

REMOVING THE DRIVE CHAIN

1. Stand the motorcycle on a level surface.

A WARNING

Securely support the motorcycle so that there is no danger of it falling over.

NOTE:

Place the motorcycle on a suitable stand so that the rear wheel is elevated.

- 2. Remove:
 - Crankcase cover (left) ①

- 3. Straighten:
- Lock washer tab ①
- 4. Loosen:
 - Nut (drive sprocket) 2

NOTE:

When loosening the drive sprocket nut, apply the rear brake pedal and transmission gear to the 6th position.

- 5. Remove:
 - Clip (master link) ①
 - Plate (master link) 2
 - master link 3
 - O-rings ④
 - Drive chain
- 6. Remove:
- Chain guide ①
- Drive sprocket
- 7. Remove:
 Rear wheel Refer to the "REAR WHEEL REMOVAL" section.









REMOVING THE DRIVE CHAIN/CHECKING THE DRIVE CHAIN









- 8. Remove:
- Chain guide rollers (Upper and lower)

EAS00709

CHECKING THE DRIVE CHAIN

- 1. Measure:
- ten-link section ⓐ of the drive chain Out of specification → Replace the drive chain.



Ten-link drive chain section limit (maximum) 120 mm (4.72 in)

- 2. Check:
 - drive chain Stiffness → Clean and lubricate or replace.

- 3. Clean:
- drive chain
- a. Wipe the drive chain with a clean cloth.
- b. Put the drive chain in kerosene and remove any remaining dirt.
- c. Remove the drive chain from the kerosene and completely dry it.

CHECKING THE DRIVE CHAIN



CAUTION

This motorcycle has a drive chain with small rubber O-rings 1 between the drive chain side plates. Never use high-pressure water or air, steam, gasoline, certain solvents (e.g., benzine), or a coarse brush to clean the drive chain. High-pressure methods could force dirt or water into the drive chain's internals, and solvents will deteriorate the O-rings. A coarse brush can also damage the O-rings. Therefore, use only kerosene to clean the drive chain. Don't soak drive chain in kerosine more them ten minutes. O-ring is damage by kerosine.

CHAS

d Va

- 4. Check:
 - O-rings ①
 Damage → Replace the drive chain.
 - drive chain rollers ②
 Damage/wear → Replace the drive chain.
 - drive chain side plates ③
 Damage/wear → Replace the drive chain. Cracks → Replace the drive chain and make sure the battery breather hose is properly routed away from the drive chain and below the swingarm.
- 5. Lubricate:
 - drive chain



Recommended lubricant Engine oil or chain lubricant suitable for O-ring chains



- 6. Check:
- drive sprocket
- rear wheel sprocket More than 1/4 tooth ⓐ wear → Replace the drive chain sprockets as a set. Bent teeth → Replace the drive chain sprockets as a set.
- (b) Correct
- $\overline{(1)}$ Drive chain roller
- Drive chain sprocket

INSTALLING THE DRIVE CHAIN



EAS00713 INSTALLING THE DRIVE CHAIN

- Lubricate:
 drive chain
- master link <NEW>



- 2. Install:
 - drive chain
 - drive sprocket (2)
 - washer ③
 - drive sprocket nut ④



60 Nm (6.0 m•kg, 43 ft•lb)

NOTE:

While applying the rear brake, tighten the drive sprocket nut.

- 3. Install:
 - master link ①
 - O-ring (2)
- master link plate (3) (with a drive chain cutter)

CAUTION

Never install a new drive chain onto worn drive chain sprockets; this will dramatically shorten the drive chain's life.



- 4. Adjust:
 - drive chain slack Refer to "ADJUSTING THE DRIVE CHAIN SLACK" in chapter 3.









CAUTION

A drive chain that is too tight will overload the engine and other vital parts, and one that is too loose can skip and damage the swingarm or cause an accident. Therefore, keep the drive chain slack within the specified limits.









CHAPTER 5 ENGINE

	5-1
SIDE COVERS	5-1
COOLANT	5-1
TRANSMISSION OIL	5-1
EXHAUST PIPE	5-2
CARBURETOR	5-2
AUTOLUBE PUMP CABLE AND HOSE	5-2
CLUTCH CABLE	5-3
Y.P.V.S. CABLES	5-3
RADIATOR HOSE	5-4
LEADS	5-4
DRIVE CHAIN	5-5
	5 0
	5-6
	5-8
	.5-11
	.5-11
	.5-12
	.5-12
	.0-10
	.3-14
	.3-13
	5 16
	.5-10
INSPECTION AND REPAIR	5-17
CYLINDER HEAD	5-17
CYLINDER AND PISTON	5-18
PISTON BINGS	5-19
PISTON PIN AND REARING	5-21
CLUTCH	5-21
PRIMARY DRIVE	.5-24
TRANSMISSION AND SHIFTER	.5-25
SHIFT SHAFT AND STOPPER LEVER	.5-27
CRANKSHAFT	.5-27
AUTOLUBE PUMP	.5-28
POWER VALVE	.5-29
CRANKCASE	.5-30
ENGINE ASSEMBLY AND ADJUSTMENTS	.5-31
AUTOLUBE PUMP	.5-31
POWER VALVE	.5-33
CRANKSHAFT AND BALANCER	.5-35
TRANSMISSION AND SHIFTER	.5-36
CRANKCASE (RIGHT)	.5-39
REED VALVE	.5-40
MAGNETO ROTOR	.5-41
STOPPER LEVER AND SHIFT SHAFT	.5-43
CLUTCH PUSH LEVER	.5-46
BALANCER GEAR, PRIMARY DRIVE GEAR AND CLUTCH	.5-47
PISTON CYLINDER AND CYLINDER HEAD	.5-52
	5-56



ENGINE OVERHAUL

ENGINE REMOVAL

NOTE: _____

It's not necessary to remove the engine in order to remove the following components:

- Cylinder head
- Cylinder
- Piston and piston ring
- Power valve
- Clutch
- Primary drive gear
- Kick axle
- Shift shaft
- Magneto rotor
- Stator
- Autolube pump

SIDE COVERS

- 1. Remove:
- Side cover (right)
- Side cover (left)
- Seat

COOLANT

- 1. Drain:
- Coolant Refer to the "COOLANT REPLACEMENT" section in chapter 3.

TRANSMISSION OIL

- 1. Drain:
- Transmission oil Refer to the "TRANSMISSION OIL REPLA-CEMENT" section in chapter 3.













EXHAUST PIPE

ENGINE REMOVAL

- 1. Loosen:
- Bolts (Exhaust holder)
- Screw (muffler joint) (1)
- 2. Remove:
 - A.I.S. hose (1)
 - Bolts (Exhaust pipe) 2
 - Exhaust pipe3

CARBURETOR

- 1. Remove:
- Fuel tank
- Carburetor Refer to the "CARBURETOR REMOVAL" section in chapter 6.

AUTOLUBE PUMP CABLE AND HOSE

- 1. Remove:
- Autolube pump cover ①

- 2. Disconnect:
 - hose (1)
 - (from autolube pump and hose guide)
 - \bullet Gasket (autolube pump cover (2)

NOTE: _____

Plug the oil hose so that oil will not run out of the oil tank.

- 3. Remove:
- Pump cable ①

NOTE: _____

Turn the pump pulley clockwise by finger to make the pump cable loose enough for its end to be removed from the pulley.



CLUTCH CABLE

- 1. Loosen:
- Adjuster (Clutch cable) (2)

- 2. Loosen:
- Adjuster lock nuts (Clutch cable)
- 3. Disconnect:
 - Clutch cable(2) (from clutch push lever (3) and cable guide (4)).

Y.P.V.S. CABLES

- 1. Remove:
- Pulley cover (Power valve) ①

- 2. Remove:
- Pulley (Power valve) ①

Removal steps

- Loosen both locknuts (2) and turn in both adjusters (3).
- Insert a pin (Ø4mm.(Ø0.16in)) through the aligning indent in the pulley ④ and into the hole to lock the pulley.
- Remove the pulley 1 from the power valve and then disconnect the Y.P.V.S. cables 5 from the pulley.
- Remove the pin
- ****























- 3. Disconnect: • Servomotor unit leads
- 4. Remove:
- Servomotor unit 2
 Adjuster (Y.P.V.S. cable) 3
- Pulley housing

RADIATOR HOSES

- 1. Disconnect:
- Radiator hose (Inlet) (1)

- 2. Disconnect:
 - Radiator hose (Outlet) ①

LEADS

- 1. Disconnect:
- Battery lead (Negative) (1)

- 2. Disconnect:
 - Spark plug lead (1)
 - Thermo unit lead (2)













- 3. Disconnect:
 - CDI magneto leads (1)
- 4. Remove:
 - Bands

DRIVE CHAIN

- 1. Remove:
- Change pedal (1)
- Crankcase cover (Left) (2)
- Gasket (Crankcase cover)
- 2. Straighten:
- Lock washer tab 1
- 3. Loosen:
 - Nut (Drive sprocket) (2)

NOTE:

When loosening the nut (Drive sprocket) apply the rear brake pedal and transmission gear to the 6th position

- 4. Remove:
- Drive chain
- Nut (Drive sprocket) (2)
- Lock washer (3)
- Drive sprocket (4)
- Spacer collar (5)

ENGINE REMOVAL

- 1. Remove:
- Bolts (Engine stay → Upper) ①
 Bolts (Engine mount → Front) ②

ENGINE REMOVAL/ ENGINE DISASSEMBLY









- 2. Remove:
- Bolt (Engine mount \rightarrow Rear lower)(1)
- Pivot shaft 2

NOTE:

The engine and swingarm are installed using the same pivot shaft. Therefore, take care so that the pivot shaft is pulled, not entirely, out, but for enough to set the engine free.

- 3. Remove:
- Engine assembly (from right side)

ENGINE DISASSEMBLY CYLINDER HEAD, CYLINDER AND PISTON

NOTE: _

With the engine mounted, the cylinder head, cylinder and piston can be maintained by removing the following parts.

- Side covers (Right and left)
- Seat
- Radiator cover
- Oil tank cover
- Fuel tank
- Radiator hose (inlet)
- Servomotor unit (Y.P.V.S.)
- Engine stay (Upper)
- Exhaust pipe

1. Remove:

• Hoses (Inlet 1) and Outlet 2)

ENGINE DISASSEMBLY













- 2. Remove:
- Spark plug 1
- Thermo unit 2

A WARNING

Handle the thermo unit with special care. Never subject it to strong or allow it to be dropped. In case of being dropped, it must be replaced.

- 3. Remove:
- Cover (thermostatic valve)
- 4. Remove:
 - Gasket ①
 - Thermostatic valve (2)
 - O-ring (3)
- 5. Remove:
 - Cylinder head
 - Gasket (Cylinder head)

NOTE: _

- Loosen the nuts starting with the highest numbered one.
- Loosen each nut 1/4 turn, and remove them after all nuts are loosened.
- 6. Remove:
 - Clutch cable guide
 - Cylinder \bigcirc
 - Gasket (Cylinder)
 - Dowel pins

NOTE: _____

Loosen each nut 1/4 turn, and remove them after all nuts are loosened.