



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 1.8668×10^6 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	7.128	0.0024
FAN	0.976	0.0067
MAIN ROTOR	11.000	0.0368
EXCITOR ROTOR	2.710	0.0108
TOTAL WITHOUT EBG ROTOR	21.814	0.0567
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	23.515	0.0584

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MOD.	ISSUE	DRAWN	DATE	MODIFICATION

CONFIDENTIAL PROPERTY OF CUMMINS GENERATOR TECHNOLOGIES LTD.						P02D TWO BEARING MOMENTS OF INERTIA AND SHAFT DETAILS			
MATERIAL PROPS	-	DIMENSIONS IN MILLIMETRES (MM) AT 20°C	PROJECTION			SCALE	3:10		
FINISH SPEC	-	SURFACE FINISH VALUES IN MICRO METRES	WEIGHT	=		DRG. SIZE	A		
GEOMETRY SPEC	-		DRAWN	BSR	14.07.07	REL. PHASE	P		
ASSEMBLY SPEC	-	UNLIMITED DIMS ± --	CHECKED	RPM	16.07.07	Part No	L15-13227		
PERFORMANCE SPEC	-		APPROVED	DPC	16.07.07	Prj ENGINEER	SHEET 1 OF 1 SHEETS		
QUALITY SPEC	-					ISSUE	A		