Instruction Manual for MIKUNI VM26 Carburetor Kit

Item No.	: **０３－０５－０４６２** (Carburetor kit)
Fits	: Monkey R / Monkey RT
Frame Nos	: AB22-1000017～

・Thank you for purchasing one of our TAKEGAWA's products. Please strictly follow the following instructions in installing and using the products.
・Before fitting the products, please be sure to check the contents of the kit. Should you have any questions about the products, please kindly contact your dealer.

◎ **Please note that, in some cases, the illustrations and photos may vary from the actual hardware.**

Please read the following instructions carefully before installation

◎ 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.
◎ 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'.
◎ This carburetor kit is for exclusive use in a motorcycle equipped with either our bore-up or bore- & stroke-up kit. And this kit is not compatible with a motorcycle with a stock engine.
◎ The installation of this Kit requires a High Throttle Kit, which please purchase separately.
◎ After the installation of this Kit, a stock air cleaner or a stock muffler cannot be installed.
◎ 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.
◎ This manual should be retained for future reference.

⚠ CAUTION The following show the envisioned possibility of injuries and damages to human bodies and property loss as a result of disregarding the following cautions.

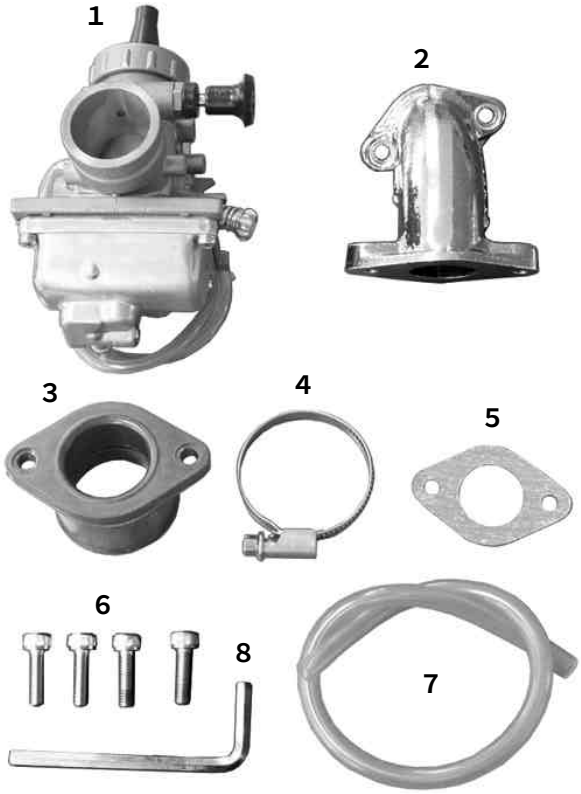
・Always use a torque wrench to screw bolts and nuts tight and securely to the specified torque.
(Improper torque could cause these parts to get damaged or fall off.)
・Work only when the engine and the muffler are cool at below 35 degrees C. (Otherwise, you will burn yourself.)
・Prepare right tools for the work, and do the work in the proper and right way.
(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 your hands protected.
(Otherwise, you will suffer injuries.)
・Before riding, always check every hardware for slack like screws. If you find slack hardware, screw it securely up to the specified torque.
(Otherwise, improper tightening may cause parts to come off.)
・Never look into the carburetor's intake pipe carelessly when the engine is running. Flames could spurt by the spitting-back of gasoline or backfire, which involves danger.

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

・Those who are technically unskilled or inexperienced are required not to do the work.
(Improper installation could lead to a driver's falling down or accidents as a result of parts breakage.)
・Before riding, always check every section for oil leak and slack in parts like screws. Besides, when you notice something abnormal with your motorcycle while riding down a road, stop riding immediately and park your motorcyle in a safe place to check.
(Otherwise, the abnormaility could lead to an accident.)
・Always drive the engine in a well-ventilated place, and do not switch the engine on in an airtight place.
(Otherwise, you will suffer from carbon monoxide poisoning.)
・Before doing work, place the motorcycle on level ground to stablize the position of your motorcycle for safety's sake.
(Otherwise, your motorcycle could fall down and injure you while you are working.)
・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 the high risk of explosion, work in a well-ventilated place.

○ Depending on the natural phenomena like the weather, temperatures and barometric pressure, and each carburetor specification, the carburetors need re-setting. Please be sure to rearrange the setting to match each engine.
○ As an air filter is not included in this Carburetor Kit, or a stock air cleaner cannot be installed, the engine will go wrong if it gets wet. So, please refrain from driving your motorcycle in the rain. Besides, before washing your vehicle, cover the carburetor with a plastic sheet or the like to prevent it from getting wet with water.
○ For the use of this Carburetor Kit, a high throttle set of 09-02-21 or -22 is required.
○ Our following products can be installed: round taper air filter of 03-01-100 or 03-01-106, round straight air filer of 03-01-102 or 03-01-108, curl funnel of 03-01-040 or 03-01-041, and billet funnel with a net of 03-01-060 or 03-01-061.

～Kit Contents～



No.	Parts Names	Qty
1	Carburetor assembly	1
2	Inlet pipe	1
3	Insulator	1
4	Clamp band	1
5	Inlet pipe gasket	1
6	Socket cap screw 6x20	4
7	Fuel hose	1
8	Hex wrench, 5 mm	1

Carburetor's initial settings

Main jet	#190
Slow jet	#22.5
Jet needle	5E75
Clip position	3rd groove from top
Throttle valve cut-way	#1.5
Air screw opening	Loosen the screw by one turn.

[Setting parts]

◎**Main jet** (For MIKUNI VM26)

#100, #105, #110, #115, #120, #125, #130, #135, #140, #145, #150, #155, #160, #165, #170, #175, #180, #185, #190, #195, #200,#210, #220, #230, #240, #250, #260

◎**Pilot jet** (For MIKUNI VM26)

#10, #12.5, #15, #17.5, #20, #22.5, #25, #27.5, #30

～Installation Procedure～

Please check the contents of this kit.

(Preparation)

⚠ CAUTION: Make sure that the engine and the muffler are cold enough!!
Stabilize the vehicle!!

1. 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 tray.

2. Demount the seat and fuel tank.

3. Detach the air cleaner case.

4. Detach a fuel tube and a top cover.

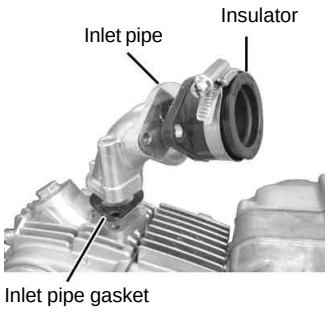
5. Separate the throttle valve and throttle cable, and detach the top cover.

6. Remove the installed carburetor with the inlet pipe attached.
※ Be careful not to let any foreign matter fall into the intake port.

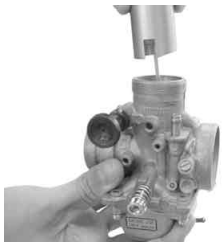
⚠ CAUTION: Be sure to tighten to the specified torque with a torque wrench.

1. Place an inlet pipe gasket between the cylinder head and the inlet pipe, and tighten the inlet pipe with socket cap screws of 6x20.
Torque=10 N・m(1.0 kgf・m)

2. And fix the insulator to the inlet pipe with two socket cap screws.
Torque=10 N・m(1.0 kgf・m)

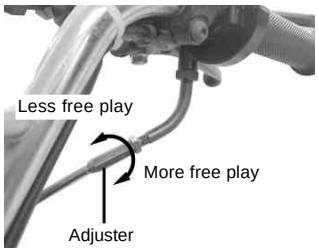


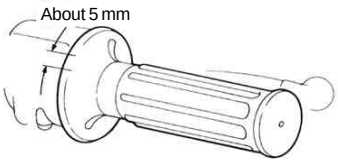
3. Remove the top cover of the carburetor of the kit, and pull out the spring and throttle valve. Pass the inner cable of the throttle cable through the carburetor top cover and then through the spring. And compressing the spring, fix the top cover to the throttle valve. Fix the throttle valve to the carburetor by aligning a notch on the throttle valve with the throttle stop screw.



4. Fit the carburetor into the insulator, and fasten the carburetor with a clamp band.

5. With an adjuster, adjust the free play at the throttle grip to be approximately 5 mm.





Snap the throttle a few times to make sure that the throttle moves smoothly without sticking and that the throttle valve is fully open. Also check that the throttle has free play even when a steering handle is turned all the way to the right or to the left.

6. Mount the fuel tank and seat.

7. Insert a fuel tube and fasten it with a tube clip. Open the fuel cock and ckeck for oil leaks.
(Do not leave the cock open for a prolonged period of time.)

8. 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, after the warm-up of the engine, your motorcycle does not run idle or the idling engine speed is high, adjust the setting with the throttle stop screw.

9. Do settings in a safe place according to the specification of your vehicle with enough care.

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How to Set the Carburetor

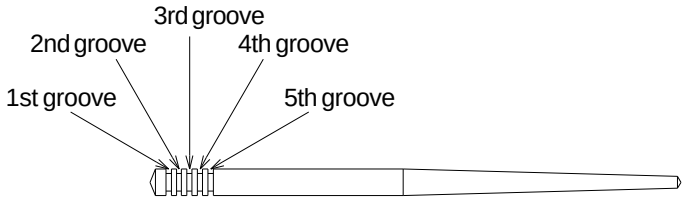
• When the carburetor does not match the engine and the engine fails, the engine failures are caused by either too dense or too lean air-fuel mixture.
• The engine failure symptoms for the engine are as follows:

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.

○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 pilot jet with a small number.
• If you have tighten the air screw (clockwise) to the full, use a 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 pilot jet number is too small. (At idle)
• When the motorcycle belches black exhaust gas and produces heavy exhaust sound, the pilot jet number is too big. (At idle)
• After replacing the 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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