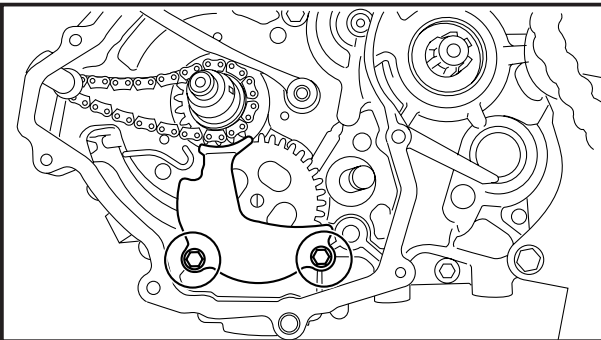
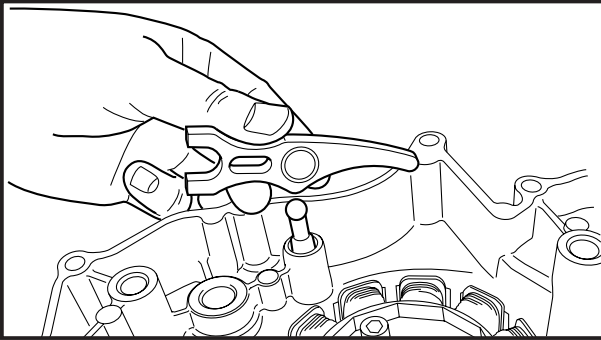


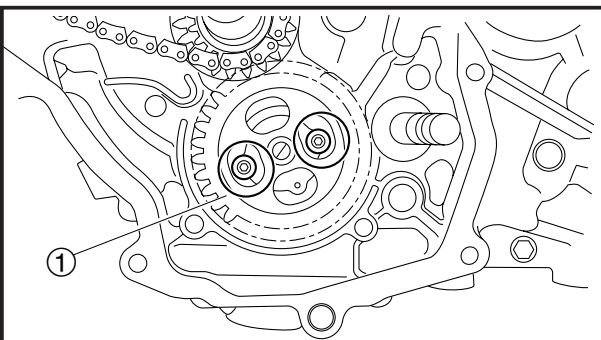


REMOVING THE OIL PUMP

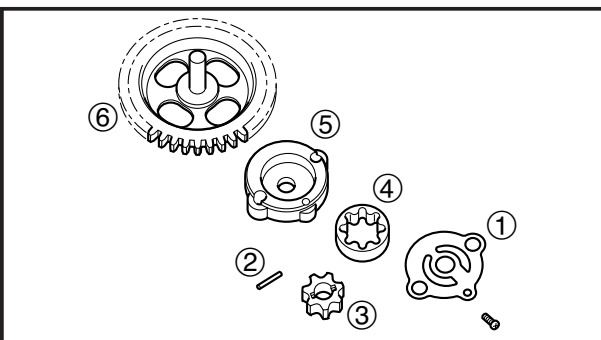
1. Drain:
 - engine oil
(completely from the crankcase)
Refer to "CHANGING THE ENGINE OIL" in chapter 3.
2. Remove:
 - generator
Refer to "GENERATOR AND STARTER CLUTCH".
3. Remove:
 - clutch release shift arm



4. Remove:
 - gear cover



5. Remove:
 - oil pump assembly ①
 - gasket



DISASSEMBLING THE OIL PUMP

1. Remove:
 - screw
 - pump cover ①
 - pin ②
 - inner rotor ③
 - outer rotor ④
 - oil pump housing ⑤
 - oil pump driven cover ⑥



EAS00364

CHECKING THE OIL PUMP**1. Check:**

- oil pump driven gear ①
- oil pump housing ②
- outer rotor
- inner rotor

Cracks/damage/wear → Replace the defective part(s).

2. Measure:

- inner-rotor-to-outer-rotor-tip clearance ①
- outer-rotor-to-oil-pump-housing clearance ②
- oil-pump-housing-to-inner-rotor-and-outer-rotor clearance ③

Out of specification → Replace the oil pump.

- ① Inner rotor
- ② Outer rotor
- ③ Oil pump housing

**Inner-rotor-to-outer-rotor-tip clearance**

0.15 mm (0.0059 in)

<Limit>: 0.20 mm (0.0079 in)

Outer-rotor-to-oil-pump-housing clearance

0.06 – 0.11 mm

(0.0024 – 0.0043 in)

<Limit>: 0.15 mm (0.0059 in)

Oil-pump-housing-to-inner-rotor-and-outer-rotor clearance

0.06 – 0.11 mm

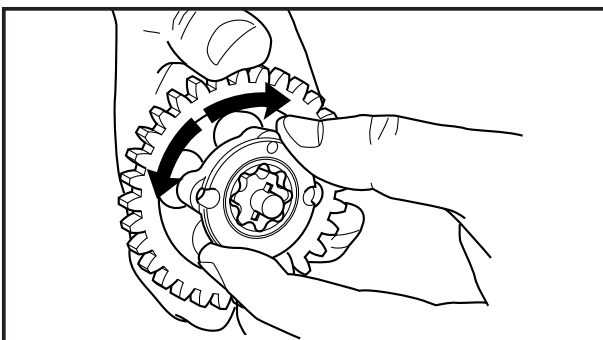
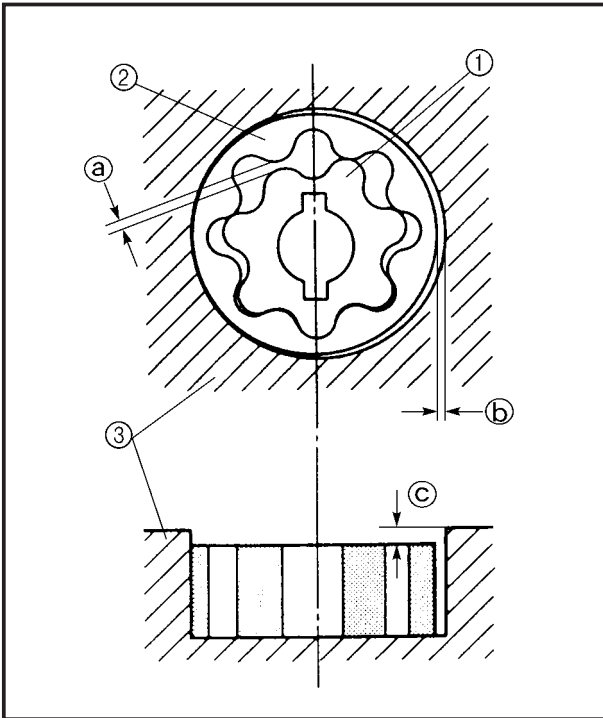
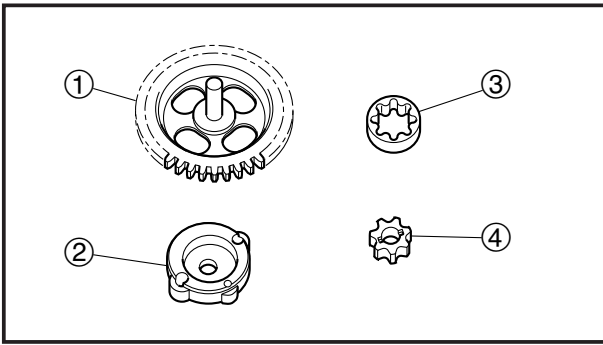
(0.0024 – 0.0043 in)

<Limit>: 0.15 mm (0.0059 in)

3. Check:

- oil pump operation

Rough movement → Repeat steps (1) and (2) or replace the defective part(s).



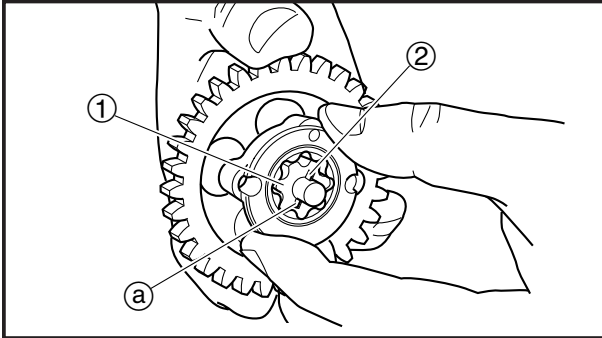


EAS00375

ASSEMBLING THE OIL PUMP

1. Lubricate:

- inner rotor
- outer rotor
- oil pump shaft
(with the recommended lubricant)

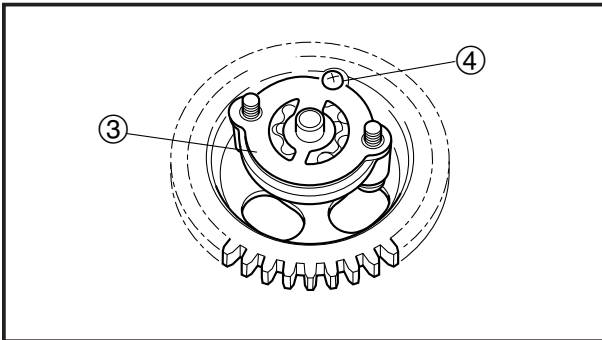
**Recommended lubricant
Engine oil**

2. Install:

- oil pump shaft
(to the oil pump housing)
- inner rotor ①
- outer rotor
- pin ②
- oil pump housing cover ③
- screw ④

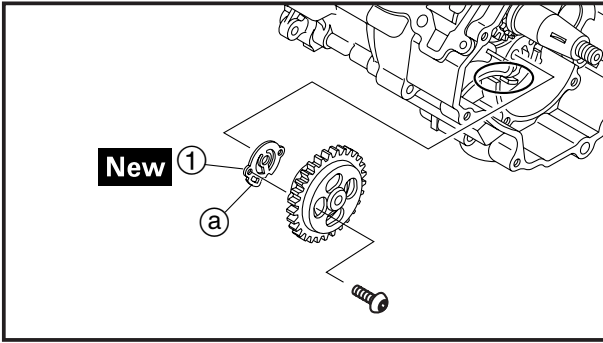
1 Nm (0.1 m•kg, 0.7 ft•lb)**NOTE:**

When installing the inner rotor, align the pin in the oil pump shaft with the groove (a) in the inner rotor.



3. Check:

- oil pump operation
Refer to "CHECKING THE OIL PUMP".




EAS00376

INSTALLING THE OIL PUMP

1. Install:

- gasket ① **New**
- oil pump assembly

 **7 Nm (0.7 m•kg, 5.0 ft•lb)****NOTE:**

Install the gasket with section ① in the position as shown in the illustration.

CAUTION:

After tightening the bolts, make sure the oil pump turns smoothly.

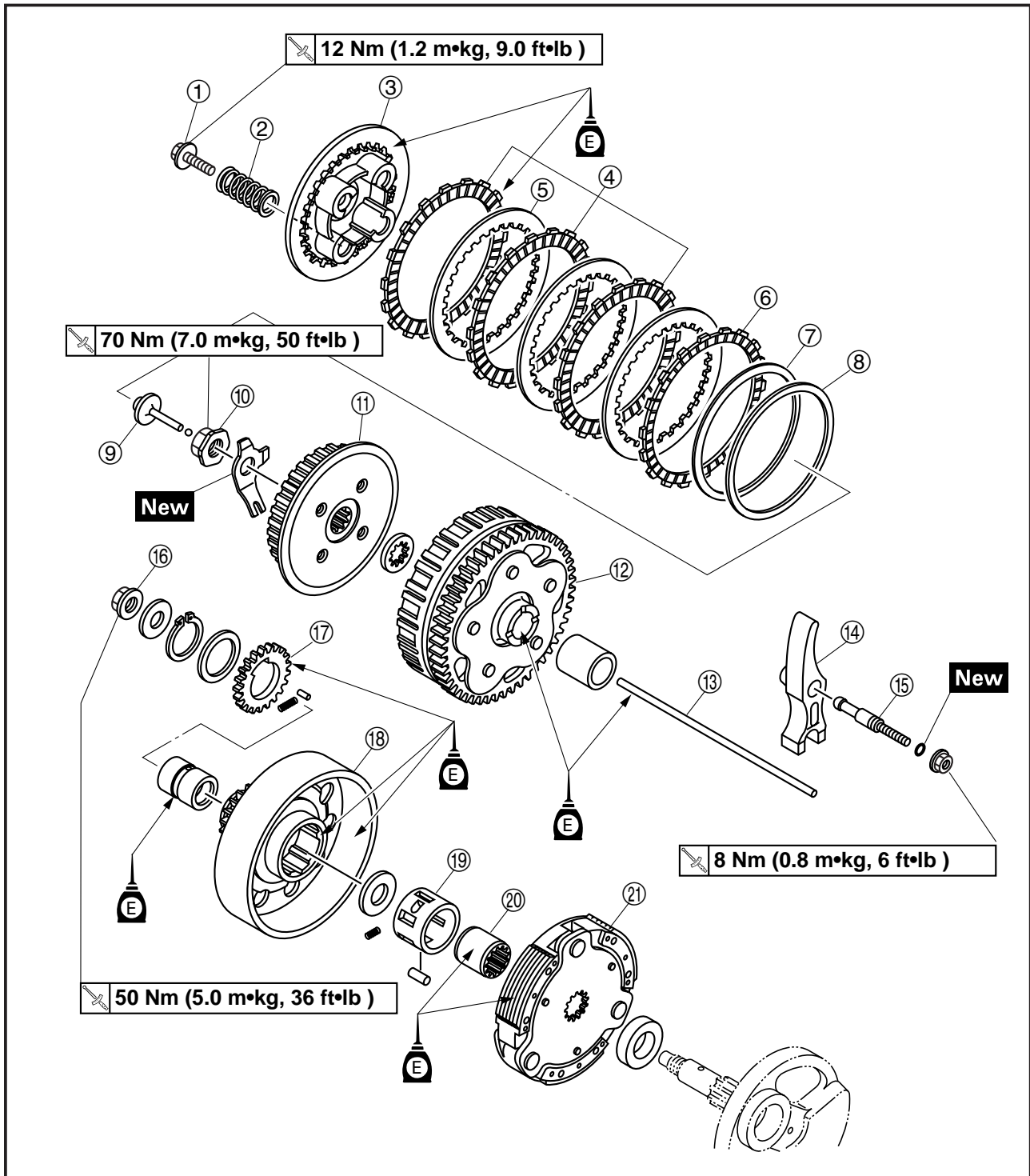


EASF0029

CLUTCH



- | | | |
|------------------------------|----------------------------------|----------------------------|
| ① Clutch pressure plate bolt | ⑨ Clutch push rod #1 | ⑯ Clutch shoe housing nut |
| ② Clutch spring | ⑩ Clutch boss nut | ⑰ Primary drive gear |
| ③ Clutch pressure plate | ⑪ Clutch boss | ⑱ Clutch shoe housing |
| ④ Friction plate #1 | ⑫ Clutch housing | ⑲ Cage |
| ⑤ Clutch plate | ⑬ Clutch push rod #2 | ⑳ Clutch shoe housing boss |
| ⑥ Friction plate #2 | ⑭ Clutch release shift arm | ㉑ Clutch shoe |
| ⑦ Cushion ring | ⑮ Clutch release adjusting screw | |
| ⑧ Seat plate | | |

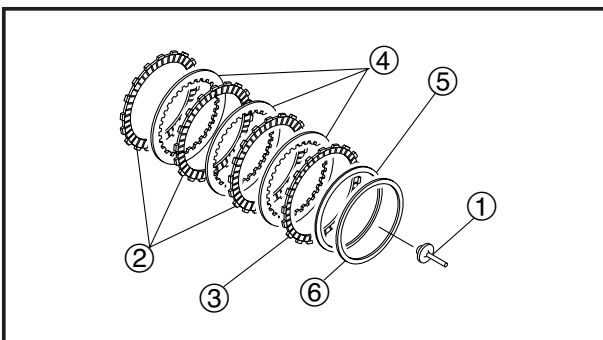
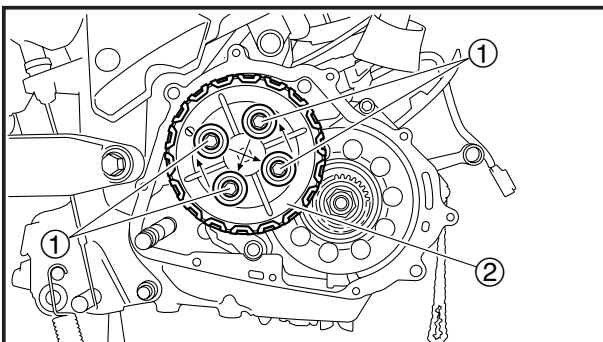
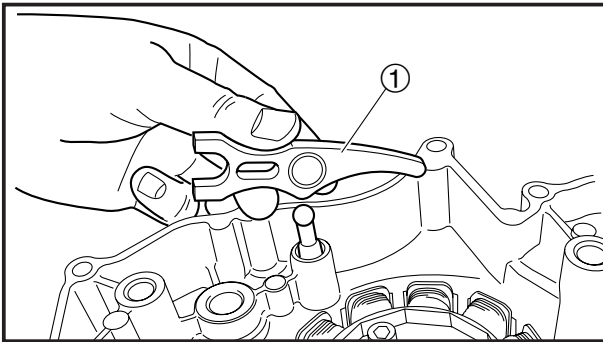




EAS00277

REMOVING THE CLUTCH

1. Drain:
 - engine oil
(completely from the crankcase)
Refer to "CHANGING THE ENGINE OIL" in chapter 3.
2. Remove:
 - side cowlings (left and right)
Refer to "REMOVING THE SIDE COWLINGS" in chapter 3.
 - muffler
 - footrest
 - brake pedal
Refer to "REMOVING THE ENGINE".
 - kickstarter lever
Refer to "KICKSTARTER".
 - crankcase cover (left)
Refer to "GENERATOR AND STARTER CLUTCH".
3. Remove:
 - clutch release shift arm ①

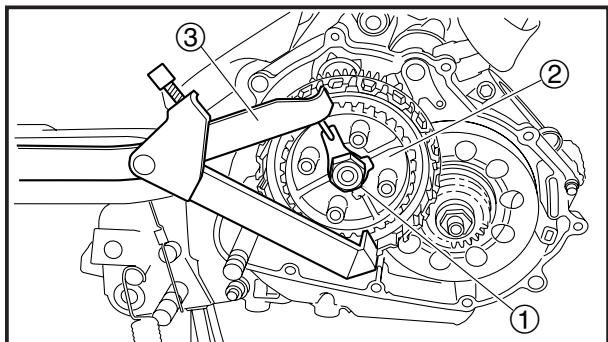


4. Remove:
 - crankcase cover (right)
5. Remove:
 - clutch pressure plate bolts ①
 - clutch springs
 - clutch pressure plate ②

NOTE:

Loosen each bolt 1/4 of a turn at a time, in stages and in a crisscross pattern. After all of the bolts are fully loosened, remove them.

6. Remove:
 - clutch push rod #1 ①
 - friction plates #1 ②
 - friction plates #2 ③
 - clutch plate ④
 - cushion ring ⑤
 - seat plate ⑥



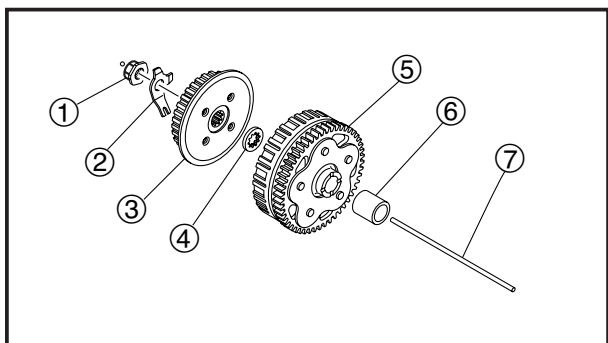
7. Straighten the lock washer tab.
8. Loosen:
 - clutch boss nut ①

NOTE:

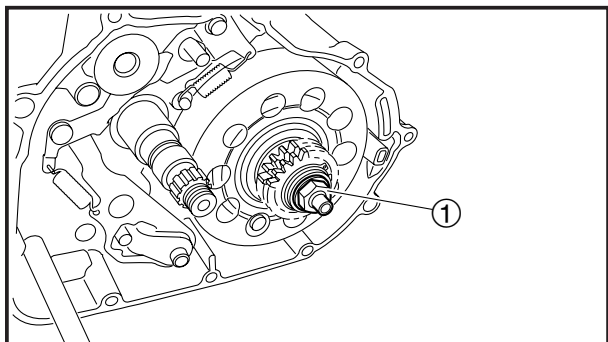
While holding the clutch boss ② with the universal clutch holder ③, loosen the clutch boss nut.



Universal clutch holder
90890-04086



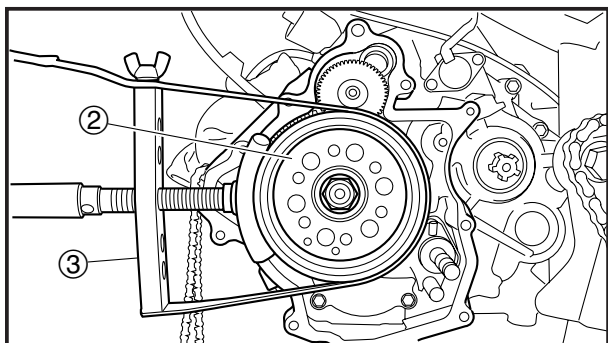
9. Remove:
 - clutch boss nut ①
 - lock washer ②
 - clutch boss ③
 - washer ④
 - clutch housing ⑤
 - spacer ⑥
 - clutch push rod #2 ⑦



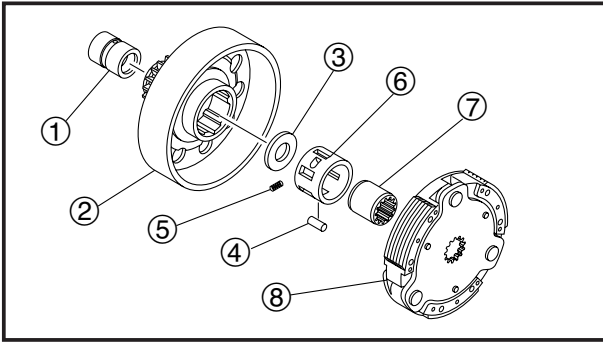
10. Remove:
 - clutch shoe housing nut ①
 - washer

NOTE:

- Loosen the clutch shoe housing nut while holding the generator rotor ② with the sheave holder ③.
- Do not allow the sheave holder to touch the projection on the generator rotor.

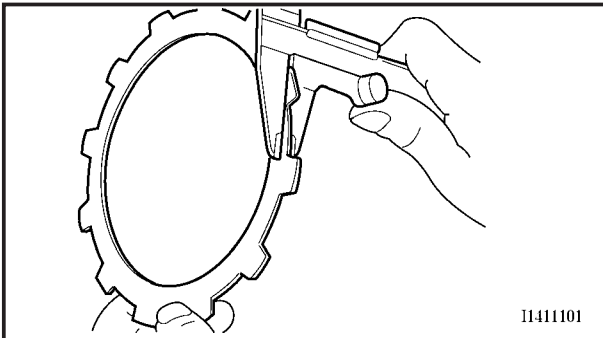


Sheave holder
90890-01701



11. Remove:

- collar ①
- clutch shoe housing ②
- washer ③
- rollers ④
- cage springs ⑤
- cage ⑥
- clutch shoe housing boss ⑦
- clutch shoe ⑧



EAS00280

CHECKING THE FRICTION PLATES

The following procedure applies to all of the friction plates.

1. Check:

- friction plate

Damage/wear → Replace the friction plates as a set.

2. Measure:

- friction plate thickness

Out of specification → Replace the friction plates as a set.

NOTE:

Measure the friction plate at four places.

**Friction plate thickness**

2.5 – 2.7 mm (0.010 – 0.11 in)

<Limit>: 2.4 mm (0.0945 in)

EAS00281

CHECKING THE CLUTCH PLATES

The following procedure applies to all of the clutch plates.

1. Check:

- clutch plate

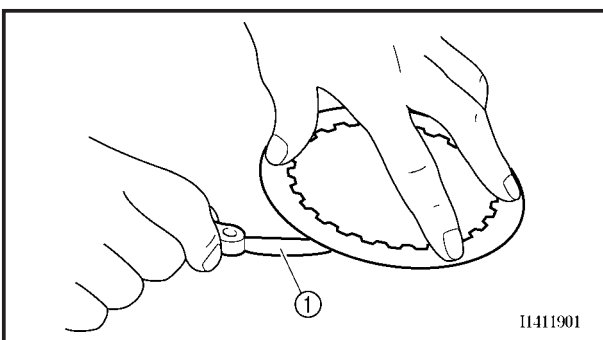
Damage → Replace the clutch plates as a set.

2. Measure:

- clutch plate warpage

(with a surface plate and thickness gauge ①)

Out of specification → Replace the clutch plates as a set.

**Clutch plate warpage limit**

0.05 mm (0.0020 in)