A hydraulic cylinder is at its most efficient when 100% of the available hydraulic pressure is applied to the surface of the piston. Any leakage of pressurised fluid past the piston seals will result in a rapid drop in performance. Parker offers the right seal for every application, guaranteeing maximum service life.

The piston is the key component of a hydraulic cylinder. It converts fluid power into controlled linear force. Parker’s fully machined steel pistons deliver the performance demanded by the toughest applications.

Cushioning

Cylinder mountings transmit the force applied by the cylinder to the surface on which it is mounted. They are responsible for controlling alignment and sliding movement which would result in fatigue failure. Parker’s wide range guarantees the correct mounting for every application.

Piston Rods

The piston rod transmits the force generated by the fluid acting against the piston, and guides the direction in which the force is applied. Parker’s hardened, chrome-plated carbon steel rods resist denting and damage to deliver exceptional service life in the toughest environments.

The cylinder body and end caps together contain the full hydraulic pressure created by both the hydraulic system and the load under dynamic conditions. Parker’s tie rod cylinders are designed to be fatigue-free at the maximum rated pressure, and have a 4:1 factor of safety.

The Features, Advantages and Benefits which make Parker’s tie rod cylinders the right choice for every application:

- Lower cost of ownership
- Minimal downtime
- Reduced handling risk
- Minimised fluid loss
- Lower cost of storage
- Easy to service
- Superior resistance to side loads
- High performance in long stroke applications
- Tolerant of alignment variations found in pivot-mounted cylinders
- Metal-to-metal contact prevented by wear rings

Foot mount – ideal for stationary, non-moving machines

Pivot mount – rear clevis

Head-mounted for push applications

Cap-mounted for pull applications

Standard Piston (HMI Series) – standard seals

FAB 17 – Detachable gland

FAB 18 – High performance seals

FAB 19 – Adjustable seals

The load attached to an unregulated cylinder stops when it meets a physical obstacle or at the end of its travel. The resulting shock is transmitted to the cylinder and machine, often with considerable force and noise. Parker’s computer-generated customising uses back pressure in the cylinder to create a progressive retarding effect.