

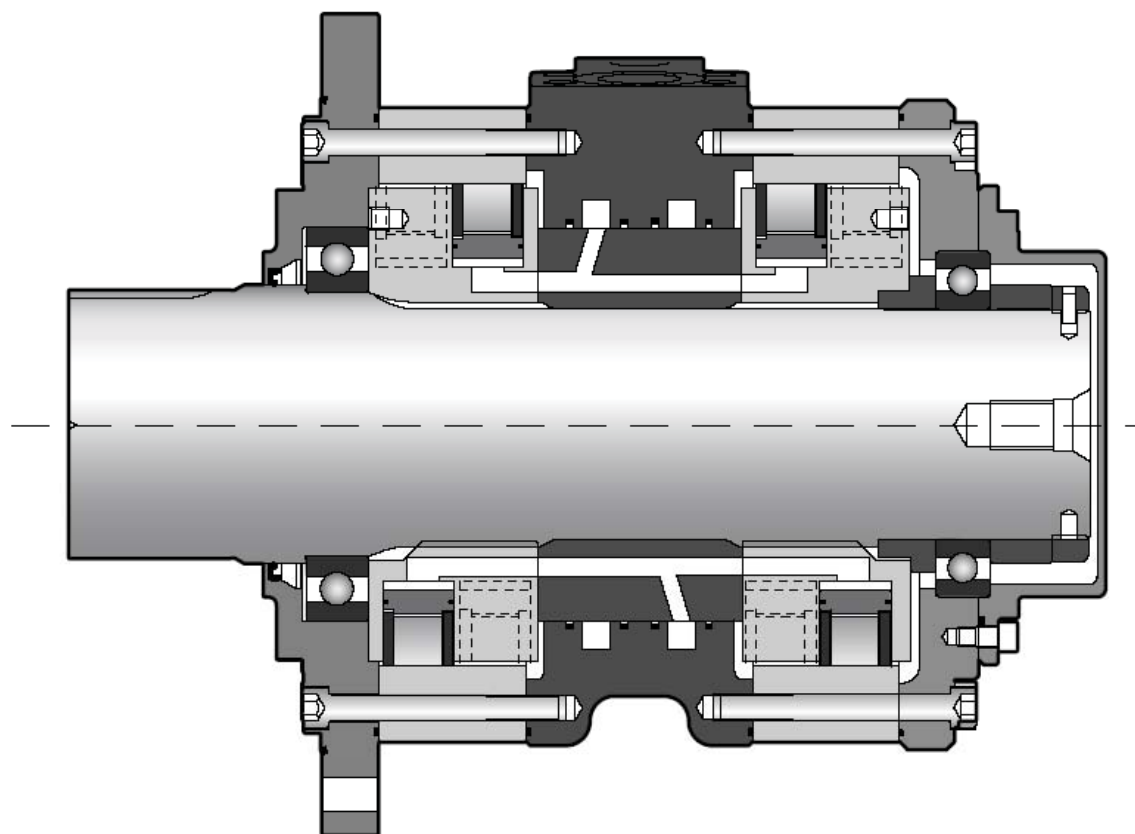


# MA MOTORS



## MA88. HYDRAULIC MOTORS.

### CHARACTERISTICS



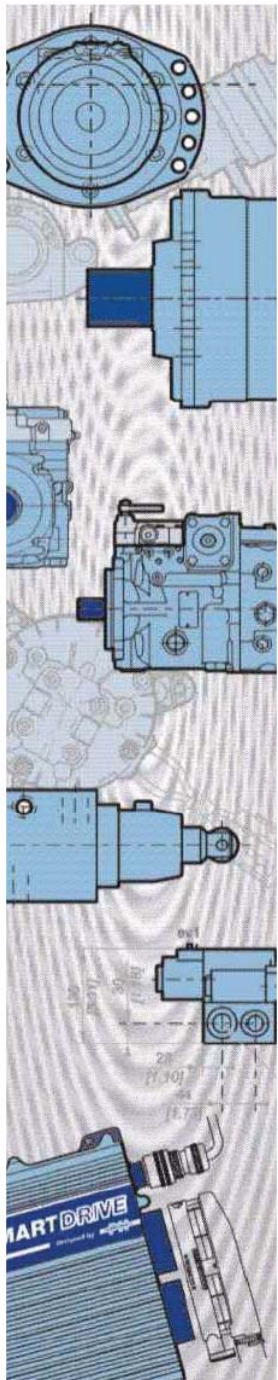
Motor inertia = 0.01 kg.m<sup>2</sup>  
 Noise emissions = 60 dBA

C	① cm <sup>3</sup> /tr [cu.in/rev.]	Theoretical torque		Max.power ① kW [HP]	Max.speed ② tr/min[RPM]	Pression max. bar [PSI]
		at ΔP 100 bar Nm	at ΔP 1000 PSI [lb.ft]			
8	7000 [426,9]	11130	[5 660]	265 [355]	140 [140]	450 [6 527]
9	7920 [483,0]	12593	[6 404]		130 [130]	
0	8800 [536,7]	13992	[7 115]		120 [120]	
2	10400 [634,3]	16536	[8 409]		100 [100]	

① First displacement



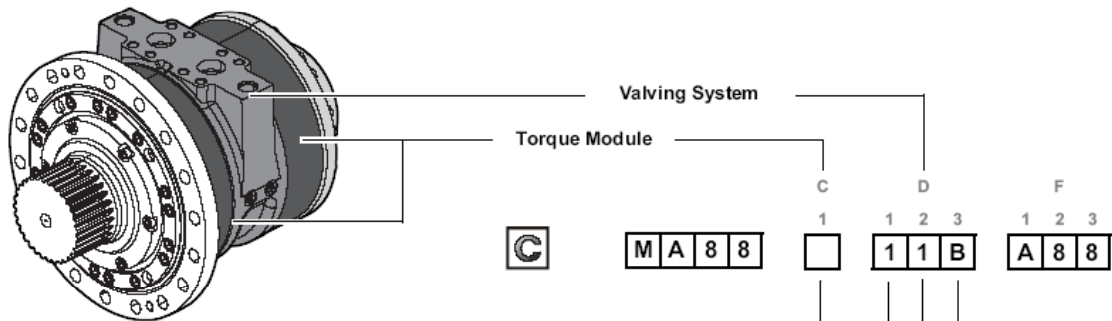
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MODEL



**C1**

<b>Cam ring type</b>	
<b>1 displacement</b>	
cm <sup>3</sup> /tr [cu.in/rev.]	
7 000 [427.2]	8
7 920 [483.3]	9
8 800 [537.0]	0
10 400 [634.6]	2

**D1**

<b>Valving type</b>	
1-displacement valving	1

**D2**

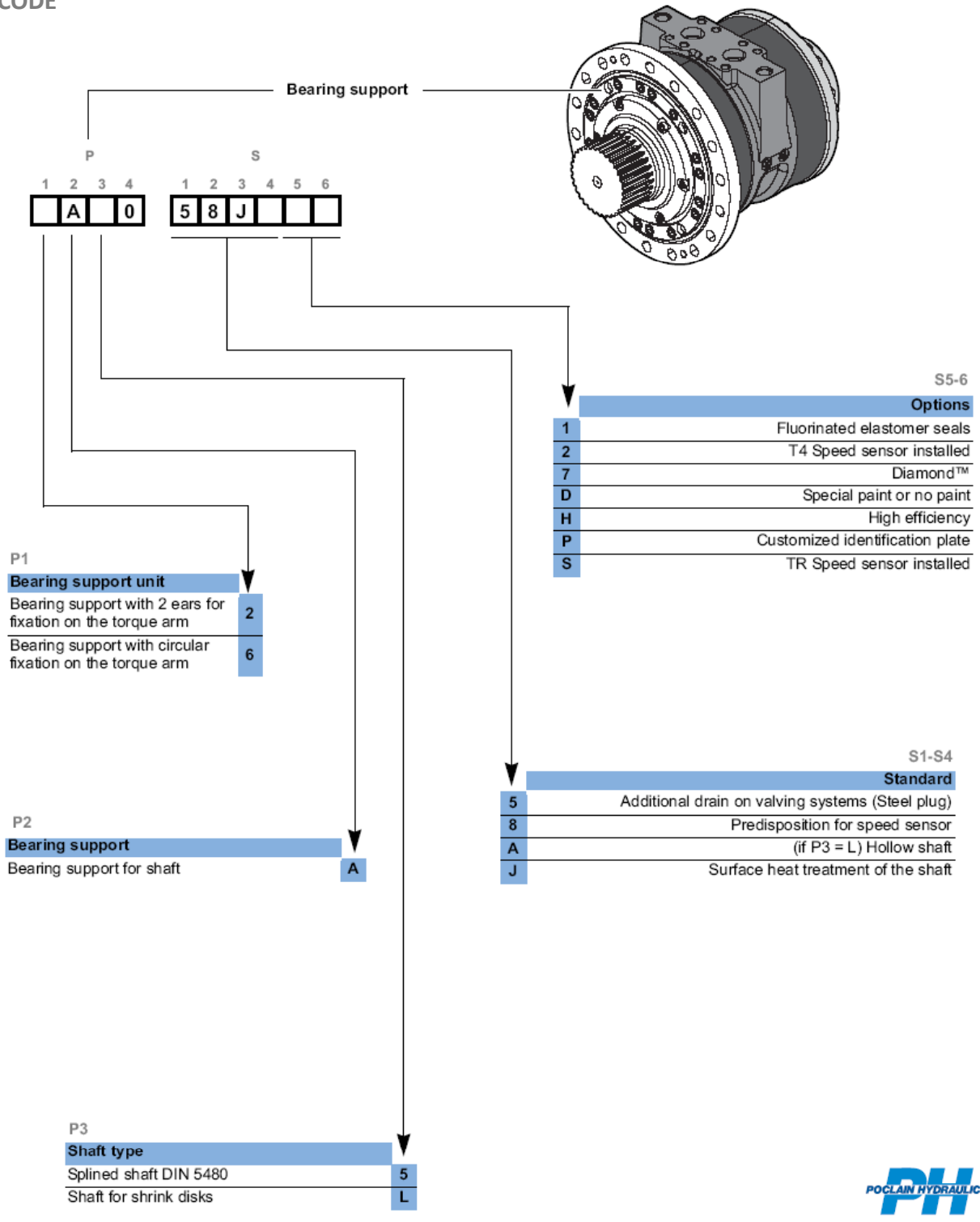
<b>Valving cover</b>	
Without mounting	1

**D3**

<b>Connection type</b>	
• R-L ports: SAE flange DN 51 - ISO 6162 (with UNC screws)	B
• 1-2-3-4 ports: SAE J514 with O-ring seal - ISO 11926-1	



CODE



**Methodology :**

This document is intended for manufacturers of machines that incorporate Poclairn Hydraulics products. It describes the technical characteristics of Poclairn Hydraulics products and specifies installation conditions that will ensure optimum operation. This document includes important comments concerning safety. They are indicated in the following way:



**Safety comment.**

This document also includes essential operating instructions for the product and general information. These are indicated in the following way:



**Essential instructions.**



**General information .**



**Information on the model number. Information on the model code.**



**Weight of component without oil.**



**Volume of oil.**



**Units.**



**Tightening torque.**



**Screws.**



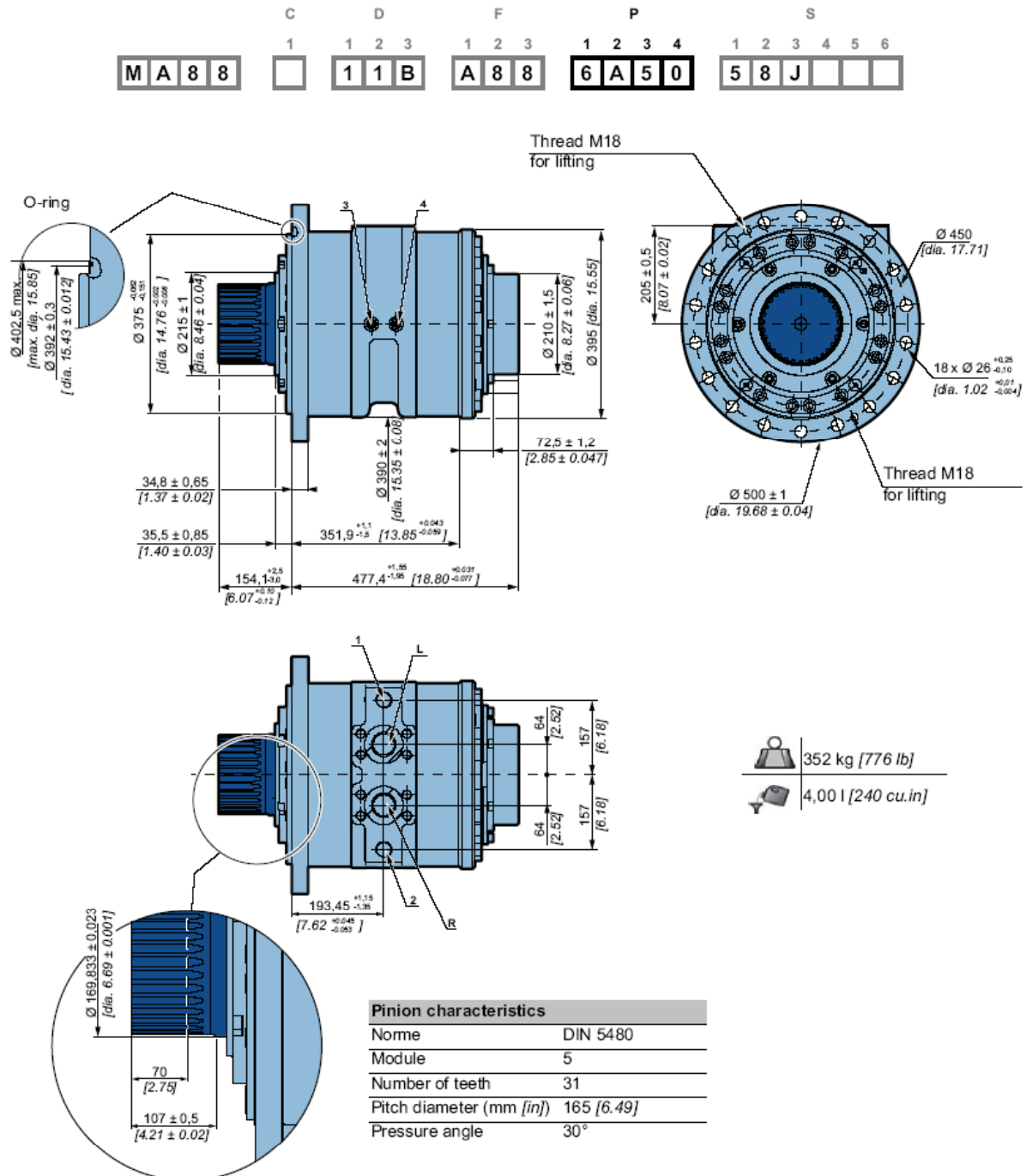
**Information intended for Poclairn-Hydraulics personnel.**

The views in this document are created using metric standards.  
The dimensional data is given in mm and in inches (inches are between brackets and italic)



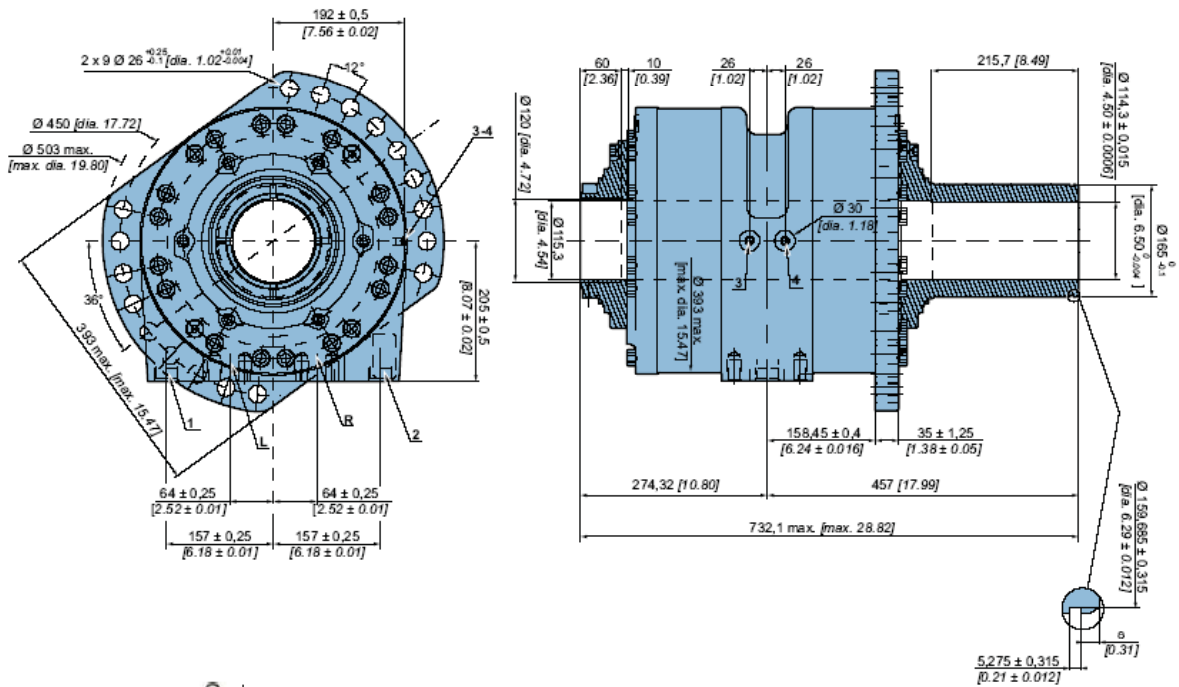
## MOTORS

## Motor with splined shaft



**Motor with hollow shaft**

		C		D			F			P				S						
		1		1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6	
M	A	8	8		1	1	B	A	8	8	2	A	L	0	5	8	A	J		



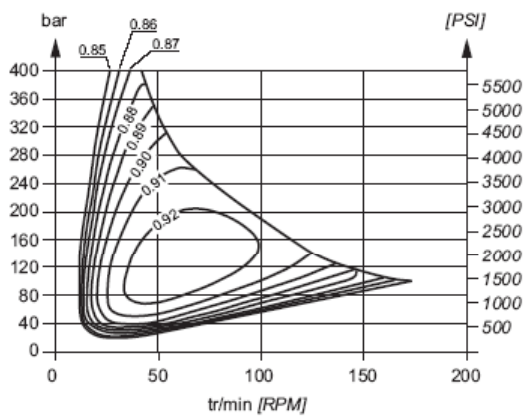
382 kg [840 lb]  
 4,00 l [240 cu.in]



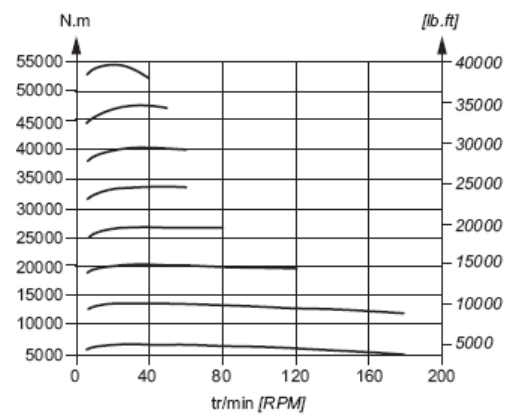
**Efficiency and output torque**

**Overall efficiency**

Average values given for guidance for code 0 displacement after 100 hours of operation with HV46 hydraulic fluid at 50°C [122°F].



**Actual output torque**

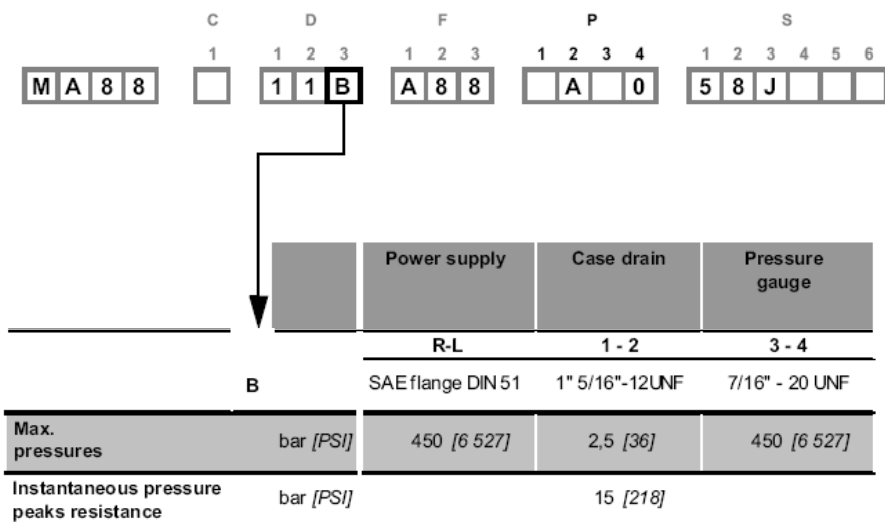
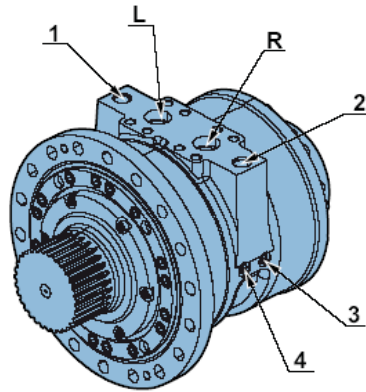


The starting torque is taken to be approximately 85% of the first value for available pressure. For a precise calculation, consult your Poclain Hydraulics application engineer.



VALVING SYSTEM

Hydraulic connections



You are strongly advised to use the fluids specified in brochure "Installation guide" N° 801478197L.



To find the connections' tightening torques, see the brochure "Installation guide" N° 801478197L.

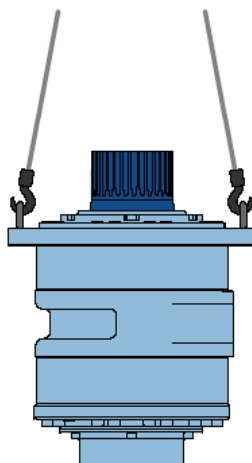


## INSTALLATION

### Lifting method



Before any lifting we recommend you to check the center of gravity position.

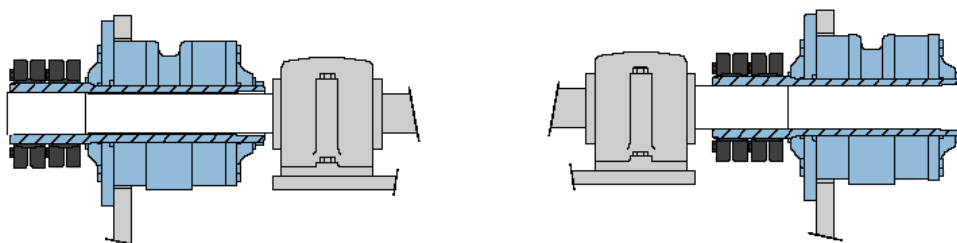


MA88 motor can't accept any axial or radial load.

### Shrink disc coupling (for hollow shaft)

The hollow shaft enables the MA88 motor to be fitted on a transverse shaft. This facilitates access to the coupling system. This system, on the external side of the machine, requires 2 shrink disc couplings which are not furnished with the motor.

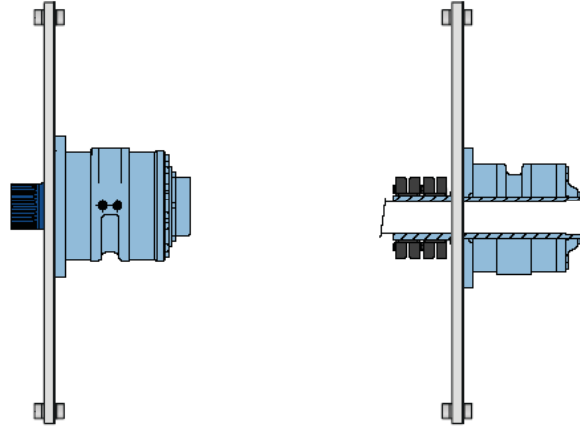
You have to order 2 shrink disc couplings: N° 00 57 389 10 V.



### Torque arms mounting

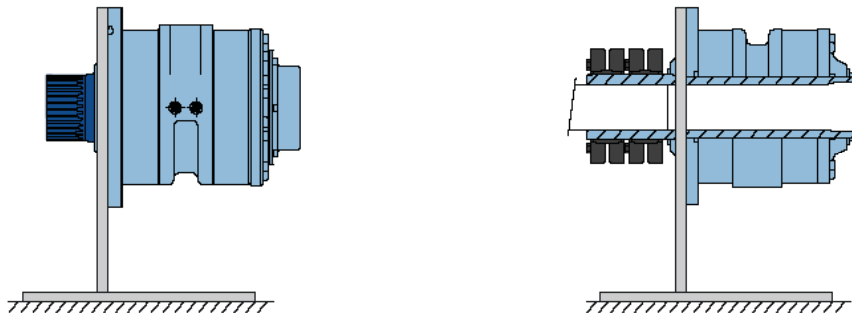
We recommend a length of the torque arm of 800 mm [31.50 in].

In order to avoid residual forces due to misalignment and twisting, the end of the arms must retain freedom of movement in 2 axis.



### Bracket mounting

To avoid axial or radial loads, we recommend you to check particularly the alignment of the axis.



For more information see technical catalogue "Installation guide N° 801478197L.



You are strongly advised to use the fluids specified in brochure "Installation guide" N° 801478197L.



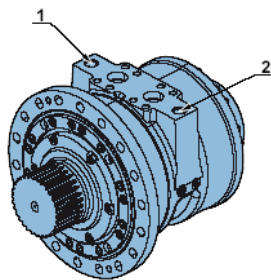
To find the connections' tightening torques, see the brochure "Installation guide" N° 801478197L.

OPTIONS



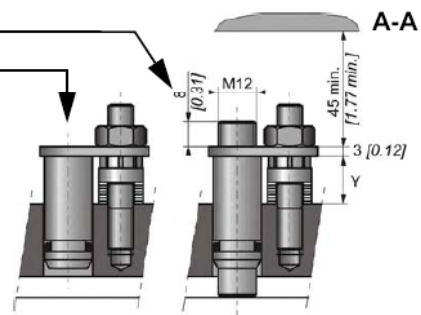
You can accumulate more than one optional part. Consult your Poclain Hydraulics sales engineer.

**5** Drain on the valving system



**2 S 8** Installed speed sensor or predisposition

<b>C</b>	
Designation	
T4 Speed sensor installed	2
TR Speed sensor installed (direction of rotation)	S
Predisposition for speed sensor	8



Max. length Y = 18,65 [0.73]  
Standard number of pulses per revolution = 60

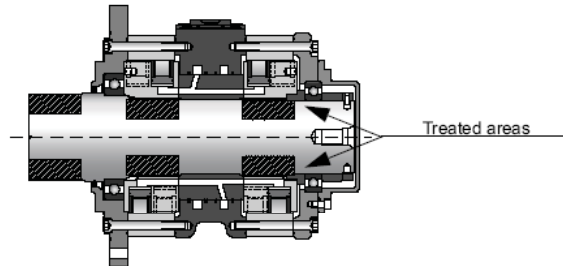
**i** Look at the "Mobile Electronic" N° A01889D technical catalogue for the sensor specifications and its connection.

**i** To install the sensor, see the "Installation guide" brochure No. 801478197L.



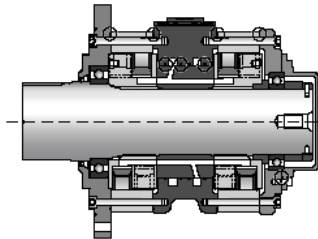
### J Treated shaft

Heat treatment on the indicated bearing radius and splines.



### 1 Fluorinated elastomer seals

Nitrile seals marked in the figure below replaced by fluorinated elastomer seals.

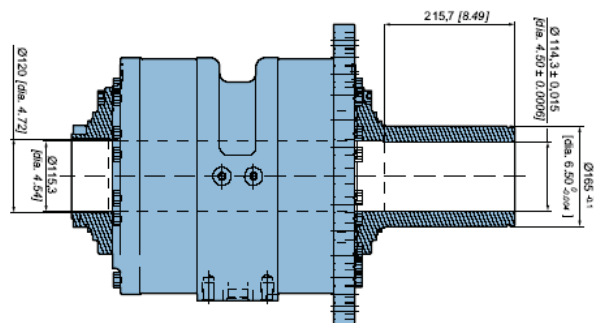


Consult your Poclain Hydraulics sales engineer.

### 7 Diamond™

Special treatment of the motor core which considerably increases its strength, making the motor much more tolerant to temporary instances of the operating conditions being exceeded.

### A Hollow shaft



**D** Special paint or no paint

The motors are delivered with Poclain Hydraulics yellow ochre primer as standard.



Consult your Poclain Hydraulics application engineer for other colors of primer or topcoat.

**H** High efficiency

Reinforced piston sealing to improve volumetric efficiency.



For a precise calculation, consult your Poclain Hydraulics application engineer.

**P** Customized identification plate

Your part number can be engraved on the plate.



Consult your Poclain Hydraulics application engineer for other possibilities.