

Maintenance Tips for Hydraulic Cylinders in Harvesters

In harsh operating environments characterized by dust, grass clippings, and high humidity, maintaining the cleanliness of critical components in [hydraulic cylinders for harvesters](#) is the most direct and effective measure to prevent sudden failures and ensure harvesting efficiency.

Maintenance Focus: Cleaning Four Critical Areas

1. Piston Rod Surface: The First Line of Defense for Dynamic Seals

During extension and retraction, the piston rod surface is directly exposed to the external environment.

Contamination Risk: Dust, fine straw particles, dew, or mud adhering to the rod can be directly drawn into the oil seal. These contaminants act like “sandpaper,” scratching the rod surface and wearing down the seal lip.

Cleaning Essentials: Wipe exposed piston rods with a clean soft cloth or paper towel before and after daily operation. Increase frequency in high-dust environments. If scratches or rust spots appear during inspection, address them promptly to prevent accelerated seal failure.

2. Dust Seals and Cylinder End Caps: The “Gatekeepers” Against Contamination

Dust seals (dust caps) located at the cylinder end caps are specifically designed to block external contaminants.

Contamination Risk: If the dust seal becomes aged, damaged, or loses elasticity due to accumulated grime, it will completely fail to function, allowing contaminants to penetrate freely.

Cleaning Essentials: Regularly clear accumulated mud and debris around the dust seal. Gently press the seal lip with your finger to check for softness, elasticity, and any damage. Replace immediately if ineffective.

3. Hydraulic Oil Ports and Pipe Connectors: The System's Internal “Gateway”

Whether during maintenance or replacement of auxiliary equipment, the cleanliness of oil ports and connectors is often overlooked.

Contamination Risk: During disassembly, dirt or foreign objects adhering to exposed oil port or connector threads can be directly introduced into the clean hydraulic oil circuit if reconnected without cleaning.

Cleaning Essentials: Before disconnecting any hydraulic quick-connect fittings or unscrewing plugs, thoroughly clean the surrounding area with a brush and clean cloth. Immediately seal ports with clean plugs or protective caps after disassembly.

4. Hydraulic Fluid Itself: The “Blood” of System Operation

Fluid cleanliness fundamentally determines the entire hydraulic system's lifespan.

Contamination Risks: High vibration in harvesters causes frequent filter element failure. Moisture and minute impurities generated during harvesting can enter the oil, accelerating wear on pumps, valves, and cylinder walls.

Cleaning Essentials: Strictly adhere to maintenance intervals for replacing hydraulic oil and filter elements—never just top up without replacing. After operating in humid conditions, carefully inspect the oil for emulsification (whitening). Use only clean, dedicated tools when refilling.

Maintaining cleanliness is fundamental maintenance, but when critical components degrade due to prolonged wear, replacing them with high-quality parts is the optimal choice for restoring performance. Hebei Runhe Hydraulic Machinery Co., Ltd. offers [hydraulic cylinders for harvesters](#) and repair kits specifically engineered for typical harvesting conditions. These

components feature enhanced piston rod surface coating hardness, upgraded dust seal materials, and improved seal contamination resistance, delivering more reliable protection.

We also supply OEM-standard seal repair kits and provide professional technical support to help you accurately determine replacement timing and ensure repair quality. Choose Runhe to let clean maintenance and reliable components safeguard every harvest season.

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