

# TAF5-speed cross-transmission kit Instruction manual

Product number 02-04-0293

Adaptation model	GROM (JC61-1000001 ~ 1299999) (JC61-1300001 ~ ) (JC75-1000001 ~ )
	MSX125
	MSX125SF
	Monkey125 (JB02-1000001 ~ )

Thank you very much for purchasing our products.

Thank you so you will comply with the following matters at the time of use. Before installation, please check your always kit contents.

If there is a point of notice event, Please contact us the dealer of purchase.

◎ If the description, such as photos or Illustration different with this part.

☆ Please read carefully before use ☆

- ◎ The use ignoring the instructions that are written in the manual, if the accident or damage has occurred, we can not assume any responsibility for compensation.
- ◎ This product installation and use, when a problem occurs to after market goods, guarantee other than this product, also can not assume any in any such matters.
- ◎ This product is the above-mentioned vehicle exclusive goods. Is not possible attached to the other vehicle. Please note.
- ◎ This product is required to work until the engine desorption and crankcase split, the work is also place to use a special tool.
- ◎ The mounting refers to the genuine service manual that was in the above application models, but you need to do the work reliably, service manual if people without basic skills and knowledge were working, could not correct assembly because there is a possibility that in parts may be damaged without enough attention please. No attachment experience, if it is not ready for tools, it is recommended that you ask the high technical credit specialty stores.
- ◎ This product is a transmission kit. Only L/R Crankcase gaskets are supplied with this kit. It does not include necessary parts such as gaskets, packing, O-rings, etc., required for engine disassembly work. Please purchase separately depending on engine specifications.
- ◎ Intense wear and damage without re-use, please always use new ones.
- ◎ Other manufacturers (engine, clutch, etc.) a combination of should not relied at all. There is a possibility of damage to parts. Also, in combination with other manufacturers, if the part is damaged, we can not assume any responsibility.
- ◎ Please refrain from inquiries about the product and the combination of other companies.
- ◎ Such as descriptions and specifications are subject to change without prior notice for improvement of product. Please acknowledge beforehand.
- ◎ Keep this manual stored until this product is discarded.
- ◎ The shift change pattern is a "return type" same as stock in this products. Shift change should be done to ensure in a state in which the clutch is cut completely. If you shift to disengage the clutch in unreasonable shift and manual clutch vehicles, gear and other parts will be damaged.
- ◎ The "individual differences" of stock gear shift spindles, which may make downshifting difficult. If such a phenomenon (shifting difficulty) is occur due to "individual differences" it is possible to replace the stock gear shift spindle or modify the gear shift spindle arm slightly to fix this problem.

HONDA genuine parts : Gear shift spindle COMP. 24610-K26-900

◎ It is necessary to install the speed sensor kit GROM:05-06-0017 / Monkey 125: 05-06-0021 with this products.

(Because change is gear ratio, can not accurate speed display in genuine speed sensor.)

~ feature ~

- While keeping the power band in engine speed is a 5-speed cross-transmission kit that can be accelerated smoothly.
- When our bore up kit is installed, you can use the full torque output performance intact.
- And securing the tooth width by which the short-stroke movement of gears, and improved durability.

Gear ratio

Position	1 st	2 nd	3 rd	4th	5th
Genuine transmission	2.500 (14/35)	1.550 (20/31)	1.150 (20/23)	0.923 (26/24)	—
TAF5-speed cross-transmission	2.333 (15/35)	1.684 (19/32)	1.272 (22/28)	1.040 (25/26)	0.923 (26/24)

**Caution** When the handling of ignoring this display, property damage and human shows the assumption of what injury.

- When performing the work, etc., be sure during the cold (when the engine and the muffler is cold). (It may cause burns.)
- When performing the work, it should be made to prepare the tools for the job. (Breakage of parts, it may cause injury.)
- When using a knife or the like, to protect hand, and caution in handling, do the work. (It may cause injury.)
- Do the work must always specified torque using a torque wrench. (Damage of bolts and nuts, and cause of dropout.)
- The product and the frame, might have edges or protrusions. Please go to protect your hands when you work. (It may cause injury.)
- Be sure to each part inspection before operation, check the loosening of the threaded portion, be sure to securely tighten the specified torque if there is loose. (It may cause detachment of the parts.)

**Warning** When the handling of ignoring this display people died, shows the contents of the serious injury possibility is assumed.

- During operation, when an abnormality occurs, immediately stop the vehicle in a safe place, please stop running. (It may lead to an accident.)
- When performing the work, do the work safely stabilize the vehicle in a horizontal location. (There is a risk of injury vehicle collapsed while working.)
- Inspection, maintenance, the instruction manual or, inspection methods such as service manuals, to protect the way, should be done correctly. (unsuitable inspection and maintenance, there is a risk that result to an accident.)
- When carrying out the inspection and maintenance, etc., if found damaged parts, replace the damaged parts to avoid possible to reuse the parts. (There is a risk that lead to accidents Continued use.)
- Plastic bags of product packaging, you can either be stored in a place that is out of reach of children, it should be discarded. (When the children or wearing, there is a risk of suffocation.)
- If you start the engine, be sure in a well-ventilated place. In the sealed such place, please do not start the engine. (There is a risk of carbon monoxide poisoning.)

◎ Please note. Performance up, the design change, the product and the price in the cost up, etc. are subject to change without notice.

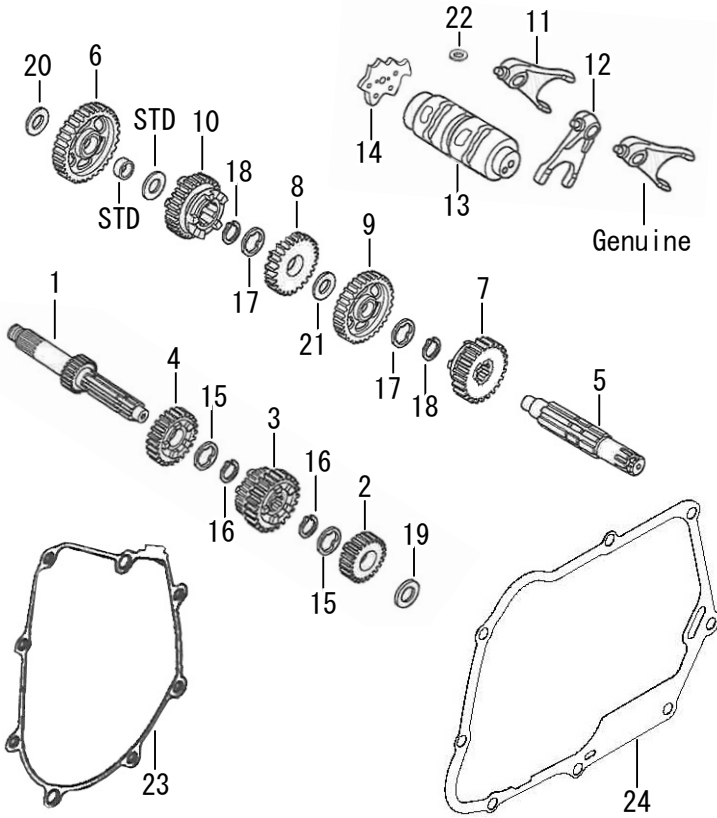
◎ Please be informed that we shall be held harmless against any claim against us whatsoever arising out of use of the products in racing and the like.

◎ Keep this manual stored until this product is discarded.

**SPECIAL PARTS**  
**TAKEGAWA**

CONTACT Address : 3-5-16 Nishikiorihigashi Tondabayashi Osaka JAPAN  
TEL: +81-721-25-1357 FAX: +81-721-24-5059 e-mail: english@takegawa.co.jp URL http://www.takegawa.co.jp  
Please contact with your name and country name provided. (Only English please)

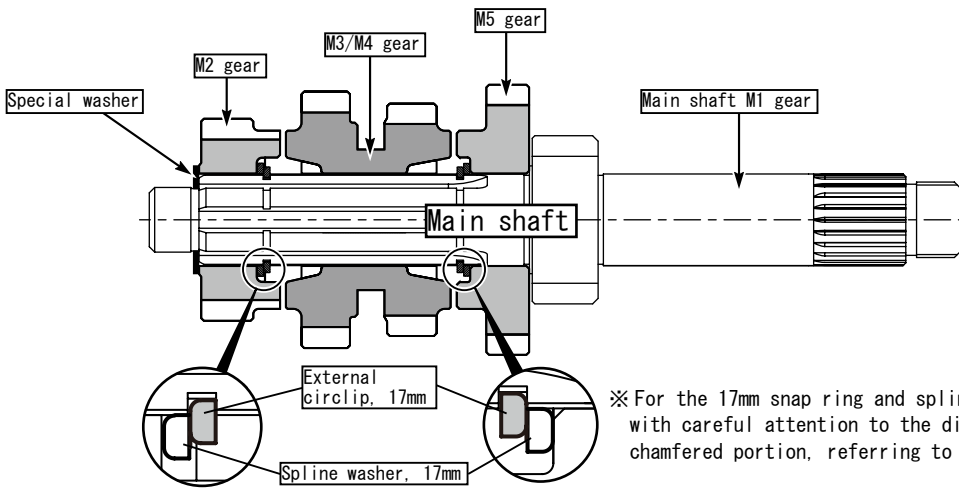
Product content



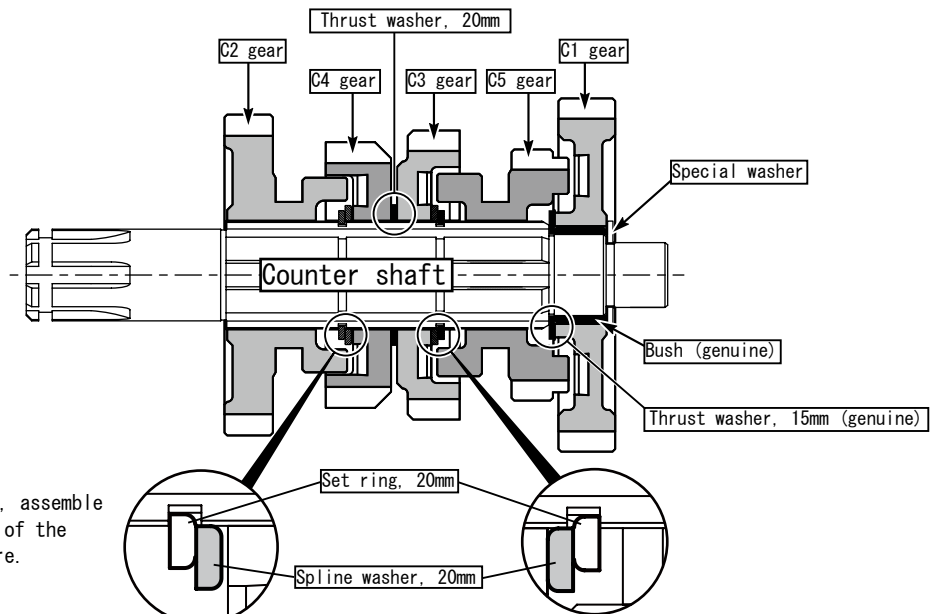
No.	Product content	Qty	Item Number
1	Main shaft 15T	1	23211-KYZ-T01
2	Main shaft 2nd gear (19T)	1	23431-KYZ-T02
3	Main shaft 3rd/4th gear (22T/25T)	1	23451-KYZ-T01
4	Main shaft 5th gear (26T)	1	23491-KYZ-T01
5	Counter shaft	1	23221-KYZ-T00
6	Counter shaft 1st gear (35T)	1	23411-KYZ-T01
7	Counter shaft 2nd gear (32T)	1	23421-KYZ-T02
8	Counter shaft 3rd gear (28T)	1	23461-KYZ-T01
9	Counter shaft 4th gear (26T)	1	23481-KYZ-T02
10	Counter shaft 5th gear (24T)	1	23501-KYZ-T02
11	Right gear shift fork	1	24211-KYZ-T01
12	Center gear shift fork	1	24231-KYZ-T20
13	Gear shift drum	1	24301-KYZ-T10
14	Shift drum stopper plate COMP.	1	24400-KYZ-T02
15	Spline washer, 17mm	2	00-02-0023 (5 pcs)
16	External circlip, 17mm	2	00-02-0005 (5 pcs)
17	Spline washer, 20mm	2	00-02-0360 (2 pcs)
18	Set ring, 20mm	2	00-01-0030 (6 pcs)
19	Special washer, 12X20	1	00-02-0358
20	Special washer, 12X23	1	00-02-0361
21	Thrust washer, 20mm	1	00-02-0359
22	Plain washer, 6mm	1	00-00-0086 (10 pcs)
23	Left crankcase cover gasket	1	00-02-0357
24	Right crankcase cover gasket	1	00-02-0356

※Please order in the repair parts are always repair part number.  
 If it is not the part number order, you may not be able to order.  
 Please be forewarned.  
 It should be noted, In the case of parts that can not be separately shipment, please order a set part number.

Transmission gear assembly drawing



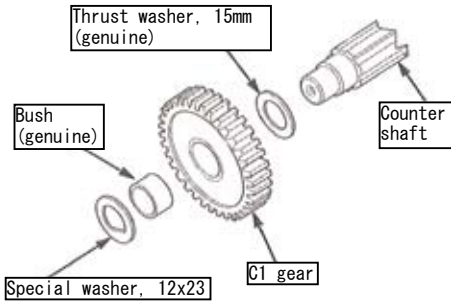
※For the 17mm snap ring and spline washer, assemble with careful attention to the direction of the chamfered portion, referring to the figure.



※For the 20mm set ring and spline washer, assemble with careful attention to the direction of the chamfered portion, referring to the figure.

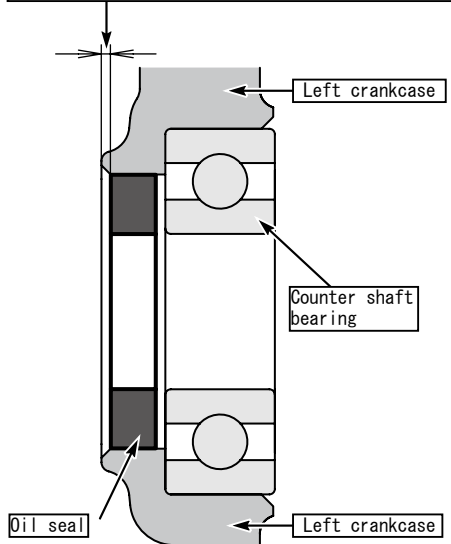
■ Mounting procedure ※ Please refer to the genuine service manual if the detail is not mentioned method and the specified torque.

- Attach the included special washer 12x20 to main shaft.
- ※ Please note that the special washer is little hard to install because the inner diameter hole is D shape.
- Than gear has been removed from the vehicle, and assembling the bush 15mm and thrust washer 15mm in the counter shaft 1st gear in the kit came with counter shaft, and assemble the C1 gear built-in kit by kit of special washer 12x23.
- ※ Please note that the special washer is little hard to install because the inner diameter hole is D shape.
- ※ Bush 15mm and thrust washer 15mm re-use goods, be sure to inspect before assembly, please replaced with new parts if necessary.
- ※ Engine oil is applied to each gear, please assembled.
- ※ Apply the molybdenum solution to Bush.

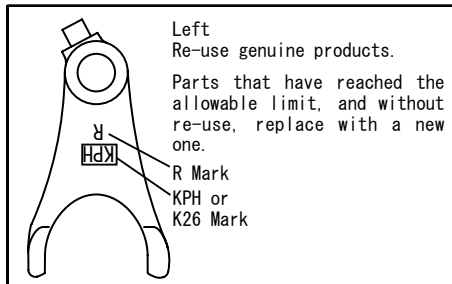
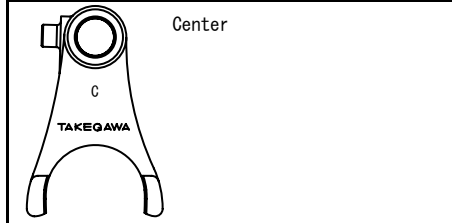
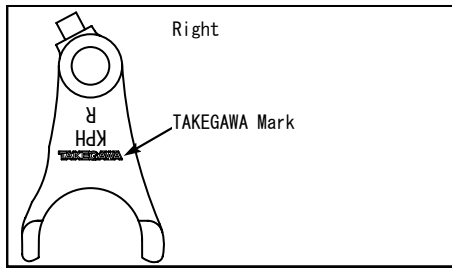


- Before assembly the counter shaft, it requires confirmation work oil seals. Check part is position oil seals that is mounted in portion of counter shaft of the left crank case is inserted. (See below)
- Please about 1mm as shown below (where the chamfer end).
- ※ If there is no about 1mm, please push in the back.
- ※ If it is too push in the back, that it may interfere in bearing.

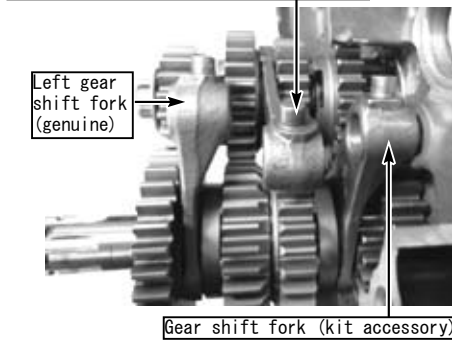
About 1mm (plug to the point where chamfered ends)



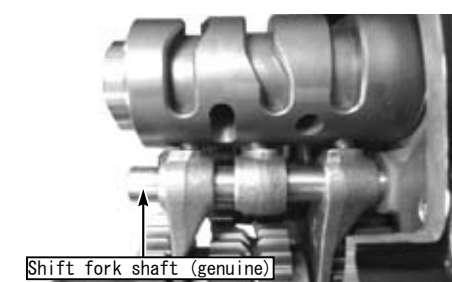
- Assembled with each shift fork into gear (gear shift fork C5 gear, center gear shift fork M3 gear, M4 gear, left the gear shift fork (genuine re-used) C2 gear) incorporated into crankcase.



Center gear shift fork (kit accessory)

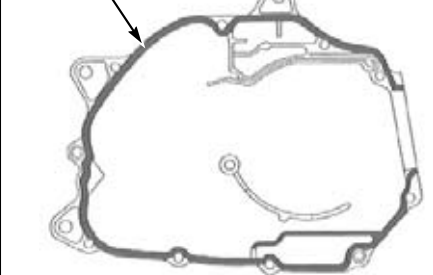


- And assembling the shift drum combines the projection of each shift fork shift drum, to include the shift fork shaft.
- ※ Please assembled by coating molybdenum solution to shift fork shaft.



- Place the dowel pin to left crank case, and a thin coat of sealant to the mating surfaces, combine the case.
- ※ Three Bond 1215 / 1207B, or use equivalent.

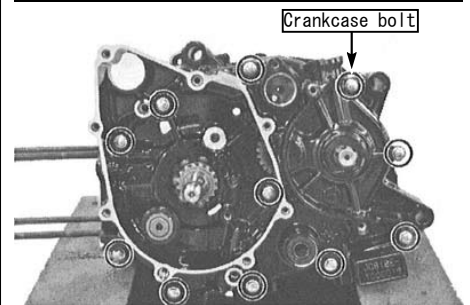
Sealant application



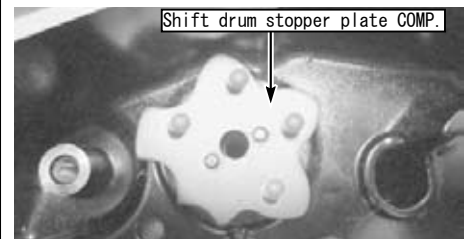
- The combination of crankcase and assemble the crankcase bolts.
- ※ Bolt tightening is mounting in several times a diagonal.

⚠ Note: Be sure that you protect the specified torque.

Crankcase bolt  
Torque : 10N · m (1.0kgf · m)



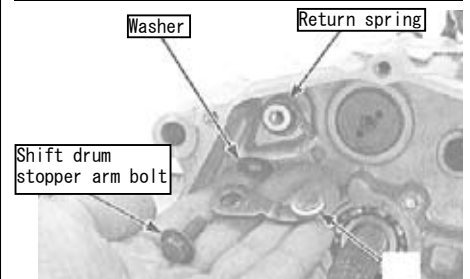
- It will assemble the shift drum stopper plate COMP.
- ※ Gear shift drum pin will reuse the removed parts.



- It assembled a hole in shift stopper plate shift drum stopper arm.
- ※ The shift drum stopper arm bolt, please coated with a thread locker.

⚠ Note: Be sure that you protect the specified torque.

Shift drum stopper arm bolt  
Torque : 12N · m (1.2kgf · m)



☆ Shift down operation may be difficult due to "individual differences" in stock gear shift spindles.

If such a phenomenon (shifting difficulty) is occur due to "individual differences" it is necessarily to modify the gear shift spindle arm slightly to fix this problem. (See illustration)

Also, there is a large clearance between the stock shift spindle and the crankcase (gear shift spindle) mounting part. The position of the gear shift spindle cannot be determined unless the cover is attached.

It is possible to visually check with the our special clutch cover kit (02-01-0150) installed.

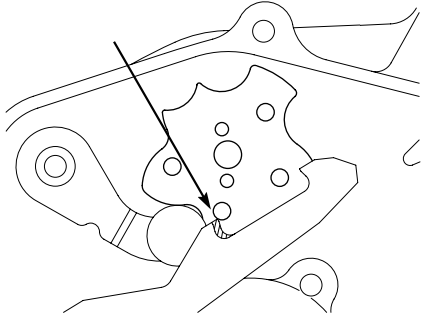
When using a stock R. crankcase cover, visual confirmation cannot be performed.

R. Check method is shown on the right for different crankcase covers.

Please confirm with the check method and proceed work with the installation.

### Illustration

If the pin (of the shift drum stopper) and the arm (of the gear shift spindle) interfere with each other due to "individual differences" (of the gear shift spindle), the pin and arm do not get caught and the downshift operation cannot be performed smoothly. In such a case, it is necessary to cut the shaded area.



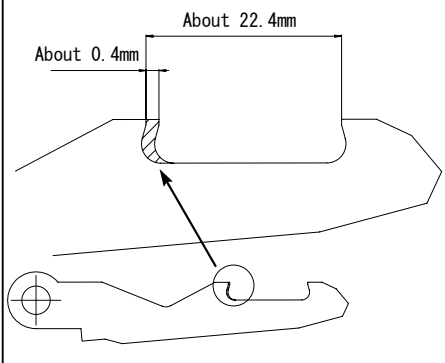
※ The position of the gear shift spindle cannot be determined unless the crankcase cover is attached.

Caution: It is not possible to confirm the correct position without the crankcase cover attached.

### ☆ How to modify the shift arm (of gear shift spindle)

• The tip of the shift arm of the gear shift spindle need to modified. (About 0.4mm) Please modify the shift arm slightly as shown.

Please modify it little by little (cutting too much, may cause different troubles.)



### Using our special clutch cover kit

◎ When using the Takegawa special clutch cover kit (02-01-0150) Temporarily assemble the shift drum stopper plate COMP. (without attaching the shift drum plate.)

Attach the gear shift spindle to the crankcase. Attach two dowel pins to the crankcase, attach the R. crankcase cover gasket, and temporarily assemble the R. crankcase cover. Set the gear shift at 3rd speed and check the positional relationship between the pins (of the shift drum stopper plate) and the shift arm (of the gear shift spindle).

● It is good position when the pins (of the shift drum stopper plate) and the shift arm (of the gear shift spindle) are shown as Fig. 1. Now remove the R. crankcase cover and proceed with the actual assembly work.

● Caution: When the pin (of the shift drum stopper plate) and the shift arm (part of the gear shift spindle) are in the position shown as Fig. 2, it is necessary to modify or replace the shift arm.

How to modify the shift arm (of the gear shift spindle).

Figure 1

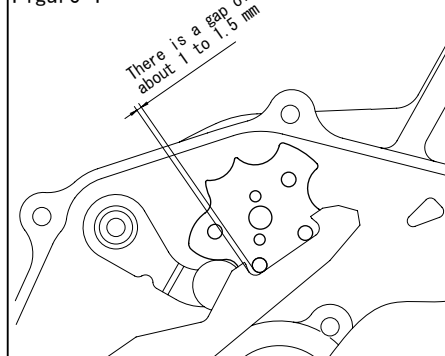
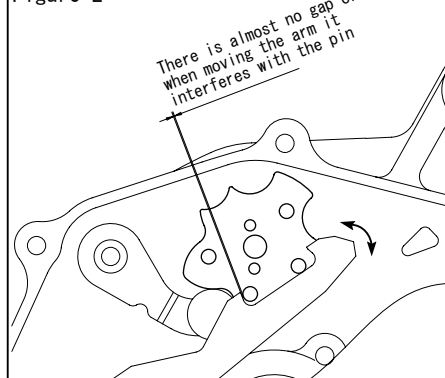


Figure 2



### When using stock R. crankcase cover

◎ Visual confirmation is not possible when using stock R. crankcase cover. To check, R. Crankcase cover needs to be attached once.

Temporarily assemble the shift drum stopper plate without attaching the shift drum plate. Attach the gear shift spindle to the crankcase. Attach two dowel pins to the crankcase, attach the R. crankcase cover gasket, and temporarily assemble the R. crankcase cover. Make sure that smoothly shift to each gear while rotating the counter shaft.

● If the shift operation can be performed smoothly at each position, it is not necessary to modify the arm.

Remove the R. crankcase cover and proceed the assembly.

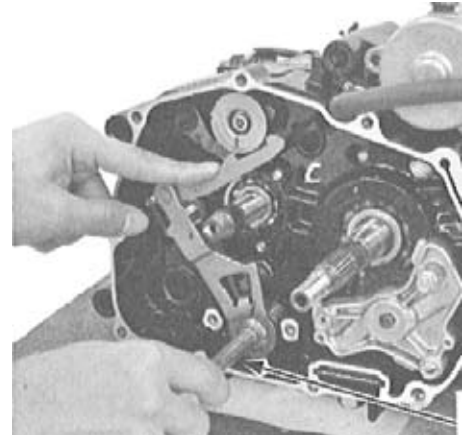
● If the arm (of the gear shift spindle) does not return properly when shifting down (a phenomenon that causes a pin on the stopper arm). It is necessary to modify the arm (part of the stock gear shift spindle).

○ It incorporates a gear shift spindle, and tighten assembled the drum stopper holder by socket bolt. After assembly, it will assemble the gear shift spindle.

※ Apply the thread locker.

⚠ Note: Be sure that you protect the specified torque.

Socket bolt  
Torque : 10N · m (1.0kgf · m)



○ Change shift drum switch contact spring, and assembling the change switch contact cap and tighten flange bolts 6x14 (genuine parts) assembled a neutral contact switch ASSY to the crankcase.

⚠ Note: Be sure that you protect the specified torque.

Flange bolt  
Torque : 12N · m (1.2kgf · m)



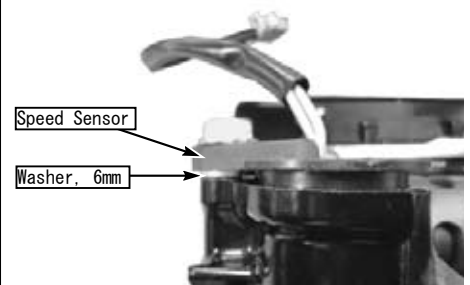
○ Tighten flange bolts 6x18 sandwiched washer 6mm of kit (genuine parts) between the speed sensor ASSY and the crankcase.

※ If you do not this work gear and speed sensor is in contact, it will be damaged.

⚠ Note: If you do not modify this, the gear and speed sensor will come into contact and will be damaged.

⚠ Note: Be sure that you protect the specified torque.

Crankcase bolt  
Torque : 12N · m (1.2kgf · m)



○ Assemble by referring to the service manual.

○ Transmission is to start the engine in neutral state, it will check the oil leakage of each part. If no abnormality performs low-speed operation test in a safe place, check operation of transmission.

⚠ Warning: Be sure in a well-ventilated place.