

CFMoto - Mikuni Carburetor BSR36-89. Russian

CARBURETOR MIKUNI BSR36-89

«-» Page 1 of 5 Constant Vacuum Carburetor (CV)

The MIKUNI BSR3689 carburetor is installed on the entire line of CFMOTO ATVs equipped with a CF188/CF188A engine. In CV

Fig. 1

type constant vacuum carburetors, the movement of the "gas" trigger is not transmitted to the spool valve connected to the metering needle, but to the rotary throttle valve, located closer to the outlet of the carburetor. The space in the diaphragm chamber above the spool valve communicates with the mixing chamber of the carburetor. Thus, the movement of the spool valve (and with it the fuel metering needle) is controlled by the vacuum in the intake tract. At low loads, when the rotary throttle valve is closed, the vacuum in the mixing chamber (and, consequently, in the cavity above the diaphragm) is low, and the spool valve together with the needle is lowered into the fuel well under the action of a spring. At high loads, with the throttle valve open, the increased vacuum is transmitted to the cavity above the diaphragm and lifts the spool valve together with the metering needle. The advantage of this type of carburetor is that the spool valve, maintaining vacuum in the atomizer zone, provides an optimal fuel-air ratio.

Carburetor device

Fig. 2

Vacuum
tube

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Item Position

- 1 Idle speed adjustment shaft
- 2 Vacuum chamber cover
- 3 Spring
- 4 Nozzle needle holder

- 5 Spring
- 6 Needle and installation kit
for the needle
- 7 Vacuum diaphragm
- 8 Spool valve
- 9 Enrichment diaphragm
- 10 Drain screw
- 11 Float chamber
- 12 Float
- 13 Needle valve
- 14 Main fuel jet (MJ)
- 15 Emulsion tube (NJ)
- 16 Idle jet (PJ)
- 17 Starting system fuel jet (GS)
- 18 Idle air jet (PAJ)

Technical characteristics of the carburetor and its components.

Position Standard

Carburetor type MIKUNI

BSR3689

Identification

number 07G0

Carburetor diffuser size 36mm

Idle speed 1300 ± 100

rpm

Main jet (MJ) N102221

130#

Main air

jet (MAJ) MD13/2435#

Needle (JN) J85E26

Emulsion tube

(NJ) 785401011

Idle jet

(PJ) N224103

22.5#

Starting jet adjustment

screw (PS) 60416013

1

Idle air jet No. 1 (PAJ) MD13/24-65

Idle air jet No. 2 (PAJ) N211100-165

Control size

for checking the level

fuel 3.5 ± 0.5 mm

Control size

float height

installation 10 ± 1 mm

Carburetor and component checks

Fig. 3

Clean and blow the carburetor with compressed air after disassembly.

- Check the condition of the carburetor body for damage. If they are present, replace the necessary

parts.

- Make sure the vacuum

tube and connecting clamps are intact.

- Check the condition of the float chamber and the fuel supply line for damage and cleanliness.

Wash if necessary.

Fig. 4

Check the float • and its tongue , for damage. Replace if necessary.

Fig. 5

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«-» Page 3 of 5 • Make sure that the valve seat •, needle

valve , sealing ring *f* are in good condition and free from wear. If damage is detected, wear or contamination replace, wash.

Attention. Valve seat • and needle valve , are only changed as a set.

Check the condition of the spool valve assembly. Make sure that there is no damage or wear to the diaphragm , and the spool valve

•.

Fig. 6

- Check the condition of the vacuum chamber cover • and spring ,. Replace damaged parts if necessary.

Fig. 7

Check the condition of the enrichment diaphragm

- , spring , and cover *f* .

Replace damaged parts if necessary.

Fig. 8

Check the condition of the needle (JN) •, main fuel jet (MJ) ,, emulsion tube (NJ) f, air idle jet (PAJ) , fuel idle jet (PJ) ..., starting system fuel jet (GS) †, enrichment plunger ‡.

Fig. 9

If there are bends, abrasions and scratches (especially on the needle), clogged jets, replace or wash them.
• Blow the jets with compressed air.

Fig. 10

Carburetor assembly and adjustment.
• Insert the spool valve into the carburetor body and make sure it moves freely in the body.

Fig. 11

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«-» Page 4 of 5 • Make sure that it moves freely.
throttle valve. Eliminate the cause of sticking, if it is detected.
• Turn the carburetor over with the float chamber removed with the floats up. Measure the size "a" from the mating surface of the float chamber to the highest point of the floats. When this, the gasket must be removed.
Attention. The float tongue should lie on the needle valve, but, at this, there should be no additional impact on the floats.

Fig. 12

The size "a" must be 10 ± 1 mm
• If the height of the top point of the float (size "a") does not match the specified above, check the condition of the locking needle valve and its seat.
• If the seat or the valve itself has visible damage or traces of wear, then replace them as a set.
• If the seat and needle valve are in

order, then adjust the height "a"
by bending the tongue • on the float
assembly.

Fig. 13

- Measure the value "a" again. If necessary, repeat the procedure until it becomes match the required one.

Checking the fuel level in the float chamber.

- Provide the ability to replenish float chamber with fuel in the normal mode. The carburetor float chamber should be assembled and the fuel supply tube is connected.

- Install the carburetor so that the mating plane of the float chamber is horizontal.

Connect a measuring device • to the drain tube „, which is a glass tube with measuring scale and adapter.

Unscrew the screw valve *f* (drain). Allow the fuel to fill the tube and measure the distance "a" between the fuel surface in measuring tube and the line formed by the joint of the carburetor bodies and the float chamber.

Fig. 14

The size "a" must be 3.5 ± 0.5 mm

- If the height of the size "a" does not match specified above, then disassemble float chamber.
- Check the condition of the shut-off needle valve and its seat.
- If the seat or the valve itself has visible damage or traces of wear, then replace them as a set.
- If the seat and needle valve are in order, then adjust the height "a" by bending the tongue • on the float assembly.
- Repeat the fuel level check in the float chamber as described above.

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Fig. 15

Position Name

1 Vacuum tube

2 Choke cable

3 Intake manifold

4 Throttle drive housing cover

5 Throttle cable

6 Transition pipe to
air filter

7 Carburetor

8 Drain tube

9 Fuel tube

Attention. When mating the carburetor with
the intake manifold, align the trap
the pipe with the boss on the carburetor
body.

Trap Boss on
body