

POWER PACK 125 No. 1/2

CODE	(High cam shaft 1 is attached.) 230-1451000
APPLICATION	GROM (JC75)
ATTENTION!	
<ul style="list-style-type: none"> ● Injection controller(i-map)(sold separately) and racing exhaust are required for maximum engine performance. Also, please change exhaust to racing, etc. Air/fuel setting is required for the parts combination that is not included in pre-installed map. ● Please use unleaded premium gasoline. Because of high compression, regular gasoline might cause of knocking, etc. ● You cannot use H dimension con-rod with genuine bore diameter together because they interrupt each other. 	

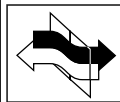
- Thank you for purchasing Kitaco product. Read and understand the instruction before installing.
- For installation, Various special tools are required.
- After installation, please use this instruction sheet for setting manual. ※Keep this instruction sheet safe because repair parts do not have instruction sheet.

ATTENTION (MUST READ)

- This parts is made exclusive for racing use. Note that racing parts are not covered under warranty. Installed vehicles cannot ride the on general public road. We are not responsible for violation of law or damages and accidents caused by assembling mistake and improper setting.
- i-map setting may need if other manufacturer's product is installed.
- Follow the instructions and install correctly. Do not modify the way which is not listed or it will cause damage and trouble.
- Please ask authorized mechanic for assembling and setting. Ask a specialist at specialty shop if you do not understand the role of the surrounding parts.
- Change the engine oil to the new specified engine oil after you break in (about 100km).
- Bolts and nuts may get loosen by engine vibration. Make sure not to loosen any bolts and nuts before driving.
- Clean each parts by parts cleaner and use air duster to check whether the oil line is choked up.
- Oil the parts with engine oil when assembling.
- By installing this parts, the output characteristic is different from normal, please enhance the brake to match the power and improve steering stability. Please be careful of riding.
- Do not spark the plug out side of cylinder for spark check. It might cause of fire.
- Refer to the manufacturer service manual when installation.



This sheet is intended for the person who has basic knowledge for maintenance. Do not operate if you do not have skill and knowledge.



Toxic, highly-volatile gasoline is used during operating. Be sure to ventilate the room. Do not operate for hours in a hermetically closed room.



FLAMMABLES
Inflammable high gasoline is used during operation.



Do not touch the engine parts (cylinder, crankcase, muffler, engine oil, etc...) right after engine operation. Make sure to start the installation after the engine parts are completely cool.



Wear insulated glove when checking the sparking outside the cylinder.

SPECIFICATIONS

- DISPLACEMENT : 124cc NORMAL SIZE (BORE) 52.4X (STROKE) 57.9
- COMPRESSION RATIO 12.2:1 (NORMAL 9.3:1)
- FUEL : UNLEADED PREMIUM GASOLINE
- VALVE CLEARANCE STANDARD NUMBER(COLD)
IN VALVE : 0.10±0.02mm / EX VALVE : 0.17±0.02mm

REQUIRED TOOLS AND REPAIR PARTS

- VARIOUS GENERAL TOOLS
- THICKNESS GAUGE (COMMERCIALY SOLD)
- UNIVERSAL HOLDER (HONDA GENUINE)
PRODUCT CODE : 077725-0030000

OTHER REQUIRED PARTS (Please purchase sold separately parts.)

	NAME	CODE	REMARK
ELECTRICAL SYSTEM	PC INTER FACE CABLE (SOLD SEPERATELY)	763-0500900	Use this when connecting PC for making user original map.
COOLING ENGINE	SUPER OIL COOLER KIT 3/5 ROW (SOLD SEPERATELY)	-	For GROM
	CLUTCH COVER KIT (SOLD SEPERATELY)	307-1432200/10	For GROM / MONKEY 125
RECOMMEND OIL	elf MOTO4 PRO TECH 5w40 1L (SOLD SEPERATELY)	968-2000021	Recommendation engine oil.
	PANOLIN STREET 4T RACE 10W50 1L (SOLD SEPERATELY)	968-2996001	

FIGURE	NAME	CODE	QTY	REMARK
A	HIGH CAM SHAFT TYPE 1	300-1432000	x1	No decomp function ※Attached power pack.
B1	φ 52.4 HIGH COMP PISTON ver,2	351-1432210	x1	
B2	φ 52.4 PISTON RING (0.8-0.8-1.5)	352-1432200	x1	
B3	PISTON PIN 13x36x9	353-0001336	x1	
B4	PISTON PIN CLIP 13mm	354-0000130	x2	
C1	HEAD GASKET φ 52.4	961-1432200	x1	
C2	BASE RUBBER SEAL	962-1432300	x1	
D1	SEALING WASHER 6.5mm	70-092-14321	x1	Cam chain tensioner M6x18 bolt
D2	SEALING WASHER 8mm	70-090-14321	x1	Cam chain guide roller bolt
-	i-Map COUPER ON+FB CANCELLER GROM(JC75)	763-1451200	x1	Refer to other paper
OP1	EX GASKET H-06	70-963-11006	x1	※ Option parts
OP2	TITANIUM NUT	303-1013711	x1	※ Option parts

Please follow the attention below when installation.

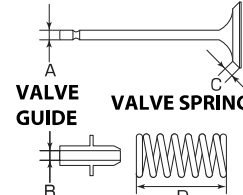


Please check usage limit and basic value before using genuine parts. If there is a hard degradation like a blem, fatigue and wear etc on the reuse parts, please change to new ones. The cylinder might distort even if it's new. Please adjust following below. It might cause of engine trouble installation without checking.

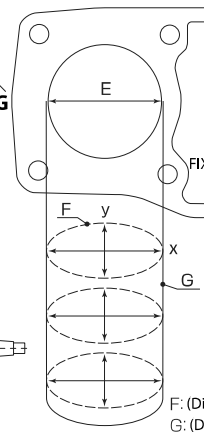
SERVICE GUIDE (If there is a hard degradation like a blem, fatigue and wear etc on the reuse parts, please change to new ones.)

ITEM		STANDARD (mm)	USAGE LIMIT(mm)	ATTENTION
VALVE	A STEM O.D.	IN 5.0 (-0.01 ~ -0.025)	-	
		EX 5.0 (-0.03 ~ -0.045)	-	
	B GUIDE I.D.	IN/EX 5.0 (0 ~ +0.12)	-	
VALVE GUIDE	C VALVE SEAT TOUCHING WIDTH	IN/EX 1.0	-	Check touching range with red lead. If touching range is not even, you need to polish again.
	D FREE LENGTH	IN/EX 33.14	31.5	Install pitch narrow side to combustion chamber.
CYLINDER	E INNER DIAMETER	52.4 (+0.005 ~ 0.015)	-	Remeasure if it's new one. If there is a distortion to matching surface between cylinder and cylinder head, you need to polish again.
	F ROUNDNESS	-	0.05	
	G CYLINDRICITY	-	0.05	
CRANK SHAFT	H CONROD	SIDE CLEARANCE 0.10 ~ 0.35	0.60	
	I LARGE EDGE PART	RADIAL CLEARANCE 0.004 ~ 0.016	0.05	Check crank shaft bearing rotates smoothly.
	J CONROD SMALL END	INNER DIAMETER 13 (+0.10 ~ 0.028)	+ 0.05	
	K SHAKE OF CRANK SHAFT	-	0.10	
CAM CHAIN TENSIONER	L OUTER DIAMETER STANDARD VALUE	12 (0 ~ -0.015)	11.94	Check tensioner push rod tip rubber deformation and crack.

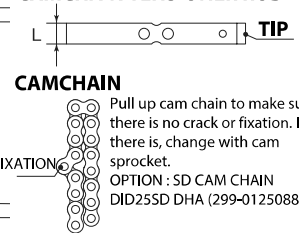
VALVE



CYLINDER

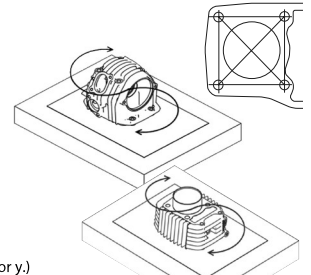


CAMCHAIN TENSIONER ROD

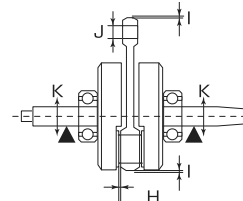


MATCHING SURFACE OF CYLINDER HEAD AND CYLINDER

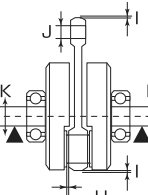
Check the matching surface of cylinder and cylinder head by straight edge and sickness gauge. If there is distortion, place sand paper to flat surface, then polish as move like writing 8.
※Polish to a minimum.



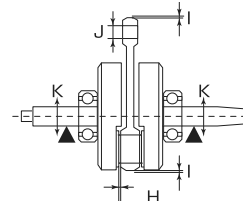
VALVE GUIDE



VALVE SPRING

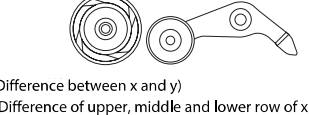


CRANK SHAFT



CAM CHAIN GUIDE ROLLER

Check the guide roller has no blem, distortion and crack.



F: (Difference between x and y)
G: (Difference of upper, middle and lower row of x or y)

ATTENTION OF INJECTION CONTROLLER (i-map)



The pre-installed (set) i-map cannot deal with the processed intake/exhaust port and processed combustion chamber. Air/fuel setting is required for the parts combination that is not included in pre-installed map or combination with other manufacturer's product. In that case, please make original map on user setting map.

※Computer, PC interface cable and facility for air fuel ratio is required to make original map.

POWER PACK No.2/2	
CODE	(High cam shaft 1 is attached.) 230-1451000
APPLICATION	GROM (JC75)

CYLINDER HEAD & A PART OF CYLINDER

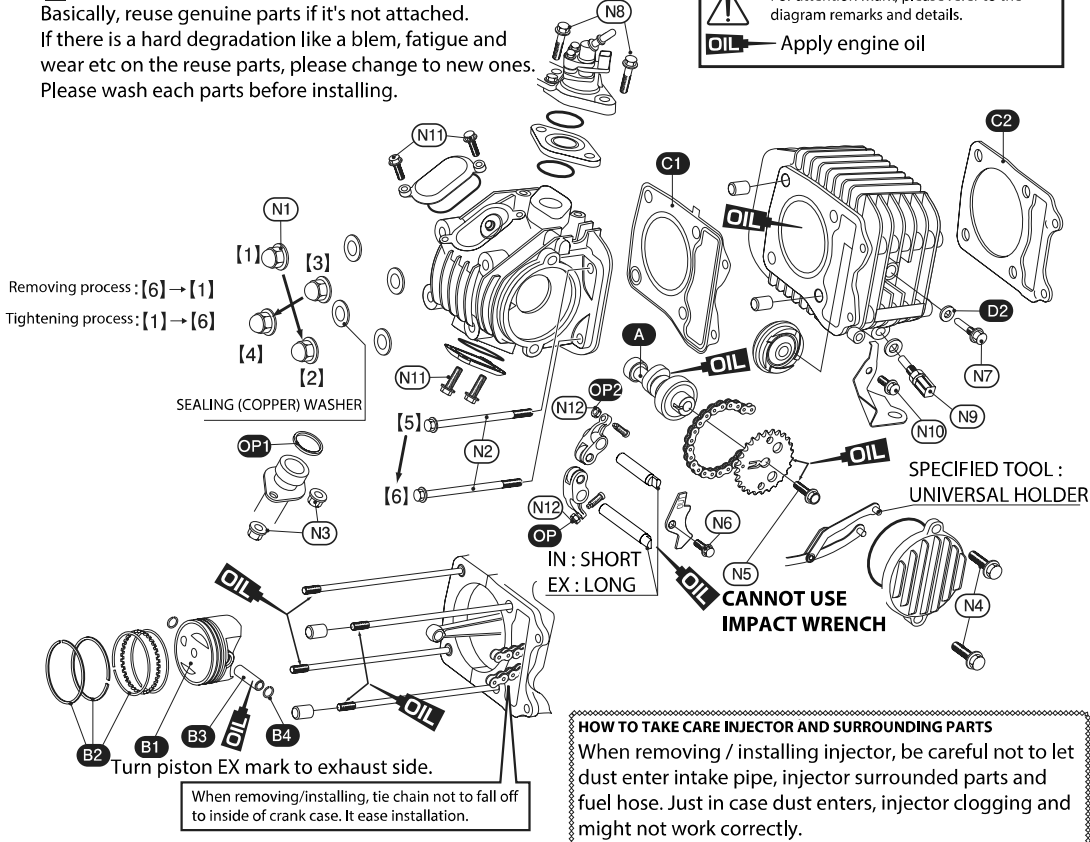
Basically, reuse genuine parts if it's not attached.

If there is a hard degradation like a blem, fatigue and wear etc on the reuse parts, please change to new ones.

Please wash each parts before installing.

⚠ For attention mark, please refer to the diagram remarks and details.

Apply engine oil



HOW TO TAKE CARE INJECTOR AND SURROUNDING PARTS
When removing / installing injector, be careful not to let dust enter intake pipe, injector surrounded parts and fuel hose. Just in case dust enters, injector clogging and might not work correctly.

INSTALLING PISTON RING

Refer to the illustration to install.

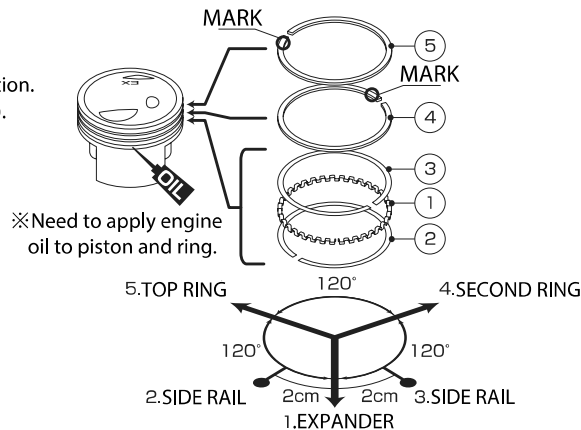
"POINT"

- Distribute the gap of the ring as shown in the illustration.
- Turn top ring and second ring mark to upward (head).
- There is not up and down to expander and side rail.

Parts data on illustration. (Install in numerical order.)

FIGURE	NAME	QTY
1	EXPANDER	× 1
2/3	SIDE RAIL (same up and down.)	× 2
4	SECOND RING (BLACK)	× 1
5	TOP RING (WHITE)	× 1

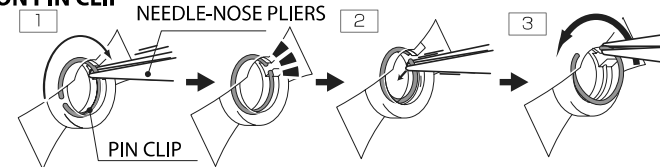
※ Install piston turn EX mark to exhaust side.



TORQUE : N · m (1kgf · m : 9.80665N · m)							
FIGURE	NAME	QTY	N · m	FIGURE	NAME	QTY	N · m
N1	CYLINDER HEAD CAP NUT 8mm	4	24	N7	CAM CHAIN GUIDE ROLLER PIN BOLT M8	1	10
N2	FLANGE BOLT M6x90	2	10	N8	INTAKE PIPE BOLT M6 × 30	2	10
N3	FLANGE NUT 8mm	2	27	N9	OIL TEMPERATURE SENSOR M10	1	14.5
N4	L SIDE COVER BOLT M6x20	2	10	N10	FLANGE BOLT M6x14	1	12
N5	CAM SPROCKET BOLT M8x22	1	27	N11	TAPPET CAP BOLT M6 × 20	4	10
N6	LOCKER ARM SET PLATE BOLT M6 × 12	1	10	N12	ADJUST SCREW LOCK NUT	2	9.0

HOW TO REMOVE / INSTALL PISTON PIN CLIP

- 1) Sand pin clip by needle-nose pliers, then haul pin clip joint in piston joint.
- 2) Remove pin clip by sanding joint by needle-nose pliers and pull inside, then pull outside.
- 3) Rotate slowly to remove pin clip.



※ Pin clip might pop off, please work carefully.

● Pin clip installation is in reverse order to removing.

HOW TO INSTALL/REMOVE CAM SHAFT SPROCKET

REMOVE
Remove cam sprocket cover, O ring, crank shaft hole cap, timing hole cap and oil filler bolt.

INSTALL

- 1) Make camshaft to compression top dead center position, hang chain to cam sprocket with O mark of the cam sprocket matches cylinder head matching mark, then install temporarily to camshaft.
- 2) Rotate crank shaft counterclockwise, match the fly wheel matching mark "T" and crank case matching mark, then check cam sprocket "O" mark matches cylinder head matching mark while compression top dead center position. If it does not match, install cam sprocket again.
- 3) Fix cam sprocket by using universal holder (specified tool), tighten cam sprocket bolt.
- 4) Inject 4.0cc engine oil from flange bolt (M6x18) hole to push rod, tighten with new (attached) sealing washer and bolt.

ADJUST COMPRESSION TOP DEAD CENTER / VALVE CLEARANCE.
Adjust valve clearance to compression top dead center position (matches each matching mark.)

SETTING VALVE CLEARANCE

- 1) Rotate crankshaft counterclockwise, match fly wheel "T" mark to crank case matching mark. move locker arm to check piston position is compression top dead center position. (It can check by rocker arm sagging. If there is no play, rotate crank shaft again.)
- 2) Insert thickness gauge between adjust screw and valve stem, check out exhaust valve clearance.

● VALVE CLEARANCE STANDARD VALUE (COLD)

IN intake side : 0.10 ± 0.02mm

EX exhaust side : 0.17 ± 0.02mm

ADJUSTING

- 1) Loosen lock nut, rotate adjust screw to adjust specified valve clearance. After adjusting, tighten lock nut while fixing adjust nut screw. After tighten lock nut, check out valve clearance again. (TORQUE : 9.0N · m)
- 2) Check each hole cap O ring condition, please change if needed, apply engine oil to O ring, then install valve adjust hole cap, cam sprocket cover, crankshaft hole cap and timing hole cap.

(TORQUE/ crank shaft hole cap: 8.0N · m / timing hole cap: 6.0N · m)

