
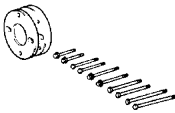
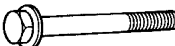
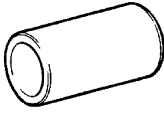



# ENGINE MECHANICAL

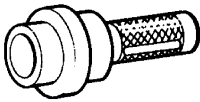
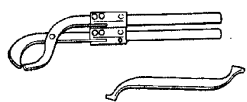
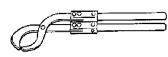



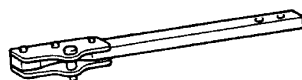
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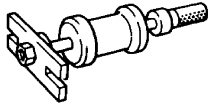
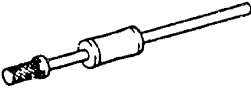
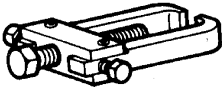


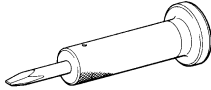
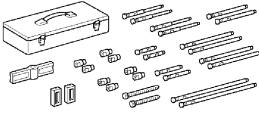
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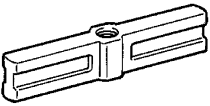
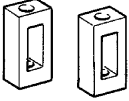

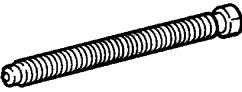
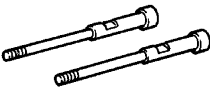

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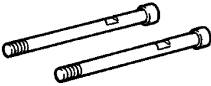
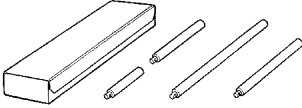

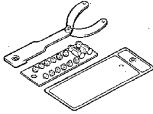
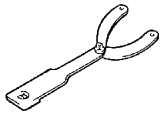

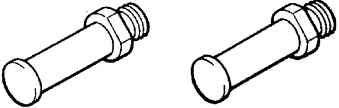
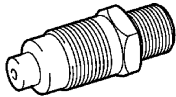
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	09213-54015 Crankshaft Pulley Holding Tool	PARTIAL ENGINE ASSY(1AZ-FE) CHAIN(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) ENGINE REAR OIL SEAL(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) ENGINE REAR OIL SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) ENGINE REAR OIL SEAL(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	(91651-60855) Bolt	PARTIAL ENGINE ASSY(1AZ-FE) CHAIN(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) ENGINE REAR OIL SEAL(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) ENGINE REAR OIL SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) ENGINE REAR OIL SEAL(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	09223-00010 Cover & Seal Replacer	OIL PUMP SEAL(1MZ-FE)
	09223-15030 Oil Seal & Bearing Replacer	ENGINE REAR OIL SEAL(1AZ-FE) ENGINE REAR OIL SEAL(1MZ-FE) ENGINE REAR OIL SEAL(2AZ-FE)

## PREPARATION - ENGINE MECHANICAL

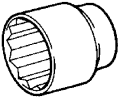
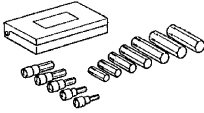
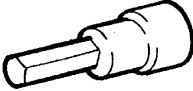
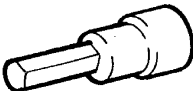
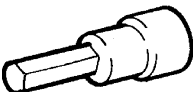
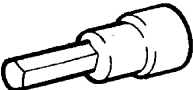
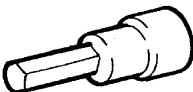
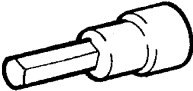
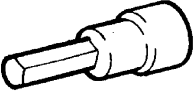
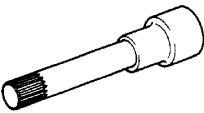
	09223-22010	Crankshaft Front Oil Seal Replacer	TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE)
	09248-55040	Valve Clearance Adjust Tool Set	CAMSHAFT(RH BANK)(1MZ-FE) VALVE CLEARANCE(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	(09248-05410)	Valve Lifter Press	CAMSHAFT(RH BANK)(1MZ-FE) VALVE CLEARANCE(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	(09248-05420)	Valve Lifter Stopper	CAMSHAFT(RH BANK)(1MZ-FE) VALVE CLEARANCE(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	09249-63010	Torque Wrench Adaptor	FAN AND GENERATOR V BELT(1AZ-FE) PARTIAL ENGINE ASSY(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE) FAN AND GENERATOR V BELT(2AZ-FE)
	09309-37010	Transmission Bearing Replacer	CHAIN(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) CHAIN(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	09330-00021	Companion Flange Holding Tool	PARTIAL ENGINE ASSY(1AZ-FE) CHAIN(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) ENGINE REAR OIL SEAL(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) ENGINE REAR OIL SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) ENGINE REAR OIL SEAL(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE)

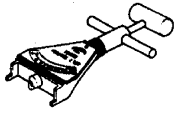
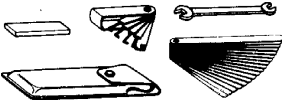
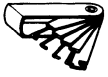
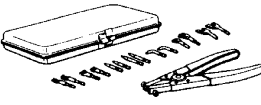

	09520-01010	Drive Shaft Remover Attachment	PARTIAL ENGINE ASSY(1MZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	09520-24010	Differential Side Gear Shaft Puller	PARTIAL ENGINE ASSY(1MZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	(09520-32040)	Shocker Set	PARTIAL ENGINE ASSY(1MZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	09628-62011	Boll Joint Puller	PARTIAL ENGINE ASSY(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE)
	09816-30010	Oil Pressure Switch Socket	PARTIAL ENGINE ASSY(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE)
	09843-18040	Diagnosis Check Wire No.2	ENGINE ASSEMBLY(1AZ-FE) ENGINE ASSEMBLY(1MZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) ENGINE ASSEMBLY(2AZ-FE)
	09930-00010	Drive Shaft Nut Chisel	PARTIAL ENGINE ASSY(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE)
	09950-50013	Puller C Set	CHAIN(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE)

	(09951-05010) Hanger 150	CHAIN(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	(09952-05010) Slide Arm	CHAIN(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	(09953-05010) Center Bolt 100	CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	(09953-05020) Center Bolt 150	CHAIN(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) OIL PUMP SEAL(1MZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE)
	(09954-05010) Claw No.1	OIL PUMP SEAL(1MZ-FE)
	(09954-05021) Claw No.2	CHAIN(1AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(1AZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE)

	(09954-05030) Claw No.3	CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	09950-70010 Handle Set	ENGINE REAR OIL SEAL(1AZ-FE) ENGINE REAR OIL SEAL(1MZ-FE) ENGINE REAR OIL SEAL(2AZ-FE)
	(09951-07100) Handle 100	ENGINE REAR OIL SEAL(1AZ-FE) ENGINE REAR OIL SEAL(1MZ-FE) ENGINE REAR OIL SEAL(2AZ-FE)
	09960-10010 Variable Pin Wrench Set	CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) ENGINE REAR OIL SEAL(2AZ-FE)
	(09962-01000) Variable Pin Wrench Arm Assy	CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) ENGINE REAR OIL SEAL(2AZ-FE)
	(09963-00500) Pin 5	CAMSHAFT(RH BANK)(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	(09963-01000) Pin 10	CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE) CHAIN(2AZ-FE) TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL(2AZ-FE) ENGINE REAR OIL SEAL(2AZ-FE)
	09992-00500 Compression Gauge Attachment	ENGINE ASSEMBLY(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE)

## Recommended Tools

	09011-12301	Socket Wrench 30 mm	PARTIAL ENGINE ASSY(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE)
	09040-00011	Hexagon Wrench Set	PARTIAL ENGINE ASSY(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) VALVE CLEARANCE(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE)
	(09043-20050)	Socket Hexagon Wrench 5	PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) VALVE CLEARANCE(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	(09043-20060)	Socket Hexagon Wrench 6	PARTIAL ENGINE ASSY(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE)
	(09043-20080)	Socket Hexagon Wrench 8	PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) VALVE CLEARANCE(1MZ-FE)
	(09043-20100)	Socket Hexagon Wrench 10	PARTIAL ENGINE ASSY(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE)
	(09043-20050)	Socket Hexagon Wrench 5	PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) VALVE CLEARANCE(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	(09043-20080)	Socket Hexagon Wrench 8	PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) VALVE CLEARANCE(1MZ-FE)
	(09043-20100)	Socket Hexagon Wrench 10	PARTIAL ENGINE ASSY(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE)
	09043-50100	Bi-hexagon Wrench 10 mm	CYLINDER HEAD GASKET(1AZ-FE) CYLINDER HEAD GASKET(2AZ-FE)

	09216-00021 Belt Tension Gauge	ENGINE ASSEMBLY(1MZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) OIL PUMP SEAL(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) DRIVE BELT(1MZ-FE) TIMING BELT(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	09200-00010 Engine Adjust Kit .	ENGINE ASSEMBLY(1AZ-FE) ENGINE ASSEMBLY(1MZ-FE) ENGINE ASSEMBLY(2AZ-FE)
	(09857-00031) Spark Plug Gap Gauge	ENGINE ASSEMBLY(1AZ-FE) ENGINE ASSEMBLY(1MZ-FE) ENGINE ASSEMBLY(2AZ-FE)
	09904-00010 Expander Set	CAMSHAFT(RH BANK)(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)
	(09904-00040) No. 3 Claw	CAMSHAFT(RH BANK)(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE)

## Equipment

12 mm Socket Wrench for 12 Pointed Head	
CO/HC meter	
Compression gauge	
Feeler gauge	
Micrometer	
Precision straight edge	
Radiator cap tester	
Tachometer	
Torque wrench	
Hexagon Wrench Set	
Vernier calipers	
Dial indicator with magnetic base	
Tire pressure gauge	
Alignment tester	
Toe-in gauge	
OBD II scan tool	
Engine Sling Device	
Chain Block	
Spark plug cleaner	
Angle gauge	
Universal engine lifter	

## SSM

08826-00080	Seal Packing Black or equivalent (FIPG)	VALVE CLEARANCE(1AZ-FE) CHAIN(1AZ-FE) CAMSHAFT(1AZ-FE) CYLINDER HEAD GASKET(1AZ-FE) CAMSHAFT(RH BANK)(1MZ-FE) CYLINDER HEAD GASKET(1MZ-FE) CYLINDER HEAD GASKET NO.2(1MZ-FE) VALVE CLEARANCE(1MZ-FE) CAMSHAFT(LH BANK)(1MZ-FE) CHAIN(2AZ-FE) CAMSHAFT(2AZ-FE) CYLINDER HEAD GASKET(2AZ-FE) VALVE CLEARANCE(2AZ-FE)
08833-00070	"Adhesive 1324," THREE BOND 1324 or equivalent	PARTIAL ENGINE ASSY(1AZ-FE) ENGINE REAR OIL SEAL(1AZ-FE) PARTIAL ENGINE ASSY(1MZ-FE) ENGINE REAR OIL SEAL(1MZ-FE) PARTIAL ENGINE ASSY(2AZ-FE) ENGINE REAR OIL SEAL(2AZ-FE)