



Internal details shown are representative of typical cylinder construction. Variations in design are necessary in some combinations of bore, rod, and mounting style due to space limitations.

## **Typical Construction Features of Lynair Series "MHH" 2000 P.S.I. Heavy Duty Hydraulic Mill Type Cylinders**

### **PRESSURE RATING**

Series "MHH" Mill Type hydraulic cylinders are rated for maximum service to 2000 P.S.I.

### **ADJUSTABLE OPTION**

Cushions are optional at either one or both ends of the cylinder. When provided, close fitting surfaces of mating components trap operating fluid to decelerate the piston before it reaches the "end of stroke" position. Rod end cushions are self-compensating to adjust for minor alignment variations. Flush fitting Cushion Screw permits adjustment in deceleration rate while interchangeable Ball Check aids start up upon reversal of travel direction.

### **CYLINDER TUBE WITH WELDED FLANGE RINGS**

Heavy wall steel tubing is honed to 15 micro inch finish after welded flange rings are attached. Surface of bore is hard chrome plated to resist wear and promote optimum seal life.

### **O-RING TUBE END SEALS**

Seal located on pilot diameter between tube and head provides leak-free seal at maximum operating pressure levels.

### **CYLINDER PORTS**

N.P.T.F. Ports are unobstructed permitting use of maximum flow area.

### **CUSHION**

### **PISTON ROD**

Precision ground, polished, and hard chrome plated piston rods made from high yield strength steel are offered with the choice of standard male or female thread options. Male rod threads thru 1 1/2 diameter are rolled for maximum strength and uniformity. Four wrench flats are provided to aid in making the rod end connection. The rod surface is reduced in size in area of flats to eliminate contact with seals at assembly.

### **ROD BEARING/ REMOVABLE RETAINERS**

Precision machined bronze bearing supports and centers rod to maintain concentricity with bore while providing support for V-ring seal set.

Two-piece bearing with inner section that provides rod support during seal replacement is used when design permits.

Retainer construction allows bearing removal without disassembly of head retaining bolts.

### **ROD SEAL**

Pressure energized multiple lip packing set consists of four fabric reinforced Buna-N V-ring seals plus male and female adapter rings. Seal set is self compensating to adjust for normal wear while providing long lasting, trouble free service.

### **ROD WIPER**

Double Lip Wiper cleans rod surface of contaminants and prevents entry of harmful particles into sensitive bearing and seal areas. Integral cup form on inboard side of wiper serves as secondary seal to insure leak-free performance.

### **INTERIOR MATERIALS/ EXTERNAL FINISH**

Front Head, Rear Head, and Flange Rings are accurately machined from carbon steel plate. Cylinder Tubes, Bearing Retainers, and mountings are constructed of steel for maximum strength and durability.

Cylinders have enamel finish on exterior with mounting and machined surfaces protected by anti-rust film lubricant at time of shipment.

### **PISTON/SECURELY LOCKED**

One piece high tensile cast iron piston with wide surface area contacting cylinder bore stabilizes rod and reduces bearing loads. The piston is pilot fitted onto rod and secured by self-locking nut when sizes permit.

### **PISTON SEALS**

Durable, self energizing, polyurethane seals provide long lasting, leak-free sealing. Seals are elastic and snap into piston grooves for easy installation.

### **RUGGED RETAINING BOLTS**

High tensile alloy bolts with self-locking hex nuts are used to secure the cylinder assembly.

### **SPECIAL CYLINDERS**

Variations in construction involving the use of non-standard dimensions, materials, or cylinder feature modifications are available upon request. Full engineering and manufacturing facilities are available to produce the exact cylinder to meet design requirements.