

CFMoto - CFMoto ATV Terralander CF800-2. Service Manual.English

FOREWORD

This manual introduces CF800-2 maintenance information, removal&installation procedure, check & adjustment methods, troubleshooting and technical specifications in detail. There are illustrations to guide your operations.

Chapter 1 mainly introduces general operation information, service tools, vehicle structure and basic specifications.

Chapter 2 mainly introduces check & adjustment methods and how to do vehicle maintenance.

Chapter 3 and further chapters mainly introduce removal, installation, adjustment, maintenance and troubleshooting information.

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CFMOTO reserves right to make improvements and modifications to the products without prior notice. Overhaul and maintenance should be done according to actual condition of vehicle.

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Zhejiang CFMOTO Power Co., Ltd.

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Unit Conversion Table

Item Example Conversion

Pressure 200kPa(2.00kgf/ cm²)33kPa(250mmHg) 1 kgf/c m²=98.0665kPa 1kPa=1000Pa

1mmHg=133.322Pa=0.133322kPa

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

Volume 419ml(419c m³,419cc) 419ml(0.419l) 1 ml=1 c m³=1 cc 1l=1000 cm³

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

1-1 GENERAL INFORMATION

MAINTENANCE INFORMATION

Operation cautions

1. Engine exhaust fumes are poisonous and can result in loss of consciousness or death. Do not run the engine in an enclosed or poorly ventilated area.
2. Do not touch the engine or muffler with bare hands after the engine has been just stopped to avoid burns. Wear long-sleeve work clothes and gloves for operation.
3. Battery electrolyte (dilute sulfuric acid) is highly caustic and can result in burns from contact with skin and eyes. If you spill electrolyte on skin, flush with water and seek for medical attention immediately. If you spill electrolyte on clothes, flush with water if to avoid burns. Keep battery and electrolyte out of reach of children.
4. Coolant is poisonous. Do not drink or spill it on skin, eyes or clothes. If you spill coolant on skin, immediately wash with soap and water. If you spill coolant on eyes, flush with water and seek prompt medical attention. If you swallow coolant, induce vomit and see the doctor. Keep coolant out of 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 gasoline away from sparks. Vaporized gasoline is also explosive. Operate in a well-ventilated area.
7. When the battery is being charged, it produces explosive gases. Charge the battery in a well-ventilated area.
8. Be careful not to get pinched 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 removal and installation

1. Use genuine CFMOTO parts, lubricants and service products.
3. Clean mud, dust before servicing.
2. Store the removed components separately in order for correct installation.
4. Replace the removed washers, o-rings, piston pin retainers, cotter pins with new ones.
5. Elastic retainers might get distorted after disassembled. Do not use the loosened retainers.
6. Clean and blow off the detergent after removal. Apply lubricants on the surface of moving parts. Measure the data during removal for correct installation.
7. If you do not know the length of screws, install the screws one by one and make sure they are screwed in with the same depth.
8. Check if the removed rubber parts are aged and replace if necessary. Keep the rubber parts away from grease.
9. Pre-tighten the bolts, nuts and screws, then torque to specification. The basic sequence is from big to small, from inner side to outer side and criss-cross.
10. Replace aged rubber parts when assembling. Do not splash gasoline, grease onto the surface, as this could cause damage.

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1-2 ENGINE BREAK-IN

There are many movable components inside the engine, such as piston, piston ring, cylinder, crankshaft, gears and so on. During initial use period, proper run-in for every critical component is necessary. Break-in can help engine components match each other better and adjust working condition. Careful treatment of a new engine will result in more efficient performance and a longer service life.

Recommended break-in period: First 20 hours

Operation guide:

0~10 Hours

Do not operate continuously at more than 50% throttle position. Cool down the engine for every 5~10 minutes after every 1 hour operation. Avoid sudden acceleration. Vary the throttle position slowly and smoothly. Do not vary the throttle position rapidly.

10~20 Hours

Avoid long-time run at more than 75% throttle position. Do not open throttle completely during the period.

ATTENTION:

1. Maintain and repair as regular procedures during break-in period.
2. After break-in, do not forget to check and maintain the engine before normal use.
11. Apply or inject recommended lubricant to the specified lubrication points.
12. Use special tools when necessary.
13. When ball bearing is removed by pressing steel balls, it can not be reused.
14. Finger turn the inner and outer rings of ball bearing to make sure the bearing will turn smoothly.
 - z Replace if the axial or radial play is too big.
 - z If the surface is uneven, clean with oil and replace if the cleaning does not work.
 - z When pressing the bearing into the machine or onto the shaft, if the bearing can not be securely seated, replace it.
15. Install the one-side dust-proof bearing in the right direction. When assembling the open type or double-side dust-proof bearing, install with manufacturers mark outward.
16. Keep the bearing block still when blowing dry the bearing after washing clean. Apply oil or lubricant before installation.
17. Install the elastic circlip properly. Turn the circlip after assembling to make sure it has been installed into the slot.
18. After assembling, check if all the tightened parts are properly tightened and can move smoothly.
19. Brake fluid and coolant may damage painting, plastic and rubber parts. Flush with water if splashed on these parts.
20. Install oil seal with the side of manufacturers mark outward.
 - z Do not fold or scratch the oil seal lip.
 - z Apply grease to the oil seal lip before assembling
21. When installing pipes, insert the pipe till the end of joint. Fit the pipe clip, if any, into the groove. Replace the pipes or hoses that cannot be tightened.
22. Do not mix mud or dust into engine and/or the hydraulic brake system.
23. Clean the gaskets and washers of the engine casing before assembling. Remove the scratches on the joint faces by polishing evenly with an oilstone.
24. Do not twist or bend the cables too much. Distorted or damaged cables may cause poor
25. When assembling the parts of protection caps, insert the caps to the grooves, if any.

1-3 GENERAL INFORMATION

LOCATION OF VIN/EIN

Model Number CF800-2

1. Vehicle identification number(VIN): LCELVYZ3~

2. Name plate (Vehicle identification number label)

3. Engine identification number(EIN): 2V91W~

1-4 Item Specifications

Model type CF800-2

Overall length 2310mm

Overall width 1180mm

Overall height 1340mm

Wheelbase 1480 mm

Engine type 2V91W

Displacement 800ml

Fuel type and Octane No. RQ-93 or higher unleaded gasoline

Dry weight 400 kg

Passengers 2 persons (including driver)

Total vehicle load allowed 2persons +105 kg =255 kg

Tire Front AT26 x912 49J

AT26 x914 48J

Rear AT26 x1112 55J

AT26 x1114 54J

Min. ground clearance 270mm

Min. turning radius 8000mm

Engine Starting Electric start

Type V-twin cylinder,4-stroke,liquid-cooled,8 valves,SOHC

Valves SOHC / Timing chain drive

Bore xStroke 91mmx 61.5mm

Compression ratio 10.3:1

Lubrication Wet sump, replaceable oil filter

Oil pump Rotor drive

Oil filter Paper type, replaceable

Engine oil type SAE15W-40/SG or higher

Cooling system Liquid-cooled /close-loop cooling

Coolant type -30anti-corrosion and anti-freezing

1 GENERAL INFORMATION

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Item Specifications

Air intake

devices Air filter type Paper filter element

Throttle body Type 0800-173000

Diameter of throttle body 48mm
Fuel tank capacity 23 L
Drive train Clutch type Wet shoes and auto centrifugal
Transmission type CVT+ Gearshift
Gearshift High, Low and Reverse
Gearshift
methods /orders Manual operation /L-H-N-R-P
CVT ratio range 2.88 ~0.70
Gearshift ratio H gear L gear R gear
Final ratio 1.333
Secondary ratio 1.952
Single gear ratio 1.143 2.529 2.231
Total ratio 2.975 6.585 5.807
Ratio of drive gear Front $33 / 9 = 3.667$
Rear $33 / 9 = 3.667$
Output type Front/Rear shaft drive
Rotation of engine output When forward, clockwise (rear view)
Steering Turn angle Left 31°
Right 31°
Brakes Front Hydraulic Disc
Rear Hydraulic Disc
Suspension Double A-arm and independent
Frame type Steel tube and plate
1 GENERAL INFORMATION