



Product Specifications Sheet

Product Specifications Steering pumps and Rudder cylinders



Side-Power Steering pumps and Rudder cylinders are the best alternative to solve the negative experiences with mechanical steering, giving a lot more precision and comfort handling your craft. Choosing Side-Power Steering solutions will also increase your safety on board!

The Side-Power Steering series is manufactured taking advantage of experiences gained through years of volume production, resulting in a very cost efficient, high quality product.

With the Side-Power Steering series you get all the important and unique Side-Power features and qualities - why settle for less.

Declaration of Conformity

We, Sleipner Motor AS hereby Declare that following Side-Power Hydraulic Steering products complies with the EC Directives and Standards:

94/25 Recreational Craft Directive 2006/42 Machinery Safety			CE
Steering pump and cylinder	The Norwegian Veritas	EN30592 standard	
Steering pump and cylinder	The Norwegian Veritas	EC Type Examination Certificate nr RCD-B-151	
Steering pump and cylinder	ISO 10592:1994(E)		
Steering pump and cylinder	ABYC P-21		

FREDRIKSTAD, 23rd of September 2014

Arne K Skauen
Managing Director, Sleipner Motor AS

Technical specifications

Steering pumps

Volum (ccm)	26-35-43-70	l (mm)	*
Design pressure (bar)	70	J (mm)	*
Working pressure (bar)	50	K - Cyl. Stroke (mm)	*
Recommended min. hose I.D:	12mm (1/2")**	L (mm)	*
Weight (kg)	8,1		

**Make sure to use correct hose dim depending on the length from cylinder to steering pump see table.
* See measurements table

**Recommended hose/tube diameters valid up to 15m total hose/tube length					
26/35cc helm pump		43cc helm pump		70 cc helm pump	
Hose I.D	Steel tube	Hose I.D	Steel tube	Hose I.D	Steel tube
3/8"	12x1,5	1/2"	15x1,5	5/8"	18x1,5

Recommended turns with steering helm pump						
		Steering pump				
Art. nr.	Description	26 cm	35 cm	43cm	70 cm	
71030	Cylinder SP40	4,2	3,1			
71060	Cylinder SP60	4,8	3,6			
71090	Cylinder SP90	8,3	6,1	5		
71140	Cylinder SP155			8	4,9	
71120	Cylinder SP220				8,1	
71500	Cylinder SP500				16,7	



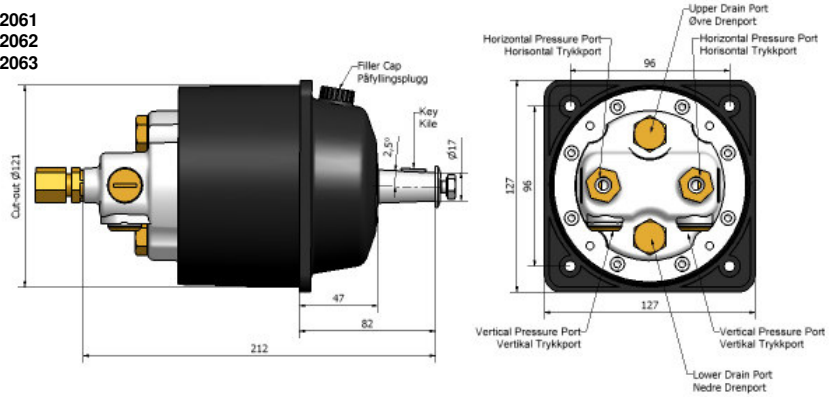


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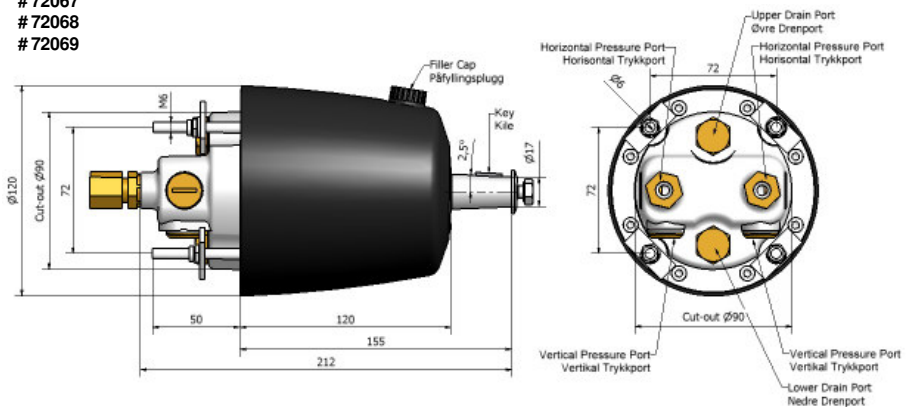
Measurements

Steering pump

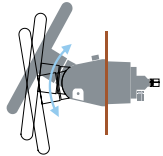
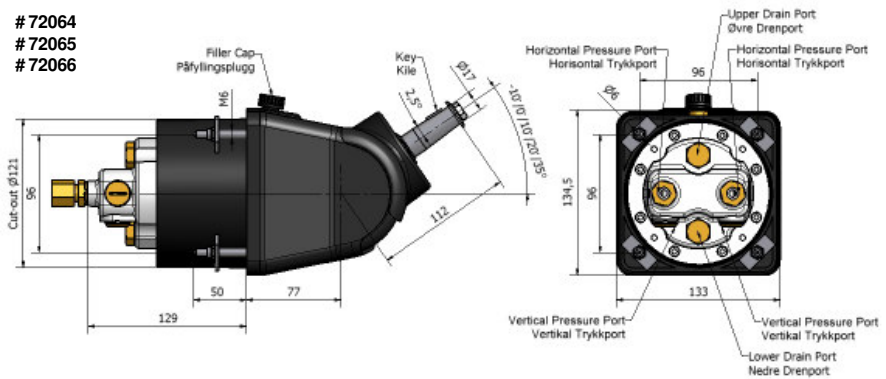
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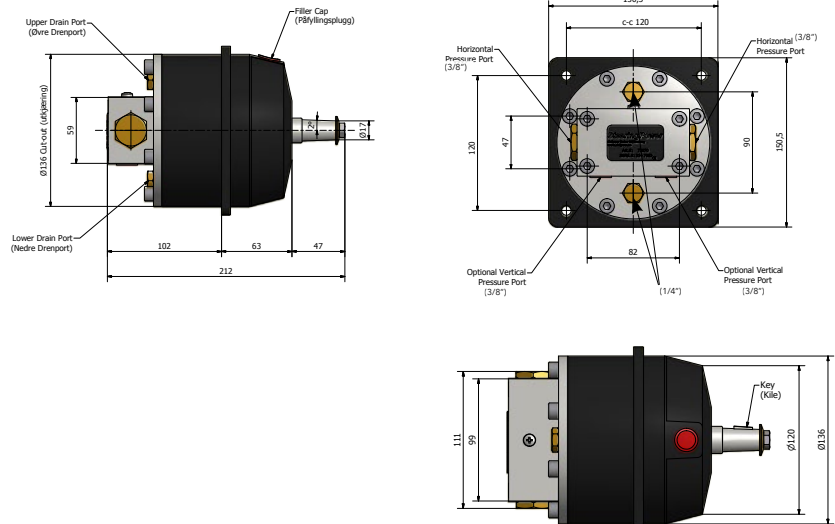


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5 posisjoner:
-10°, 0°, 10°, 20 og 30°

#72070



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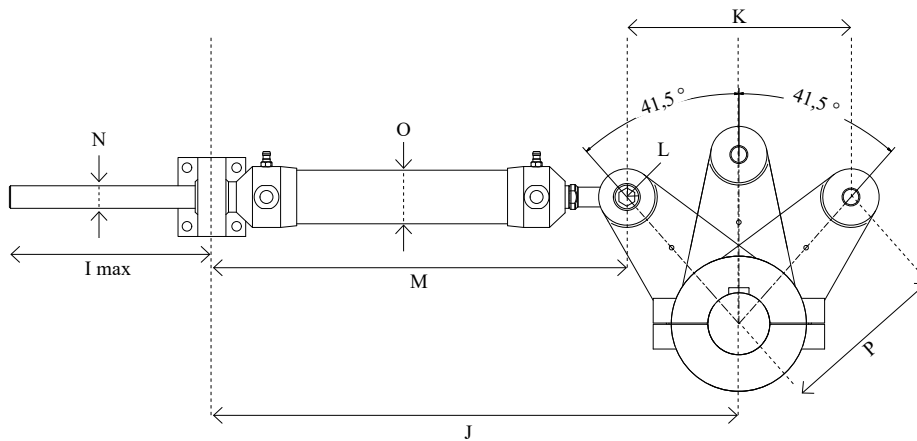
Product specification - Hydraulic Steering v1_0_2_2016

Measurements may change, please refer to the latest installation manual before installation.



Product Specifications Sheet

Technical specifications Rudder cylinders



Cylinder Art.nr	Recommended turns with helm size:			
	26cm3	35m3	43m3	70cm3
71030	4,2	3,1	-	-
71060	4,8	3,6	-	-
71090	8,3	6,1	5,0	-
71140	-	-	8,0	4,9
71220	-	-	-	8,1
71500	-	-	-	16,7

Recommended

Art.nr	Cylinder	Volume cm ³	Max Rudder torque	Max pressure	Hose diameter	Port dimensions	I max	J	K Cylinder stroke	L	M	N	O	P
71030*	SP40	110	45 Kgm	50 bar	3/8"	1/4"	158	425	175	12	337,5	16	38	150
71060	SP60	125	45 Kgm	50 bar	3/8"	1/4"	180	460	200	12	355	16	38	150
71090	SP90	215	80 Kgm	50 bar	3/8"	1/4"	180	465	200	12	365	20	48	150
71140	SP155	345	130 Kgm	50 bar	1/2"	1/4"	165	492	200	14	392	20	57	150
71220	SP250	565	250 Kgm	50 bar	1/2"	3/8"	175	520	200	16	350	25	75	150
71500	SP500	1170	500 Kgm	50 bar	1/2"	M22x1,5	236	600	200	20	420	25	100	150

*Rudder angle/Rorvinkel +/- 35° for art.nr. 71030.

All measurements are in mm.



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Significant features

- Increased safety and comfort on board
- More precise and stable maneuvering - with a lot less stress
- Low mechanical wear resulting in less maintenance and long lifetime
- Cost effective

Maintenance

- Check hoses / tubes and connections / fittings for leakages.
- Check hoses / tubes for damages (can be caused by sharp edges, hot surfaces etc).
- Check that all bolts are tightened and secured.
- Check oil level in helm pump(s).
- Ensure that bearings and joints are greased and free to rotate / move properly.
- The hydraulic oil should be replaced after the first year, and then every fifth year.
- See installation and user manual for more information

Health and Safety

• Transport Information

Rudder Cylinders and steering pumps are shipped without hydraulic oil - no hazard.

• During operation

The Rudder Cylinders and steering pumps are Pressure Vessel and precautionary measures must be taken - adequate maintenance routines should be performed, see above.

• Fire protection

Hydraulic fluid (oil) is flammable and gasses from a fire is in general toxic.

Material specifications

• Steering pump

Piston - Free cutting steel

Shaft - Stainless steel

Capsule - Nylon

End lid - Aluminium

Cylinder rod end bearing - Stainless steel, maintenance free

• Rudder cylinder

Piston rod - Stainelss steel, chrome plated

Cylinder tube - Brass

Cylinder head - Brass

Foot bracket - Aluminium

Cylinder rod end bearing - Stainelss steel, maintenance free. Ø20mm.

*See material declarations

This document may contain typographical errors, to which Sleipner Motor assumes no responsibility.



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