

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

CFMoto - CFMoto ATV CF500(-A). Service Manual. English.2006

CF500/CF500-A

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FOREWORD INDEX

This manual contains an introductory description
of procedures for inspection, maintenance,
overhaul, disassembly & assembly, removal and
installation of components and parts,
troubleshooting and service data together with
illustrations of our All Terrain Vehicle Model
CF500 and CF500-A

Chapter 1: general service information, tools,
vehicle structure and technical data.

Chapter 3: key points for inspection and
adjusting, service guide.

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

The manufacturer reserves the right to make improvements or modifications to the products without prior notice.
Overhaul and maintenance should be done according to the actual state and condition of the ATV.

Vehicle

Service Information 1

Vehicle Body, Muffler 2

Inspection & Adjustment 3

Cooling System 4

Removal and Installation of Engine, Drive

Train and Gearshift Unit 5

Front Wheel, Front Brake, Suspension, Steering 6

Rear Wheel, Rear Brake, Suspension 7

Battery, Charging System 8

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Conversion Table

Item Example Conversion

Pressure 200Kpa (2.00kgf/cm²)

33kpa(250mmHg) 1kgf/cm²=98.0665kpa 1kpa=1000pa

1mmHg=133.322Pa=0.133322Kps

Torque 18N·m(1.8kgf-m) 1kgf · m=9.80665N · m

Volume 419ml 1ml=1cm³=1cc

1l=1000cm³

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

1. Overhaul Information

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Cautions

Safety Cautions

1. Hazardous components in exhaust. Do not run the engine in a enclosed or poorly ventilated place for long time.

2. Do not touch the engine or muffler with bare hands after the engine has just stopped to avoid scalding. Wear long-sleeve work clothes and gloves for operation.

3. Battery liquid (dilute sulfuric acid) is highly caustic and may cause burns to skin and eyes.

Flush with water if splashed to skin and get immediate medical attention. Flush with water if splashed to clothes to avoid burns. Keep battery and liquid away from reach of children

4. Coolant is poisonous. Do not drink or splash to skin, eyes or clothes. Flush with plenty of soap water if splashed to skin. If splashed into eyes, flush with water and consult the doctor. If drinking the coolant, induce vomit and consult the doctor. Keep coolant away from reach of children.

5. Wear proper work clothes, cap and boots. If necessary, wear dust-glass, gloves and mask.

6. Gasoline is highly flammable. No smoking or fire. Also keep against sparks. Vaporized

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gasoline is also explosive. Operate in a well-ventilated place.

7. When charged, Battery may generate hydrogen which is explosive. Charge the battery in a well-ventilated place.
8. Be careful not to get clamped by the turning parts like wheels and clutch.
9. When more than two people are operating, keep reminding each other for safety purpose.

Cautions for Disassembling and Assembling

1. Use genuine CFMOTO parts, lubricants and grease
2. Clean the mud, dust before overhauling
3. Store the disassembled parts separately in order for correct assemble.
4. Replace the disassembled washers, o-rings, piston pin retainer, cotter pin with new ones.
5. Elastic retainers might get distorted after disassembled. Do not use the loosened retainers.

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1. Overhaul Information

6. Clean and blow off the detergent after disassembling the parts. Apply lubricants on the surface of moving parts. Measure the data during disassembly for correct assembling.
7. If you do not know the length of screws, install the screws one by one and make sure they are screwed in with same depth.
8. Pre-tighten the bolts, nuts and screws, then tighten according to the specified torque, from big to small and from inner side to outer side.
9. Check if the disassembled rubber parts are aged and replace if necessary. Keep the rubber parts away from grease.
10. Apply or inject recommended lubricant to the specified parts.

11. Use special tools wherever necessary.

12. Replace the disassembled ball bearings with new ones.

13. Turn the inner and outer rings of ball bearing to make sure the bearing will turn smoothly. Replace if the axial or radial play is too big. If the surface is uneven, clean with oil and replace if the cleaning does not help.

When pressing the bearing into the machine or to the shaft, replace the bearing if it could not be pressed tight.

14. Install the one-side dust-proof bearing in the right direction. When assembling the open type or double-side dustproof bearing, install with manufacturers mark outward.

15. Keep the bearing block still when blowing dry the bearing after washing clean. Apply oil or lubricant before assembling.

16. Install the elastic circlip properly. Turn the circlip after assembling to make sure it has been installed into the slot.

17. After assembling, check if all the tightened parts are properly tightened and can move smoothly.

18. Brake fluid and coolant may damage coating, plastic and rubber parts. Flush these parts with water if splashed.

19. Install oil seal with the side of manufacturers mark outward.

Do not fold or scratch the oil seal lip. Apply grease to the oil seal lip before assembling

20. When installing pipes, insert the pipe till the end of joint. Fit the pipe clip, if any, into

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the groove. Replace the pipes or hoses that cannot be tightened.

21. Do not mix mud or dust into engine and/or the hydraulic brake system.

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1. Overhaul Information

22. Clean the gaskets and washers of the engine casing before assembling. Remove the scratches on the joint faces by polishing evenly with an oilstone.

23. Do not twist or bend the cables too much. Distorted or damaged cables may cause poor operation.

24. When assembling the parts of protection caps, insert the caps to the grooves, if any.

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1. Overhaul Information

VIN Number and Engine Number

Vehicle Identification Number: LCELDTS~

Engine Number: CF188~

1- 4

1. Overhaul Information

Main Data Table

Item Parameter

Model CF500/CF500-A

Length 2120mm/2320mm

Width 1170mm

Height 1230mm

Wheel base 1290mm/1490mm

Engine type CF188

Displacement 493ml

Fuel type Unleaded gasoline 90 Octane or
above

Dry weight 337Kg/340Kg

Number of Passengers 1 for CF500, 2 for CF500-A
(including driver)

Max. Load 150kg/225Kg

Front 25x8-12 Tire Rear 25x10-12

Ground Clearance 275mm

Min. turning diameter 4.5m/4.8m

Starting Electrical starting/Recoil starting

Engine type Single cylinder, 4-stroke,

Liquid-cooled, 4 valves, OHC

Combustion chamber type Triangle

Valve Driving type SOHC chain driving

Bore x stroke 87.5mm X 82.0mm

Compression Ratio 10.2:1

Max. power 24Kw/7000 rpm

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Max. torque 36N.M/5500 rpm

Lubrication type Pressure & Splash

Oil pump type Rotor

Oil filter type Full flow filter screen Engine

Cooling type Closed coolant circulation

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1. Overhaul Information

1- 6 Item Parameter

Air Filter type Sponge element filter

Type Vacuum Diaphragm type

MIKUNI BSR36-89 Fuel

device Carburetor Diameter of mixing

valve 36mm

Type Wet, auto-centrifugal

Clutch Operation mode Automatic (CVT) + Parking &

Gear shifting

Gear type Bevel gear Initial Transmission Reduction ratio 2.938

Gear type Bevel Gear Secondary

transmission Reduction ratio 2.938

Type Automatic (CVT) + Parking &

Gear shifting

Function Auto-centrifugal

Transmission ratio 2.88~0.70

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 Gear: 3.828 Gearing

Gearbox Gear

Ratio

Total Low Gear: 5.857, High Gear:

3.514, Reverse Gear: 3.828

Right 30 Steering device Steering angle Left 30

Front Hydraulic Disc Brake type Rear Hydraulic Disc

Bumper

Device Suspension Swing Arm

Frame

type Welded steel tube and plate

1. Overhaul Information

Overhaul Datasheet

Lubricating device

Item Standard Service

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limit

Volume when replacing 1900m l Engine Oil

Capacity Full capacity 12200 m l

Recommended Oil (see original)

Specially for 4-stroke

motorcycle

SAE-10W-40 20W-