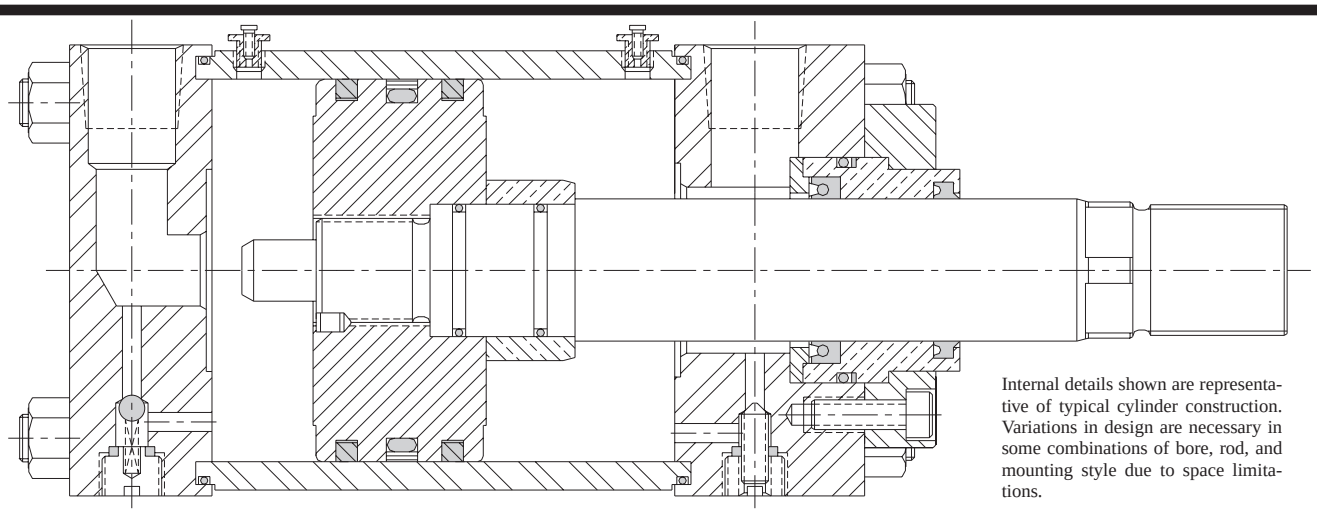

Internal details shown are representative of typical cylinder construction. Variations in design are necessary in some combinations of bore, rod, and mounting style due to space limitations.

Typical Construction Features Of Lynair Series "H" Hydraulic Cylinders

INDUSTRY STANDARD MOUNTING DIMENSIONS

LYNAIR Series "H" models conform to ANSI Standard B93.15-1971 for Mounting Dimensions of Square Head Industrial Fluid Power Cylinders and meet or exceed JIC Hydraulic Standards.

PISTON ROD

Precision ground, polished, and hard chrome plated piston rods made from high yield strength steel are offered with the choice of seven end style 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.

PISTON

One piece high tensile cast iron piston with wide surface area contacting cylinder bore stabilizes rod and reduces bearing loads. The piston is threaded onto rod with mating pilot diameters to ensure concentricity, and secured by anaerobic adhesive and locking pin.

PISTON SEALS

A glass fiber filled teflon sealing ring installed over an elastomer expander provides a long wearing, low bypass seal. Two cast iron rings with overlapping joint design protect the teflon seal and provide a back-up seal with superior service life. If seal bypass is undesirable, Block Vee cup seals with anti-extrusion back-up rings are optional at no additional charge.

Other alternate seal options are available upon request.

O-RING TUBE END SEALS

Close fitting tube end pilot diameters include an o-ring seal to provide a leak-free joint. Operating pressure expands tubular section, reducing joint clearance and seal extrusion gap.

PRESSURE RATING

Series "H" hydraulic cylinders are rated for maximum service to 3000 P.S.I.

ADJUSTABLE CUSHION 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 reaching the end of stroke position. Flush fitting Cushion Screw permits adjustment in deceleration rate while interchangeable Ball Check aids start up upon reversal of travel direction.

CYLINDER TUBE

Steel tubing is honed to 15 micro inch finish and hard chrome plated on the bore surface to resist wear and promote optimum seal life.

CYLINDER PORTS

N.P.T.F. ports are standard and provided unless otherwise requested. S.A.E. "O"-Ring style ports are optional and may be specified at no additional cost.

TIE RODS

Made from steel having 100,000 P.S.I. minimum yield strength (125,000 P.S.I. for diameters larger than $^{1}/_{2}$") with rolled threads for maximum strength and uniformity.

OPTIONAL AIR BLEEDERS

Tube mounted Air Bleed fittings are available upon request without additional cost in cylinder sizes $3^{1}/_{4}$ and larger equipped with standard (cast iron ring) piston seals. Other bore sizes, or cylinders having alternate type piston seals, may be ordered with air bleeders installed in end caps positioned to avoid interference with port and mountings.

EXTERIOR MATERIALS/ EXTERNAL FINISH

Front and Rear Heads are accurately machined from precision square steel blocks. 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.

ROD BEARING/ REMOVABLE RETAINERS

Precision machined bronze bearing supports and centers rod to maintain concentricity with bore while housing rod seal and wiper. Retainer construction allows removal without tie rod disassembly when bore, rod size, and mounting style combination permits.

ROD SEALS

Durable, self-energizing polyurethane rod seal provides long lasting, leak free sealing regardless of operating pressure level. Deep seal design provides stability insuring against premature failure due to "roll over" or extrusion.

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.

National FLUID POWER Association