



SECTION B-B

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

NOTES:-

SHAFT STIFFNESS:-

THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE ϕ AND THE SHAFT EXTENSION ϕ IS 1.7644×10^6 kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)

SHAFT MATERIAL:-

STEEL - C40E TO BSEN 10083-2 2006 (APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE)
 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.

FOR MARINE AUTHORITIES, THEIR APPROPRIATE RULES WILL APPLY.

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 BS ISO 1940 PARTS 1 AND 2 . BALANCE GRADE 2.5

FOR UNBALANCED MAGNETIC PULL (U.M.P.) REFER TO THE FACTORY.

COMPONENT	MASS (kg)	WR ² (kgm ²)
SHAFT	7.789	0.0027
FAN	0.976	0.0067
MAIN ROTOR	13.773	0.0469
EXCITER ROTOR	2.710	0.0108
TOTAL WITHOUT EBG ROTOR	25.248	0.0671
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	26.949	0.0688

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MOD.	ISSUE	DRAWN	DATE	MODIFICATION

CONFIDENTIAL PROPERTY OF CUMMINS GENERATOR TECHNOLOGIES LTD.						PO2E TWO BEARING MOMENTS OF INERTIA AND SHAFT DETAILS		
MATERIAL PROPS	-	DIMENSIONS IN MILLIMETRES (MM) AT 20°C	PROJECTION			SCALE	MATERIAL	
FINISH SPEC	-					3:10	-	
GEOMETRY SPEC	-	SURFACE FINISH VALUES IN MICRO METRES	WEIGHT	=	DRG. SIZE	CASTING No		
ASSEMBLY SPEC	-		DRAWN	BSR	14.07.07	A	-	
PERFORMANCE SPEC	-	UNLIMITED DIMS ± --	CHECKED	RPM	14.07.07	REL. PHASE	PART No	
QUALITY SPEC	-		APPROVED	DPC	16.07.07	P	L15-13228	
						PROJ. ENGINEER	ISSUE A	
						SHEET	1 OF 1 SHEETS	