Big Carburetor Kit (PC20) Instruction manual

Product number	e-Stage/S-Stage 03-05-0247 (Carburetor kit) 03-02-023 (Manifold set)
	Regular,R-Stage/EM/+D,17R-Stage E/+D 03-05-0248 (Carburetor kit) 03-02-033 (Manifold set)

Adaptation model	CD50	(CD50-1500001 ～)
	CD50/CL50	(CD50-4000001 ～)
	Benly50S	(CD50-2200005 ～)

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.
◎ The carburetor of this kit is shipped out in a condition as stated below. Adjust the carburetor setting to match the parts used. Do the setting to meet the engine and other conditions.
◎ Do the installation work correctly referring to the relative genuine service manual for the above-mentioned compatible models.
◎ Use a genuine throttle.
◎ As thse kits are for use with a stock air cleaner, the carburetor kits for R-stage and regular head won't exhibit their original high performance. Though a funnel or power filter cannot be installed, the performance of these kits will come close to their best level when the standard air cleaner is removed.

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

■ 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.)

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

■ 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 riding, be sure to check every section for slack in parts like screws and oil leak. When you notice something abnormal with your motorcycle while riding, immediately stop riding and park your motorcyle in a safe place to check what has gone wrong. (Otherwise, the abnormality could lead to accidents.)
■ Always start the engine in a well-ventilated place, and do not turn on the engine in an airtight place. (Otherwise, you will suffer from carbon monoxide poisoning.)
■ Keep the motorcycle secure on level ground during your installation work.(Otherwise, your motorcycle could overturn and injure you.)
■ 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	————
2	Main jet, #92	1	00-03-0016
※3	Connecting tube spacer	1	00-00-1509
※4	Intake manifold	1	————
※5	Intake manifold gasket	1	00-00-2343 (for e-Stage/S-Stage) 00-03-0009 (3 pcs) (for Regular/R-Stage)
※6	Socket cap screw, 6x20	4	00-00-0721 (5 pcs)
※7	Throttle cable COMP. (710mm)	1	09-02-0071
※8	Hex wrench, 5mm	1	————

Factory Setting of a Carburetor

Main jet	#95
Slow jet	#35
Jet needle	063001
Clip position	4th.
Throttle valve	#20G
Air screw opening	1-1/2

※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
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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.

○ Keeping the motorcycle secure on level ground, close the fuel cock, open the drain cock on the carburetor, and drain the gasoline from the float chamber to a container.

○ Remove the fuel tube and throttle valve from the carburetor, and separate the throttle valve from the throttle cable.

○ Loosen a band on the air-cleaner connecting tube, and pull out an inlet-pipe holding bolt, and remove the carburetor with the inlet pipe and all.

※ Be careful not to let any foreign material fall into the intake port.

○ Unscrew a screw on the throttle housing to take out the throttle cables.
And change the throttle cables.

※ Apply grease to the sliding surface on the throttle.

○ Remove a float chamber on the PC20 carburetor, and replace the main jet with the one in the kit. And reinstall back the float chamber. Attach the carburtor to the air-cleaner connecting tube. Place the gasket beteen the cylinder head and inlet pipe, and fix the intake manifold.

○ Install the throttle valve to the carburetor, and tighten the cylinder-head mounting bolt on the intake manifold and carburetor mounting bolt to the specified torque.

※ In installing, beware of the direction in which the throttle valve is installed.

⚠ Note: Be sure that you protect specified torque.

Bolt
Torque : 10N・m (1.0kgf・m)

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

※ Snap the throttle a few times to make sure that the throttle moves smoothly without sticking and that the throttle valve is fully open.

○ Connect the fuel tube, open the fuel cock, and check each section for oil leaks.

○ Pull the choke lever to start the engine. Gradually push the lever back and warm up the engine till the revolution becomes smooth, and finally push the lever back to its original location.

※ In case the engine does not run idle after the warm-up of the engine, or the engine idling speed is high, adjust the setting by turning the throttle stop screw.

How to Set the Carburetor

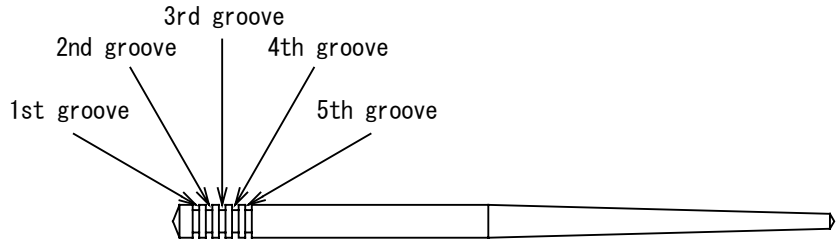
・When the carburetor does not match the engine and the engine fails, the engine failures are caused by either too dense or too lean air-fuel mixture.
・The engine failure symptoms for the engine are as follows:

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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