

CFMoto - CFMoto ATV CF500-A. Service Manual.Russian

CF500A

REPAIR MANUAL

2 FOREWORD INDEX

This manual describes the inspection, maintenance, overhaul, disassembly/assembly, removal and installation procedures for components and parts, troubleshooting information, and service data, along with illustrations of the CF500A quadricycle.

Chapter 1: General repair information, tools, quadricycle design and technical data.

Chapter 3: Key points for inspection and adjustments, maintenance guide.

Chapter 2 and after Chapter 3: Disassembly of parts and components, installation, overhaul and troubleshooting.

The manufacturer reserves the right to improve the product without prior notice. Overhaul and maintenance are carried out according to the current condition of the ATV.

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3 Unit Conversion Table

Parameter Example Conversion

Pressure 200 kPa (2.00 kg/cm²) 1 kg/cm²=98.0665 kPa 1kpa=1000 Pa

33 kPa (250 mmHg) 1 mmHg=133.322Pa=0.133322 kPa

Torque 18 N·m (1.8 kg·m) 1 kg·m=9.80665 N·m

Volume 419 ml 1 ml=1cm³=1 cubic cm

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1 l=1000 cm³

Force 12N (1.2 kg) 1 kg=9.80665 N

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Safety Precautions

1. Exhaust contains harmful components. Do not start the engine in closed or poorly ventilated areas for extended periods.
2. To avoid burns, do not touch the engine or muffler with bare hands after the engine has stopped. Wear long-sleeved work clothes and gloves during operation.
3. Battery fluid (sulfuric acid solution) is extremely corrosive and can cause skin and eye burns. If it gets on skin, rinse immediately with water and seek medical attention. If it gets on clothing, rinse with water to prevent burns. Keep the battery and battery fluid out of the reach of children.
4. Coolant is poisonous. Do not drink or spill on skin, eyes, or clothing. If it gets on skin, wash with plenty of soapy water. If it gets in eyes, rinse with water and seek medical attention. If coolant is ingested, induce vomiting to cleanse the stomach and seek medical attention. Keep coolant out of the reach of children.
- 4.5. Wear appropriate work clothes, headgear and footwear. Wear safety glasses, gloves, and a mask if necessary.
6. Gasoline is flammable. Smoking and open flames are prohibited. Also, protect from sparks. Gasoline vapors are very explosive. Work in a well-ventilated area.
7. When charging, the battery may produce hydrogen, which is an explosive substance. Charge the battery in a well-ventilated area.
8. Exercise caution with rotating elements such as wheels and clutch.
9. When more than one person is working, do not forget to remind each other of safety precautions.

Disassembly and Assembly Cautions

1. Use only genuine parts and lubricants for repairs.
2. Remove dirt and dust before repair.
3. Store disassembled parts separately to ensure correct assembly.
4. Replace removed washers, O-rings, piston pin retainers, cotter pins with new ones.
5. Flexible retainers may be damaged after disassembly. Do not use loosened retainers (locking parts).
6. After disassembly, wash and dry the parts. Apply lubricant to the surface of moving parts.
7. If you do not know what length of screw is required, install the screws one at a time until they are tightened to the required depth.
8. Initially tighten bolts, nuts, and screws, then tighten to the specified torque, starting with large ones and ending with small ones, inside then outside.

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9. Check disassembled rubber parts for wear, replace if necessary. Store rubber parts away from lubricant.
10. Apply or inject the recommended lubricant to the specified parts.
11. Use special tools if necessary.
12. Replace disassembled bearings with new ones.
13. Turn the inner and outer ring of the bearing and check whether it rotates freely. Replace the bearing if the axial or radial clearance is too large. If the surface is uneven, wipe with oil; replace if wiping does not help. When pressing the bearing into the machine or onto the shaft, replace it if it does not fit tightly.
14. Install the one-way dustproof bearing in the correct direction. When assembling an open-type bearing or a two-way dustproof bearing, install it so that the manufacturer's mark is on the outside.
15. Keep the bearing block stable when air-drying after washing. Lubricate before assembly.
16. Install the flexible retaining ring correctly. After assembly, turn the retaining ring and make sure it is in the groove.
17. After assembly, check the tightening quality and free play of all parts.
18. Brake fluid and coolant can damage the coating, plastic and rubber parts. If these liquids get on them, wash the parts with water.
19. Install the cuff with the manufacturer's mark facing outwards. Do not bend or scratch the edge of the cuff. Lubricate the cuff before assembly.
20. When installing tubes, insert the tube all the way into the connection. Install the tube clamp in the groove. Replace tubes and hoses that cannot be tightened.
21. Make sure that dirt or dust does not get into the engine and hydraulic brake system.
22. Clean the gaskets and washers of the engine housing before assembly. Remove scratches on the connecting surfaces, evenly polishing these places.
23. Do not overtighten or bend wires. Damaged wires can affect the operation of the ATV.
24. When assembling the parts of the protective caps, install the caps into the grooves.

6 VIN and Engine Number

Vehicle Identification Number (VIN): LCELDTS~

Engine Number: CF188~

Engine Number

VIN Number

7 Main Data Table

Model CF500A

Length 2320 mm

Width 1179 mm

Height 1230 mm

Wheelbase 1490 mm

Engine Type CF188

Displacement 493 ml

Fuel Type Unleaded gasoline with an octane rating of at least 92

Dry Weight 340 kg

Number of Seats 2 (with driver)

Max. Load 225 kg

Tire Front 25x8 12

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Rear 25x10 12

Ground Clearance 275 mm

Min. Turning Diameter 4.8 m

Engine Starting Electric starter/recoil starter

Engine Type Single-cylinder, 4-stroke, liquid-cooled, 4-valve, OHC

Combustion Chamber Type Triangular

Valve Drive Type SOHC with chain

Bore and Stroke 87.5 mm x 82.0 mm

Compression Ratio 10.2:1

Max. Power 24 kW/7000 rpm

Max. Torque 36 N·m /5500 rpm

Lubrication Type Splash lubrication under pressure

Oil Pump Type Rotor

Oil Filter Type Full-flow screen filter

Cooling Type Closed circulation

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Fuel System Air Filter Type Filter with sponge element

Carburetor Type Vacuum diaphragm MICUNI

BSR36 89

Mixing Valve Diameter 36 mm

Gear Transmission Clutch Type Centrifugal, multi-disc in oil bath

Modes Automatic (CVT), + parking and gear shifting

Primary Transmission Transmission Type Bevel gear

Gear Ratio 2.938

Secondary Transmission Transmission Type Bevel gear

Gear Ratio 2.938

Gearbox Type Automatic (CVT), + parking and gear shifting

Action Automatic

Gear Ratio 2.88~0.70

Gear Ratio Final

Ratio 1.333(24/18, bevel gear)

Secondary

Ratio 1.952 (41/21)

Gears Low gear: 2.25 (36/16), high

gear: 1.35 (27/20), reverse:

3.828

Steering Steering Angle Right 30

Left 30

Brake Type Front Hydraulic disc

Rear Hydraulic disc

Shock Absorber Suspension Swing arm

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Frame Type Welded tubular, plates

9 Overhaul Table

Lubrication

Item Standard Service Limit

Engine Oil Oil volume at replacement 1.9 l

Full volume 2.2 l

Recommended oil (see original)

Specifically for a motorcycle with a 4-stroke engine SAE 10W

40, 20W 50

Application of substitutes:

API type: grade (class) SE or SF

SAE type: choose from the diagram on the left according to the surrounding temperature

Oil Pump Rotor Clearance between inner and outer rotor 0.070.15 mm 0.20 mm

Clearance between outer rotor and housing 0.070.17 mm 0.25 mm

End face clearance 0.050.10 mm 0.12 mm

Fuel Equipment

Unit Standard

Fuel Tank Volume Full volume 19.0 l

Carburetor Type MICUNI BSR36 89

Main Jet N102221 130

Idle Jet N224103 22.5

Idle Speed 1300±100 rpm

10 Cooling System

Unit Standard

Coolant Volume Full volume 1.14 l

Reservoir Volume 0.34 l

Standard Density 30%

Hydraulic shock when opening the radiator cap 108 kPa (1.1 kg/cm²)

Thermostat Valve open temperature 72±2°

Temperature at fully