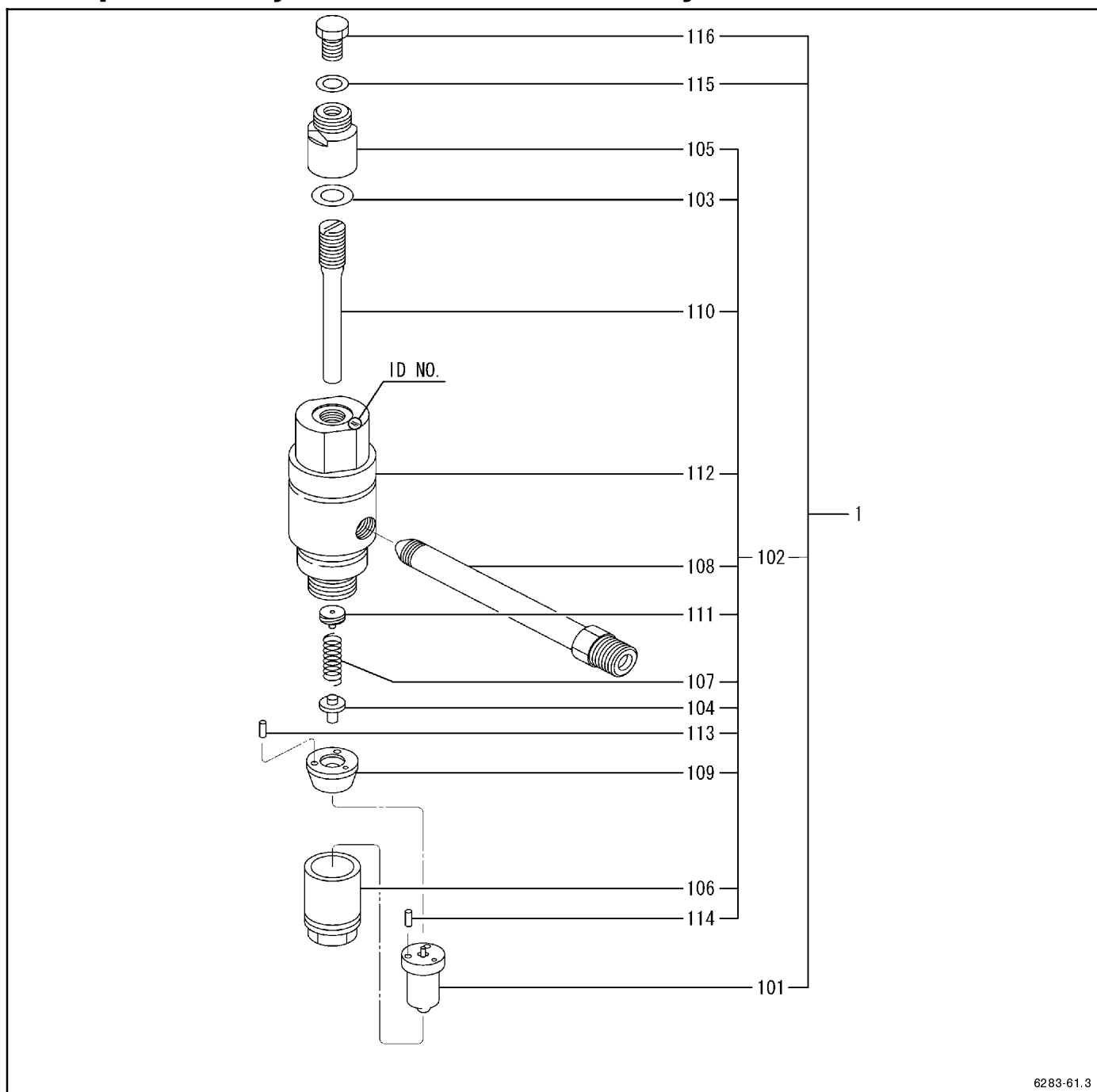
Group 61.2: Control Shaft



6283-61.2_2

Item	Part No.	Description	Qty. Var. 2	Item	Part No.	Description	Qty. Var. 2
1	GM21889	Shaft, control	1	26	GM21892	Link, right hand	1
2	GM15179	Washer, spring	1	27	GM21893	Link, left hand	1
3	GM22119	Nut, self-locking	1	28	GM15178	Washer, spring	6
4	GM21907	Spacer	1	29	GM15985	Nut	2
5	GM21908	Nut, lock	1	30	GM14463	Wire, seal	4
6	GM22126	Ring, snap	1	31	GM15001	Seal	4
7	GM21885	Pipe	1	32	GM14474	Grip	1
8	GM34256	O-ring	2	33	GM36653	Plate, caution	1
9	GM36644	Bearing, ball	2	34	GM15138	Bolt w/washer	1
10	GM14913	Cover	2	35	GM21890	Bracket, lever, right hand	1
11	GM15137	Bolt w/washer	4	36	GM21891	Bracket, lever, left hand	1
12	GM57693	Lever, right hand	1	37	GM21887	Bolt, lever bracket	2
13	GM37138	Lever	1	38	GM15181	Washer, spring	2
14	GM21883	Pin, dowel	1	39	GM15115	Bolt	2
15	GM15088	Spacer	1	40	GM15180	Washer, spring	2
16	GM15257	Bearing, ball	2	41	GM57694	Lever, link	1
17	GM15220	Ring, snap	1	42	GM57695	Lever, link	1
18	GM21661	Spring	1	43	GM15256	Bearing, ball	2
19	GM15127	Bolt	2	44	GM16017	Ring, snap	1
20	GM15178	Washer, spring	2	45	GM14608	Plate, end	1
21	GM21676	Joint, ball	3	46	GM15144	Bolt	2
22	GM21742	Joint, ball	2	47	GM31420	Nut, self-locking	6
23	GM52473	Nut, lock	3	48	GM15163	Nut	2
24	GM22027	Rod	1	49	GM15173	Washer, plain	1
25	GM15531	Nut, lock	1				

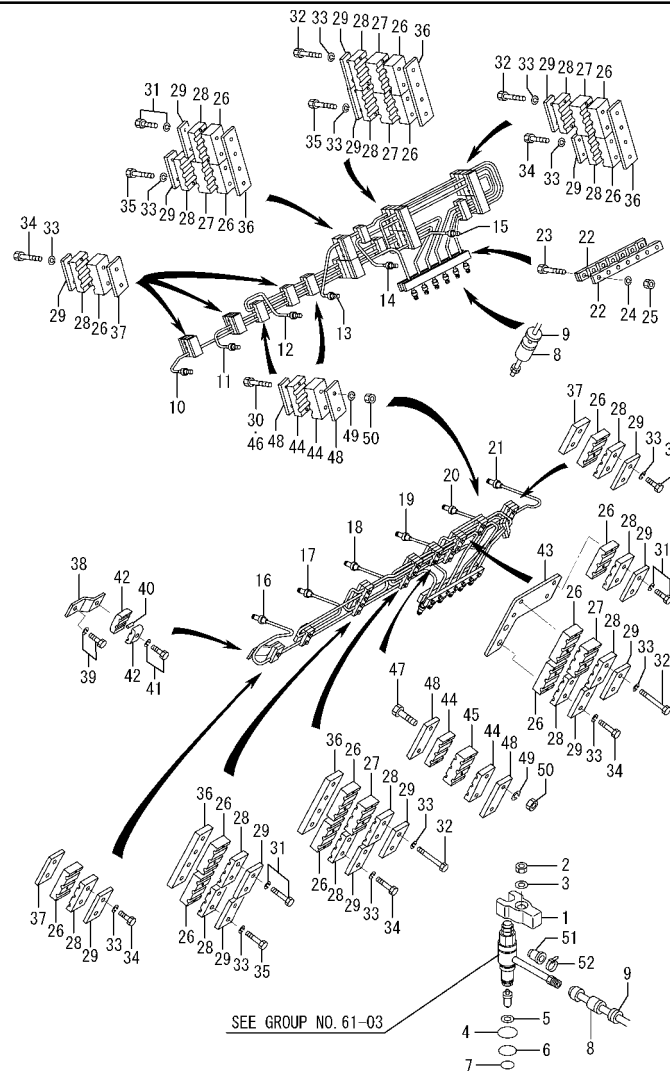
Group 61.3: Injector Nozzle Assembly



6283-61.3

Item	Part No.	Description	Qty. Var.		Item	Part No.	Description	Qty. Var.	
			1	2				1	2
1	GM31435	Nozzle assembly	12		108	GM15827	Connector, inlet	12	
1	GM57283	Nozzle assembly		12	108	GM57287	Connector, inlet		12
101	GM37140	Tip assembly, nozzle	12	12	109	GM15828	Spacer	12	12
102	GM21732	Holder assembly, nozzle	12		110	GM15826	Screw	12	12
102	GM57284	Holder assembly, nozzle		12	111	GM15809	Spring, seat	12	12
103	GM14530	Washer, sealing	12	12	112	GM15829	Body, nozzle holder	12	
104	GM21734	Bearing, roller	12		112	GM57288	Body, nozzle holder		12
104	GM57285	Bearing, roller		12	113	GM16036	Bearing, roller	24	24
105	GM15817	Nut, cap	12	12	114	GM15254	Bearing, roller	24	24
106	GM15816	Nut, retaining	12		115	GM14528	Washer, sealing	12	12
106	GM57286	Nut, retaining		12	116	GM15569	Screw, set	12	12
107	GM15825	Spring	12	12					

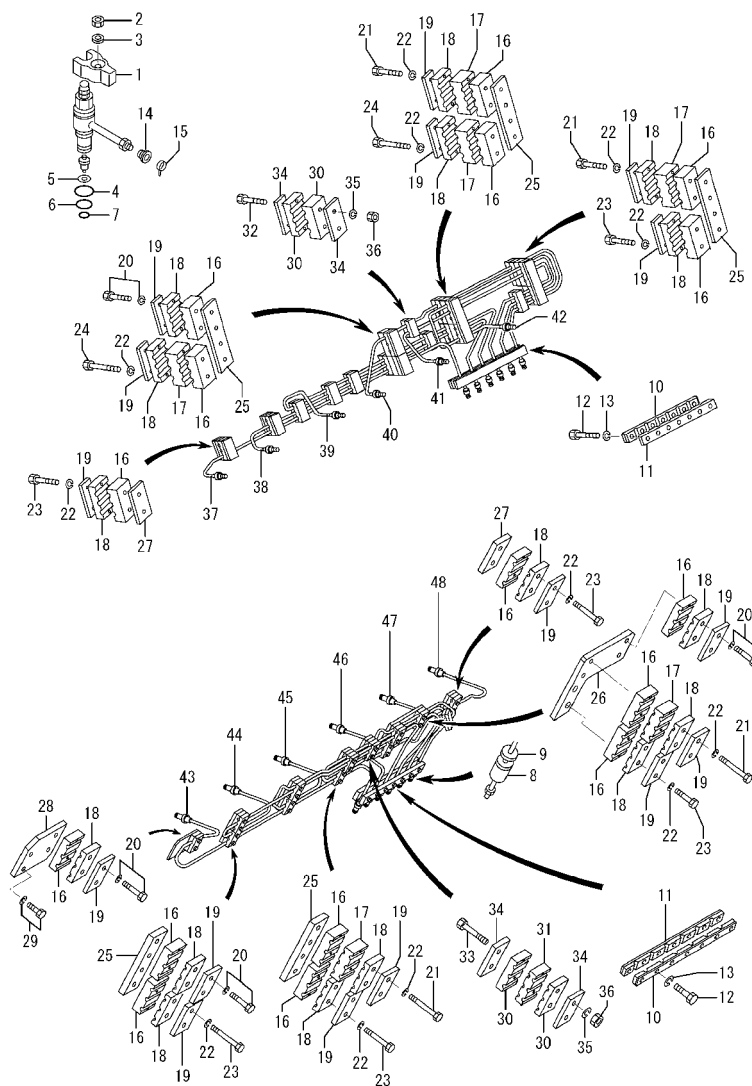
Group 61.4: Fuel Injection Pipes



6283-61.4

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM37141	Gland, nozzle	12	27	GM31429	Seat, pipe	6
2	GM15168	Nut	12	28	GM31428	Seat, pipe	18
3	GM21669	Washer	12	29	GM21740	Plate	18
4	GM14512	O-ring	12	30	GM15147	Bolt w/washer	4
5	GM15818	Gasket, nozzle	12	31	GM15147	Bolt w/washer	4
6	GM14511	O-ring	12	32	GM15958	Bolt	8
7	GM21612	O-ring	12	33	GM15179	Washer, spring	30
8	GM15813	Cover	24	34	GM22092	Bolt	18
9	GM15814	Holder	24	35	GM22094	Bolt	4
10	GM37142	Pipe, injection no. 1	1	36	GM21877	Plate	5
11	GM37143	Pipe, injection no. 2	1	37	GM21878	Plate	5
12	GM37144	Pipe, injection no. 3	1	38	GM21881	Stay pipe, inject	1
13	GM37145	Pipe, injection no. 4	1	39	GM15139	Bolt w/washer	1
14	GM37146	Pipe, injection no. 5	1	40	GM22122	Pin	1
15	GM37147	Pipe, injection no. 6	1	41	GM15974	Bolt w/washer	1
16	GM37148	Pipe, injection no. 7	1	42	GM37155	Clamp	2
17	GM37149	Pipe, injection no. 8	1	43	GM37156	Plate, clamp	1
18	GM37150	Pipe, injection no. 9	1	44	GM31428	Seat, pipe	14
19	GM37151	Pipe, injection no. 10	1	45	GM31429	Seat, pipe	1
20	GM37152	Pipe, injection no. 11	1	46	GM15957	Bolt	12
21	GM37153	Pipe, injection no. 12	1	47	GM22093	Bolt	2
22	GM15832	Clamp	4	48	GM21740	Plate	14
23	GM37154	Bolt	14	49	GM15179	Washer, spring	14
24	GM15178	Washer, spring	14	50	GM15164	Nut	14
25	GM15163	Nut	14	51	GM31433	Bushing, injection pipe	12
26	GM31427	Seat, pipe	18	52	GM31434	Band, clip	12

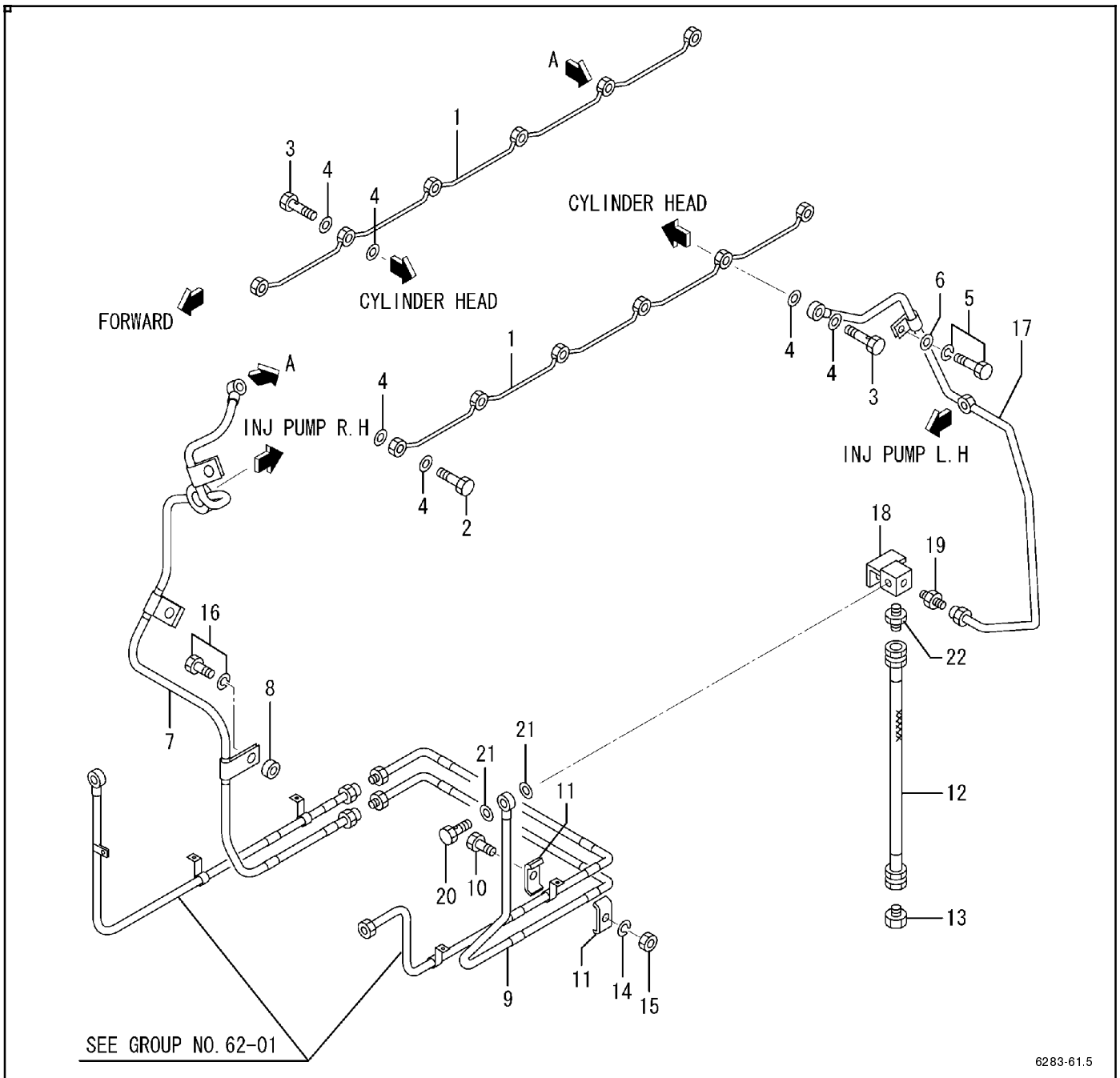
Group 61.4: Fuel Injection Pipes, continued



6283-61.4_2

Item	Part No.	Description	Qty. Var. 2	Item	Part No.	Description	Qty. Var. 2
1	GM37141	Gland, nozzle	12	26	GM37156	Plate, clamp	1
2	GM15168	Nut	12	27	GM21878	Plate	4
3	GM21669	Washer	12	28	GM57697	Stay, injection pipe	1
4	GM14512	O-ring	12	29	GM15142	Bolt w/washer	2
5	GM15818	Gasket, nozzle	12	30	GM31428	Seat, pipe	14
6	GM14511	O-ring	12	31	GM31429	Seat, pipe	1
7	GM21612	O-ring	12	32	GM15957	Bolt	12
8	GM57280	Cover	24	33	GM22093	Bolt	2
9	GM15814	Holder	24	34	GM21740	Plate	14
10	GM15832	Clamp	2	35	GM15179	Washer, spring	14
11	GM57696	Clamp	4	36	GM15164	Nut	14
12	GM37154	Bolt	14	37	GM37142	Pipe, injection no. 1	1
13	GM15178	Washer, spring	14	38	GM37143	Pipe, injection no. 2	1
14	GM31433	Bushing, injection pipe	12	39	GM37144	Pipe, injection no. 3	1
15	GM31434	Band, clip	12	40	GM37145	Pipe, injection no. 4	1
16	GM31427	Seat, pipe	20	41	GM37146	Pipe, injection no. 5	1
17	GM31429	Seat, pipe	6	42	GM37147	Pipe, injection no. 6	1
18	GM31428	Seat, pipe	20	43	GM37148	Pipe, injection no. 7	1
19	GM21740	Plate	20	44	GM37149	Pipe, injection no. 8	1
20	GM15147	Bolt	10	45	GM37150	Pipe, injection no. 9	1
21	GM15958	Bolt	8	46	GM37151	Pipe, injection no. 10	1
22	GM15179	Washer, spring	30	47	GM37152	Pipe, injection no. 11	1
23	GM22092	Bolt	18	47	GM38839	Pipe, injection no. 11	1
24	GM22094	Bolt	4	48	GM37153	Pipe, injection no. 12	1
25	GM21877	Plate	6				

Group 61.5: Fuel Leak and Feed Piping

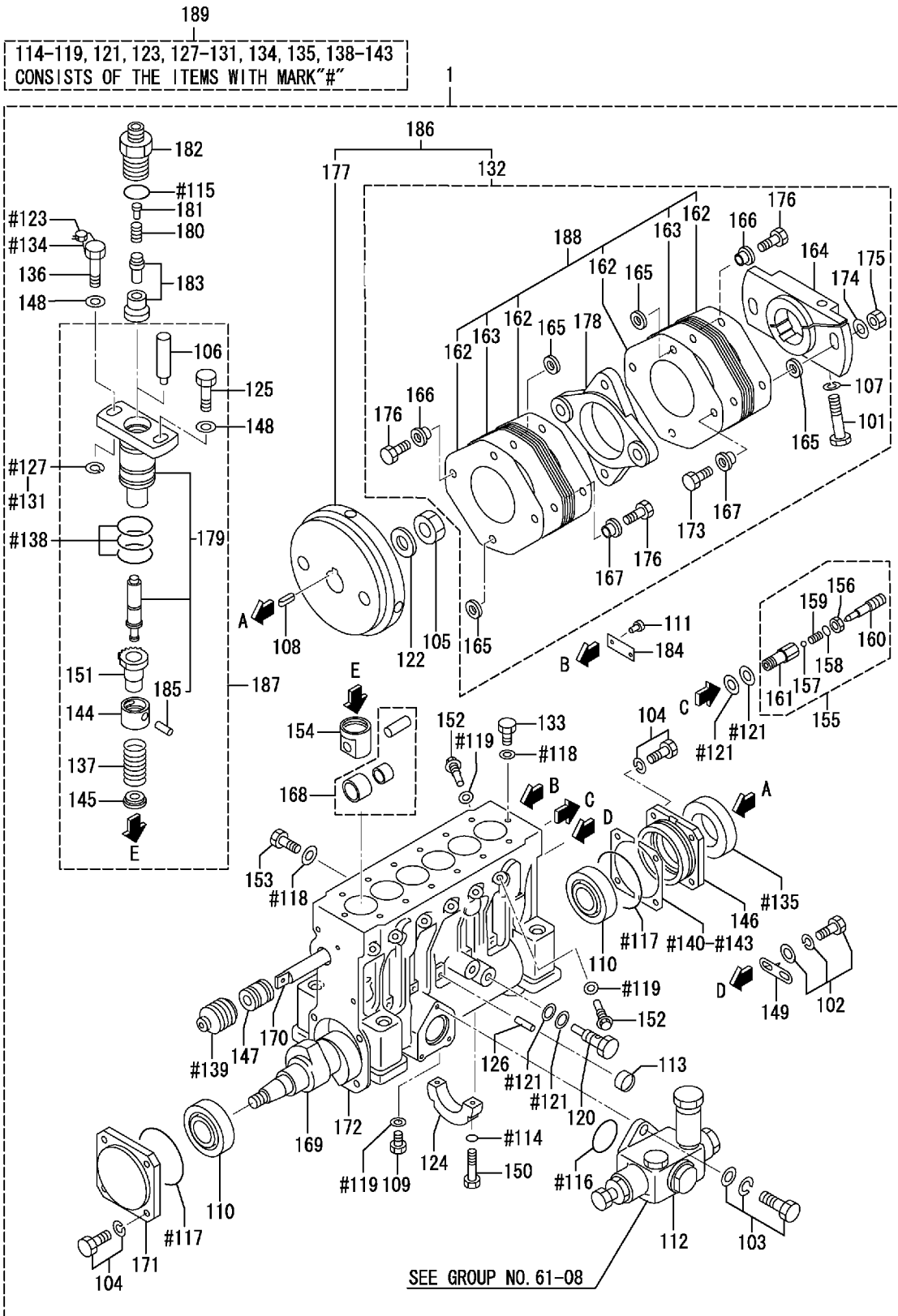


6283-61.5

Item	Part No.	Description	Qty. Var. 1
1	GM21879	Pipe, fuel leakoff	2
2	GM15559	Bolt, eye	10
3	GM21673	Bolt, eye	2
4	GM14528	Washer, sealing	26
5	GM15139	Bolt w/washer	2
6	GM15174	Washer, plain	2
7	GM37157	Pipe, fuel	1
8	GM21825	Spacer	1
9	GM37158	Pipe, leak	1
10	GM15103	Bolt	6
11	GM34323	Pipe, fuel fr	12

Item	Part No.	Description	Qty. Var. 1
12	GM22029	Pipe	1
13	GM21587	Connector	1
14	GM15179	Washer, spring	6
15	GM15164	Nut	6
16	GM15149	Bolt w/washer	3
17	GM21902	Pipe, fuel	1
18	GM21897	Connector	1
19	GM16029	Connector	1
20	GM15234	Bolt, eye	1
21	GM14530	Washer, sealing	2
22	GM22127	Connector	1

Group 61.6: Injection Pump, Right Side

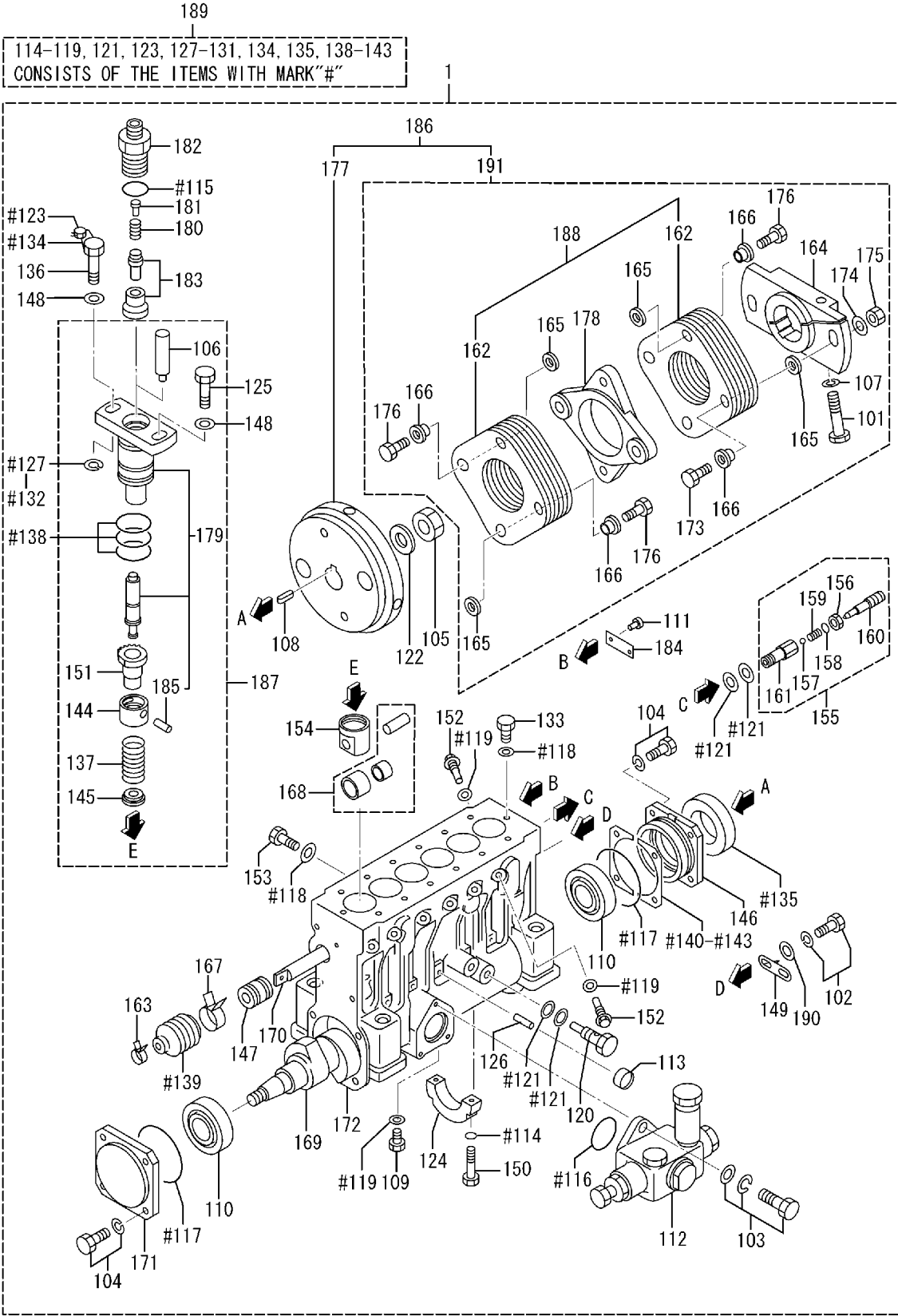


Group 61.6: Injection Pump, Right Side

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
			Var. 1				Var. 1
1	GM37159	Pump assembly, injection	1	145	GM15897	Seat	6
101	GM15962	Bolt	1	146	GM22041	Cover, rear	1
102	GM31438	Bolt, w/washer	2	147	GM37161	Bushing, rack	2
103	GM31439	Bolt, w/washer	3	148	GM15004	Washer, barrel	12
104	GM15138	Bolt w/washer	8	149	GM31442	Pointer	1
105	GM15987	Nut, jam	1	150	GM15900	Bolt	2
106	GM15921	Holder, plunger (service only)	6	151	GM31443	Pinion	6
107	GM31440	Washer, coupling	1	152	GM31444	Bolt, deflector	12
108	GM15998	Key, woodruff	1	153	GM22043	Screw, set	1
109	GM15237	Plug, screw	1	154	GM15904	Tappet	6
110	GM16041	Bearing, roller	2	155	GM31445	Valve, check	1
111	GM14481	Rivet, screw	2	156	GM15171	Nut, jam	1
112	GM15514	Pump fuel	1	157	GM15252	Ball, steel	1
113	GM14489	Cap, sealing	7	158	GM14506	O-ring	1
114	GM21609	O-ring	2	159	GM15003	Spring, valve	1
115	GM15528	O-ring	6	160	GM31446	Screw	1
116	GM21616	O-ring	1	161	GM31447	Body, valve	1
117	GM14519	O-ring	2	162	GM22045	Plate	4
118	GM14527	Washer	3	163	GM15908	Plate, laminate	12
119	GM14529	Washer, sealing	13	164	GM37162	Coupling	1
120	GM31714	Bolt, eye	1	165	GM15910	Washer, coupling	8
121	GM14530	Washer, sealing	6	166	GM15911	Bushing	4
122	GM14571	Washer	1	167	GM15912	Bushing	4
123	GM15001	Seal	1	168	GM31448	Tappet assembly, roller	6
124	GM15872	Center bearing	1	169	GM15914	Camshaft	1
125	GM15873	Bolt, barrel	6	170	GM31449	Rack, control	1
126	GM15874	Pin	7	171	GM22052	Cover, front	1
127	GM15875	Shim, barrel, t = 0.80 mm	1	172	GM37163	Case, injection pump	1
128	GM15876	Shim, barrel, t = 0.90 mm	1	173	GM22057	Bolt	2
129	GM15877	Shim, barrel, t = 1.00 mm	1	174	GM31719	Washer, coupling	2
130	GM15878	Shim, barrel, t = 1.10 mm	1	175	GM22059	Nut, flange	2
131	GM15879	Shim, barrel, t = 1.30 mm	1	176	GM22060	Bolt	6
132	GM37160	Coupling kit	1	177	GM31451	Flywheel	1
133	GM15882	Bolt, eye	2	178	GM31452	Coupling, cross	1
134	GM15883	Wire	1	179	X	Plunger assembly	6
135	GM15884	Seal	1	180	GM21585	Spring, valve	6
136	GM15885	Bolt, barrel	6	181	GM31453	Stopper	6
137	GM15888	Spring	6	182	GM37164	Holder, valve	6
138	GM15889	O-ring	18	183	GM22062	Valve assembly, delivery	6
139	GM15890	Bellows	2	184	X	Nameplate	1
140	GM15891	Shim, t = 0.50 mm	1	185	X	Pin, knock	6
141	GM15892	Shim, t = 0.10 mm	1	186	GM37165	Coupling assembly	1
142	GM15893	Shim, t = 0.15 mm	1	187	GM37166	Block, plunger	6
143	GM15894	Shim, t = 0.50 mm	1	188	X	Laminate plate kit	1
144	GM15896	Seat	6	189	GM31456	Repair kit	1

X Part is not sold separately.

Group 61.6: Injection Pump, Right Side, continued



Group 61.6: Injection Pump, Right Side, continued

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
			Var. 2				Var. 2
1	GM57686	Pump assembly, injection	1	146	GM22041	Cover, rear	1
101	GM15962	Bolt	1	147	GM57260	Bushing, rack	2
102	GM15972	Bolt w/washer	2	148	GM15004	Washer, barrel	12
103	GM31439	Bolt, w/washer	3	149	GM31442	Pointer	1
104	GM15138	Bolt w/washer	8	150	GM57261	Bolt, flange	2
105	GM15987	Nut, jam	1	151	GM31443	Pinion	6
106	GM15921	Holder, plunger (service only)	6	152	GM31444	Bolt, deflector	12
107	GM50474	Washer head	1	153	GM22043	Screw, set	1
107	GM31440	Washer, coupling (use GM50474)	1	154	GM15904	Tappet	6
108	GM15998	Key, woodruff	1	155	GM57262	Valve, check	1
109	GM15237	Plug, screw	1	156	GM15171	Nut, jam	1
110	GM16041	Bearing, roller	2	157	GM15252	Ball, steel	1
111	GM14481	Rivet, screw	2	158	GM57263	O-ring	1
112	GM15514	Pump fuel	1	159	GM15003	Spring, valve	1
113	GM14489	Cap, sealing	7	160	GM57264	Screw	1
114	GM21609	O-ring	2	161	GM31447	Body, valve	1
115	GM15528	O-ring	6	162	GM57265	Plate, laminate	14
116	GM21616	O-ring	1	163	GM57689	Band, bellows	1
117	GM14519	O-ring	2	164	GM57266	Coupling	1
118	GM14527	Washer	3	165	GM57267	Washer, coupling	8
119	GM14529	Washer, sealing	13	166	GM57268	Bushing	8
120	GM57687	Bolt, eye	1	167	GM57689	Band, bellows	1
121	GM14530	Washer, sealing	6	168	GM31448	Tappet assembly, roller	6
122	GM14571	Washer	1	169	GM57269	Camshaft	1
123	GM15001	Seal	1	170	GM57270	Rack, control	1
124	GM15872	Center bearing	1	171	GM22052	Cover, front	1
125	GM15873	Bolt, barrel	6	172	GM37163	Case, injection pump	1
126	GM15874	Pin	7	173	GM57271	Bolt, long	2
127	GM57688	Shim, barrel	1	174	GM57272	Washer, coupling	2
128	GM15875	Shim, barrel, t = 0.80 mm	1	175	GM57273	Nut, flange	2
129	GM15876	Shim, barrel, t = 0.90 mm	1	176	GM57274	Bolt, short	6
130	GM15877	Shim, barrel, t = 1.00 mm	1	177	GM57275	Flywheel	1
131	GM15878	Shim, barrel, t = 1.10 mm	1	178	GM57276	Coupling, cross	1
132	GM15879	Shim, barrel, t = 1.30 mm	1	179	X	Plunger assembly	6
133	GM15882	Bolt, eye	2	180	GM21585	Spring, valve	6
134	GM15883	Wire	1	181	GM31453	Stopper	6
135	GM15884	Seal	1	182	GM37164	Holder, valve	6
136	GM15885	Bolt, barrel	6	183	X	Valve assembly, delivery	6
137	GM15888	Spring	6	184	X	Nameplate	1
138	GM15889	O-ring	18	185	X	Pin, knock	6
139	GM57259	Bellows	2	186	GM57278	Coupling assembly	1
140	GM15891	Shim, t = 0.50 mm	1	187	GM57277	Plunger assembly	6
141	GM15892	Shim, t = 0.10 mm	1	188	X	Laminate plate kit	1
142	GM15893	Shim, t = 0.15 mm	1	189	GM31456	Repair kit	1
143	GM15894	Shim, t = 0.50 mm	1	190	GM15991	Washer	2
144	GM15896	Seat	6	191	GM57690	Coupling kit	1
145	GM15897	Seat, lower spring	6	X Part is not sold separately.			

62

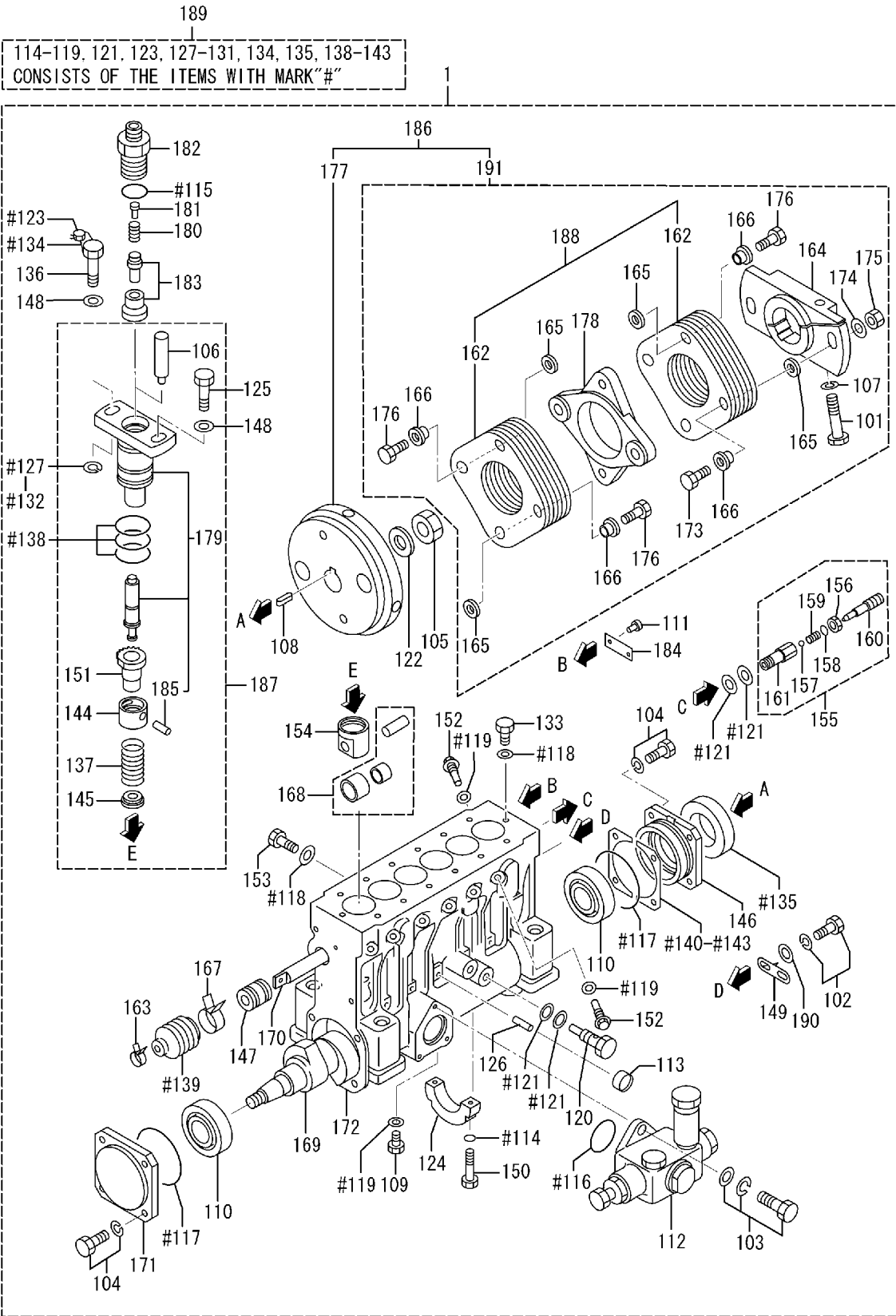


Group 61.7: Injection Pump, Left Side

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
			Var. 1				Var. 1
1	GM37167	Pump assembly, injection	1	145	GM15897	Seat	6
101	GM15962	Bolt	1	146	GM22041	Cover, rear	1
102	GM31438	Bolt, w/washer	2	147	GM37161	Bushing, rack	2
103	GM31439	Bolt, w/washer	3	148	GM15004	Washer, barrel	12
104	GM15138	Bolt w/washer	8	149	GM31442	Pointer	1
105	GM15987	Nut, jam	1	150	GM15900	Bolt	2
106	GM15921	Holder, plunger (service only)	6	151	GM31443	Pinion	6
107	GM31440	Washer, coupling	1	152	GM31444	Bolt, deflector	12
108	GM15998	Key, woodruff	1	153	GM22043	Screw, set	1
109	GM15237	Plug, screw	1	154	GM15904	Tappet	6
110	GM16041	Bearing, roller	2	155	GM31445	Valve, check	1
111	GM14481	Rivet, screw	2	156	GM15171	Nut, jam	1
112	GM15514	Pump fuel	1	157	GM15252	Ball, steel	1
113	GM14489	Cap, sealing	7	158	GM14506	O-ring	1
114	GM21609	O-ring	2	159	GM15003	Spring, valve	1
115	GM15528	O-ring	6	160	GM31446	Screw	1
116	GM21616	O-ring	1	161	GM31447	Body, valve	1
117	GM14519	O-ring	2	162	GM22045	Plate	4
118	GM14527	Washer	3	163	GM15908	Plate, laminate	12
119	GM14529	Washer, sealing	13	164	GM37162	Coupling	1
120	GM37168	Bolt, eye	1	165	GM15910	Washer, coupling	8
121	GM14530	Washer, sealing	6	166	GM15911	Bushing	4
122	GM14571	Washer	1	167	GM15912	Bushing	4
123	GM15001	Seal	1	168	GM31448	Tappet assembly, roller	6
124	GM15872	Center bearing	1	169	GM15914	Camshaft	1
125	GM15873	Bolt, barrel	6	170	GM31449	Rack, control	1
126	GM15874	Pin	7	171	GM22052	Cover, front	1
127	GM15875	Shim, barrel, t = 0.80 mm	1	172	GM31450	Case, injection pump	1
128	GM15876	Shim, barrel, t = 0.90 mm	1	173	GM22057	Bolt	2
129	GM15877	Shim, barrel, t = 1.00 mm	1	174	GM31719	Washer, coupling	2
130	GM15878	Shim, barrel, t = 1.10 mm	1	175	GM22059	Nut, flange	2
131	GM15879	Shim, barrel, t = 1.30 mm	1	176	GM22060	Bolt	6
132	GM37160	Coupling kit	1	177	GM31451	Flywheel	1
133	GM15882	Bolt, eye	2	178	GM31452	Coupling, cross	1
134	GM15883	Wire	1	179	X	Plunger assembly	6
135	GM15884	Seal	1	180	GM21585	Spring, valve	6
136	GM15885	Bolt, barrel	6	181	GM31453	Stopper	6
137	GM15888	Spring	6	182	GM37164	Holder, valve	6
138	GM15889	O-ring	18	183	GM22062	Valve assembly, delivery	6
139	GM15890	Bellows	1	184	X	Nameplate	1
140	GM15891	Shim, t = 0.50 mm	1	185	X	Pin, knock	6
141	GM15892	Shim, t = 0.10 mm	1	186	GM37165	Coupling assembly	1
142	GM15893	Shim, t = 0.15 mm	1	187	GM37166	Block, plunger	6
143	GM15894	Shim, t = 0.50 mm	1	188	X	Laminate plate kit	1
144	GM15896	Seat	6	189	GM31456	Repair kit	1

X Part is not sold separately.

Group 61.7: Injection Pump, Left Side, continued



6283-61.7 2

Group 61.7: Injection Pump, Left Side, continued

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
			Var. 2				Var. 2
1	GM57257	Pump assembly, injection	1	146	GM22041	Cover, rear	1
101	GM15962	Bolt	1	147	GM57260	Bushing, rack	2
102	GM31438	Bolt, w/washer	2	148	GM15004	Washer, barrel	12
103	GM31439	Bolt, w/washer	3	149	GM31442	Pointer	1
104	GM15138	Bolt w/washer	8	150	GM57261	Bolt	2
105	GM15987	Nut, jam	1	151	GM31443	Pinion	6
106	GM15921	Holder, plunger (service only)	6	152	GM31444	Bolt, deflector	12
107	GM50474	Washer head	1	153	GM22043	Screw, set	1
107	GM31440	Washer, coupling (use GM50474)	1	154	GM15904	Tappet	6
108	GM15998	Key, woodruff	1	155	GM57262	Valve, check	1
109	GM15237	Plug, screw	1	156	GM15171	Nut, jam	1
110	GM16041	Bearing, roller	2	157	GM15252	Ball, steel	1
111	GM14481	Rivet, screw	2	158	GM57263	O-ring	1
112	GM15514	Pump fuel	1	159	GM15003	Spring, valve	1
113	GM14489	Cap, sealing	7	160	GM57264	Screw	1
114	GM21609	O-ring	2	161	GM31447	Body, valve	1
115	GM15528	O-ring	6	162	GM57265	Plate, laminate	14
116	GM21616	O-ring	1	163	GM57689	Band, bellows	1
117	GM14519	O-ring	2	164	GM57266	Coupling	1
118	GM14527	Washer	3	165	GM57267	Washer, coupling	8
119	GM14529	Washer, sealing	13	166	GM57268	Bushing	8
120	GM57687	Bolt, eye	1	167	GM57689	Band, bellows	1
121	GM14530	Washer, sealing	6	168	GM31448	Tappet assembly, roller	6
122	GM14571	Washer	1	169	GM57269	Camshaft	1
123	GM15001	Seal	1	170	GM57270	Rack, control	1
124	GM15872	Center bearing	1	171	GM22052	Cover, front	1
125	GM15873	Bolt, barrel	6	172	GM37163	Case, injection pump	1
126	GM15874	Pin	7	173	GM57271	Bolt, long	2
127	GM57688	Shim, barrel, t = 0.70 mm	1	174	GM57272	Washer, coupling	2
128	GM15875	Shim, barrel, t = 0.80 mm	1	175	GM57273	Nut, flange	2
129	GM15876	Shim, barrel, t = 0.90 mm	1	176	GM57274	Bolt, short	6
130	GM15877	Shim, barrel, t = 1.00 mm	1	177	GM57275	Flywheel	1
131	GM15878	Shim, barrel, t = 1.10 mm	1	178	GM57691	Coupling, cross	1
132	GM15879	Shim, barrel, t = 1.30 mm	1	179	X	Plunger assembly	6
133	GM15882	Bolt, eye	2	180	GM21585	Spring, valve	6
134	GM15883	Wire	1	181	GM31453	Stopper	6
135	GM15884	Seal	1	182	GM37164	Holder, valve	6
136	GM15885	Bolt, barrel	6	183	X	Valve assembly, delivery	6
137	GM15888	Spring	6	184	X	Nameplate	1
138	GM15889	O-ring	18	185	X	Pin, knock	6
139	GM57259	Bellows	1	186	GM57692	Coupling assembly	1
140	GM15891	Shim, t = 0.50 mm	1	187	GM57277	Plunger assembly	6
141	GM15892	Shim, t = 0.10 mm	1	188	X	Laminate plate kit	1
142	GM15893	Shim, t = 0.15 mm	1	189	GM31456	Repair kit	1
143	GM15894	Shim, t = 0.50 mm	1	190	GM15991	Washer	2
144	GM15896	Seat	6	191	GM57690	Coupling kit	1
145	GM15897	Seat, lower spring	6	X Part is not sold separately.			

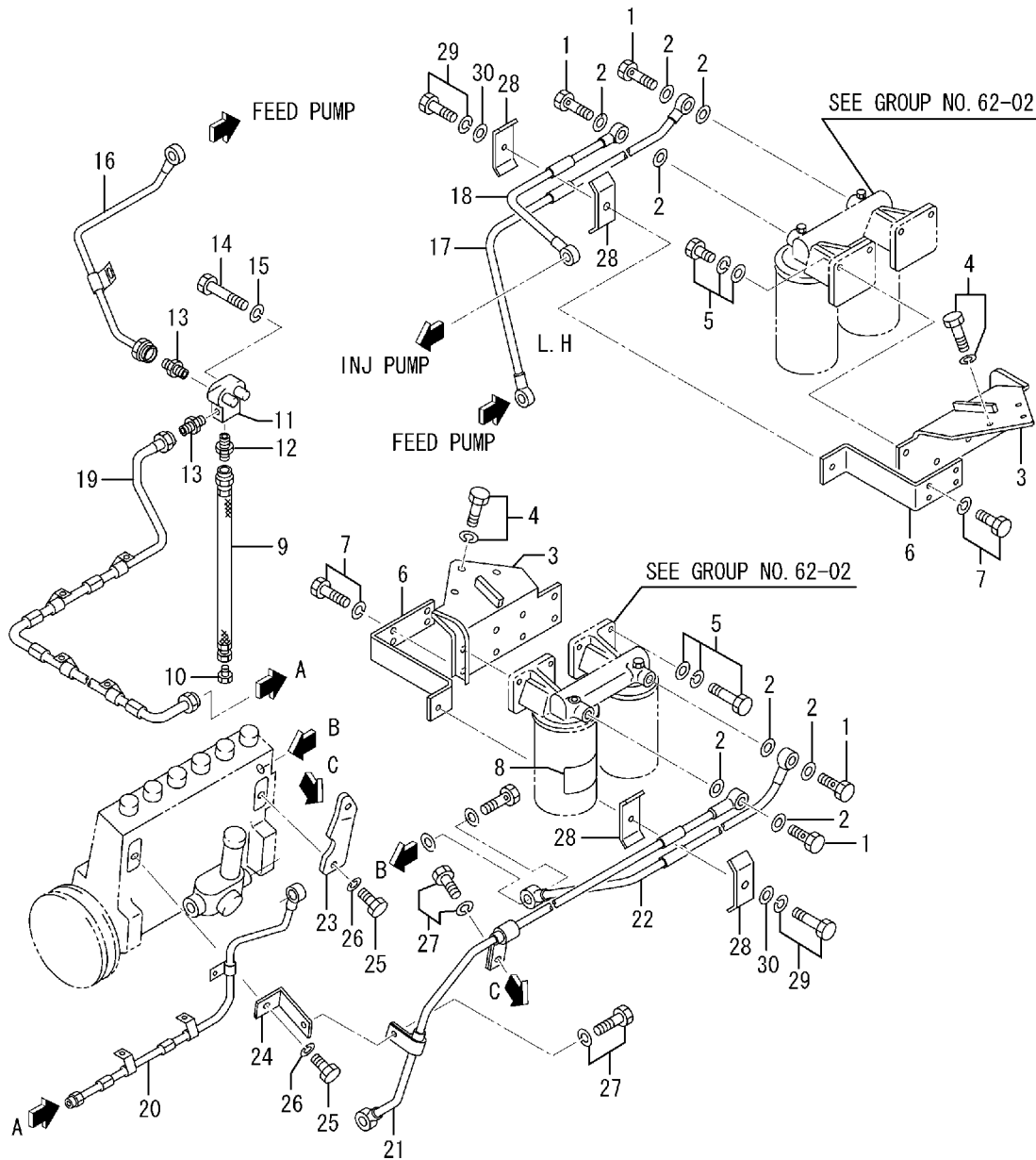
This diagram illustrates the exploded view of a hydraulic valve assembly. The central component is a valve body (101) with four ports. The assembly includes various internal and external components, each labeled with a number:

- 101:** The main valve body.
- 102:** A small pin or plug.
- 103:** A long spring.
- 104:** A hex nut.
- 105:** A bracket or housing component.
- 106:** A small cap or plug.
- 107:** A small pin or plug.
- 108:** A small pin or plug.
- 109:** A small pin or plug.
- 110:** A spring.
- 111:** A hex nut.
- 112:** A ring or seal.
- 113:** A long threaded rod or pin.
- 114:** A small pin or plug.
- 115:** A small pin or plug.
- 116:** A small pin or plug.
- 117:** A small pin or plug.

The diagram shows the relative positions and assembly sequence of these components, with lines indicating their alignment with the valve body.

66

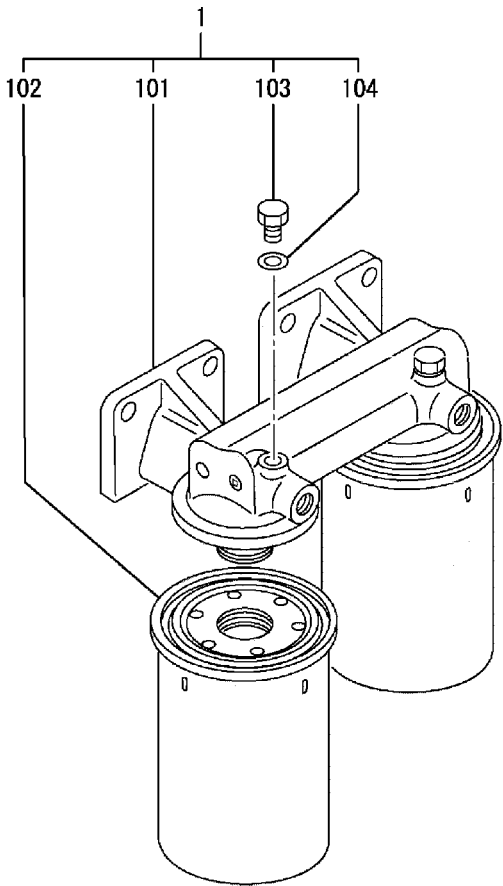
Group 62.1: Fuel Filter Piping



6283-62.1

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM15234	Bolt, eye	4	16	GM37170	Pipe, fuel	1
2	GM14530	Washer, sealing	8	17	GM37171	Pipe, fuel	1
3	GM21900	Bracket, fuel filter	2	18	GM37172	Pipe, fuel	1
4	GM15151	Bolt w/washer	6	19	GM37173	Pipe, fuel	1
5	GM15154	Bolt w/washer	8	20	GM37174	Pipe, fuel	1
6	GM37169	Stay, pipe	2	21	GM37175	Pipe, fuel	1
7	GM15140	Bolt w/washer	4	22	GM37176	Pipe, fuel	1
8	GM21662	Label, caution	1	23	GM21903	Stay, pipe	1
9	GM22029	Pipe	1	24	GM37177	Stay, pipe	1
10	GM21587	Connector	1	25	GM15960	Bolt	2
11	GM21896	Connector	1	26	GM15181	Washer, spring	2
12	GM22127	Connector	1	27	GM15139	Bolt w/washer	2
13	GM16029	Connector	2	28	GM15599	Clamp	4
14	GM22095	Bolt	2	29	GM15142	Bolt w/washer	2
15	GM15180	Washer, spring	2	30	GM15174	Washer, plain	2

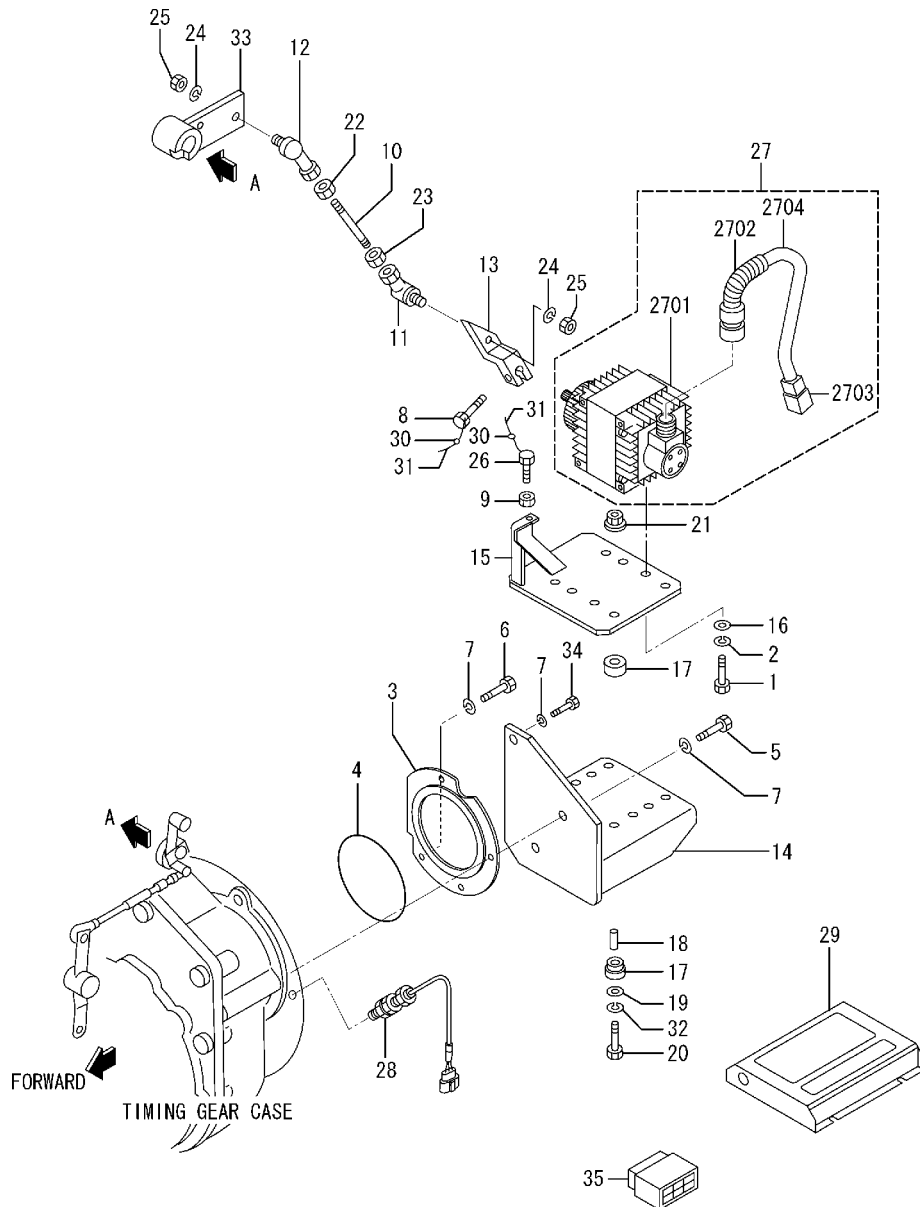
Group 62.2: Fuel Filter



6283-62.2

Item	Part No.	Description	Qty.
			Var.
1	GM21741	Filter assembly	2
101	GM14930	Bracket assembly	2
102	GM13947	Filter, fuel	4
103	GM14609	Plug, air	4
104	GM14527	Washer	4

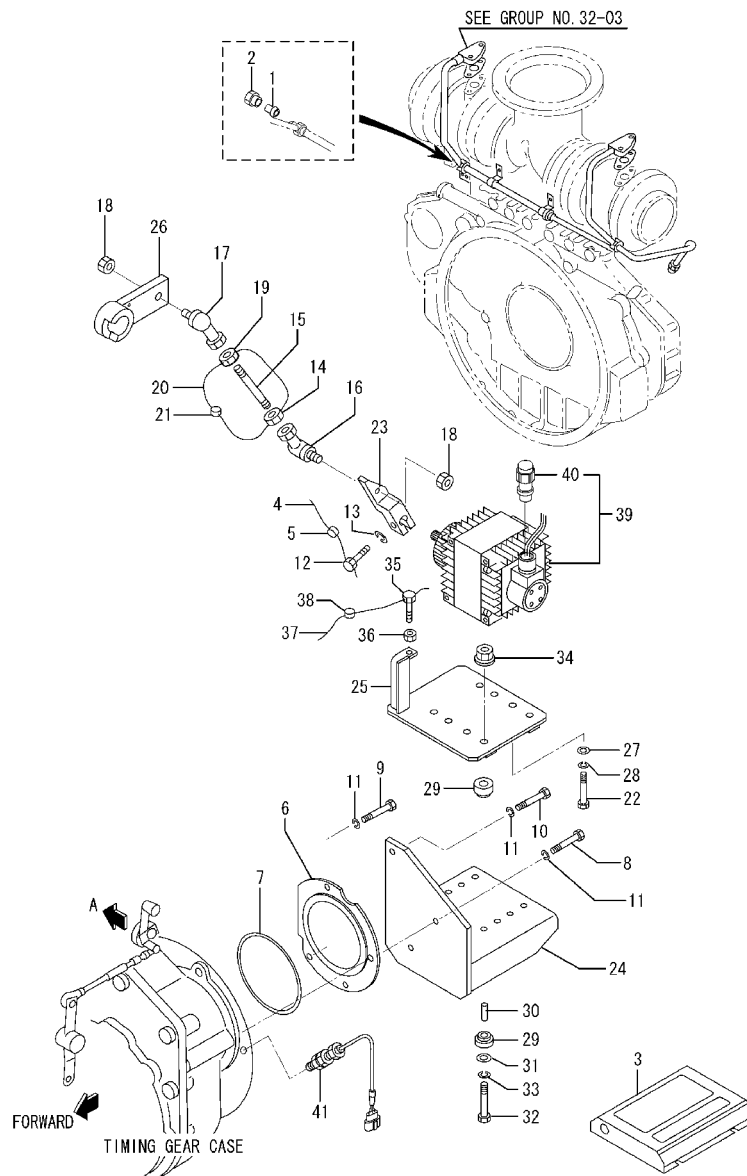
Group 63: Governor



6283-63

Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM21906	Bolt	4	21	GM21908	Nut, lock	4
2	GM15178	Washer, spring	4	22	GM15531	Nut, lock	2
3	GM15868	Cover	1	23	GM15163	Nut	1
4	GM21624	O-ring	1	24	GM15178	Washer, spring	2
5	GM15109	Bolt	1	25	GM15163	Nut	2
6	GM15107	Bolt	1	26	GM31483	Bolt	1
7	GM15180	Washer, spring	4	27	GM37179	Actuator, proact	1
8	GM15127	Bolt	1	2701	GM21678	Actuator, proact	1
9	GM15163	Nut	1	2702	GM34341	Cap	1
10	GM21626	Bolt	1	2703	GM37180	Connector	1
11	GM21676	Joint, ball	1	2704	GM37181	Tube, colgate	1
12	GM21677	Joint, ball	1	28	GM21600	Pickup	1
13	GM37178	Lever, throttle	1	29	GM37182	Controller, proact	1
14	GM21910	Bracket, proact	1	30	GM15001	Seal	2
15	GM21911	Plate, proact	1	31	GM31470	Wire, seal	2
16	GM15173	Washer, plain	4	32	GM15178	Washer, spring	4
17	GM21637	Mount	8	33	GM37183	Lever	1
18	GM21674	Spacer	4	34	GM15110	Bolt	2
19	GM22087	Washer	4	35	GM37184	Connector	1
20	GM31469	Bolt	4				

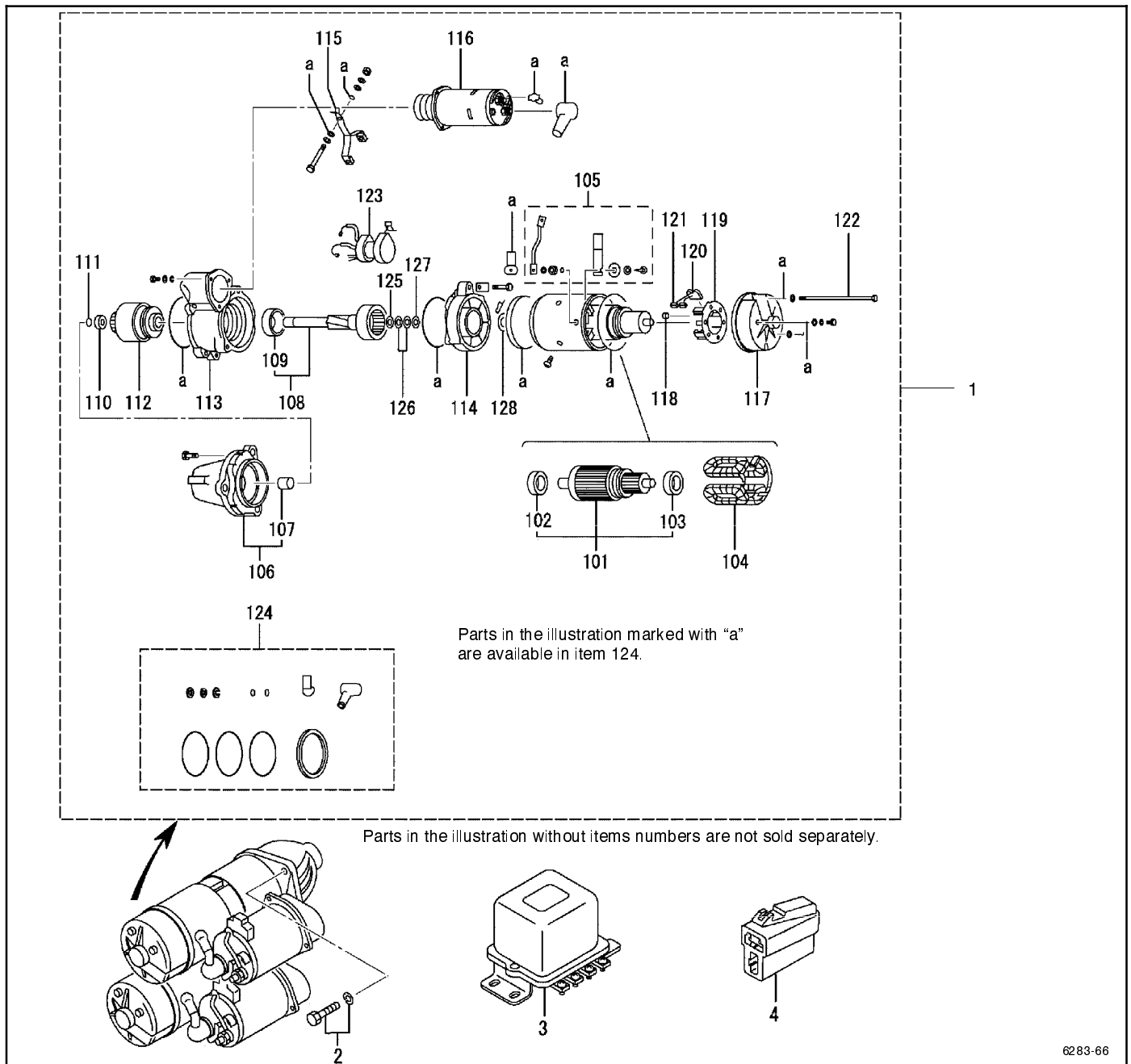
Group 63: Governor, continued



6283-63_2

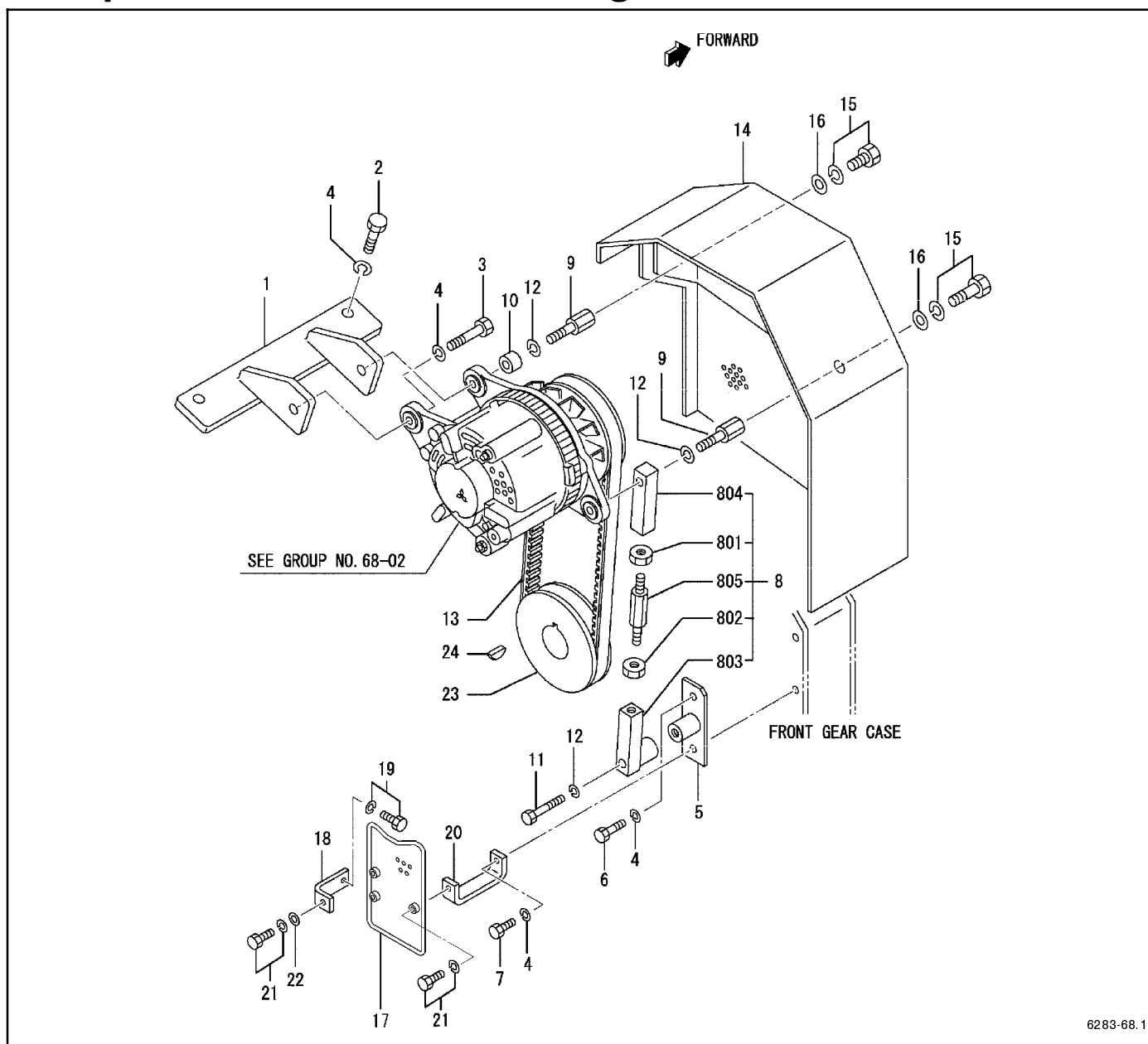
Item	Part No.	Description	Qty. Var.	Item	Part No.	Description	Qty. Var.
1	GM37101	Plug	1	22	GM21906	Bolt	4
2	GM37102	Nut, union	1	23	GM57699	Lever, throttle	1
3	GM62222	Controller	1	24	GM21910	Bracket, proact	1
4	GM14463	Wire, seal	1	25	GM57700	Plate, proact	1
5	GM15001	Seal	1	26	GM37183	Lever	1
6	GM15868	Cover	1	27	GM15173	Washer, plain	4
7	GM21624	O-ring	1	28	GM15178	Washer, spring	4
8	GM15109	Bolt	1	29	GM21637	Mount	8
9	GM15107	Bolt	1	30	GM21674	Spacer	4
10	GM15110	Bolt	2	31	GM22087	Washer	4
11	GM15180	Washer, spring	4	32	GM31469	Bolt	4
12	GM15127	Bolt	1	33	GM15178	Washer, spring	4
13	GM15178	Washer, spring	1	34	GM21908	Nut, lock	4
14	GM52476	Nut, lock	1	35	GM31483	Bolt	1
15	GM57698	Rod	1	36	GM31473	Nut, lock	1
16	GM21676	Joint, ball	1	37	GM14463	Wire, seal	1
17	GM21677	Joint, ball	1	38	GM15001	Seal	1
18	GM31420	Nut, self-locking	2	39	GM31464	Actuator, proact	1
19	GM34252	Nut, lock	1	40	GM22021	Cap, proact	1
20	GM14463	Wire, seal	1	41	GM31302	Pickup, magnetic	1
21	GM15001	Seal	1				

Group 66: Starter



			Qty.				Qty.
			Var.				Var.
Item	Part No.	Description	1	Item	Part No.	Description	1
1	GM21913	Starter	2	116	GM21601	Switch assembly	2
101	GM21590	Armature	2	117	GM21594	Bracket	2
102	GM21641	Bearing, ball	2	118	GM21647	Spring, brush	8
103	GM21640	Bearing, ball	2	119	GM21595	Holder, brush	2
104	GM21591	Coil, field	2	120	GM21646	Brush	8
105	GM22086	Terminal	2	121	GM21652	Plate	8
106	GM21592	Bracket	2	122	GM21589	Bolt	4
107	GM22085	Metal	2	123	GM21597	Switch	2
108	GM22084	Shaft	2	124	GM22083	Seal kit	2
109	GM21639	Bearing, ball	2	125	GM21649	Washer	2
110	GM21642	Stopper, pinion	2	126	GM21650	Washer	4
111	GM21648	Ring, clip	2	127	GM21651	Washer	2
112	GM21593	Clutch assembly, stopper	2	128	GM21596	Washer	4
113	GM21645	Housing	2	2	GM15152	Bolt w/washer	6
114	GM21644	Bracket	2	3	GM36957	Relay, safety	1
115	GM21643	Yoke assembly	2	4	GM31496	Connector	2

Group 68.1: Alternator Mounting



6283-68.1

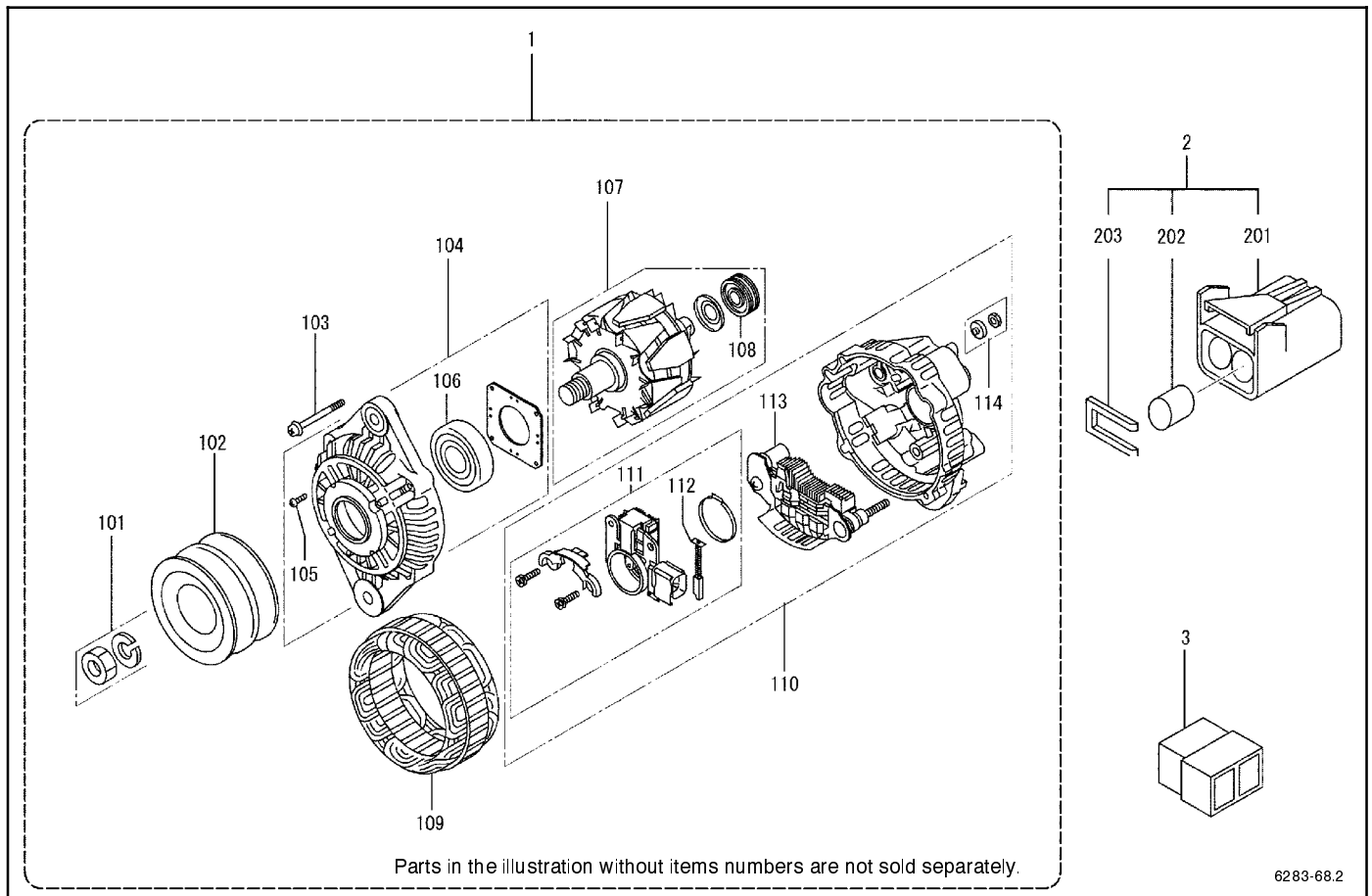
Item	Part No.	Description	Qty.	
			1	2
1	GM21918	Bracket, alternator	1	
1	GM57701	Bracket, alternator		1
2	GM15108	Bolt	2	2
3	GM15109	Bolt	1	1
4	GM15180	Washer, spring	5	5
5	GM21919	Bracket, alternator	1	1
6	GM15109	Bolt	1	1
7	GM15110	Bolt	1	1
8	GM37185	Rod assembly, adjusting	1	
8	X	Rod assembly, adjusting		1
801	GM15172	Nut	1	1
802	GM21638	Nut, lock	1	1
803	GM15851	Rod	1	1
804	GM14951	Rod	1	1
805	GM34348	Rod, adjusting	1	1
9	GM14469	Bolt, alternator	2	
9	GM57702	Bolt, alternator		2
10	GM14468	Spacer, alternator	1	1

Item	Part No.	Description	Qty.	
			1	2
11	GM15114	Bolt	1	
11	GM15118	Bolt		1
12	GM15180	Washer, spring	3	3
13	GM21917	V-belt, alternator	1	1
14	GM37186	Cover, alternator	1	1
15	GM15140	Bolt w/washer	2	2
16	GM15174	Washer, plain	2	2
17	GM37187	Cover, belt	1	1
18	GM21915	Stay, cover	2	2
19	GM15150	Bolt w/washer	2	2
20	GM21916	Stay, cover	1	1
21	GM15139	Bolt w/washer	3	
21	GM15140	Bolt w/washer		3
22	GM15174	Washer, plain	2	2
23	GM14966	Pulley, alternator	1	1
24	GM15192	Key, woodruff	1	1

X Part is not sold separately.

Alternator belt:
GM21917: Engine serial number before 13117
GM97166: Engine serial number 13117 and after

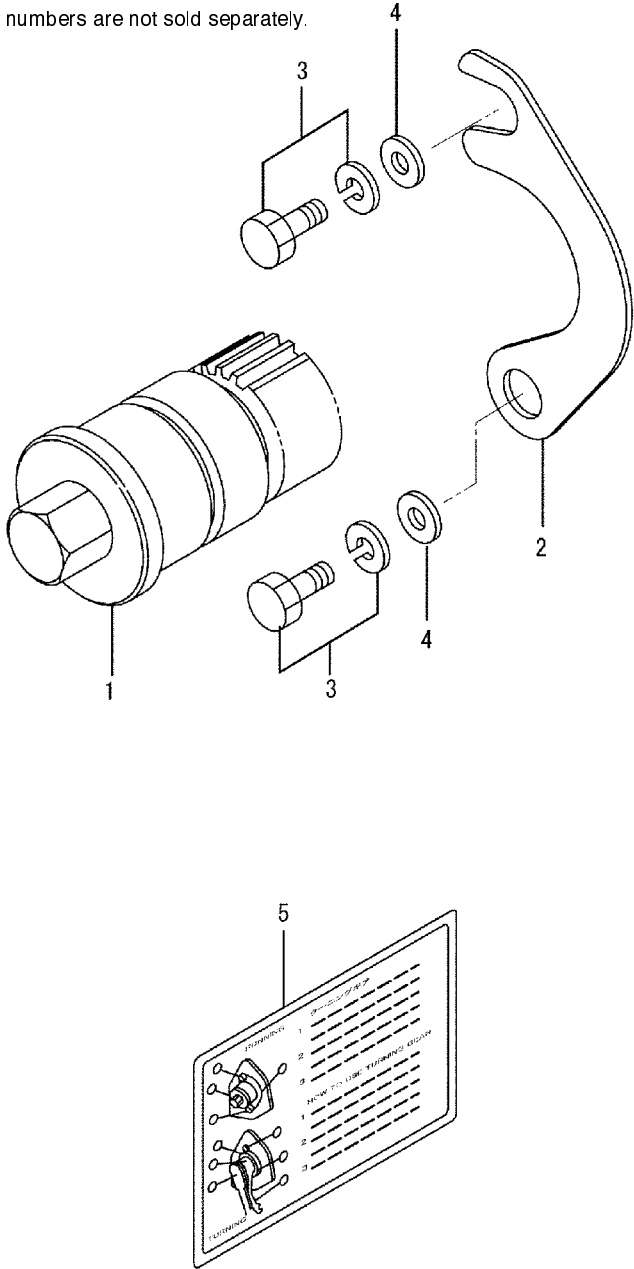
Group 68.2: Alternator



Item	Part No.	Description	Qty. Var. 1
1	GM14483	Alternator	1
101	GM15092	Nut set	1
102	GM15093	Pulley	1
103	GM15090	Screw set	1
104	GM15094	Bracket	1
105	GM15091	Screw set	1
106	GM15135	Bearing	1
107	GM15099	Rotor assembly	1
108	GM15170	Bearing	1
109	GM15089	Stator	1
110	GM15095	Bracket	1
111	GM15098	Regulator	1
112	GM15096	Brush	2
113	GM15097	Rectifier	1
114	GM15952	Nut set	1
2	GM14635	Connector	1
201	GM15574	Body, connector	1
202	GM15575	Plug	2
203	GM15576	Holder, rear	1
3	GM14618	Connector	1

Group 71: Turning Gear

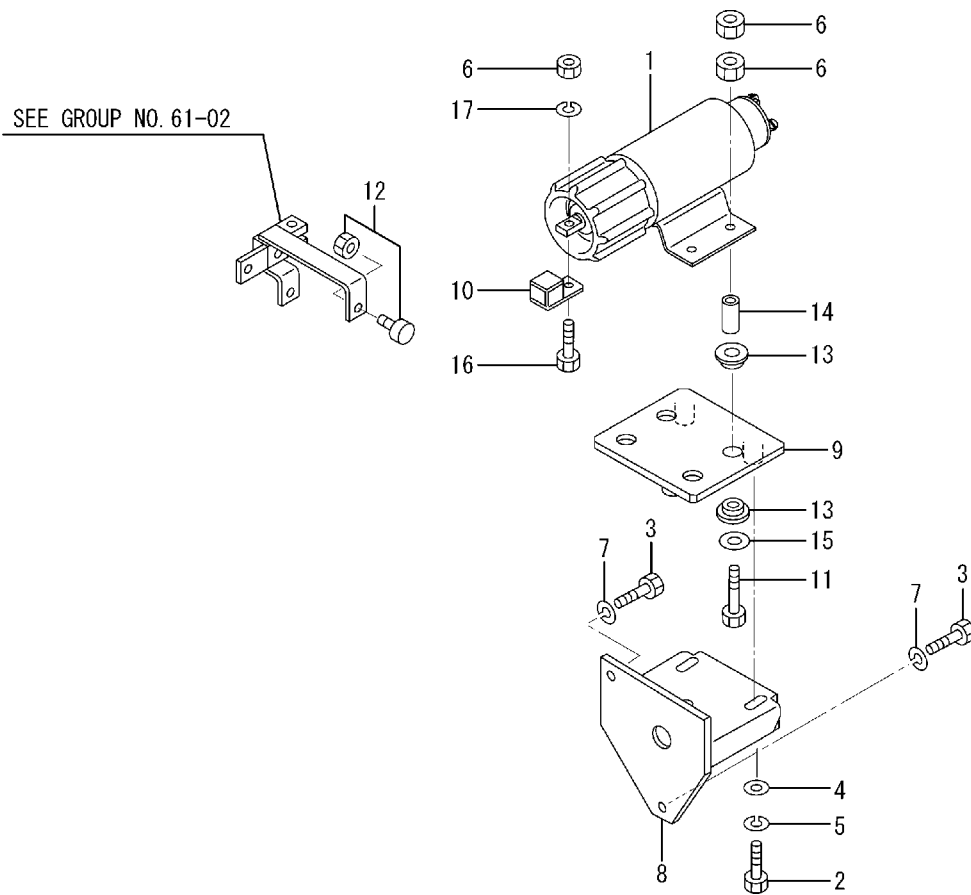
Parts in the illustration without items numbers are not sold separately.



6283-71

Item	Part No.	Description	Qty.
			Var.
			1
1	GM21921	Gear, turning	1
2	GM15853	Flange	1
3	GM15149	Bolt w/washer	2
4	GM15175	Washer	2
5	GM14952	Plate, caution	1

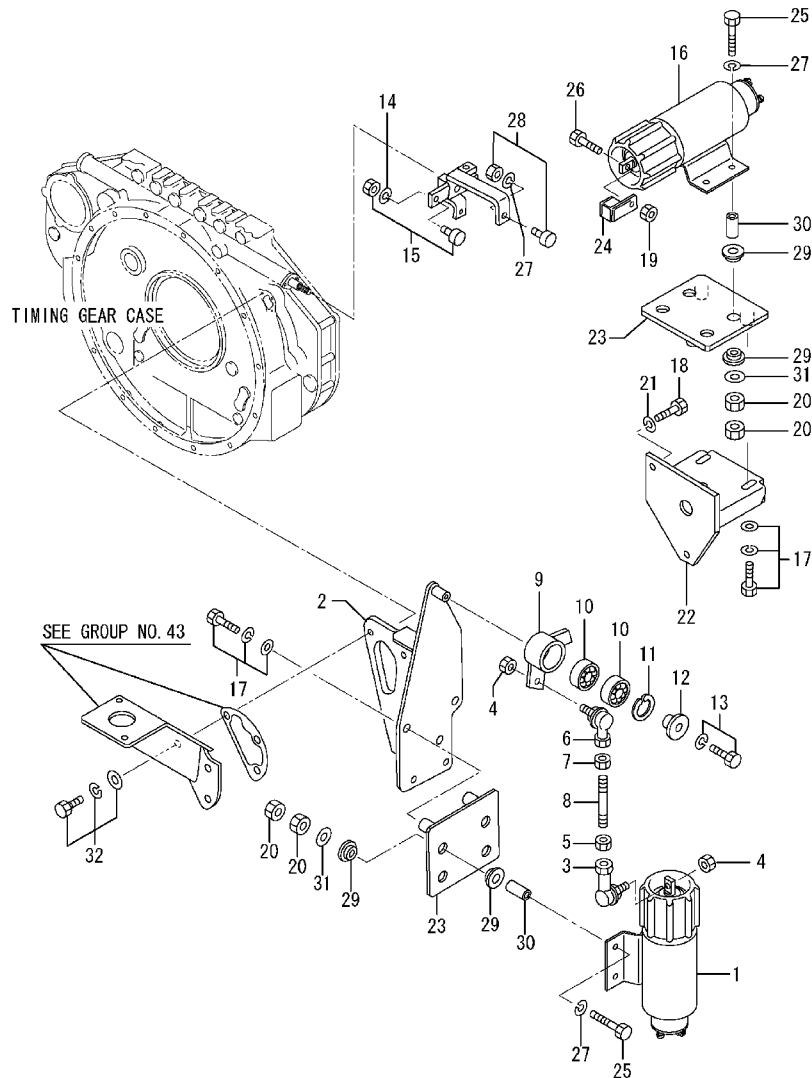
Group 87: Stop System



6283-87

Item	Part No.	Description	Qty. Var. 1
1	GM21598	Solenoid, stop	1
2	GM15955	Bolt	3
3	GM15108	Bolt	2
4	GM15174	Washer, plain	3
5	GM15179	Washer, spring	3
6	GM15162	Nut	9
7	GM15180	Washer, spring	2
8	GM21923	Bracket	1
9	GM22035	Plate, solenoid	1
10	GM21922	Adapter	1
11	GM15101	Bolt	4
12	GM14991	Follower	1
13	GM14998	Cushion, rubber	8
14	GM14999	Spacer	4
15	GM14555	Washer	4
16	GM22089	Bolt	1
17	GM15177	Washer, spring	1

Group 87: Stop System, continued

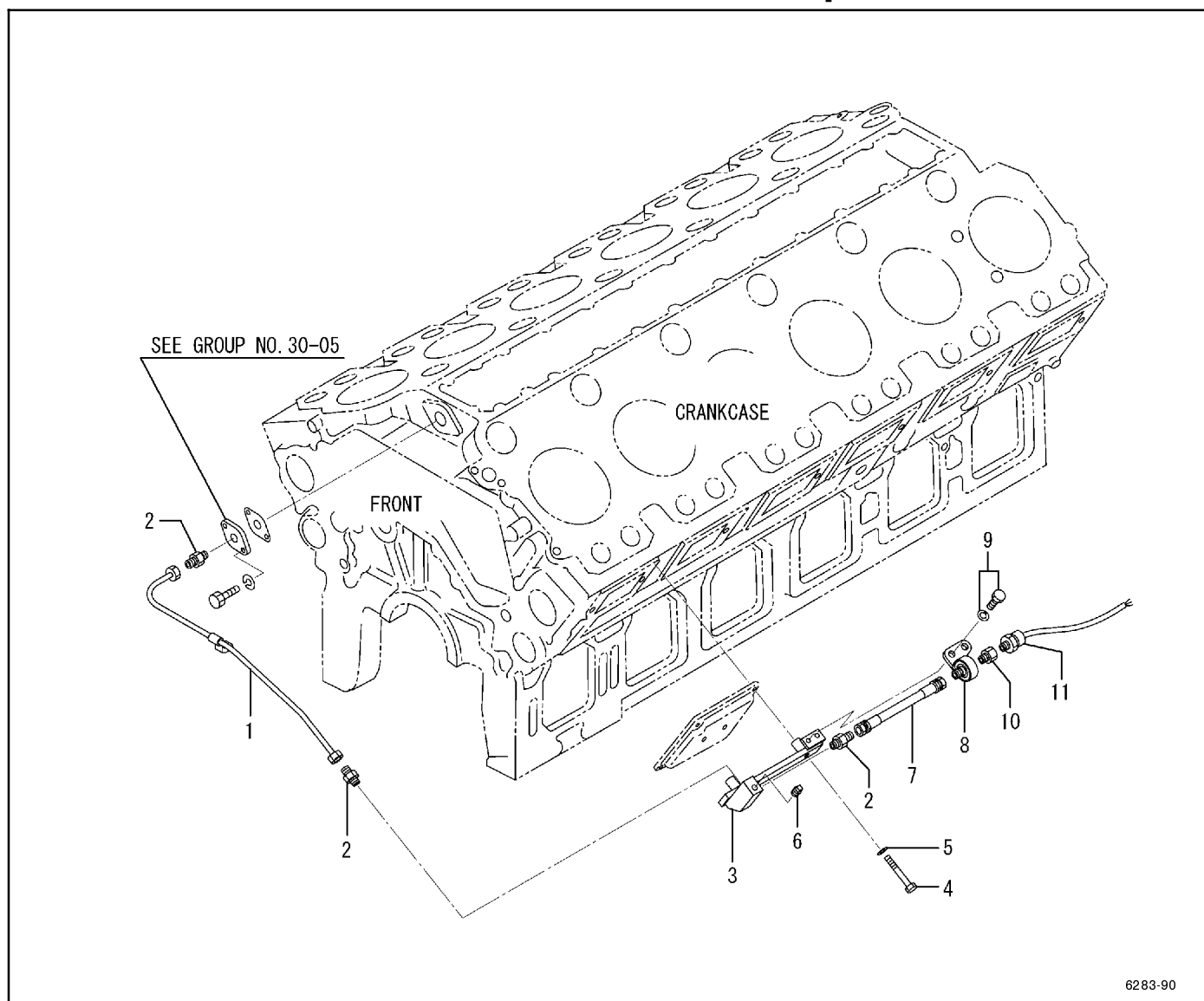


6283-87_2

Item	Part No.	Description	Qty. Var. 2
1	GM57703	Solenoid, runoff	1
2	GM57704	Bracket	1
3	GM31499	Joint, ball	1
4	GM14522	Nut, lock	2
5	GM15162	Nut	1
6	GM31500	Joint, ball	1
7	GM14556	Nut	1
8	GM14523	Rod	1
9	GM57705	Lever, stop	1
10	GM15256	Bearing, ball	2
11	GM16017	Ring, snap	1
12	GM14608	Plate, end	1
13	GM15144	Bolt	1
14	GM15177	Washer, spring	1
15	GM14991	Follower	1
16	GM57706	Solenoid, run-on	1

Item	Part No.	Description	Qty. Var. 2
17	GM15154	Bolt	6
18	GM15108	Bolt	2
19	GM14522	Nut, lock	1
20	GM15162	Nut	16
21	GM15180	Washer, spring	2
22	GM21923	Bracket	1
23	GM22035	Plate, solenoid	2
24	GM57707	Adapter	1
25	GM15101	Bolt	8
26	GM22089	Bolt	1
27	GM15177	Washer, spring	9
28	GM14991	Follower	1
29	GM14998	Cushion, rubber	16
30	GM14999	Spacer	8
31	GM14555	Washer	8
32	GM15156	Bolt	3

Group 90: Boost Sensor



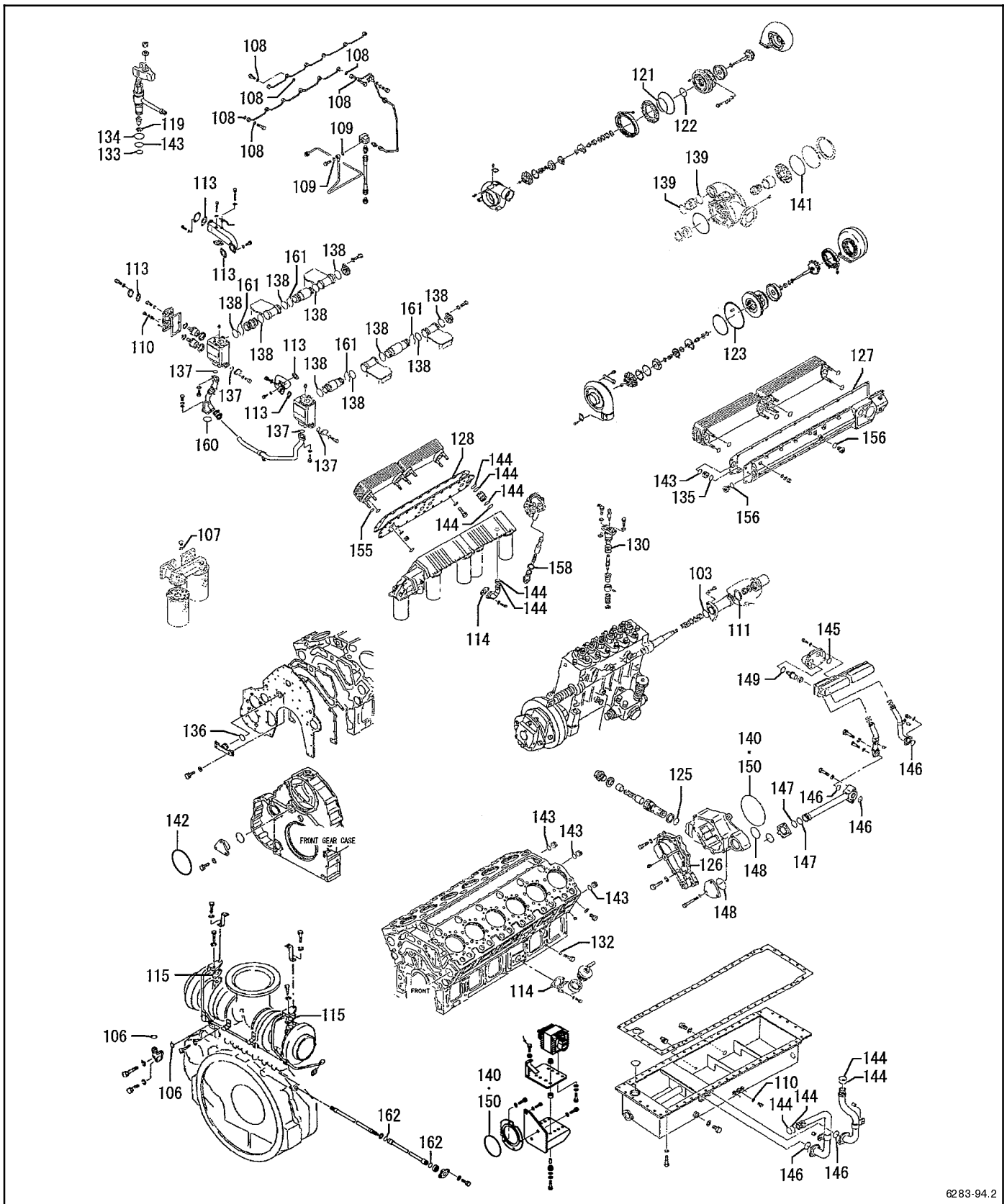
6283-90

Item	Part No.	Description	Qty. Var. 1
1	GM57708	Pipe, boost	1
2	GM15230	Connector	3
3	GM57709	Bracket, boost	1
4	GM15116	Bolt	2
5	GM15180	Washer, spring	2
6	GM15246	Plug, tapered	1
7	GM37277	Pipe, flexible	1
8	GM21655	Mount	1
9	GM15139	Bolt w/washer	2
10	GM22082	Connector	1
11	GM21744	Sensor, boost	1

[illegible]

Item	Part No.	Description	Qty.
			Var. 1
1	GM37188	Gasket kit, overhaul	1

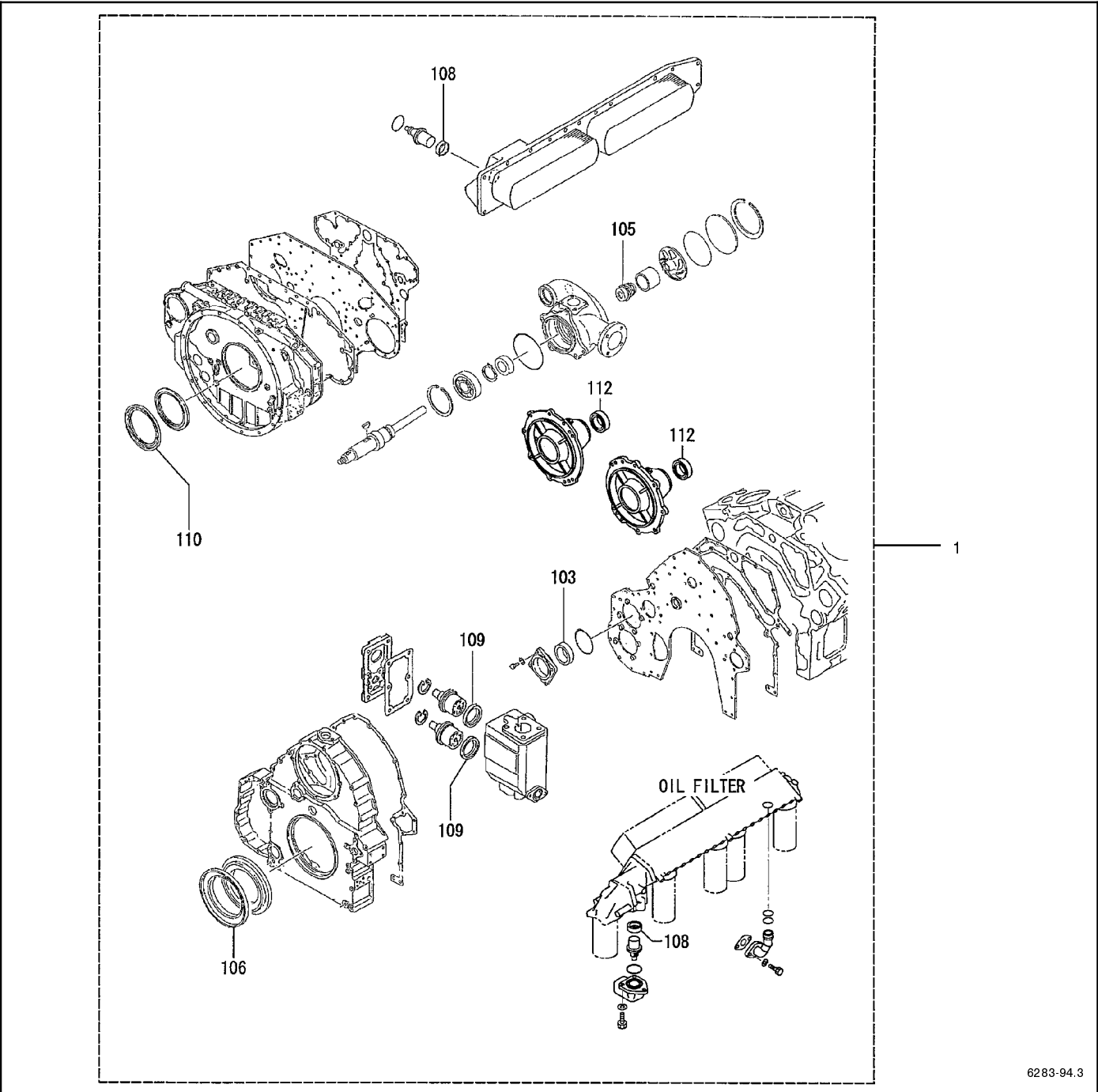
Group 94.2: Overhaul Gasket Kit



6283-94.2

Item	Part No.	Description	Qty. Var.
1	GM37188	Gasket kit, overhaul	1

Group 94.3: Oil Seal Kit



6283-94.3

Item	Part No.	Description	Qty. Var.
1	GM37189	Seal kit, oil	1

