



COMPONENT	MASS (kg)	WR ² (kgm ²)
SHAFT	10.769	0.0041
FAN	1.664	0.0144
MAIN ROTOR	50.430	0.2307
EXCITER ROTOR	6.408	0.0249
TOTAL WITHOUT EBG ROTOR	69.271	0.2741
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	70.972	0.2758

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

APPROVED DOCUMENT

NOTES:-

SHAFT STIFFNESS:-

THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE \perp AND THE SHAFT FACE 'A' IS 2.7527×10^6 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 PART 1 AND 2 . BALANCE GRADE 2.5

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

ADAPTOR SAE No.	COUPLING SAE No.	COUPLING DIMENSIONS		MASS OF DISCS (kg) (3 X 1.5mm THICK)	MASS OF SHAFT SPACER (kg)	MASS OF PRESSURE PLATE (kg)	TOTAL MASS OF COUPLING ASSEMBLY (kg)	COUPLING STIFFNESS (kgcm/rad)	COUPLING DISCS WR ² (kgm ²)
		Ø XX mm	YY mm						
3/4	8	263.5	41.8	1.912	0.974	0.069	2.955	20.621×10^6	0.0166
2/3/4	10	314.2	33.6	2.728	0.783	0.069	3.580	20.424×10^6	0.0337
2/3	11 1/2	352.3	19.4	3.430	0.452	0.069	3.951	20.333×10^6	0.0532

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MATERIAL PROPS	-	DIMENSIONS IN MILLIMETRES (MM) AT 20°C	PROJECTION 			SCALE	MATERIAL			
FINISH SPEC	-		WEIGHT =	3:10			--			
GEOMETRY SPEC	-			DRAWN	BSR	25/04/07	DRG. SIZE	CASTING No		
ASSEMBLY SPEC	-		SURFACE FINISH VALUES IN MICRO METRES	CHECKED	DSG	22/05/07	REL. PHASE	PART No		
PERFORMANCE SPEC	-			UNLIMITED DIMS ± --	APPROVED	DPC	22/05/07	P	L15-13186	
QUALITY SPEC	-	Pro/ENGINEER			SHEET 1 OF 1 SHEETS		A			

MOD.	ISSUE	DRAWN	DATE	MODIFICATION
4-8440-50	A	BSR	25/04/07	ORIGINAL ISSUE