

ZOOM



GENUINE HYDRAULIC CYLINDER EFFICIENT POWER TRANSMITTER

CASE IH MAKES THE DIFFERENCE.
LET'S SEE HOW.



GENUINEPARTS
HIGH PERFORMANCE

CASE IH

The key role of the hydraulic cylinder.

The hydraulic cylinder is used to transform a **pressurised hydraulic energy** into **mechanical energy**.

Hydraulic cylinders get their power from hydraulic fluid, usually **oil**.

It consists of a **cylinder barrel**, in which a piston separates the tube into two **airtight chambers**. A system of **seals** is in charge of containing the pressurised fluids into the hydraulic cylinder. A piston rod attached to the piston **moves back and forth** and allows it to generate motion of different tools such as the boom, the bucket, the spreader, the trailer, etc.

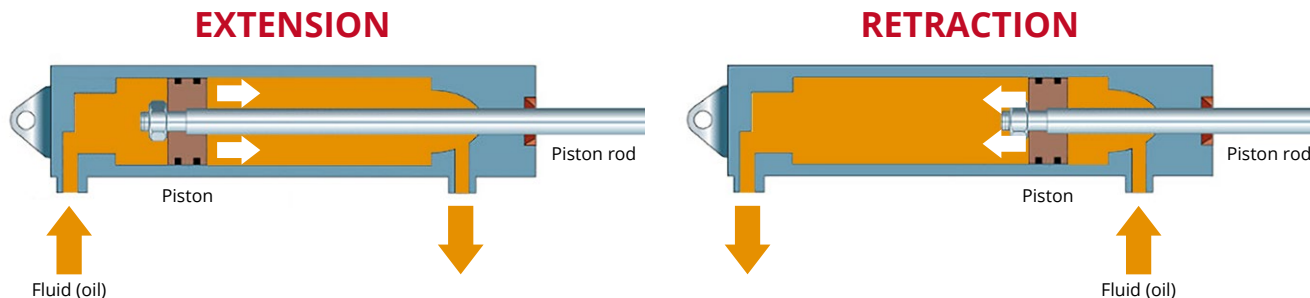


THE DIFFERENT HYDRAULIC CYLINDERS

TYPES OF CYLINDER	DESCRIPTION
Single-acting Cylinder	The working fluid acts in one side of the piston only . The retraction is usually made through a spring or an external force.
Double-acting Cylinder	The double Acting cylinder uses hydraulic power to both extend and retract the piston.
Telescopic Cylinders*	It consists of a series of sleeves of progressive smaller diameter nested inside of each other. The telescopic cylinders enable a longer working stroke than would be possible with the other hydraulic cylinders.

* Single or double acting.

MECHANISM DOUBLE-ACTING CYLINDER



Did you know?

A visual check of the hydraulic cylinder is required at least once a year with an exterior cleaning device!



Why choose Genuine CASE IH hydraulic cylinders?

1. MULTIPLE PERFORMANCE TESTS HAVE BEEN CONDUCTED TO GUARANTEE THE CASE IH QUALITY:

ENDURANCE TEST: Each rod is extended at the middle of a stroke and a pressure of 137 bar is applied on the bore side and 226 bar on the annulus side during 400.000 cycles. After the test, any defect, external or internal leakages or damages on the different parts are identified.

PRESSURE TEST: max pushing work pressure 220 bar.

THREAD RESISTANCE TEST: 6g/6H.

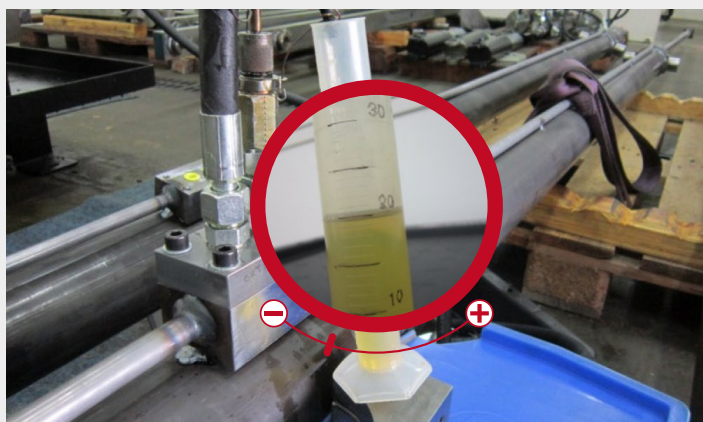
BUCKLING RESISTANCE TEST.

2. RELIABILITY

Reliability of the hydraulic cylinder to high **temperatures** and corrosion. For most of the cylinders, the common temperature is between -20°C and 90°C with **high resistance**, but by changing the seals they can be amplified **from -40°C to 120°C**, thanks to specific treatment such as Oxynit.

3. ACCURACY

Each Genuine cylinder is designed to be **perfectly suited** to your machine.



Internal and external leakage test



Comparative test between Genuine Parts and competitors

Recommendations for use

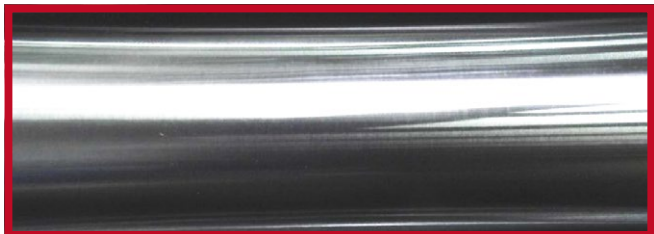
HOW TO KEEP YOUR HYDRAULIC CYLINDER IN A GOOD CONDITION.

	RECOMMENDATIONS	RISKS
	Greasing of the axes and the cylinder must be done around once a month.	Seizure or corrosion.
	Ensure a correct alignment of the cylinder barrel on installation with perfect sealing and avoid any shock on the cylinder.	Air bubble (cavitation) and leakages that damage the cylinder.
	Use Genuine filters and replace them on a regular basis.	Extreme leakage due to particle contamination.
	Check seal conditions and use the appropriate ones.	Leakages of the fluid and drop of power delivered during the activity.
	Regularly control the oil temperature and choose adapted seals to improve their lifetime.	Seals hardcracked and with brittle.
	Important to store the machine and the cylinder with the drawbar fully inside.	If not possible, use the cylinder at least once a week or lubricate the outside part with corrosion protection oil.

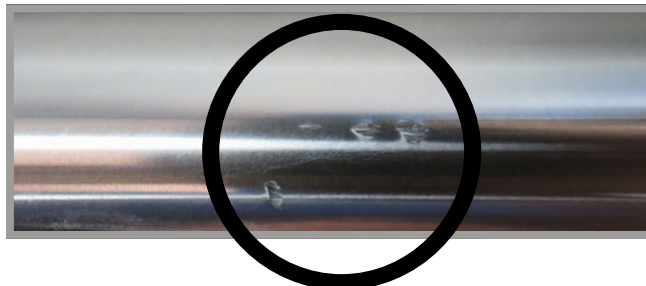
CONSEQUENCES OF BAD MAINTENANCE AND USE OF NON GENUINE PARTS



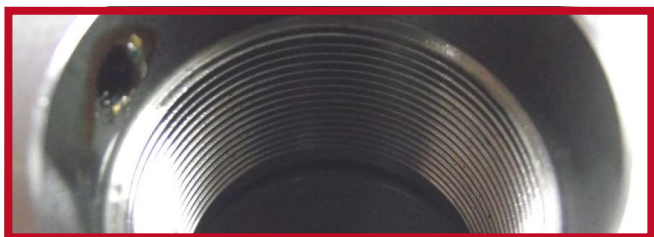
PISTON ROD IN GOOD CONDITIONS



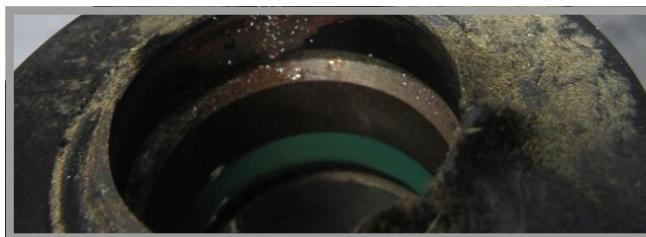
PISTON ROD DAMAGED, POSSIBLE LEAKS



PISTON IN PERFECT CONDITIONS



PISTON WITH PARTICLE CONTAMINATION



ALL WORK MUST BE CARRIED OUT BY A QUALIFIED TECHNICIAN AND THE SYSTEM MUST TO BE DEPRESSURIZED BEFORE ANY DISASSEMBLY. PREVENT OIL SPILLAGES TO AVOID ANY SERIOUS INJURIES!



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