Big Carburetor Kit (PC20) Instruction manual

Product number	03-05-0243 (Carburetor kit) 03-02-061 (Manifold set)

Adaptation model	YB-1Four

Thank you very much for purchasing our products.
Thank you so you will comply with the following matters at the time of use.Before installation, please check your always kit contents.
If there is a point of notice event, Please contact us the dealer of purchase.

◎ If the description, such as photos or Illustration different with this part.

☆ Please read carefully before use ☆

◎ The use of ignoring the instructions that are written in the instruction manual, if an accident or damage has occurred, we can not assume any responsibility for compensation.
◎ This product installation and use, when a problem occurs to after market goods, guarantee other than this product, also can not assume any in any such matters.
◎ If it was the case or mounting that has been processed like a product, it will not be covered under warranty.
◎ It is not possible to inquire of the combination of other manufacturers.
◎ Please note that this Kit is designed for exclusive use in the YB-1Four equipped with S-Stage, and that it cannot be mounted on motorcycles with a standard engine or any other motorcycle models.
◎ When ordering repair parts, please quote Item Nos above and reference Nos in the figures in this Manual. Should you have any questions about the Kit,please kindly contact your local motorcycle dealer.
◎ A standard mirror cannot be installed onto a supplied general-use brake lever & holder. Please separately purchase a mirror of M10x1.25.

⚠ Caution When the handling of ignoring this display, property damage and human shows the assumption of what injury.

■ Always try to drive your motorcycle at legal speed on public roads, abiding by the laws.
■ Work only when the engine and muffler are cool. (Otherwise, you will get burned.)
■ Do the installation with right tools. (Otherwise, breakage of parts or injuries to you may take place.)
■ Always use a torque wrench to screw bolts and nuts tight and securely to the specified torque. (Otherwise, these parts may get damaged or fall off, resulting in accidents.)
■ As some products and frames have sharp edges or protruding portions, please work with your hands protected.(Otherwise, you will suffer injuries.)
■ Before riding, always check every hardware like screws for slack. If you find slack ones, screw them securely up to the specified torque. (Otherwise, improper tightening may cause parts to come off.)
■ Always use new gaskets and packings. And check those parts, to be reused, for wear and damage. If you find worn or damaged parts, replace them with new ones.

⚠ Warning When the handling of ignoring this display people died, shows the contents of the serious injury possibility is assumed.

■ If you start the engine, be sure in a well-ventilated place. In the sealed such place, please do not start the engine. (There is a risk of carbon monoxide poisoning.)
■ During operation, when an abnormality occurs, immediately stop the vehicle in a safe place, please stop running.(It may lead to an accident.)
■ When performing the work, do the work safely stabilize the vehicle in a horizontal location. (There is a risk of injury vehicle collapsed while working.)
■ Inspection, maintenance, the instruction manual or, inspection methods such as service manuals, to protect the way, should be done correctly.(unsuitable inspection and maintenance, there is a risk that result to an accident.)
■ When carrying out the inspection and maintenance, etc., if found damaged parts, replace the damaged parts to avoid possible to reuse the parts. (There is a risk that lead to accidents Continued use.)
■ Plastic bags of product packaging, you can either be stored in a place that is out of reach of children, it should be discarded. (When the children or wearing, there is a risk of suffocation.)
■ As gasoline is highly flammable, never place it close to fire. Make sure that nothing flammable is near the gasoline. Since vaporized accumulation of gasoline is at high risk of explosion, work in a well-ventilated place. (Otherwise it may cause a fire.)

◎ Please note. Performance up, the design change, the product and the price in the cost up, etc. are subject to change without 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.
◎ Keep this manual stored until this product is discarded.

Product content

Number	Product content	Quantity	Item Number
1	Carburetor ASSY.	1	03-03-0077
※2	Intake manifold COMP.	1	00-00-1472
※3	Intake manifold gasket	1	00-01-0159 (2pcs)
※4	Carburetor gasket	1	00-03-0417
※5	Socket cap screw, 6x20	2	00-00-0721 (5pcs)
※6	Socket cap screw, 6x25	2	00-00-0722 (5pcs)
7	Funnel spacer	1	00-00-1457
8	Standard High Throttle Kit	1	09-02-0222
9	Brake lever & Holder	1	06-08-3002
10	Fuel tube	1	00-03-0203 (500mm)
※11	Hex wrench, 5mm	1	————

※means the parts are a part of a manifold set.
∴Please order in the repair parts are always repair part number.
If it is not the part number order, you may not be able to order.
Please be forewarned.
It should be noted, In the case of parts that can not be separately shipment, please order a set part number.

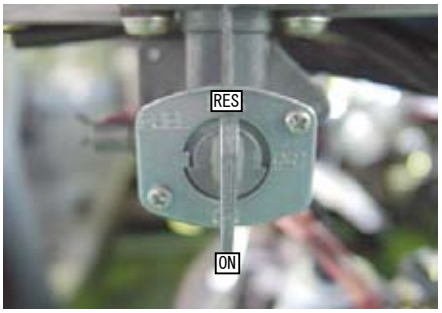
SPECIAL PARTS TAKEGAWA
CONTACT Address : 3-5-16 Nishikiorihigashi Tondabayashi Osaka JAPAN
TEL: +81-721-25-1357 FAX:+81-721-24-5059 e-mail:english@takegawa.co.jp URL http://www.takegawa.co.jp
Please contact with your name and country name provided. (Only English please)

■ Mounting procedure ※Please refer to the Genuine Service Manual for detailed mounting methods and specified torques that are not specifically described.

Removal of carburetor:

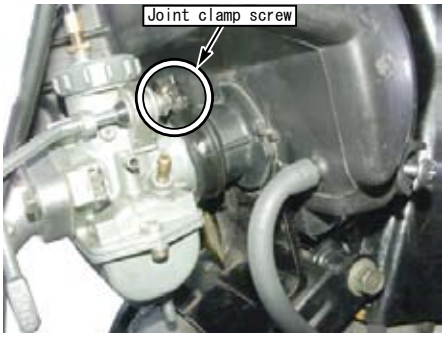
Make sure your motorcycle is secure on a maintenance stand on level and safe ground.

○ Check that the fuel cock lever is at either ON or RES.



○ Remove the left side air cleaner case cover.

○ Pull out a breather hose from the air cleaner case, and detach the air cleaner case by loosening the joint clamp screw.



○ Disconnect hoses and heater lead cord. At this time, insulate the heater lead cord with a vinyl tape.

○ Remove the choke lever from the motorcycle.

○ Remove the carburetor unit and inlet pipe from the engine.

Removal of lever holder:

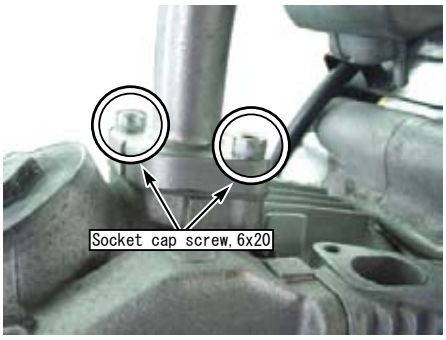
○ Unfasten a screw which is holding the lever holder, and detach it from the steering handle.

Installation of carburetor:

Referring to the instruction manuals for the high throttle and brake lever, install them to the steering handle.

○ Place an intake manifold gasket between a supplied intake manifold and cylinder head, and join them together by tightening 6x20 socket cap screw.

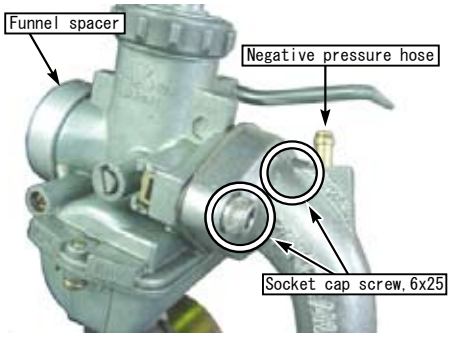
⚠ Note: Be sure that you protect specified torque.
Socket cap screw
Torque : 10N・m (1.0kgf・m)



○ Place a carburetor gasket between a supplied intake manifold and the carburetor, and secure them together with 6x25 socket cap screws to the specified torque.

⚠ Note: Be sure that you protect specified torque.
Socket cap screw
Torque : 10N・m (1.0kgf・m)

○ Attach a funnel spacer to the tip of the carburetor.



○ Remove a top cap from the carburetor, and pull out a spring and throttle valve.
And fix these parts into the throttle cable.

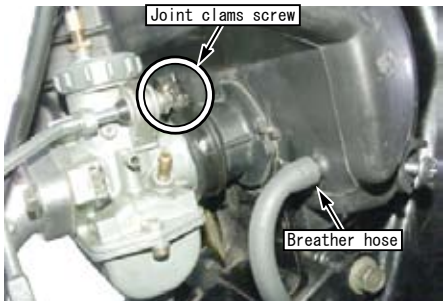
○ Align the notch on the throttle valve with the direction of the throttle stop screw, and then install it to the carburetor.
Align the convex section on the top cover with the concave section on the carburetor.

※ Snap the throttle a few times to check how much the throttle valve opens and closes.

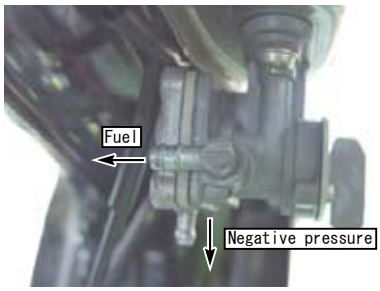
○ Adjust the free play at the throttle grip to be about 5mm by adjusting the throttle cable.

○ Attach a stock air cleaner case, and tighten up a joint clamp screw.

○ Connect a breather hose to the air cleaner case.



○ Connect the fuel hose and negative pressure hose.



○ Set the fuel cock at PRI and check every hardware for oil leak.

○ Set the fuel cock at either ON or RES.

○ Pull a choke lever to start the engine, and check every hardware for intake air leak.
Gradually loosen your grip on the choke lever, and warm up the engine till the revolution becomes smooth.
And then return the choke lever fully back to its original location.
If the engine does not run idle after warming-up, or it runs idle at high revolutions, adjust the revolutions with the throttle stop screw.

◇ Adjust the setting with utmost care in a safe place to meet the specification of each motorcycle.

How to Set the Carburetor

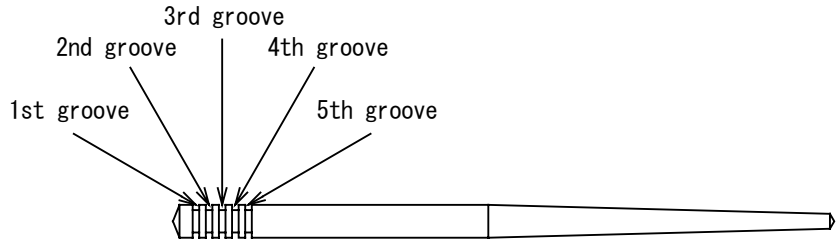
・When the carburetor does not match the engine and the engine fails, the engine failures are caused by either too dense or too lean air-fuel mixture.
・The engine failure symptoms for the engine are as follows:

When the air-fuel mixture is too dense:	When the air-fuel mixture is too lean:
・The explosion sound with a dull thud continues intermittently. ・The engine malfunctions further if you use the choke. ・The engine malfunctions when you warm it up. ・The engine works well if the cleaner is detached. ・The motorcycle belches dense (or, black) exhaust gas. ・The plug smolders, getting blackened.	・The engine overheats somewhat. ・The engine starts working well If you use the choke,. ・The engine does not accelerate well. (No smooth acceleration) ・Revolutions change, generating weak power. ・The plug burns white.

※ Set the carburetor only after warming up the engine, and then test-drive. And use a plug with the right heat value.
※ Do the setting in the following manner, studying at what throttle opening position the engine starts failing.

○ Jet needle (Throttle position at 1/4 - 3/4)

Whether or not the engine revolution is in proportion to the throttle operation
・When the acceleration is not smooth or even, make the air-fuel mixture dense.
・Make the air-fuel mixture lean when the engine revolution goes up heavily and belches black gas.
The mixture ratio at this throttle position can be adjusted by the location of E-ring in the grooves. The air-fuel mixture becomes dense as the location of the E-ring moves down from the 1st to the 5th groove.



○ Main jet (The throttle position at 3/4 - 4/4)

・The air-fuel mixture ratio at this throttle position can be adjusted by changing the number of the main jet. The larger the main jet numbers, the denser the mixture ratio becomes.
・In view of the engine and muffler specifications, select the most appropriate main jet to get the highest revolutions.

○ Slow jet / Pilot jet (First of all, please adjust the air screw.)

・In case you have given more than three turns to the air screw to tighten it, use a slow jet / pilot jet with a small number.
・If you have tighten the air screw (clockwise) to the full, use a slow jet / pilot jet with a larger number.
Check whether you have made a right choice of the pilot jet by seeing if the engine starts up revolving smoothly from the idling to running at slow speed.
・When the engine revolves up unevenly, the slow jet / pilot jet number is too small. (At idle)
・When the motorcycle belches black exhaust gas and produces heavy exhaust sound, the slow jet / pilot jet number is too big. (At idle)
・After replacing the slow jet / pilot jet, you need to readjust the airscrew.

○ Air screw

The air screw adjusts the air mass flow at the time of engine's revolving at slow speed. (At idling)
・Give the air screw a right turn → The air-fuel mixture gets dense.
・Give the air screw a left turn → The air-fuel mixture gets lean.
Loosen the tightened air screw back to the 1.5-turn position. And then from this position, give to the airscrew a right or left turn of 1/4 to 1/2 till the engine revolves at the highest speed.
Loosen the idle stop screw till you get the steady idling revolutions. And once again adjust the position of the airscrew to get the highest revolutions.

● On how the barometric pressure, temperatures and humidity affect the setting:

・At highlands or at high altitudes, the barometric pressure and air density go down and the air gets into the carburetor in less amounts.
This makes the air-fuel mixture dense which was adjusted at low altitudes.
・Under the weather conditions with very low temperatures, the air density increases, which makes the air-fuel mixture lean.
・Under the rainy and humid weather conditions, the air density decreases, which makes the air-fuel mixture dense.

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TEL: +81-721-25-1357 FAX:+81-721-24-5059 e-mail:english@takegawa.co.jp URL http://www.takegawa.co.jp
Please contact with your name and country name provided. (Only English please)