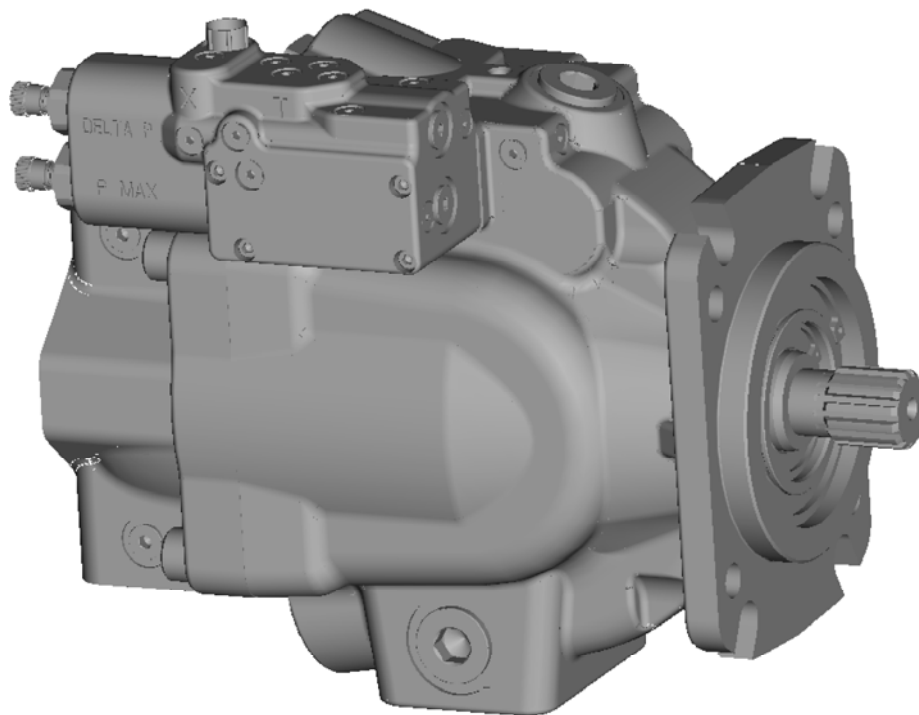




INSTALLATION MANUAL

SERIES P2

MOBILE PISTON PUMP



ECN 133814	RELEASE TO PR STATUS
ECN 134356	CHANGED TO REV. A

APPROVED BY M. KUEHNE	DATE 04NOV04	TITLE INSTALLATION MANUAL P2	SHEET 1 OF 6	
DRAWN BY J.LONGERICH	DATE 04NOV04	PART NO. P2-000-3921	REV. A	STATUS PR

1. Check model code / compare with your paper work



Nameplate of pump

rORBUK GmbH Chemnitz Germany Telefon +49 (0)371 25910 Fax +49 (0)371 26 13 88 E-Mail: info@rorbuk.de www.rorbuk.de		Parker Division: Hydraulics RAL 910 000 00 Kabinen + 4088 903 10 2017 Code: 003 501 410				
OP11028563 Hydraulik GmbH - Neustadt, 96 - D-09116 Chemnitz		AUFTRAGSBESTÄTIGUNG SALES ACKNOWLEDGEMENT Page 1 30.10.02				
Raptor-Hydraulik Oy Yhteiskatu 16 01510 VANTAA Finland		Order No: 575083 S2 15.10.02 Sales Condition: C.Kustant.02131/513-305F.289 Repair & Service: Field Sales Eng.: Intra Group				
14502979 R01125206		Wir raten ausdrücklich zu den umsatz begünstigten allgemeinen Lieferbedingungen. Please note our terms of delivery and payment on the invoice. i.V. Claus				
Parker-Hydraulik Oy Yhteiskatu 16 01510 VANTAA Finland		Shipment Condition: Ex works/Pack.incl./Fr.ag.inv. Shipment Method: UPS STANDARD				
Item Number	Shipped	Unit	List Price	Base Price	Extended Price	Conf. Code
Description			Discount %			

Ordering / sales acknowledgement

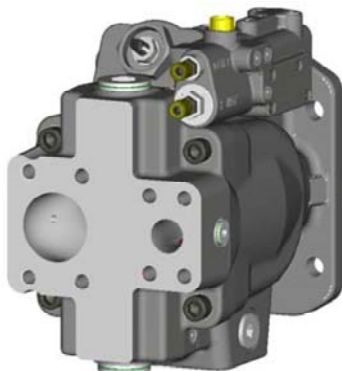
2. Check rotation of pump



Clockwise rotation (right) - side ported pump



Counter clockwise rotation (left)-side ported pump



Clockwise rotation (right) - rear ported pump
P2060* and P2075* only



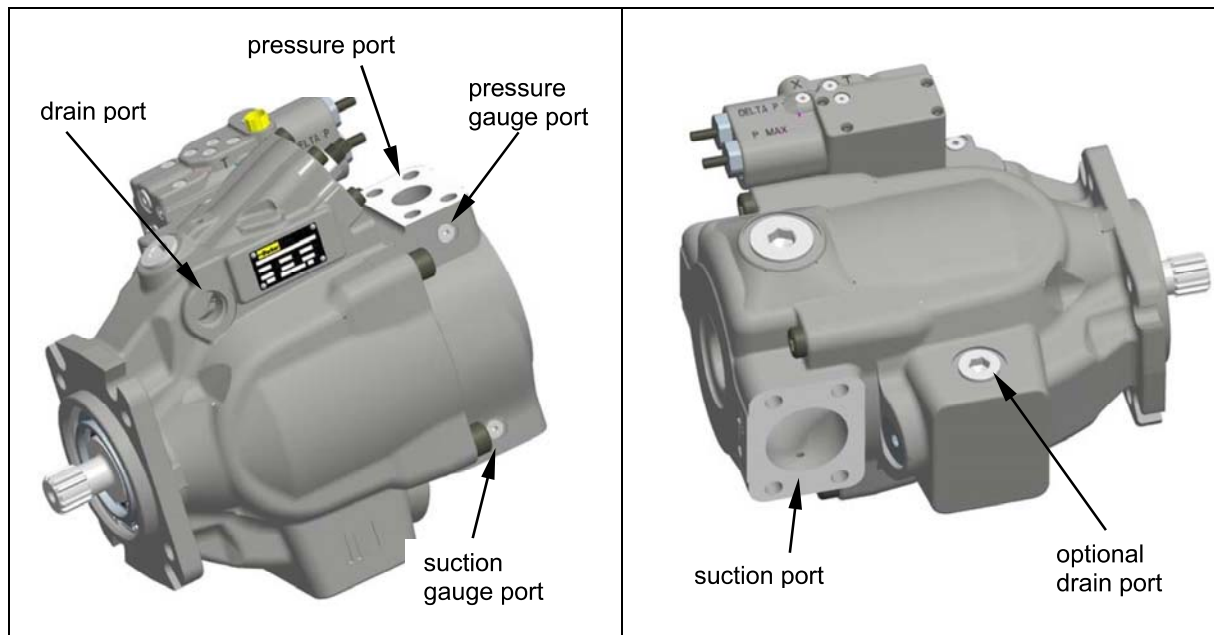
Counter clockwise rotation (left)-rear ported pump
P2060* and P2075* only

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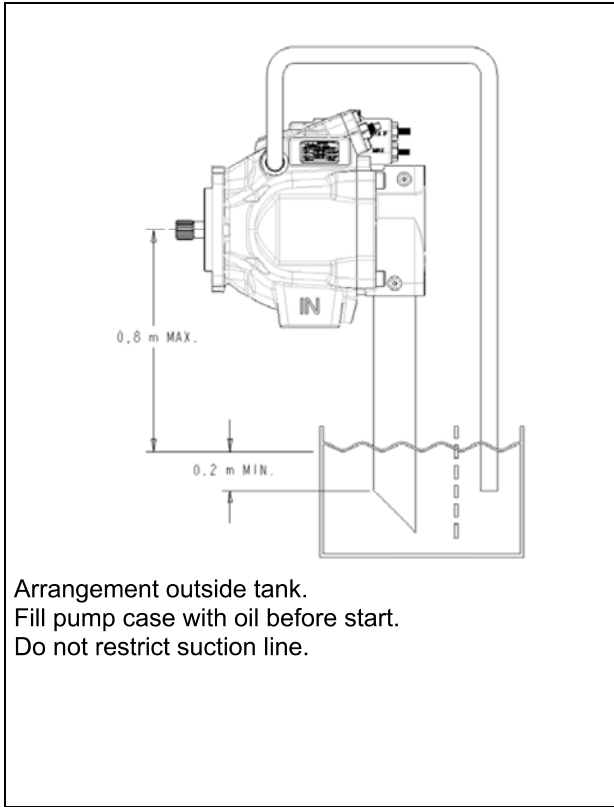
3. Suction, pressure and drain line connection

Minimum pump inlet pressure under static and dynamic load : $p_{in\ min} = 0,8\ \text{bar absolute}$

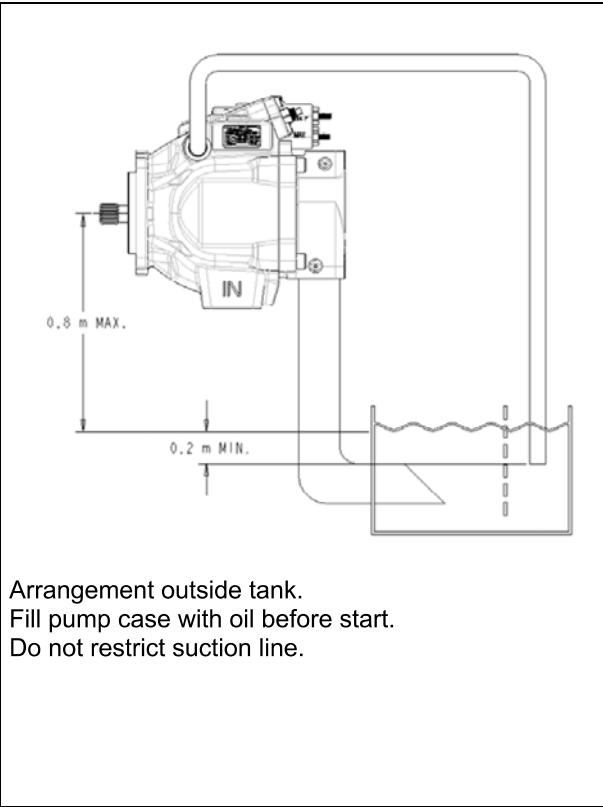
Maximum pump inlet pressure : $p_{in\ max} = 10\ \text{bar}$



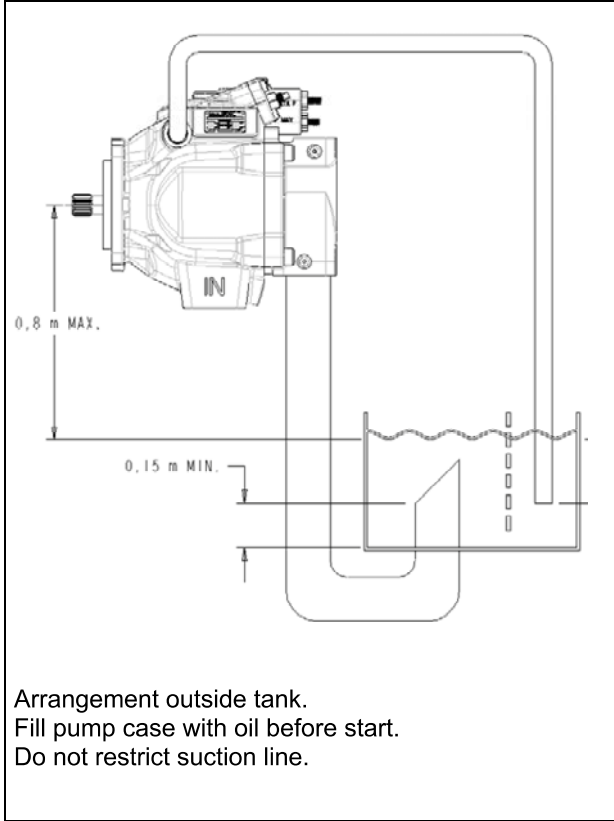
APPROVED BY M. KUEHNE	DATE 04NOV04	TITLE INSTALLATION MANUAL P2	SHEET 3 OF 6	
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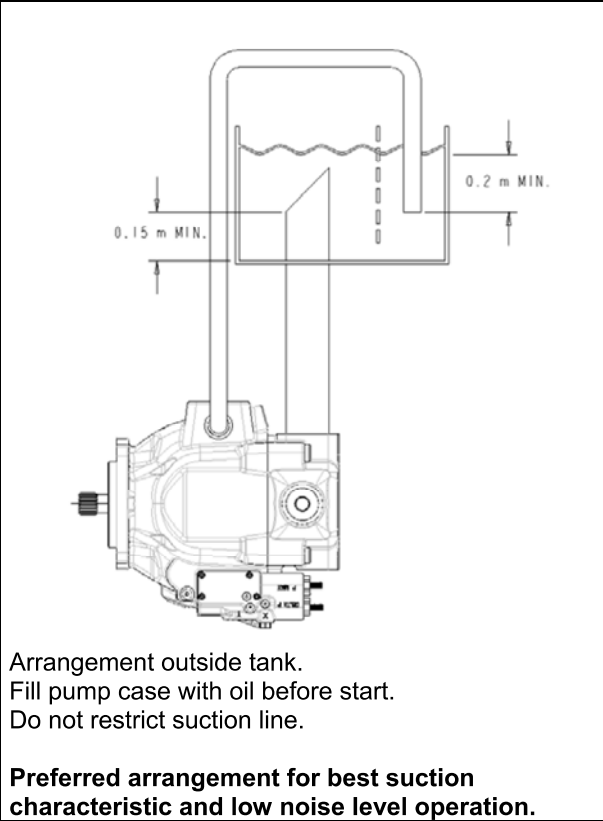
Arrangement outside tank.
Fill pump case with oil before start.
Do not restrict suction line.



Arrangement outside tank.
Fill pump case with oil before start.
Do not restrict suction line.



Arrangement outside tank.
Fill pump case with oil before start.
Do not restrict suction line.

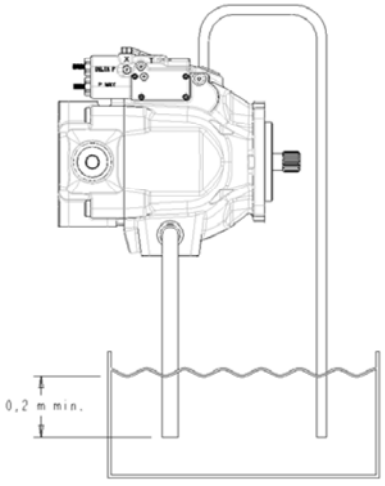
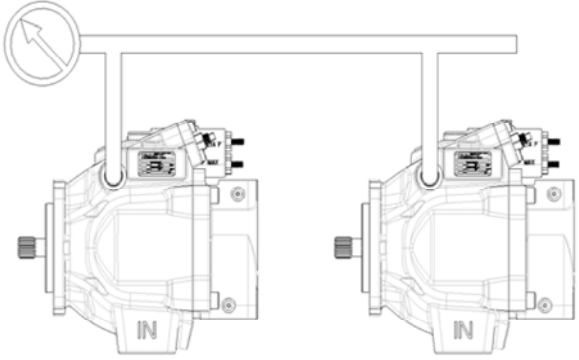
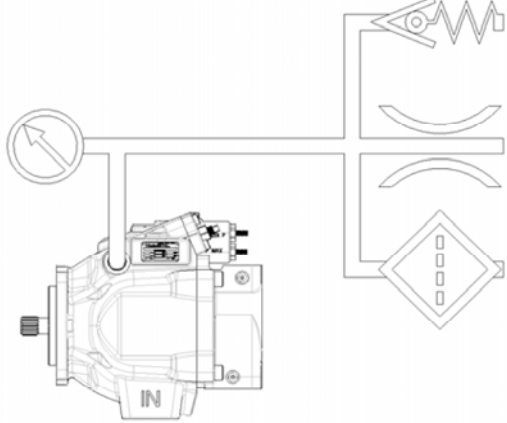


Arrangement outside tank.
Fill pump case with oil before start.
Do not restrict suction line.

Preferred arrangement for best suction characteristic and low noise level operation.

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4. Drain line connection

	<p style="text-align: center;">OPTION !</p> <p>Connect highest drain port with a separate line reduced in size for purging the air out of the case</p> <p style="text-align: center;">AND</p> <p>secondary drain port has to be connected as main drain line.</p>
	<p style="text-align: center;">WARNING !</p> <p>Do not combine drain lines.</p> <p>Maximum continuous case pressure :</p> <p style="text-align: center;">$p_{\text{case}} = 0,5 \text{ bar}$</p> <p>Maximum intermittent peak case pressure :</p> <p style="text-align: center;">$p_{\text{case}} = 2 \text{ bar}$</p>
	<p style="text-align: center;">WARNING !</p> <p>Do not restrict drain line.</p> <p>A restricted drain line can damage the pump.</p>

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5. Start up

Prior to start up, the pump case must be filled with hydraulic fluid (use case drain port). Initial start up should be at zero pressure with an open circuit to enable the pump to prime. Pressure should only be increased once the pump has been fully primed.

6. Hydraulic Fluid

6.1. Recommended fluids

- Normal mineral oil
- Premium hydraulic fluid / HLP oil
- Biodegradable hydraulic fluid
- Synthetic hydraulic fluid
- Fire resistant fluids

Remark :

Maximum system pressure reduced to 210 bar for water based fluids.
Bearing life time reduced to 25 % by using water based fluids.

6.2. Cleanliness level

Recommendation for maximized component life and reliability :

Class 21 / 18 / 14 according to ISO 4406

6.3. Viscosity range

Minimum viscosity for short periods : 10 mm²/s (cSt)

Normal operating viscosity : 15 cSt – 40 mm²/s (cSt)

Maximum viscosity for short periods : 1000 mm²/s (cSt)

7. Temperature

7.1. Check hydraulic fluid specification for chemical resistance of seal material !

7.2. Check temperature range of seal material
and compare with maximum system and ambient temperature !

N – Nitrile, single shaft seal **-40°C to +90°C**

D – Nitrile, double shaft seal **-40°C to +90°C**

V – Fluorocarbon, single shaft seal **-15°C to +150°C**

T – Fluorocarbon, double shaft seal **-15°C to +150°C**

Remark :

The highest fluid temperature will be at the drain port of the pump,
up to 20°C higher than in the reservoir.

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