

NOTES:-

SHAFT STIFFNESS:-

THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE ϕ AND THE SHAFT FACE 'A' IS 2.6641×10^6 kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)

SHAFT MATERIAL:-

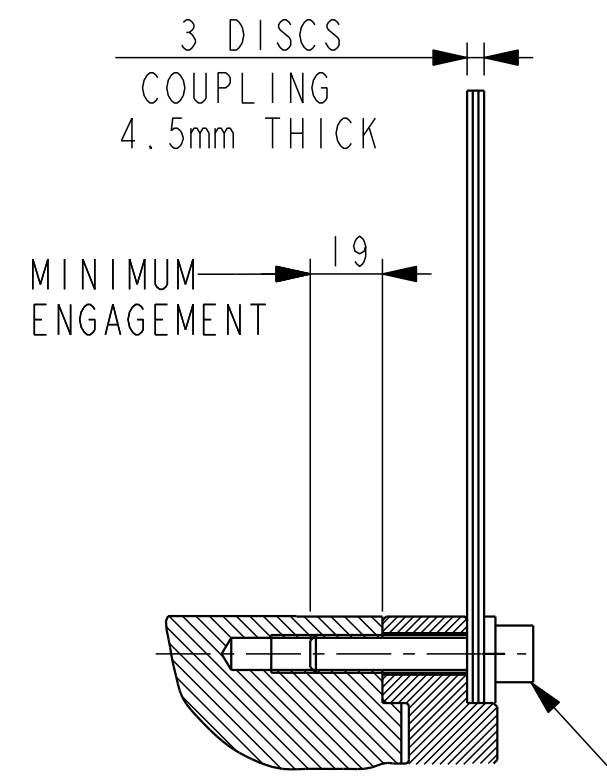
STEEL - C40E TO BSEN 10083-2 2006 (APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE) MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT IS 34.47×10^6 N/m² FOR SPEED RANGE OF 0.95 TO 1.1 X NOMINAL SPEED AND 68.94×10^6 N/m² FOR RUN THROUGH CONDITIONS, FOR INDUSTRIAL MACHINES.

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



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

COMPONENT	MASS (kg)	WR ² (kgm ²)
SHAFT	11.028	0.0042
FAN	1.664	0.0144
MAIN ROTOR	52.748	0.2414
EXCITER ROTOR	6.408	0.0249
TOTAL WITHOUT EBG ROTOR	71.848	0.2849
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	73.549	0.2866

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 DISC WR ² (kgm ²)
		ØXX mm	YY mm						
3/4	8	263.5	41.8	1.912	0.974	0.069	2.955	20.621 X 10 ⁶	0.0166
2/3/4	10	314.2	33.6	2.728	0.783	0.069	3.580	20.424 X 10 ⁶	0.0337
2/3	11 1/2	352.3	19.4	3.430	0.452	0.069	3.951	20.333 X 10 ⁶	0.0532

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

CONFIDENTIAL PROPERTY OF CUMMINS GENERATOR TECHNOLOGIES LTD.						PI4K ONE BEARING MOMENTS OF INERTIA AND SHAFT DETAILS			
MATERIAL PROPS	-	DIMENSIONS IN MILLIMETRES (MM) AT 20°C	PROJECTION			SCALE 3:10	MATERIAL		
FINISH SPEC	-						--		
GEOMETRY SPEC	-		SURFACE FINISH VALUES IN MICRO METRES			DRG. SIZE C	CASTING No		
ASSEMBLY SPEC	-					WEIGHT =	-		
PERFORMANCE SPEC	-	UNLIMITED DIMS ± --	DRAWN	BSR	25/04/07	REL. PHASE P	PART No L15-13187		ISSUE A
QUALITY SPEC	-		CHECKED	DSG	22/05/07	PRO/ENGINEER	SHEET 1 OF 1 SHEETS		

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