

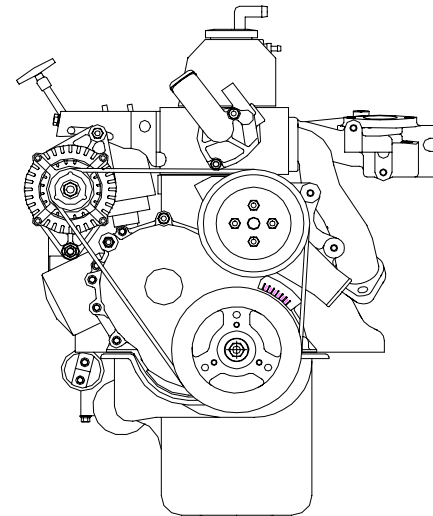
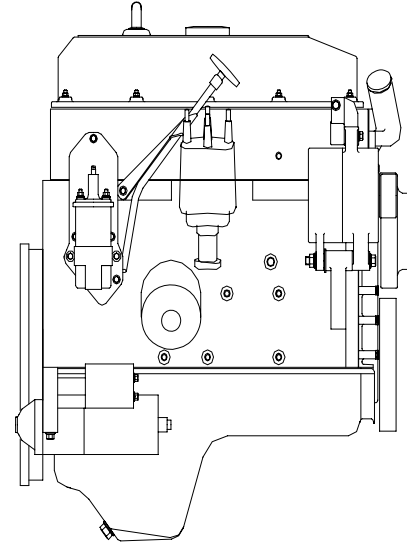


ZPP 428

ENGINE

SERVICE PARTS LIST

ENGINE ASSEMBLY

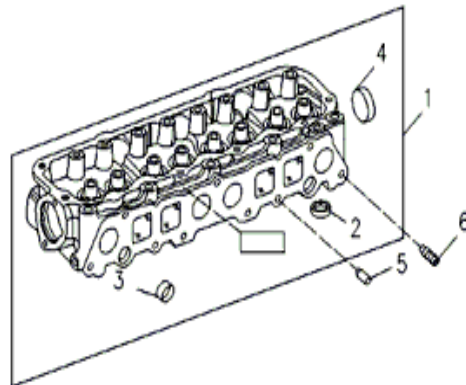
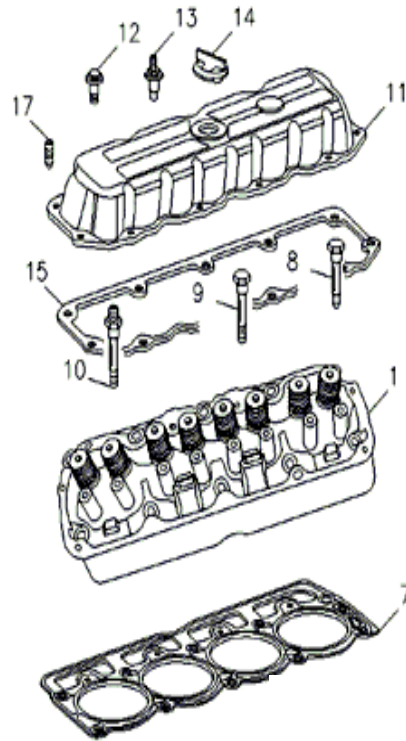


INDEX

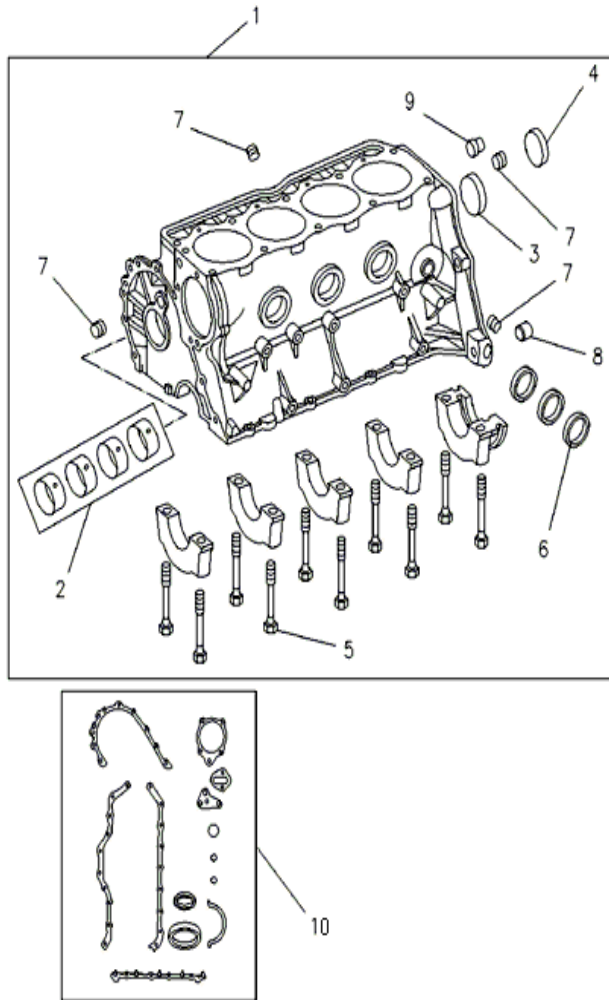
SERVICE PARTS LIST

ZPP 428

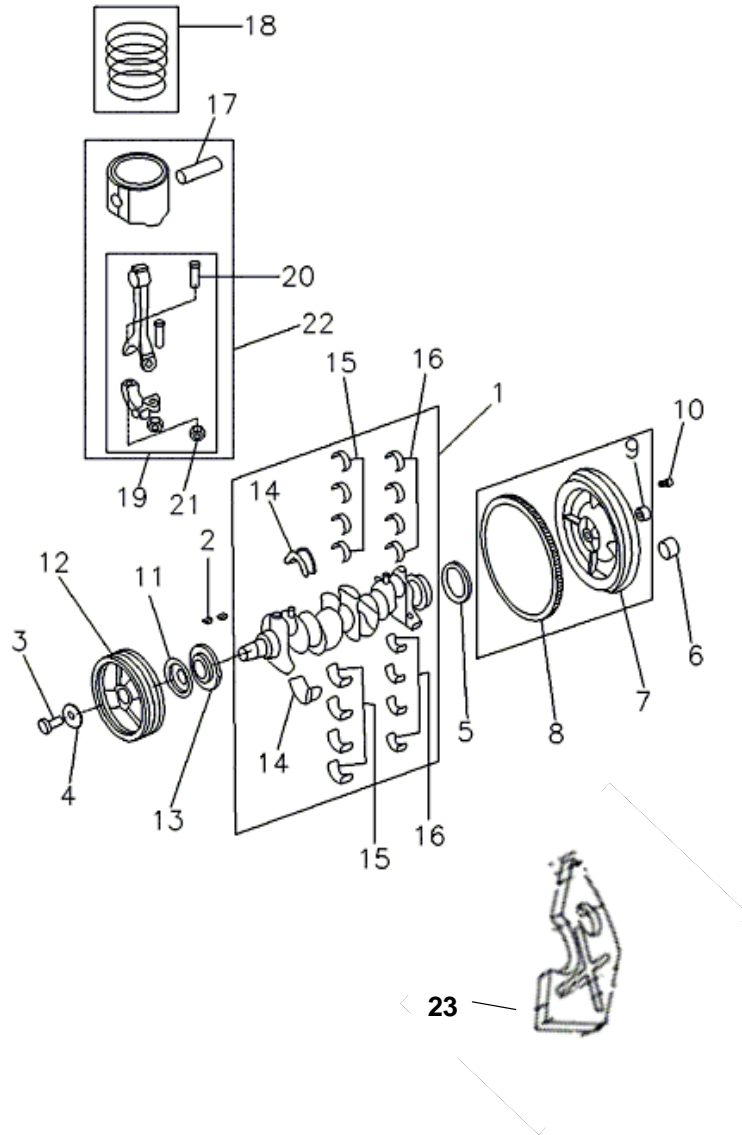
CYLINDER HEAD	PAGE 02
CYLINDER BLOCK	PAGE 03
CRANKSHAFT , CONNECTING ROD & PISTON	PAGE 04
CAMSHAFT AND VALVE	PAGE 05
TIMING BELT & COVER	PAGE 06
ENGINE OILING	PAGE 07
MANIFOLD , INTAKE AND EXHAUST (1)	PAGE 08
MANIFOLD , INTAKE AND EXHAUST (2)	PAGE 09
CRANKCASE VENTILATION	PAGE 10
WATER PUMP AND RELATED PARTS	PAGE 11
IGNITION SYSTEM	PAGE 12
DISTRIBUTOR	PAGE 13
STARTER	PAGE 14
ALTERNATOR AND MOUNTING	PAGE 15
PULLEY & BELT ASSEMBLY	PAGE 16



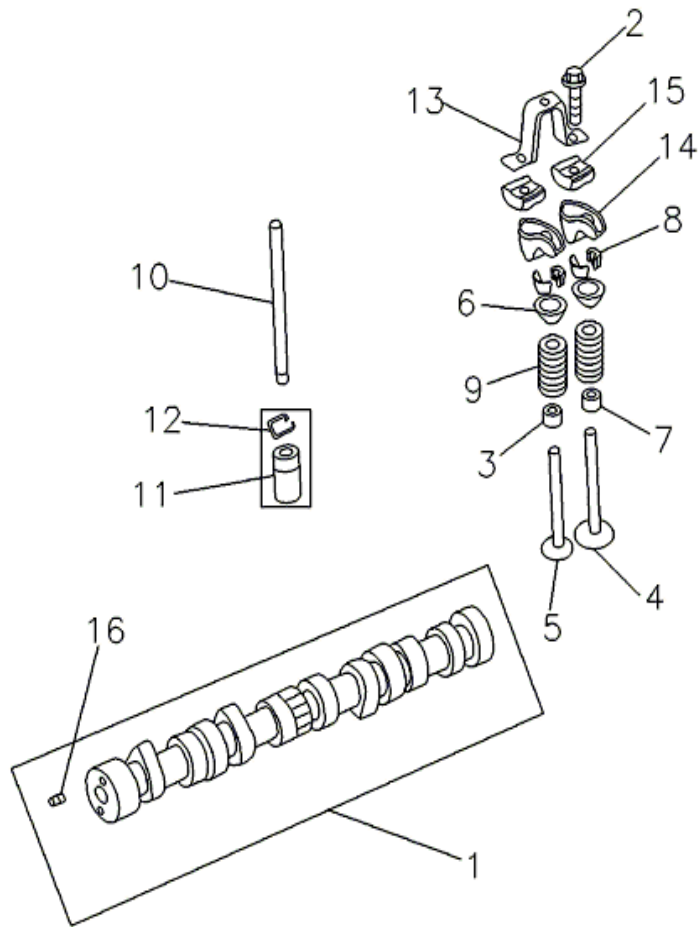
NO	PART NO	PART NAME	QTY
1	1053020183 - ZP	HEAD WITH INTAKE VALVE SEAT INDUCTION HARDENING	1
2	1033007142	EXHAUST VALVE SEAT INSERT INCLUDED IN HEAD	4
3	10J3172319	PLUG - CYLINDER HEAD CORE INCLUDED IN HEAD	4
4	10J3105394	PLUG - WATER JAKET INCLUDED IN HEAD	1
5	1003172318	PIN - CYL HEAD TO MANIFOLD DOWEL	2
6	A1060030AA	STUD - EXHAUST MANIFOLD	2
7	1053009549	GASKET - CYLINDER HEAD	1
8	14007308	BOLT, (3.75) [94 - 98]	5
9	14007307	BOLT, (4.25) [94 - 98]	1
10	10J4007310	BOLT/STUD,[94 - 98]	AR,4
11	1053020539 1053020537	COVER,CYL HEAD,W/SEALANT COVER,CYL HEAD	1
12	1006034478	BOLT,COVER	6
13	1006034477	STUD	5
14	1053020555ZP	CAP,OIL FILLER	1
15	04318025	GASKET,CYL HEAD COVER RTV SEALANT[94 - 96]	AR
16	04798992	GASKET PKG.ENGINE UPPER	1
17	06035685	STUD (0.25 - 20x1.97)	1
18	J0103877	METER SENSOR WATER TEMPERATURE PLUG	1



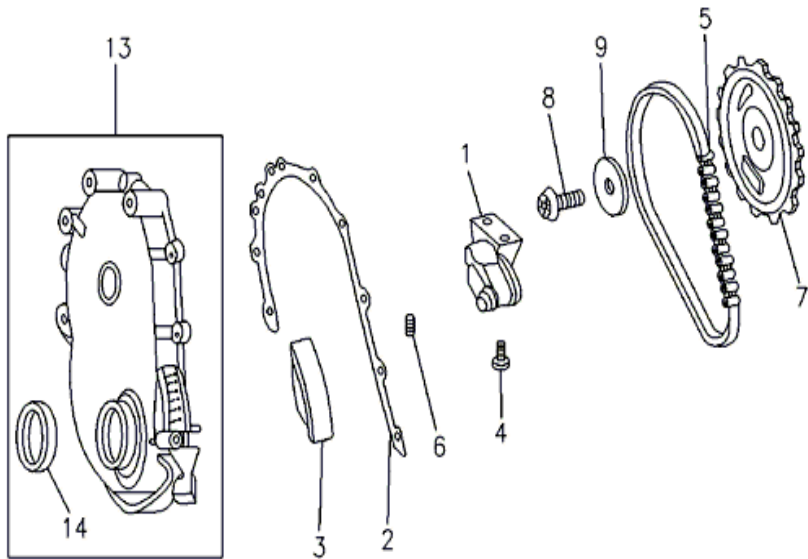
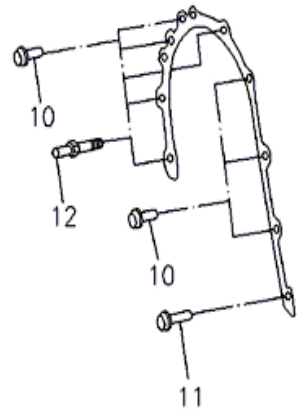
NO	PART NO	PART NAME	QTY
1	1053008414	BLOCK , Short Block,(Contains Crankshaft , Piston , Rings , Connecting Rods , and Bearings)	1
2	1003179345/6/7/8	BEARING PACKAGE , Camshaft	1
3	1003172313	PLUG INCLUDED IN BLOCK	1
4	10J3105394	PLUG , Hole INCLUDED IN BLOCK	1
5	14006948	BOLT INCLUDED IN BLOCK	10
6	10J4006580	PLUG INCLUDED IN BLOCK	3
7	1006034166	PLUG	3
8	14006953	PIN	1
9	1003241332	PIN	1
10	1083504000	GASKET PACKAGE , Engine Lower	1



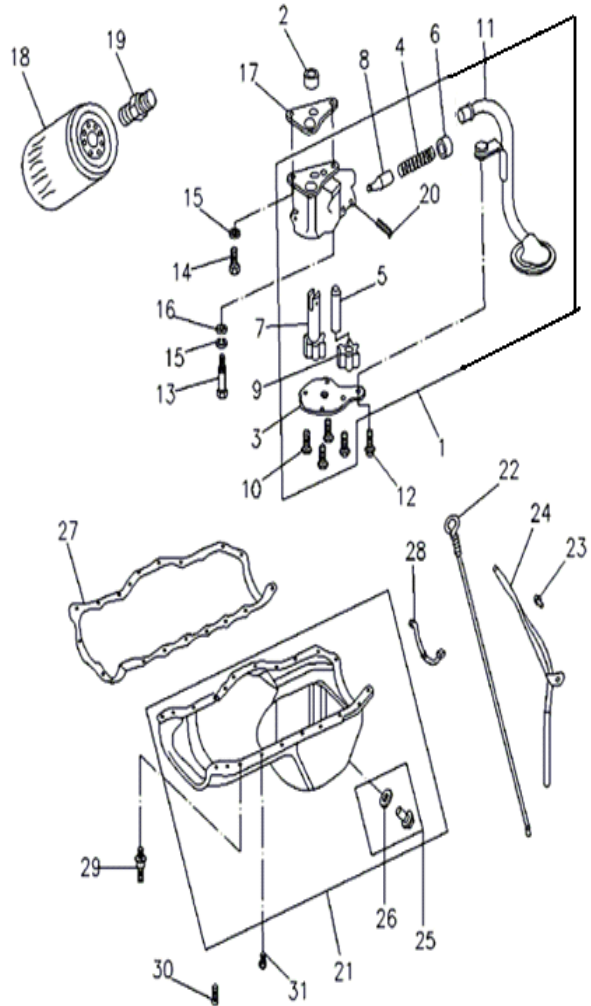
NO	PART NO	PART NAME	QTY
1	A1010030AA	CRANKSHAFT PACKAGE	1
2	06034749	KEY	2
3	00182776	BOLT , (1.25) (94 - 96)	
4	1006035210	WASHER DAMPER	1
5	2063004143	SEAL , Crankshaft Rear	1
7	A1010043AA - ZP A1010042AA - ZP	FLYWHEEL PIN	1 3
8	1003241718	GEAR , RING INCLUDED IN FLYWHEEL	1
9	J3250005	BEARING , pilot,man,trans	1
10	14007123	BOLT - FLYWHEEL TO CRANKSHAFT	6
11	1003173076	SLINGER , OIL	1
12	1033002879	DAMPER , Vibration	1
13	10J3242281	SPROCKET , Crandshaft	1
14	1053020349 1053020354	BEARING PACKAGE , Main Thrust Standard TOP Standard UNDERSIDE	1 1
15	1053028483 1053020153	BEARING PACKAGE , Main Standard TOP Standard UNDERSIDE	4 4
16	1053020261	BEARING PACKAGE, rod standard TOP AND UNDERSIDE	4
17	A1020050AA	PISTON ASSEMBLY, Stand *B*size,3.8746 *C*size , 3.8750 *D*size , 3.8754 *E*size , 3.8758 *F*size , 3.8762	4 4 4 4 4
18	A1020080AA	PIN,PISTON,STANDARD (INCLUDED PISTON ASSLY)	4
19	A1020070AA A1020060AA A1020110AA A1020120AA	RING PACKAGE,ENGINE OIL RING RING LINER FIRST COMPRESSION RING SECOND COMPRESSION RING	8 4 4 4
22	53010545AA	CONNECTING ROD ASSY	
21	14006385	NUT CONNECTING ROD (INCLUDED IN ROD)	8
20	1053020123	BOLT CONNECTING ROD (INCLUDED IN ROD)	8
23	1053003382 A3110330AA	SHIELD - DULT CHUTH HOUSTING (HALF MOON) SHIELD - DULT CHUTH HOUSTING (WHOLE MOON)	1 AR



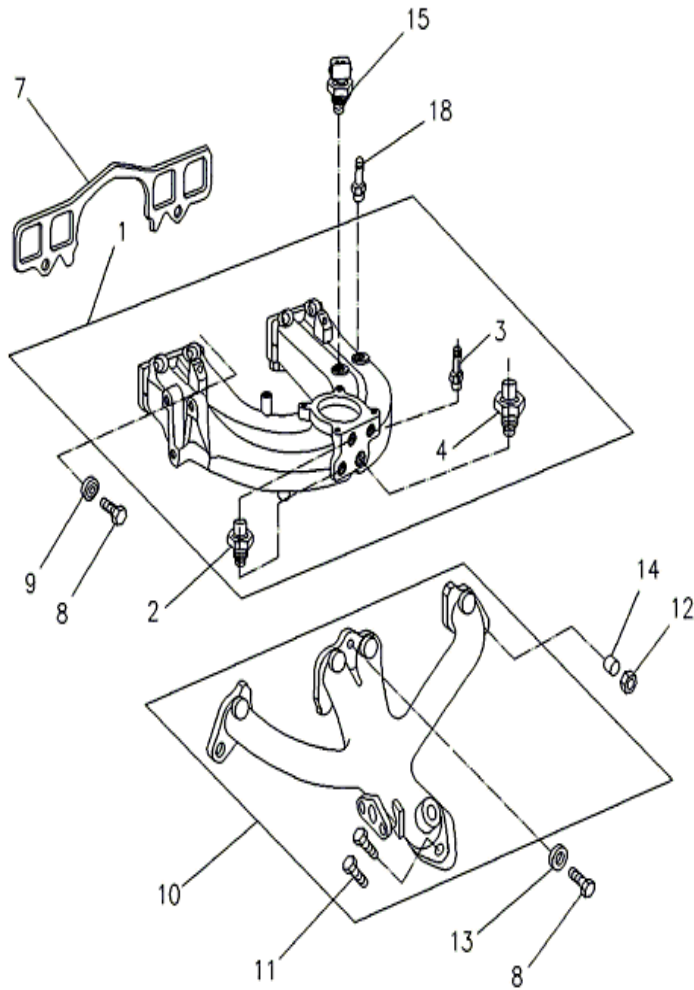
NO	PART NO	PART NAME	QTY
1	A1010051AA	CAMSHAFT - QA2/QA3/Q3N	1
2	19425708	BOLT	8
3	1053009887	SEAL,EXHAUST VALVE	8
4	1033003515ZP	VALVE,INTAKE (STLELLITE6)	8
5	1053006986ZP	VALVE,EXHAUST (STLELLITE6)	8
6	1033004626	RETAINER	8
7	1053009886	SEAL,INTAKE VALVE	8
8	33003521	LOKE,VALVE SPRING RETAINER	16
9	1053020556	SPRING,2"CONICLE SHAPE	16
10	10J3241709	PUSHROD	8
11	10J3189883	TAPPET,VALVE HYDRAULIC	8
12	J6440614	RING	8
13	1003236513	BRIDGE,ROCKER ARM	4
14	1003242393	ARM,VALVE ROCKER	8
15	1003235090	PIVOT,ROCKER ARM	8
16	10456384	PIN	1



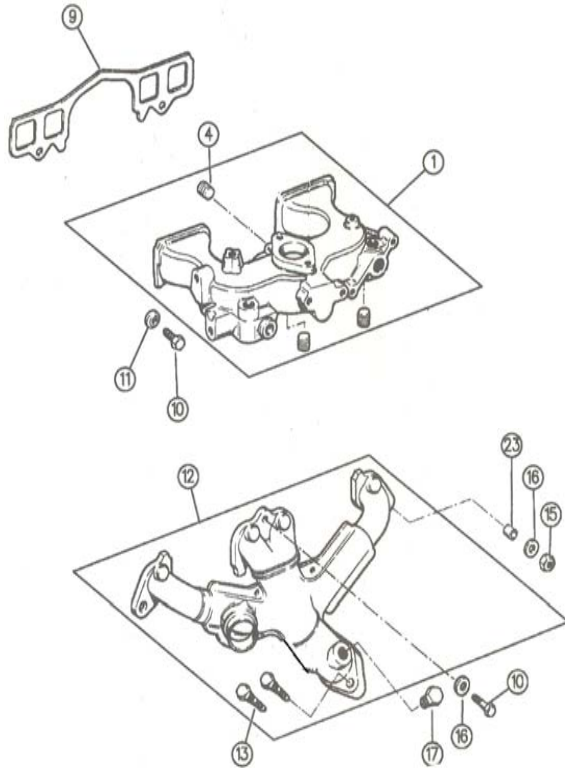
NO	PART NO	PART NAME	QTY
1	1033003421	TENSIONER ASSEMBLY	1
2	1053020487	GASKET,engine front cover	1
3	1033003446	BUMPER,TIMING	1
4	14006708	SCREW	2
5	13242300	TIMING BELT	1
6		CLIP,Serviced in #1	1
7	10J3242280	SPROCKET, Camshaft	1
8	1003172308	BOLT,Camshaft sprocket	1
9	1003173284	WASHER,Camshaft sprocket	1
10	14006906 1006034604	bolt,(0.75) bolt,shoulder	5 2
11	06035895	bolt,(1.12)	1
12	6033909	boltt,stud	3
13	1053020221	cover,w/seal,timing	1
14	1033004681	seal,oil crankshaft front	1



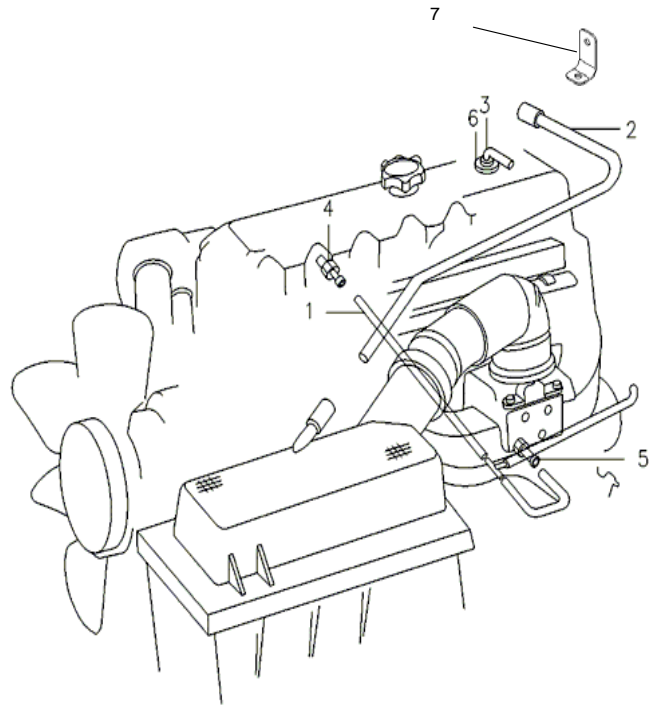
NO	PART NO	PART NAME	QTY
1	1003243102	PUMP ASSY - OIL & INLET TUBE	1
2	14005149	PIN - SPLIT HOLLOW	1
3	J4005149	COVER - OIL PUMP BODY	1
4	J3241733	SPRING - OIL RELEASE VALVE	1
5	J3239668	SHAFT - OIL RELEASE VALVE	1
6	J3171956	RETAINER - OIL PUMP	1
7	J3171958 J3172334	GEAR - OIL PUMP DRIVE - COMPLETE STANDARD	1 1
9	J3188661	GEAR - OIL PUMP DRIVE	1
10	J3196843	SCREW - HEX WA SERR MACH(.25 - 20*.5)	4
11	1003243102	TUBE ASSEMBLY - OIL INLET COMPLETE	1
12	J9419683	BOLT	1
13	1000154593	BOLT AND WASHER , OIL PUMP	1
14	1006022235	BOLT AND WASHER (0.88)	1
15			
16			
17	1003172332	GASKET,OIL PUMP	1
18	2063004195ZP	FILTER,ENGINE OIL	1
19	1033003538	CONNECTOR,OIL FILTER	1
20	J0271448	PIN,ROLL (5/32x0.1)	1
21	1053020205	PAN,ENGINE OIL	1
22	1033007108	INDICATOR,ENGINE OIL LEVEL	1
23	1006035664	STUD,BOLT (0.312 - 18x1.56)	1
24	1003241748	TUBE,ENGINE OIL INDICATOR	1
25	1006034376	PLUG,W/GASKET,OIL PAAN DRAIN	1
26		GASKET(SERVICED IN #25)	1
27	1053007567	GASKET , OIL PAN	1
28	1003243116	SPORTER,OIL PAN	1
29	1003034734	BOLT,STUD	AR,6
30		SCREW/STUD,OIL PAN	
	06034483	SCREW(0.75)	AR,3
	06034733	STUD, (5 - 16 - 18x1/4 - 20)	AR,1
31	1006034732	SCREW (0.56)	13



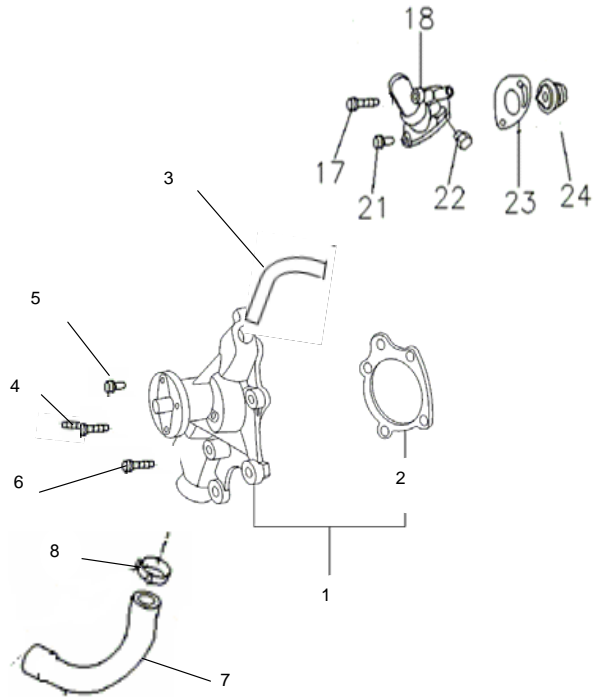
NO	PART NO	PART NAME	QTY
1		manifold,intake[94 - 96]	1
		manifold,intake[96 - 98]	1
2		plug,drain square socket	1
3		stud[94 - 96]	2
4		stud[94 - 96]	4
5		NIPPLE,Straight	1
6		NIPPLE Elbow Straight	
	1032002709		1
7	1053020112	Gasket	1
8		BOLT	AR
9	1033004255	WASHER,manifold head	7
10	1053008860	manifold,exhaust	1
11		stud	2
12		nut	2
13		stud,exhause manifold	2
14		spacer	2
15		sensor,air intake temperature	1
16		sensor,coolant temperature	1
17		bolt	1
18		fitting,vacuum,2 - port	1
19		fitting,vacuum[94 - 96]	1
		power brake[97 - 98]	1
		crankcase ventilation[97 - 98]	1
		duty cycle purge solenoid[97 - 98]	1
		heater control[98]	1



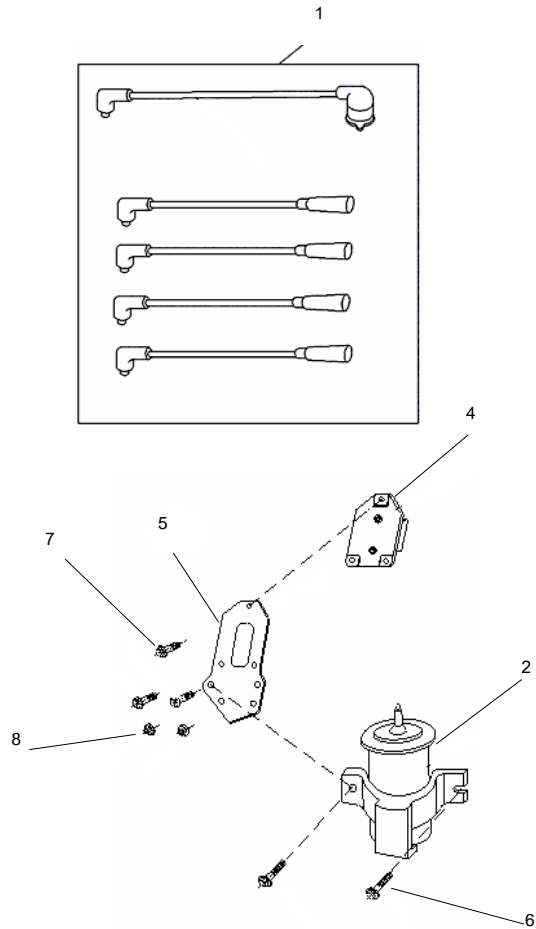
NO	PART NO	PART NAME	QTY
1	10J3242582	manifold,intake[94 - 98]	1
	1003242581ZP	INTAKE MANIFOLD MACHINED	1
2		stud[94 - 98]	2
3	1032002709	NIPPLE[94 - 98]	2
4		plug	3
5	1033002466	HEATER , early fuel evaporation	1
6	1003238909	Gasket[94 - 98]	1
7		o - ring[94 - 98]	1
8	GM0180016	BOLT[94 - 98]	3
9	1053020112	Gasket[94 - 98]	1
10	10186622	BOLT[94 - 98]	5
11	1033004255	WASHER,manifold to head[94 - 98]	4,7
12	1053010194	manifold PACKAGE,exhaust	1
	1053010194ZP	manifold PACKAGE,exhaust and bolt	1
13		stud[94 - 98]	2
14		fitting,vacuum[94 - 96]	1
15	1006034984	nut[94 - 98]	2
16		WASHER[94 - 96]	3
	ZP - 02N	WASHER OXYGEN SENSOR	1
17		PLUG,oxygen sensor[94 - 96]	1
	ZP - 01N	PLUG,oxygen sensor	1
18		cover,EGR Port[94 - 96]	1
19	10J3242321	SWITCH,Early fule evaporation	1
20	103201633	CLIP[94 - 98]	1
21		Gasket[94 - 96]	1
22		BOLT[94 - 96]	2
23		spacer[94 - 98]	2
24		birow[94 - 96]	1
25		FITTING,Vacuum[94 - 96]	1
		ZPP NEEDED, NOT IN ILLUSTRATION	
26	ZP - 03	FLANGE, FRONT EXHAUST PIPE	1
27	ZP - 04	NUT, FRONT EXHAUST PIPE	2



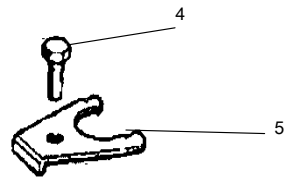
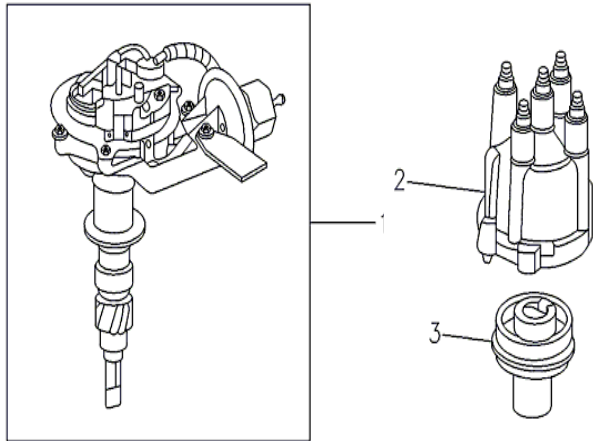
NO	PART NO	PART NAME	QTY
1	53030189	TUBE,ASSEMBLY,crankcase	1
		TO Manifold[94 - 96]	
	4854072	[97 - 98]	1
	A2080150AB	TUBE (CCV TO INTAKE MANIFOLD)	1
...	1003227850	CLAMP	1
2	53006238	TUBE,ASSY,crankcaseto air cleaner	1
3	53030497	TUBE FITTING,W/GASKET,CRANKCASE	1
4	33004175	FITTING,VACUUM	1
5	53020027	CONNECTOR,MANIFOLD VACUUM	1
6	1002946079	GROMMET,CRANKCASE VET VALVE	1
7	ZP - 06	LIFTIING EYE	1
8	ZP - 07	NUT, LIFTIING EYE	1



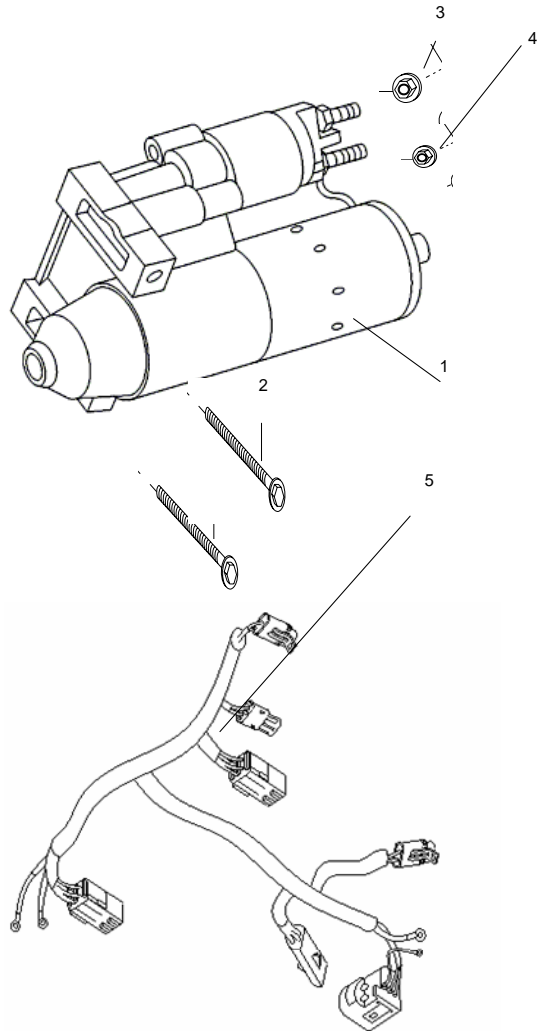
NO	PART NO	PART NAME	QTY
1	1033007033ZP	WATER PUMP PACKAGE	1
2	10J3173204	GASKET - WATER PUMP	1
3	1053007978	RETURN WATER PIPE	1
4	14006714	STUD BOLT	4
5	1006033978	BOLT , WATER PUMP	3
6	1006033979	BOLT , WATER PUMP	1
7	1052003790	HOSE,Outlet	1
8	1003232051	CLAMP	1
17	1006034926	BOLT, LONG	1
21	1006034927	BOLT, SHORT	1
18	A1050070AA	HOUSING,Thermostat	1
22	A2090250AA	SENSOR,Coolant Temperature	1
23	1053020547	GASKET	1
24	1052001797-ZP	Thermostat ASSY	1



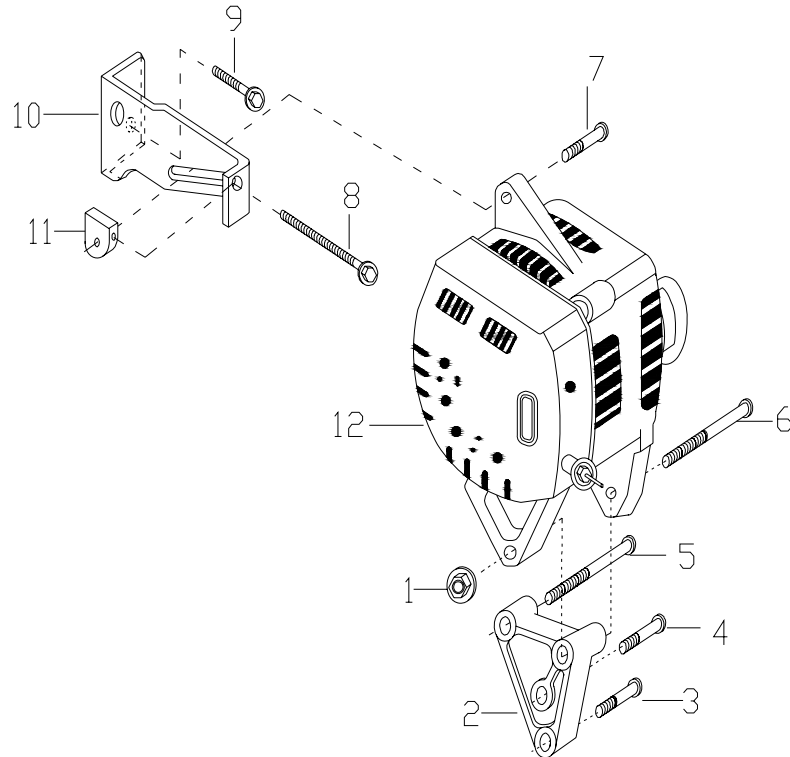
NO	PART NO	PART NAME	QTY
1	56041850AA - ZP2	WIRE SET , WITHOUT SEPARATOR	1
2	A2090560AA - ZP	COIL & BRAKET ASSY - IGNITION	1
3	56041402AB	SPARK PLUG	4
4	A1050120AA	MODULE,IGNITION	1
5	A2090280AA - ZP	BRACKET , FOR MODULE AND COIL	1
6	ZP - 05	BOLT, FOR COIL	2
7	14006906	BOLT, FOR MODEL	3
8	1006034927	BOLT, 5/16 FOR BRACKET	2
9	14006974	90 ELBOW	1
10	1056026779	SENDING UNIT - OIL PRESSRURE	1



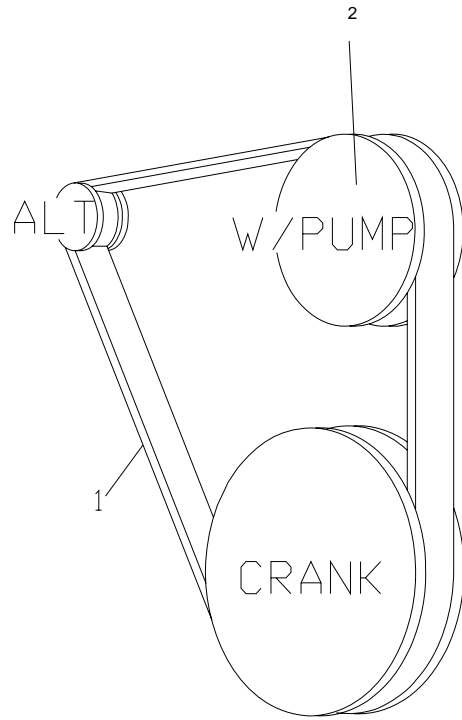
NO	PART NO	PART NAME	QTY
1	1056027088	DISTRIBUTOR	1
2	1003234451	CAP,Distributor	1
3	1033004795	ROTOR,Distributor	1
4	10180079	BOLT	1
5	1033004242	CLAMP,Distributor	1



NO	PART NO	PART NAME	QTY
1	1066027904ZP	STARTER	1
	1003241711ZP	SHIM FOR Stater motor (8 mm)	2
2	1006035607	BOLT,Mounting	2
3	1006504037	NUT	1
4	1006504008	NUT	1
5	D6691230AA - ZP	WIRING HARNESS ENGINE	1



NO	PART NO	PART NAME	QTY
1	06502135	NUT FOR ALTERNATOR	1
2	53007604-ZP	BRACKET ALTERNATOR UNDERSIDE	1
3	6033949	BOLT FOR UNDERSIDE BRACKET	1
4	6033949	BOLT FOR UNDERSIDE BRACKET	1
5	1006035439	BOLT FOR UNDERSIDE BRACKET	1
6	06502134	BOLT FOR ALTERNATOR	1
7	34202029ZP	BOLT FOR ALTERNATOR FIXING	1
8	06503198ZP	BOLT FOR ALTERNATOR ADJUSTING	1
9	1006034251ZP	BOLT SHORTENED	1
10	53010207ZP	BRACKET ALTERNATOR TOP	1
11	1053010149ZP	COLLAR-TENSIONING ADJ	1
12	TE1012211-2680	ALTERNATOR 55KW WITH REGULATOR	1



NO	PART NO	PART NAME	QTY
1	53011035ZP	BELT, MULTI - GROOVE	1
2	1053007154ZP	PULLEY, MULTI - GROOVE	1
3	00154591	NUT FOR PULLEY FIXING	1