

REAL Torque

April 2022

Contact maintenance for any questions on 0800 80 80 69

Hydraulic Cylinders

A hydraulic cylinder, also called a ram, is used to convert fluid energy to mechanical energy. The most common uses of a hydraulic cylinder in our fleet are on tippers to raise and lower the bin, transport trailer ramps, side lifters, and tail lifts.

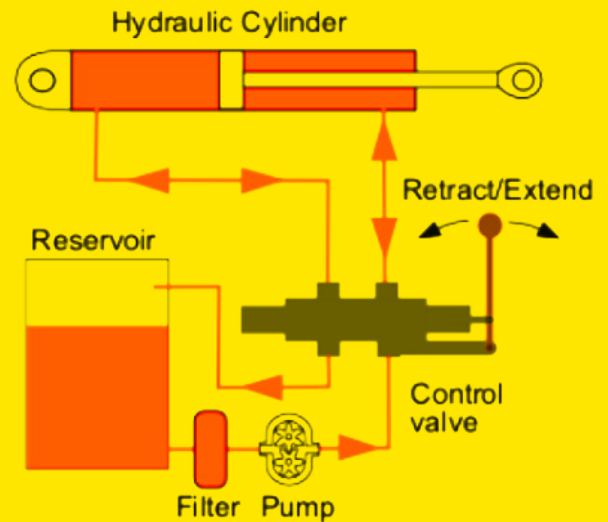


Large telescopic hydraulic cylinder to raise and lower a bin on a tipper.



Two small rams fitted to raise the ramps.

Below is an example of a very basic hydraulic circuit. The hydraulic pump is generally driven via a Power Take Off (PTO) attached to the side of the transmission or at the rear of the engine. The pump provides the fluid energy to the hydraulic circuit. The control valve allows the operator to either retract or extend the hydraulic cylinder.



A typical control valve fitted to a tipper with the controls to raise and lower the bin on the truck and trailer.

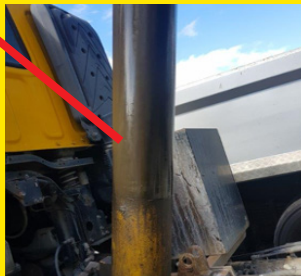
When checking in or completing a daily inspection on vehicles fitted with hydraulic cylinders there are a few things you can check that may need attention. If you see any of these, contact the maintenance team for advice. In this example we have used a telescopic cylinder on a tipper, however the principle and items to check are the same on many other cylinders.



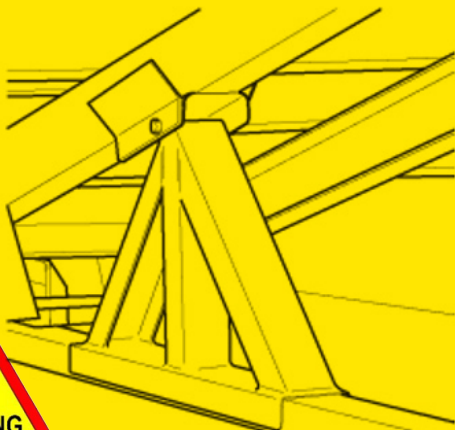
Impact damage or visible scoring on the spear.



Bent or damaged cylinders and spears.



Hydraulic oil leaks, for example from the shaft seals or fittings.



Do not get underneath a raised body without a suitable prop in place. The prop must only ever be used when the bin is unloaded.

Tips and Tricks



- ▶ Do not go under a raised deck without a safety prop in place.
- ▶ When lowering ramps, ensure that no one is near or in the way of the lowering ramps.
- ▶ If you notice the hydraulic oil is low, call the maintenance team or go to a suitable workshop for a top-up.
- ▶ If you find any damage or leaks from a cylinder, contact the maintenance team for advice.
- ▶ When raising or lowering the tip deck, stay in the cab at the controls.

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