



NOTES:

1. SHAFT STIFFNESS:
 THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE ϕ AND THE COUPLING HUB IS 123.34×10^6 Kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)

2. SHAFT PROPERTIES:
 MINIMUM YIELD : 260MPa
 MINIMUM ULTIMATE TENSILE STRENGTH : 530MPa
 SHAFT MATERIAL IS APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE

3. MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT IS 34.47×10^6 N/m² FOR SPEED RANGE OF 0.95 TO 1.1 X NOMINAL SPEED AND 68.94×10^6 N/m² FOR RUN THROUGH CONDITIONS, FOR INDUSTRIAL MACHINES

4. FOR MARINE AUTHORITIES, THEIR APPROPRIATE RULES WILL APPLY

5. CUMMINS GENERATOR TECHNOLOGIES LTD SHOULD BE NOTIFIED OF ANY ROTORS NOT COMPLYING WITH THESE RULES. CUMMINS GENERATOR TECHNOLOGIES LTD BALANCE ROTORS TO COMPLY WITH INTERNATIONAL STD ISO 1940 GRADE 2.5 AND BS 6861 PART 1 GRADE 2.5

6. FOR UNBALANCED MAGNETIC PULL (U.M.P) FORCES PLEASE CONTACT CUMMINS GENERATOR TECHNOLOGIES LTD

CONVERSION FACTORS		
TO CONVERT	TO	DIVIDE BY
kg	lb	0.453592
kg m ²	lb ft ²	0.04214
kgcm/rad	lbin/rad	1.1521246
N/m ²	lbf/in ²	6894.76

(B)	COMPONENT	Mass [kg]	Inertia [kg*m ²]
1	SHAFT	622	3.9
2	FAN + HUB	80	4.8
3	MAIN ROTOR	1585	91.8
4	EXCITER	94	2.1
	TOTAL	2381	102.6

Cummins Generator Technologies

DIMENSIONS ARE IN: MILLIMETERS
 () ARE IN: ----

SIZE: A2 SCALE: 1:5

DIMENSIONING AND TOLERANCING PER:
 ASME Y14.5M-2009

THIRD ANGLE PROJECTION

CAD SYSTEM
 AutoCAD

S9 F CORE, 2 BRG, ROTOR TORSIONAL DRAWING



Part Number: A063V978

Change Notice	CN00023770	Alternates	
Manufacturer Part (MEP)	No	Usage	Production Only
Release Phase Code	Production (P)	Drawing Specification	DS47022080
External Regulations	No External Regulation		

3D image provided when available for visual reference only.

Associated Specifications

Number	Name	Type	Category	Sub-Category
ESA030B356	SPECIFICATION,MATERIAL	Engineering Specification	Material Specification	Prohibited and Restricted Prohibited and Restricted

Drawing Revision Information

Description of Change(s)
UPDATED TORSIONAL DATA.

Drawing Authorization

Drafter	Mihai-Cristian Ilinca	Date	15SEP2020
Checker	Daniel Ciochina	Date	16SEP2020
Approver	NO APPROVAL REQUIRED	Date	

Document Generated: 16SEP2020 11:35 GMT