

NOTES:-

SHAFT STIFFNESS:-

THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE ϕ AND THE SHAFT EXTENSION ϕ IS 1.4767×10^6 kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)

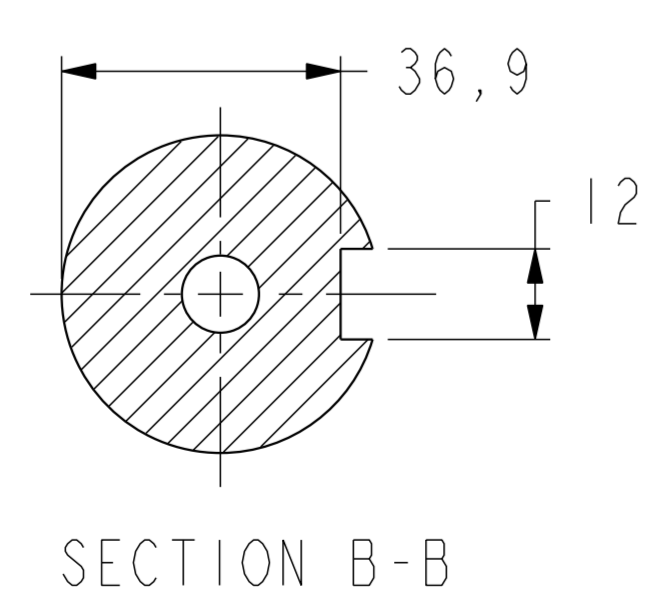
SHAFT MATERIAL:-

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	9.932	0.0033
FAN	0.976	0.0067
MAIN ROTOR	30.470	0.108
EXCITOR ROTOR	5.120	0.0201
TOTAL WITHOUT EBG ROTOR	46.498	0.1381
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	48.199	0.1398



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

MOD.	ISSUE	DRAWN	DATE	MODIFICATION
4-9111-14	A	BSR	16.07.07	ORIGINAL ISSUE

CONFIDENTIAL PROPERTY OF CUMMINS GENERATOR TECHNOLOGIES LTD.						P12G TWO BEARING MOMENTS OF INERTIA AND SHAFT DETAILS		
MATERIAL PROPS	-	DIMENSIONS IN MILLIMETRES (MM) AT 20°C	PROJECTION			SCALE	MATERIAL	
FINISH SPEC	-	SURFACE FINISH VALUES IN MICRO METRES				3:10		
GEOMETRY SPEC	-		WEIGHT	=		DRG. SIZE	CASTING No	
ASSEMBLY SPEC	-	UNLIMITED DIMS ±	DRAWN	BSR	16.07.07	A	PART No	
PERFORMANCE SPEC	-		CHECKED	RPM	16.07.07	P	L15-13234	
QUALITY SPEC	-		APPROVED	DPC	16.07.07	Prj ENGINEER	ISSUE A	
							SHEET 1 OF 1 SHEETS	