

SECTION A-A



NOTES: -


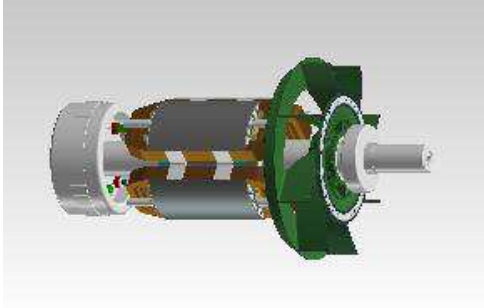
1. SHAFT STIFFNESS:-  
THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$   
AND THE SHAFT EXTENSION  $\phi$  IS  $1.7480 \times 10^6$  kgcm/radian  
(STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS  
FIGURE)
2. SHAFT MATERIAL:-  
MINIMUM YEILD :  $260 \times 10^6$  N/m<sup>2</sup>  
MINIMUM TENSILE :  $530 \times 10^6$  N/m<sup>2</sup>  
STEEL - C40E TO BSEN 10083-2 2006  
SHAFT MATERIAL IS APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE
3. MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT  
IS  $34.47 \times 10^6$  N/m<sup>2</sup> OF 0.95 TO 1.1 x NOMINAL SPEED,  
AND  $68.94 \times 10^6$  N/m<sup>2</sup> FOR RUN THROUGH CONDITIONS, FOR INDUSTRIAL  
MACHINES. FOR MARINE AUTHORITIES, THEIR APPROPRIATE RULES WILL  
APPLY. CUMMINS GENERATOR TECHNOLOGIES LTD SHOULD BE NOTIFIED OF  
ANY ROTORS NOT COMPLYING WITH THESE RULES
4. CUMMINS GENERATOR TECHNOLOGIES LTD BALANCE ROTORS TO COMPLY WITH  
INTERNATIONAL STD ISO 1940 PARTS 1 AND 2 . BALANCE GRADE 2.5
5. FOR UNBALANCED MAGNETIC PULL (U.M.P.) FORCES PLEASE CONTACT  
CUMMINS GENERATOR TECHNOLOGIES LTD

COMPONENT	MASS (Kg)	$WR^2$ ( $Kgm^2$ )
SHAFT	9.269	0.0032
FAN	0.708	0.0069
MAIN ROTOR	26.181	0.1170
EXCITER ROTOR	4.560	0.0180
TOTAL	40.718	0.1451

CONVERSION FACTOR		
TO CONVERT	TO	DIVIDED BY
Kg	lb	0.453592
Kgm <sup>2</sup>	lbf ft <sup>2</sup>	0.04214
Kgcm/rad	lb in/rad	1.1521246
N/M <sup>2</sup>	lbf/in <sup>2</sup>	6894.76

DRAWING SPECIFICATION DESCRIPTION
SOL2-K, 4P, 2B

PART NUMBER: A077X825		PART REVISION: A		Cummins Generator Technologies					
PART NAME: ARRANGEMENT,GENERATOR ROTOR TORSIONAL									
DRAWING CATEGORY: OUTLINE				DIMENSIONS ARE IN: MILLIMETERS		SIZE: A2	SCALE:1:6		
STATE: RELEASED		SHEET: 1 OF 2		[ ] ARE IN: -					
CUMMINS DATA CLASSIFICATION: CUMMINS CONFIDENTIAL				DIMENSIONING AND TOLERANCING PER:  ASME Y14.5-2009		  THIRD ANGLE PROJECTION		CAD SYSTEM  PTC® Creo® Parametric	
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	4	3	2	1																
D		Part Number: A077X825			  3D image provided when available for visual reference only.															
		Change Notice	CN00162020	Alternates																
		Manufacturer Part (MEP)	No	Usage		Production Only														
		Release Phase Code	Production (P)	Drawing Specification		Number: DS47164355														
		External Regulations	No External Regulation			Revision: A														
C	<div>Drawing Revision Information</div> <table><tr><td>Description of Change(s) Note: Change information is provided for reference only and does not supersede the drawing's primary content.</td></tr><tr><td>SEE CHANGE NOTICE.</td></tr><tr><td>PRODUCTION RELEASE</td></tr></table> <div>Drawing Authorization</div> <table><tr><td>Drafter</td><td>Aishwarya Rajaram Shelar</td><td>Date</td><td>30APR2025</td></tr><tr><td>Checker</td><td>Kuldeep Dilip Pawar</td><td>Date</td><td>30APR2025</td></tr><tr><td>Approver</td><td>Alin Dumitru Visian</td><td>Date</td><td>02MAY2025</td></tr></table>					Description of Change(s) Note: Change information is provided for reference only and does not supersede the drawing's primary content.	SEE CHANGE NOTICE.	PRODUCTION RELEASE	Drafter	Aishwarya Rajaram Shelar	Date	30APR2025	Checker	Kuldeep Dilip Pawar	Date	30APR2025	Approver	Alin Dumitru Visian	Date	02MAY2025
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