



TAF5-Speed Transmission Kit Instruction Manual

(For our wet clutch only)

- Thank you for purchasing one of our products. Please strictly follow the instructions to install and use the kit.
- Before installing the kit, please be sure to check the kit contents. If you have any questions about the kit, please contact your local TAKEGAWA dealer.

Item No. : 02 - 04 - 0247 Super street
 : 02 - 04 - 0083 Super Touring
 Fit for : Takegawa Complete Engine / Special HD crankcase
 (secondary starter type)

Please note: Illustrations and photos may vary from actual hardware.

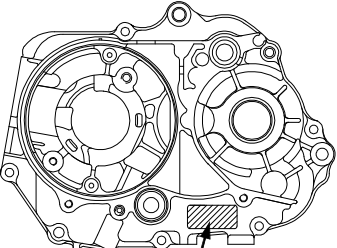
Please read the following before starting the installation.

This product is for exclusive use with "Wet" type clutch. This kit is not applicable for Dry type Special Clutch.

This instruction manual refers to the work after the removal of an engine from the body, and removal and disassembly of a cylinder head, cylinder, piston, flywheel, starter assembly, clutch assembly, primary driven gear, driven gear, oil pump and cam chain. For instructions about such removal work, please refer to the relative HONDA's genuine service manual for your proper work.

CAUTION) This transmission kit used for only our complete engine and engine number listed below. will not work for others.

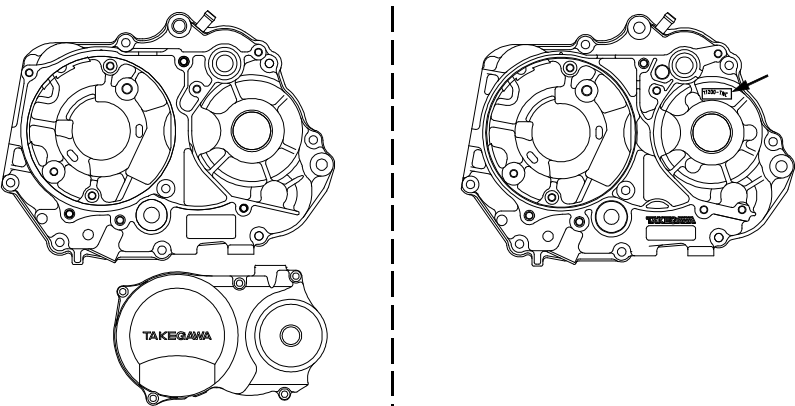
Complete Engine



An engine No. is stamped here.

Engine No. 4SM -10001 ~ 10284
 4SMS-00001 ~
 2SMS-00001 ~
 2SMS-20001 ~
 ****-**388**-****
 (Applicable for Engine number from #388 and up.)

Special HD crankcase



Same as Special HD crankcase and shown generator cover type.

Case number stamped 「11200-TNC」.

Features

- This return type transmission kit is increased the durability compared to our current
- 5-speed transmission.
- The center gear shift fork is also increased the durability.
- In order to increase the durability of each gear, the stroke of the shift fork is designed to be shorter and quick so that the gear can be also designed to be thicker.
- This kit includes a right side crankcase cover gasket and a center crankcase gasket.
- Mating portions of each gear have new dog designs and avoid missing gears more effectively.

Item No.	02-04-0247	02-04-0083
Type	Super street	Super touring
1st speed	2.357 (33 / 14)	2.357 (33 / 14)
2nd speed	1.764 (30 / 17)	1.611 (29 / 18)
3rd speed	1.400 (28 / 20)	1.190 (25 / 21)
4th speed	1.136 (25 / 22)	0.958 (23 / 24)
5th speed	1.000 (24 / 24)	0.807 (21 / 26)

CAUTION The following show the envisioned possibility of injuries to human bodies or property damage as a result of disregarding the following cautions.

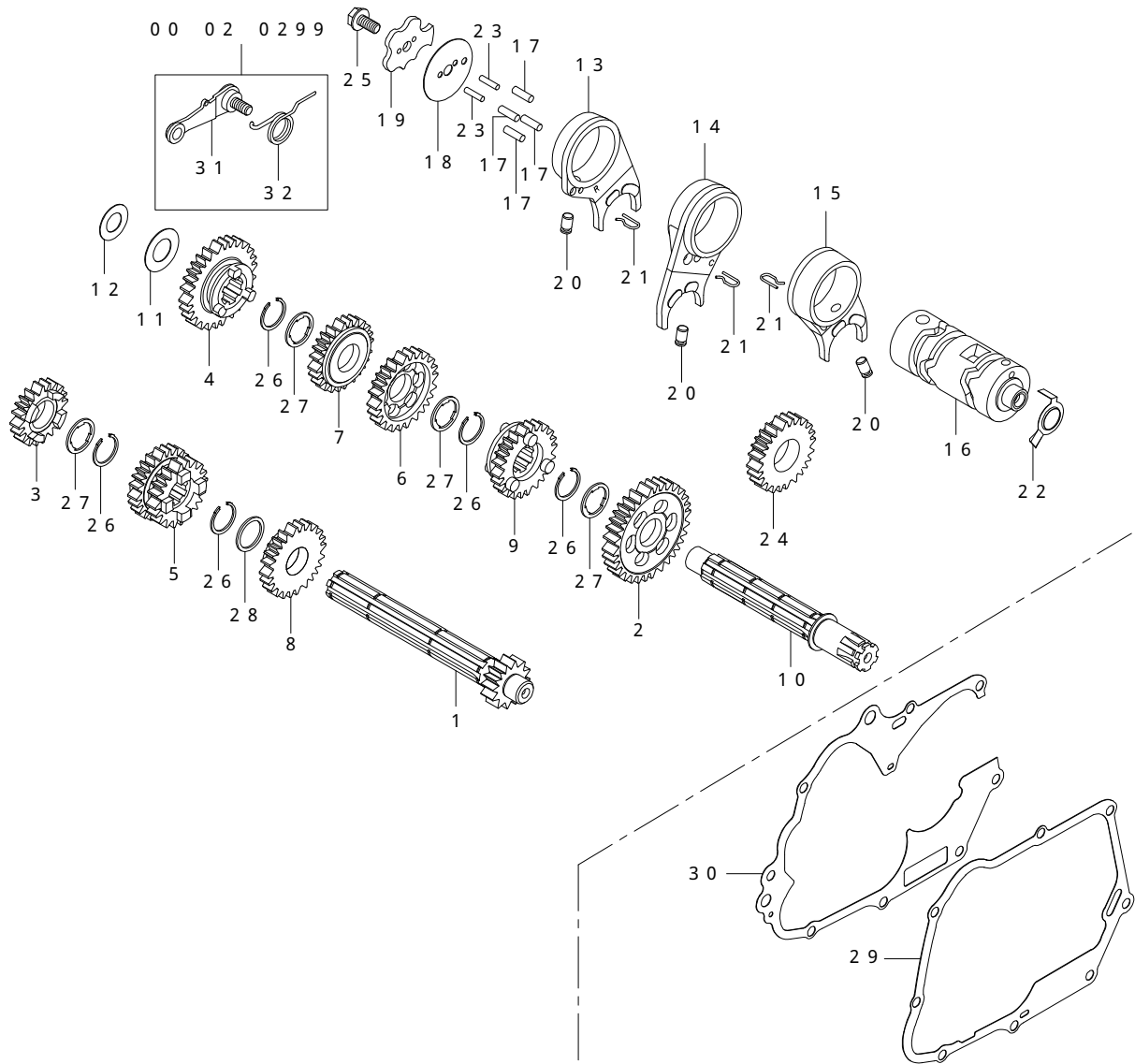
- Please do the work correctly, using the right special tools, when needed. And apply oil or grease to the designated portions.
- In tightening bolts and nuts, be sure to use a torque wrench and tighten them to the specified torque.
- As for gaskets and packings, always use new ones. In case you continue using these parts, carefully check them for wear or damage, and when detected, always replace these worn or damaged ones with new ones.
- The installation of this Kit changes the gear-change pattern to the return system of one down and four up. Shift gears securely only when you have let throttle back to an original position. Shifting gears forcibly or at high engine revolution will cause the gear to get damaged or worn out.
- Before driving, always check hardware for slack in bolts and other parts or for abnormal sound. And when you notice something unusual with your motorcycle while riding, immediately stop riding and park it in a safe place to check what has gone wrong with it.
- When you start the engine with a kick starter, press down the starter arm firmly just when you feel some resistance on the starter arm, or at the time the starter pinion and ratchet fit into each other. Otherwise, the gear will be damaged. And in the case of starting the engine of a racing motorcycle by moving it forward, disengage the clutch after the gear shift, and push it forward. A violent shock to the gear may cause it to get damaged.

Please be informed that, mainly because of improvement in performance, design changes, and cost increase, the product specifications and prices are subject to change without prior notice.

We shall be held free from any kind of warranty whatsoever of products other than this product if the glitch takes place on the other products than this one after the installation and use of this product.

This manual should be retained for future reference.

~ Kit includes ~



02-04-0083 (Super Touring)

No.	Part name	Qty	Repair part item No.	In packs of
1	Main shaft	1	23211-GB4-T01	1
2	Counter shaft first gear (33T)	1	23421-086-T00	1
3	Main shaft second gear (18T)	1	23431-086-T00	1
4	Counter shaft second gear (29T)	1	23441-086-T00	1
5	Main shaft third/fourth gear (21T/24T)	1	23451-086-T00	1
6	Counter shaft third gear (25T)	1	23461-086-T00	1
7	Counter shaft fourth gear (23T)	1	23481-086-T00	1
8	Main shaft fifth gear (26T)	1	23491-086-T00	1
9	Counter shaft fifth gear (21T)	1	23501-086-T00	1
10	Counter shaft	1	23221-GB4-T10	1

02-04-0247 (Super Street)

No.	Part name	Qty	Repair part item No.	In packs of
1	Main shaft	1	23211-GB4-T01	1
2	Counter shaft first gear (33T)	1	23421-086-T00	1
3	Main shaft second gear (17T)	1	23431-GEL-T00	1
4	Counter shaft second gear (30T)	1	23441-GEL-T00	1
5	Main shaft third/fourth gear (20T/22T)	1	23451-GEL-T00	1
6	Counter shaft third gear (28T)	1	23461-GEL-T00	1
7	Counter shaft fourth gear (25T)	1	23481-GEL-T00	1
8	Main shaft fifth gear (24T)	1	23491-GEL-T00	1
9	Counter shaft fifth gear (24T)	1	23501-GEL-T00	1
10	Counter shaft	1	23221-GB4-T10	1

Common Parts

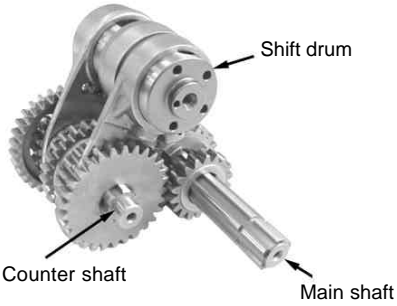
No.	Part name	Qty	Repair part item No.	In packs of
11	Thrust washer, 12mm	1	00-02-0073	1
12	Shim ring, 12x18x0.2	1	00-02-0074	1
13	Right gear shift fork	1	00-02-0014	1
14	Center gear shift fork	1	00-02-0230	1
15	Left gear shift fork	1	00-02-0016	1
16	Gear shift drum	1	24301-181-T20	1
17	Shift drum pin, 4x10	4	00-02-0049	5
18	Gear shift drum side plate	1	00-02-0018	1
19	Gear shift drum stopper plate	1	24411-051-T01	1
20	Gear shift fork guide pin	3	00-02-0048	3
21	Gear shift fork guide pin clip	3	24263-165-T00	1
22	Neutral switch rotor	1	00-02-0028	1
23	Stopper plate setting pin	2	00-02-0054	1
24	Kick starter pinion (25T)	1	28211-165-T20	1
25	Knock bolt, 6mm	1	00-02-0013	1
26	External circlip, 17mm	5	00-02-0005	5
27	Spline washer, 17mm	4	00-02-0023	5
28	Thrust washer S, 17mm	1	00-02-0024	2
29	Right crankcase cover gasket	1	00-01-0095	1
30	Crankcase gasket	1	00-01-0244	1
31	Shift drum stopper arm comp.	1	00-02-0301	1
32	Shift drum stopper spring	1	00-02-0152	1

Please order repair parts with the Repair Part Item No. Without the repair part item NO., we may not be able to accept your orders. Some parts are only available as a set. In this case, please order them with the set number.

~ On installation ~

Please note: Illustrations and photos may vary from actual hardware.

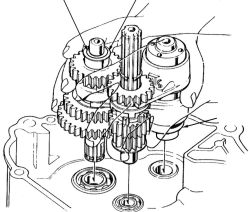
- 1 . Apply grease to the lips of the oil seal of the left side crankcase shift spindle. Apply oil to the bearings of the right and left side crankcases. And place the left side crankcase on the pedestal. Apply oil to the rubbing surfaces of the gears on the sides of the mainshaft and countershaft. And mesh together the gears of the mainshaft and countershaft, and fit the hook of the shift fork into the grooves on the gear.



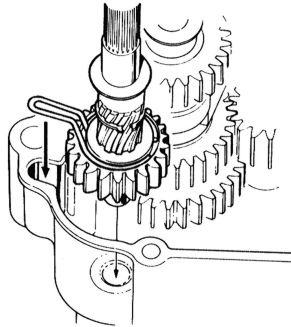
- 2 . Install into crankcase the main shaft, counter shaft and shift drum all together as a unit. Make sure not to forget to install the thrust washer or shim ring. Install the shaft with care so the lip of the countershaft oil seal may not turn up.



Shim ring 12 x 18 x 0.2
Thrust washer, 12mm

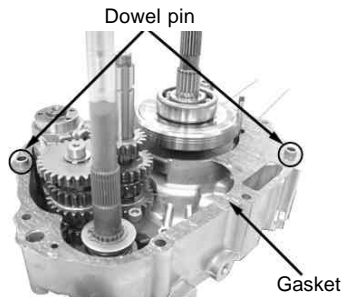


- 3 . Remove, from the kick starter spindle, a 17mm washer, 20mm set ring, starter drive ratchet, 20mm set ring, 20mm thrust washer and starter pinion, in this order. Install the starter pinion included in the Kit onto the kick starter spindle, and install the above-mentioned parts in the opposite order of removal.



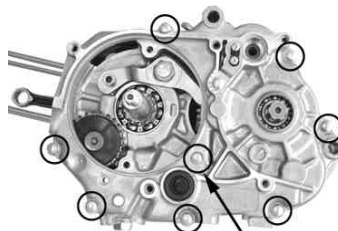
Meshing its friction spring with grooves in the left side crankcase, attach the starter spindle to the left side crankcase. Apply engine oil to the starter pinion and starter spindle.

- 4 . Degrease the mating surfaces of the right and left side crankcases. And set a dowel pin and attach new gaskets.

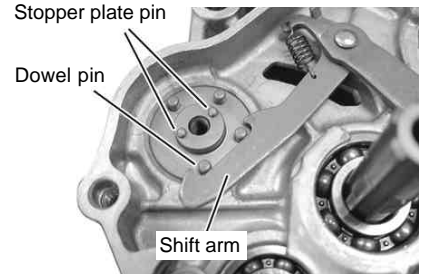


- 5 . Put together the right and left side crankcases. With the left side crankcase up, place the crankcase bolts on the crankcase, and tighten them diagonally in a few steps to the specified torque. Some products do not have this part.

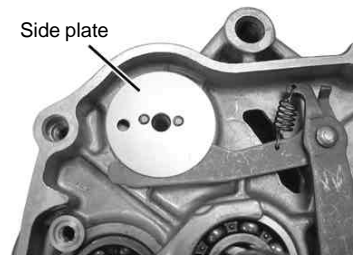
**⚠ Caution: Apply the specified torque.
Torque: 10 N · m (1.0 kgf · m)**



- 6 . Install dowel pin (x4) and stopper plate pin (x2) then Gearshift arm (modified). Apply grease on the shift spindle and shift arm and oil seal.

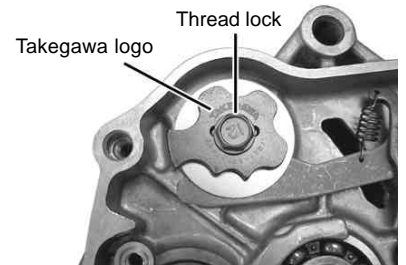


- 7 . Install shift side plate.



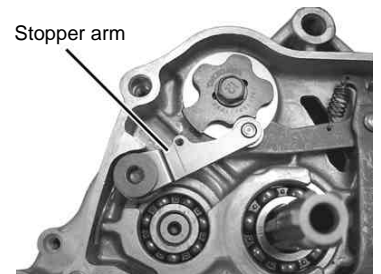
- 8 . Install shift drum plate then tighten specified torque (apply thread lock)

**⚠ Caution: Apply the specified torque.
Torque: 16 N · m (1.6 kgf · m)**



- 9 . Install stopper arm with specified torque.

**⚠ Caution: Apply the specified torque.
Torque: 10 N · m (1.0 kgf · m)**



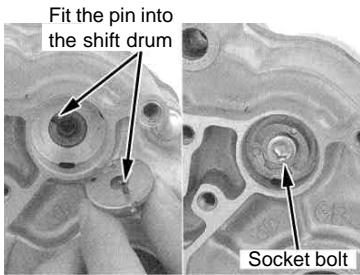
In case of contact plate type Neutral switch.

- Engine No. ****-**388**-****
(Applicable for Engine number from #388 and up.)
- **Special type generator cover.**

1 0 .Fit the pin into the groove on the shift drum, install the contact plate on the shift drum and tighten the socket bolt.

⚠ Caution: Apply the specified torque.
Torque: 10 N · m (1.0 kgf · m)

Never replace neutral switch rotor.



Install a neutral switch.



Regular neutral switch rotor:

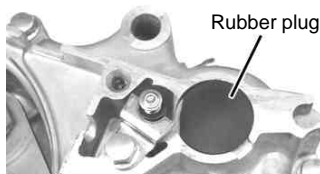
- Engine No. 4SM -10001 ~ 10284
4SMS-00001 ~
2SMS-00001 ~
2SMS-20001 ~
- **Special HD crankcase stamped 「11200-TNC」.**

1 0 . Setting the round corner of the shift drum side washer to face toward the shift drum, tighten a hex bolt to the specified torque.

⚠ Caution: Apply the specified torque.
Torque: 12 N · m (1.2 kgf · m)

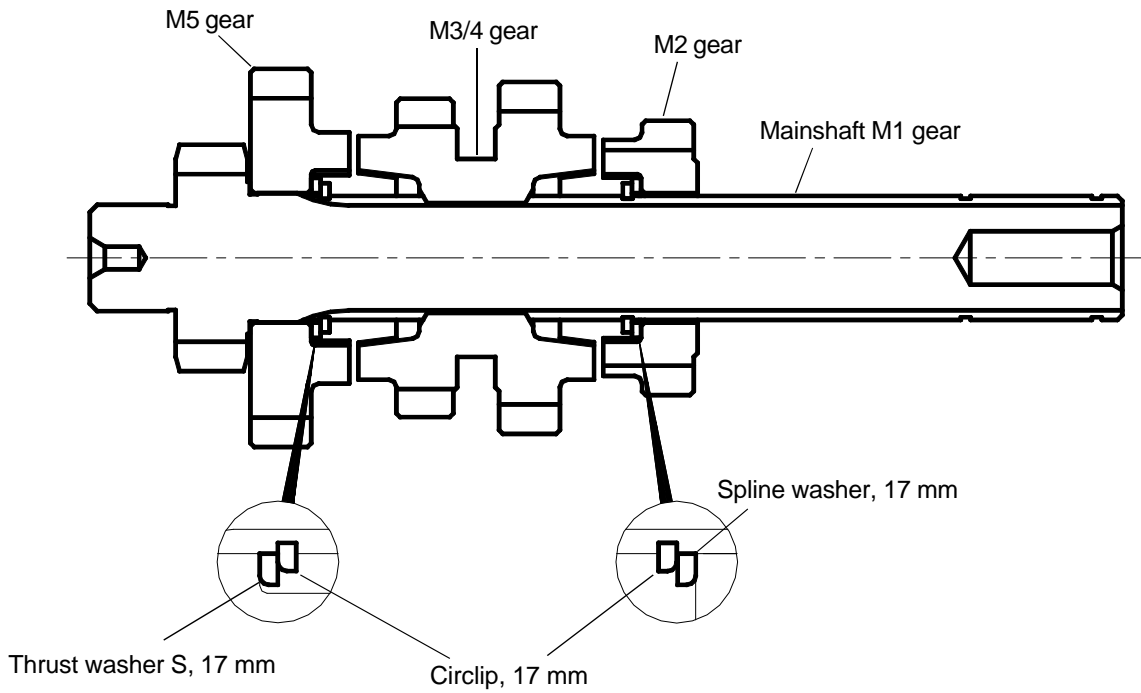


Install the rubber plug.

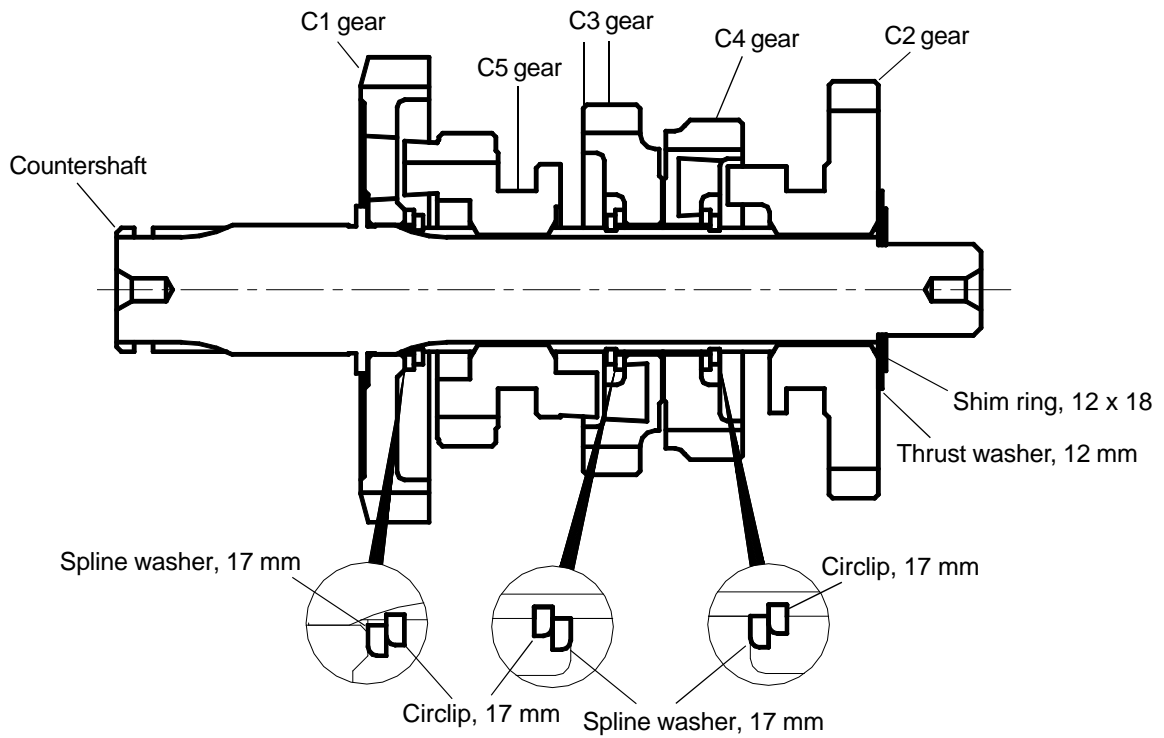


Transmission assembly drawing:

Main shaft assembly



Counter shaft assembly



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