

Yamaha YZ125

Yamaha YZ125 2-Stroke Motorcycle Service Manual (2005-2021)

Comprehensive Service and Repair Instructions

1. INTRODUCTION

This service manual provides detailed instructions for the maintenance, repair, and overhaul of Yamaha YZ125 2-stroke motorcycles manufactured between 2005 and 2021. It is designed for technicians and experienced owners, offering step-by-step procedures, specifications, and wiring diagrams to ensure proper servicing of the motorcycle.

Applicable Models:

- 2005 Yamaha YZ125T
- 2006 Yamaha YZ125V
- 2007 Yamaha YZ125W
- 2008 Yamaha YZ125X
- 2009 Yamaha YZ125Y
- 2010 Yamaha YZ125Z
- 2011 Yamaha YZ125A
- 2012 Yamaha YZ125B
- 2013 Yamaha YZ125D
- 2014 Yamaha YZ125E
- 2015 Yamaha YZ125F
- 2016 Yamaha YZ125G
- 2016 Yamaha YZ125XG
- 2017 Yamaha YZ125H
- 2017 Yamaha YZ125XH
- 2018 Yamaha YZ125J
- 2018 Yamaha YZ125XJ
- 2019 Yamaha YZ125K
- 2019 Yamaha YZ125XK
- 2020 Yamaha YZ125
- 2021 Yamaha YZ125

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Service Manual

2005-2021 Yamaha YZ125 Two-Stroke



Figure 1: Front cover of the service manual, illustrating the Yamaha YZ125 motorcycle and examples of detailed component views.

2. QUICK REFERENCE

This section provides essential information for quick access during service procedures.

2.1. Specifications

Refer to the detailed specifications within each relevant section for precise measurements and tolerances. General

specifications include:

- Engine Type: 2-stroke, liquid-cooled, reed-valve inducted
- Displacement: 124cc
- Bore x Stroke: 54.0 x 54.5mm
- Compression Ratio: Varies by model year, refer to specific year section.
- Fuel System: Carburetor
- Ignition: CDI
- Transmission: 6-speed constant mesh
- Final Drive: Chain

2.2. Torque Specifications

All torque values are critical for proper assembly and safety. Always use a calibrated torque wrench. Specific torque values are provided in each section for relevant fasteners.

2.3. VIN and Engine Number Location

The Vehicle Identification Number (VIN) is typically stamped on the steering head tube. The engine number is usually located on the left side of the crankcase, near the gear shift lever.

3. PERIODIC MAINTENANCE

Regular maintenance is crucial for the longevity and performance of your Yamaha YZ125. Follow the recommended service intervals.

- Periodic Maintenance Chart
- Air Filter Servicing
- Brake Bleeding
- Brake Fluid Inspection and Replacement
- Brake Inspection (Pads, Discs, Calipers)
- Clutch Cable Inspection and Adjustment
- Compression Check
- Cylinder Head, Cylinder, Piston, Exhaust Valve Cleaning
- Chain Drive and Guides Inspection and Adjustment
- Engine Idle Speed Adjustment
- Front Suspension Settings Adjustment
- Fuel Filter Inspection and Replacement
- Fuel Line Inspection
- Lubrication Points (Chassis, Cables)
- Rear Suspension Settings Adjustment
- Silencer Inspection
- Spark Plug Inspection and Replacement
- Steering Head Inspection and Adjustment
- Suspension Inspection (General)
- Throttle Free Play Adjustment
- Tire Inspection (Pressure, Wear)
- Torque Check Points (General Fasteners)

- Transmission Oil Inspection and Replacement

4. EXTERNAL COMPONENTS

This section details the removal, installation, and inspection of external parts.

- Bodywork (Fenders, Side Panels, Number Plates)
- Brake Pedal
- Exhaust System (Pipe, Silencer)
- Footpegs
- Fuel Tank
- Handlebar
- Seat
- Side Stand (YZ125X models)
- Sub Frame

5. COOLING SYSTEM

Proper functioning of the cooling system is vital for engine health.

- Coolant Inspection and Replacement
- Radiators (Inspection, Cleaning, Repair)
- Water Pump (Inspection, Seal Replacement)

6. ENGINE

Detailed procedures for engine disassembly, inspection, and assembly.

- Cylinder Head Removal and Installation
- Piston and Cylinder Inspection and Replacement
- Exhaust Valve (YPVS) Disassembly, Cleaning, and Assembly
- Exhaust Valve Governor Inspection
- CDI Magneto Inspection
- Clutch Removal and Installation
- Primary Drive Gear Inspection
- Right Side Crankcase Cover Removal and Installation
- Kick Starter Assembly
- Engine Removal from Frame
- Engine Installation into Frame
- Crankcase Splitting
- Crankcase Bearings and Seals Replacement
- Crankcase Assembly
- Crankshaft and Rod Inspection
- Gearshift Mechanism Inspection
- Transmission Removal and Installation

7. FUEL SYSTEM

Maintenance and adjustment of the fuel delivery components.

- Air Box Removal and Installation
- Carburetor Removal
- Carburetor Disassembly and Cleaning
- Carburetor Assembly
- Carburetor Installation
- Fuel Level Adjustment
- Jetting (Main Jet, Pilot Jet, Needle)
- Reed Valve Inspection and Replacement

8. FINAL DRIVE

Inspection and maintenance of the chain and sprockets.

- Drive Chain Inspection, Cleaning, and Lubrication
- Engine Sprocket Removal and Installation
- Rear Wheel Sprocket Removal and Installation

9. BRAKES

Critical procedures for maintaining the braking system.

- Front Caliper Disassembly, Inspection, and Assembly
- Front Master Cylinder Disassembly, Inspection, and Assembly
- Rear Caliper Disassembly, Inspection, and Assembly
- Rear Master Cylinder Disassembly, Inspection, and Assembly
- Rotor (Front or Rear) Inspection and Replacement

10. FRONT SUSPENSION

Service procedures for the front forks.

- Fork Removal and Installation
- Fork Disassembly
- Fork Assembly

11. REAR SUSPENSION

Service procedures for the rear shock and linkage.

- Shock Absorber Removal and Installation
- Suspension Linkage Disassembly, Inspection, and Assembly
- Swing Arm Removal, Inspection, and Installation

12. STEERING

Maintenance of the steering head components.

- Steering Head Removal
- Steering Head Installation

13. WHEELS

Inspection and service of the wheels and bearings.

- Front Wheel Removal and Installation
- Rear Wheel Removal and Installation
- Wheel Inspection (Runout, Spokes)
- Bearing Replacement (Front and Rear)

14. ELECTRICAL SYSTEM

Overview of electrical components and wiring.

- Ignition System (Spark Plug, Coil, CDI)
- Solenoid Valve (if applicable)
- TPS (Throttle Position Sensor) Inspection and Adjustment
- Wiring Diagrams (Refer to specific diagrams within the manual for detailed troubleshooting)

15. TROUBLESHOOTING

This section provides guidance for diagnosing common issues. For detailed troubleshooting, refer to the specific component sections and wiring diagrams.

15.1. Engine Starting Issues

- Check fuel supply and quality.
- Inspect spark plug for fouling or damage.
- Verify ignition system components are functioning.
- Perform a compression test.

15.2. Poor Engine Performance

- Inspect air filter for blockage.
- Check carburetor jetting and cleanliness.
- Verify exhaust system for restrictions.
- Examine exhaust valve (YPVS) operation.

15.3. Braking System Malfunctions

- Check brake fluid level and condition.
- Inspect brake pads for wear.
- Bleed the brake system to remove air.
- Examine rotors for warping or excessive wear.

16. WARRANTY AND SUPPORT

This service manual focuses on repair procedures and does not contain specific warranty information for the Yamaha YZ125 motorcycle. For details regarding your motorcycle's warranty, please consult your original purchase documentation or contact an authorized Yamaha dealer.

For technical support related to the content of this manual, please refer to the publisher, Cyclepedia Press LLC.