

A.M. HYDRAULICS

INDEX OF STANDARD PRODUCT RANGE AND GENERAL SPECIFICATIONS

- Section 1 - A.M. 250 Series - Heavy Duty Hydraulic Cylinders**
Non-tie rod construction
Max working pressure 250 Bar
Bore sizes range from 50mm Dia to 500mm Dia
Conforms to CETOP RP73H
- Section 2 - A.M. 160 Series - Heavy Duty Hydraulic Cylinders**
Non-tie rod construction
Max working pressure 210 Bar for Bore sizes
Ranging from 40mm Dia to 125mm Dia
Max working pressure 160 Bar for Bore sizes
Ranging from 160mm Dia to 400mm Dia
Conforms to CETOP DOCUMENT R58H
- Section 3 - A.M. 160T Series - Medium Duty Hydraulic Cylinders**
Tie-rod construction
Max working pressure 160 Bar
Bore sizes range from 40mm Dia to 200mm Dia
Conforms to ISO/DIS 6020/11
- Section 4 - A.M.H.T. Series - Hydraulic Tunnelling Cylinders**
Non-tie rod construction
Max working pressure 600 Bar
Bore sizes range from 63mm Dia to 500mm Dia
- Section 5 - A.M.M.D. Series - Medium Duty Hydraulic Rotary Actuators**
Non-tie rod construction with rack and pinion
Max working pressure 210 Bar
Torque range from 900lbs-ins to 600,000lbs-ins
- Section 6 - A.M.H.D. Series - Heavy Duty Hydraulic Rotary Actuators**
Tie rod construction with rack and pinion
Max working pressure 210 Bar
Torque range from 75,000lbs
- Section 7 - A.M.10 Series - Heavy Duty Pneumatic Cylinders**
Tie-rod construction
Max working pressure 10 Bar
Bore sizes range from 40mm Dia to 400mm Dia
Conforms to BS4862P²

INDIVIDUALLY DESIGNED HYDRAULIC CYLINDERS AND ROTARY ACTUATORS

TELESCOPIC CYLINDERS of multi-stage construction

A.M. HYDRAULICS have the facilities and expertise to design and manufacture this type of cylinder to suit all applications

HYDRAULIC CYLINDERS AND ROTARY ACTUATORS FOR SPECIFIC APPLICATIONS

are also offered which may include the use of alternative:

SEALS
MATERIALS
HEAT TREATMENT
PLATING
MOUNTINGS
BEARINGS
CONSTRUCTION
TESTING
PAINT FINISH

HYDRAULIC CYLINDERS AND ROTARY ACTUATORS FITTED WITH CONTROL FEATURES

are available when the application demands, for example:

- (a) Pilot operated check valves
- (b) Counter balance valves
- (c) Accumulators
- (d) Remote position monitoring of the piston rod using a TRANSDUCER fitted either externally or internally within the piston rod, whichever suits the application
- (e) Remote piston position indicator using PROXIMITY SENSORS mounted on the piston rod and cylinder tube.

**A FULL OVERHAUL/REPAIR SERVICE IS AVAILABLE FOR
ALL SIZES AND TYPES**

**A 24 HOUR BREAKDOWN SERVICE
IS ALSO AVAILABLE FOR
URGENT REPAIR REQUIREMENTS**

Product improvement is a basic A.M. Hydraulics policy ... all dimensions are subject to change without notice. Certified dimensional prints available with order

**Keeping
Industry moving**

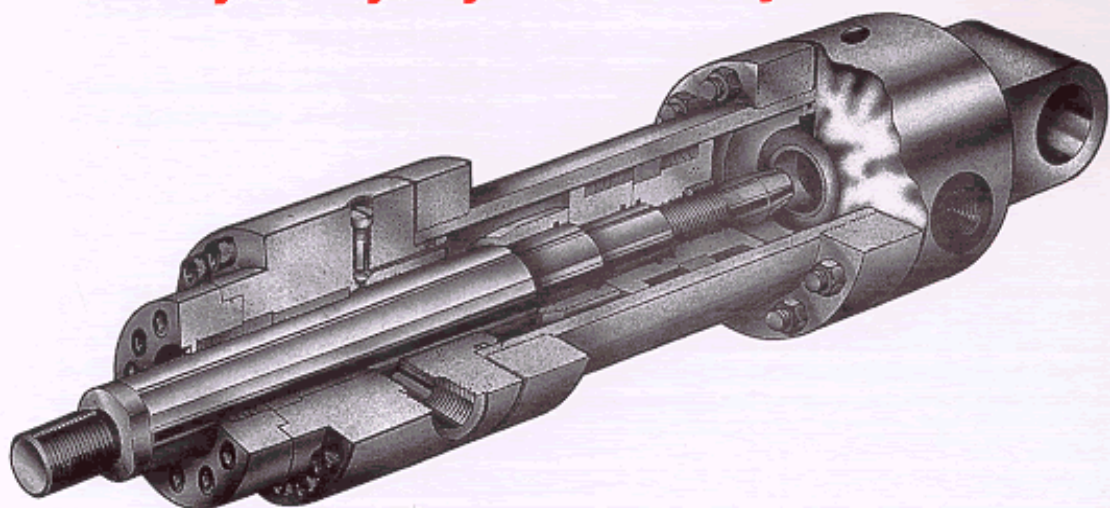


A.M. HYDRAULICS
Unit 3, Hockley Brook Trading Estate
South Road Avenue, Hockley
Birmingham B18 5JR
Telephone: 0121-554 7576
Fax: 0121-554 4640

Keeping Industry moving



AM 250 Series
Heavy Duty Hydraulic Cylinders



Keeping
Industry moving



A.M. HYDRAULICS
Unit 3, Hockley Brook Trading Estate
South Road Avenue, Hockley
Birmingham B18 5JR
Telephone: 0121-554 7576
Fax: 0121-554 4640

DATA SHEET AM 250/A

Design Features and Materials

Heavy Duty
Hydraulic Cylinders

AM250 Series

Piston Rods - Manufactured from high quality steel having a minimum yield strength of 680N/mm² and hard chrome plated to a minimum depth of 0.05mm to give optimum service.

Cylinder Tube - Up to 200mm bore - cylinder tubes are produced from cold drawn seamless steel grade BS 5242 HP5, over 200mm bore - cylinders have tubes produced from hot finished seamless steel grade to suit application. A.I tubes are honed in the bore to a surface finish of 0.2um for maximum seal life.

End Caps - Manufactured in quality steel with location spigots giving concentric location and added support. Sealing is by standard 'O' rings together with anti-extrusion rings.

End Cap Retaining Flanges - Manufactured from quality steel, secured to the tube by precision screw threads. End Caps are retained to the flanges by pre-torqued high tensile socket head cap screws.

Piston Head - Construction having outer plates of steel with a generous centre bronze bearing, it is locked to the piston rod by a set screw driven axially into the piston and piston rod. The seals are MULTILIP CHEVRONS.

Rod Gland - Consisting of an inner and outboard bronze bearing fitted with a MULTILIP CHEVRON seal and heavy duty wiper seal. The inboard bearing is designed to support the piston rod during maintenance, the outboard bearing will protect the piston rod against adverse deflections. The wiper seal is located in a separate bolted on housing allowing the wiper seal to be changed without dismantling the whole gland assembly.

Cushioning - Fitted to both the full bore and annulus unless otherwise specified, the cushion sleeve and cushion spear are manufactured with progressive tapers to ensure smooth deceleration at the end of the stroke. Adjustable cushion taper needle valves can be fitted at both end caps and are of the captive type to cover against inadvertent removal.

Ports - Standard BSPP threads spotfaced or machined for sealing arrangements.

SPECIALS

Although the A.M. Hydraulics 250 series covers a wide range of applications it is recognised that in some instances that they may not be suitable for certain installations. For a number of years A.M. Hydraulics has produced many different types of cylinders for specific applications. The examples below represent some types and features included:

High Pressure Ratings
Cylinder Bores up to 1000mm
Stroke Length to 14metres
Special Rod Sizes
Special Rod Finishes
Double Rod Cylinders
Multi Stage Cylinders

Longer Cushioning
Special Mounting Arrangements
SAE Ports
Seals for Special Fluids
Water Hydraulic Cylinders
Pneumatic Cylinders

If you have a special requirement please consult A.M. Hydraulics.

Seal Material - Seal material used in standard AM250 series cylinders are compatible with petroleum based and most water glycol or oil in water emulsion fluids. Seal arrangements can be provided for use on phosphate ester and other synthetic fluids. If further advice is required consult A.M. Hydraulics.

As a guide the undermentioned information can be used to select seal material against temperature and fluids to be used.

Hydraulic Fluid	Seal Material	Temperature
Mineral Oil	Nitrile	-40°C/+100°C
Water Glycol	Nitrile	-40°C/+100°C
*Phosphate Ester	Fluorocarbon	-20°C/+100°C

* Consult manufacturer for specific grade of fluid.

Keeping
Industry moving



A.M. HYDRAULICS
Unit 3, Hockley Brook Trading Estate
South Road Avenue, Hockley
Birmingham B18 5JR
Telephone: 0121-554 7576
Fax: 0121-554 4640

DATA SHEET AM 250/B