

LIGHT BIG BORE KIT 75cc for monkey

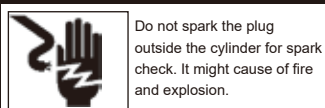
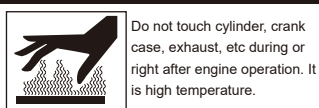
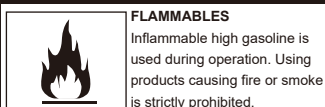
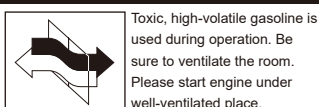
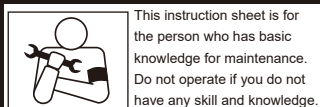
No. 1/4

CODE : BLACK 212-1013480 / SILVER 212-1013481		CODE : BLACK 212-1123480 / SILVER 212-1123481	
APPLICATION : A		APPLICATION : B / C	
MONKEY / GORILLA	FNO,Z50J-1000001 ~ 1510400	MONKEY / GORILLA	FNO,Z50J-1600008 ~ 1805927
CHALY	FNO,CF50-1000002 ~ 2899999	MONKEY / GORILLA	FNO,Z50J-2000001 ~
DAX (6V ST50)	FNO,ST50-1000001 ~ 6346265	MONKEY BAJA	FNO,AB27-1000001 ~ 1899999
CD50	FNO,CD50-1100001 ~ 1330600	DAX (12V AB26)	
SUPER CUB50	FNO,C50-N000002 ~ V488897	JAZZ	
	FNO,C50-Z000002M ~ Z069126M	MAGNA50	FNO,AC13-1000001 ~
	FNO,C50-3000001 ~ 5121324	MOTRA	
	FNO,C50-5200011 ~	CHALY	FNO,CF50-3000031 ~
	MONKEY R / RT		
	CD50 / BENLY 50S / BENLY CL50	FNO,CD50-1500001 ~	
	SUPER CUB50	FNO,C50-8000001 ~ 9501323	
	PRESS CUB	FNO,C50-9600001 ~ 0095210	
	LITTLE CUB	FNO,C50-0200001 ~	
		FNO,AA01-1000001 ~	
	GIOR CUB	FNO,AF53-1000001 ~	
	XR50R/CRF50F	AE03	

- Thank you for purchasing Kitaco product. Read and understand the instruction before installing.
- Special tools are required to install.
- After installation, please use this sheet as setting manual.
- ※ Instruction sheet is not included to repair parts. Please keep this instruction safe.

ATTENTION (MUST READ)

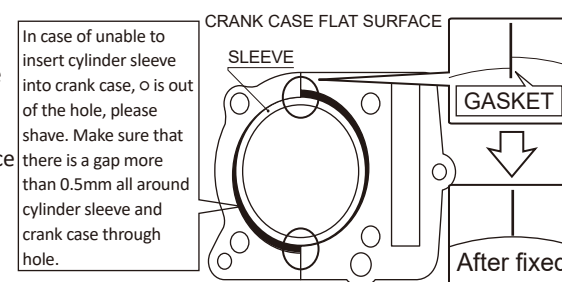
- This product is for racing use. It is out of warranty. Unable to ride on public road with installed vehicle. We are not responsible for violation of law or damages and accidents caused by assembling mistake and improper setting.
- This kit use stock cylinder head and camshaft. The cylinder head and parts inside are not included.
- By installing this product, changing carburetor, plug, gear, etc and setting is required. If riding with stock setting, it unables to power up, cause of burning and break. Please set up to match the engine. Please change stronger clutch and oil pump.
- This big bore kit is for stock stroke. Do not install stroke up crank shaft.
- Please follow this instruction sheet. Do not modify the way which is not listed or it will cause burning, 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 engine oil after break in (around 100km).
- Refer to the manufacturer service manual when installation.
- 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, etc and check the oil line is choked by using air duster.
- Oil the parts with engine oil when assembling. Make sure oil line is not choked up by using air duster, etc.
- Bolts and nuts may get loosen by engine vibration. Make sure not to loosen any bolts and nuts before driving.
- Do not use engine brake, etc burden the mission. When starting engine with kick, check the gear is engaged before kick. Recommend to push start more than 2nd gear.
- Please ride under 5,000rpm when break in.



★ATTENTION WHEN INSTALLING

1. The clearance between cylinder sleeve and crank case through hole.

When installing cylinder, make sure that there is a gap more than 0.5mm all around cylinder sleeve and crankcase side through hole. Because of the crankcase tolerance, 0.5mm or less gap might interrupt the sleeve. In that case, shave crankcase through hole sharply to make clearance more than 0.5mm. If the gasket sticks out from crank case matching surface, cylinder sleeve might touch the gasket because of deformation by thermal expansion, and it might cause of burning piston and oil leaking. Crankcase hardness is more than tolerance, processing and assembling require extreme caution.



2. OTHER ATTENTION

- Please use unleaded premium gasoline. This is high pressure, regular gasoline may cause of knocking and breaking vehicle.

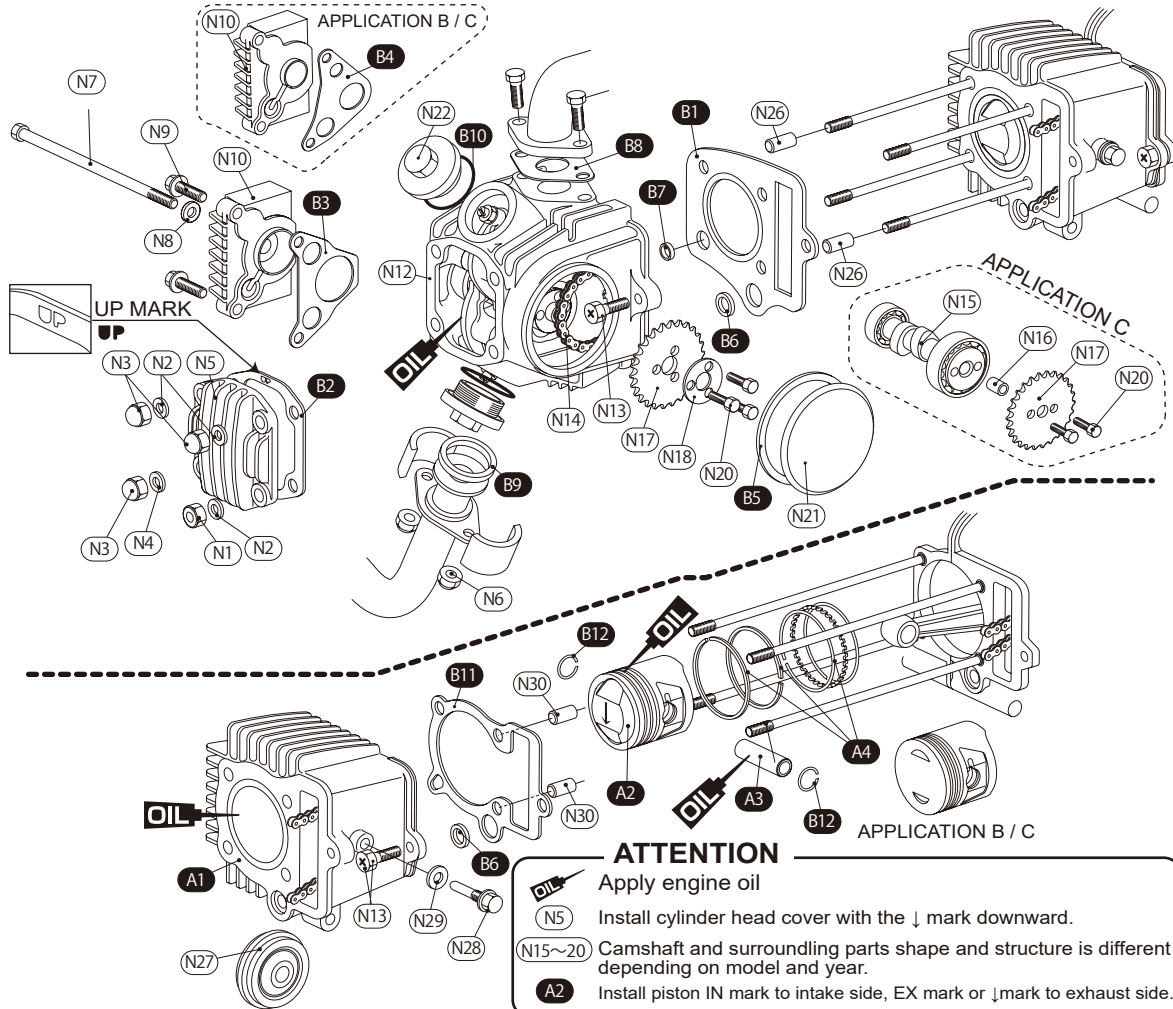
OPTION PARTS CHARACTERISTIC

- By installing PCΦ20 big carburetor, the amount of intake air increases a lot and absolute performance improvement. By installing SPL camshaft, significant performance improves due to changes amount of maximum camshaft lift and working angle. More intake and exhaust efficiency, it makes high performance engine and high smoothly. Install Φ20mm carburetor, SPL high camshaft, performance muffler together make maximum output more than 6PS and maximum speed 100km/h.
- For electrical system, recommend to use power rev CDI. For the best ignition characteristic for engine performance.
- Clutch is consumable product. If it slips, stop riding and change to reinforced clutch kit. More tuning (power) requires reinforced clutch.
- In case of engine become high temperature by high speed riding under summer, etc, please install oil cooler kit.

OPTION PARTS (Please purchase in necessary.)		
	NAME	CODE
INTAKE	KEIHIN PCΦ20 LIGHT CARBURATER (specified for models) *1	110-1015506
	SUPER POWER CLEANER (Φ35)	515-6000350
	MULTI HIGH THROTTLE SET 750mm	901-0550750
ELECTRIC	POWER REV2	766-1123300
DRIVE	3 DISK DRIVE UNIT	307-1123500
OTHER	HIGH CANSHAFT (For application A)	300-1013000
	SPL HIGH CANSHAFT (For application C)	300-1083100
	(ROCKER ARM) TITANUM NUT	303-1013711
	SUPER OIL PUMP KIT (For application A / B)	331-1013300
	SUPER OIL PUMP KIT (For application C)	331-1083300
	CAP NUT & WASHER SET	313-0600000
	SUPER OIL COOLER SET (3ROW CONDENSER)	360-1133200

*1 KEIHIN PC20 LIGHT CARBURATER APPLICATION MODEL	
MONKEY / GORILLA	FNO,Z50J-1600008 ~ FNO,AB27-1000001 ~
MONKEY BAJA	
DAX50 (12V)*	AB26
JAZZ	AC09
XR50R/CRF50F ※	AE03
*In case of installing DAX50, Kitaco fuel cock type1 (575-0500000) is required.	
*In case of installing XR50R / CRF50F, machining throttle holder and purchase other throttle cable are required.	

INSTALLING BIG BORE KIT SURROUNDING PARTS



ATTENTION

- Apply engine oil
- Install cylinder head cover with the ↓ mark downward.
- Camshaft and surrounding parts shape and structure is different depending on model and year.
- Install piston IN mark to intake side, EX mark or ↓mark to exhaust side.

FIGURE	NAME	TORQUE	FIGURE	NAME	TORQUE
N1	M6 NUT	1.2kgf · m	N15	CAMSHAFT	
N2	6mm FLAT WASHER		N16	DOWEL PIN 8 x 12	
N3	M6 CAP NUT	1.2kgf · m	N17	CAM SPROCKET	
N4	6mm COPPER FLAT WASHER		N18	CAM SPROCKET SHIM	
N5	CYLINDER HEAD COVER		N20	M5 BOLT	0.8kgf · m
N6	M6 FLANGE NUT	1.2kgf · m	N21	L CYLINDER HEAD SIDE COVER	
N7	M6 x 110 BOLT	1.0kgf · m	N22	TAPPET CAP	1.2kgf · m
N8	6mm SEALING WASHER		N26	DOWEL PIN 8 x 14	
N9	M6 x 20 BOLT	1.0kgf · m	N27	CAM CHAIN GUIDE ROLLER	
N10	R CYLINDER HEAD SIDE COVER		N28	ROLLER PIN	1.0kgf · m
N12	STOCK CYLINDER HEAD ASSY		N29	8mm SEALING WASHER	
N13	M6 BOLT	1.0kgf · m	N30	DOWEL PIN 8 x 12	
N14	CAM CHAIN				

▲ Basically, reuse genuine parts if it is unattached.

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

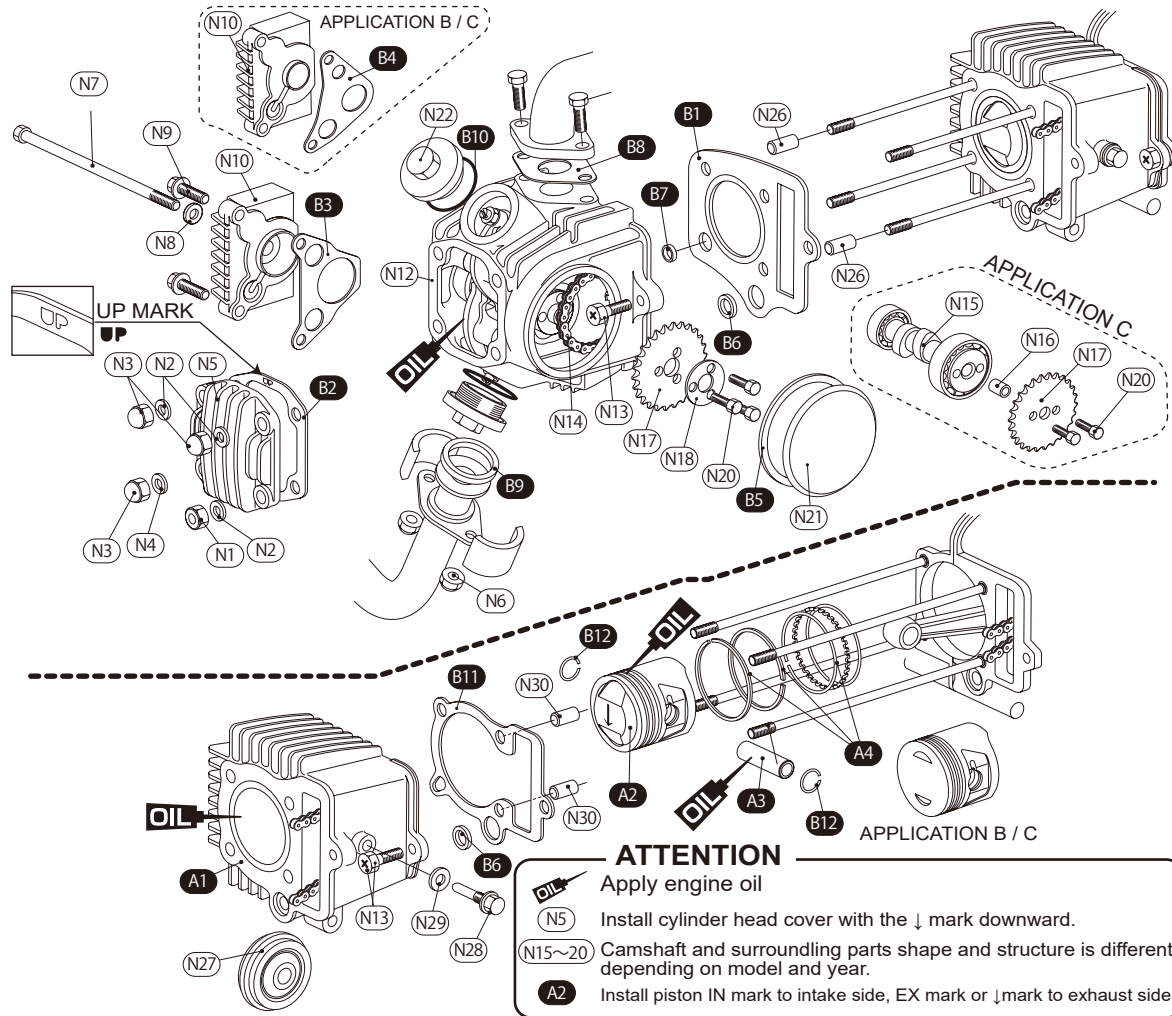
PACKING LIST IS ON NO.3

HOW TO INSTALL	
1	Remove front wheel and front fender ease to operation. (Depending on the models, it does not need to remove.)
2	Remove all oil.
3	Remove spark plug and muffler.
4	Remove 3pcs (6pcs depending on models) M6 bolts to remove left side case cover.
5	Remove gasoline inside carburater.
6	Remove manifold from engine.
7	Remove 3pcs M6 bolts and a sealing washer from right side cylinder head, then remove left and right head side cover and each head side cover gasket. * If the gasket stick to head side cover, remove by scraper, etc.
8	Remove cam sprocket installation bolt, then remove cam sprocket.
9	Remove M6 nut (1pc nut, 3pcs cap nut), 4pcs sealing washer and crossed hole M6 bolt on left side that are tighen head, then remove head cover, gasket, cylinder head assy and head gasket. * Remove 2pcs orifice O ring. * If the gasket stick to head cover and head, remove by scraper, etc.
10	Remove crossed hole M6 bolt on left side of cylinder, remove roller pin and sealing washer on left side, remove cam chain guide roller not to fall crank case, and remove cylinder. * Remove cylinder gasket, 2pcs dowel pin and orifice O ring at the same time of removing cylinder. * If the gasket stick to crank case contact surface, remove by scraper, etc.

OPTION PARTS (SUPER OIL PUMP KIT)	
(For application A / B)	331-1013300
(For application C)	331-1083300
OPTION PARTS (CAMSHAFT)	
HIGH CAMSHAFT (For application A)	300-1013000
SPL HIGH CAMSHAFT (For application C)	300-1083100

▲ Sold separately. Please purchase in necessary.
 △ If installing big bore kit, recommend to install oil pump together to match the tuning.
 △ If installing high camshaft, increase the performance. However, limited application. Be careful of it.

INSTALLING BIG BORE KIT SURROUNDING PARTS



ATTENTION
 Apply engine oil
 N5 Install cylinder head cover with the ↓ mark downward.
 N15~20 Camshaft and surrounding parts shape and structure is different depending on model and year.
 A2 Install piston IN mark to intake side, EX mark or ↓mark to exhaust side.

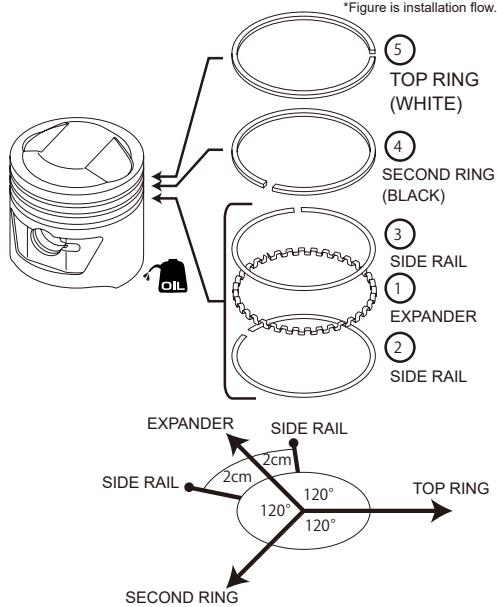
▲ Basically, reuse genuine parts if it is unattached.
 If there is a hard degradation like a blem, fatigue and wear etc on the reuse parts, please change to new ones.

HOW TO INSTALL

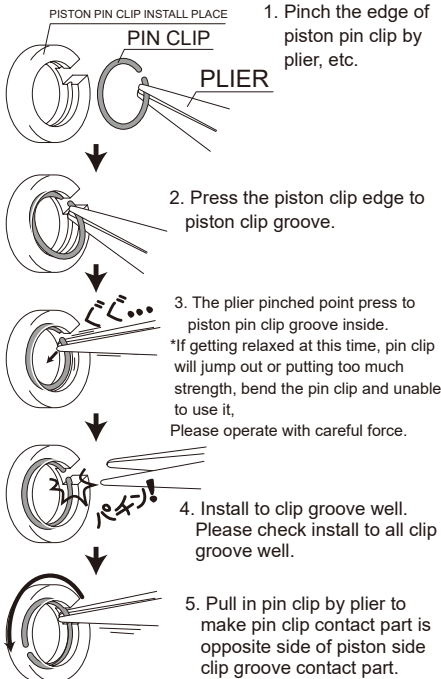
- 11 Remove piston pin clip on both sides of piston by pliers, etc to remove, push out piston pin to remove piston.
- 12 Install piston ring to piston, then install piston pin and pin clip. Be careful of piston direction when installing. Insert one side of pin clip, insert pin matches to conrod, then insert the other side of clip firmly to install.
 ※ Apply oil to piston, piston pin and piston ring.
- 13 Install cylinder gasket, rubber seal and 2pcs dowel pin (short) to specified place, assemble cylinder while squeezing piston ring by hand not to damage cylinder inside and piston, then tighten cylinder temporarily with cylinder left side crossed hole M6 bolt. Pull out the cam chain and install cam chain guide roller with roller pin and sealing washer.
 ※ Operate attention 1.
- 14 Install gasket and 2pcs dowel pins (long) to specified place, assemble cylinder head and tighten cylinder head temporarily with cylinder head left side crossed hole M6 bolt.
 ※ When installing head gasket, fix the gasket ring and cylinder I.D. with a little bit of glue ease to install cylinder head.
- 15 Install head cover gasket (it only matches 1 place, must match it) and cylinder head cover, tighten nut and sealing washer each 4pcs diagonally with specified torque. Tighten cylinder and cylinder head left side crossed hole M6 bolt additionally to install.
- 16 Set the valve timing as illustration. (Refer to No.4)
- 17 Adjust valve clearance. (Refer to No.4)
- 18 Install tappet cap O ring to 2pcs of stock cylinder head tappet cap.
- 19 Install cylinder head sided cover gasket, then install cylinder head side cover with stock M6 bolt 3pcs and sealing washer.
 ※ For application B/C, 2 types of right side head side covers are attached. Please use compatible one to match the model and year.
- 20 Install muffler gasket and muffler, then pour specified amount of engine oil. Make sure drain bolt is tightened firmly. *In case of install oil cooler, etc, add the additional amount for oil cooler capacity.
- 21 Rotate kick pedal slowly to check the crank rotates smoothly, then install plug and plug cap. Put the all removed parts back to finish installation.
 ※ Check the carburater drain screw, fuel cock, etc carefully.

INSTALLING PISTON RING AND PIN CLIP

- Refer to the illustration to install piston ring. (Move each ring contact part for 120°)
- Figure is installation flow.
- Install second ring to marked side is upward. (Other rings does not up and down direction.)
- Apply oil.
- ※ Be careful not to break ring widen forcibly.

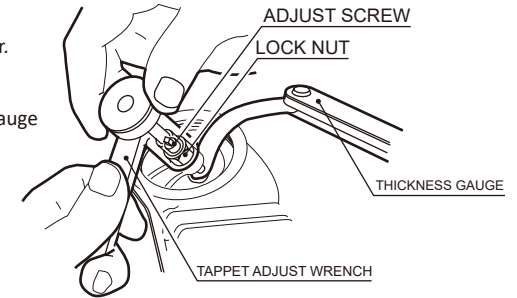


★ Tips for installing piston pin clip.
When removing, please operate in the reverse order.



VALVE CLEARANCE ADJUSTMENT

- After match the valve timing (install cam chain and cam sprocket), set compression top dead center. (condition with flywheel T mark and crank case side matching mark are matched)
- Keep the clearance as below with using thickness gauge and tappet adjust wrench.



CLEARANCE INTAKE : 0.05mm / EXHAUST : 0.08mm
LOCK NUT TORQUE : 0.7 ~ 0.8kgfm

START ENGINE AFTER INSTALLATION

A time lag of circulation engine oil around engine inside may cause of burning. In case of the engine with oil check bolt, remove check bolt and spark plug, then kick to the (cranking) oil comes out from check bolt. After check it, put check bolt and spark plug back and start engine.

BREAK IN (HEAT TREATMENT)

Please do break in with low (short) gear (in case of 5speed model, please use 4speed) and total 2 hours without applying force to engine.

ADDITIONAL TIGHTENING

After break in, cylinder, cylinder head stud bolts might get distortion and elongation because of cooling and heating. Additional tightening to even the power. The bolts of cylinder head for most of the models are 4pcs + hexagon bolts 1 or 2 pcs. After the engine becomes room temperature, loosen a nut of 4pcs stud bolt, then apply oil to nut, washer and stud bolt screw part and tighten with specified torque.

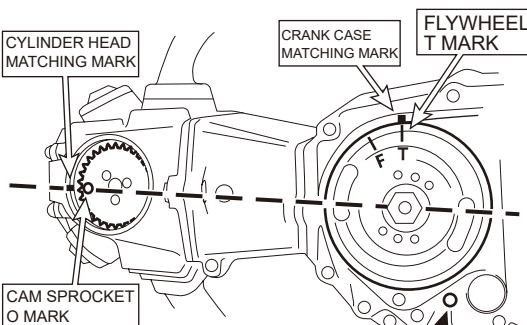
Secondly, loosen diagonally stud bolt nut, then as same as previous, apply oil to nut, washer and stud bolt screw part and tighten with specified torque. (continue)

(ATTENTION! Do not loosen all 4pcs nut at once. Please operate one by one.)

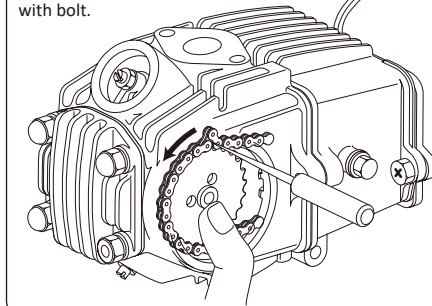
Finally, apply oil to bolts and tighten with specified torque as same to finish.

HOW TO MATCH THE VALVE TIMING

- Install cam chain with this condition.
- *This is just a guide line, make sure cam sprocket O mark is on the center line of crank shaft and cam shaft.



★ Tip for installing chain.
By using pointy stick (awl, etc), lift a piece of chain engaging sprocket, then move to engage for ease to install.
After match the valve timing, fix cam sprocket to cam with bolt.



PACKING LIST			APPLICATION A		APPLICATION B / C	
FIGURE	CODE	NAME	QTY			
-	-	LIGHT BIG BORE KIT 75cc	212-1013480	212-1013481	212-1123480	212-1123481
A1	311-1013482	CYLINDER (Φ48) BLACK	× 1	-	× 1	-
	311-1013483	CYLINDER (Φ48) SILVER	-	× 1	-	× 1
A2	351-1013480	Φ48.0 PISTON (75cc) 3R (1.0-1.0-2.0)	× 1	-	-	× 1
	351-1123480	Φ48.0 PISTON (75cc) 3R (1.0-1.0-2.0)	-	-	-	× 1
A3	353-0001338A	PISTON PIN 13 x 38.5	× 1	-	-	× 1
A4	352-1015001	Φ48.0 PISTON RING (75cc) 3R (1.0-1.0-2.0)	× 1SET	-	-	× 1SET
B ↓	960-1015075	RUBBER SEAL SET-A (75cc)	× 1SET	-	-	× 1SET
B1	961-1015075	HEAD GASKET (75cc)	(× 1)	-	-	(× 1)
B2	966-1015022	CYLINDER HEAD COVER GASKET	(× 1)	-	-	(× 1)
B3	966-1015020	R HEAD SIDE COVER GASKET (6V model / Kitaco head)	(× 1)	-	-	(× 1)
B4	966-1015110	R HEAD SIDE COVER GASKET (12V model)	-	-	-	(× 1)
B5	966-1015021	L HEAD SIDE COVER GASKET	(× 1)	-	-	(× 1)
B6	966-1015010	RUBBER SEAL 16mm-LARGE	(× 2)	-	-	(× 2)
B7	967-1018000	RUBBER SEAL 9mm-SMALL	(× 1)	-	-	(× 1)
B8	955-1013216	MANIFOLD RUBBER SEAL	(× 1)	-	-	(× 1)
B9	70-963-11001	EX GASKET (H-1)	(× 1)	-	-	(× 1)
B10	967-1015000	O RING 30.8mm	(× 2)	-	-	(× 2)
B11	962-1015000	BASE RUBBER SEAL	(× 1)	-	-	(× 1)
B12	354-0000130	PISTON PIN CLIP 13mm	(× 2)	-	-	(× 2)