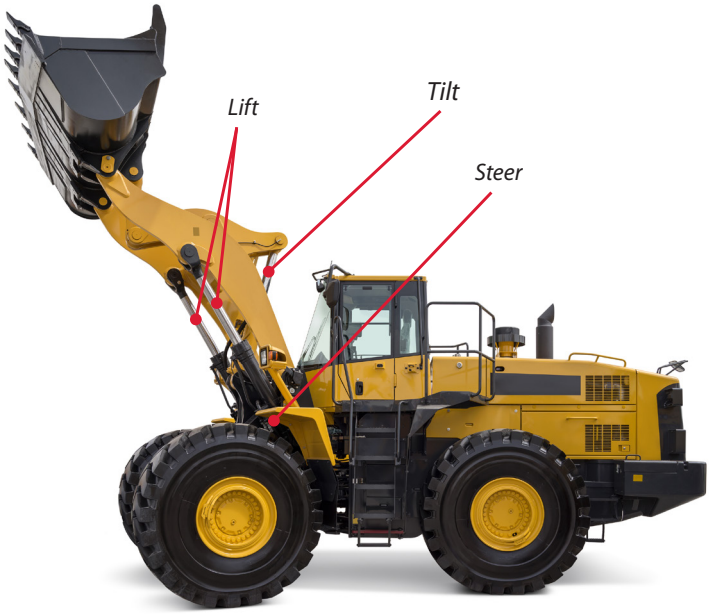
CHESTERTON® MOBILE MINING SOLUTIONS FOR WHEEL LOADERS

OPTIMIZING EFFICIENCY: TACKLING WHEEL LOADER CHALLENGES IN MINING

Wheel loaders play a crucial role in mining operations, offering versatility and efficiency in material handling. Wheel loaders are subjected to hydraulic system leaks from failed seals. Addressing these challenges involves ensuring robust seal configuration and regular inspection of hydraulics for leaks.



Challenge

A leading cylinder repair service center faced recurring issues with OEM seals leaking upon first installation on a mine's wheel loaders. These setbacks not only caused delays, but also hindered the repair center's ability to meet mine service deadlines.

Solution

Leveraging Chesterton's cutting-edge SpeedSeal™ capabilities and unparalleled design engineering expertise in seal kits, we swiftly addressed the issue. Within days, our team had the new seals installed and dispatched to the mine, helping reduce interrupted operations.

Results

Today, Chesterton proudly commands over 90% of the cylinder repair facility's business, a testament to our commitment to excellence and customer satisfaction.

The Chesterton Advantage

- Extend equipment service life and reliability.
- Reduce maintenance costs and downtime.
- Improve equipment productivity and efficiency.

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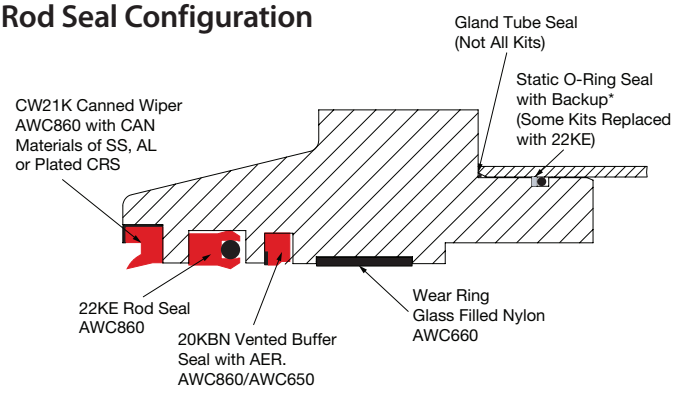
Common Seal Configuration

Typical kit installations for tilt, lift and steering cylinders on dozers, wheel loaders, and trucks.

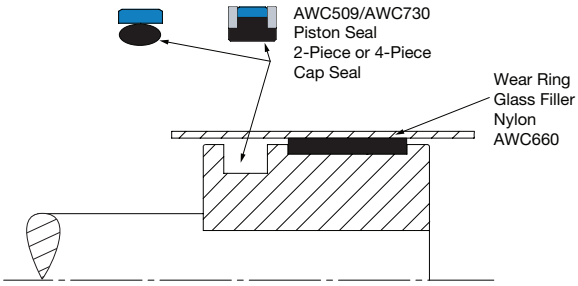
Customer: _____
Machine Model: _____
Cylinder Function: _____
Rod Diameter:_____
Bore Diameter: _____

Rod Seal Configuration



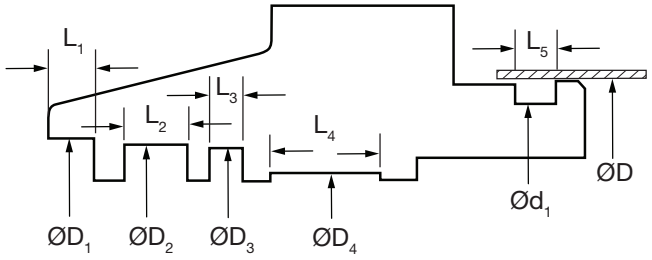
*Some kits have two sets of O-Rings due to groove design change from 200 to 300 series O-Rings.

Piston Seal Configuration



Rod Dimensions

Cylinder measurements to be recorded for orders



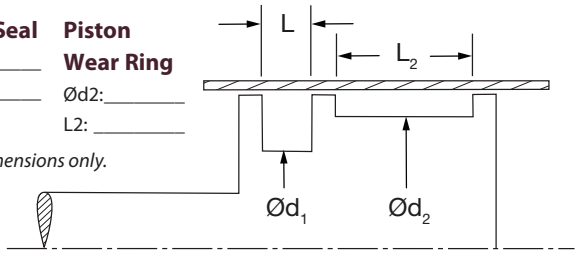
Grove dimensions only.

Wiper	Rod Seal	Buffer Seal	Rod Wear Ring	Static Seal
ØD1: _____	ØD2: _____	ØD3: _____	ØD4: _____	Ød1:_____
L1: _____	L2: _____	L3: _____	L4: _____	ØD: _____
				L5: _____

Piston Dimensions

Piston Seal	Piston Wear Ring
Ød1:_____	Ød2:_____
L: _____	L2: _____

Grove dimensions only.



Technical Specifications

Most common seal profiles and materials.

Seal Type	Recommended Profile	Recommended Material	Benefits
Canned Wiper	CW21K	AWC860/SS/CRS/Al	Interference press fit design for open grooves and space saving. Excellent single acting abrasion resistant design to help prevent contaminants from entering the equipment.
Rod Seal	22KE	AWC860 (High Temperature EU – 250˚F)	O-Ring energized seal that provides low pressure sealing custom made in abrasion resistant material.
Piston Seal	CCS	AWC509/AWC730 Bronze Moly PTFE/FKM	High strength material for bi-directional sealing. Compression seal design increases sealing force with system pressure.
Static Seals	O-Ring with BUR or 22KE	NBR 90A BUR: Urethane/AWC860	High performance O-Ring upgrade with high temperature material.
Wear Bands	WR	AWC660 40% Glass Filled Nylon	Precision machined high compressive strength replaceable design to prevent metal to metal contact
Buffer Seal	20KBNAER	AWC860/ AWC650 BUR	Single acting seal with a full or partial anti extrusion ring with vented slots for pressure relief to neutralize shock and pressure spikes protecting the rod seal.

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