SDARI BC63600

PROPELLER PLAN

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I Principal Dimensions

Number of Blades:

5

Propeller Diameter:

6700 mm

Area Ratio:

0.55

Pitch at 0.7R $H_{0.7R}$:

5804.35mm

Mean Pitch H_m

5614.60mm

Skew Angle:

32 degrees

Type of Propeller:

Fixed pitch propeller

Direction of Rotation:

Right-handed

Distance of gravity center

from the large end of the hub:

About 506 mm

Total Weight of the Propeller*:

About 20,395 kg

Inertial Moment of the Propeller in air*:

About 44,070 kg·m²

Inertial Moment of the Propeller in water*:

About 55,090 kg·m²

Classification and Tolerances

Classification:

DNV

Ice Class:

None

Dimensional tolerances:

ISO 484 CLASS I

Tolerances on surface roughness:

ISO 484 CLASS I

Material and Mechanical Characteristics

Material:

Ni-Al-bronze, Cu3

Density:

 7.60 g/cm^3

Minimum tensile strength:

 $R_{\rm m} \ge 590.00 \, \text{N/mm}^2$

0.2% proof stress of propeller material

 $R_{p0.2} \ge 245 \text{ N/mm}^2$

Elongation:

A₅≥16%

Characteristics of the Main Engine

C.M.C.R.:

8050kW×89.0r/min

C.S.R.:

6842.5kW × 84.3r/min

Shaft transmission efficiency \u03a3s:

0.985

Offsets

The detailed offsets of the designed propeller are listed in Table 1 and Table 2, where:

R:

radius of the propeller

^{*} Cap is not included.