







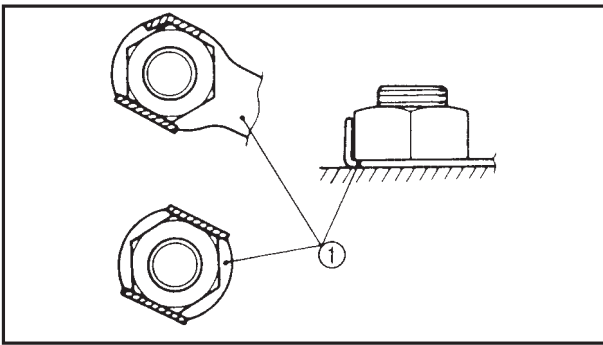


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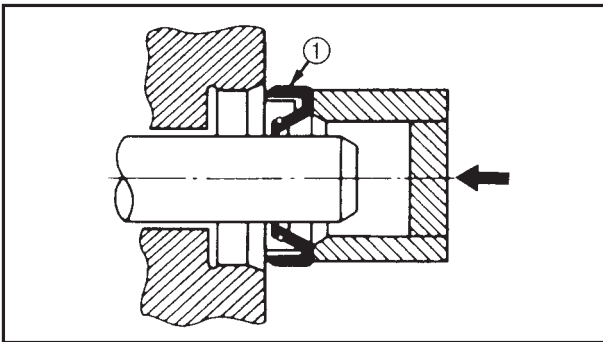
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EAS00023

LOCK WASHERS/PLATES AND COTTER PINS

After removal, replace all lock washers/plates ① and cotter pins. After the bolt or nut has been tightened to specification, bend the lock tabs along a flat of the bolt or nut.



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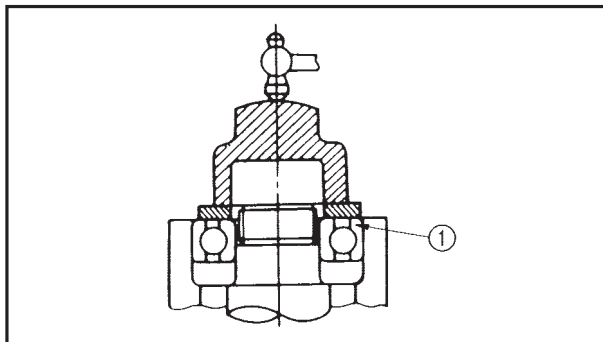
BEARINGS AND OIL SEALS

Install bearings and oil seals so that the manufacturer's marks or numbers are visible. When installing oil seals, lubricate the oil seal lips with a light coat of lithium-soap-based grease. Oil bearings liberally when installing, if appropriate.

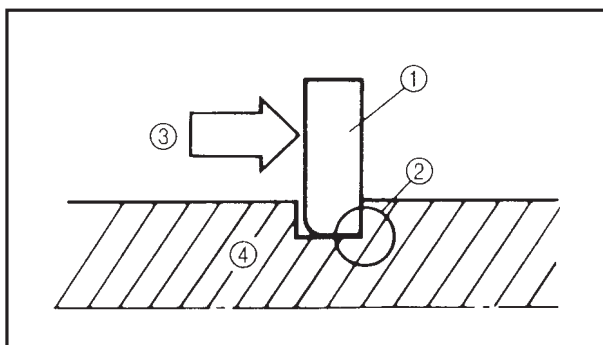
- ① Oil seal

CAUTION:

Do not spin the bearing with compressed air because this will damage the bearing surfaces.



- ① Bearing



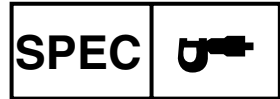
EAS00025

CIRCLIPS

Before reassembly, check all circlips carefully and replace damaged or distorted circlips. Always replace piston pin clips after one use. When installing a circlip ①, make sure the sharp-edged corner ② is positioned opposite the thrust ③ that the circlip receives.

- ④ Shaft

CHASSIS SPECIFICATIONS



Item	Standard	Limit
Rear drum brake		
Brake type	Drum brake	...
Operation	Left-hand operation	...
Brake lever free play (at lever end)	10~20mm	...
Brake drum inside diameter	110 mm	111mm
Lining thickness	4.0mm	2mm
Front suspension		
Suspension type	Telescopic	...
Front fork type	Coil spring/oil damper	...
Front fork travel	80 mm	...
Spring		
Free length	257.5 mm	252.4mm
Installed length	245.5mm	...
Spring rate (K1)	12.7N/mm (1.27 kg/mm)	...
Spring stroke (K1)	0~50mm	...
Spring rate (K2)	19.6N/mm (1.96kg/mm)	...
Spring stroke (K2)	50~80mm	...
Optional spring available	No	...
Fork oil		
Recommended oil	Fork oil G10 or equivalent	...
Quantity (each front fork leg)	126 ± 2.5cc	...
Inner tube outer diameter	33 mm	...
Inner tube bending limit	...	0.2 mm
Steering system		
Steering bearing type	Angular bearing	...
Lock to lock angle (left)	47.5 °	...
Lock to lock angle (Right)	47.5 °	...
Rear suspension		
Suspension type	Swingarm	...
Rear shock absorber assembly type	Coil spring/oil damper	...
Rear shock absorber assembly travel	65mm	...
Spring		
Free length	208mm	...
Installed length	198mm	...
Spring rate (K1)	43N/mm (4.3kg/mm)	...
Spring stroke (K1)	0~65mm	...
Optional spring available	No	...

ADJUSTING THE ENGINE IDLING SPEED



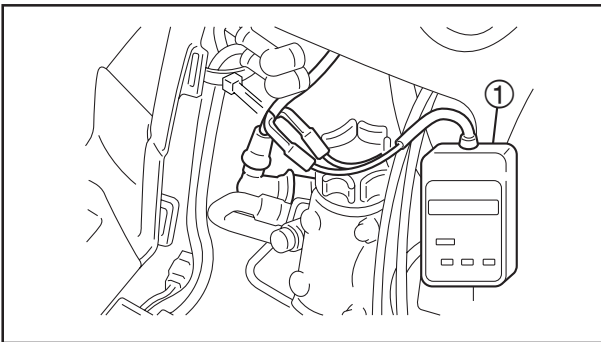
EAS00054


ADJUSTING THE ENGINE IDLING SPEED

NOTE:


Prior to adjusting the engine idling speed, the air filter element should be clean, and the engine should have adequate compression.

1. Start the engine and let it warm up for several minutes.
2. Connect:
 - engine tachometer ①
(onto the spark plug lead of cylinder)



	Engine tachometer 90890-03113 (YU-08036-C)
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3. Check:
 - engine idling speed
Out of specification → Adjust

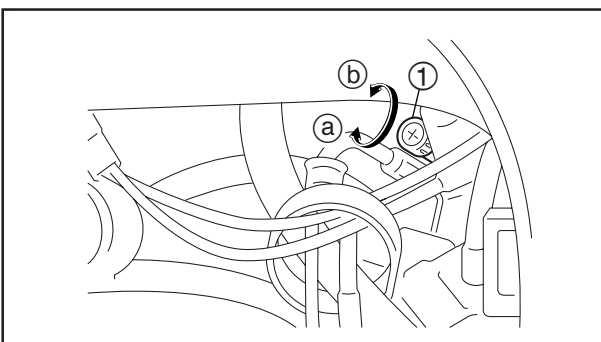
	Engine idling speed 1600 ~ 1700 r/min
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4. Adjust:
 - engine idling speed

- a. Turn the throttle stop screw ① in direction ① or ② until the specified engine idling speed is obtained.

Direction ①	Engine idling speed is increased.
Direction ②	Engine idling speed is decreased.

5. Adjust:
 - throttle cable free play
Refer to “ADJUSTING THE THROTTLE CABLE FREE PLAY”.



	Throttle cable free play (at the flange of the throttle grip) 3 ~ 5 mm (0.12 ~ 0.20 in)
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CHECKING THE FUEL AND VACUUM HOSES/ CHECKING THE CRANKCASE BREATHER HOSE

CHK
ADJ

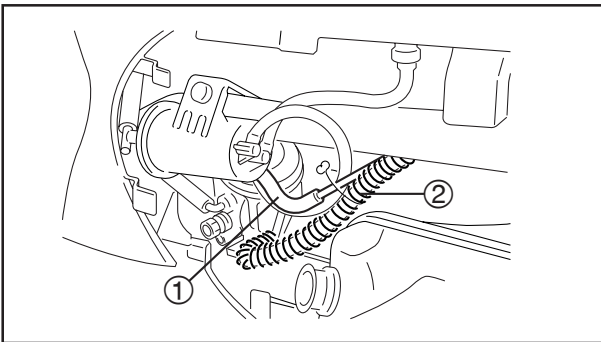


EAS00096

CHECKING THE FUEL AND VACUUM HOSES

The following procedure applies to all of the fuel and vacuum hoses.

1. Remove:
 - cover
 - rear carrier
 - side cover (left)Refer to "COVER AND PANEL".

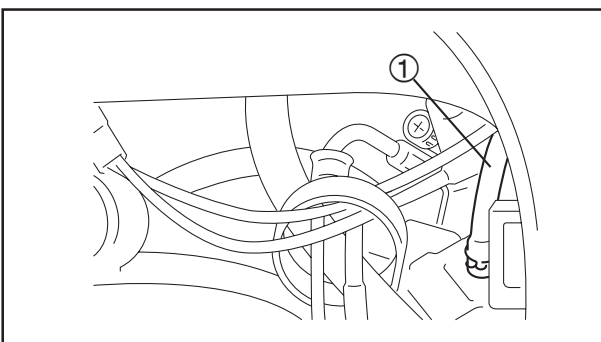


2. Check:
 - vacuum hose ①
 - fuel hose ②Cracks/damage → Replace.
Loose connection → Connect properly.
3. Install:
 - side cover (left)
 - rear carrier
 - coverRefer to "COVER AND PANEL".

EAS00098

CHECKING THE CRANKCASE BREATHER HOSE

1. Remove:
 - coverRefer to "COVER AND PANEL".

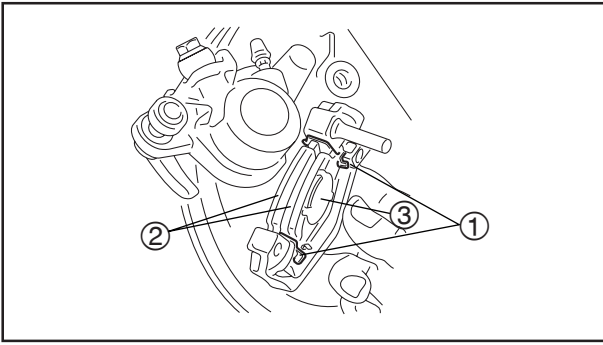


2. Check:
 - crankcase breather hose ①Cracks/damage → Replace.
Loose connection → Connect properly.

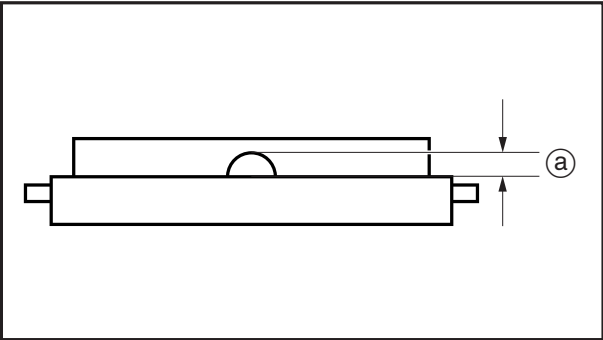
CAUTION:

Make sure the crankcase breather hose is routed correctly.

3. Install:
 - coverRefer to "COVER AND PANEL".

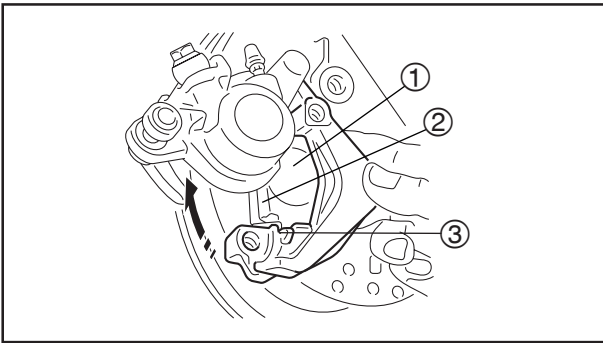


3. Remove:
- brake pad bolt
 - brake pad spring ①
 - brake pads ②
 - brake pad plate ③



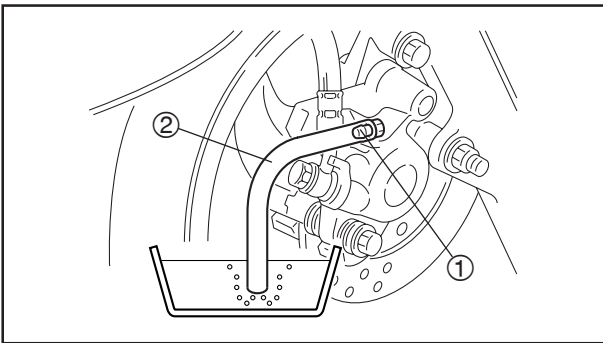
4. Measure:
- brake pad wear limit ①
- Out of specification → Replace the brake pads as a set.

 **Brake pad wear limit**
0.8 mm(0.03 in)



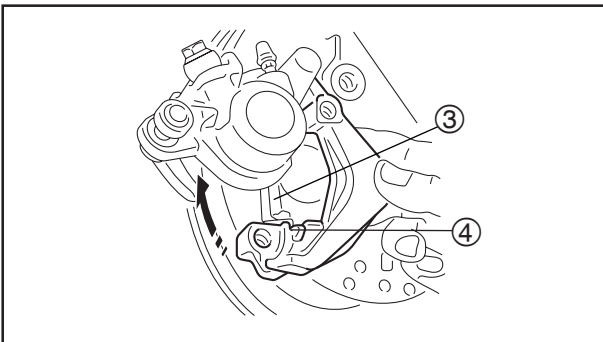
5. Install:
- brake pad plate ①
 - brake pads ②
 - brake pad spring ③

NOTE: _____
Always install new brake pads and a new brake pad spring as a set.



- *****
- a. Connect a clear plastic hose ② tightly to the bleed screw ①. Put the other end of the hose into an open container.
 - b. Loosen the bleed screw and push the brake caliper pistons into the brake caliper with your finger.
 - c. Tighten the bleed screw.

 **Bleed screw**
6 Nm (0.6 m • kg, 4.3 ft • lb)



- d. Install new brake pads ③ and new brake pad springs ④.

NOTE: _____
● Make sure the brake pad spring is installed correctly as shown.



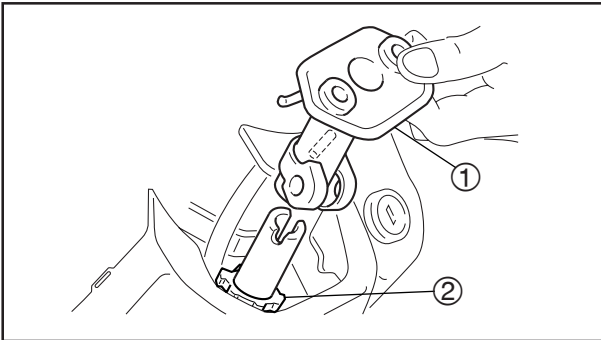
EAS00678

REMOVING THE LOWER BRACKET

1. Stand the scooter on a level surface.

⚠ WARNING

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

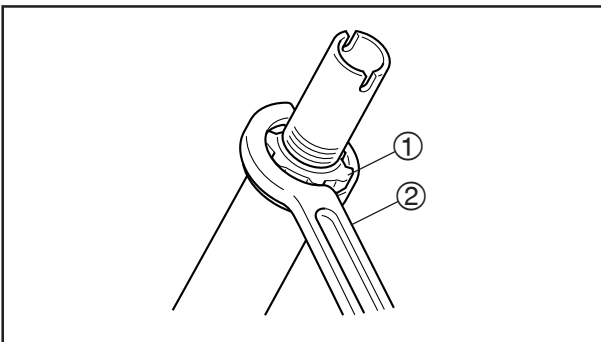


2. Remove:

- handlebar holder bracket (1)

NOTE:

- Remove the handlebar holder bracket by loosening the upper ring nut (2) gradually.

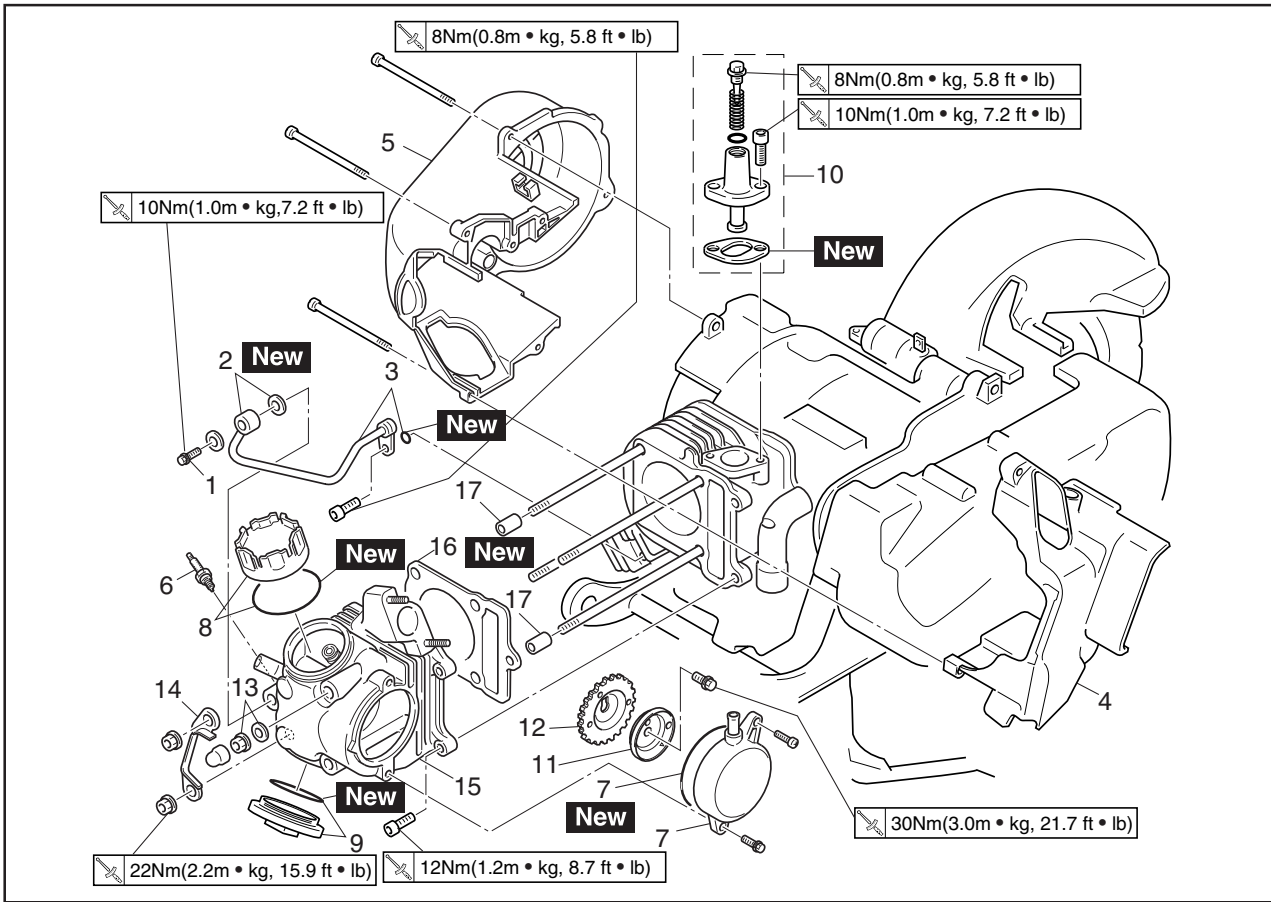


3. Remove:

- ring nut (1)
(with the ring nut wrench (2))

**Ring nut wrench****90890-01268(YU-01268)****⚠ WARNING**

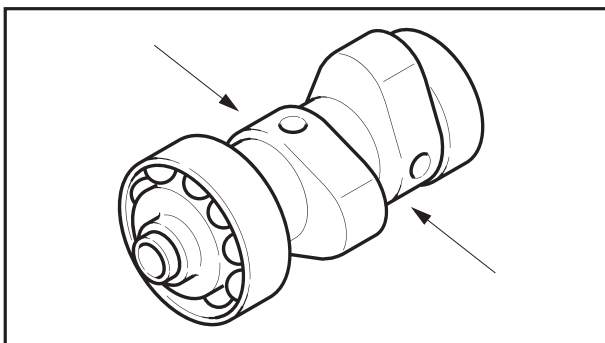
Securely support the lower bracket so that there is no danger of it falling.



Order	Job/Part	Q'ty	Remarks
17	Dowel pin	2	For installation, reverse the removal procedure.



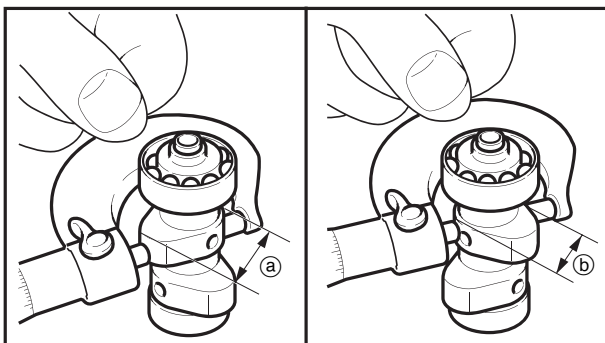
Rocker-arm-to-rocker-arm-shaft clearance
0.009 ~ 0.034 mm(0.0004~0.001 in)



EAS00205

CHECKING THE CAMSHAFT

1. Check:
 - camshaft bushings
Damage/wear → Replace.
2. Check:
 - camshaft lobes
Blue discoloration/pitting/scratches → Replace the camshaft.
3. Measure:
 - camshaft lobe dimensions (a) and (b)
Out of specification → Replace the camshaft.



Camshaft lobe dimension limit

Intake

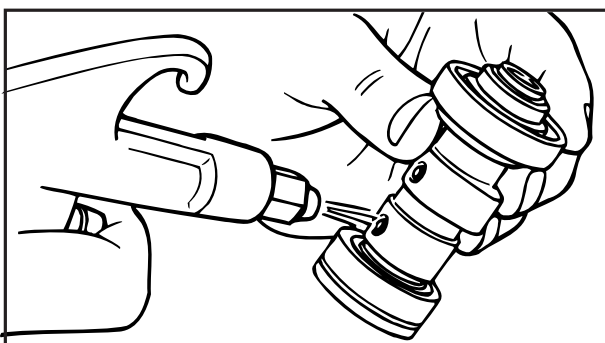
(a) 26.153~26.253 mm (1.030 ~ 1.034 in)
<Limit>:26.053mm

(b) 21.015~21.115 mm (0.827 ~ 0.831 in)
<Limit>:20.915mm

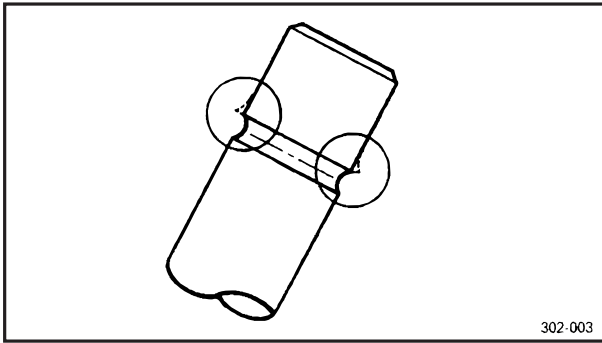
Exhaust

(a) 26.153~26.253 mm (1.030 ~ 1.034 in)
<Limit>:26.053mm

(b) 21.056~21.156 mm (0.829 ~ 0.833 in)
<Limit>:20.956mm



4. Check:
 - camshaft oil passage
Obstruction → Blow out with compressed air.



EAS00245

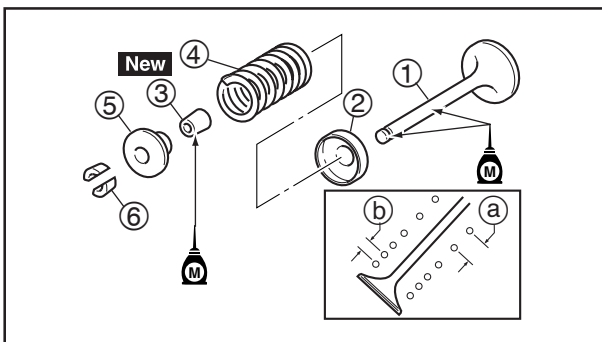
INSTALLING THE VALVES

The following procedure applies to all of the valves and related components.

1. Deburr:
 - valve stem end
(with an oil stone)
2. Lubricate:
 - valve stem
 - valve stem seal
(with the recommended lubricant)



Recommended lubricant
Molybdenum disulfide oil

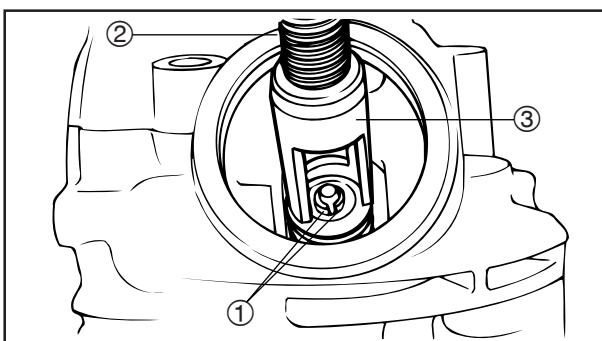


3. Install:
 - valve ①
 - valve spring seat ②
 - valve stem seal ③ **New**
 - valve spring ④
 - valve spring retainer ⑤
 - valve cotter ⑥
(into the cylinder head)

NOTE: _____

Install the valve spring with the larger pitch (a) facing up.

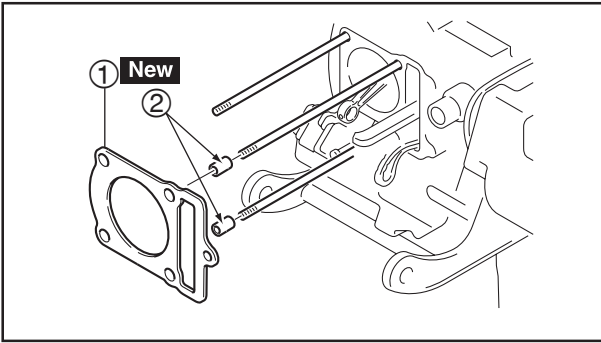
(b) Smaller pitch



4. Install:
 - valve cotters ①

NOTE: _____

Install the valve cotters by compressing the valve spring with the valve spring compressor ② and the valve spring compressor attachment ③.

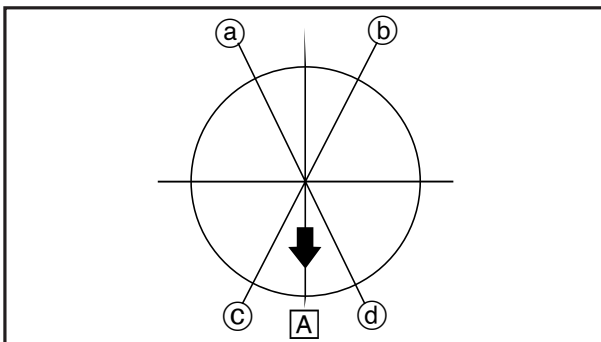


3. Install:

- gasket **New** ①
- dowel pins ②

4. Lubricate:

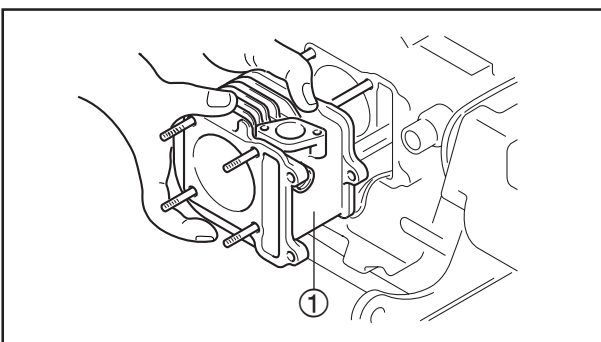
- piston
- piston rings
- cylinder
(with the recommended lubricant)



5. Offset:

- piston ring end gaps

- ① Top ring
- ② Lower oil ring rail
- ③ Upper oil ring rail
- ④ 2nd ring
- ⓐ Exhaust side



6. Install:

- cylinder ①

NOTE: _____

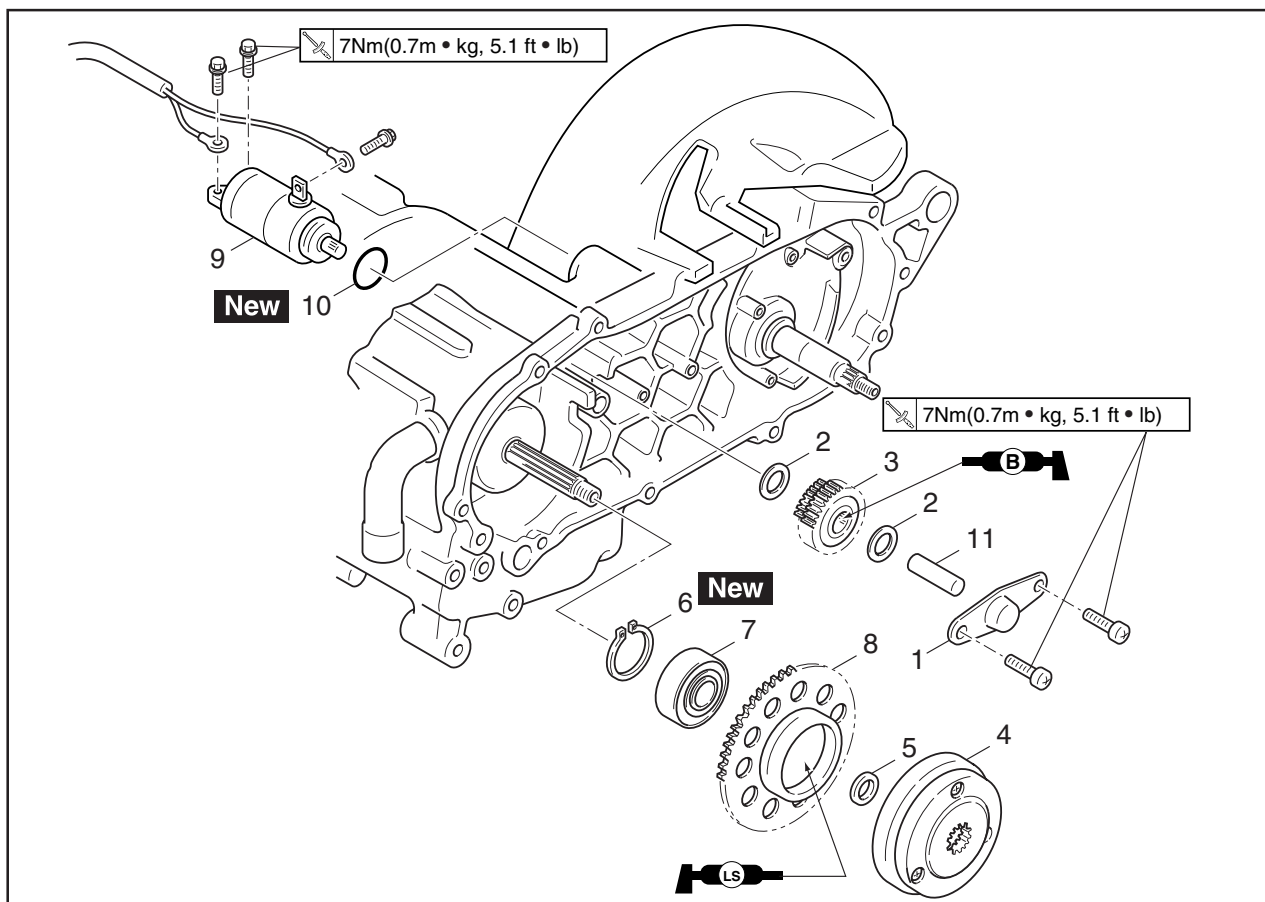
- While compressing the piston rings with one hand, install the cylinder with the other hand.
- Pass the timing chain and timing chain guide (exhaust side) through the timing chain cavity.

STARTER CLUTCH AND STARTER MOTOR

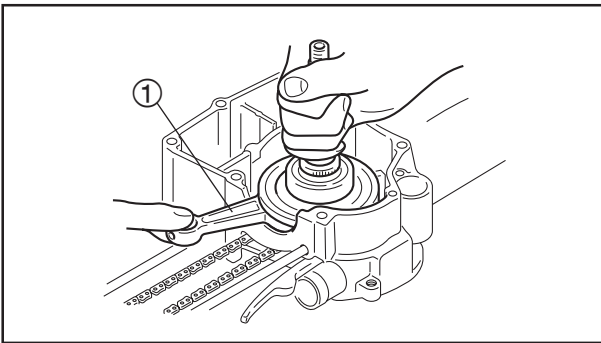
ENG



STARTER CLUTCH AND STARTER MOTOR



Order	Job/Part	Q'ty	Remarks
	Removing the starter clutch and starter motor		Disassemble the parts in the order listed.
	Primary sheave		Refer to " REMOVING THE PRIMARY SHEAVE "
1	Idle gear plate	1	
2	Plate washer	2	
3	Idle gear	1	
4	Starter clutch	1	
5	Washer	1	
6	Circlip	1	
7	Bearing	1	
8	Starter wheel gear	1	
9	Starter motor	1	
10	O-ring	1	
11	Shaft	1	
			For installation, reverse the removal procedure.



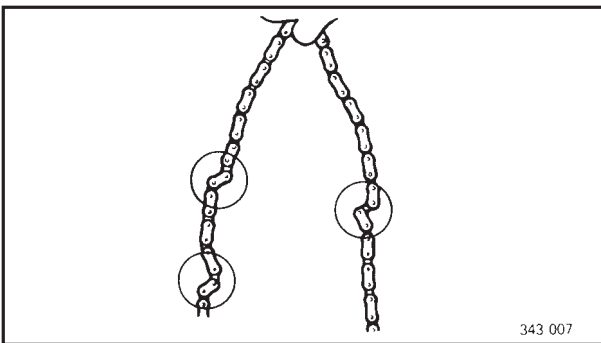
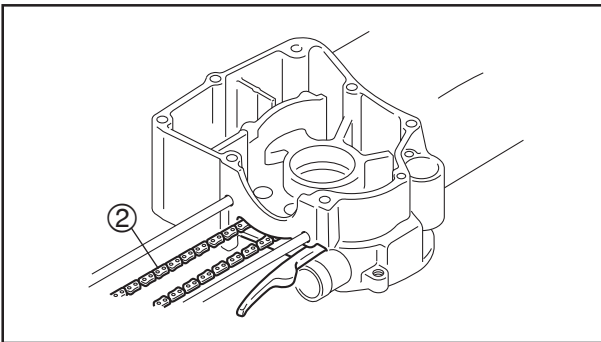
EAS00389

REMOVING THE CRANKSHAFT ASSEMBLY

1. Remove:
 - crankshaft assembly ①
 - timing chain ②

NOTE:

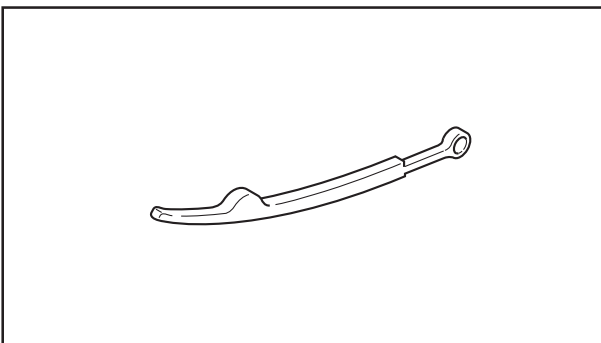
- Before removing the crankshaft assembly, remove the timing chain from the crankshaft sprocket.
- The crankshaft assembly cannot be removed if the timing chain is attached onto the crankshaft sprocket.

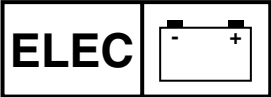


EAS00207

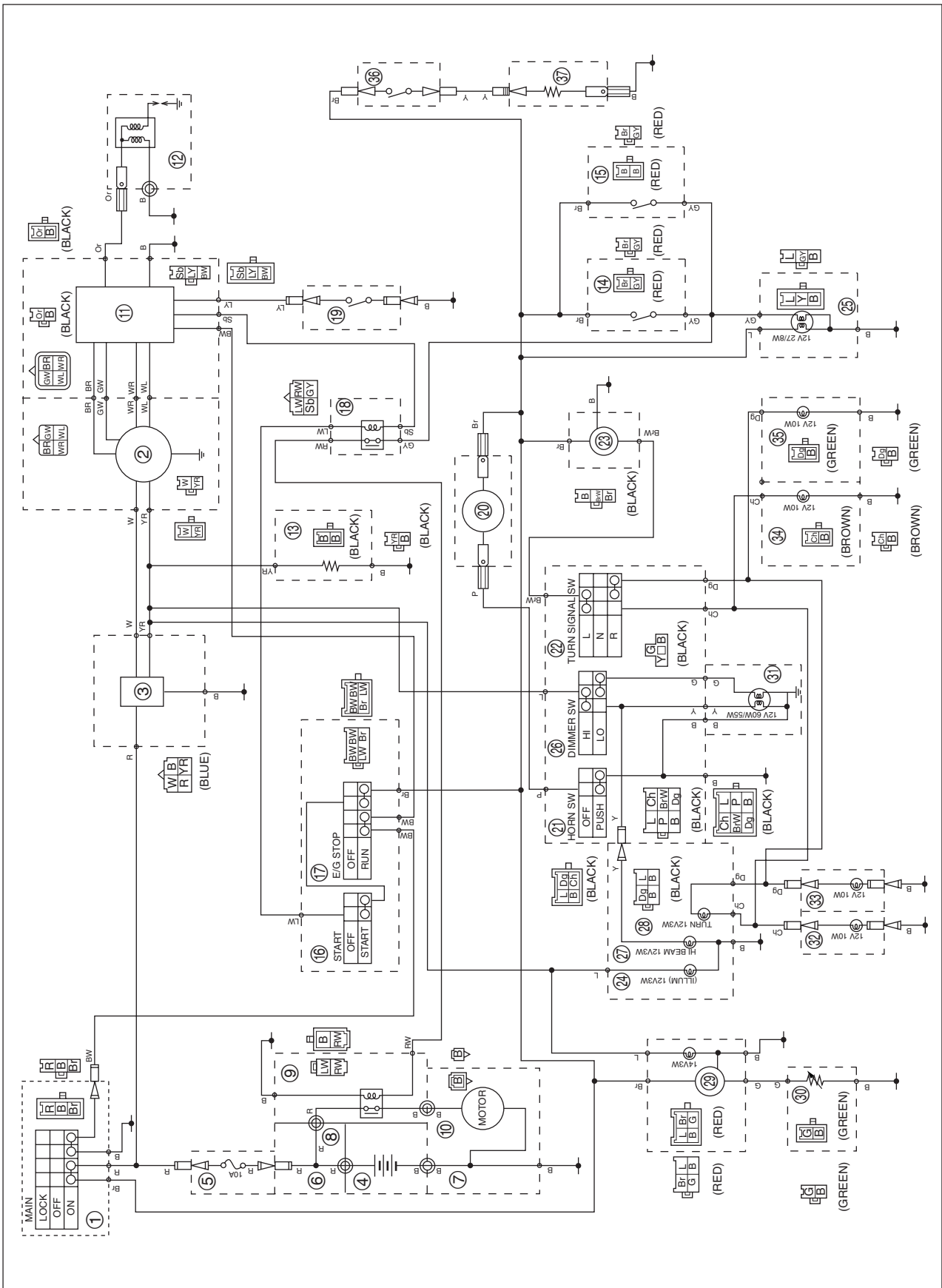
CHECKING THE TIMING CHAIN AND TIMING CHAIN GUIDES

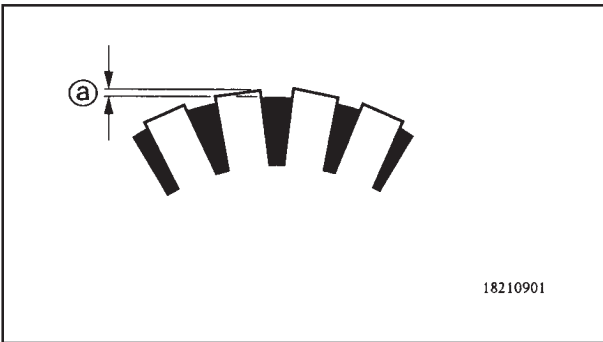
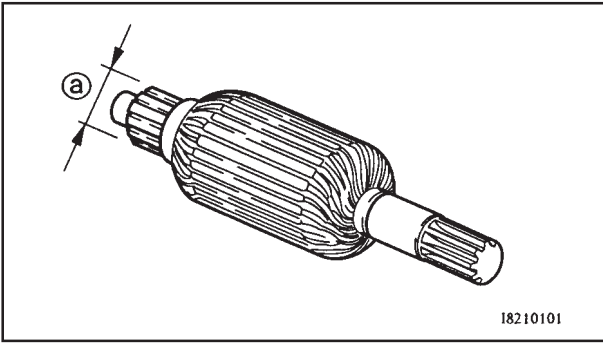
1. Check:
 - timing chain
Damage/stiffness → Replace the timing chain.
2. Check:
 - timing chain guide
Damage/wear → Replace the timing chain guide.





WIRING DIAGRAM






EAS00769

CHECKING THE STARTER MOTOR

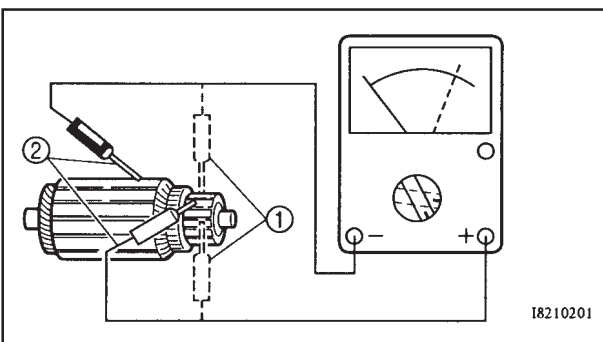
1. Check:
 - commutator
Dirt → Clean with 600-grit sandpaper.
2. Measure:
 - commutator diameter (a)
Out of specification → Replace the starter motor.

 **Commutator wear limit**
21 mm (0.83 in)

3. Measure:
 - mica undercut (a)
Out of specification → Scrape the mica to the proper measurement with a hack-saw blade that has been grounded to fit the commutator.


 **Mica undercut**
1.5 mm (0.06 in)


NOTE: _____
The mica of the commutator must be undercut to ensure proper operation of the commutator.



4. Measure:
 - armature assembly resistances (commutator and insulation)
Out of specification → Replace the starter motor.

- a. Measure the armature assembly resistances with the pocket tester.

 **Pocket tester**
90890-03132 (YU-03112-C)

 **Armature coil**
Commutator resistance ①
0.0306 ~ 0.0374 Ω at 20°C
Insulation resistance ②
Above 1 MΩ at 20°C

- b. If any resistance is out of specification, replace the starter motor.