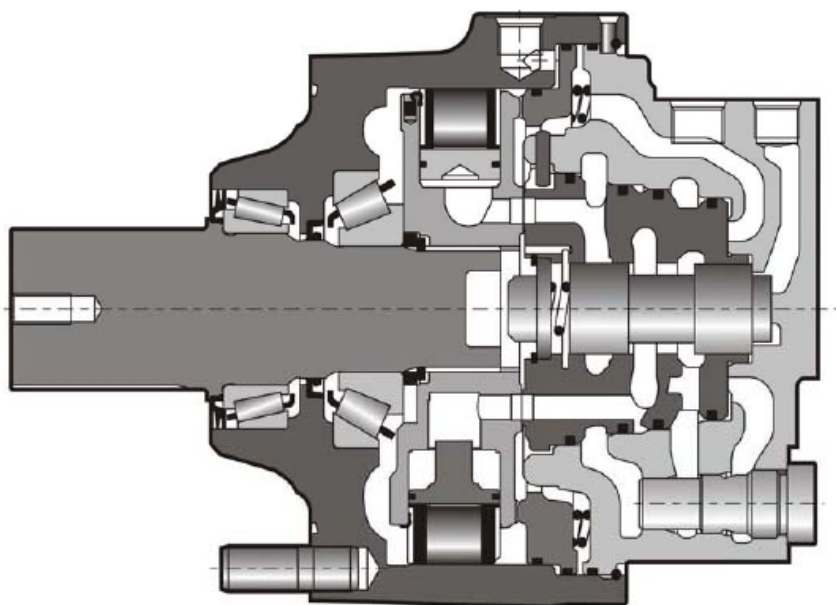




# ML MOTORS



**ML6-MLE06. SKID-STEER LOADER MOTOR.**

**Single displacement motor**

	C	cm <sup>3</sup> /tr [cu.in/rev.]	Theoretical torque		Max. power	Max. speed	Max. pressure
			at 100 bar Nm	at 1000 PSI [lb.ft]			
ML06	2	630 [38,4]	1 002	[509]	30 [40]	226	381 [5 526]
MLE06	2	842 [51,4]	1 339	[681]		169	

**Dual displacement motor**

	Displacement		Theoretical torque		Max. power			Max. speed		Max. pressure
	1	2	1	2	1	2	2	1	2	
	cm <sup>3</sup> /tr [cu.in/rev.]	cm <sup>3</sup> /tr [cu.in/rev.]	at 100 bar Nm	at 1000 PSI [lb.ft]	preferred kW [HP]	non-preferred kW [HP]	tr/min [RPM]	tr/min [RPM]	tr/min [RPM]	bar [PSI]
ML06	2	630 [38,4]	420 [25,6]	1 002 [509]	30 [40]	20 [27]	15 [20]	226	330	381 [5 526]
MLE06	2	842 [51,4]	561 [34,2]	1 339 [681]				169	241	
MLE06	C	702 [42,8]	421 [25,7]	1 116 [568]				203	322	

① First displacement

② Dual displacement

## CONTENT

<b>MODEL CODE</b>	<b>5</b>	Model code
<b>CHARACTERISTICS</b>	<b>7</b>	
Definition of shaft motor 8 Exchange 8 Load curves 9 Efficiency 10 Chassis mounting 11 Hydraulic connections 12 Specification of the motor's rotation direction 12 Immobilisator 13		
<b>OPTIONS</b>	<b>15</b>	Options

**Methodology :**

This document is intended for manufacturers of machines that incorporate Poclain Hydraulics products. It describes the technical characteristics of Poclain 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.**



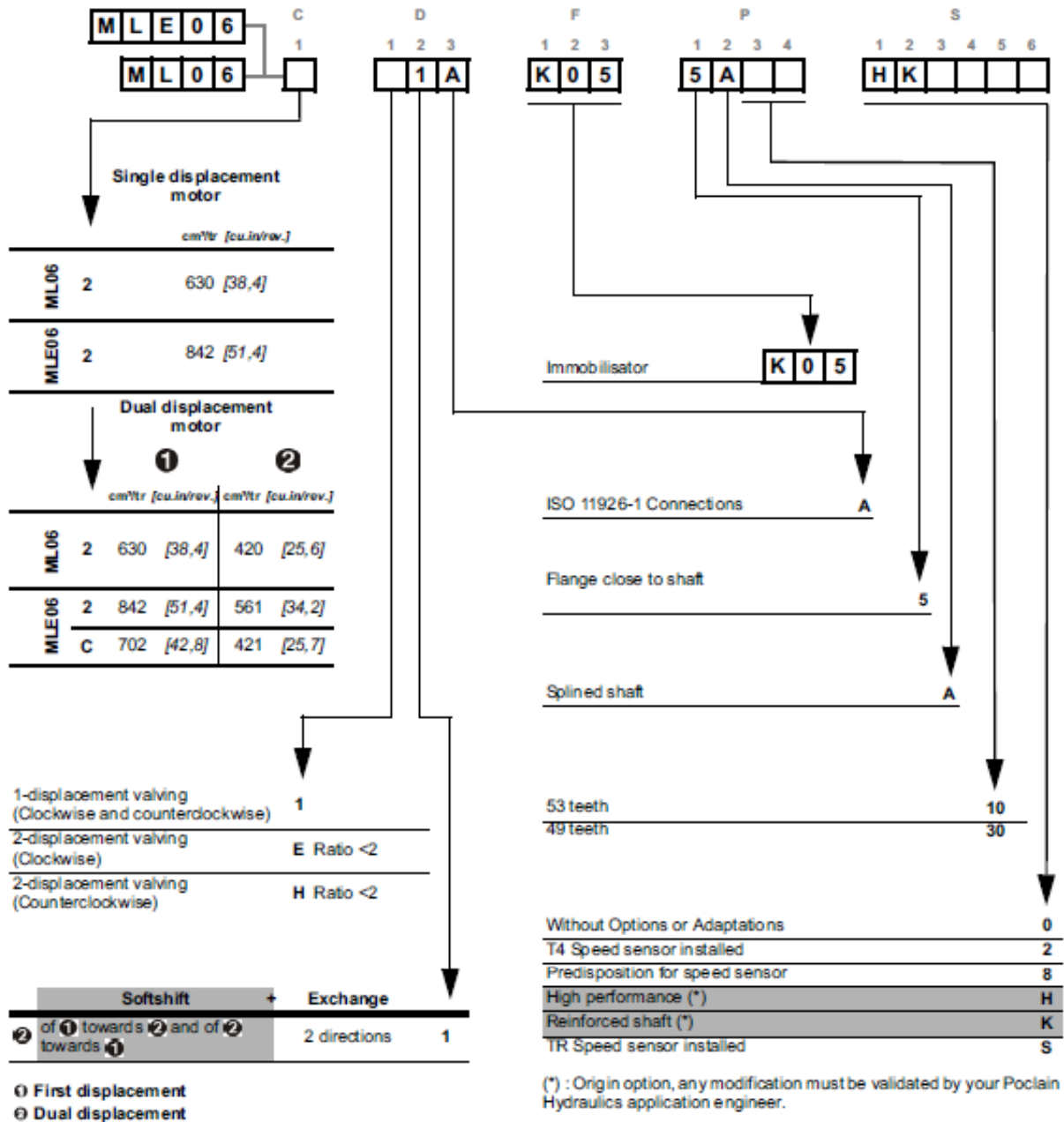
**Information intended for Poclain-Hydraulics personnel.**

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)



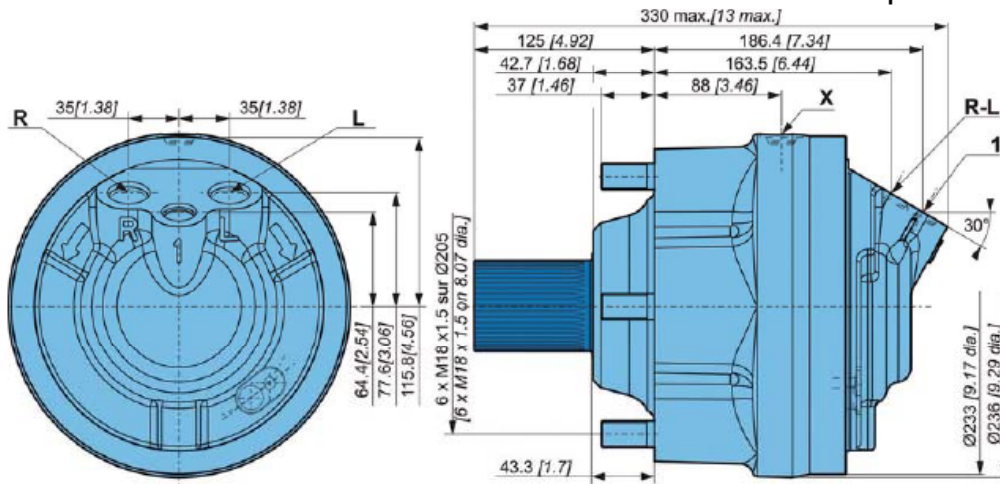
MODEL CODE



**CHARACTERISTICS**

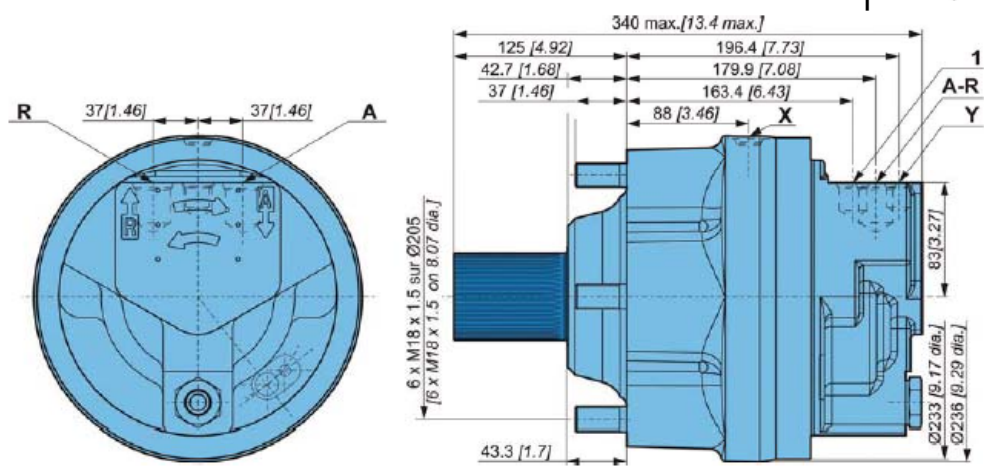
**Dimensions for 1-displacement motor with built-in exchange**

	43 kg [95 lb]
	1.10 L [66 cu.in]



**Dimensions for 2-displacement motor with built-in exchange**

	49 kg [108 lb]
	1,10 L [66 cu.in]



Definition of shaft motor

	<b>M L E 0 6</b>	<b>C</b>	<b>D</b>	<b>F</b>	<b>P</b>	<b>S</b>
	M L 0 6	1	1 2 3	1 2 3	1 2 3 4	1 2 3 4 5 6
			1 A	K 0 5	5 A	H K

<b>splines</b>	<b>10</b>	<b>30</b>
<b>Standard</b>	ANSI B92.1-1996	ANSI B92.1-1996
<b>Accuracy class</b>	5	5
<b>Pressure angle</b>	30°	30°
<b>Module</b>	20/40	20/40
<b>Number of teeth</b>	53	49
<b>LU</b>	67.8	67.8
<b>Outer diameter</b>	68.58	63.5


Consult your Poclair Hydraulics application engineer to check the position of pinions.

Exchange



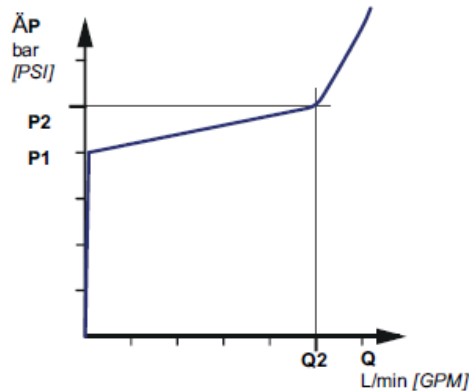
When a coding request is made, you must specify information on the threshold of the selector and the valve.

- Selector spool

<b>Selector threshold</b> bar [PSI]	<b>Opening pressure of selector</b> bar [PSI]
7 [101.5]	7 - 10 [101.5 - 145]

- Fitted valve

<b>P1</b> bar [PSI]	<b>Q2</b> L/min [GPM]	<b>P2</b> bar [PSI]
20 [290]	12 [3.17]	31 [449.6]



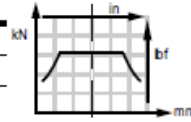
**Load curves**

**Permissible radial loads**

Test conditions :

**Static** : 0 tr/min [0 RPM] 0 bar [0 PSI]

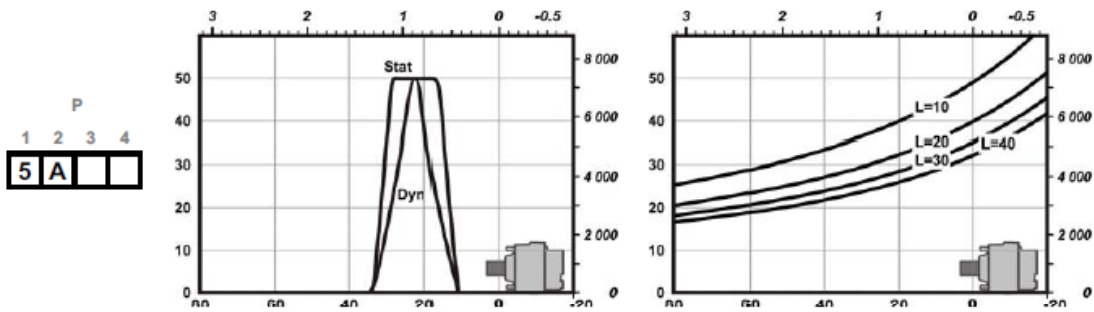
**Dynamic** : 0 tr/min [0 RPM], code 2 displacement, without axial load at max. torque



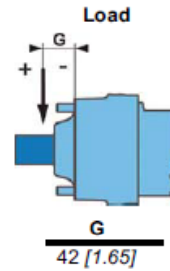
**Service life of bearings**

Test conditions :

**L** : Millions B 10 revolutions at 150 bars (average pressure), with 25 cSt fluid, code 0 displacement, without axial load.



The service life of the components is influenced by the pressure. You must check that the combination of forces applied (Axial load / Radial load) is compatible with the permissible loads for the components, and that the resulting service lives of these components complies with the application's specifications. For an accurate calculation, consult your Poclairn Hydraulics application engineer.

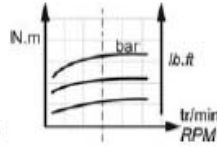
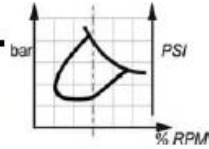




**Efficiency**

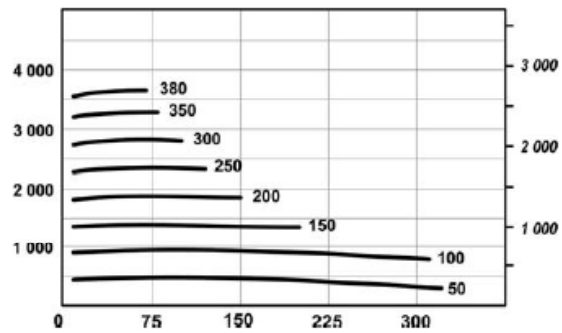
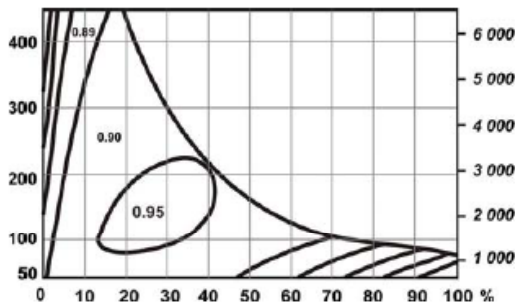
**Overall efficiency**

Average values given for guidance for code 2 displacement after 100 hours of operation with HV46 hydraulic fluid at 50°C [122°F].

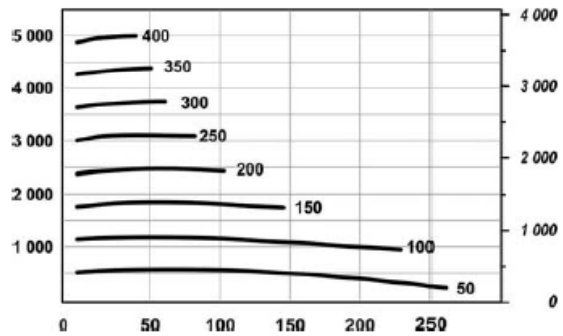
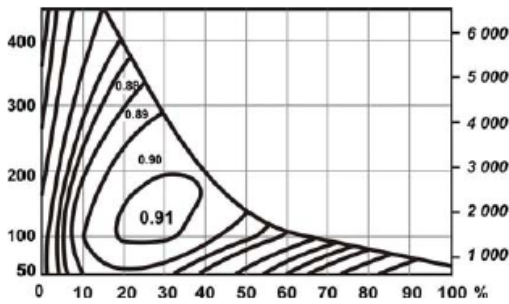


**Actual output torque**

**ML06**



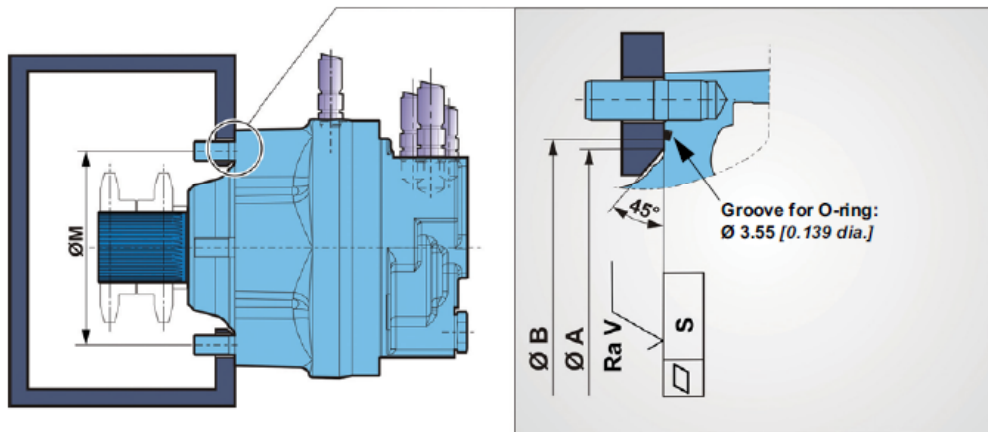
**MLE06**



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.





### Chassis mounting



Take care over the immediate environment of the connections.

#### Chassis mounting

ØM mm [in]	ØU mm [in]	S mm [in]	Ra V µm [µin]		Class of screw	 N.m [lb.ft]
205 [8,07]	247 [9,72]	0,2 [0,01]	12,5 [0,49]	6 x M18	12,9	550 [406]

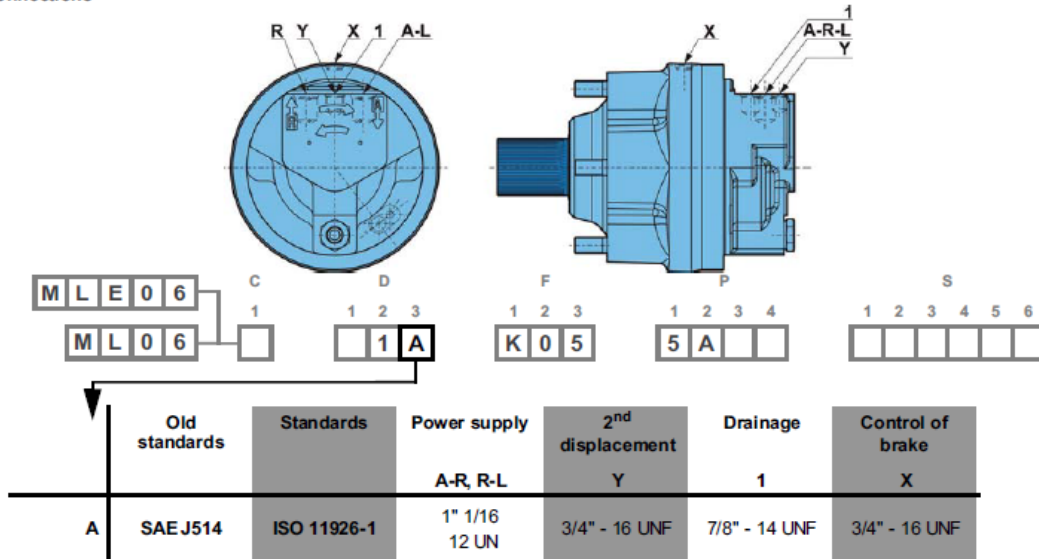
### Installation constraint



To insure optimal operation, the sprocket should be contained in a sealed and self-lubricated housing. see the "Motors Generic installation" brochure No. 801478197L.

Hydraulic connections

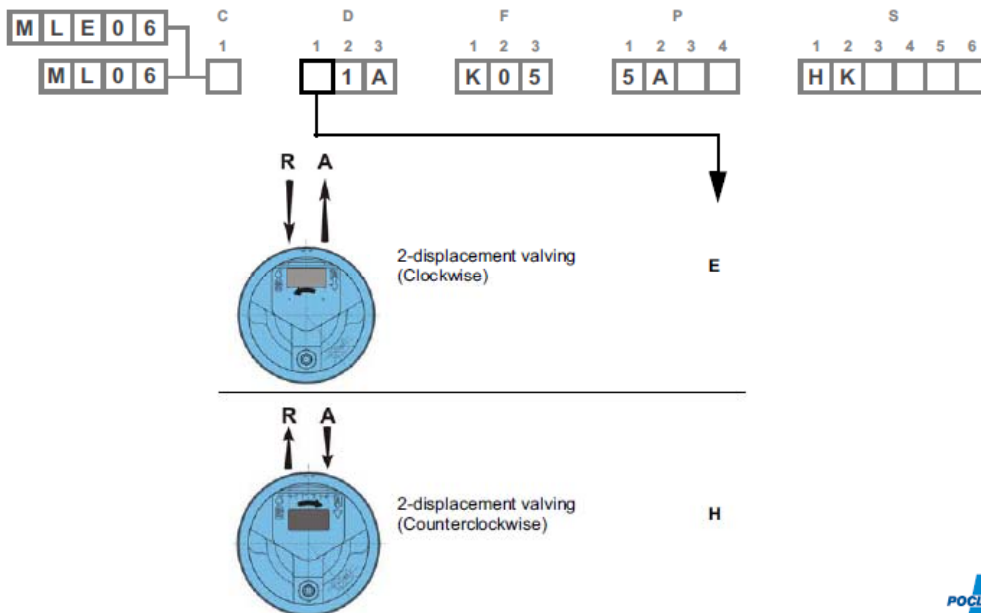
Connections



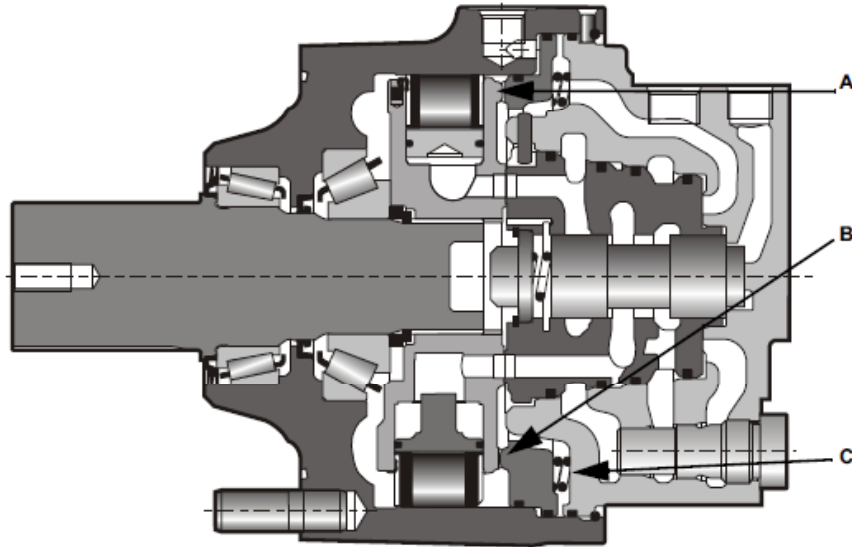
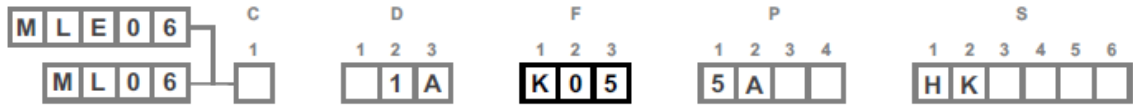
You are strongly advised to use the fluids specified in brochure "Installation guide" N° 801478197L.

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

Specification of the motor's rotation direction



### Immobilisator



#### Brake principle

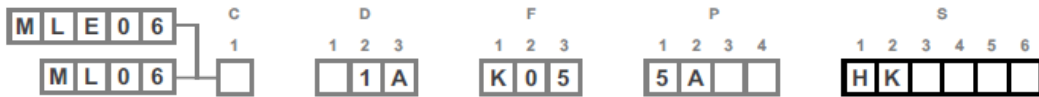
The parking brake consists of two parts, one static (A), one rotating (B), each bordered by a row of teeth. In the absence of pressure, the (C) spring maintains part A in contact with the cylinder-block, thus immobilizing it.

#### Brake principle

The parking brake consists of two parts, one static (A), one rotating (B), each bordered by a row of teeth. In the absence of pressure, the (C) spring maintains part A in contact with the cylinder-block, thus immobilizing it.

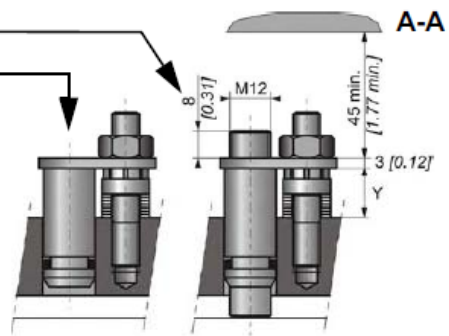
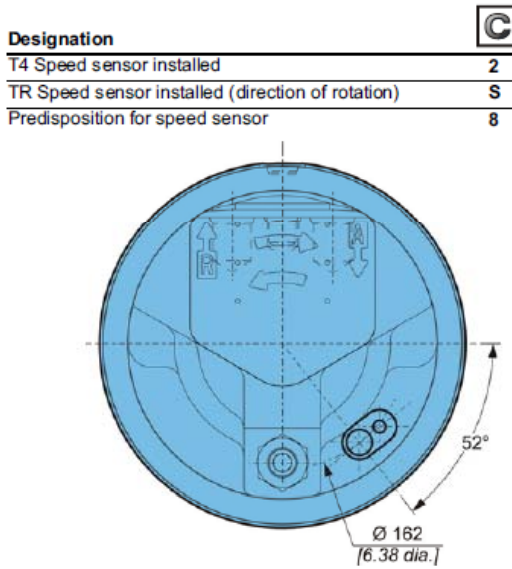
	<b>K 0 5</b>
Parking brake torque with 0 bars in the housing (new brake)	4 500 Nm [3 319 lb.ft]
Minimum brake release pressure	12 bar [174 PSI]
Maximum brake release pressure	32 bar [464 PSI]
Capacity	13.5 cm <sup>3</sup> [0.82 cu.in]
Brake release capacity	23 cm <sup>3</sup> [1.40 cu.in]

OPTIONS



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

2 - S - 8 - Installed speed sensor or predisposition



Max. length Y= 13.6  
Standard number of pulses per revolution= 62



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



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