



AO-036459-AS

Instruction Manual for Piston & Rings Set (.040" Oversize)

Model: AO-036459-AS

INTRODUCTION

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of your GENERIC Piston & Rings Set. Please read this manual thoroughly before use to ensure proper function and longevity of the product.

This product is a set of pistons and rings, .040" oversize, designed for various tractor and construction/industrial equipment engines. It is compatible with a range of models including Tractors 2610, 2910, 3000, 3100, 3300, 3310, 3330, 3600, 5000 (1965-3/'68), 5600 (1975-9/'80), and Construction & Industrial equipment 335, 340, 340A, 340B, 420, 445. It is also compatible with Engine models BSD329, BSD439, 175, 233.

SETUP AND INSTALLATION

Proper installation is crucial for the performance and lifespan of the piston and rings. It is recommended that installation be performed by a qualified mechanic.

Pre-Installation Checks

- Verify the bore size: The standard bore for this piston set is 4.2007 inches. This set is .040" oversize. Ensure your engine block is bored to the correct oversize specification.
- Inspect all components: Before installation, carefully inspect the piston, rings, pin, and retainers for any signs of damage or manufacturing defects.
- Clean engine components: Ensure the cylinder bore, connecting rod, and crankshaft are thoroughly cleaned and free of debris.

Installation Steps

1. Lubricate the piston pin and pin bore with clean engine oil.
2. Install the piston rings onto the piston, following the manufacturer's specifications for ring orientation and gap placement. Ensure the oil control ring expander is correctly seated.
3. Lubricate the piston skirt and cylinder bore with clean engine oil.
4. Using a piston ring compressor, carefully insert the piston assembly into the corresponding cylinder bore.

5. Connect the piston to the connecting rod and secure the piston pin with the provided retainers.
6. Torque all fasteners to the engine manufacturer's specifications.



Figure 1: A complete set of .040" oversize piston, rings, pin, and retainers. This image shows the primary components included in the product package, ready for engine assembly.

OPERATING CONSIDERATIONS

Once the piston and rings are installed, the engine requires careful break-in to ensure optimal performance and longevity of the new components.

Engine Break-in Procedure

- **Initial Start-up:** After assembly, ensure all fluids are at correct levels. Start the engine and allow it to idle for a short period (e.g., 5-10 minutes) to circulate oil and check for leaks.
- **Vary Engine Speed:** During the first few hours of operation, avoid prolonged idling or constant engine speeds. Vary the RPMs to help seat the piston rings properly against the cylinder walls.
- **Avoid Heavy Loads:** Do not subject the engine to heavy loads or full throttle operation during the initial break-in period (e.g., first 20-50 hours, refer to engine manufacturer's manual).
- **Monitor Engine Parameters:** Continuously monitor oil pressure, coolant temperature, and any unusual noises during the break-in period.
- **First Oil Change:** Perform an oil and filter change after the initial break-in period (e.g., 20-50 hours) to remove any break-in contaminants.

MAINTENANCE

Regular maintenance is essential to preserve the integrity and performance of your engine's internal components, including the piston and rings.

- **Oil Changes:** Adhere strictly to the engine manufacturer's recommended oil change intervals and use the specified type of engine oil. Clean oil prevents premature wear on piston rings and cylinder walls.
- **Air Filter:** Regularly inspect and replace the air filter to prevent abrasive particles from entering the engine, which can cause damage to pistons and rings.
- **Fuel Quality:** Use clean, high-quality fuel to prevent carbon buildup on piston crowns and rings.

- **Cooling System:** Maintain the cooling system to ensure the engine operates at optimal temperatures, preventing thermal stress on internal components.

TROUBLESHOOTING

This section addresses common issues that may arise after the installation of new pistons and rings. Always consult a qualified mechanic for complex diagnostics and repairs.

Symptom	Possible Cause	Solution
Excessive Oil Consumption	Improper ring seating, damaged oil control rings, incorrect bore size.	Ensure proper break-in procedure. Inspect rings for damage or incorrect installation. Verify bore dimensions.
Low Compression	Improper ring seating, broken or worn compression rings, cylinder bore issues.	Perform a compression test. Re-evaluate break-in. Inspect rings and cylinder walls.
Engine Knocking/Piston Slap	Incorrect piston-to-bore clearance, worn piston pin or bore, connecting rod issues.	Verify piston and bore measurements. Check piston pin and connecting rod for play.

SPECIFICATIONS

- **Product Type:** Piston & Rings Set
- **Oversize:** .040"
- **Standard Bore:** 4.2007"
- **Includes:** Piston, Rings, Pin & Retainers
- **Compatible Tractors:** 2610, 2910, 3000, 3100, 3300, 3310, 3330, 3600, 5000 (1965-3/'68), 5600 (1975-9/'80)
- **Compatible Construction & Industrial:** 335, 340, 340A, 340B, 420, 445
- **Compatible Engines:** BSD329, BSD439, 175, 233
- **Replaces OEM Part Number:** D6NN6108L-40
- **Manufacturer Part Number:** AO-036459-AS
- **Brand:** GENERIC

WARRANTY INFORMATION

All new, rebuilt, and used tractor parts from this supplier typically come with a **1-year warranty**. Please retain your proof of purchase for warranty claims. For specific warranty terms and conditions, refer to the seller's policy or contact customer support.

CUSTOMER SUPPORT

For technical assistance, installation queries, or warranty claims, please contact the seller directly. Refer to your purchase documentation for seller contact information.

Seller: Alpha Omega Machinery Parts

Note: Some listings use stock images as a reference. All OEM part numbers and logos are for identification purposes only.

