



Instruction Manual for Dry-Type Special Clutch Kit

(common among A and B type spindles, and for a motorcycle equipped with M1-14T)

Item No. 0 2 0 2 1 2 0

Fits:	6V Monkey & 6V Gorilla	Frame No.	Z50J-1300017 ~ Z50J-1805927
Fits:	12V Monkey	Frame No.	Z50J-2000001 ~ / AB27-1000001 ~
Fits:	12V Gorilla	Frame No.	Z50J-2500001 ~ / AB27-1000001 ~
Fits:	Monkey BAJA	Frame No.	Z50J-1700001 ~
Fits:	MONKEY RT	Frame No.	AB22-1007601 ~

Item No. 0 2 0 2 1 2 1 Frame No. AB22-1000017 ~
Fits: Monkey R

Dry-Type Special Clutch & Close Ratio 5-Speed Transmission Kit (B-type spindle)

Item No.: 0 2 0 3 0 0 0 1 / 0 0 0 2 (Street transmission)
Item No.: 0 2 0 3 0 0 0 3 / 0 0 0 4 (Super street transmission)
Item No.: 0 2 0 3 0 0 0 5 / 0 0 0 6 (S-Touring transmission)
Item No.: 0 2 0 3 0 0 0 7 / 0 0 0 8 (Super close-ratio transmission)

- Thank you for purchasing one of our TAKEGAWA's products. You are requested to follow the below-mentioned instructions in installing this Kit.
- Before installation, please check the contents of this Kit. Should you have any questions about the product, please kindly contact your local dealer.

Please read the following before starting the installation.

We do not take any responsibility for any accident or damage whatsoever arising from the use of this product not in conformity with the instructions in this manual.

We shall be held free from any responsibility or compensation whatsoever for any glitch in the parts other than ours if the glitch takes place after the installation and use of this product.

If you make alterations to the product, we shall be held free from any guarantee of the product.

You are kindly requested not to contact us about the combination of our products with other manufacturers'.

This Kit is designed for exclusive use in the above-mentioned fitting models with specified frame numbers only. Please take note that this Kit cannot be mounted on any other types of motorcycles.

For the installation of Item No. 02-02-120 or -121, our TAKEGAWA-made 5-Speed Transmission Kit is necessary. This Kit cannot be installed onto a motorcycle equipped with a stock 4-speed or our TAKEGAWA-made 6-speed transmission, which please note.

Installation of this Kit requires splitting of a crankcase and other work. Please do not fail to prepare and strictly follow a HONDA's genuine service manual to match your motorcycle. In addition, you need to prepare gaskets like cylinder gaskets and packing suitable for the specifications of your vehicle.

If the friction disk gets covered with water, for example when running in the rain, clutch slippage may occur causing the clutch to be nonfunctional. If possible, avoid running in the rain, or when driving your motorcycle is inevitable, try to skirt puddles as much as possible to prevent the friction discs from getting wet.

Water adhering to the friction discs, etc. will corrode these parts, rendering the clutch nonfunctional. Always wipe the water off the friction discs, a clutch plate and other parts and dry them sufficiently after riding in the rain or washing the motorcycle. In the humid or rainy seasons, store your vehicle with the clutch disengaged to prevent the friction discs, clutch plate or other parts from sticking to each other.

Installation of this Kit requires work from removal and mounting of the engine to splitting of the crankcase. At some stages of the installation, some special tools are required and you need to process some parts. Besides, this Instruction Manual, as well as a service manual, is prepared for those who have acquired basic skill and knowledge. Therefore, those who are not skilled or do not have sufficient knowledge may not be able to install the Kit correctly, or in some cases, break the parts.

In the case of Dry-Type Clutch Kit, and if your current mainshaft 1st gear is a 15T close ratio transmission, the mainshaft 1st gear supplied in this Kit is 14T. Accordingly, the 1st gear ratio will change to 2.357 from 2.200. This change of gear ratio, however, does not pose any technical problem.

In the case of Dry-Type Clutch Kit, and if your current mainshaft 1st gear is a 13T close ratio transmission and a B-type kick starter is used, a 33T counter shaft 1st gear (C1-33) and 25TB kick starter pinion (K-25B) are additionally needed for the installation of this Kit. And the 1st gear ratio will change to 2.357 from 2.692.

In the case of Dry-Type Clutch Kit, and if your current mainshaft 1st gear is a 13T close ratio transmission and a A-type kick starter is used, a B-Type Kick Starter Spindle Kit of Item No. 02-04-0011 and 33T counter shaft 1st gear (C1-33) and 25TB kick starter pinion (K-25B) are additionally needed for the installation of this Kit. And the 1st gear ratio will change to 2.357 from 2.692.

In the case of Dry-Type Clutch Kit and Close Ratio Transmission Kit, and if an A-type spindle is used, a B-Type Kick Starter Spindle Kit of Item No. 02-04-001 is additionally needed for the installation of this Kit.

If this product is installed onto the Monkey RT and a HONDA's genuine optional protector is installed onto this vehicle, the release arm of this Kit will interfere with the said protector. As a countermeasure, either uninstall the protector, or cut off the interfering portions.

Installation of the Oil Cooler Kit requires an optional oil outlet of either 09-07-056 or 09-07-057. And a stock muffler or street-up muffler cannot be installed.

Please note that the descriptions in this manual like illustrations and photos may differ from the actual hardware.

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

- Always try to drive your motorcycle at legal speeds on the public road, abiding by the laws.
(Riding a motorcycle at a speed exceeding the legal speed limit is subject to punishment for overspeeding in violation of the Law.)
- Work only when the engine and muffler are cool. (Otherwise, you will get burned.)
- Prepare right tools for the work. (Otherwise, the installation with improper tools could cause breakage of parts or injuries to you.)
- Tighten the bolts and nuts securely to the specified torque with a torque wrench. (Otherwise, these parts may get damaged or come off.)
- As some products and frames have sharp edges or protruding portions, please work with your hands protected.
(Otherwise, you will suffer injuries.)
- Before riding, always check every hardware for slack in parts like screws. If you find slack ones, screw them securely up to the specified torque.
(Or improper torque may cause parts to come off.)

⚠ WARNING The following show the envisioned possibility of human death or serious injuries to human bodies as a result of disregarding the following cautions.

- Those who lack technical skill or knowledge are required not to do the work.
(Improper installation could lead to a motorcycle's overturning or accidents as a result of parts breakage.)
- Rotating parts in the dry-type clutch, such as a clutch outer, are touchable through an opening in a cover. Please never look into or touch them when the engine is running. Moreover, be dressed to protect your legs when riding so you do not get your clothes caught in the rotating parts of the clutch. (Otherwise, the motorcycle may overturn, and you will suffer injury or burn yourself.)
- Always drive the engine in a well-ventilated place, and do not start the engine in an airtight place.
(Otherwise, you will suffer from carbon monoxide poisoning.)
- When you notice something unusual with your motorcycle while riding, immediately stop riding and park your motorcycle in a safe place.
(Otherwise, the abnormality could lead to accidents.)
- Before starting the work, secure your motorcycle firmly on level ground for safety's sake.
(Otherwise, your motorcycle could overturn and injure you while you are working.)
- Carry out inspection or maintenance of your motorcycle correctly according to the procedures in the instruction manual or service manual.
(Improper inspection or maintenance could lead to accidents.)
- If you find damaged parts when checking or performing maintenance of your motorcycle, do not use these parts any longer, and replace them with new ones. (The continued use of these damaged parts as they are could lead to accidents.)
- As gasoline is highly flammable, never place it close to fire. Make sure that nothing flammable is near the gasoline. Since vaporized accumulation of gasoline is at high risk of explosion, work in a well-ventilated place.

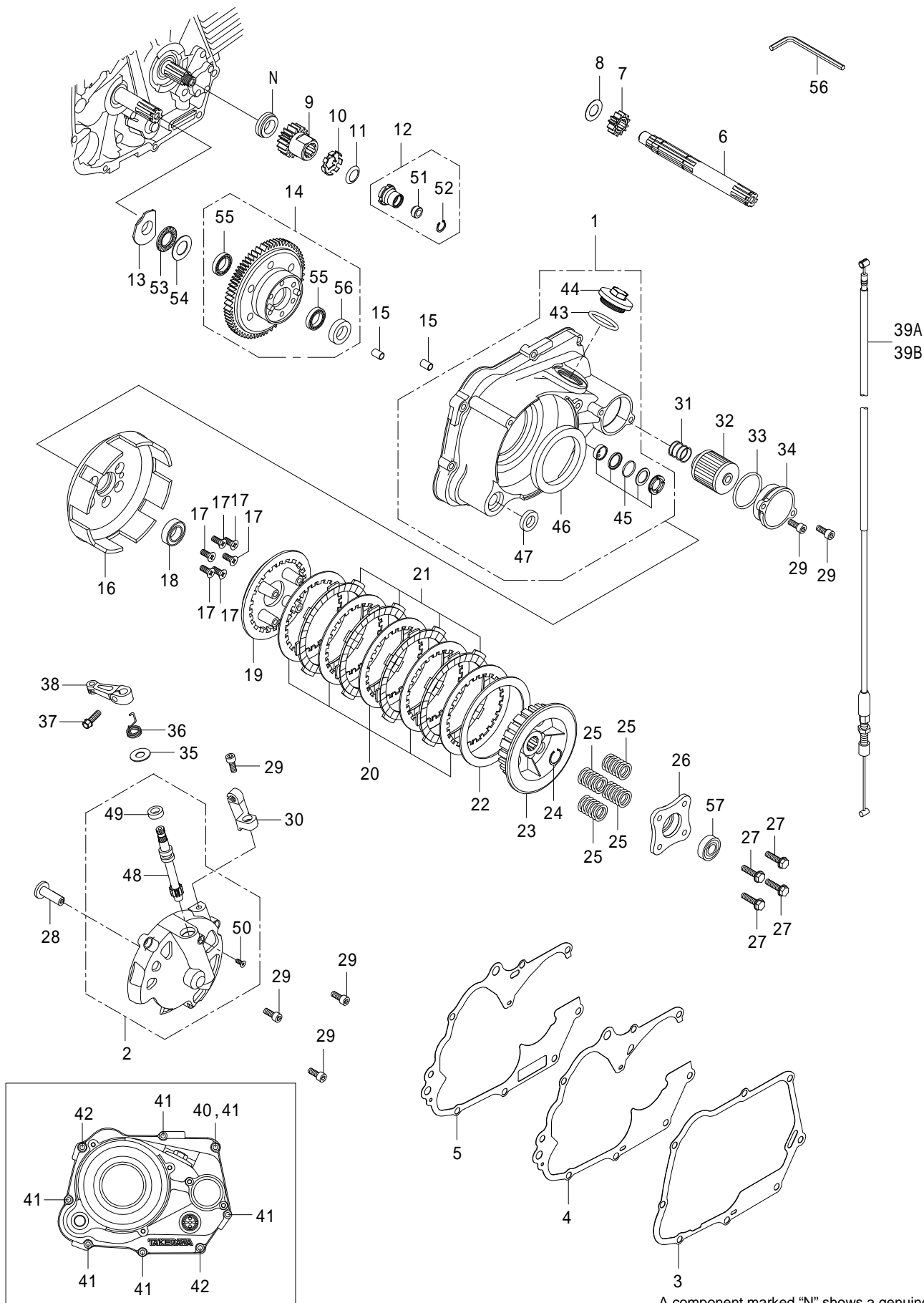
Please be informed that, mainly because of improvement in performance, design changes, and cost increase, the product specifications and prices are subject to change without prior notice.

This manual should be retained for future reference, and keep it at hand so you can refer it any time.

~ Features ~

- As the clutch is installed on the transmission main shaft, the friction loss of the crankshaft can be reduced, and the crankshaft durability and throttle response can be improved.
- Being located outside, this clutch mechanism has an excellent cooling effect. Moreover, since the clutch mechanism does not encounter oil resistance, the clutch disengagement improves.
In addition, this dry-type clutch prevents oil from deteriorating caused by the wear of the clutch discs or the generated heat, and reduces adverse effect on the engine.
- We have designed the number of friction disks to be four so the clutch can match the high-powered engine.
- We have incorporated a damper into the primary driven gear with an aim to reduce the shock felt at the time of clutch engagement.
- We have used a paper-type oil filter to improve the engine oil filterability. And we have created an oil sight window to check the amount of oil left.

~ The clutch consists of ~



A component marked "N" shows a genuine part.

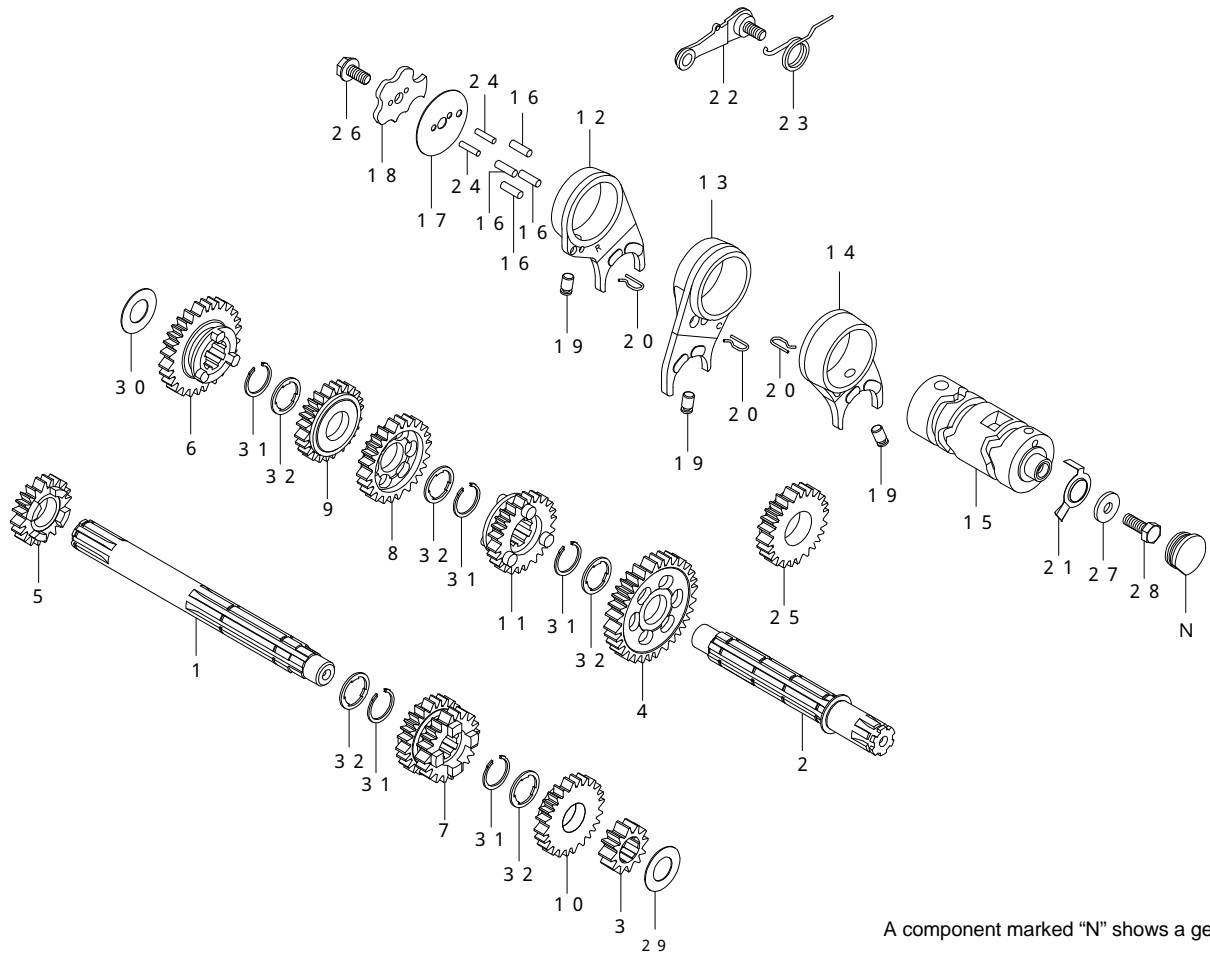
No.	Part name	Qty	Repair part item No.	In packs of
1	Right side crankcase cover COMP.	1	00-02-0068	1
2	Clutch cover COMP.	1	11650-181-T00	1
3	Right side crankcase cover gaskets	1	11394-GW8-T01	1
4	Crankcase gaskets (6V)	1	11191-035-T01	1
5	Crankcase gaskets (12V)	1	11191-GB4-T01	1
6	Main shaft	1	23212-165-T30	1
7	Main shaft first gear (14T)	1	23222-165-T20	1
8	Thrust washer, 14mm	1	00-02-0047	1
9	Primary drive gear (18T)	1	23121-181-T00	1
10	Lock washer	1	90431-001-T00	1
11	Conical spring washer	1	00-02-0036	1
12	Lock nut COMP.	1	90200-181-T00	1
13	Bearing seat	1	22301-181-T00	1
14	Primary driven gear COMP. (67T)	1	23100-GEF-T00-C	1
15	Dowel pin, 8x12	2	000-03-092	3
16	Clutch outer	1	23101-165-T10	1
17	Flat head screw, 6x15	6	00-00-0031	5
18	Seal bearing, 6903	1	NTN-6903LLB	1
19	Clutch pressure plate	1	22351-GEF-T00	1
20	Clutch plate	5	22311-165-T00	1
21	Clutch friction disk (Kevlar)	4	02-02-0003	5
22	Clutch plate B	1	22321-GEF-T00	1
23	Clutch center	1	22120-165-T00	1
24	External circlip, 17mm	1	00-02-0005	5
25	Clutch spring	4	22401-181-T00	1
26	Clutch lifter plate	1	22361-GEY-T10	1
27	Flange hex bolt, 6x22	4	BW-00-0077	4
28	Clutch release rack	1	00-02-0039	1
29	Socket cap screw, 6x15	6	BW-00-0002	10
30	Clutch cable receiver	1	22839-181-T00	1
31	Oil filter spring	1	15413-181-T00	1
32	Oil filter element	1	00-02-0027	1
33	O-ring, 40mm	1	00-02-0040	1
34	Oil filter cover	1	15411-181-T00	1
35	Plain washer, 10mm	1	BW-01-0003	10
36	Clutch arm spring	1	22815-165-T00	1
37	Flange hex bolt, 6x18	1	00-00-0023	5
38	Clutch release arm	1	22812-181-T00	1
39A	Clutch cable COMP., 910mm	1	22870-181-T20	1
39B	Clutch cable COMP., 730mm (Monkey R)	1	22870-181-T10	1
40	Socket cap screw, 6x70 (12V motorcycle)	1	BW-00-0003	2
41	Socket cap screw, 6x25	6	BW-00-0005	10
42	Socket cap screw, 6x30	2	BW-00-0004	5
43	O-ring, 30mm	1	00-01-0034	4
44	Hole cap	1	12361-GEF-T00	1
45	Oil pot window COMP.	1	00-02-0032	1
46	Oil seal, 60x80x8	1	00-02-0044	1
47	Oil seal, 13.8X24X5	1	00-02-0032	1
48	Clutch release pinion	1	23261-28B-T00	1
49	Oil seal, 10X17X5	1	00-02-0006	1
50	Flat head screw, 4X10	1	BW-00-0007	6
51	Oil seal, 6X13X5	1	00-02-0037	1
52	C-ring, 13 mm	1	000-03-093	5
53	Thrust bearing	1	00-02-0061	1
54	Thrust washer	1	00-02-0060	1
55	Ball bearing, 6803	2	00-00-0024	1
56	Oil seal, 17X28X7	1	00-02-0020	1
57	Shield bearing, 6001	1	00-00-0026	1
58	Hex wrench, 5mm	1		

In the case of a Dry-Type Clutch Kit and a Close Ratio Transmission Kit, the close ratio transmission is included in the Kit. Therefore, those parts which will not be used or overlap each other are excluded from the Kit.

In the case of Dry-Type Clutch Kit and Close Ratio Transmission Kit, when you order the repair parts for the close ratio transmission, please quote the Nos in this list for the mainshaft and mainshaft 1st gear, and for other parts, please quote the part Nos in the close ratio transmission.

In ordering repair parts, please quote the Repair Part Item No. There are some parts, however, for which we are not in a position to accept your order in just the quantity to be used. In this case, please take them in the quantity packed.

~ The transmission consists of ~



A component marked "N" shows a genuine part.

02-03-0001/0002 (Street)

No.	Part name	Qty	Repair part item No.	In packs of
1	Main shaft	1	23212-165-T30	1
2	Counter shaft	1	23221-165-T11	1
3	Main shaft first gear (14T)	1	23222-165-T20	1
4	Counter shaft first gear (33T)	1	23421-165-T22	1
5	Main shaft second gear (17T)	1	23431-051-T01	1
6	Counter shaft second gear (30T)	1	23441-051-T01	1
7	Main shaft third/fourth gear (20T/22T)	1	23451-051-T00	1
8	Counter shaft third gear (28T)	1	23461-051-T10	1
9	Counter shaft fourth gear (25T)	1	23481-051-T10	1
10	Main shaft fifth gear (24T)	1	23491-051-T00	1
11	Counter shaft fifth gear (23T)	1	23501-051-T00	1

02-03-0007/0008 (Super close ratio)

No.	Part name	Qty	Repair part item No.	In packs of
1	Main shaft	1	23212-165-T30	1
2	Counter shaft	1	23221-165-T11	1
3	Main shaft first gear (14T)	1	23222-165-T20	1
4	Counter shaft first gear (33T)	1	23421-165-T22	1
5	Main shaft second gear (19T)	1	23431-165-T00	1
6	Counter shaft second gear (29T)	1	23441-165-T01	1
7	Main shaft third/fourth gear (21T/23T)	1	23451-165-T00	1
8	Counter shaft third gear (27T)	1	23461-165-T00	1
9	Counter shaft fourth gear (26T)	1	23481-165-T00	1
10	Main shaft fifth gear (24T)	1	23491-165-T01	1
11	Counter shaft fifth gear (24T)	1	23501-165-T00	1

02-03-0003/0004 (Super Street)

No.	Part name	Qty	Repair part item No.	In packs of
1	Main shaft	1	23212-165-T30	1
2	Counter shaft	1	23221-165-T11	1
3	Main shaft first gear (14T)	1	23222-165-T20	1
4	Counter shaft first gear (33T)	1	23421-165-T22	1
5	Main shaft second gear (17T)	1	23431-051-T01	1
6	Counter shaft second gear (30T)	1	23441-051-T01	1
7	Main shaft third/fourth gear (20T/22T)	1	23451-051-T00	1
8	Counter shaft third gear (28T)	1	23461-051-T20	1
9	Counter shaft fourth gear (25T)	1	23481-051-T10	1
10	Main shaft fifth gear (24T)	1	23491-165-T01	1
11	Counter shaft fifth gear (24T)	1	23501-165-T00	1

Common Parts

No.	Part name	Qty	Repair part item No.	In packs of
12	Right gear shift fork	1	00-02-0014	1
13	Center gear shift fork	1	00-02-0015	1
14	Left gear shift fork	1	00-02-0016	1
15	Gear shift drum	1	24301-181-T12	1
16	Dowel pin, 4x10	4	00-02-0049	5
17	Gear shift drum side plate	1	00-02-0018	1
18	Gear shift drum stopper plate	1	24411-051-T01	1
19	Gear shift fork guide pin	3	00-02-0048	3
20	Gear shift fork guide pin clip	3	24263-165-T00	1
21	Neutral switch rotor	1	00-02-0090	1
22	Shift drum stopper arm COMP.	1	00-02-0025	1
23	Shift drum stopper spring	1	24435-GEF-T00	1
24	Stopper plate setting pin	2	00-02-0054	1
25	Kick starter pinion (25T)	1	28211-165-T20	1
26	Knock bolt, 6mm	1	00-02-0013	1
27	Plain washer, 6X17X2.3	1	00-02-0050	1
28	Hex bolt, 6x16	1	00-00-0032	3
29	Thrust washer, 14mm	1	00-02-0047	1
30	Thrust washer, 13.5mm	1	00-02-0055	1
31	External circlip, 17mm	5	00-02-0005	5
32	Spline washer, 17mm	5	00-02-0023	5

02-03-0005/0006 (S-Touring)

No.	Part name	Qty	Repair part item No.	In packs of
1	Main shaft	1	23212-165-T30	1
2	Counter shaft	1	23221-165-T11	1
3	Main shaft first gear (14T)	1	23222-165-T20	1
4	Counter shaft first gear (33T)	1	23421-165-T22	1
5	Main shaft second gear (18T)	1	23431-181-T00	1
6	Counter shaft second gear (29T)	1	23441-181-T00	1
7	Main shaft third/fourth gear (21T/24T)	1	23451-181-T10	1
8	Counter shaft third gear (25T)	1	23461-181-T10	1
9	Counter shaft fourth gear (23T)	1	23481-181-T10	1
10	Main shaft fifth gear (26T)	1	23491-181-T00	1
11	Counter shaft fifth gear (21T)	1	23501-181-T00	1

In ordering repair parts, please quote the Repair Part Item No. There are some parts, however, for which we are not in a position to accept your order in just the quantity to be used. In this case, please take them in the quantity packed.

~ On processing ~



CAUTION

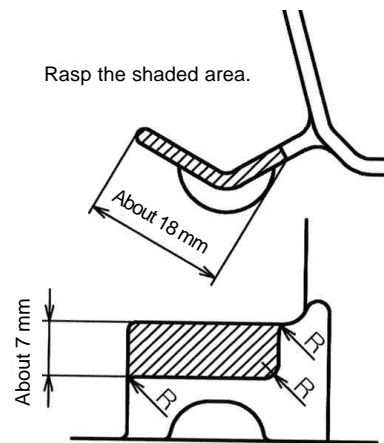
Always work with gloves on to protect your hands. Otherwise, you may suffer injuries.

Left side crankcase

- Fold down the circled portion on the left side crankcase with a plier, and rasp the circled portion with a file or a hand grinder. Then wash the left side crankcase with water.
Cover the bearings with a tape not to get any dirt, dust or chips into them.
Work with gloves on lest you should cut your hands with edges of the case.



Rasp here.



- In case a kick starter pinion and a left side crankcase interfere with each other on motorcycles with frame Nos from AB27- onwards, cut off the circled portion until the gear does not touch it any more.
Cover the bearings with a tape not to get any dirt, dust or chips into them.
Work with gloves on lest you should cut your hands with edges of the case.



Rasp here.

Gearshift arm

- Rasp the tip of the gearshift arm.
Work with gloves on lest you should cut your hands with edges of the shift arm.

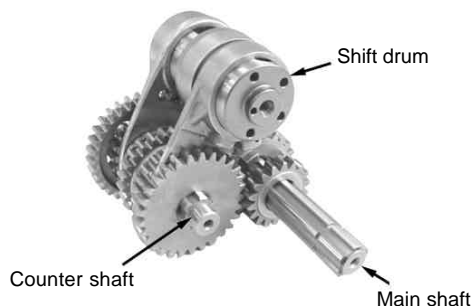
Rasp the shaded area.



Life size

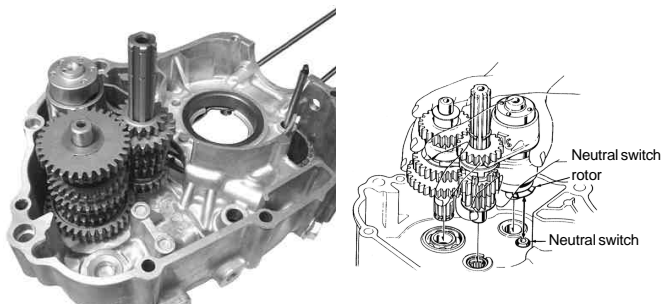
~ On installation ~

- 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.



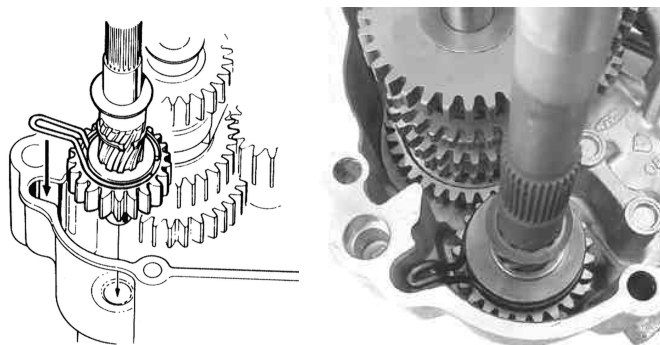
- 2 . Install into crankcase the main shaft, counter shaft and shift drum all together as a unit.

Do above installation with the transmission in neutral, or at the position where the neutral switch and switch rotor mesh together. Never forget to install the thrust washer. As the stock washer is not to be used, remove it. Install the shaft with care so the lip of the countershaft oil seal may not turn up.



- 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.

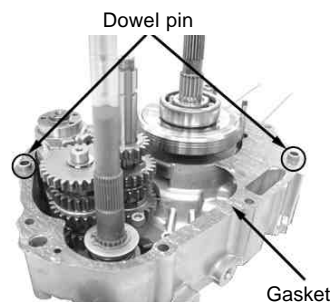
Install the starter pinion included in the Kit onto the kick starter spindle, and install the above-mentioned parts in the opposite order of removal.



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.

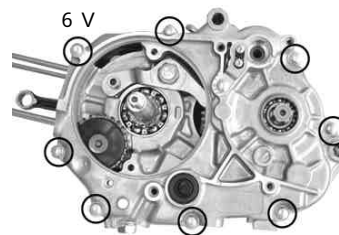
- 4 . Degrease the mating surfaces of the right and left side crankcases. And set a dowel pin and attach new gaskets. Put together the right and left side crankcases, and check that they fit together closely. With the left side crankcase up, place the bolts, and tighten first those placed in the middle, and then those placed outside but diagonally and alternately.

Specified torque: 10 N · m (1.0 kgf · m)



- 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.

Specified torque: 10 N · m (1.0 kgf · m)

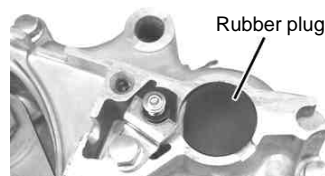


- 6 . Setting the round corner of the shift drum side washer to face toward the shift drum, tighten a hex bolt to the specified torque.

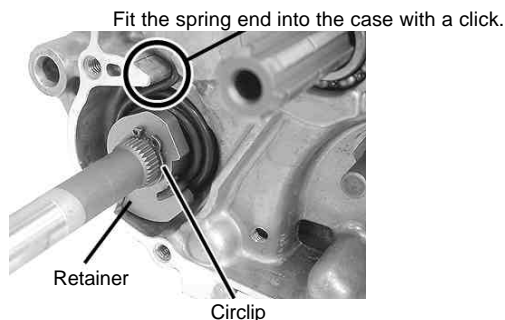
Specified torque: 12 N · m (1.2 kgf · m)



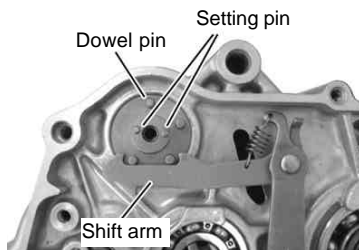
Install the rubber plug.



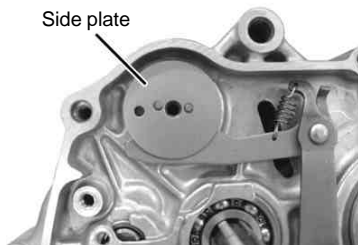
- 7 . Turn around the crankcase so the right side crankcase faces upwards. And install the kick starter spring and kick spring retainer to the starter spindle. And fit the spring end into the case with a click. And install the external circlip.
- Be careful not to get your fingers caught when fitting the spring into the case.



- 8 . Fit four dowel pins and two stopper plate setting pins into the shift drum, and install the processed gear shift arm onto crankcase. Apply engine oil to the sliding surface of the shift spindle and gear shift arm. Apply grease to the lip of the oil seal for the left side crankcase shift spindle.



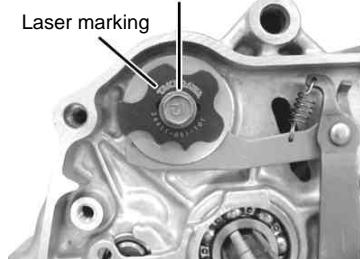
- 9 . Install the shift-drum side plate on the shift drum, meshing the holes on the shift drum side plate with the shift drum setting pin.



- 10 . Fit the shift drum stopper plate into the shift drum setting pin, keeping the marking on the plate visible. And then, apply thread lock cement to the thread of the dowel bolt, and tighten it to the specified torque.

Specified torque: 16 N · m (1.6 kgf · m)

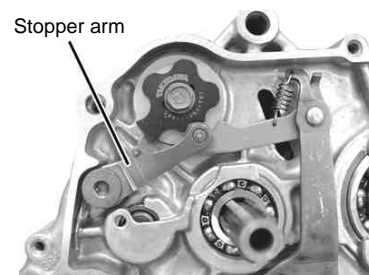
Apply the screw locking agent.



- 11 . Place the spring in the stopper arm, fit them into the stopper plate on the case, and tighten the bolt to the specified torque.

Specified torque: 10 N · m (1.0 kgf · m)

Be careful not to get your fingers caught when fitting the spring into the case.



- 12 . Turning the mainshaft with hands, turn the knock bolt on the stopper plate with a socket wrench, and check if the gears can shift smoothly.

Check that there is some free play in the mainshaft and countershaft in the direction of thrusting.

Do not turn the shift drum forcibly.

Reinstall back the removed parts with reference to the service manual. Shift the transmission into NEUTRAL, and start the engine. Then check every component for oil leak. If nothing is wrong, do a test run at slow speed in a safe place to check how the transmission works.

~ On installation ~

Check the contents of each kit

(Transmission and Dry-Type Clutch Kits)

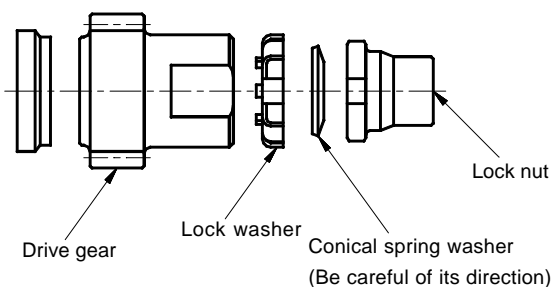
- 1 . Make sure that your motorcycle is secure on a maintenance stand. Referring to the service manual, demount the engine.
- 2 . Place the removed engine on a working table so it stands stable. And referring to the service manual, split the crankcase and take out the transmission.
- 3 . Change the mainshaft for the transmission from the wet-type to the dry-type.
In installing each gear, be careful about its direction. Install the M1 gear with the protrusion facing the M5 gear.
- 4 . Install the transmission into the crankcases, replace the crankcase gaskets with new ones, and fit the crankcases together.
If your transmission has a 14mm thrust washer between the mainshaft 1st speed gear and crankcase, replace it with a new one. And if your transmission does not have a 14mm thrust washer, attach one.
- 5 . Referring to a HONDA's genuine service manual, reinstall the parts removed at the time of splitting the crankcase.
At this point, however, keep the crankshaft and transmission mainshaft bare of hardware.

(Transmission, Dry-Type Clutch Kit and Close Ratio Transmission Kit)

- 1 . Make sure that your motorcycle is secure on a maintenance stand. And referring to the service manual, demount the engine.
- 2 . Place the removed engine on a working table so it stands stable. And referring to the service manual, split the crankcase and take out the transmission.
- 3 . Referring to the instruction manual for Close Ration Transmission Kit, install the transmission into the crankcases, replace the crankcase gaskets with new ones, and fit the crankcases together.
- 4 . Referring to the instructions in the HONDA's genuine service manual, reinstall the parts removed at the time of splitting the crankcase.
At this point, however, keep the crankshaft and transmission mainshaft bare of hardware.

(On installation of the primary gear)

- 1 . Fit a stock collar into the crankshaft. Then fit a primary drive gear, lock washer and conical spring washer in this order, and loosely tighten them for now with a lock nut whose oil seal has been greased. Locate the lock washer and conical spring washer, being careful of their direction.

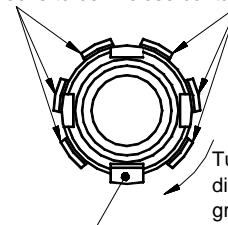


- 2 . Fit the clutch bearing seat into the transmission mainshaft. (Set the bearing seat so its folded portion fits well with the crankcase so as to prevent it from rotating.)
Then, fit the thrust bearing and thrust washer in this order into the mainshaft.
- 3 . Apply engine oil to the ball bearing of the primary driven gear COMP. , and then the grease to the oil seal. And insert the primary driven gear COMP. into the mainshaft.
Take off the protective masking tape on the primary driven gear COMP., wipe off the tape mark with thinner or the like, and then apply a thin coat of grease to the tape mark.
- 4 . Tighten the lock nut to the specified torque with the crankshaft being seated in detent.

Specified torque: 39 N · m (4.0 kgf · m)

After tightening the lock nut to the specified torque, and if the hook on the lock washer does not fit in the lock nut grooves, turn the lock nut in the direction of tightening so the hook fits in the lock nut groove. Keep other hooks on the lock washer in close contact with the lock nuts.

Set the hooks to be in close contact with the lock nut.



Fit the hooks into the lock nut grooves.

(Installation of the right side crankcase cover)

- 1 . Degrease the mating surfaces of the crankcases, and attach the supplied two dowel pins and right side crankcase cover gaskets to the crankcase.
Apply grease to the lip of the oil seal in the right side crankcase cover.
- 2 . Put in the case straight along the mainshaft so as not to damage the oil seal of the right side crankcase cover COMP. and that of the lock nut. Then, temporarily fix the right side crankcase cover onto the crankcase by tightening cap screws from the center of the case to the outside diagonally to the specified torque.

Specified torque: 10 N · m (1.0 kgf · m)

(Installation of clutch)

- 1 . Put a clutch outer COMP. into the mainshaft, which loosely tighten for now with a flat head screw. And screw it up diagonally to the specified torque.
Torque: 10 N · m (1.0 kgf · m)
- 2 . Attach the seal bearing to the mainshaft.
- 3 . To the clutch center, attach a clutch plate B, clutch plate and then clutch friction disk alternately in this order, and install a clutch pressure plate.
Degrease the oil on the clutch plate thoroughly, since the oil remaining on it causes slippage.
Check that the clutch center and the clutch pressure plate are meshing with each other closely.
- 4 . Holding the boss of the clutch pressure plate, align the protruding portion of the clutch friction disk with the clutch outer grooves. At the same time, align the clutch center with the mainshaft spline, and insert the mainshaft.

- 5 . Attach the supplied external circlip to the grooves in the main shaft. Make sure to place the circlip with the angular side facing out.

Do not expand the external circlip more than necessary.

If the external circlip does not easily fit into the main shaft grooves, fit it while pulling the mainshaft with a needle nose plier or the like.

- 6 . Fix the clutch spring to the boss of the clutch pressure plate.
- 7 . Fix the 6x22 hex flange bolt on the clutch pressure plate and tighten them with hands as hard as possible, with the bearing of the clutch lifter plate facing outside.

Pull the clutch lifter plate toward you and see if there is a clearance between the friction disks. If there is a clearance, this shows that the clutch center and the clutch pressure plate have got out of place with each other. Therefore, turn the clutch lifter plate to the right and left a little until they fit each other.

After making sure they fit closely, gradually tighten the 6x22 hex flange bolt diagonally, while pulling the clutch lifter plate toward you. Finally, tighten them to the specified torque.

Specified torque: 10 N · m (1.0 kgf · m)

Do the work carefully so the clutch spring does not get out of place.

(Installation of clutch cables)

- 1 . Referring to the instructions in the HONDA's genuine service manual, reinstall back the parts removed at the time of splitting the crankcase and mount the engine on the frame.

- 2 . Attach the clutch cable receiver to the clutch cover COMP. with a socket cap screw, and tighten the screw to the specified torque.

Specified torque: 10 N · m (1.0 kgf · m)

- 3 . After making sure that a clutch release rack is present inside the clutch cover COMP., fit it securely into the right side crankcase cover and hold it loosely for now with a cap screw, and tighten the screw to the specified torque.

Specified torque: 10 N · m (1.0 kgf · m)

Apply grease to the clutch release rack.

- 4 . Attach the clutch cable end to the clutch lever.

- 5 . Route the clutch cable to the receiver, being careful not to stretch it too tight.

- 6 . Slightly apply grease to the clutch cable end, and fit the clutch cable into the clutch release arm.

Set and fit the clutch cable so the notch on the clutch release arm faces backward.

- 7 . Screw in the adjuster on the clutch cable to the cable receiver to the end.

- 8 . Fix into the release pinion the clutch arm spring and release arm with its inner cable of the clutch cable stretched . Tighten it with a cap screw to the specified torque.

Specified torque: 7 N · m (0.7 kgf · m)

Install the release arm by aligning the serrations with each other.

If the release arm is pressed inside forcibly without aligning the serrations, then the release arm will break, getting unusable.

- 9 . Adjust the free play at the clutch with the adjuster on the clutch cable receiver, then tighten the locking nuts to the specified torque, and cover the clutch cable adjusters at both ends with rubber caps.

Specified torque: 10 N · m (1.0 kgf · m)

Adjust the free play at the clutch lever end to be 10 to 20 mm.

(Installation of oil filter cover)

- 1 . Put the oil filter spring into the right side crankcase cover.

Please see to it that it fits in the boss in the crankcase. Also attach the oil filter, and then fix the oil filter cover by tightening a cap screw to the specified torque.

Specified torque: 10 N · m (1.0 kgf · m)

Place the oil filter so that it sticks into the protrusion on the oil filter cover.

Unless the oil filter spring is set correctly inside the protrusion on the oil filter, there will be a gap between the oil filter cover and the right side crankcase cover COMP.

When replacing the oil filter, wipe off the oil on the mating surface of the O-ring and the oil filter cover, and then apply grease to the O-ring thinly.

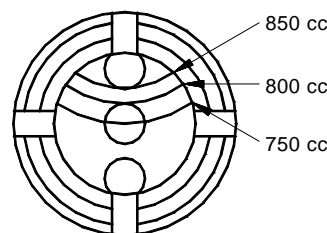
- 2 . Referring to the HONDA's genuine service manual, reinstall back all the parts removed at the time of demounting the engine.

- 3 . After checking that the drain bolt is tightened to the specified torque of { **21.5 N · m (2.2 kgf · m)** }, inject 800 cc of engine oil, attach an O-ring to the hole cap, and tighten it to the specified torque.

Specified torque: 12 N · m (1.2 kgf · m)

Apply engine oil slightly to an O-ring of the hole cap.

In case the crankcase is not to be split (at the time of oil change), add 750 cc of engine oil.



Use above figures just as a guideline on the oil level at the time of crankcase splitting.

(Inspection after installation)

- 1 . With the engine turned off, shift the transmission to the first gear. Squeeze the clutch lever. Then, check that the rear wheel rotates when you move the machine, and that the rear wheel does not rotate when you have released the clutch lever.

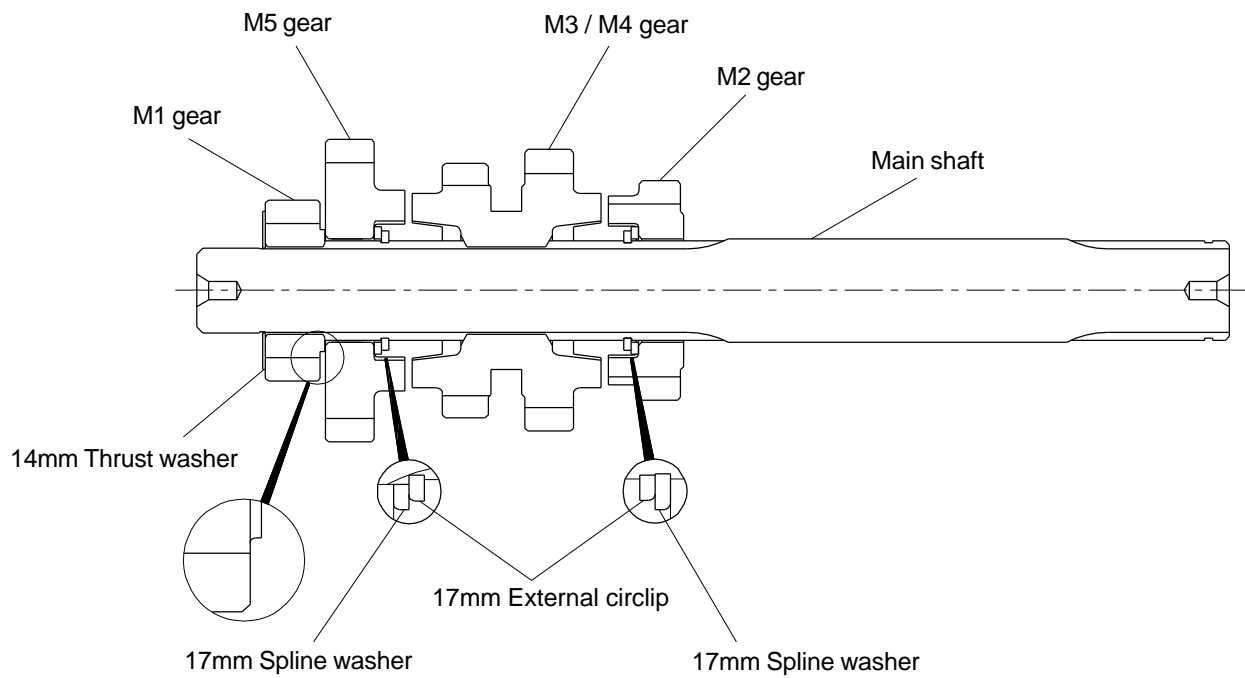
- 2 . Shift the transmission into NEUTRAL, and start the engine.

Then check each component for oil leak.

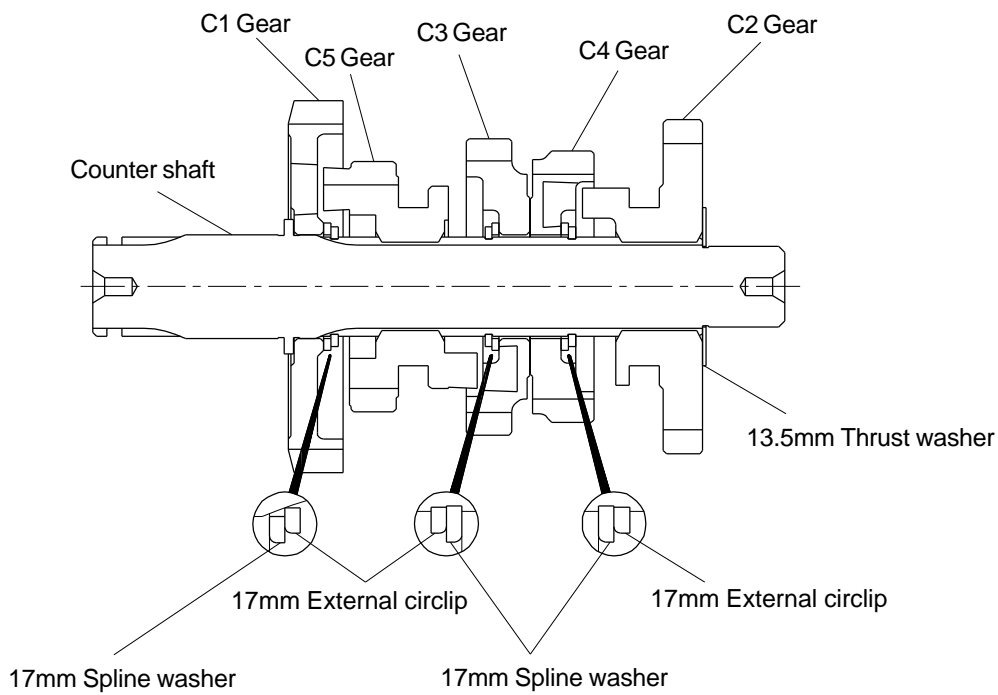
If nothing is wrong, do a test run at slow speed in a safe place to check how the clutch works.

Transmission assembly drawing:

Main shaft assembly



Counter shaft assembly



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