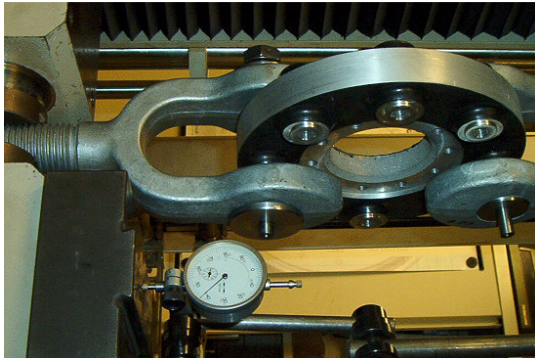
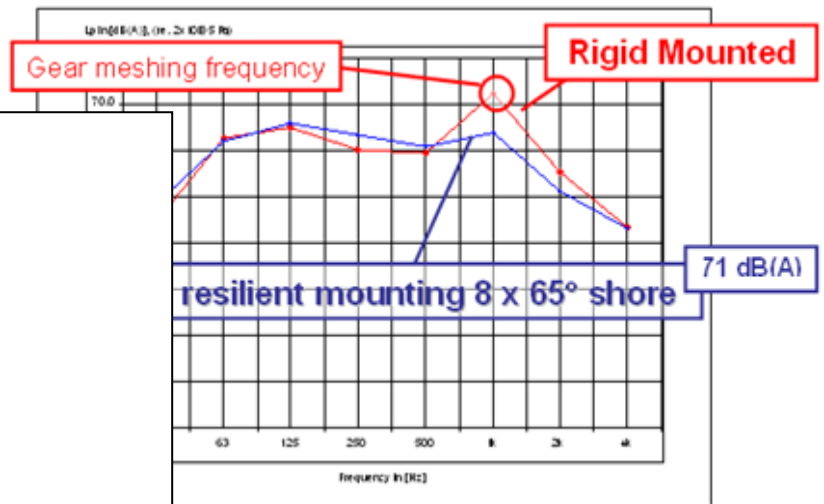


Propulsion Driveline and Isolation Engineering



Left: Destructive Testing of Poseidon Flexible Coupling

Below: Noise level test results of semi-elastic gearbox mounting

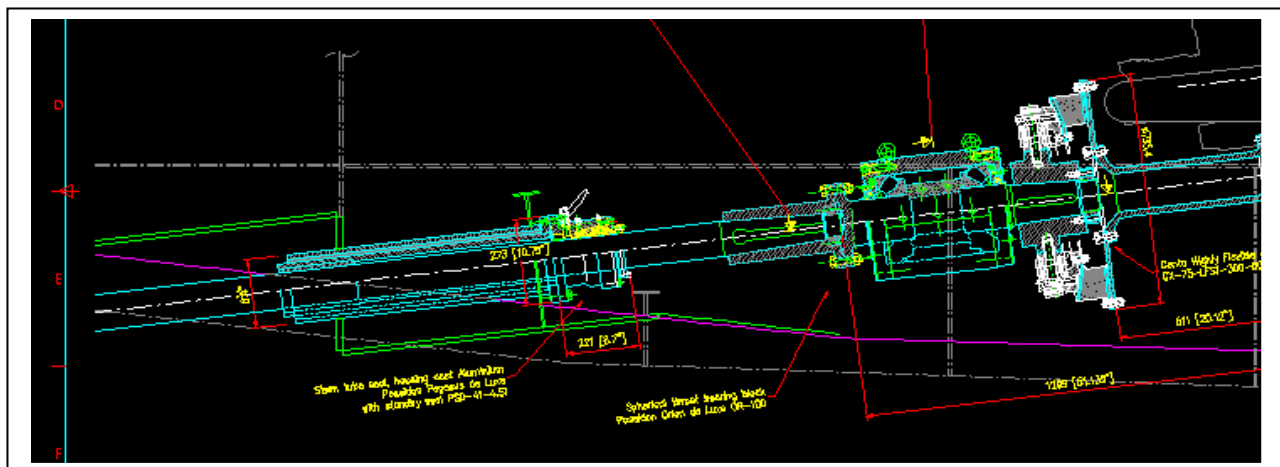


Technical data:
The supply per ship set consists of:

1 & 2 Bruntons Propellers	
• Number of propellers	2 original & 2 spares
• Propeller diameter	1800 mm DAR 64%
• Rotation direction	1 * Right and 1 * left handed per set
• Number of blades	5
• Material	Nickel aluminium bronze CUNIAL
• Fitting method propeller	Keyed / tapered 1:10
• Tolerance	ISO 484-1981 Class I with class S readings
• Balancing	Static
• Included	Skewed and anti singing edges

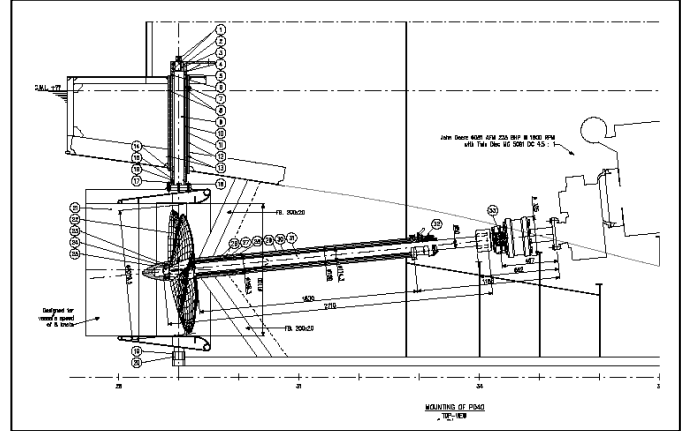
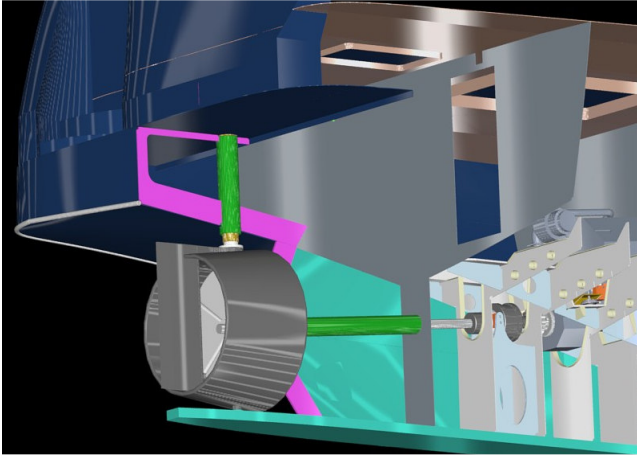
3 Propeller shaft	
• Number of shafts	2
• Type of lubrication	Water
• Length	6585 mm
• Outside diameters aft/forw	5" straight at the shaft will be reversible
• Material	Titan 25 Duplex
• Aft & Forw end are equal	Taper 1:10 & treat, suitable for keyed connection with the propeller
• Forw end	Taper 1:10 & treat, suitable for keyed connection with the 1/2 coupling
• Nuts / Keys	Included propeller nut, keys, coupling nut, nylon water flair cap
• Included	Spanner to mount coupling & propeller

Left: Technical Specification for 130' MY



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Propulsion Design and Engineering 3-D Animated Modeling in CATIA allows total design freedom. Produces complete bill of materials, plate nesting and cut tape, weight study and complete Class Society calculations

Poseidon Steerable Nozzle

- 15% increase in efficiency
- 10% reduction of propeller diameter
- 30% increase of thrust from Nozzle
- Improved maneuverability and Reduced Noise and Vibration



POSEIDON
 Propulsion design & Engineering B.V.

Head office:
 "Het vrees huus" • De Waard, 12 • 3313 SB, Poortrecht • The Netherlands
 Tel: +31(0)78 444 0248 • Fax: +31(0)78 413 33 49
 E-mail: sales@poseidon-pda.nl • Website: www.poseidon-pda.nl

Shaft diameter & mounting nuts calculations

subject:	
Project:	SBS 65' & 75' trawlers - P2319
Date:	14-apr-03
Classification society:	Lloyd's
ratings:	
Power 'P'	172.843 kW
shaft speed 'n'	400 rpm
Torque 'To'	4.126 kNm
Vessel speed	8 knots
Calculated thrust force	23.5 kN
shaft material and design properties and factors for calculation:	
Shaft design factor 'k1', acc. DNV	1.27
Same 'k' acc. Lloyd's	1.26
Same 'k' acc. ABS	1.22
Screw shaft material yield strength 'y', Titan 25	500 N/mm ²
Screw shaft material ultimate tensile strength 'B', Titan 25	700 N/mm ²
Module of elasticity x10 ⁶ of shaft	200 N/mm ²
Linear expansion coefficient x10 ⁻⁶ of shaft	12 1/C
Provisional duplex st.st. 'A'-value acc. Lloyd's	0.52
screw shaft diameter:	
Rule diameter acc. DNV: 29 x k1 x (To/g) ^{1/3} x 1.05	78.149 mm
Rule diameter acc. Lloyd's: 125 x A x (P/n) ^{1/3}	50.32 mm
Rule diameter acc. ABS: 100 x k x ((P/n) x 317.4 / (gB + 160)) ^{1/3}	66.16 mm
Proposed main shaft diameter	80 mm
Max. spacing of bearings (with Titan 25 shaft)	4.816 m
thrust shaft diameter:	

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