



Instruction Manual for *Regular-Head* Kit

Item No : 0 1 - 0 3 - 3 0 0 1

Applicable model names and the frame Nos:

Monkey · Gorilla	: Z50J-1000001 ~ 1510400	Cub50	: C50-N00002 ~ V488897
6V Dax	: ST50-1000001 ~ 6346265		: C50-Z000002M ~ Z069126M
CD50	: CD50-1300001 ~ 1330600		: C50-5000005 ~ 5121324
			: C50-5200011 ~
			: C50-3000001 ~ 3431226
			: C50-4000001 ~ 4223783

- We are flattered that you have purchased 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.

Please be informed that in some cases the illustrations and photos may be different from the actual hardware.

~ Features ~

We have improved the combustion efficiency through the change of the combustion chamber shape.

We have also improved air intake-and-exhaust efficiency with wider valve top diameters for intake and exhaust to 25.0 mm and 22 mm respectively along with a substantial change in the port shape.

Please read the following 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 applicable model names and frame numbers only. Please take note that this kit cannot be mounted on other types of motorcycles.

Installation of this kit requires engine removal and mounting, crankcase disassembly, and other work. Please do the work with utmost care referring to the installation procedures in a HONDA genuine service manual for the relevant vehicle. This instruction manual, as well as HONDA's genuine service manual, is prepared with those persons in mind who have basic skills and knowledge in tuning. Therefore, we recommend those who are technically inexperienced or do not have enough tools to ask a technically-reliable specialist shop for the work.

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 the products.

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

A serial number is stamped on the cylinder head. You may be requested to inform us of the number when ordering parts.

Some of bolts, nuts, dowel pins, and packings will be reused. However, be sure to replace worn-down or severely-damaged ones with new ones.

Never use liquid packing. It may plug the oil passage, and in the worst case damage the engine.

Be sure to always use premium unleaded petrol. And make sure to check what kind of gasoline is remaining in the fuel tank. Whenever regular gasoline is left in the fuel tank, always replace it with high-octane gasoline.

Determine the heat value of a spark plug depending on how much it is burnt. In vehicles originally with a resistor plug, use a resistor plug.

Please be informed that what we can safely say is that the ignition system is compatible only with ours and stock ignition systems, because no data is available with us on the compatibility with other ignition systems. Therefore, please never use other ignition systems, which may cause technical troubles.

Since a stock clutch cannot be used, a centrifugal filter will be unavailable. So, please install an outer oil filter.

Install an oil cooler when necessary.

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

Upper limit of the engine revolutions is 12,000 rpm. Please install a revolution counter to always keep the revolutions below the upper limit.

Change a sprocket with the one which corresponds to the engine output power and specifications.

This kit cannot perform on its own. Refer to "Engine Parts Recommended by TAKEGAWA" on page 3.

This kit is only compatible with those engine parts recommended by us. So, please replace the engine parts not recommended by us with those of our recommendations.

This product is designed for exclusive use on the closed course. So, take note that it is prohibited to drive your motorcycle on a public road after installation of this kit. Drive your motorcycle at a legal speed, abiding by the laws.

Quick Starting and Sudden Acceleration

Please note that idling, sudden acceleration, and sudden engine braking will put a heavy load on the engine, and that it may result in crank shaft damage and engine damage in the worst case.

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.

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. Please retain this Instruction Manual for future reference.



Caution

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

- This product is designed for exclusive use on the closed course. So, take note that it is prohibited to drive your motorcycle on a public road after installation of this kit. Drive your motorcycle at a legal speed, abiding by the laws.
- Work only when the engine and muffler are cold at below 35 degrees Celsius. (Otherwise, you will burn yourself.)
- Prepare right tools for the work. (Otherwise, parts will be damaged or you will suffer injuries.)
- As some products and frames have sharp-pointed or protruding portions, please work with great care. (Otherwise, you will suffer injuries.)
- Always use new gaskets, packings and the like. Worn or damaged ones may cause engine troubles.

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 are technically unskilled or inexperienced are required not to do the work. (Improper installation because of insufficient skill and knowledge could lead to parts breakage and subsequently to accidents.)
- Before doing work, place the motorcycle on level ground to stabilize the position of your motorcycle for safety's sake. (Otherwise, your motorcycle could overturn and injure you while you are working.)
- 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.)
- As gasoline is highly flammable, never place it close to fire. Make sure that nothing flammable is near the gasoline. (It may cause a fire.)
- 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, resulting in accidents.)
- Never use any other parts than those specified by us. (The use of the unspecified parts may lead to parts breakage and consequent accidents.)
- If you find damaged parts when checking and performing maintenance of your motorcycle, never reuse them but replace them with new ones. The continued use of these damaged parts could break the parts, leading to accidents.)
- When you notice something abnormal with your motorcycle while riding, immediately stop riding and park your motorcycle in a safe place. (Otherwise, the abnormality could lead to accidents.)
- 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, leading to accidents.)
- Check or perform maintenance of parts correctly according to the inspection procedures in the instruction manual or a service manual. (Improper checking or maintenance could lead to accidents.)
- Be sure to always use premium unleaded petrol. (Otherwise, troubles such as knocking of an engine may cause accidents.)

Cautions before riding

About fuel:

Whenever regular gasoline is left in the fuel tank, always replace it with high-octane gasoline.

With this kit installation, a centrifugal filter will be lost. So, please install a dry-type clutch with an external oil filter, or a special clutch.

Change of a sprocket:

The installation of this kit will increase the power of your vehicle. So the use of a stock sprocket will result in severe wears of parts because of too low gear, not only adversely affecting the engine life, but also damaging the engine in the worst case. Therefore, please change the sprocket with the high-geared one.

This kit cannot function on its own. Referring to the attached sheet, please purchase a bore-up or bore-stroke-up kit for exclusive use in this kit. (This does not apply to the case where you have purchased a full kit.)

Others

Oil cooler:

The installation of this product increases the heat release value of the engine, set off by the increase in power. For a long-time high-load running, we recommend you to install an oil cooler kit which keeps oil at appropriate temperatures and prevents such troubles as oil film shortage at high temperatures.

About a cam shaft:

If you have purchased a cylinder head Kit alone, a special camshaft is needed separately. Camshafts with two kinds of profiles are available from us. Even if you have purchased a full Kit, you can study to use those camshafts as optional extras in addition to the camshaft provided in the Kit. For more information, please refer to the attached sheet.

Upper limit of revolutions:

The upper limit of revolutions varies depending on the installed camshaft and other factors. Install a tachometer in order to always drive your motorcycle at below the specified highest engine revolutions.

Take note that idling and sudden acceleration in the 1st and 2nd gears particularly tend to exceed the upper limit of revolutions. Over revolutions will result in nonsmooth revolutions of the engine, not only adversely affecting the engine life, but also damaging the engine in the worst case.

If you have purchased a cylinder head as a single unit, please be informed that selection sets are available to meet your combination demand depending on engine displacement, etc. Please study the required contents of the kit, referring to the attached "Reference data on bore & stroke-up kit."

Please contact your dealer for more details about the kit or enquiries.

Engine Parts Recommended by TAKEGAWA

This kit is only compatible with those engine parts recommended by us. So, please replace the engine parts not recommended by us with those of our recommendations.

Recommended Part			
Clutch	Heavy-duty clutch kit	Monkey & Gorilla	02-01-0202
	Special clutch kit	Monkey & Gorilla	
	Dry-type clutch kit	Monkey & Gorilla	
Ignition system	Stock point		
Carburetor	Keihin PC20	Monkey & Gorilla	88 ~ 106cc
	Keihin PD22	Monkey, Gorilla, & Dax	88 ~ 106cc
	Keihin PE24	Monkey & Gorilla	88 ~ 124cc
	Keihin PE28	Monkey & Gorilla	106 ~ 124cc
	MIKUNI VM26	Monkey, Gorilla, & Dax	88 ~ 124cc
Oil pump	Super oil pump kit	01-16-0041	
Cam chain (Only in case of cylinder head kit)	Heavy-duty cam chain kit	88cc	01-14-002
		106cc	
		124cc	01-14-003
Oil catch tank (In case head breather cap is used.)	Only for Monkey & Gorilla	09-04-031	
		09-04-032	

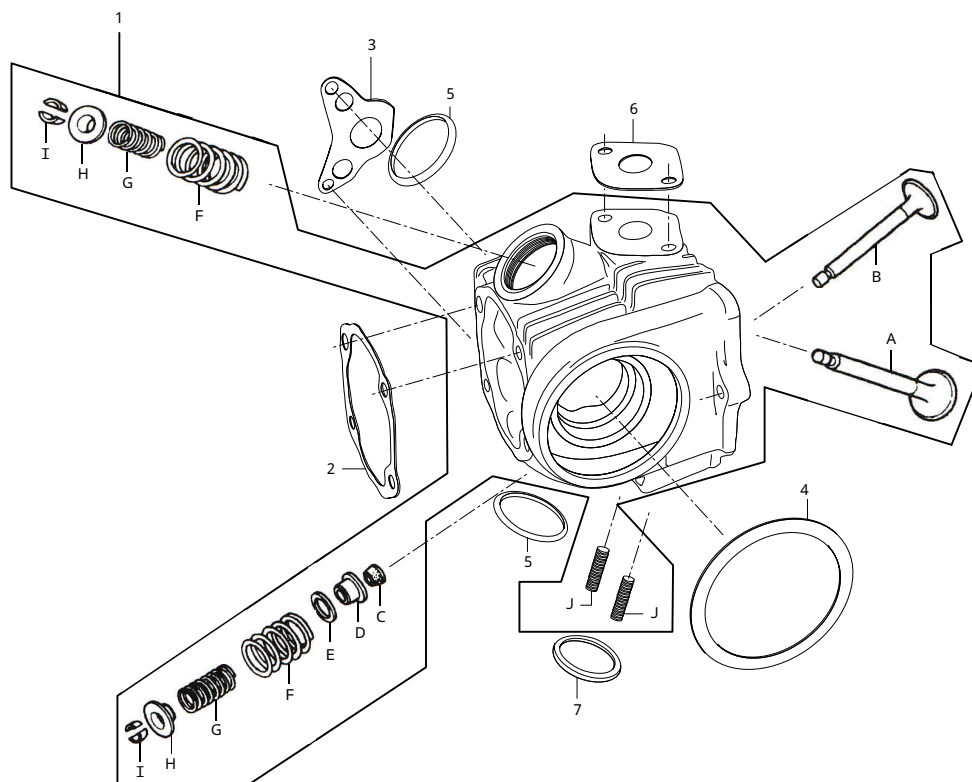
About optional cam shaft:

We have prepared a few kinds of cam shafts compatible with this kit.

For your riding pleasure, referring to the list below, select a cam shaft to meet the engine displacement and uses.

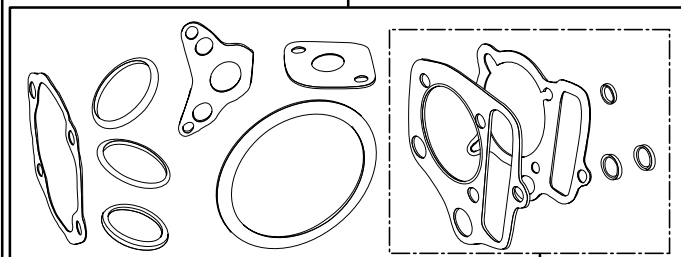
Super street cam shaft	01-08-06	Packed together with bore up and bore stroke up
Street cam shaft	01-08-03	Option

~ Kit Contents ~



Gasket set A for old-type cylinder

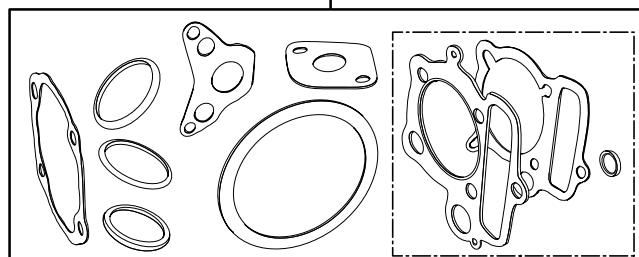
01 13 0605 (88 cc / 106 cc / 125 cc)



01 13 8003 (88 cc)

Gasket set A for H and V cylinders

01 13 0608 (88 cc / 106 cc)



01 13 7003V (88 cc / 106 cc)

A cylinder with a marking on the top surface

Note: The Gasket Kit varies depending on the kind of the cylinders. Therefore, carefully select and buy the kit not to make a mistake.

No.	Part Name	Qty	Repair Part Item No.	In packs of
1	Cylinder head COMP.	1		
2	Cylinder head cover gasket	1		
3	Right-side cylinder head side cover gasket	1	12394-165-T01	1
4	Left-side cylinder head side cover gasket	1		
5	O-ring	2	00-01-0034	4
6	Manifold gasket	1	00-03-0009	3
7	Exhaust pipe gasket	1	00-01-0064	2
	Alumi special	1	00-01-0001	1

Symbol	Part Name	Qty	Repair Part Item No.	In packs of
A	Intake valve	1	01-11-071	1
B	Exhaust valve	1		1
C	Valve stem seal	1	000-03-0861	1
D	Valve stem seal cap	1	000-03-120	1
E	Valve spring inner seat	1	000-03-121	1
F	Outer valve spring	2	01-12-01	2
G	Inner valve spring	2		2
H	Valve spring retainer	2	000-03-084	1
I	Valve cotter	4	000-03-085	4
J	Stud bolt 6x32	2	00-00-0085	2

Please note that in ordering repair parts, be sure to quote the Repair Part Item No.

Otherwise, we may not be able to accept your orders.

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.

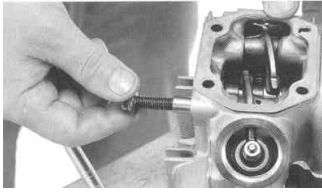
SPECIAL PARTS TAKEGAWA Co., Ltd.

3-5-16 Nishikiorihigashi Tondabayashi Osaka Japan

TEL: 81-721-25-1357 FAX: 81-721-24-5059 URL: <http://www.takegawa.co.jp>

~ Cylinder Head Installation Procedures ~

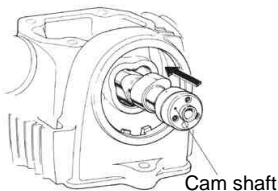
Remove the original rocker arm shaft and rocker arm of an cylinder head.



Apply molybdenum solution to the cam top and journal.

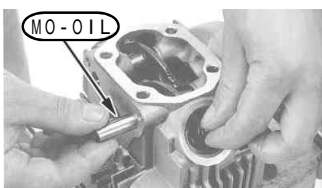


Set the cam shaft on the cylinder head of the kit.



Turn the camshaft so the IN and EX cam tops face the combustion chamber side.

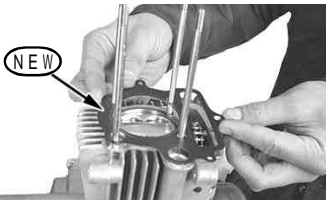
Apply molybdenum solution to the rocker arm shaft. Install the rocker arm and rocker arm shaft with the thread of the rocker arm shaft facing the outside.



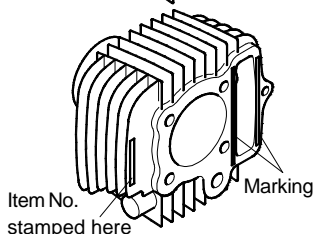
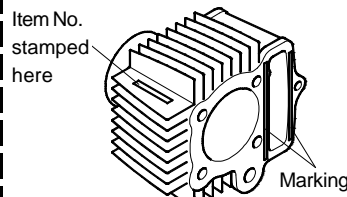
Attach an 8x14 dowel pin of the kit into a dowel pin hole on the cylinder.



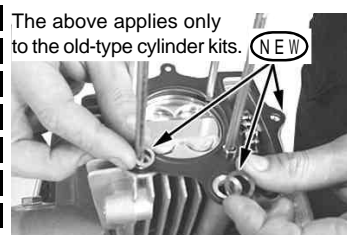
Thoroughly degrease the upper surface of the cylinder. In the case of a V, H or S (for SCUT) cylinder, attach a cylinder head gasket.



Note: These cylinders have a marking on the cylinder head surface or its Item No. is stamped on the fin side.



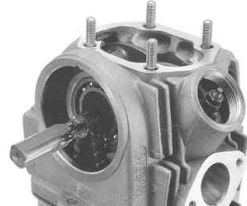
In the case of a cylinder with no Item No. or stamped marking or a supplied cylinder coming with a green rubber gasket, attach a cylinder head gasket, black rubber packing and green rubber gasket.



The above applies only to the old-type cylinder kits. Setting the piston to be at Top Dead Center (TDC), install the cylinder head.



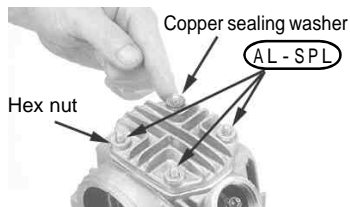
Hold the cam chain not to let it fall into the crankcases.



Set the cylinder head cover gasket on the cylinder head.



Set the mark on the cylinder head cover at EX, lightly apply Aluminum Special, the heat-resistant lubricating agent, to the threaded portion of the stud bolt, and then attach a sealing washer and a nut. (Attach copper washers and steel washers at the lower left, and hex nuts and cap nuts at the lower right, at the prescribed positions, when the engine viewed from the front.)



Screw the nut of the stud bolt diagonally in a few steps to the specified torque.

⚠Caution: Never fail to observe the specified torque.

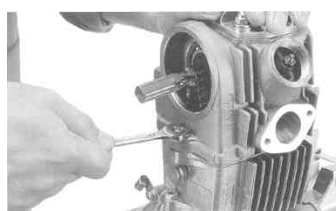
T=12 N · m (1.2 kgf · m)



Tighten side bolts both of the cylinder and the cylinder head to the specified torque.

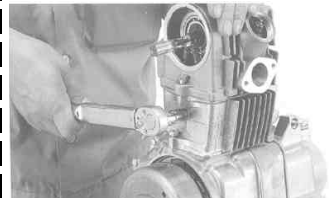
⚠Caution: Never fail to observe the specified torque.

T=12 N · m (1.2 kgf · m)



Tighten the bolt on the cam chain guide roller to the specified torque. ⚠Caution: Never fail to observe the specified torque.

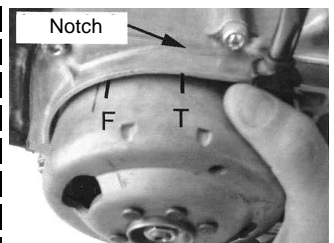
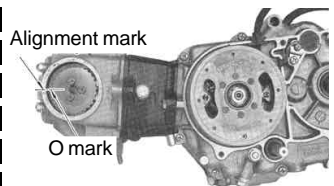
T=10 N · m (1.0 kgf · m)



Attach the cam chain to the cam sprocket, and install the cam sprocket to the cam shaft with a plate and three bolts.

(At this stage, lightly apply "Aluminum Special", the heat-resistant lubricating agent, to the threaded portion of the bolt.)

Align a "T" mark on the flywheel with an alignment mark on the crankcase, and then align an "O" mark on the cam sprocket with an alignment mark on the cylinder head.



Holding the crank shaft, tighten the cap screw, holding the cam sprocket, to the specified torque.

⚠Caution: Never fail to follow the specified torque.

T=10 N · m (1.0 kgf · m)



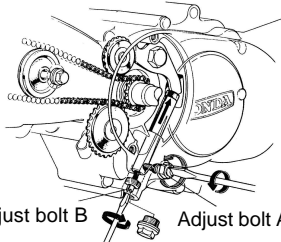
Adjustment of cam chain:

Loosen an 8mm nut and adjust bolt A, and then the cam chain will be adjusted automatically by the spring. But in case the cam chain is not stretched tight, keeping the loosened adjust bolt A as it is, gradually tighten the adjust bolt B so that the cam sprocket and cam chain fit together even when the flywheel is turned.

Tighten the adjust bolt A, and then 8mm nut.

⚠Caution: Never fail to observe the specified torque.

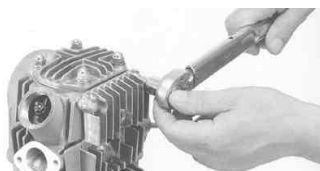
T=8 N · m (0.8 kgf · m)



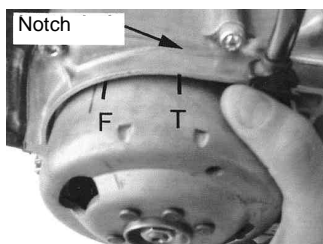
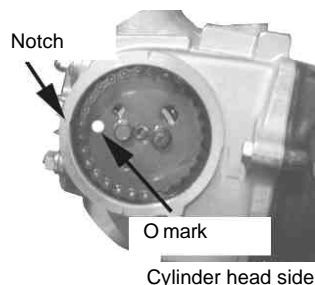
If you have adjusted the cam chain, check the ignition timing. Place the new right side cover gasket in the right side cover, and attach the right side cover to the cylinder head with two original bolts and tighten to the specified torque.

⚠Caution: Never fail to observe the specified torque.

T=10 N · m (1.0 kgf · m)



Give the crankshaft over two turns counterclockwise, and align the "O" mark on the cam sprocket with the "T" mark on the flywheel.



Adjust the valve clearance with adjusting screws.

IN : 0.08 (when cold) ± 0.03

EX: 0.08 (when cold) ± 0.03



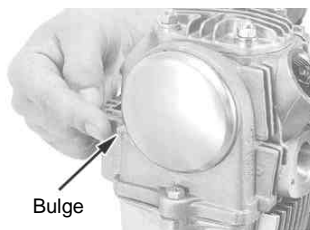
Tighten the adjusting nut to the specified torque.

⚠Caution: Never fail to observe the specified torque.

T=10 N · m (1.0 kgf · m)



Attach the new gasket of the kit to left-side cylinder head cover, and align the bulge on the cylinder head with the mating point on the cylinder head cover, and attach the cylinder head cover with original sealing washer and flange bolt from the right-side cylinder head cover.



Tighten the attached flange bolts to the specified torque.

⚠caution: Never fail to observe the specified torque.

T=8 N · m (0.8 kgf · m)



Attach a new O-ring of the kit to the original tappet cap, apply engine oil to the O-rings slightly, and tighten the O-ring to the specified torque.

⚠Caution: Never fail to observe the specified torque.

T=8 ~ 10 N · m (0.8 ~ 1.0 kgf · m)



Referring to the service manual, mount an engine onto the frame.

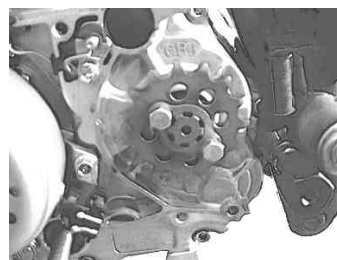
⚠Caution: Never fail to observe the instructions in the service manual.

Install a carburetor following the relevant carburetor kit instruction manual.

Attach a drive sprocket.

⚠Caution: Never fail to observe the specified torque.

T=12 N · m (1.2 kgf · m)



Attach a generator cover.

⚠Caution: Never fail to observe the specified torque.

T=7 ~ 11 N · m (7 ~ 1.1 kgf · m)



Inject engine oil to the level specified by the relevant clutch kit.

Referring to the service manual, attach a drive chain.

Engine Starting

Make sure that the ignition key and gas cock are turned off.

Keep kicking the starter for a while till the engine oil circulates all around the engine.

Attach a spark plug. And slightly apply Aluminum Special to threaded portion of the plug, and tighten it.

⚠Caution: Never fail to observe the specified torque.

Attach the plug cap to the spark plug.

Wipe off the dirt adhering to the engine.

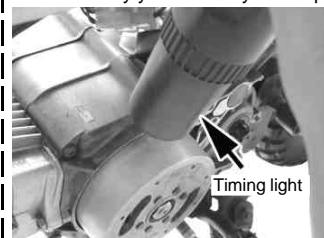
Turn on the gasoline cock and ignition key to start the engine.

⚠Warning: Do the work in a well-ventilated place.

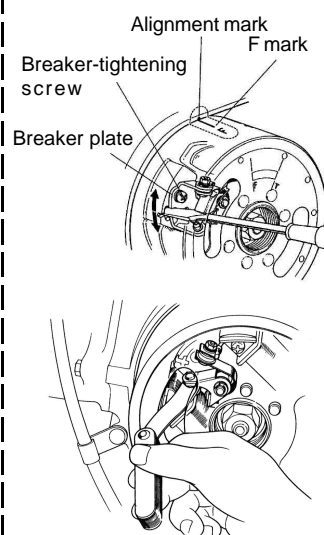
Inspection and adjustment of ignition timing:

If the ignition timing is off, the engine likely will malfunction seriously let alone fail to exhibit its original performance. Therefore, it is advisable to check and adjust the ignition timing without fail.

If you are technically unskilled at the work, have your motorcycle checked by your motorcycle shop.



Using a timing light (Item No. 00-01-009), at the time of idling check that the "F" mark on the flywheel is aligned with the alignment mark on the crankcase.



Loosen the breaker-tightening screw and move the breaker plate bit by bit to adjust the timing.

After the adjustment, turn the crank shaft and set the position of the point so it has the widest clearance, which please measure with thickness gauge.

Point clearance: 0.3 ~ 0.4 mm

In case the clearance is outside the specified limit, replace the point.

When the adjustment is over, start the engine again.

Make sure that there is nothing unusual like abnormal sounds.

If nothing unusual is detected, carry out a shakedown of about 30 to 50 km, and recheck the valve clearance.

⚠Caution: Do this work when the engine is cool.

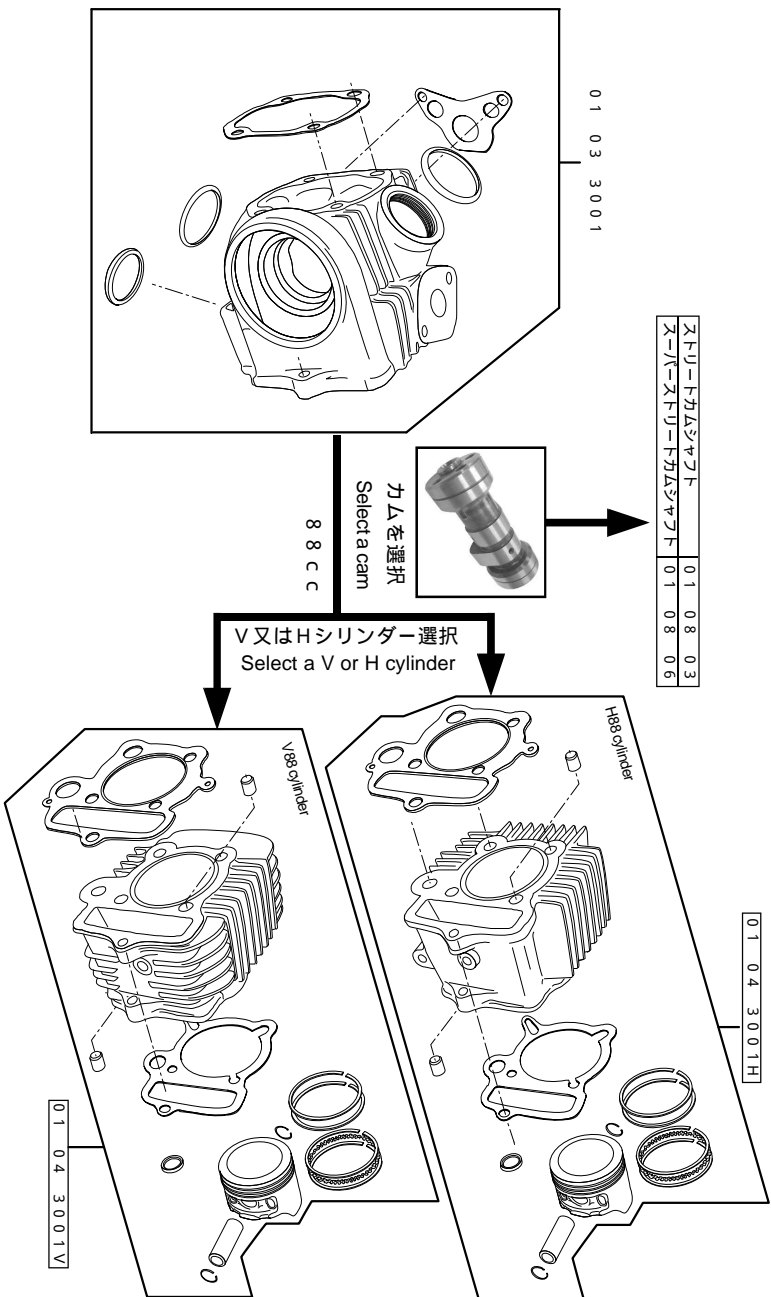
Do the running-in again of 100 to 150 km.

After the running-in, see if there is nothing unusual like strange sounds or blow-by gas.

If something wrong is found, disassemble the engine again to check every part of it.

⚠Warning: Never reuse the unusable parts.

Regular-Head ボアアップ参照表 (8 8 c c) Reference data on bore-up kit (88cc)



0 1 0 3 3 0 0 1 シリンダーヘッドキットのみで購入された場合、この参照表にて専用パーツを検討して下さい。
If you have purchased a cylinder head kit only (Item No. 01-03-3001), please study to install these special parts referring to this reference data.