

SUPERHEAD 4VALVE+R Kit Instruction Manual

Item No.: 01 - 03 - 0116

Applicable models and frame No. (excluding the case of combo kit installation)

Monkey · Gorilla : Z50J-2000001 ~

: AB27-1000001 ~ 1809999

Monkey R : AB22-1000017 : AB22-1007601 ~ Monkey RT CD90 : HA03-1100005 ~

This product is applicable to CD90 engines with the above-mentioned frame No.

• Thank you for purchasing one of our products. Please strictly follow the instruction to install and use the products.

• Before fitting the products, please be sure to check the contents of the kit. If you have any questions about the products, please kindly contact your local TAKEGAWA dealer

~ Features ~

This is Super Head 4-valve for Monkey and Gorilla. This cylinder head has all new designs with 4 valves (two valves each on IN & EX), valve angles, and port designs. Roller bearings are incorporated at shovel portions of valve rocker arms. The increased weight with roller bearings is offset with the decreased weight of rocker arm body made with forged aluminum. With the synergy effect of these features, the higher output power has been achieved in high rpm range. Further, on Monkey or Gorilla engines, the replacements of camshafts are not easy without the disassembly of cylinder head. However, this product allows you to replace the camshaft without removing rocker arms. So, you can replace the camshaft easily. Additionally, the auto decompression of camshaft allows the engine to start easily with a light kick, and to reduce the load of kick shaft and gears.

Please read the following carefully before starting installation

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

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 with the above-mentioned applicable models of motorcycles and frame numbers, and for exclusive use with motorcycles equipped with a bore-up and bore-stroke exclusively for this kit as well. Therefore, please take note that this kit cannot be mounted on other applicable models of motorcycles, or motorcycles not equipped with bore-up, etc. exclusively for this kit.

Installation of this product requires removal and reinstallation of an engine, and disassembly of a clutch. Please prepare HONDA's genuine service manual for the above-mentioned applicable models, and work with enough care following instructions in the service manual. Besides, this instruction manual, as well as HONDA's 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.

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

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

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

Liquid sealing should be used to the specified areas ONLY. (DO NOT apply the unspecified areas.) It might block oil passages, and engines will be broken

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.

Never use this kit on the point-ignition system motorcycle.

Please be informed that what we can safely say is that the ignition system of this kit is compatible 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

As the stock clutch cannot be used, a centrifugal filter gets unavailable. Therefore, install an oil filter outside.

Please install an oil cooler when necessary.

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

Change the sprocket with the one which meets the output and specifications.

This kit cannot be used alone if you have purchased a cylinder head kit. If you have not purchased "our special engine parts", please purchase special parts with reference to the attached "Reference data on bore- & stroke-up kit."

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

Since this kit is designed and developed for driving in closed races, do not use the kit for running on public roads.

In case you have purchased this product as a combo kit, the above-mentioned applicable models vary depending on the type of drive sprocket.

Jump-Starting and Sudden Acceleration -

Idling, sudden acceleration, and sudden engine braking will put a heavy load on the engine, which please note may result in crank shaft damage and engine breakage 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. This manual should be retained 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

- · Since this kit is designed and developed for driving in closed races, do not use the kit for running on public roads.
- · Work only when the engine and muffler are cool at below 35 degrees Celsius. Otherwise, you will burn yourself.
- Prepare right tools for the work. (Otherwise, improper work could cause breakage of parts or injuries to yourself.
 As some products and frames have sharp edges or protruding portions, please work with utmost care. (Otherwise, you will suffer injuries.)
- Always use new gasket and packing. (The worn or damaged parts may cause the engine troubles.)

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⚠ Warning

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

- \cdot 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 working, place the motorcycle on the level ground to stabilize its position for safety to avoid the motorcycle overturning.
- \cdot Always start the engine in a well-ventilated place, and do not turn the engine on 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.)
- · Never use the parts unspecified by us. (This may lead to parts breakage and consequent accidents.)
- If you find damaged parts when checking and performing maintenance, 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.)
- · When you notice something abnormal with your motorcycle, stop riding immediately and park your motorcycle in a safe place to avoid an accident.
- · Before riding, always check such parts as screws for loose.
- If you find loose ones, screw them securely up to the specified torque to avoid parts coming off.
- 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.)
- · Always use high-octane gasoline. (Otherwise, troubles such as engine knocking may cause accidents.)

Cautions before riding:

About fuel:

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

Install the dry clutch with an external oil filter or our Special clutch.

About 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 breaking the engine in the worst case. Therefore, please change the sprockets 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 with this kit. This does not apply if you have purchased a full kit.)

Others:

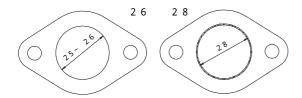
Oil cooler:

The installation of this kit increases the heat release value of the engine, set off by the increase in power. For a long-time and 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.

Carburetor manifold:

When using a inlet pipe for Super Head +R, R-Stage (Port diameter: 25

~ 26), there will be a step due to the different diameters of cylinder head and inlet pipe. By enlarging the port diameter of inlet pipe, you get the output power more smoothly.



We recommend using our Carburetor Kit for Super Head 4-valve. Refer to the "Parts of our recommendations" on p.3 regarding to Item No. of carburetor kits.

· Inlet pipe for Super Head 4-valve

VM26: 03-02-2565 PE28: 03-02-2566

PE24 / CRmini22 : 03-02-0021

About camshaft:

If you have purchased a cylinder head kit, a special camshaft is needed separately. Camshafts with a few kinds of profiles are available from us to meet different uses and engine displacement. Even if you have purchased a full kit, you can study to use them as an optional extra in addition to camshafts included in the full kit. For more information, please refer to enclosed paper.

An inspection cap and a breather cap are included in this kit. In case you use a breather cap, please use an oil catch tank at the same time.

Revolution

Upper limit of revolutions varies depending on the installed cam shafts, etc. Referring to the camshaft comparison graph on page A'3, install a revolution counter to make sure that you drive the engine at revolutions below the upper limit.

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

A serial number is punched on the cylinder head just for the sake of administration. You may be requested to inform us of the number when ordering repair parts.

In case you are not able to order parts because you do not have the repair parts numbers or for other reasons, please place an order in the following way

Copy the stamped serial No. on the side of cylinder head.

A head No. (SH4-00***)is punched here.

Head No. - SH4-00001

Example of how to order Super head kit, repair

head No.-SH4-00001 Intake valve Qty: 1 piece



For those who purchase our cylinder head only, we have choices that you can combine parts as your specs of displacements etc.

Please refer to the attached "Bore & Stroke up Kits reference sheet" and

find your kit.

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

Engine parts of our recommendations:

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

	Special clutch kit					
Clutch	'	Dry-type clutch kit				
	Stock C.D.I.	7 71				
Ignition system	Hyper C.D.I.					
ignition system	C.D.I. Magnet	**				
	MONKEY	ı	05-02-0511			
	88cc 100cc 106cc	Keihin CRmini carburetor	03-02-0021			
	M O N K E Y 88cc 100cc 106cc	Keihin PE24 carburetor	(Manifold kit)			
Carburetor	MONKEY 88cc	Mikuni VM26 carburetor kit	03-05-0031			
	100cc 106cc 124cc 138cc	Keihin PE28 carburetor kit	03-05-0032			
	MONKEY-R 88cc 100cc	Mikuni VM26 carburetor kit	03-05-0031			
	106cc 106cc 124cc	Keihin PE28 carburetor kit	03-05-0032			
Oil pump	Super oil pump kit	Super oil pump kit				
Cam chain	High-duty cam chain kit	88 / 106cc	01-14-0002			
Cam chain Only in case of a cylinder head kit)		124cc	01-14-0003			
		138cc	01-14-0006			
Oil catch tank (Only for the Monkey/O	Gorilla) Oil catch return tank kit	tch return tank kit				
(Only in case a head breather cap is used.) Oil catch tank kit						

About optional camshafts

The following camshafts compatible with this Kit are available from us. Referring to the below-mentioned output graphics, please select a camshaft to match your usage and engine displacement for your great riding pleasure.

with auto de-comp				
10/15D camshaft	01-08-0141	Packed together with 88 / 106cc kit		
15/20D camshaft	01-08-0142	Packed together with 124cc kit		
20/25D camshaft	01-08-0143	Packed together with 138cc kit		
25/30D camshaft	01-08-0144	option		

with out auto de-comp			
10/15 camshaft	01-08-0145	Packed together with 88cc kit	
15/20 camshaft	01-08-0146	option	
20/25 camshaft	01-08-0147	option	
25/30 camshaft	01-08-0148	option	

About Camshafts Number

The bigger the numbers of XX/YY are, the wider the durations are. With these camshafts, the output power will produce more to high rpm range. While, the smaller the numbers are, the narrower the durations are. With these camshafts, the output power will produce more to low-to-mid rpm range. We supply the suitable camshaft depending on the displacements.

When choosing the optional camshafts, please choose the camshaft referring to the camshaft data chart to suit your riding purpose. Also, the engine output will vary significantly depending on the using exhaust system, length of inlet pipe, carburetor diameter, compression ratio, ignition system, ignition timing, fuel or natural phenomenons such as ambient temperature or atmospheric pressure.

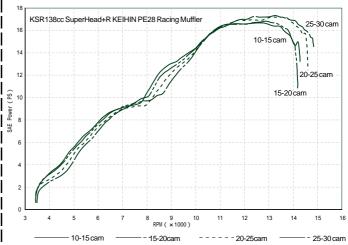
Never use 25/30D (01-08-0144/01-08-0148) camshaft for 88cc,100cc kit.

Camshaft comparison data list

Note: As these are the data measured on a Dyno Jet, the data differ from the actual driving. Please refer to them just for a reference. The engine power varies significantly depending on the temperatures.

106 cc

(Super street outer rotor + Racing Muffler + PE28)

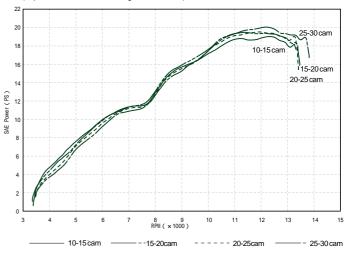


124 cc

(Super street outer rotor + Racing Muffler + PE28)

(Super street outer rotor + Racing Muffler + PE28)

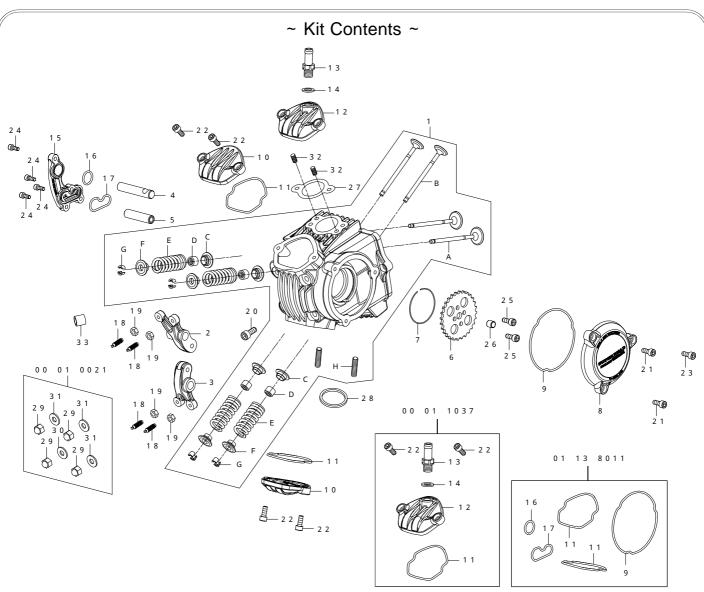
10-15 cam



138 cc

- - 15-20cam

15



No.	Parts Name	Qty	Repair parts No.	in packs of
1	Cylinder head COMP.	1	06120-SH4-T00	1
2	Intake valve rocker arm COMP.	1	14430-4SS-T00	1
3	Exhaust valve rocker arm COMP.	1	14420-4SS-T00	1
4	Rocker arm shaft	1	14452-SH4-T10	1
5	Rocker arm shaft	1	14451-SH4-T00	1
6	Cam sprocket,28T	1	00-01-0099	1
7	Cam shaft circlip	1	00-01-0081	3
8	Left side-cylinder head side-cover	1	11134-SH4-T00	1
9	Left side-cylinder head side-cover O-ring	1	00-01-0144	5
10	Inspection cap	2	55300-SH4-T00	1
11	Inspection cap O-ring	2	00-01-0165	5
12	Inspection breather cap	1	55301-SH4-T00	1
13	Straight outlet, M10	1	13435-000-T00	1
14	Aluminum sealing washer, 10mm	1	00-07-0010	10
15	Right side-cylinder head side-cover	1	11121-SH4-T00	1
16	O-ring, 15 mm	1	00-00-0186	4
17	Right side-cylinder head side-cover O-ring	1	00-01-0143	5
18	Tappet adjusting screw	4	00-01-0132	1
19	Tappet adjusting nut	4	00-01-0132	1

No.	Parts Name	Qty	Repair parts No.	in packs of
20	Socket cap screw, 6x18 (SUS)	1	00-00-0156	4
21	Socket cap screw, 5x15 (SUS)	2	00-00-0041	4
22	Socket cap screw, 5x12 (SUS)	4	00-00-0160	4
23	Socket cap screw, 5x10 (SUS)	1	00-00-0233	3
24	Socket cap screw, 4x12 (SUS)	4	00-00-0243	6
25	Socket cap screw, 5x12	2	00-00-0066	4
26	Dowel pin, 8x12	1	00-00-0153	2
27	Inlet pipe gasket	1	00-03-0007	2
28	Exhaust pipe gasket	1	00-01-0064	2
29	Hexagon cap nut, M6	4		
30	Copper sealing washer, 6mm	1	00-01-0029	4
31	Sealing washer, 6mm	3		
32	Socket set screw, 6x15	2	00-00-0162	2
33	Silicon tubing, 8x13	1	00-01-1044	3
	Alumi Special (5 g)	1	00-01-0001	1
Tool	Hex wrench, 3 mm	1	=======================================	
Tool	Hex wrench, 4 mm	1		
Tool	Hex wrench, 5 mm	1		

Symbol	Parts Name	Qty	Repair parts No.	in packs of
Α	Intake valve	2	14711-4SS-T00	1
В	Exhaust valve	2	14721-4SS-T00	1
С	Valve spring outer seat	4	14775-SH4-T00	1
D	Valve stem seal	4	00-01-1038	4

Symbol	Parts Name	Qty	Repair parts No.	in packs of
Е	Valve spring	4	14751-SH4-T00	1
F	Valve spring retainer	4	14770-SH4-T00	1
G	Valve cotter	8	00-01-1039	4
Н	Stud bolt, 6x32	2	00-01-0073	2

Please order repair parts with the Repair Part Item No. Without the repair part item No., we may not be able to provide the correct parts. Some parts are only available as a set. Please order them with the set number.

SPECIAL PARTS TAXEE CO.,Ltd.
yashi Osaka Japan TEL:81-721-25-1357 FAX:81-721-24-5059 URL:http://www.t

~ Cylinder Head Installation Procedures ~

and adjusting bolts (included in the kit), and attach them.

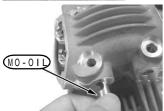
(Be careful that the end of the adjusting bolt does NOT protrude Item No. from the rocker arm.)



Install the rocker arms on Super Head. Apply molybdenum oil to rocker arm shafts (included in the kit). Install the shorter shaft on the EX side, and the longer shaft on

A cutout side of the shaft should be installed facing to the cam





Fix 8x14 dowel pins of the kit into the dowel pin holes on the cylinder.



Thoroughly degrease the upper surface of the cylinder. For V, H, S (SCUT) cylinder: use

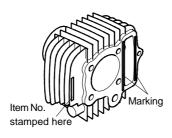
0.25mm head gasket.



Please use appropriate gasket.

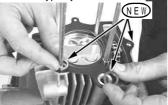
Apply engine oil to rocker arms | Caution: These cylinders have a marking on the cylinder head surface or its Item No. is stamped on the fin side.

stamped



No parts number stamped on your cylinder, (or cylinder uses green Oring) please use 1.0mm(3 pcs metal) head gasket with green O-ring and black rubber gasket.

The above applies only to the old-type cylinder kits.



Please use appropriate gasket.

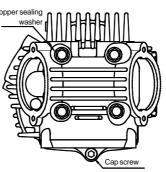
Set the piston at the top dead center position, and install the cylinder head.



Fix the cam chain so it will not fall into the crankcase.



After applying Alumi Special a little to the threaded part of the cylinder head stud bolts, fix a copper washer I of the kit to the lower-left part (oil line) and washers of the kit to other parts. Then fix four cap nuts of the kit and 6x18 cap screws as indicated in the figure below, and loosely tighten them.



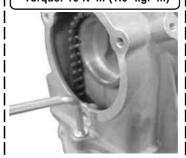
Tighten nuts on the stud bolt diagonally to the specified torque in a few steps.

 ⚠ Caution: Be sure to follow the specified torque. Torque: 12 N·m (1.2 kgf·m)



Tighten the side bolt on the cylinder side and the cap screws on the cylinder head side to the specified

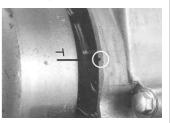
specified torque. Torque: 10 N·m (1.0 kgf·m)



Tighten a cam chain guide roller pin of the cylinder to the specified torque.

specified torque. Torque: 10 N·m (1.0 kgf·m)

Align a "T" mark on the flywheel with an alignment mark on the crankcase. Then set the piston at TDC (Top Dead Center).



Apply engine oil to a bearing on the camshaft COMP., which please fit to a cylinder head. And put a provided 8x12 dowel pin into the center hole in the camshaft.

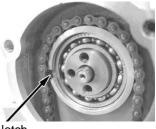




Dowel pin 8 x 12

Fix a cam shaft circlip of the kit, and fix the cam shaft.

At this stage, set the location of ring end gap of the circlip not to meet the notch on the cylinder head cam hole.



Notch

Check that the circlip is right in the circlip groove.

⚠ Warning : Do the checking without fail.



Remove the side bolt on the cam chain tensioner.

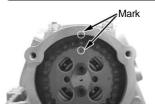


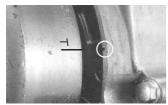
Attach the camchain to the cam sprocket. And place the "O" mark align with index notch on the head and install it with two black 5x12 cap screws.

(At this time, apply a thin coat of Alumi Special, the heat-resistant lubricating agent, to the thread of the cap screw.) Then, align the "T" mark on the flywheel with the alignment mark on the crankcase, aligning the "O" mark on the cam sprocket with the alignment mark on the cylinder head.

⚠ Caution : Be sure to follow the specified torque.

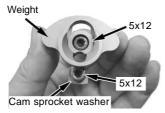
Torque: 10 N·m (1.0 kgf·m)





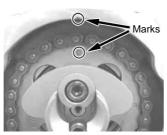
In case you install an automatic decompression cam shaft:

Set a cam sprocket washer through a weight, and set two black 5x12 cap screws into upper and lower holes.



Attach the camchain to the cam sprocket. And place the weight to face the "O" mark and install it with two black 5x12 cap screws.

(At this time, apply a thin coat of Alumi Special, the heat-resistant lubricating agent, to the thread of the cap screw.) Then, align the "T" mark on the flywheel with the alignment mark on the crankcase, aligning the "O" mark on the cam sprocket with the alignment mark on the cylinder head.



Holding the crank, tighten the cap screws, which are attached to fix the cam sprocket, to the specified torque.



Check that the "T" mark on the flywheel is still aligned with the "O" mark on the cam sprocket.

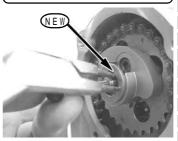
Pass a 6mm snap ring and a plate into a thumb screw supplied in the Camshaft Kit, attach it to the shaft tip of the camshaft comp. and pull the shaft toward you.



Attach a snap ring in the shaft groove.

⚠ Caution : Do not expant the snap ring more than necessary.

⚠ Warning: Always use a new snap ring at any time, and do not reuse it.

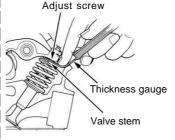


Adjust the valve clearance with an adjust screw.

IN : 0.05 ~ 0.08 (when cold) OUT: 0.05 ~ 0.08 (when cold)



Thickness gauge



In case you install an automatic decompression cam shaft:

Adjust the valve clearance on the EX side with the shaft of the camshaft being pulled toward you so that the decompression function can be deactivated.



Tighten the adjusting nut to the specified torque.

⚠ Caution : Be sure to follow the specified torque.

Torque: 10 N·m (1.0 kgf·m)



Unfasten the thumb screw.



Check that the "T" mark on the flywheel is aligning with an alignment mark on the crankcase.

When replacing camshaft COMP., loose the valve adjusting bolt till the end of the adjusting bolt does not protrude from the rocker arm.



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Apply engine oil a little to two kinds of O-rings for the right side cover, and fix them to the right side cover. Then tighten them with 4x12 cap screws of the kit to the specified torque.

⚠ Caution : Be sure to follow the specified torque.

Torque: 4 N·m (0.4 kgf·m)





Apply engine oil a little to a left-side-cover O-ring of the kit, and fix it to the left side cover. Then fix them to the cylinder head with two 5x15 cap screws and with a 5x10 cap screw of the kit and tighten them to the specified torque. (Be careful of the location of screws.)

Caution : Be sure to follow the specified torque.

Torque: 6 N·m (0.6 kgf·m)





After applying engine oil a little to an O-ring on the inspection cap of the kit, attach the O-ring to the inspection cap, and fix the inspection cap with 5x12 cap screw of the kit, and tighten up the screw to the specified torque.





In case a breather cap is used:
Apply engine oil to an O-ring of the inspection cap (included in the kit), and attach it on breather cap.
Then, install the breather cap on the

Then, install the breather cap on the IN side by using the supplied cap screw of 5 x 12. Tighten it to the specified torque.

 Δ Caution : Be sure to follow the specified torque.

Torque: 6 N·m (0.6 kgf·m)

Attach the supplied aluminum sealing washer (10 mm) and the straight outlet (M10) on the breather cap. Tighten them to the specified torque.

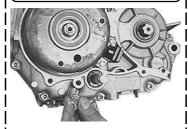
⚠ Caution : Be sure to follow the specified torque.

Torque: 10 N·m (1.0 kgf·m)



Pour engine oil from the side bolt hole in the cam chain tensioner, and tighten the side bolt.

Torque: 12 N·m (1.2 kgf·m)



With reference to the service manual, mount the engine on the frame.

Install the supplied socket screws on the two taps that will not needed when installing a manifold on the intake port of cylinder head.

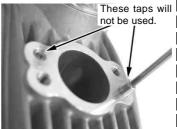
Tighten them to the specified torque.

⚠ Caution : Be sure to follow the specified torque.

Torque: 5 N·m (0.5 kgf·m)

For mostly Monkey and Gorilla, the "B" portions will not be used. For Monkey R, the "A" portions will not be used.





Following the instruction manual for the relative carburetor, install the carburetor.

Install the drive sprocket.

⚠ Caution : Be sure to follow the specified torque.

Torque: 12 N·m (1.2 kgf·m)



Install the generator cover.

⚠ Caution : Be sure to follow the specified torque.

Torque: 10 N·m (1.0 kgf·m)



Add engine oil in amount specified by the clutch kit you use.

With reference to the service manual, attach the drive chain.

In the case of a three-point support crank shaft (3B) kit, fix a generator cover according to crank-kit installation instructions.

In case you use a breather cap, fix a breather hose according to oil-catch-tank installation instructions.

In case you use a breather cap, fix a breather hose according to oil-catch-tank installation instructions.

Item No. for a blade hose set (1 m, with clips) : 00-07-0070

- B '3 - Jan / 19/ 11

Engine Starting

Check that the ignition key and the fuel cock are turned OFF.

Continue kicking the starter for a while to circulate the engine oil all around the engine.

Install a spark plug.

Apply Alumi Special a little to the threaded part of the plug, and fix it

Torque: 8 ~ 10N · m (8 ~ 1.0kgf · m)



Designated plug

NGK : ERBEH

Thermal value

DENSO: Y24FER

Thermal value

Be sure to use an appropriate spark plug for this Super Head.

Remove the plug cap rubber from the top of the plug cap, and insert the supplied silicon tube into the plug cap.





Attach the plug cap to the spark plug.

Wipe off the dirt and dust on the engine.

In the case of 138cc only
Cylinder kit shipped with aluminum
sealing washer and tighten
specified torque sets the oil plug
bolt.

⚠ Caution : Be sure to follow the specified torque.

Torque: 14 N·m (1.4 kgf·m)



Turn ON the fuel cock and ignition key, and start the engine.

 Δ Warning : Work only in a well-ventilated place.

When starting the engine, keep the stroke of the kickstarter arm wide enough.

Usually, the stroke amount of the kickstarter arm becomes short especially when a dry-type clutch is installed onto the engine, which makes it hard to start the engine.

Adjust the angle at which to install the kickstarter arm, and start the engine, taking sufficient stroke



Take the sufficient stroke amount.

Check for any abnormality such as an abnormal sound.

If nothing abnormal is detected, carry out a shakedown for about 30 to 50 km, and check the valve clearance again.

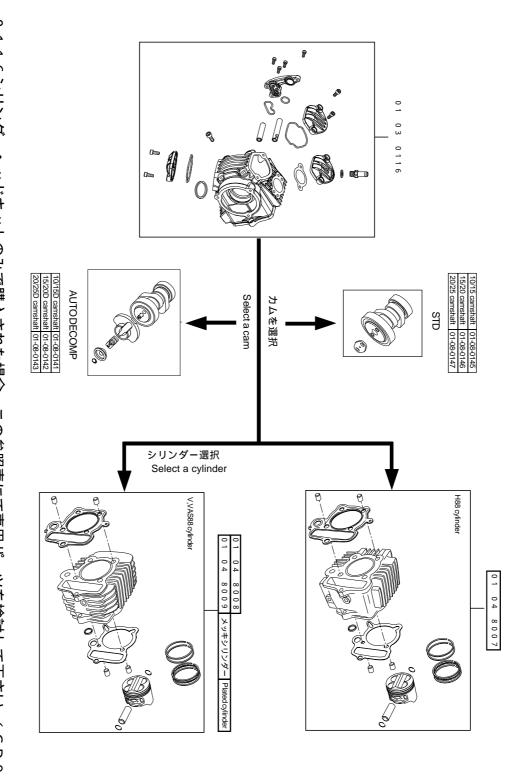
 Δ Caution : Work only when the engine and the muffler are cool.

Carry out a shakedown again for about 100 to 150 km.

After the shakedown, doublecheck for any abnormality such as an abnormal sound and blow-by gas. (If any abnormality is detected, disassemble the engine again and check each section.)

- B '4 - Jan./19/ 11 rev.Nov/16/ 15

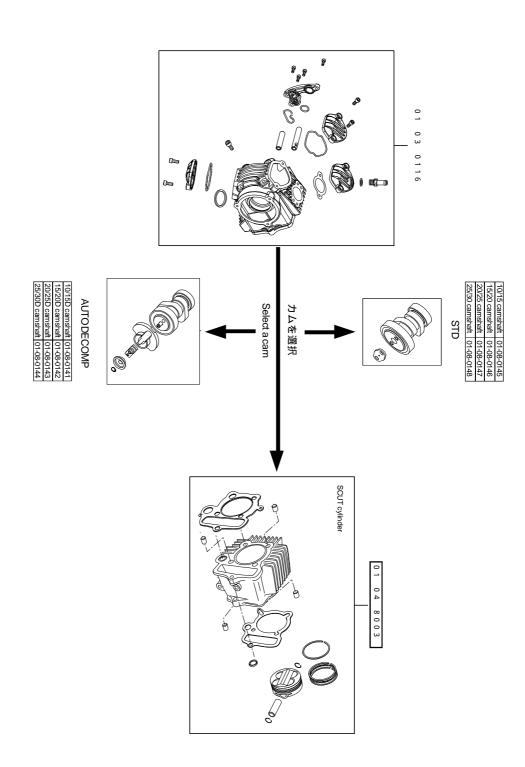
SUPERHEAD 4VALVE+R ボアアップ参照表(88cc) Reference data on bore- up kit (88cc)



(except CD90) If you have purchased a cylinder head kit only (Item No. 01-03-0116), please study to install these special parts referring to this reference data.

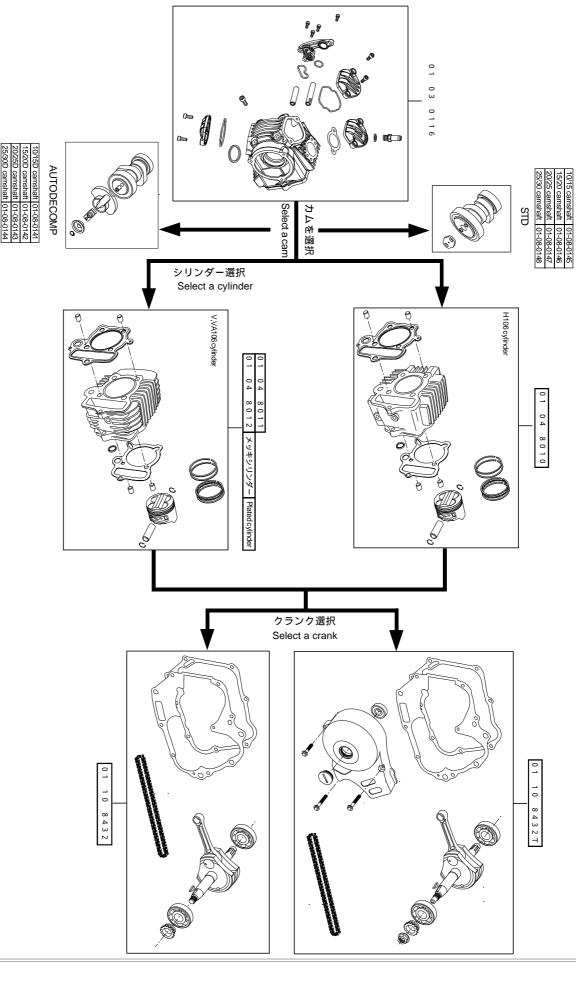
Never use 25/30D (01-08-0144/01-08-0148) camshaft for 88cc kit

SUPERHEAD 4VALVE+R ボアアップ参照表(106cc) Reference data on bore- up kit (106cc)



If you have purchased a cylinder head kit only (Item No. 01-03-0116), please study to install these special parts referring to this reference data. (except CD90) 0 0 1 1 6 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。(CD90除く)

SUPERHEAD 4VALVE+R ボア&ストロークアップ参照表(106cc) Reference data on bore- & stroke-up kit (106cc)



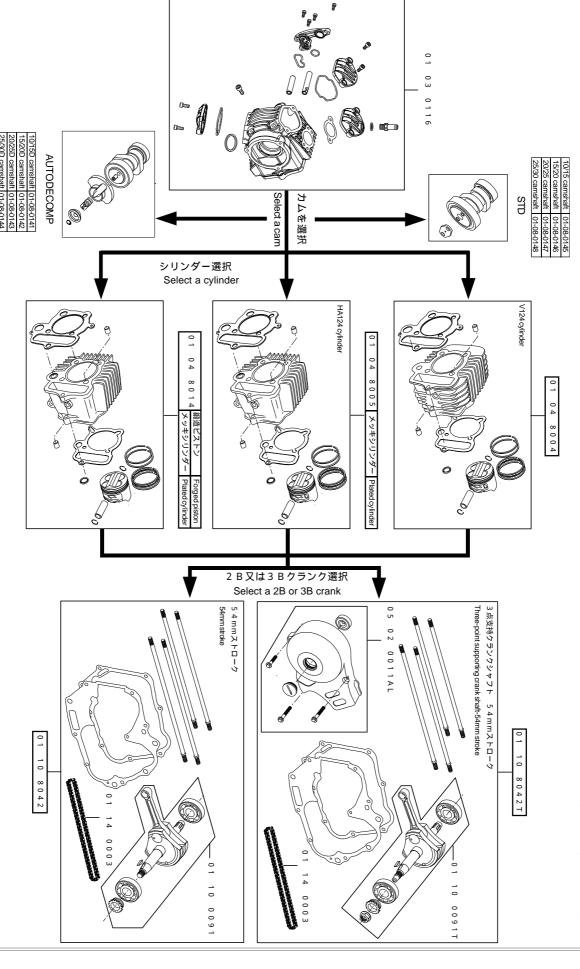
If you have purchased a cylinder head kit only (Item No. 01-03-0116), please study to install these special parts referring to this reference data

0116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。(CD90除く)

(except CD90)

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SUPER HEAD **4VALVE+R** ボア&ストロークアップ参照表(124cc) Reference data on bore- & stroke-up kit (124cc)



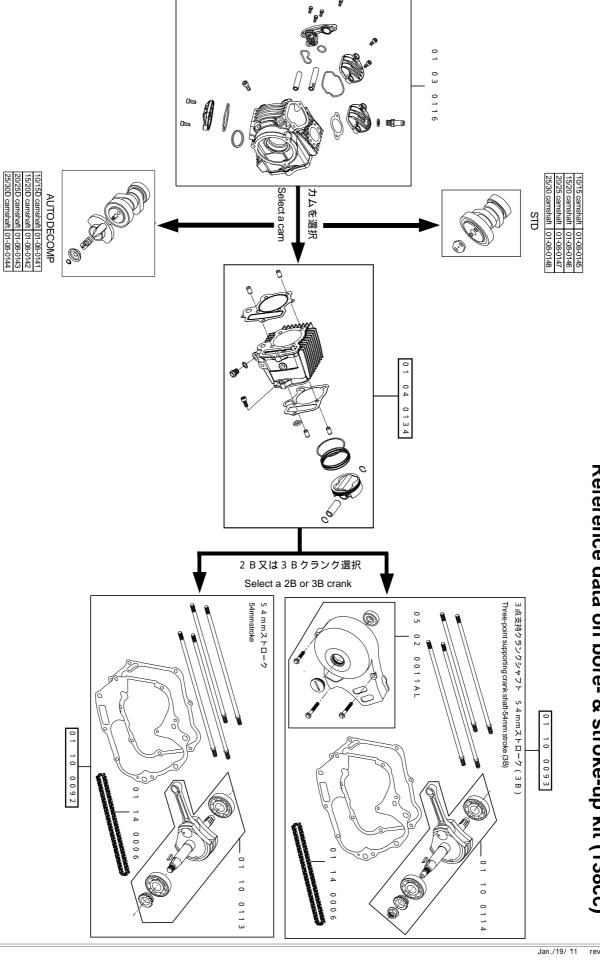
If you have purchased a cylinder head kit only (Item No. 01-03-0116), please study to install these special parts referring to this reference data

0116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。(CD90除く)

(except CD90)

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SUPERHEAD 4VALVE+R ボア&ストロークアップ参照表(138cc) 30 camshaft | 01-08-0148 STD Three-point supporting crank shaft-54mm stroke (3B) 3点支持クランクシャフト 54mmストローク(3B) 01 10 0093



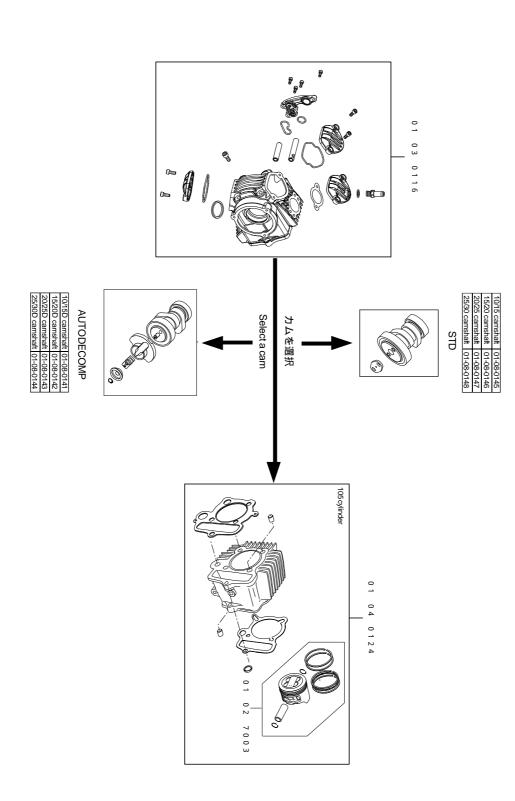
If you have purchased a cylinder head kit only (Item No. 01-03-0116), please study to install these special parts referring to this reference data

0 1 1 6 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。(CD90除く)

(except CD90)

rev.Nov./16/ 15

SUPER HEAD 4VALVE+R CD90エンジン用 ボアアップ参照表(105 cc) Reference data on bore- up kit (105cc) For a CD90 engine



If you have purchased a cylinder head kit only (Item No. 01-03-0116), please study to install these special parts referring to this reference data.