

Hydraulic cylinders for tractors

[Hydraulic cylinders are critical components of tractors](#), converting hydraulic energy into mechanical energy to achieve linear reciprocating motion or oscillation, thereby enabling the tractor to perform various complex operational tasks.

First, Functional Applications

1. Power Steering: Models like the RE271434 power steering hydraulic cylinder enhance steering precision and reduce steering effort when operating heavy machinery, making tractor steering operations easier. Suitable for specific tractor models such as Carraro and John Deere.
2. Implement Lifting and Operation: Controls the elevation of various agricultural implements like plows, harrows, and seeders. Also enables tilting and flipping motions to adapt to different operational requirements.
3. Towing and Load Control: Assists tractors in precisely managing force and speed during heavy towing or load operations, ensuring stability and efficiency.

Second, Types and Structure

1. Single-Acting Hydraulic Cylinder: Fluid enters only one end, driving the piston in one direction. The return stroke typically relies on external forces (e.g., gravity or spring force). Simple structure and low cost, but only capable of unidirectional force. Suitable for simple actions with minimal return stroke requirements, such as basic implement lifting on certain small tractors.
2. Double-acting hydraulic cylinder: Fluid can enter alternately from both ends, enabling bidirectional piston movement. This allows for more complex motion control and provides force in both directions, making it suitable for applications requiring frequent direction changes and precise control, such as tractor steering systems and most agricultural implement operation controls. For example, double-acting hydraulic cylinders used in tractor loaders, dump trucks, and trailers enable bidirectional force transmission (push and pull) via the piston rod, ensuring versatility in dynamic applications.
3. Telescopic Hydraulic Cylinders: Composed of multiple nested cylinders, they offer a large stroke while maintaining a compact length when retracted. Suitable for applications requiring a long stroke but with limited installation space, such as the dump bucket lifting mechanism on some large tractors.

Third, Maintenance and Care

1. Regular Fluid Inspection: Maintain clean hydraulic fluid and proper oil levels. Periodically replace hydraulic fluid and filters to prevent contaminants and moisture from entering the system, which could impair cylinder performance.
2. Seal Inspection: Check seals for wear, aging, or damage. Replace promptly if issues arise to prevent fluid leakage.
3. Prevent Rust and Corrosion: Protect exposed components like piston rods from prolonged exposure to damp or corrosive environments. Apply anti-rust grease as needed.
4. Operational Monitoring: During use, observe the hydraulic cylinder's operation for abnormal noises, vibrations, or speed fluctuations. Shut down immediately for inspection and repair if issues arise.

Hebei Runhe is a purple child under the Hanjiu Group Company. Runhe Hydraulic is a leading manufacturer specializing in hydraulic system solutions. We are also one of the most recognized suppliers of large OEM equipment manufacturers in the domestic hydraulic industry. With more than 12 years of industry experience, our professional team focuses on

the development, manufacture and sale of hydraulic cylinders, hydraulic pumps and hydraulic motors, and we constantly improve our product structure and functions to meet the diverse needs of our customers.If you have needs, please contact us.

Replacement hydraulic cylinders tractor

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