Summary Report

28-abr-2017

Project: PROYECTO FIN DE CARRERA
Vessel: ARRASTRERO 29 m LOA

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For:

Vessel

Vessel type	**Displacement**	Max. diameter	**2100 mm**
Service	**Towing**	Immersion	**2100 mm**
Water type	**Salt**	Propeller style	**Ducted**
Propellers	**1**		
Length [On WL]	**29 m**	Speed/power by	**Average hull**
Weight	**529 Tn**	Avg. hull mult	**0,900**

Engine

Model		Rated power	**384 kw**
Manufacturer		Rated RPM	**1200**
Engine type	**Diesel**	Fuel rate	**0,0 l/hr**
Design power [384 kW]	**100 %**	Parasitic loss	**0 kW**
Design RPM [1200]	**100 %**	Gear efficiency	**0,970**

Sizing

Model		Cup type	**None**
Manufacturer		Cup drop	**0,0 mm**
Series	**Kaplan19A**	Propeller material	**NiAl Bronze**
Blades	**4**	Shaft angle	**0,00 deg**
Calc. sizing for	**Compromise**	Blade area ratio [Keep]	**0,550**
Design speed	**6,8 kts**	Diameter [Keep]	**2100 mm**
Calc'd max. speed	**9,4 kts**	Pitch [Size]	**2673 mm**
		Gear ratio [Keep]	**8,999**

Analysis

Speed [kts]	Engine RPM	Power [kW]	Thrust [kN]	Cavitation	Strength
9,5 [Top]	**1215**	**327**	**42,30**	**OK**	**OK**
4,0 [Tow]	**1194**	**382**	**77,70**	**OK**	**OK**

Utility

Shaft material	**Carbon Steel C1045**	Safety factor	**5**
Shear strength	**206843 kPa**	Req'd min diam	**138 mm**
Time at top [9,5]	**0 %**	Hours/year	**1500**
Time at tow [4,0]	**0 %**	Total annual fuel	**0 liter**

Notes