



# Instruction Manual for 5-Disc Heavy-Duty Clutch Kit

Item No. :	0 2 0 1 0 3 0 8
Applicable models :	Ape50 (AC16-1000001 ~ )
	Ape100 (HC07-1000001 ~ )
	DREAM50 (AC15-1000001 ~ )
	XR50Motard (AD14-1000001 ~ )
	XR100 Motard (HD13-1000001 ~ )
	XR80 (HE01-1000001 ~ )
	XR100R (HE03-1000001 ~ )
	CRF100F (HE03-2400001 ~ )

Thank you for purchasing one of our TAKEGAWA's products. Please strictly follow the following instructions in installing and using the products. Before fitting the products, please be sure to check the contents of the kit. Should you have any questions about the products, please kindly contact your dealer.

## Features

Compared with the stock clutch (3 discs in Ape50 and 4 discs in Ape100), the installation of the 5 friction discs increases clutch-transmission capacity 33% from that of Ape50 and 25% from that of Ape100, and reduces the chances of slipping. This kit is also so designed to be compatible with a high-power engine as well as a stock engine.

The number of clutch dampers is increased from 4 to 6, consequently increasing the damper capacity.

Reduction gear ratio is changed from 2.187 to 1.833, consequently raising the discharge amount of the oil pump by about 20%.

Primary reduction gear ratio is changed from 4.437 to 3.833 and the gear is about 16% higher geared, consequently broadening the range of choice of driven sprockets.

We have adopted a reinforced clutch spring.

## Please read the following instructions before installation.

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

This kit is designed for exclusive use in the above-mentioned types of motorcycles and frame numbers only. Please take note that this product cannot be mounted on other types of motorcycles.

Please prepare a HONDA's genuine part service manual for the above-mentioned applicable vehicle, and work with enough care following instructions in the service manual. Besides, this instruction manual, as well as the HONDA service manual, is prepared for those who have acquired basic skill and knowledge in tuning. We recommend those who are technically inexperienced or without right tools to ask a technically-trustworthy specialist shop to do the work.

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.

If you make alterations to the product outside our factory, 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'.

Bolts, nuts, dowel pins and bearings will be reused. However, be sure to replace worn-down or severely-damaged ones with new ones.

Engine oil must be API SF or higher class, such as SAE 10W-40 / 15W-50, which are our recommendations.

This instruction manual is aimed at the Ape types of motorcycles. For other vehicles, please refer to a service manual for each motorcycle to perform installation work.

As the primary reduction gear ratio is changed, sprocket settings need to be updated.

**CAUTION** The following show the envisioned possibility of injuries to human bodies and property loss as a result of disregarding the following cautions.

- Work only when the engine and the muffler are cool. (Otherwise, you will burn yourself.)
- Prepare right tools for the work, and do the work in the proper and right way. (Otherwise, improper work could cause breakage of parts or injuries to yourself.)
- Always use a torque wrench to screw bolts and nuts tight and securely to the specified torque. (Improper torque could cause these parts to get damaged or fall off.)
- As some products and frames have sharp-pointed or protruding portions, please work with your hands protected. (Otherwise, you will suffer injuries.)
- Before riding, always check every section 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.)
- Gaskets and packings must be replaced with new ones before riding. Besides, check carefully those parts to be reused, and in case wear or damage is detected, always replace them with new ones.

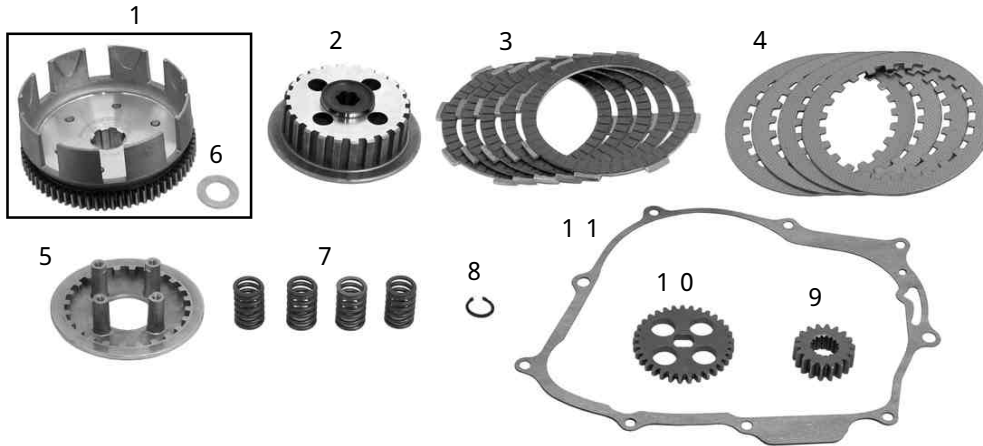
**WARNING** The following show the envisioned possibility of human death or serious injuries to human bodies as a result of disregarding the following cautions.

- Always drive the engine in a well-ventilated place, and do not switch the engine on in an airtight place. (Otherwise, you will suffer from carbon monoxide poisoning.)
- When you notice something abnormal with your motorcycle while riding down a road, stop riding immediately and park your motorcycle in a safe place. (Otherwise, the abnormality could lead to an accident.)
- Before doing work, place the motorcycle on level ground to stabilize the position of your motorcycle for safety's sake. (Otherwise, your motorcycle could fall down and injure you while you are working.)
- Check or perform maintenance of parts correctly according to the procedures in the instruction manual or a service manual. (Improper checking or maintenance could lead to an accident.)
- If you find damaged parts when checking and 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 an accident.)

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.

## ~ Kit Contents ~



No.	Parts Name	Qty	Repair Part Item No.	In packs of
1	Clutch outer COMP. (69T)	1	02-010-0018	1
2	Clutch center	1	22120-KRL-T00	1
3	Clutch friction disc	5	21253-11	1
4	Clutch plate	4	21253-12	1
5	Clutch pressure plate	1	21273-10	1
6	Thrust washer, 17mm	1	22120-55	1
7	Clutch spring	4	020-01-0013	4
8	External circlip, 17mm	1	21253-50	5
9	Primary drive gear (18T)	1	23121-KRL-T10	1
10	Oil pump drive gear (33T)	1	15131-KRL-T10	1
11	Right side crankcase cover gasket	1	000-13-044	1

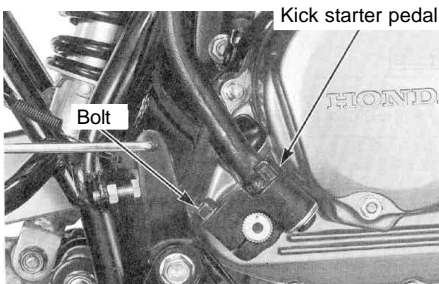
Please order repair parts by indicating the Repair Part Item No. as listed above. As you see from the list, there are some parts for which we are not in a position to accept your order in the quantity of one. In this case, please order the required parts as a set part unit.

## ~ Installation Procedures ~

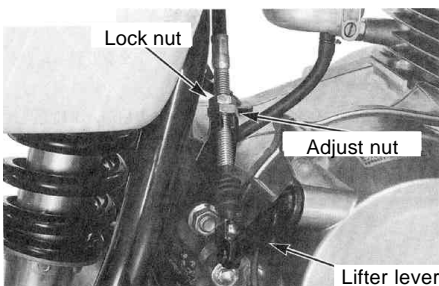
### Disassembly

1 . Unfasten a drain bolt to drain engine oil.

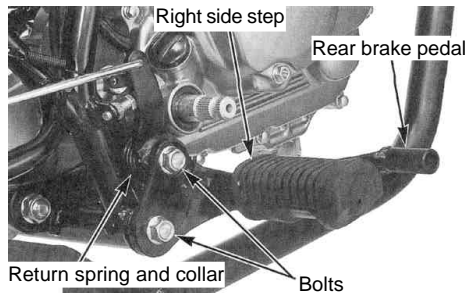
2 . Unfasten a split clamp bolt for a kick starter pedal, and remove the kick starter pedal.



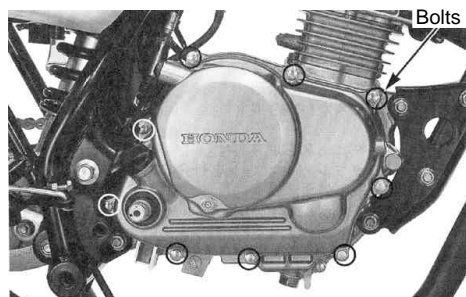
3 Loosen a lock nut and an adjust nut on the clutch cable guide, and disconnect a clutch cable from the clutch lifter lever.



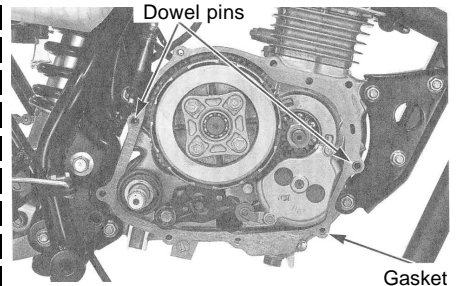
4 Remove two bolts, a right side step, a rear brake pedal, a return spring and a collar.



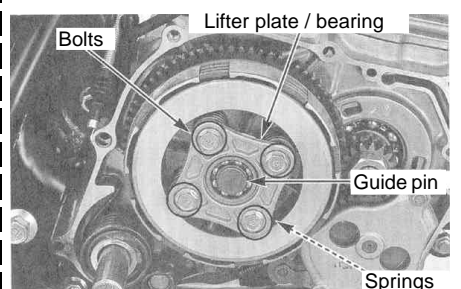
5 . Unfasten nine bolts on the right side crankcase cover to remove the right side crankcase cover. When removing the right side crank cover, be careful not to damage the oil seal of the kick starter spindle.



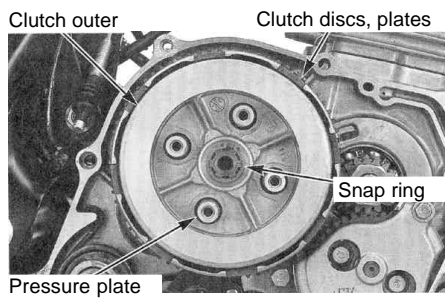
6 . Remove a gasket and two dowel pins. When removing the gasket material of the case and the cover, be careful not to damage the mating surfaces.



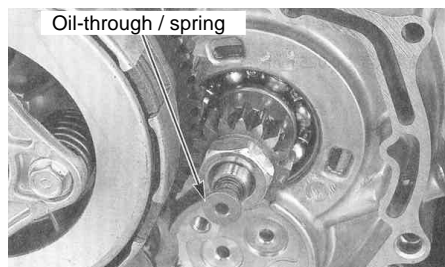
7 . Loosen clutch lifter plate bolts diagonally in a few steps, and remove the four lifter plate bolts, a lifter plate / bearing, and four clutch springs.



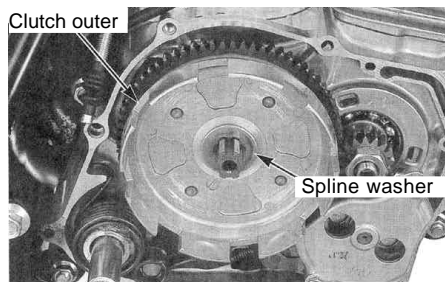
- 8 . After removing a snap ring, pull out a clutch pressure plate, friction discs, plates, and the center all joined together as a unit.



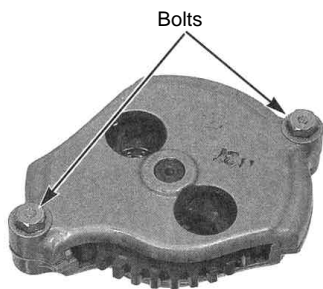
- 9 . Remove an oil-through and a spring, and set a whirl-stop using a gear holder or the like. Loosen a primary drive gear's nut and remove the gear and lock washer.



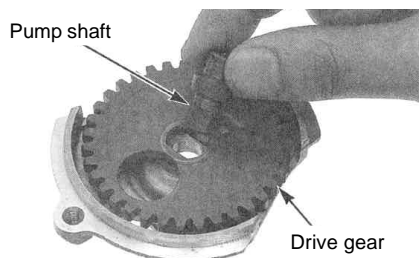
- 10 . Unfasten a spline washer, and remove a clutch outer.



- 11 . Unfasten bolts on the oil pump drive gear cover, and remove the drive gear cover.



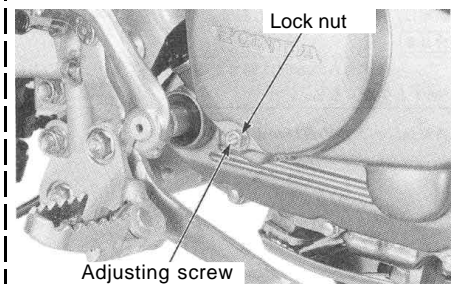
- 12 . Unfasten a pump shaft, and remove the drive gear.



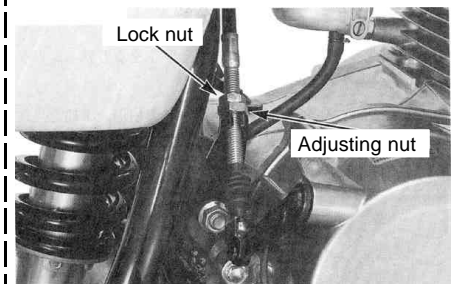
## Assembly

- 1 . Install a kit's drive gear onto the oil pump body, and fix the shaft, fitting together the notches on the oil pump and gear hole.
- 2 . Install an oil pump drive gear cover, and install and tighten cover bolts to the specified torque.  
**Torque: 5 N · m (0.5 kgf · m)**
- 3 . Install a primary drive gear, and attach a lock washer, and tighten a nut temporarily.
- 4 . Install a clutch outer to the shaft. Attach a kit's spacer and then the spline washer. Set a whirl-stop using a gear holder or the like. Install and tighten drive gear lock nuts to the specified torque.  
**Torque: 39 N · m (4.0 kgf · m)**
- 5 . Apply engine oil to both sides of every clutch disc, and install five clutch discs and four clutch plates alternately. Then install a pressure plate.
- 6 . Install a clutch center, discs, plates, and a pressure plate first, and then install the snap ring.
- 7 . Fit in clutch springs and fix the lifter plate. Attach and tighten bolts to the specified torque diagonally in a few steps.  
**Torque: 10 N · m (1.0 kgf · m)**
- 8 . Install an oil-through and a spring to the crank shaft, degrease the mating surface of the right crankcase cover, and fix two dowel pins and a gasket.
- 9 . Fix the right side crankcase cover, but beware of an oil seal on a kick starter spindle. Tighten the nine bolts to the specified torque diagonally.  
**Torque: 9 N · m (0.9 kgf · m)**
- 10 . Reinstall the removed step, clutch cable, and kick starter arm.  
Put specified amount of engine oil.

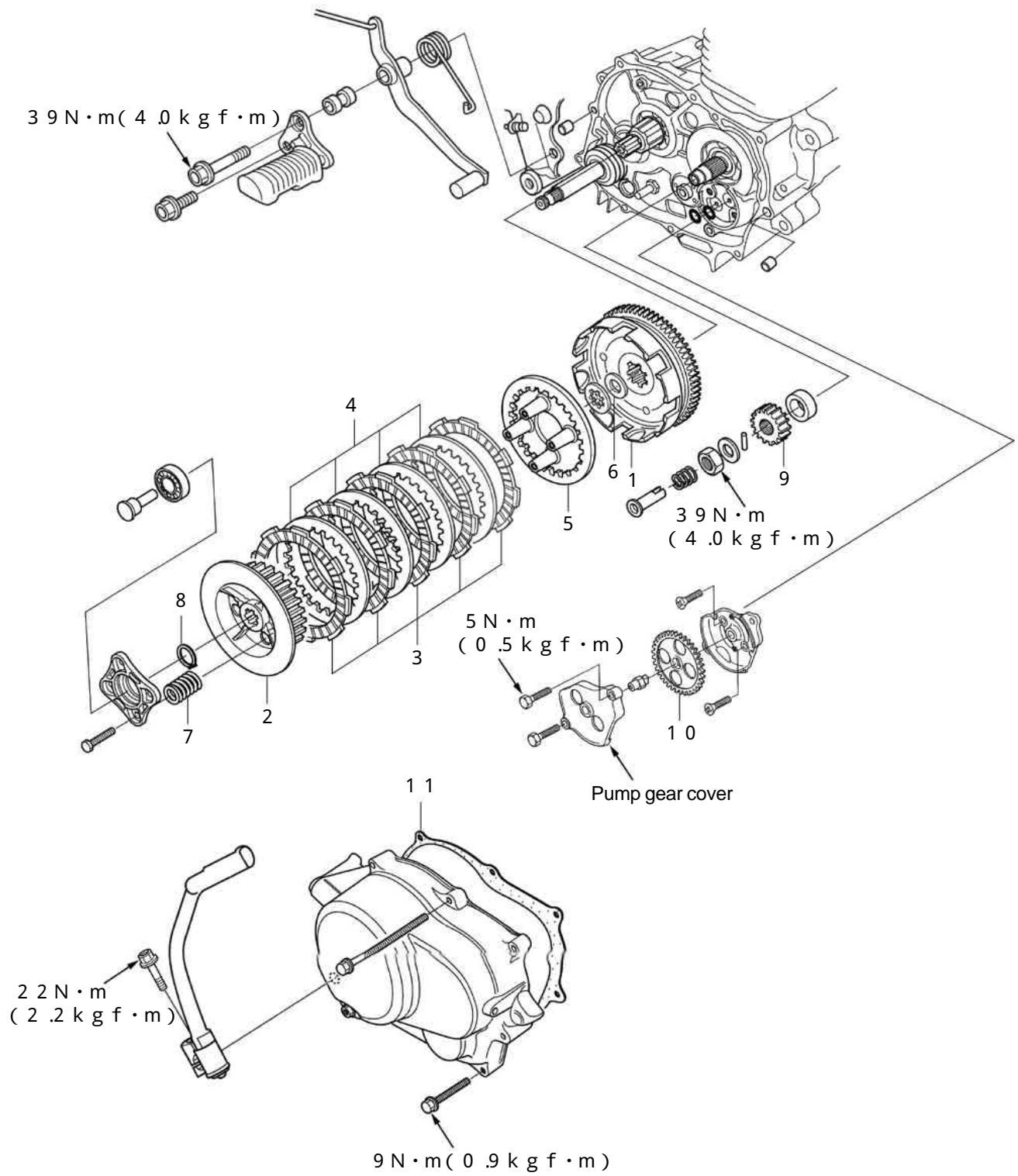
## Adjustment of Free Play at Clutch



- 1 . Loosen a lock nut on the clutch cover, and turn an adjusting screw all the way clockwise. Then retighten the lock nut.  
**Torque: 10 N · m (1.0 kgf · m)**



- 2 . Loosen the lock nut on the clutch cable, turn the adjusting nut to adjust free play at the clutch, and retighten the lock nut.  
**Free play : 10 ~ 20mm**



Parts without numbers mean stock parts should be used.

**SPECIAL PARTS TAKEGAWA** Co.,Ltd.

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# Important Notice on Crankcase Bearings

In the case of Dream50, Ape50 / 100, and XR50 / 100 Motard, the bearings, pressed into the crankcase, will fly out while the engine is revolving, changing the clearance with the transmission. This causes the difficult shift-transmission or poor clutch-disengagement. Therefore, you are requested to do the following work to firmly fix the bearings inside the crankcase.

## Installation Procedures

1. Referring to the service manual, demount the engine from the frame.
2. Disassemble the engine, separate the crankcase, and remove the transmission.
3. In order to squeeze the bearings, press in a center punch at six points and about 2 cm from an outer circumference of the bearings in the main shaft in the right crankcase.
  - \* Press in the center punch diagonally.

