

NOTES:-

SHAFT STIFFNESS:-

THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE ϕ AND THE SHAFT FACE 'A' IS 3.6164×10^6 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

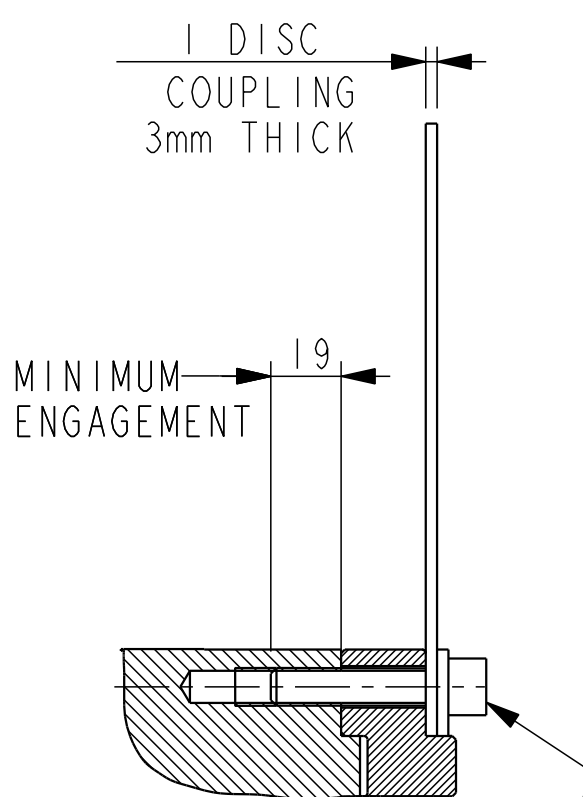
FOR UNBALANCED MAGNETIC PULL (U.M.P.) REFER BACK TO THE FACTORY.

APPROVED DOCUMENT

ADAPTOR SAE No.	COUPLING SAE No.	COUPLING DIMENSIONS		MASS OF DISC (kg) (1 X 3mm THICK)	MASS OF SHAFT SPACER (kg)	MASS OF PRESSURE PLATE (kg)	TOTAL MASS OF COUPLING ASSEMBLY (kg)	COUPLING STIFFNESS (kgcm/rad)	COUPLING DISC WR ² (kgm ²)
		Ø XX mm	YY mm						
4/5	6 1/2	215.8	10	0.850	0.233	0.069	1.152	13.955 X 10 ⁶	0.0049
4/5	7 1/2	241.2	10	1.069	0.233	0.069	1.371	13.835 X 10 ⁶	0.0079
3/4/5	8	263.5	41.8	1.275	0.974	0.069	2.318	13.747 X 10 ⁶	0.0111
2/3/4	10	314.2	33.6	1.819	0.783	0.069	2.671	13.616 X 10 ⁶	0.0225
2/3	11 1/2	352.3	19.4	2.287	0.452	0.069	2.808	13.555 X 10 ⁶	0.0355

COMPONENT	MASS (kg)	WR ² (kgm ²)
SHAFT	9.162	0.0036
FAN	0.976	0.0067
MAIN ROTOR	32.850	0.1558
EXCITOR ROTOR	5.764	0.0225
TOTAL WITHOUT EBG ROTOR	48.752	0.1886
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	50.453	0.1903

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



6-EQUI-SPACED CAPSCREWS
M10 X 1.5 PITCH ON
42 P.C.D.

CONFIDENTIAL PROPERTY OF CUMMINS GENERATOR TECHNOLOGIES LTD.						PI4F ONE BEARING MOMENTS OF INERTIA AND SHAFT DETAILS			
MATERIAL PROPS	-	DIMENSIONS IN MILLIMETRES (MM) AT 20°C	PROJECTION 			SCALE	MATERIAL		
FINISH SPEC	-		WEIGHT	=		3:10	--		
GEOMETRY SPEC	-	SURFACE FINISH VALUES IN MICRO METRES	DRAWN	BSR	25/04/07	DRG. SIZE	CASTING No		
ASSEMBLY SPEC	-		CHECKED	DSG	22/05/07	C	-		
PERFORMANCE SPEC	-	UNLIMITED DIMS ± --	APPROVED	DPC	22/05/07	REL. PHASE	PART No		ISSUE
QUALITY SPEC	-		PRO/ENGINEER	L15-13183		P	L15-13183		A
						SHEET 1 OF 1 SHEETS			

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