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• Remove the cylinder head bolt and nut. (Rear cylinder)

• Push the cam chain tension adjuster rod and insert the special tool.

09918-53810: Chain tensioner lock tool

- Remove the cylinder head by removing the cylinder head bolts.
- Remove the water hose and pipe.

• Remove the cylinder. (Rear cylinder)

PISTON

- Place a clean rag under the piston to prevent any parts from falling into the clankcase.
- Remove the piston pin circlip using long-nose pliers.
- Draw out each piston pin and remove the pistons.

NOTE:

Scribe the cylinder position on the head.











STARTER MOTOR

• Remove the starter motor cover.

• Remove the starter motor.



• Remove the clutch cover.

• Remove the clutch spring mounting bolts and springs diagonally.

• Remove the pressure plate ①.







- Remove the thrust washer (1), bearing (2), push piece (3) and push rod.
- Remove the clutch drive and driven plates.

- Remove the spring washer 4 and spring washer seat 5.

Remove the clutch sleeve hub nut with the special tool.
 09920-53740: Clutch sleeve hub holder

• Remove the washer 6 and the clutch sleeve hub 7.

- Remove the thrust washer (8), spacer (9), and needle roller bearing (10).











3-16 ENGINE

- Remove the primary driven gear assembly and the oil pump drive chain.
- Remove the thrust washer ① and spacer ②.



09900-06107: Snap ring pliers

- Remove the pin and washer .

GEARSHIFT

- Draw out the gearshift shaft 1.

- Remove the cam guide and the pawl lifter.
- Remove the cam driven gear assembly by removing the gearshift cam stopper bolt ②.











- Remove the gearshift cam plate ①.
- Remove the gearshift cam stopper 2.

PRIMARY DRIVE GEAR

Remove the primary drive gear by removing the primary drive gear bolt with the special tool.

09930-40113: Rotor holder

This bolt has left-hand thread. Turning it counter-clockwise may cause damage.

- Remove the cam chain tensioner and the chain.
- Remove the cam chain drive sprocket ① and the thrust washer
 ②.

OIL FILTER

• Remove the oil filter with the special tool.

09915-40610: Oil filter wrench

DRIVESHAFT BOLT/SECONDARY DRIVEN GEAR SHAFT NUT

- Install the universal joint on the secondary driven gear shaft.
- While holding the universal joint with an adjustable wrench, remove the driveshaft bolt ① and the secondary drive gear shaft nut ②.

The driveshaft bolt ① has left-hand thread. Turning it counter-clockwise may cause damage.











NEUTRAL SWITCH

- Remove the neutral switch assembly.
- Remove the oil pressure switch lead wire.

GENERATOR

• Remove the generator cover.

• Remove the starter motor driven gear and the idle gear.

• Loosen the generator rotor bolt.

NOTE:

When loosen the rotor bolt, do not remove it. The rotor bolt is used in conjunction with the rotor remover when removing the rotor.

- Remove the generator rotor assembly with the special tool.
- Remove the key.

09930-33730: Rotor remover









• Remove the cam chain tensioner and the chain.

WATER PUMP

• Remove the water pump cover.

• Remove the water pump assembly.

SECONDARY DRIVEN GEAR

- Remove the secondary driven gear housing bolts.
- Remove the secondary driven gear case.





- Remove the secondary driven gear assembly.
- Remove the bearing ①.
- Remove the oil jet 2.

OIL JET

• Remove the oil jets.

CRANKCASE

• Remove the crankcase bolts.



09920-13120: Crankcase separator











- Remove the crankshaft.
- Remove the gearshift fork shafts and gearshift forks.
- Remove the transmission.







- SECONDARY DRIVE BEVEL GEAR
- Remove the over driving gear 1 and bush 2.

• Remove the secondary drive bevel gear assembly.

ENGINE COMPONENTS INSPECTION AND SERVICING

CYLINDER HEAD COVER

DISASSEMBLY

Be sure to identify each removed part as to its location, and lay the parts out in groups designated as "No.1 cylinder", "No.2 cylinder", "Exhaust", "Intake", so that each will be restored to the original location during assembly.

• Loosen the rocker arm shafts and pull out the rocker arm shafts.

CYLINDER HEAD COVER DISTORTION

After removing sealant from the fitting surface of the cylinder head cover, place the cylinder head cover on a surface plate and check for distortion with a thickness gauge.

Cylinder head cover distortion Service Limit: 0.05 mm (0.002 in)

09900-20803: Thickness gauge

If the distortion exceeds the limit, replace the cylinder head cover.

ROCKER ARM SHAFT O.D.

Measure diameter of rocker arm shaft.

PATA Rocker arm shaft O. D. (IN & EX) Standard: 11.966 – 11.984 mm (0.4711 – 0.4718 in)

69900-20205: Micrometer (0 – 25 mm)

ROCKER ARM I.D.

When checking the valve rocker arm, the inside diameter of the valve rocker arm and wear of the camshaft contacting surface should be checked.

Rocker arm I.D. Standard: 12.000 – 12.018 mm (0.4724 – 0.4731 in)

09900-20605: Dial calipers

REASSEMBLY

• Apply SUZUKI MOLY PASTE to the rocker arms and their shafts.

500 99000-25140: SUZUKI MOLY PASTE

Rocker arm shaft: 27 N·m (2.7 kgf·m, 19.5 lb-ft)









