Gravely 520, 521, 522, 524, 526, 546, 564, 566

Gravely Convertible Walk Behind Mower Service Manual

Models: 520, 521, 522, 524, 526, 546, 564, 566

1. Introduction

This service manual provides comprehensive instructions for the maintenance, repair, and overhaul of Gravely Convertible Walk Behind Mowers, covering models 520, 521, 522, 524, 526, 546, 564, and 566. It is intended for qualified service technicians and individuals with a thorough understanding of mechanical systems. The manual details procedures for disassembly, inspection, repair, and reassembly of various components, ensuring proper function and longevity of your equipment.

2. Safety Information

Always prioritize safety when performing any service or repair. Failure to follow safety precautions can result in serious injury or equipment damage.

- **Read the Manual:** Familiarize yourself with all instructions and warnings before beginning any work.
- **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including safety glasses, gloves, and hearing protection.
- **Disconnect Power:** Before servicing, ensure the engine is off, spark plug wire is disconnected, and all moving parts have stopped.
- **Stable Work Area:** Work on a level surface and use appropriate lifting equipment and stands to secure the machine.
- **Proper Tools:** Use only the correct tools for each task to prevent damage to fasteners and components.
- **Ventilation:** Ensure adequate ventilation when working with fuels, solvents, or operating the engine.

3. Product Overview

The Gravely Convertible Walk Behind Mower series is renowned for its versatility and durability. These machines are designed to accept various attachments, making them suitable for a wide range of tasks. Understanding the basic components is crucial for effective servicing.

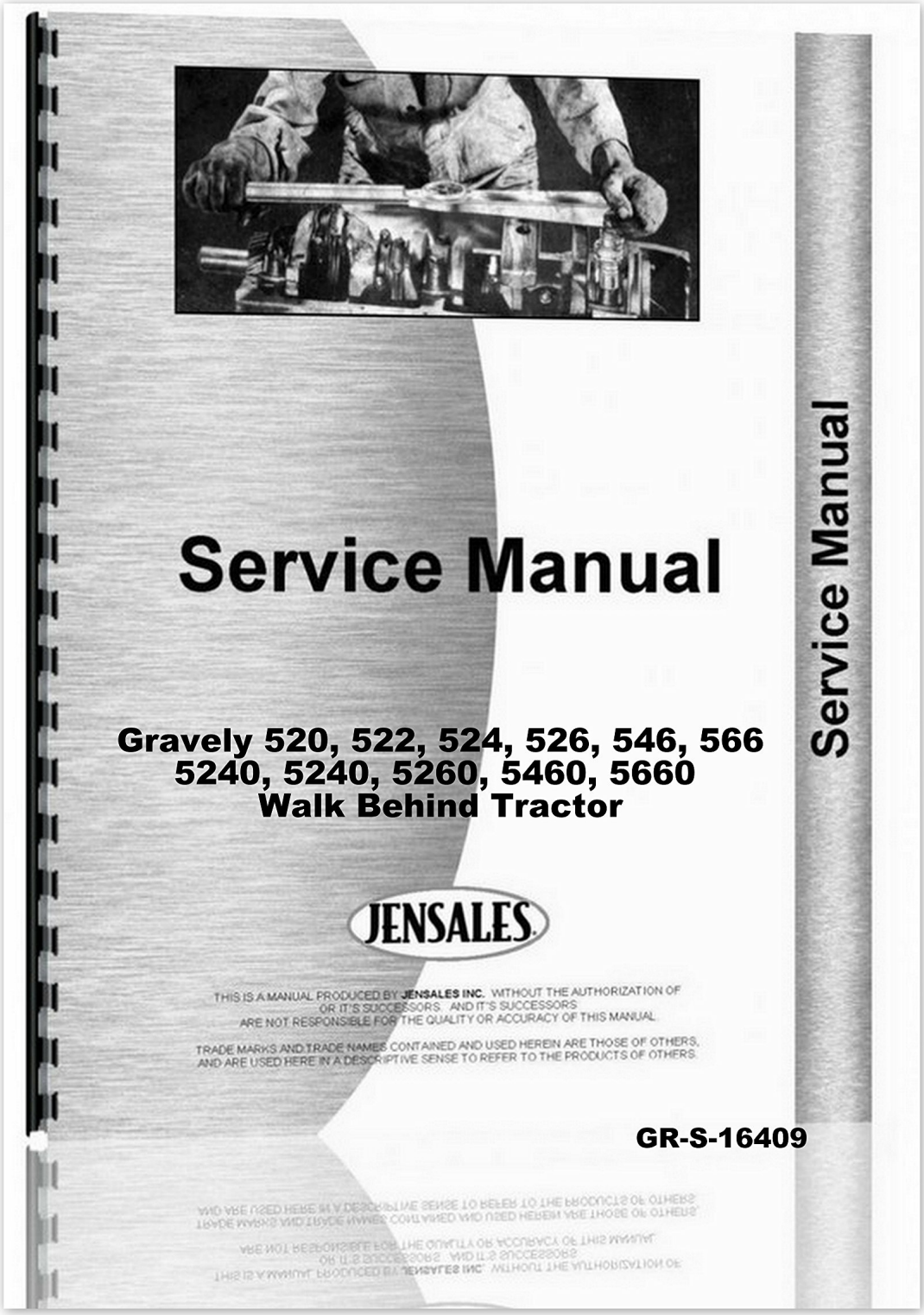


Figure 3.1: Example of a Gravely Convertible Walk Behind Mower. This image illustrates the general appearance of the tractor base unit, which can be fitted with various implements.

3.1. Models Covered

This manual specifically addresses the following Gravely Convertible Walk Behind Mower models:

- Gravely 520
- Gravely 521
- Gravely 522

- Gravely 524
- Gravely 526
- Gravely 546
- Gravely 564
- Gravely 566

4. General Service Procedures

This section outlines fundamental procedures applicable to various repair tasks. Always refer to specific component sections for detailed instructions.

4.1. Disassembly

Before disassembling any component, ensure the machine is clean and stable. Document the process with notes or photographs, especially for complex assemblies. Keep fasteners and small parts organized.

1. Remove external covers and guards.
2. Disconnect electrical connections, labeling them for correct reassembly.
3. Drain fluids (oil, fuel) as necessary into approved containers.
4. Carefully remove fasteners, noting their location and type.
5. Separate components, using appropriate pullers or presses if required.

4.2. Inspection and Cleaning

Thorough inspection is critical for identifying worn or damaged parts.

- Clean all parts thoroughly using appropriate solvents.
- Inspect for cracks, wear, corrosion, or deformation.
- Check bearings, seals, and gaskets for signs of failure.
- Measure critical dimensions against specifications where applicable.

4.3. Reassembly

Reassemble components in the reverse order of disassembly, paying close attention to torque specifications and proper alignment.

- Replace all worn or damaged parts with genuine Gravely replacements.
- Apply thread locker or anti-seize compounds as specified.
- Lubricate moving parts with recommended lubricants.
- Ensure all fasteners are tightened to the correct torque.
- Refill fluids to the correct levels.

5. Maintenance Schedule & Procedures

Regular maintenance is essential for the reliable operation and longevity of your Gravely mower. Adhere to the recommended service intervals.

5.1. Daily/Before Each Use

- Check engine oil level.
- Inspect tires for proper inflation and condition.
- Check for loose fasteners.

- Clean debris from engine cooling fins and air intake.

5.2. Every 25 Hours or Annually (Whichever comes first)

- Change engine oil and filter.
- Clean or replace air filter.
- Inspect spark plug; clean or replace as needed.
- Lubricate all grease fittings.
- Check and adjust control cables.

5.3. Every 100 Hours or Annually

- Inspect and adjust valve clearance (if applicable).
- Check fuel lines and filter.
- Inspect drive belts for wear and tension.
- Service transmission fluid (refer to specific model instructions).

6. Troubleshooting Guide

This section provides a general guide to common issues and their potential solutions. For complex problems, consult a qualified technician.

Problem	Possible Cause	Solution
Engine will not start	No fuel, fouled spark plug, dead battery, clogged fuel filter	Check fuel level, clean/replace spark plug, charge/replace battery, replace fuel filter
Engine runs rough	Dirty air filter, incorrect spark plug gap, stale fuel, carburetor issues	Clean/replace air filter, adjust spark plug gap, drain and refill with fresh fuel, clean carburetor
Loss of power	Clogged air filter, incorrect engine speed, worn drive belts, low oil	Clean/replace air filter, adjust throttle, inspect/replace drive belts, check oil level
Excessive vibration	Loose fasteners, worn bearings, unbalanced attachment	Tighten all fasteners, inspect/replace bearings, balance or replace attachment

7. Specifications

This section provides general technical specifications for the Gravely Convertible Walk Behind Mower series. Specific values may vary slightly by model and year of manufacture. Always refer to the individual model's data plate for precise information.

Feature	Description/Value
Engine Type	Single-cylinder, 4-stroke, air-cooled gasoline engine (various manufacturers)
Horsepower Range	Typically 7 to 12 HP (depending on model)
Transmission	All-gear drive, multiple forward and reverse speeds
Fuel Capacity	Approximately 1-2 gallons (3.8-7.6 liters)
Oil Capacity	Approximately 1.5-2 quarts (1.4-1.9 liters)

Feature	Description/Value
Weight (Base Unit)	Varies by model, typically 250-350 lbs (113-159 kg)
Tire Size	Commonly 4.00-8 or 4.80-8 (pneumatic)

8. Conclusion

This service manual serves as a critical resource for maintaining and repairing your Gravely Convertible Walk Behind Mower. By diligently following the procedures outlined herein, you can ensure the continued optimal performance and extend the lifespan of your equipment. Always refer to this manual for detailed instructions and safety guidelines before undertaking any service work.

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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.

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