Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

KATSU Tools FG500

KATSU Tools FG500 Diesel Water Separator Instruction Manual

Model: FG500 (SKU: 482720)

Introduction Safety Information Product Overview Specifications Setup & Installation Operation Maintenance Troubleshooting

1. Introduction

The KATSU Tools FG500 Diesel Water Separator is designed to effectively remove water and particulate contaminants from diesel fuel. This process helps protect your engine from damage, reduces maintenance costs, and extends the lifespan of critical fuel system components, including common rail systems. This manual provides essential information for the safe and efficient installation, operation, and maintenance of your FG500 unit.

2. Safety Information

Always observe the following safety precautions when working with fuel systems:

- Ensure the engine is turned off and cooled down before performing any installation or maintenance.
- Disconnect the battery to prevent accidental starting.
- Work in a well-ventilated area to avoid inhaling fuel fumes.
- Wear appropriate personal protective equipment (PPE), including safety glasses and fuel-resistant gloves.
- Keep open flames, sparks, and other ignition sources away from the work area.
- Diesel fuel is flammable. Handle with care and clean up any spills immediately.
- Dispose of waste fuel and filter elements according to local environmental regulations.

3. Product Overview

The FG500 Diesel Water Separator features a robust design for reliable performance. Key components include the filter housing, transparent collection bowl, filter element, and drain valve.



Figure 3.1: Overall view of the KATSU Tools FG500 Diesel Water Separator.



Figure 3.2: Close-up view of the transparent collection bowl and drain valve, showing the internal turbine for water separation.



Figure 3.3: Product label indicating model FG500 and SKU 482720, along with basic instructions.

4. Specifications

Feature	Detail
Brand	KATSU Tools
Model	FG500
SKU / Item Number	482720 / 48272-V1
Filter Element Diameter	80 mm
Filter Element Height	78 mm
Inlet/Outlet Threads	M14 x 1.5 mm (M14 bolts included)

Feature	Detail
Filter Filtration Capacity	30 Micron
Maximum Flow Rate	227 Liters/Hour
Oil Pipe Connection	Suitable for 10 mm inner diameter diesel pipes
Application	Suitable for engines under 340 HP (trucks, tractors, marine, most diesel engines)
Outer Material	Technical Plastic
Item Weight	1.93 Kilograms
UPC	519204468856

5. Setup & Installation

Proper installation is crucial for the performance and longevity of the water separator. Follow these steps carefully:

1. **Mounting Location:** Select a secure mounting location that is easily accessible for maintenance and away from heat sources or moving parts. Ensure the unit is mounted vertically to allow proper water separation.
2. **Fuel Line Connection:**
    - Identify the fuel inlet and outlet ports on the unit. The port marked "IN" is for the fuel supply from the tank, and the port marked "OUT" is for the filtered fuel going to the engine.
    - Connect the fuel lines (10 mm inner diameter recommended) to the appropriate M14 x 1.5 mm threaded ports using the provided M14 bolts and fittings. Ensure all connections are tight to prevent leaks.
3. **Priming the System:** Before starting the engine, the new assembly should be filled with clean diesel fuel. This helps to remove air from the system and ensures immediate fuel flow.
4. **Leak Check:** After installation and priming, visually inspect all connections for any signs of fuel leakage. Rectify any leaks before proceeding.



Figure 5.1: Side view of the unit, highlighting the "IN" and "OUT" ports for fuel line connection.



Figure 5.2: Included M14 bolts and various connection fittings for fuel lines.

6. Operation

Once installed and primed, the FG500 Diesel Water Separator operates automatically. Fuel flows through the unit, where water and heavier contaminants are separated by centrifugal force and collected in the transparent bowl, while the filter element removes particulate matter.

Regularly inspect the transparent collection bowl for accumulated water or sediment. The frequency of inspection depends on fuel quality and usage conditions.

7. Maintenance

Routine maintenance ensures optimal performance and extends the life of your engine.

7.1. Draining Water and Sediment

- Water and sediment should be drained regularly from the bottom of the transparent collection bowl.
- Place a suitable container beneath the drain valve to collect the drained fluid.
- Loosen the drain knob located at the bottom of the bowl until fluid begins to drain.
- Allow the water and sediment to drain until clean fuel starts to appear.
- Tighten the drain knob securely.

- Dispose of the collected water and sediment responsibly according to local regulations.

7.2. Filter Element Replacement

The filter element should be replaced periodically, typically every 10,000 km or 500 operating hours, or sooner if a significant reduction in fuel flow is observed.

1. Turn off the engine and allow it to cool.
2. Shut off the fuel supply to the filter, if possible.
3. Place a drip tray or container beneath the unit to catch any spilled fuel.
4. Loosen the handle cover or retaining ring and carefully remove the transparent collection bowl.
5. Remove the old filter element.
6. Clean the inside of the filter housing and the collection bowl. Inspect seals and O-rings for damage and replace if necessary.
7. Install a new filter element, ensuring it is correctly seated.
8. Reattach the transparent collection bowl and tighten the handle cover or retaining ring securely.
9. Refill the new assembly with clean fuel before use to prime the system.
10. Start the engine and check for leaks.



Figure 7.1: Exploded view of the FG500, illustrating the filter element and transparent bowl for maintenance.

8. Troubleshooting

Problem	Possible Cause	Solution
Reduced Engine Performance / Fuel Starvation	Clogged filter element	Replace the filter element (see Section 7.2).

Problem	Possible Cause	Solution
	Excessive water in collection bowl	Drain water from the collection bowl (see Section 7.1).
Fuel Leakage	Loose connections	Tighten all fuel line connections and the collection bowl.
	Damaged O-rings or seals	Inspect and replace any damaged O-rings or seals.
Water Not Separating Effectively	Unit not mounted vertically	Ensure the unit is mounted in a vertical position.
	Excessive fuel flow rate	Verify the flow rate is within the specified maximum (227 L/H).

© 2026 KATSU Tools. All rights reserved.
For further assistance, please contact KATSU Tools customer support.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B00L90437G

More documents and user manuals: **https://manuals.plus/**