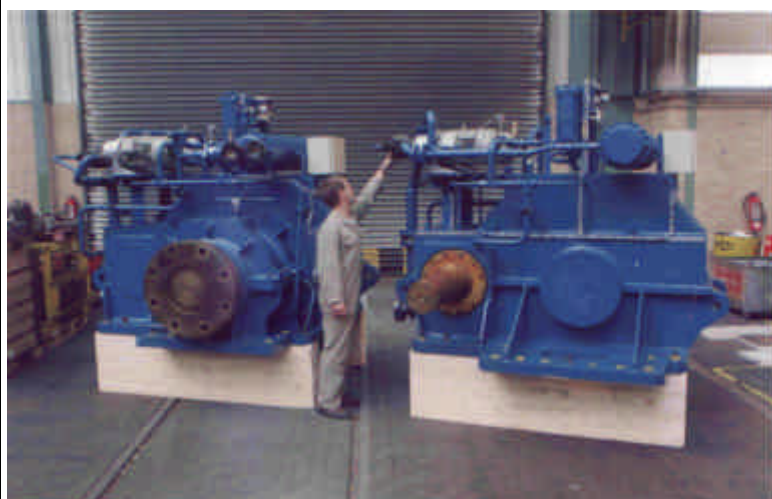


## TANDWIELKASTEN / PROPULSIONGEARING

	prijs per stuk			
<b>€ 250.000,00</b>	totaalprijs		prijs is:	
code 1724-2			exclusief	transport
Omschrijving	CAT A	ZL	exclusief	BTW

Set tandwielkasten, oorspronkelijk gebouwd om te worden aangedreven door 2 dieselmotoren 3.960 kW en 600 rpm. De tandwielkasten zijn "unused" gebouwd in 1997 en goed geconserveerd. Alle gegevens en manuals zijn beschikbaar

Propulsion gearing original build to be driven by two Stork Wärtsilä Diesel engines with output power 3.960 kW each and 600 rpm. Gears are unused, build in 1997 and good preserved. Original datasheets and manuals are available



2 DATA SHEETS

## 2.1 MAIN NUMERICAL DATA OF THE PROPULSION GEARING

## 2.1.1 GENERAL DATA ON THE PROPULSION GEARING

Classification Society	GL, AUT	
Ice class	no	
Gear type	SH900	
Nr. of gears per ship	2	
Nr. of diesel engines per gear	1	
Diesel engine make	Stork Wärtsilä Diesel	
Diesel engine type	6L38	
Diesel engine MCR output power	3.960	kw
Diesel engine MCR output speed	600	rpm
Direction of rotation viewed from astern, PS engine	ccw	
Direction of rotation viewed from astern, SB engine	cw	
Propeller speed at diesel engine MCR speed	200	rpm
Direction of rotation viewed from astern, PS propeller	cw	
Direction of rotation viewed from astern, SB propeller	ccw	
Vertical centerline distance between the gear's inputshaft and output shaft	0	mm
Horizontal centerline distance between the gear's inputshaft and output shaft	900	mm
Max. thrust load when at free route	850	kN
Total weight per gear	11.5	tons

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## 2.1.2 PROPULSION GEARING GEOMETRY

	Pinion	Wheel
Number per gear	1	1
Type of gearing	single helical	
Normal module mm	16"	
Normal pressure angle	20°	
Helix angle	16°15'36,74"	
Face width mm	225	220
Number of teeth	27	81
Gen. pitch circle diam. mm	450	1350
Tip. circle diam. mm	480	1380
Material specification	17CrNiMo6	17CrNiMo6
Tensile strength N/mm <sup>2</sup>	1000	1000
Hardness	58-62 HRC	58-62 HRC
Gen. finishing process	hobbed carb'ised ground	hobbed carb'ised ground
Main gearing quality (DIN 3962)		5

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## 2.2 MAIN NUMERICAL DATA OF THE LUBE OIL- AND AUXILIARY SYSTEMS

### Lube oil quality and type

The recommended lube oil quality for the gearing is a plain mineral oil with:

- \* a viscosity grade of about ISO VG 150
- \* and a minimum FZG stage of 12

for instance:

BP	Energol	1C-HF 304
BP	Energol	1C-HF 404
Castrol		MCC 40
Esso	Exxmar	30TP40
Mobil	Mobilgard	412
Shell	Gadina	40 (SAE 40)
Shell	Melina	40 (SAE 40)

### CAUTION

In case another brand and/or type of lube oil is required please consult Schelde Gears.

### Lube oil sump

* Max. content	280	dm <sup>3</sup>
* Min. content	160	dm <sup>3</sup>
* The lube oil level, using the dipstick		
* gear and pumps out of service:		
* min. level abt.	30	cm
* max. level abt.	48	cm
* pump in service, gear stopped:		
* abt.	22	cm
* max level	44	cm
* gear and pumps in service:		
* min. level abt.	24	cm
* max. level abt.	38	cm

### Lube oil pump, electric motor driven

* Number of pumps	2	
* type	gear type	
* capacity	10	m <sup>3</sup> /hr
at a pump speed of	955	rpm
* required electric power	5.5	kW

### Lube oil filter

* Mesh size	34	μm
* Nom. grade of filtration	20	μm

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Lube oil cooler		
* capacity (heat dissipation)	35	kW
* oil flow	10	m <sup>3</sup> /hr
* water flow	24	m <sup>3</sup> /hr
* max. water entree temperature	38	°C

Temperature control valve		
* range	35-43	°C

Pressures in the lube oil system supply line		
* Nominal pressure	1.4	bar
* Minimum pressure	1.0	bar
* Maximum pressure	1.7	bar
* Transient pressure	2.0	bar

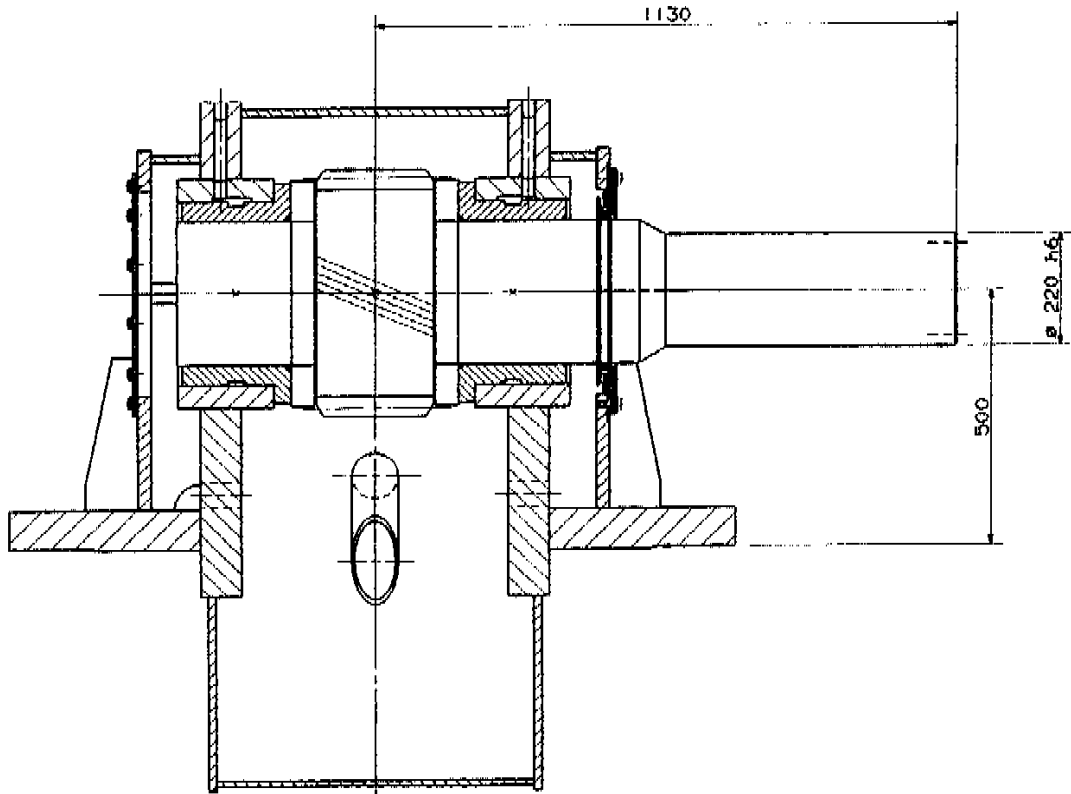
Pressure switch and transmitter set points are indicated in the Sea trial results (tab 8).

Temperatures in the lube oil supply line		
* Nominal temperature	40-45	°C
* Maximum temperature	55	°C
* Minimum temperature		
* during turning of the gear transmission	15-20	°C
* when transmitting full power (normal)	45	°C

Temperature transmitter set points are indicated in the Sea trial results (tab 8).

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# SECTION C-C



SECTION B - B

