

**Dry Systems<sup>®</sup>**  
**Technologies**

Technology for a cleaner environment  
10420 Rising Court Woodridge, IL 60517

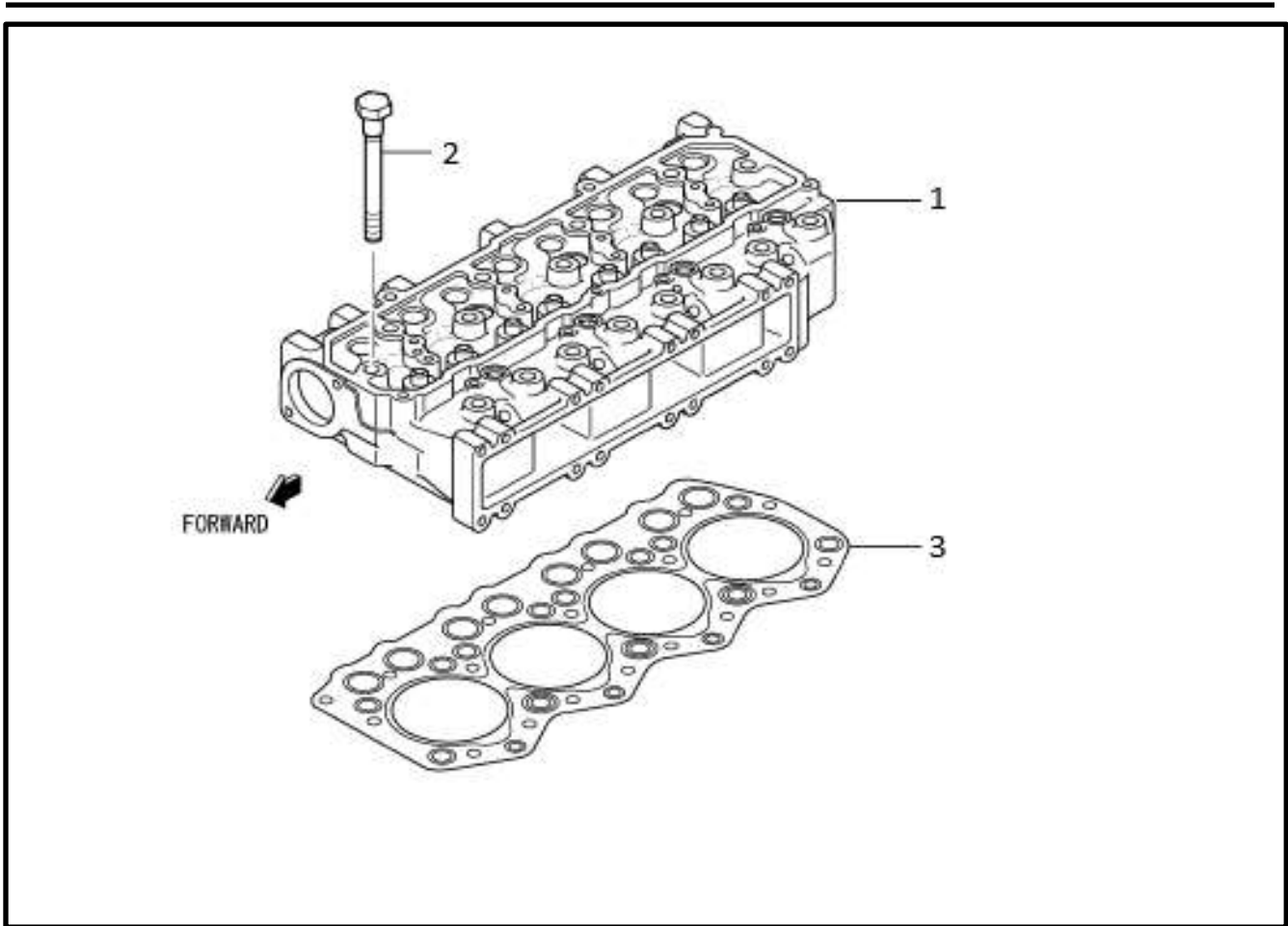
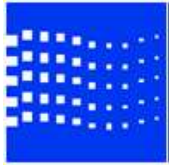
**Customized Parts Catalog for Engine Model**

**mitsubishi S4S**

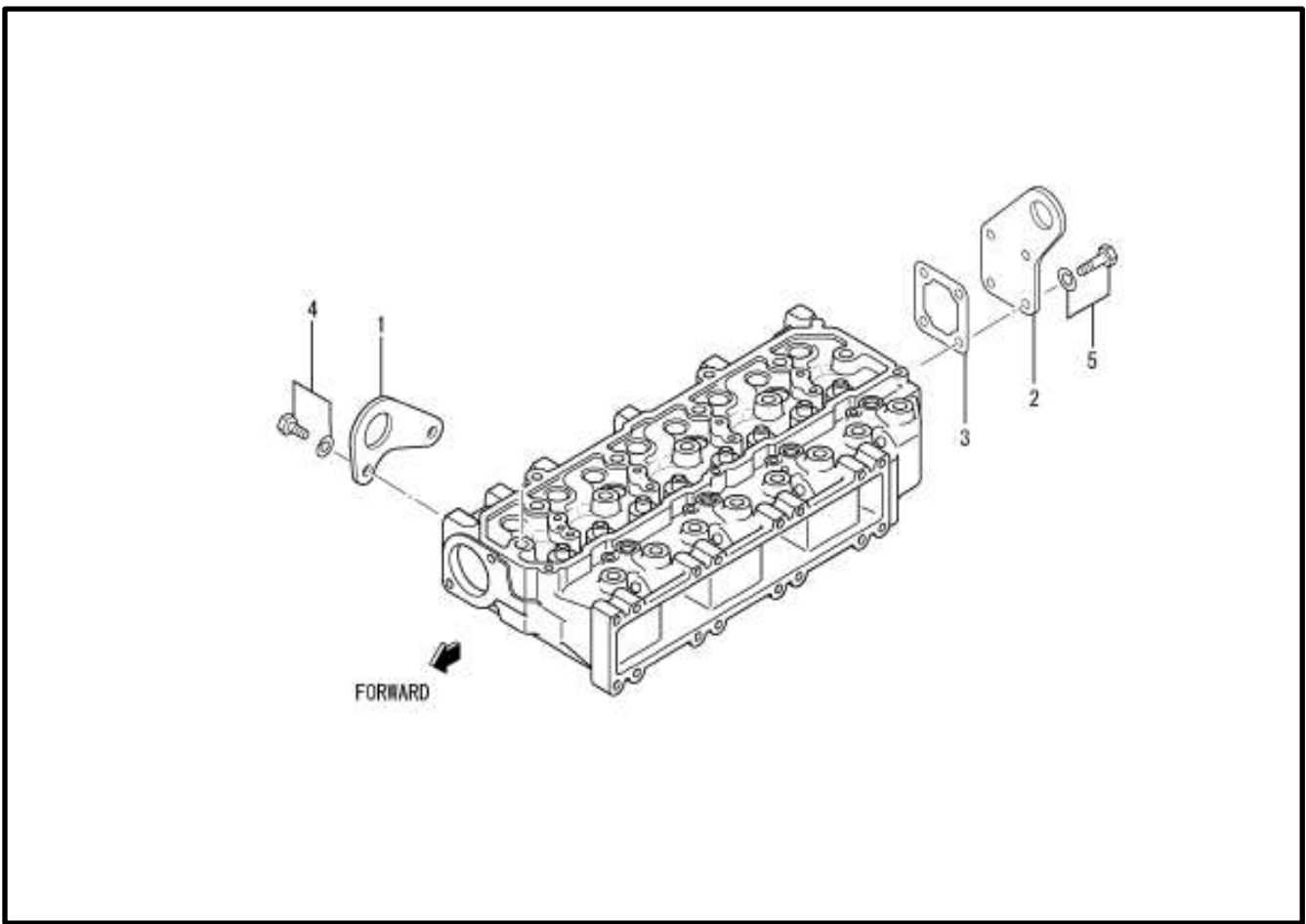
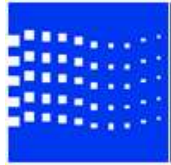
**M500-262-21**

## Table of Contents

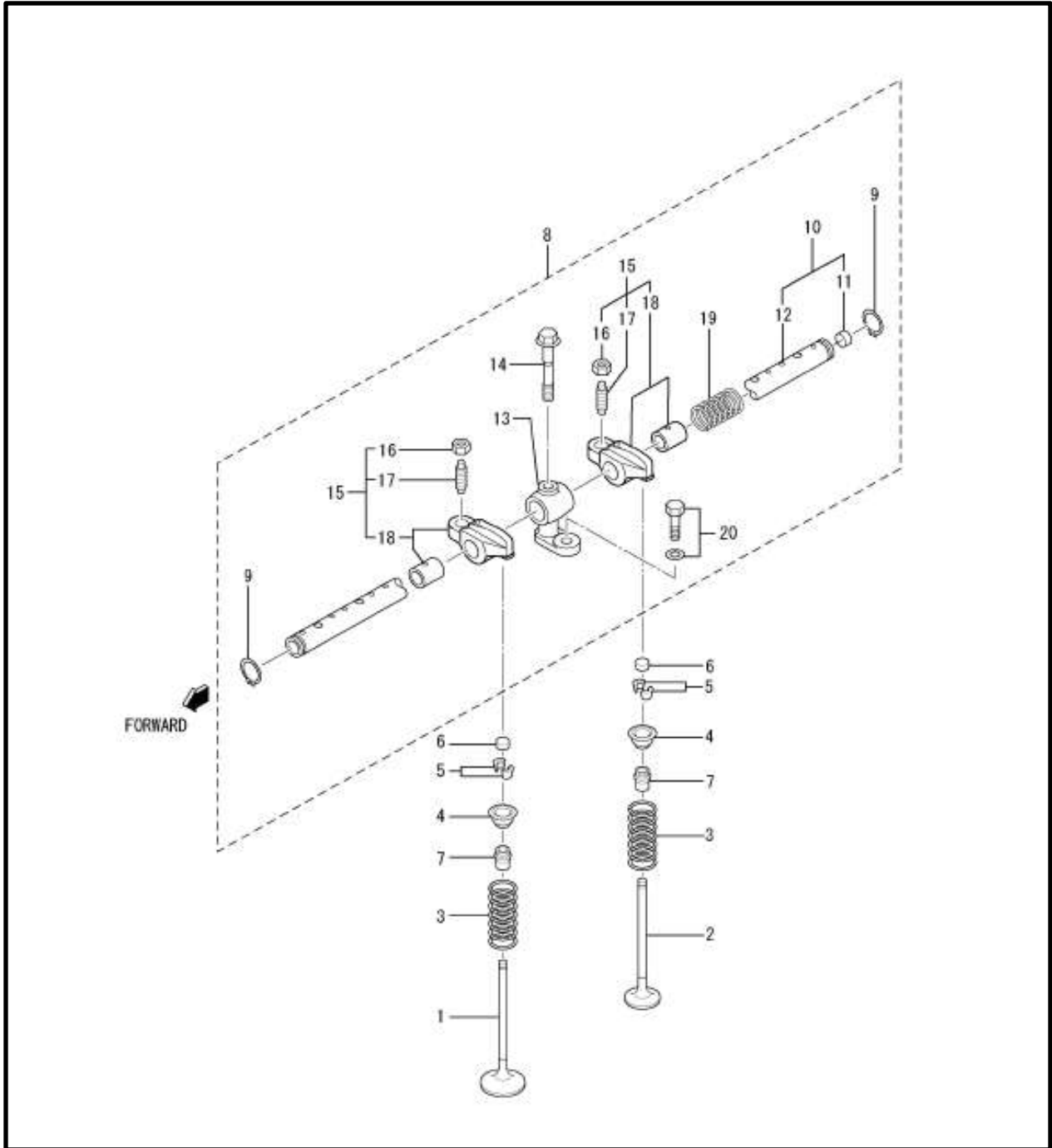
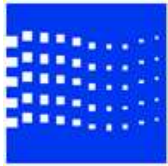
	Page No.		Page No.
Alternator.....	34	Oil Fill.....	5
Alternator Mounting.....	34	Oil Filter.....	24
Air Intake Manifold.....	19	Oil Level Gauge.....	12
Camshaft.....	6	Oil Pan.....	12
Crankshaft Assembly.....	15	Oil Pump.....	21
Cylinder Block.....	7	Oil Strainer .....	21
Cylinder Head.....	1	Oil System Relief Valve .....	22
Exhaust Manifold.....	20	Piston & Connecting Rod.....	13
Exhaust Manifold Mounting.....	20	Rocker Cover.....	5
Flywheel.....	16	Rocker Lever.....	3
Flywheel Housing.....	11	Side Cover .....	23
Flywheel Mounting.....	16	Side PTO .....	18
Fuel Filter .....	29	Starter.....	32
Fuel Filter Assembly.....	29	Thermostat.....	27
Fuel Plumbing.....	28	Thermostat Housing .....	27
Fuel Injection Pump .....	30	Timing Gears.....	17
Fuel Pump Mounting.....	30	Timing Gear Case .....	10
Fuel Transfer Pump.....	29	Valve Mechanism .....	3
Glow Plug .....	33	Valve Tappet.....	6
Injector Nozzle .....	28	Water Inlet Connection.....	25
Injector Plumbing.....	28	Water Pump.....	25
Lifting Arrangement.....	2	Water Pump Drive Belt.....	25
Main Bearings .....	9	Part Number Index.....	A-1

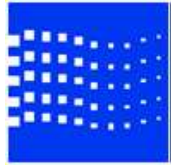


<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-177	Cylinder Head Assembly
2	17	M389-505-178	Bolt, Cylinder Head
3	1	M389-505-179	Gasket, Cylinder Head



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-106	Front Lifting Eye
2	1	M389-505-107	Rear Lifting Eye
3	1	M389-505-108	Gasket, Rear Head
4	2	M389-505-25	Bolt, w/Washer
5	4	M389-505-109	Bolt, w/Washer

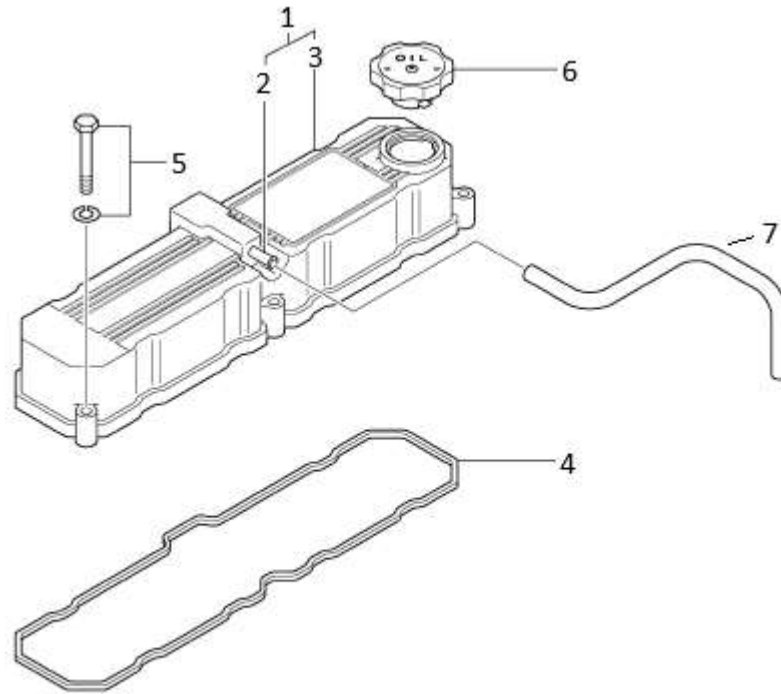
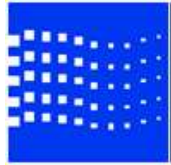




---

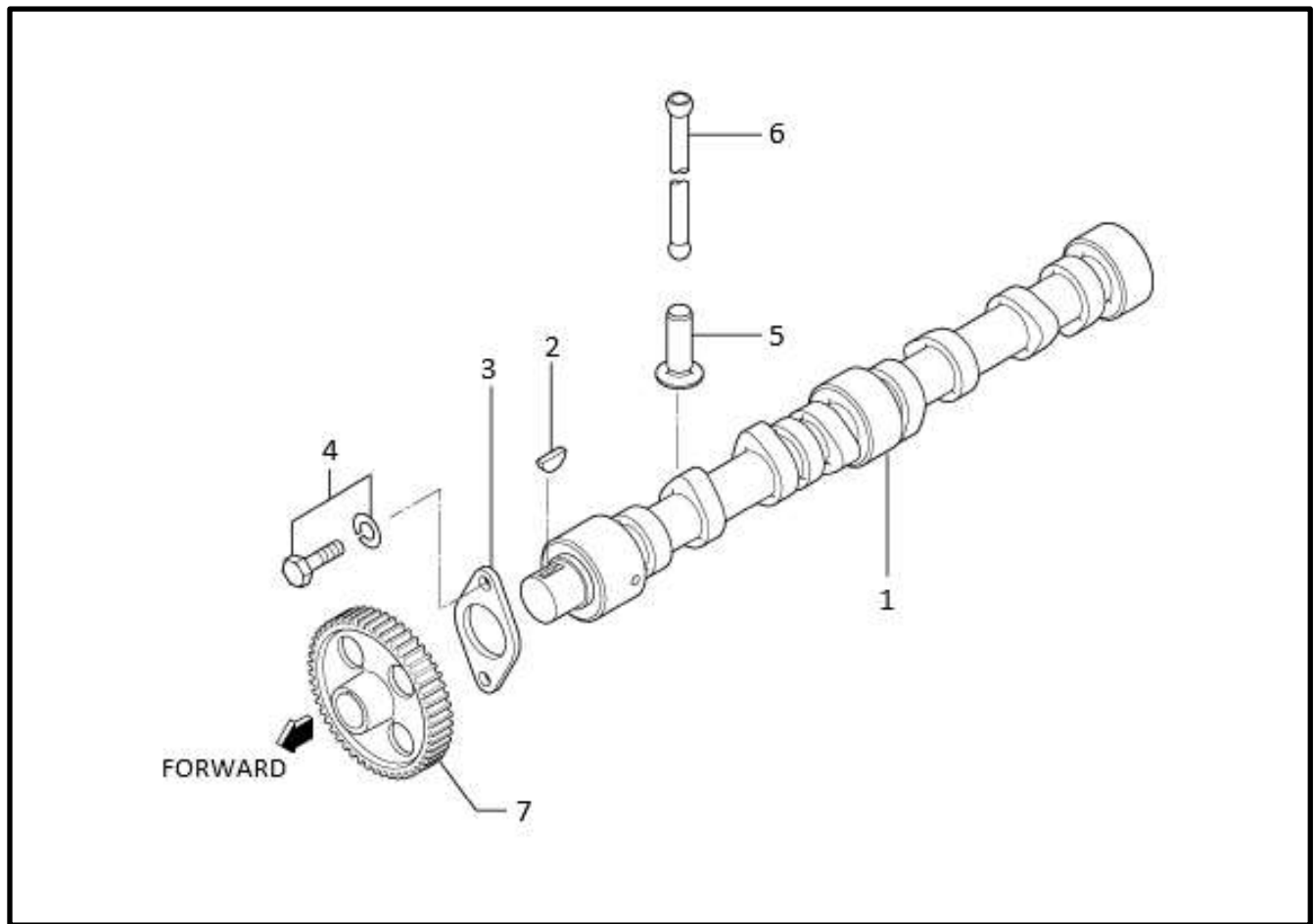
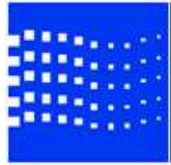
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	4	M389-505-01	Inlet Valve
2	4	M389-505-02	Exhaust Valve
3	8	M389-505-03	Valve Spring
4	8	M389-505-04	Retainer, Upper
5	16	M389-505-05	Valve Cotter
6	8	M389-505-06	Cap
7	8	M389-505-07	Seal, Valve Stem
8	1	N.S.S.	Rocker & Shaft Assembly
9	2	M389-505-08	Snap Ring
10	1	M389-505-09	Rocker Shaft assembly
11	2	M389-505-10	Cap, Sealing
12	1	N.S.S.	Rocker Shaft part of item 10
13	4	M389-505-11	Bracket, Rocker Shaft
14	4	M389-505-12	Bolt, Rocker Bracket
15	8	M389-505-13	Rocker
16	8	M389-505-14	Jam Nut
17	8	M389-505-15	Screw, Rocker
18	8	N.S.S.	Rocker & Bushing part of item 15
19	3	M389-505-16	Spring, Rocker
20	4	M389-505-17	Bolt, W/Washer

N.S.S Not Sold Separately



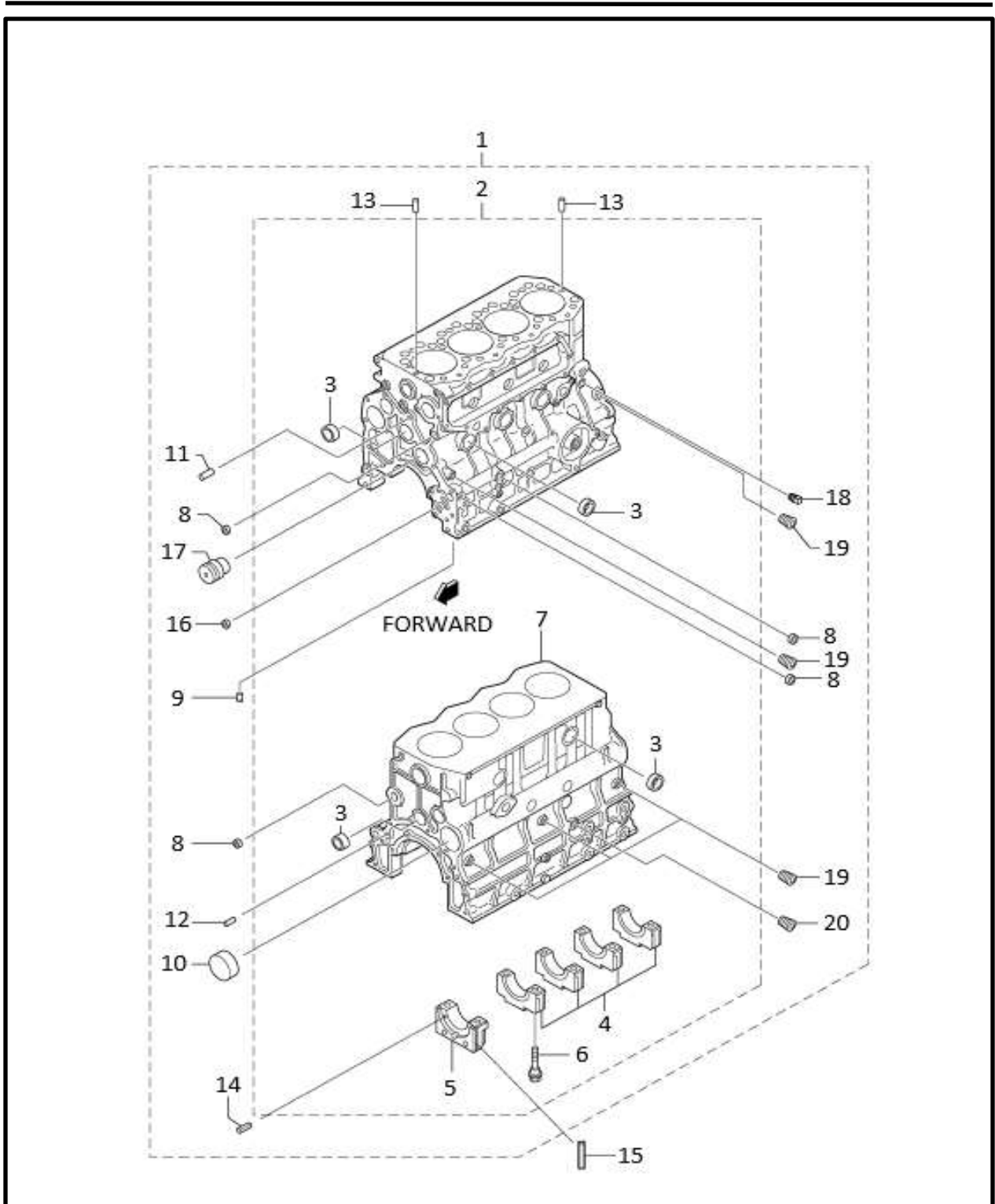
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-18	Rocker Cover
2	1	N.S.S	Breather Pipe
3	1	N.S.S.	Cover
4	1	M389-505-19	Gasket, Rocker Cover
5	5	M389-505-20	Bolt, W/Washer
6	1	M389-505-21	Cap, Oil Filler
7	1	M389-505-121	Hose, Breather

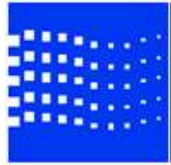
N.S.S. Not Sold Separately



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-22	Camshaft
2	1	M389-505-23	Woodruff Key
3	1	M389-505-24	Thrust Plate
4	2	M389-505-25	Bolt, W/Washer
5	8	M389-505-26	Tappet
6	8	M389-505-27	Push Rod
7	1	M389-505-28	Gear, Camshaft



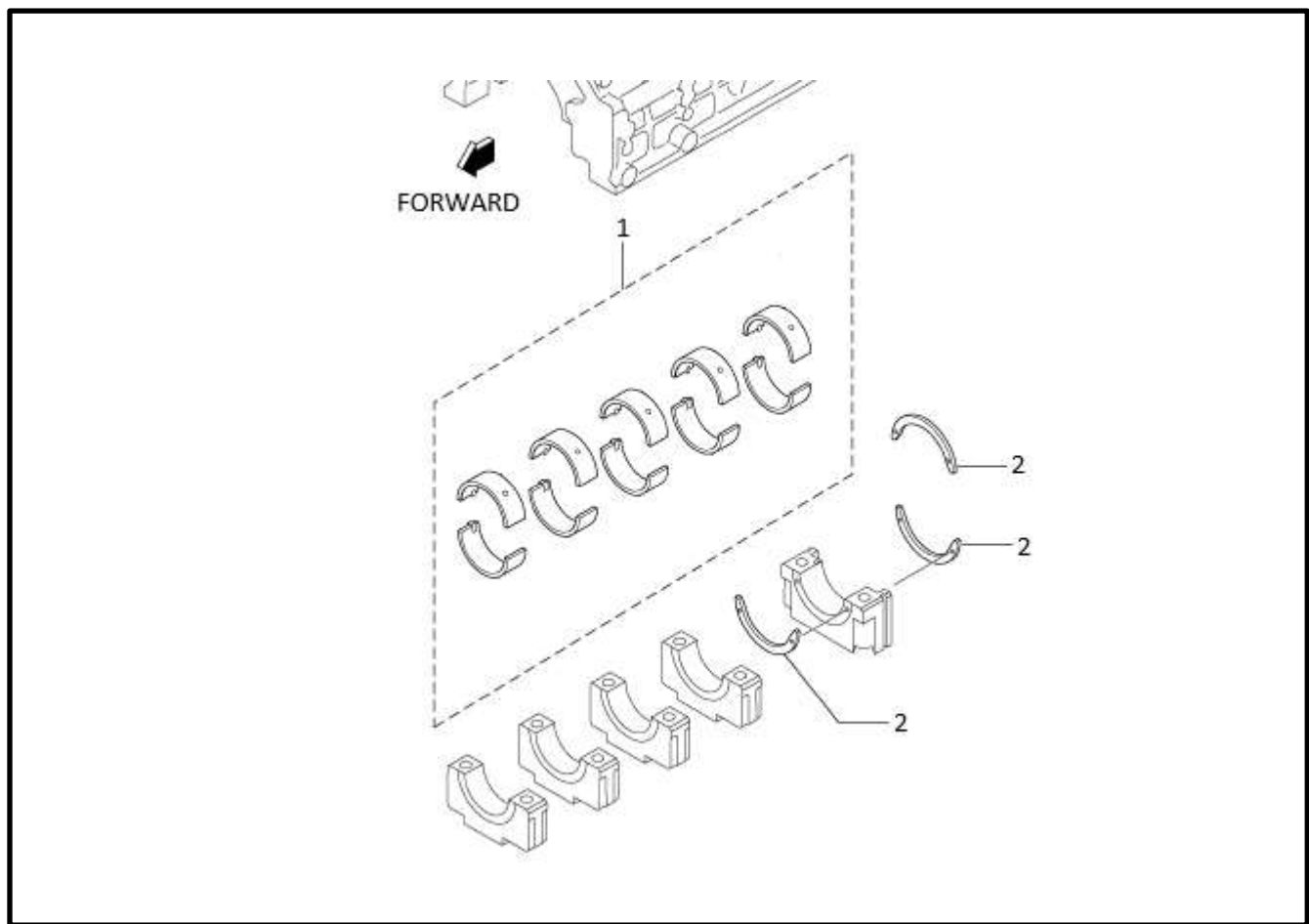
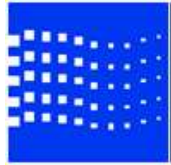




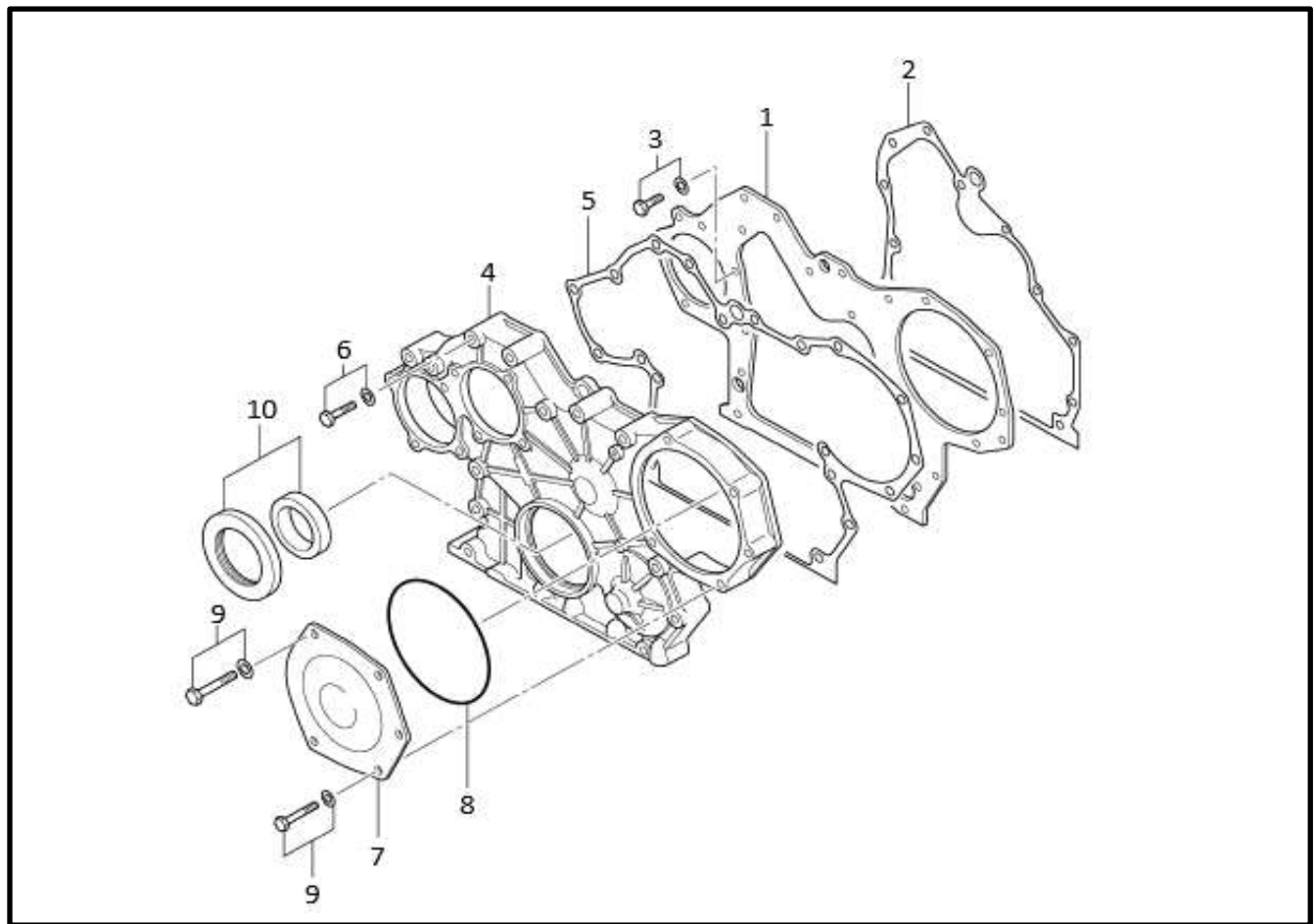
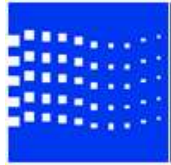
---

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-29	Crankcase Assembly
2	1	N.S.S.	Crankcase Sub Assembly
3	10	M389-505-30	Cap, Sealing
4	4	N.S.S.	Cap, Bearing
5	1	N.S.S.	Cap, Rear Bearing
6	10	M389-505-31	Bolt, Bearing Cap
7	1	N.S.S.	Crankcase
8	6	M389-505-32	Cap, Sealing
9	3	N.S.S.	Plug
10	1	M389-505-33	Cam Plug
11	2	M389-505-34	Dowel Pin
12	2	M389-505-35	Dowel Pin
13	2	M389-505-36	Dowel Pin
14	6	M389-505-37	Pin, Spring
15	2	M389-505-38	Seal, Side
16	1	M389-505-39	Bushing
17	1	M389-505-40	Idler Shaft
18	1	M389-505-41	Plug, Tapered
19	7	M389-505-42	Plug, Tapered
20	1	M389-505-43	Plug, Tapered

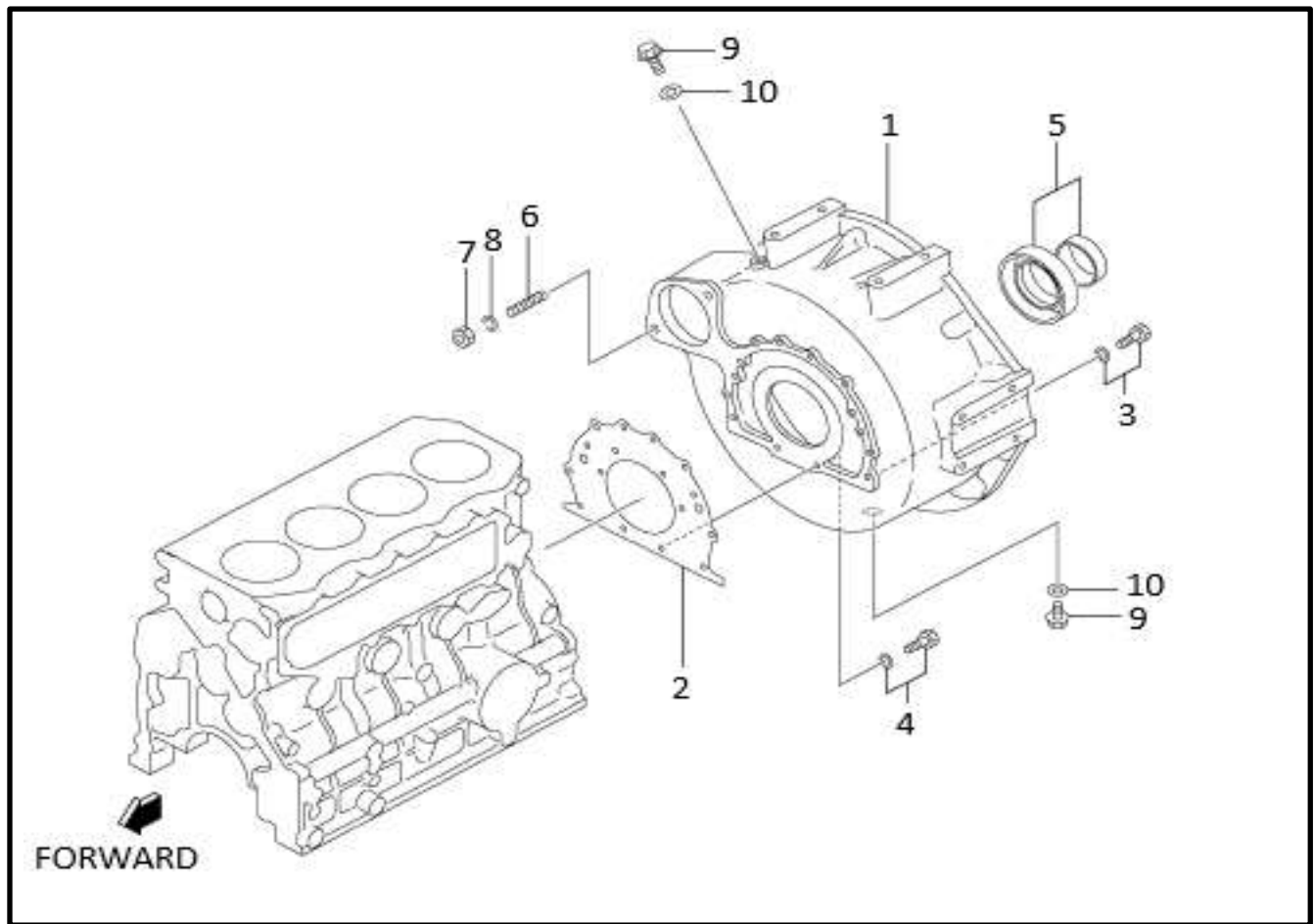
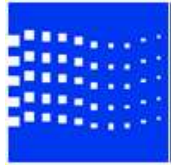
N.S.S. Not Sold Separately



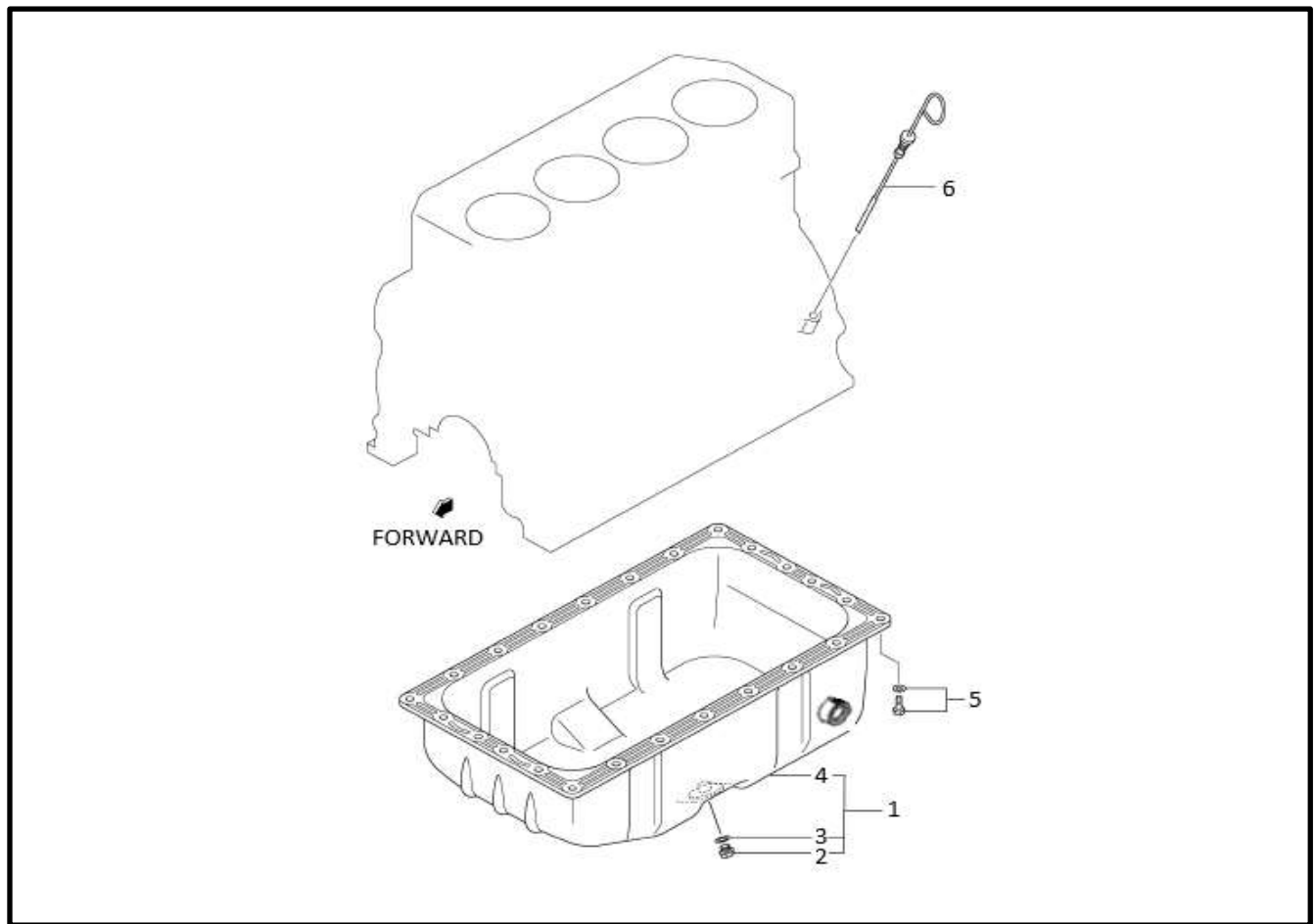
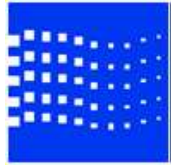
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-44	Bearing set, Main, Std
		M389-505-45	Bearing Set, Main, U.S. 0.25
		M389-505-46	Bearing Set, Main, U.S. 0.50
		M389-505-47	Bearing Set, Main, U.S. 0.75
2	3	M389-505-48	Plate, Thrust, Std
		M389-505-49	Plate, Thrust, O.S. 0.15
		M389-505-50	Plate, Thrust, O.S. 0.30



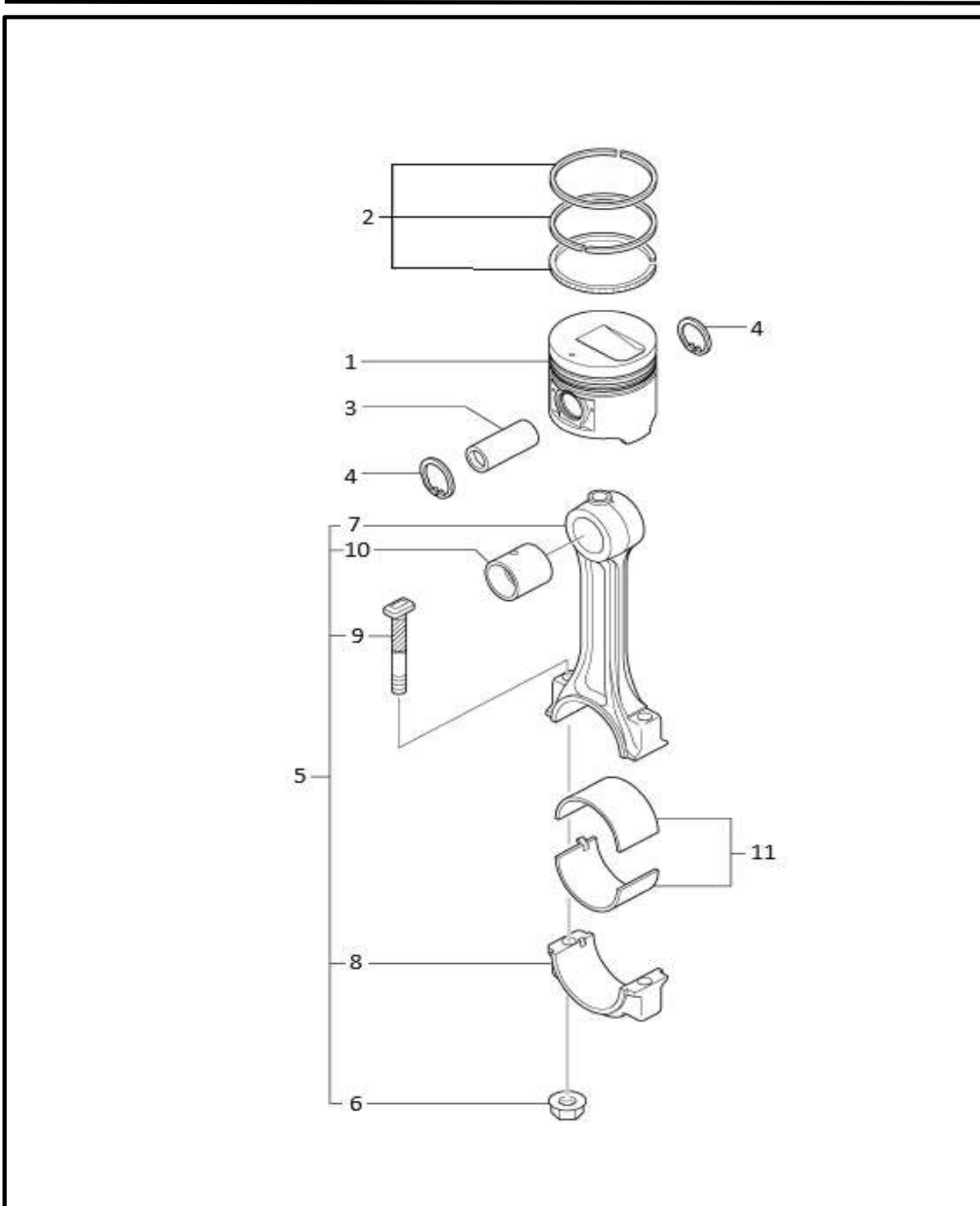
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-51	Front Plate
2	1	M389-505-52	Gasket, Front Plate
3	5	M389-505-25	Bolt, W/Washer
4	1	M389-505-53	Case, Timing Gear
5	1	M389-505-54	Gasket, Gear Case
6	12	M389-505-55	Bolt, W/Washer
7	1	M389-505-56	Cover, Gear
8	1	M389-505-57	O-Ring
9	8	M389-505-58	Bolt, W/Washer
10	1	M389-505-59	Seal Assembly, Oil

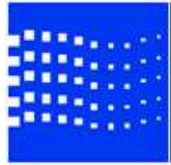


<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-60	Flywheel Housing
2	1	M389-505-61	Gasket, Rear
3	10	M389-505-62	Bolt, W/Washer
4	2	M389-505-63	Bolt, W/Washer
5	1	M389-505-64	Seal Assembly, Oil
6	2	M389-505-65	Stud
7	2	M389-505-66	Nut
8	2	M389-505-67	Washer, Spring
9	2	M389-505-68	Drain Plug
10	2	M389-505-69	Gasket



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-195	Oil Pan, Modified
2	1	M389-505-71	Plug, Oil Drain
3	1	M389-505-72	Gasket, Oil Drain
4	1	N.S.S.	Pan
5	24	M389-505-25	Bolt, W/Washer
6	1	M389-505-73	Gage, Oil Level



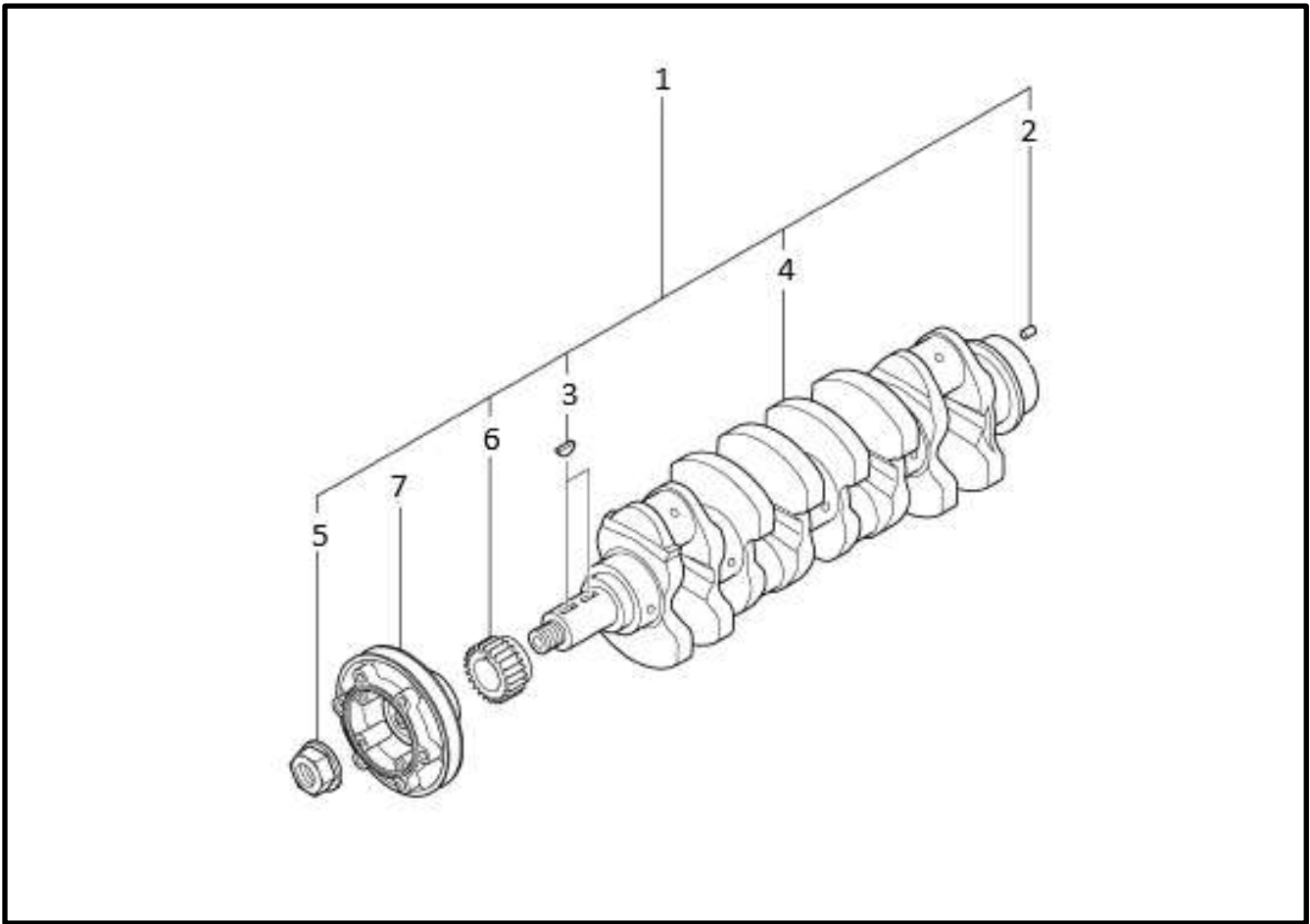
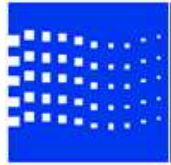


---

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	4	M389-505-74	Piston Std
		M389-505-75	Piston O.S. 0.25
		M389-505-76	Piston O.S. 0.50
2	4	M389-505-77	Ring Set, Piston, Std
		M389-505-78	Ring Set, Piston, O.S. 0.25
		M389-505-79	Ring Set, Piston, O.S. 0.50
3	4	M389-505-80	Pin, Piston
4	8	M389-505-81	Snap Ring
5	4	M389-505-82	Rod Assembly, Connecting
6	8	M389-505-83	Nut, Connecting Rod
7	4	N.S.S.	Connecting Rod
8	4	N.S.S.	Cap, Connecting Rod
9	8	M389-505-84	Bolt, Connecting Rod
10	4	M389-505-85	Bushing, Connecting Rod
11	1	M389-505-86	Bearing Set, Connecting Rod, Std
		M389-505-87	Bearing Set, Connecting Rod, U.S. 0.25
		M389-505-88	Bearing Set, Connecting Rod, U.S. 0.50
		M389-505-89	Bearing Set, Connecting Rod, U.S. 0.75

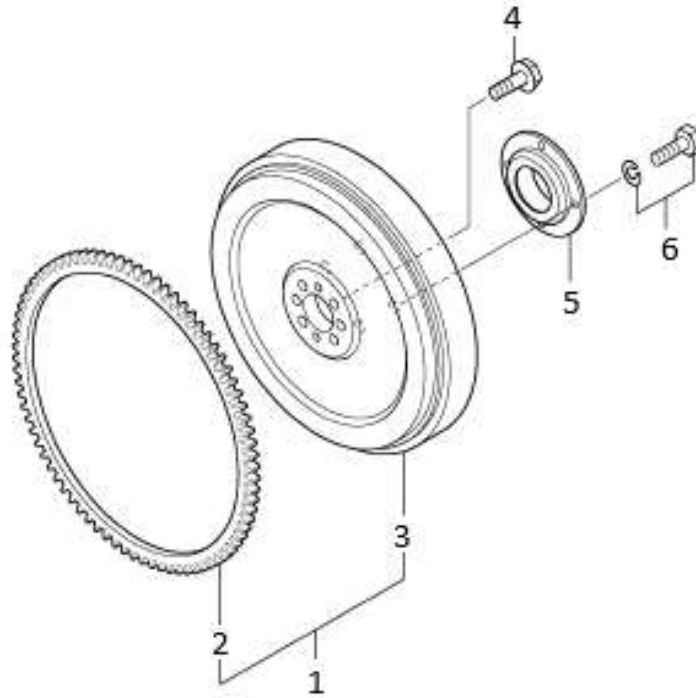
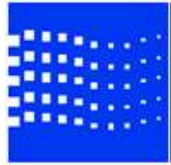
N.S.S. Not Sold Separately





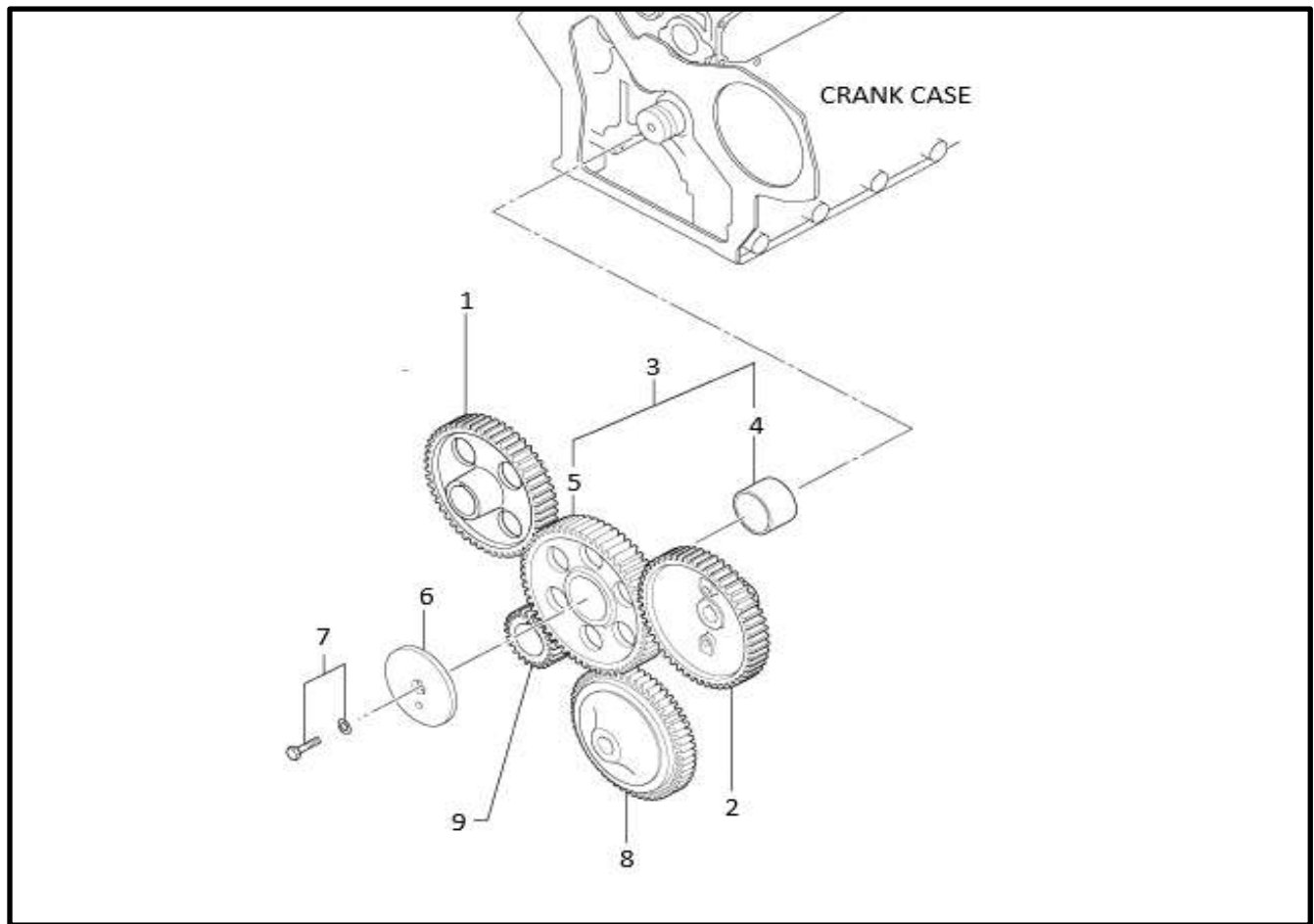
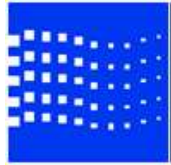
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-90	Crankshaft Assembly
2	2	M389-505-91	Pin, Dowel
3	2	M389-505-92	Woodruff Key
4	1	N.S.S.	Crankshaft
5	1	M389-505-93	Nut, Crankshaft
6	1	M389-505-94	Gear, Crankshaft
7	1	M389-505-95	Pulley, Crankshaft

N.S.S. Not Sold Separately



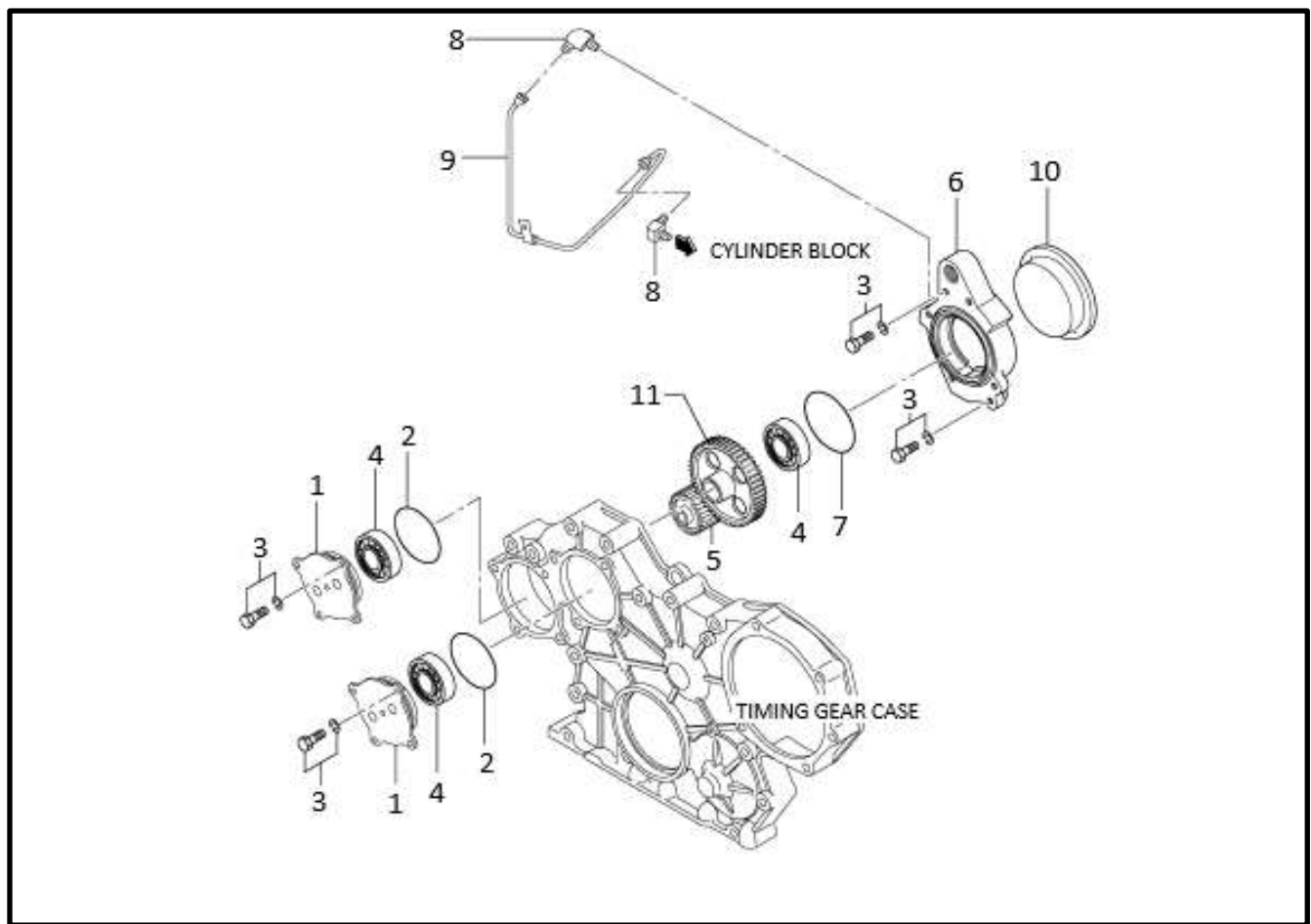
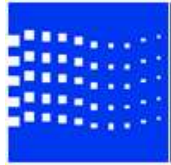
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-96	Flywheel Assembly
2	1	M389-505-97	Gear, Ring
3	1	N.S.S.	Flywheel
4	4	M389-505-98	Bolt
5	1	M389-505-99	Adapter Bearing
6	4	M389-505-100	Bolt, W/Washer

N.S.S. Not Sold Separately

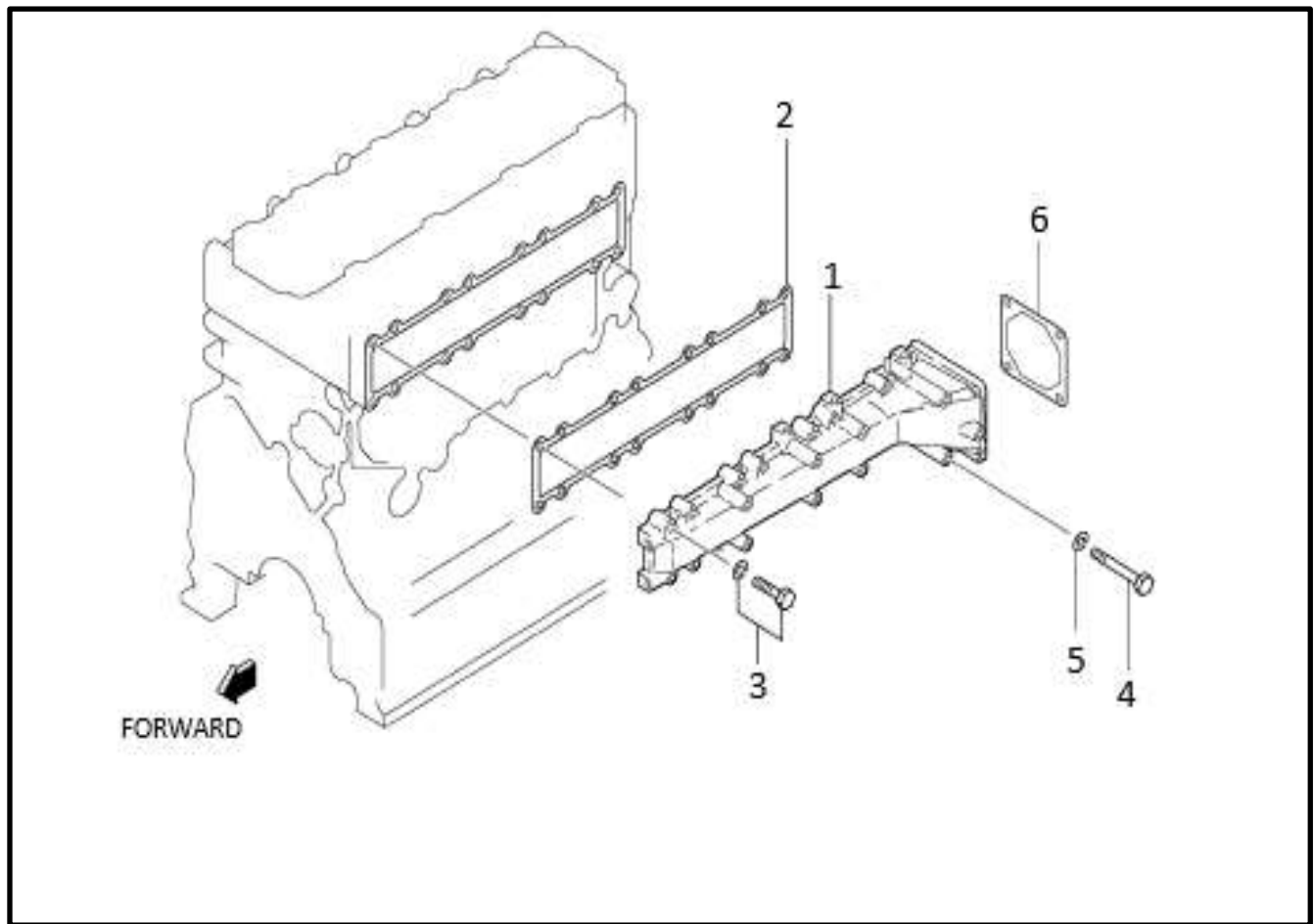
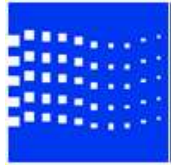


<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-28	Gear, Camshaft
2	1	M389-505-101	Gear, Injection Pump
3	1	M389-505-102	Idler Assembly, Gear
4	1	N.S.S.	Idler Bushing
5	1	N.S.S.	Idler Gear
6	1	M389-505-103	Plate, Thrust
7	1	M389-505-104	Bolt, W/Washer
8	1	M389-505-105	Gear, Oil Pump
9	1	M389-505-94	Gear, Crankshaft

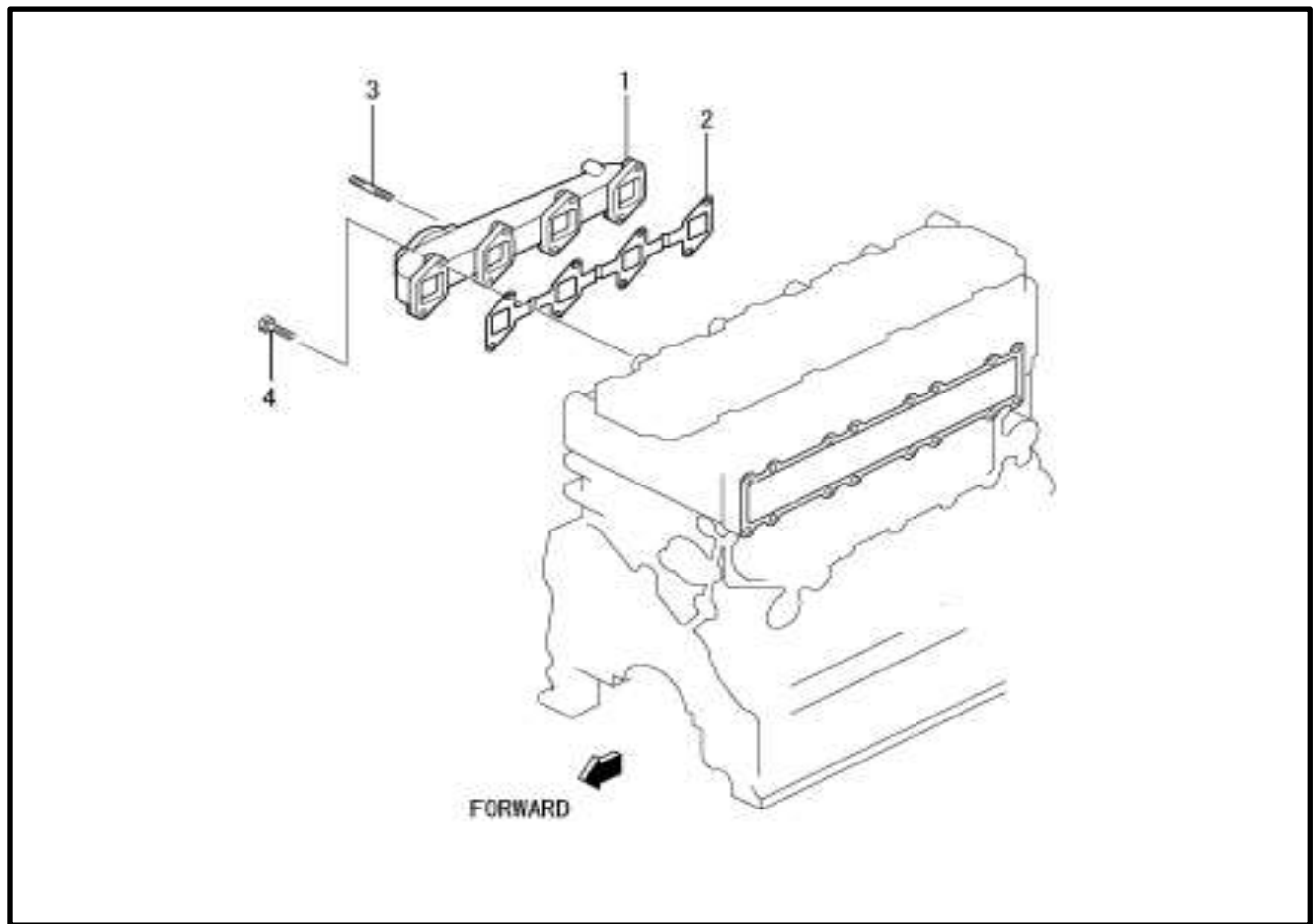
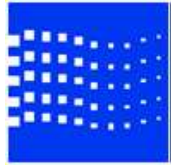
N.S.S. Not Sold Separately



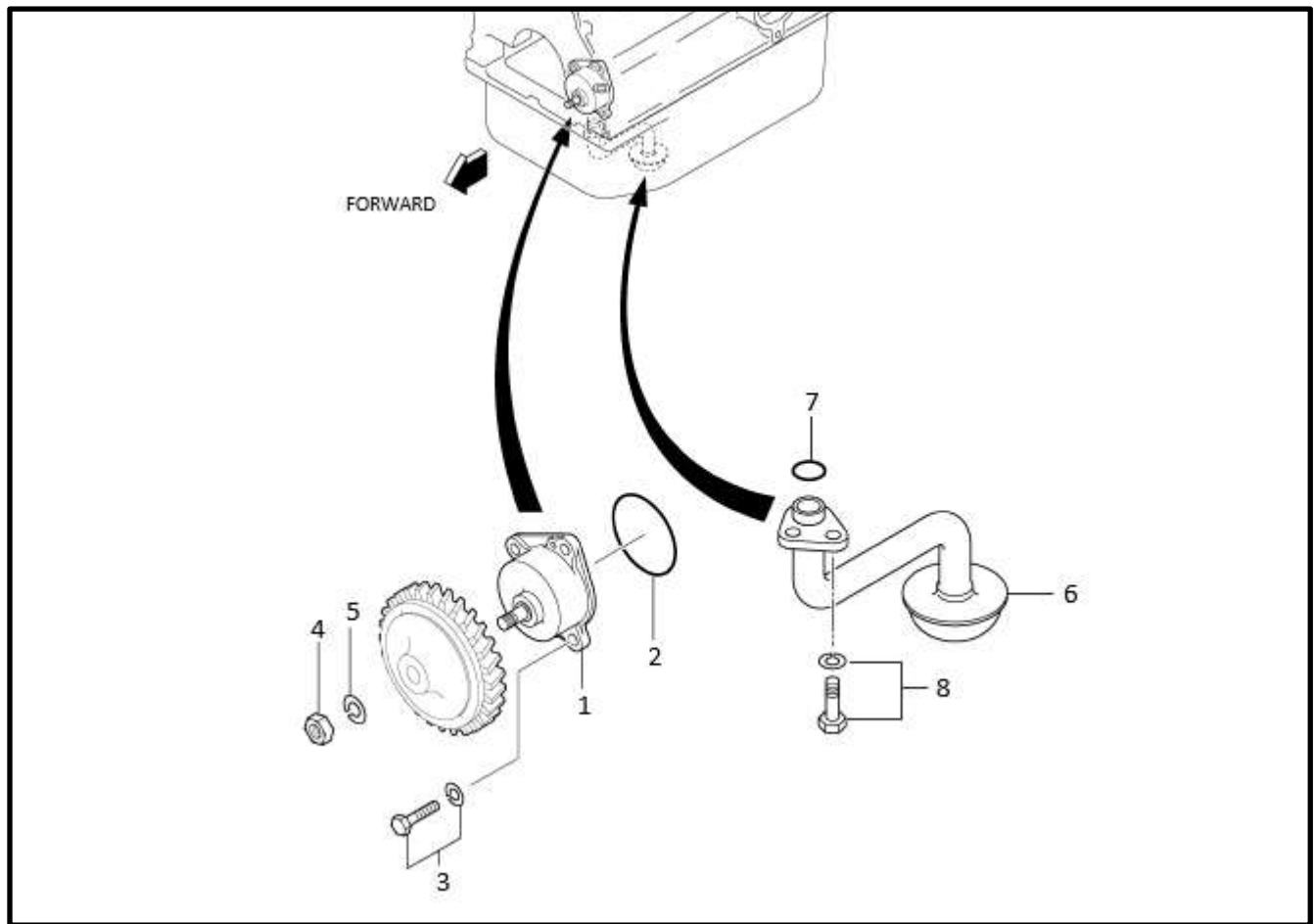
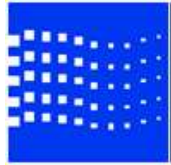
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	2	M389-505-168	Case, Bearing
2	2	M389-505-169	O-Ring
3	7	M389-505-25	Bolt, W/Washer
4	3	M389-505-170	Bearing, Ball
5	1	M389-505-171	Gear, Pump
6	1	M389-505-172	Case, Bearing
7	1	M389-505-173	O-Ring
8	2	M389-505-174	Connector
9	1	M389-505-175	Pipe, Oil
10	1	M389-505-176	Plug
11	1	M389-505-28	Gear, Camshaft



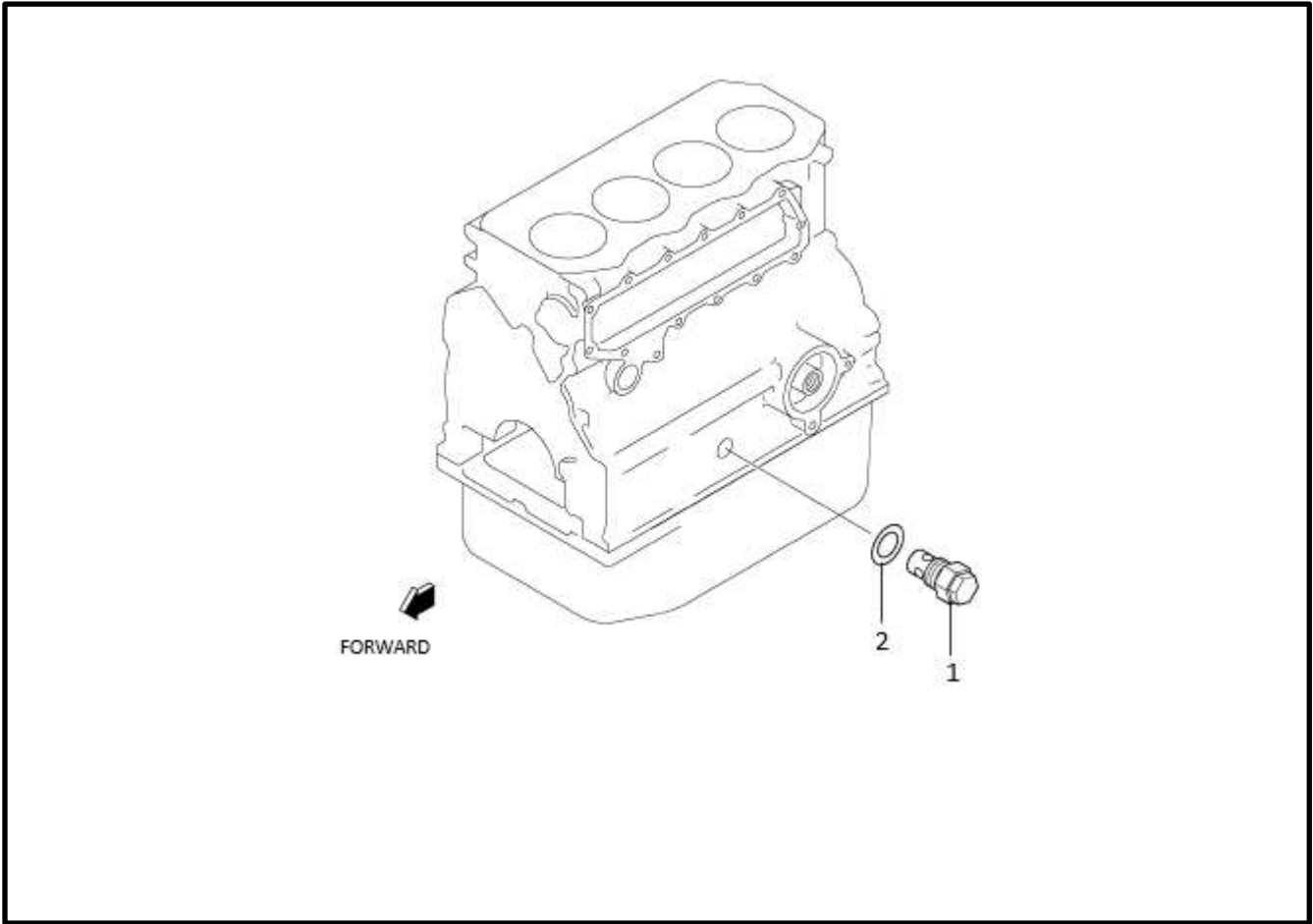
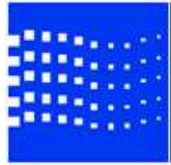
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-165	Inlet Manifold
2	1	M389-505-186	Gasket, Inlet Manifold
3	14	M389-505-20	Bolt W/Washer
4	2	M389-505-166	Bolt
5	2	M389-505-167	Washer, Spring
6	1	M389-505-187	Gasket, Inlet Pipe



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M391-200-02C	Exhaust Manifold, Coated
2	1	M389-505-162	Gasket, Exhaust Manifold
3	4	M389-505-184	Stud
4	8	M389-505-185	Bolt

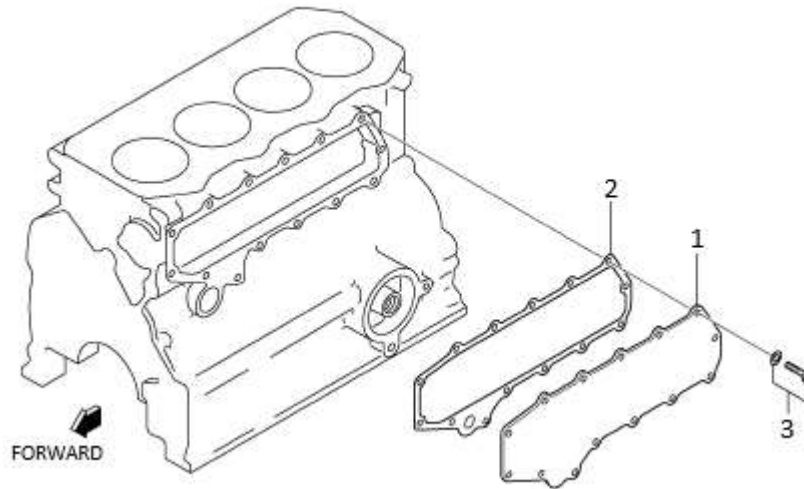
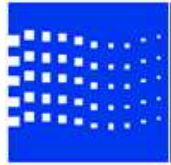


<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-110	Pump Assembly, Oil
2	1	M389-505-111	O-Ring
3	4	M389-505-109	Bolt, W/Washer
4	1	M389-505-112	Nut, Jam
5	1	M389-505-67	Washer, Spring
6	1	M389-505-113	Strainer, Oil
7	1	M389-505-114	O-Ring
8	2	M389-505-25	Bolt, W/Washer

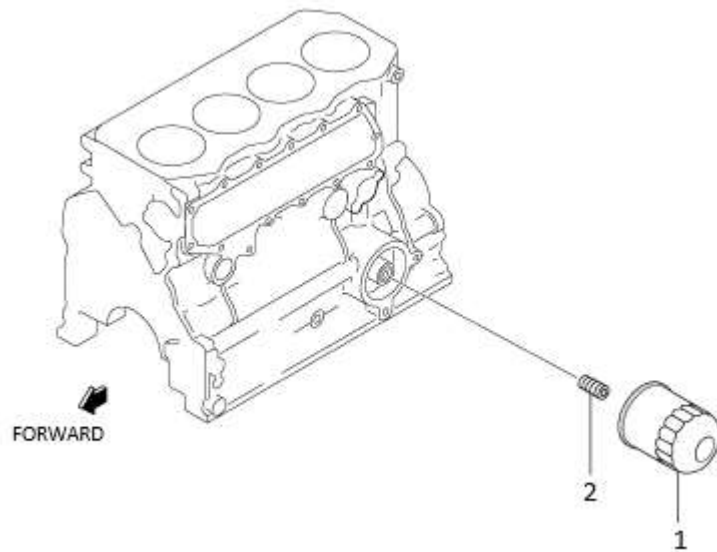
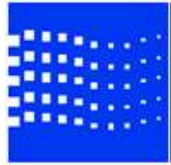


<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-115	Valve Assembly, Relief
2	1	M389-505-116	Gasket

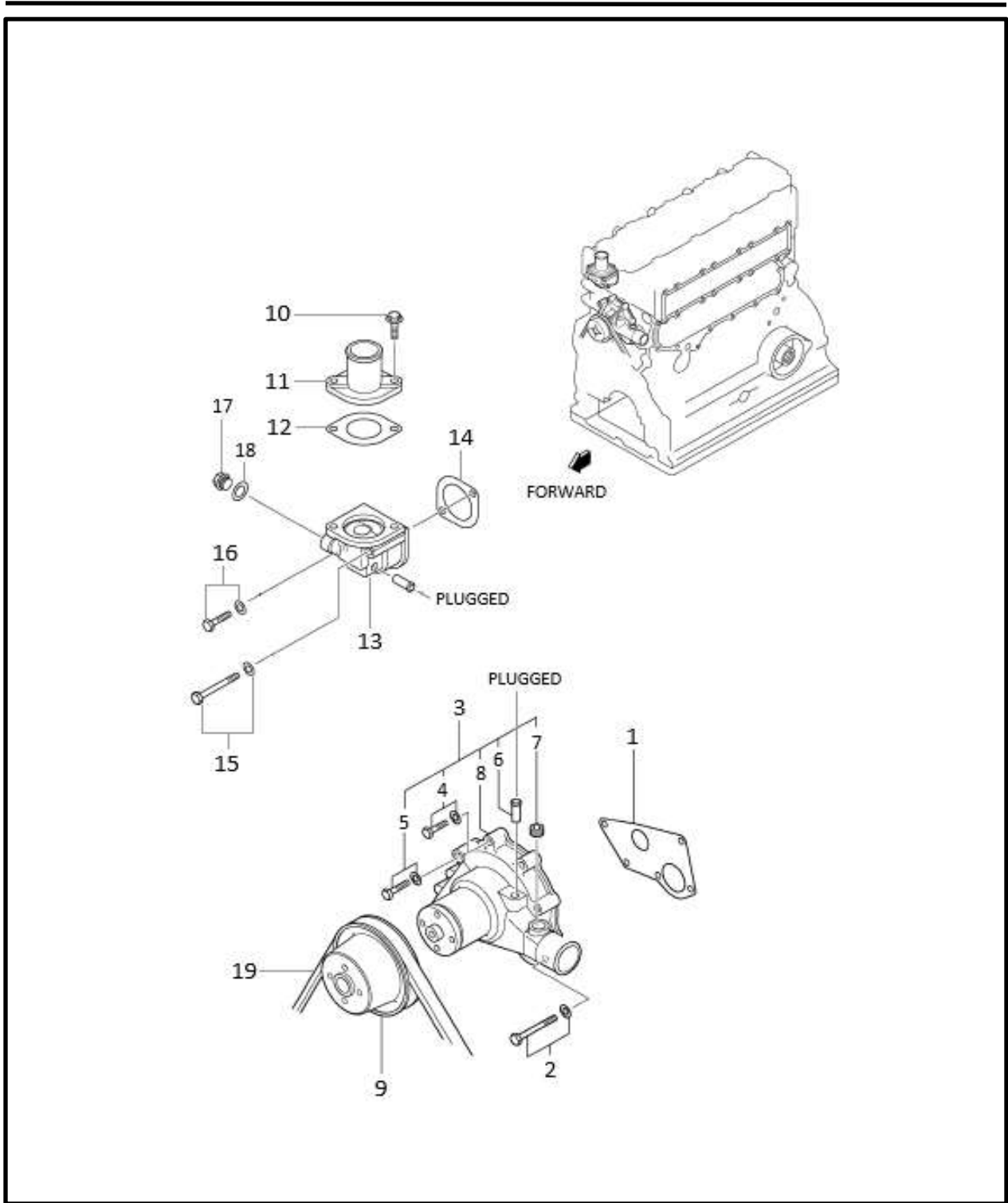


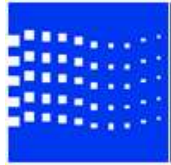


<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-117	Cover, Crankcase Side
2	1	M389-505-118	Gasket, Side Cover
3	14	M389-505-25	Bolt, W/Washer



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-119	Cartridge Assembly, oil
2	1	M389-505-120	Union, Oil Filter

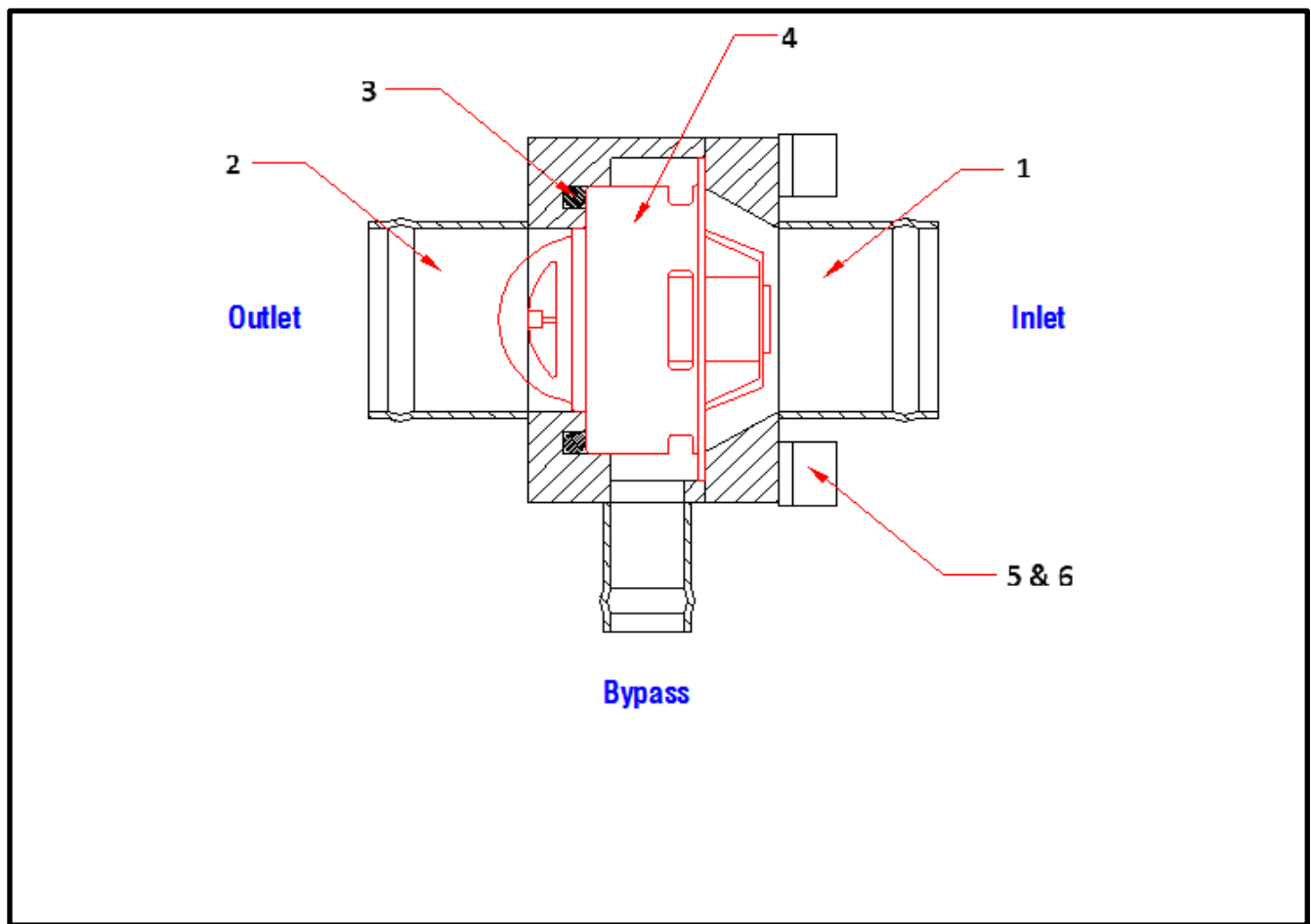
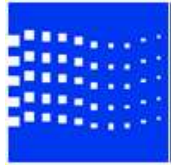




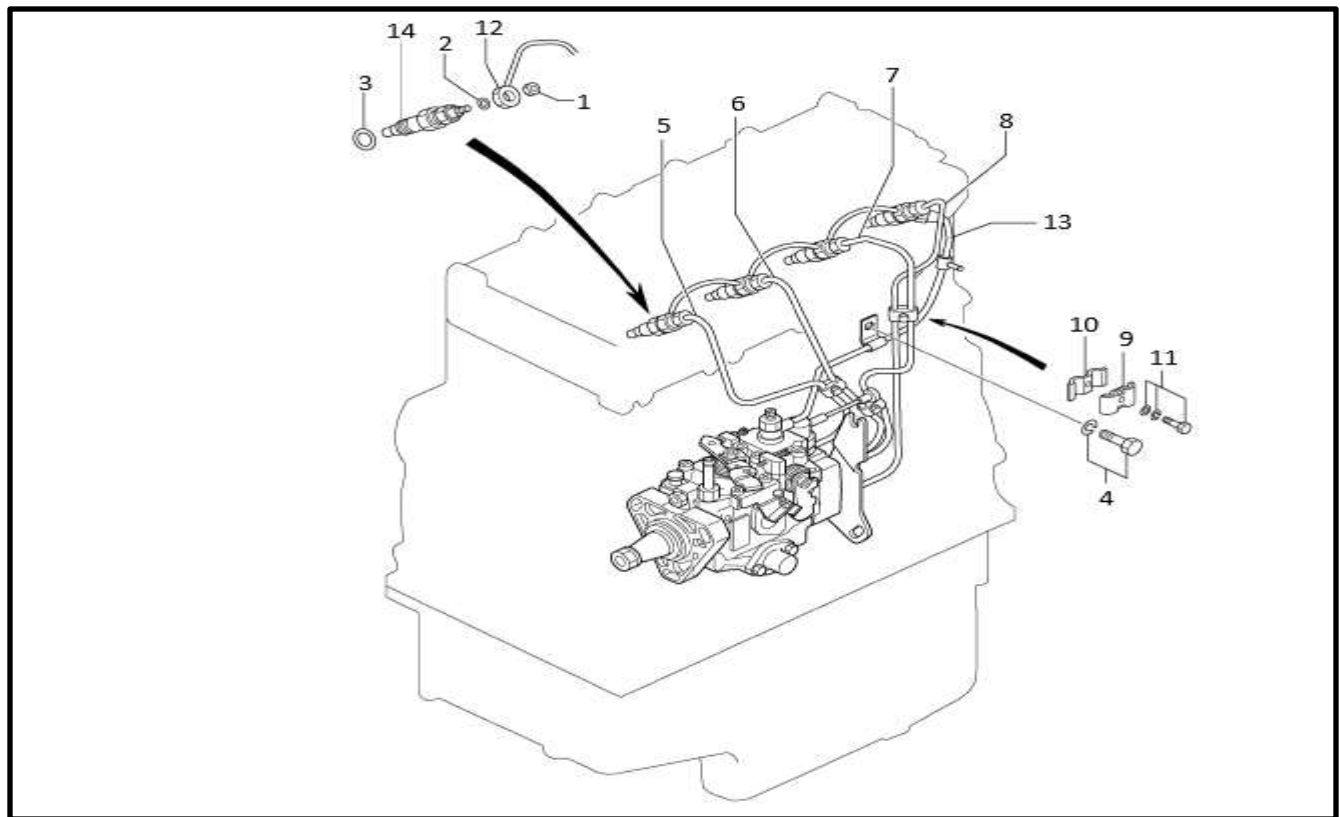
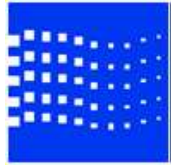
---

<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-122	Gasket, Water Pump
2	5	M389-505-123	Bolt, W/Washer
3	1	M389-505-124	Pump Assembly, Water
4	2	M389-505-17	Bolt, W/Washer
5	1	M389-505-126	Bolt, W/Washer
6	1	N.S.S.	Pipe, Water Pump
7	1	M389-505-125	Plug, Tapered
8	1	N.S.S.	Case, Water pump
9	1	M389-505-127	Pulley, Water Pump
10	2	M389-505-128	Bolt, Flange
11	1	M389-505-129	Cover
12	1	M389-505-130	Gasket
13	1	M389-505-131	Case, Assembly
14	1	M389-505-132	Gasket
15	1	M389-505-133	Bolt, W/Washer
16	1	M389-505-123	Bolt, W/Washer
17	2	M389-505-68	Plug, Drain
18	2	M389-505-69	Gasket
19	1	M389-505-188	Belt

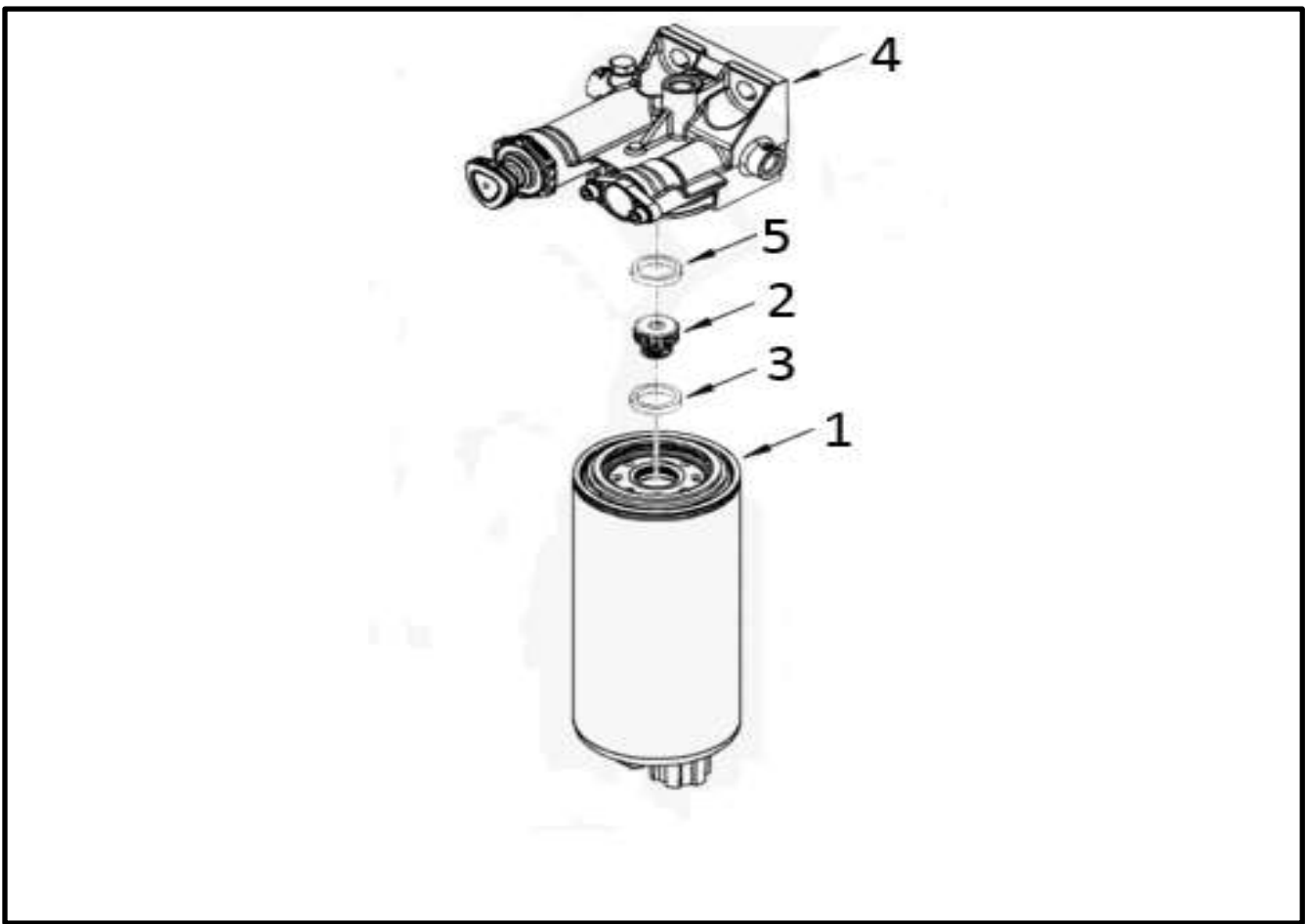
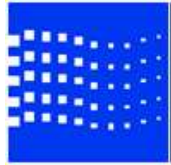
N.S.S. Not Sold Separately



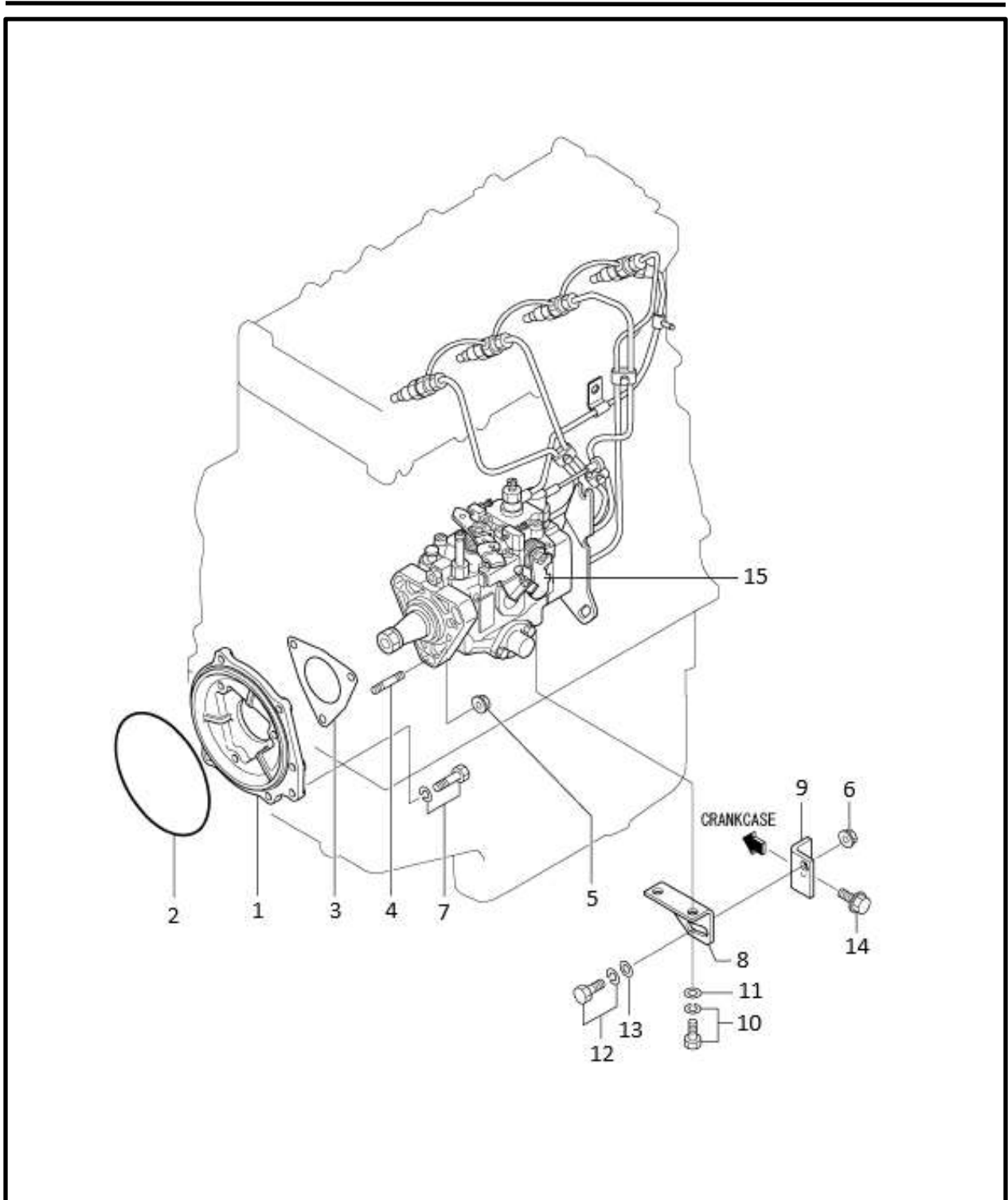
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
	1	M241-725-31	Thermostat Assembly
1	1	M241-726-12	Inlet Flange, 1.75
2	1	M241-727-13	Outlet Flange, 1.75
3	1	M241-729-11	O-Ring
4	1	M241-728-21	Thermostat Insert, 180 Deg
5	4	M241-730-01	Socket Head Capscrew, 3/8-16
6	4	M150-538-01	Lock Washer, Hi Collar, 3/8



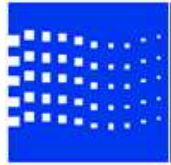
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	4	M389-505-135	Nut
2	4	M389-505-136	Gasket, Fuel Return
3	4	M389-505-137	Gasket, Holder
4	1	M389-505-25	Bolt, W/Washer
5	1	M389-505-138	Pipe, Injection No. 1
6	1	M389-505-139	Pipe, Injection No. 2
7	1	M389-505-140	Pipe, Injection No. 3
8	1	M389-505-141	Pipe, Injection No. 4
9	3	M389-505-142	Clamp
10	3	M389-505-143	Clamp
11	3	M389-505-144	Bolt, W/Washer
12	1	M389-505-145	Pipe, Fuel Leak Off
13	1	M389-505-147	Pipe, Fuel Return, Modified
14	4	M389-505-148	Nozzle Assembly



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
		M348-562-472	Filter, Fuel Assembly
1	1	M503-576-01	Filter, Fuel
2	1	M348-562-473	Adapter, Fuel Filter
3	1	M348-562-142	Gasket, Fuel Filter
4	1	M348-562-474	Head, Fuel Filter
5	1	M348-562-475	Gasket, Filter Head

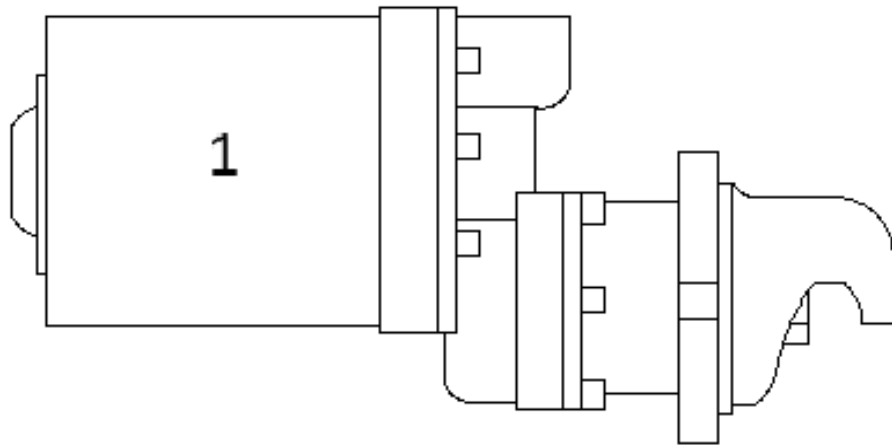
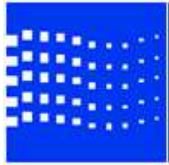




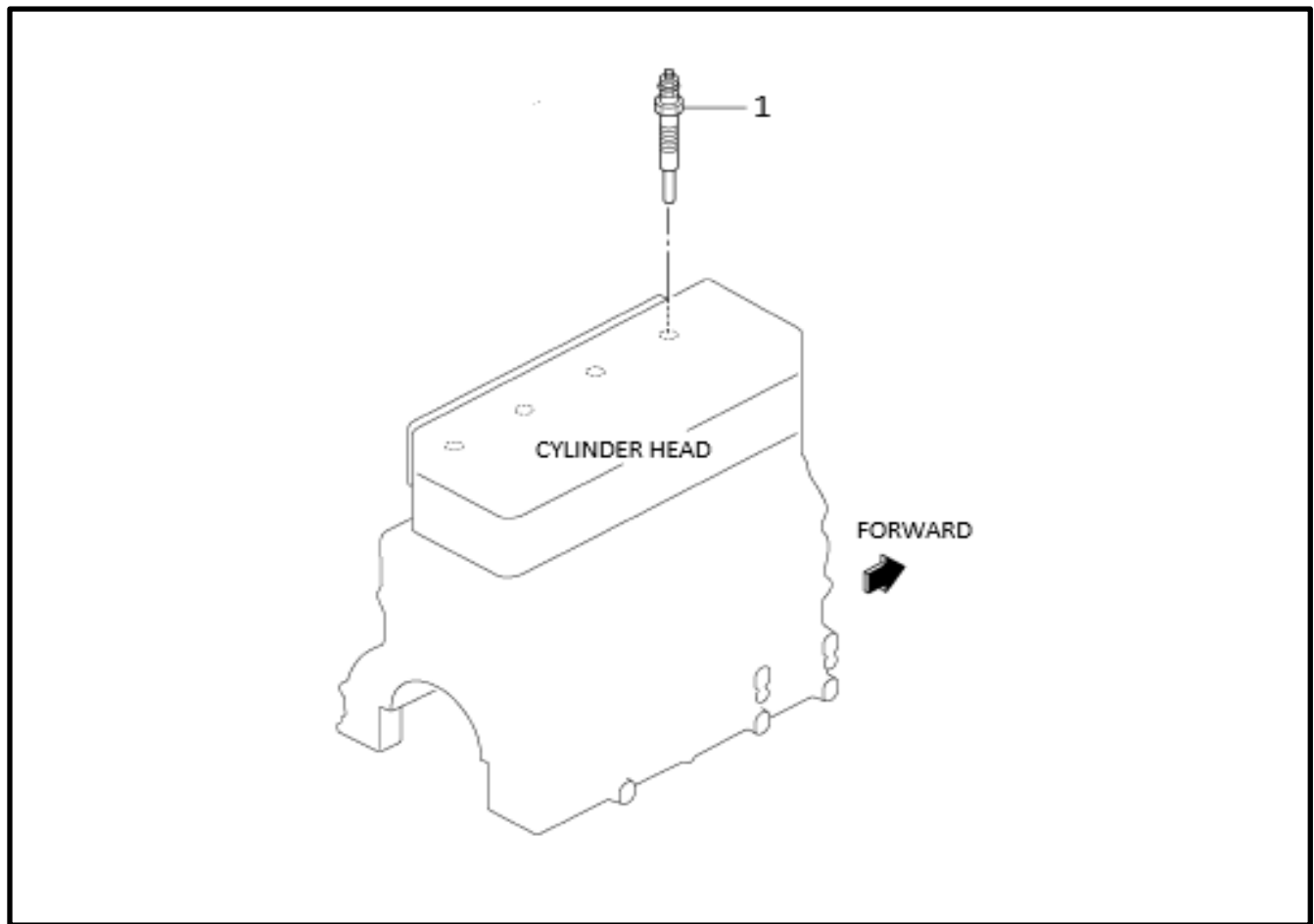
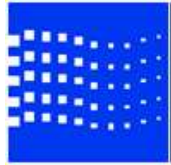


---

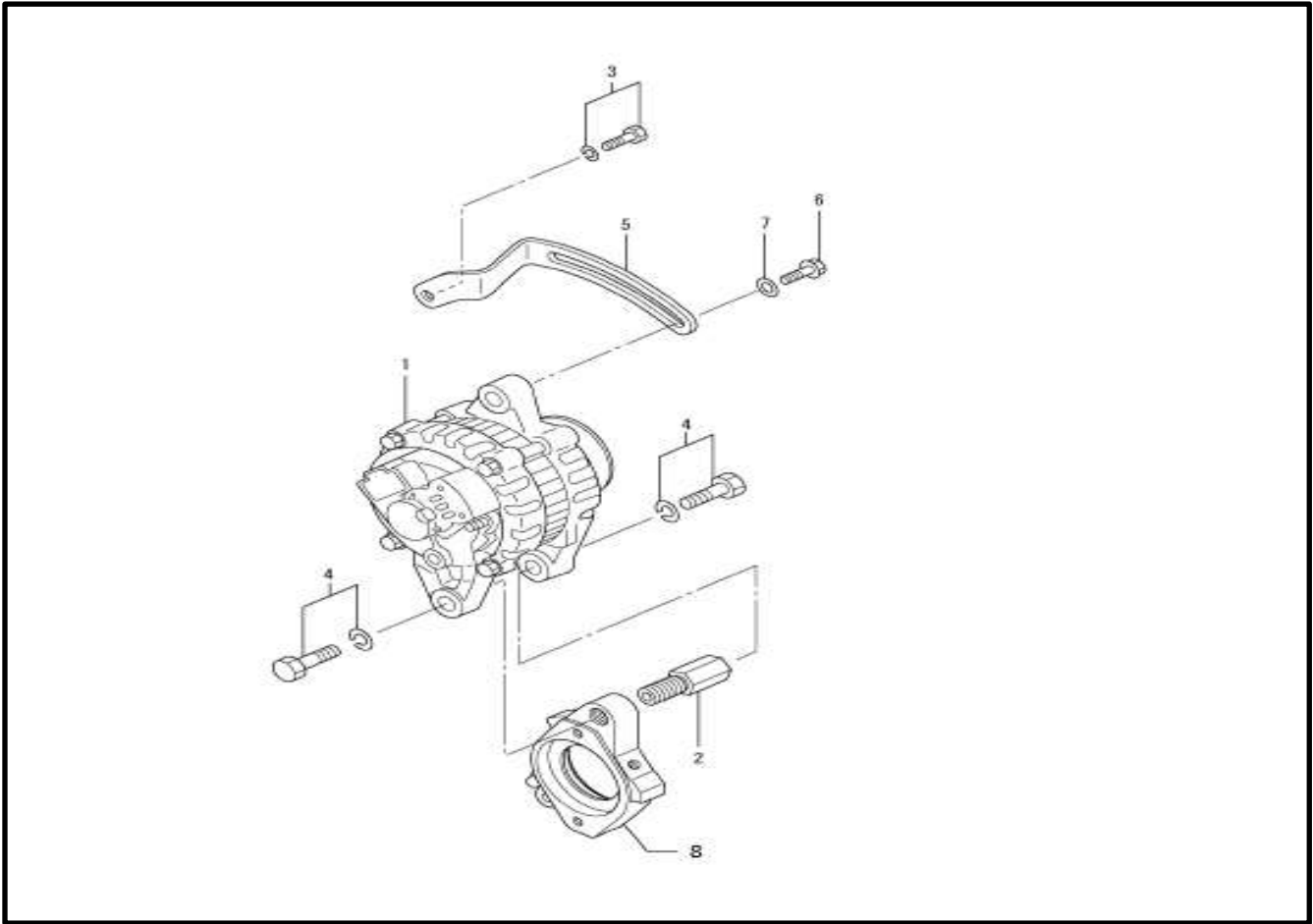
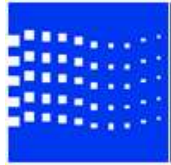
<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-149	Flange, Injection Pump
2	1	M389-505-57	O-Ring
3	1	M389-505-150	Gasket, Injection Pump
4	3	M389-505-151	Stud
5	3	M389-505-152	Nut, Flange
6	1	M389-505-153	Nut, Flange
7	1	M389-505-109	Bolt, W/Washer
8	1	M389-505-154	Bracket, Injection Pump
9	1	M389-505-155	Bracket, Injection Pump
10	2	M389-505-156	Bolt, W/Washer
11	2	M389-505-157	Washer, Plain
12	1	M389-505-62	Bolt, W/Washer
13	1	M389-505-158	Washer
14	1	M389-505-159	Bolt, Flange
15	1	M389-505-160	Injection Pump Assembly



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-189	Starter



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	4	M389-505-182	Glow Plug



<u>Item</u>	<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	1	M389-505-190	Alternator Assembly
2	1	M389-505-191	Shaft, Alternator
3	1	M389-505-109	Bolt, W/Washer
4	2	M389-505-63	Bolt, W/Washer
5	1	M389-505-192	Adjusting Plate
6	1	M389-505-193	Bolt, Flange
7	1	M389-505-194	Washer
8	1	M389-505-172	Case, Bearing

See page 18

## Part Index

Part Number	Description	Page No.
M389-505-190	Alternator	34
M389-505-191	Alternator, Shaft	34
M389-505-192	Alternator, Adjusting Plate	34
M389-505-168	Bearing Case, Side Pto	18
M389-505-85	Bearing Set, Connecting Rod	14
M389-505-44	Bearing Set, Main	9
M389-505-99	Bearing, Flywheel Adapter	16
M389-505-188	Belt	25
M389-505-22	Camshaft	6
M389-505-21	Cap, Oil Fill	5
M389-505-117	Cover, Side	23
M389-505-29	Crankcase Assembly	8
M389-505-90	Crankshaft Assembly	15
M389-505-177	Cylinder Head Assembly	1
M391-200-02C	Exhaust Manifold, Coated	20
M348-562-472	Filter, Fuel Assembly	29
M503-576-01	Filter, Fuel, Cartridge	29
M389-505-119	Filter, Oil Cartridge	24
M389-505-96	Flywheel Assembly	16
M389-505-60	Flywheel Housing	11
M389-505-51	Front Plate	10
M389-505-73	Gage, Oil Level	12
M389-505-162	Gasket Exhaust Manifold	20
M389-505-179	Gasket, Cylinder Head	1
M389-505-187	Gasket, Inlet Pipe	19
M389-505-52	Gasket, Front Plate	10
M389-505-136	Gasket, Fuel Return	28
M389-505-54	Gasket, Gear Case	10
M389-505-150	Gasket, Injection Pump	30
M389-505-186	Gasket, Inlet Manifold	19
M389-505-116	Gasket, Oil Relief Valve	22
M389-505-61	Gasket, Rear Flywheel Housing	11
M389-505-108	Gasket, Rear Head	2
M389-505-19	Gasket, Rocker Cover	5
M389-505-118	Gasket, Side Cover	23
M389-505-122	Gasket, Water Pump	25
M389-505-28	Gear, Camshaft	6 , 17, 18
M389-505-94	Gear, Crankshaft	15, 17
M389-505-102	Gear, Idler Assembly	17
M389-505-101	Gear, Injection Pump	17
M389-505-105	Gear, Oil Pump	17
M389-505-171	Gear, Pump	18

<b>Part Number</b>	<b>Description</b>	<b>Page No.</b>
M389-505-182	Glow Plug	33
M348-562-474	Head, Fuel Filter	29
M389-505-160	Injection Pump Assembly	30
M389-505-106	Lifting Eye, Front	2
M389-505-107	Lifting Eye, Rear	2
M389-505-165	Manifold, Inlet	19
M354-523-02	Muffler, Air Starter	32
M389-505-148	Nozzle, Injection	28
M389-505-195	Oil Pan, Modified	12
M389-505-110	Oil Pump Assembly	21
M389-505-113	Oil Pump Strainer	21
M389-505-115	Oil, Relief Valve Assembly	22
M389-505-80	Pin, Piston	14
M389-505-145	Pipe, Fuel Leak Off	28
M389-505-147	Pipe, Fuel Return, Modified	28
M389-505-138	Pipe, Injection No. 1	28
M389-505-138	Pipe, Injection No. 2	28
M389-505-140	Pipe, Injection No. 3	28
M389-505-141	Pipe, Injection No. 4	28
M389-505-74	Piston	14
M389-505-95	Pulley, Crankshaft	15
M389-505-127	Pulley, Water Pump	25
M389-505-27	Push Rod	6
M389-505-77	Ring Set, Piston	14
M389-505-180	Rocker Cover	5
M389-505-09	Rocker Shaft assembly	3
M389-505-13	Rocker, Valve	3
M389-505-82	Rod Assembly, Connecting	14
M389-505-16	Spring, Rocker	3
M389-505-189	Starter	32
M389-505-26	Tappet	6
M241-728-21	Thermostat	27
M241-725-31	Thermostat Assembly	27
M389-505-48	Thrust Plate	9
M389-505-53	Timing Gear Case	10
M389-505-02	Valve, Exhaust	3
M389-505-01	Valve, Inlet	3
M389-505-124	Water Pump Assembly	25