

NOTES:-

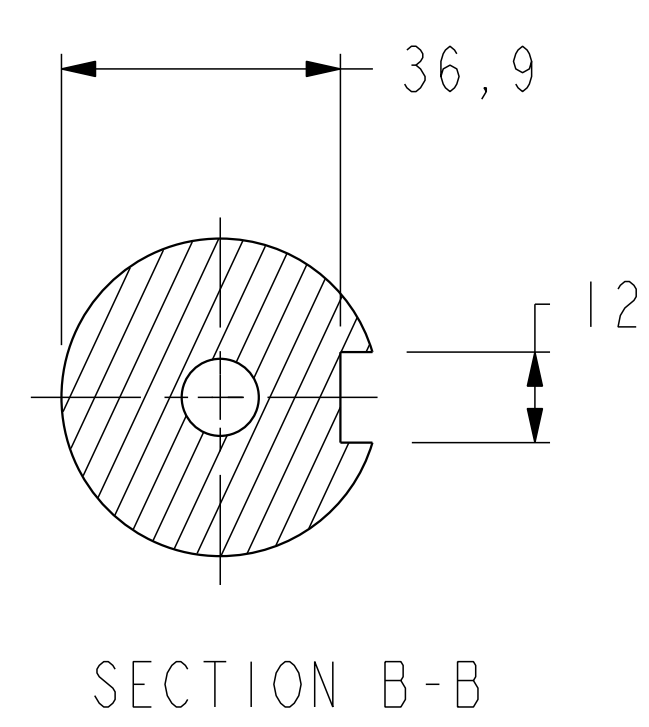
SHAFT STIFFNESS:-

THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$  AND THE SHAFT EXTENSION  $\phi$  IS  $1.7375 \times 10^6$  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  $34.47 \times 10^6$  N/m<sup>2</sup> FOR SPEED RANGE OF 0.95 TO 1.1 X NOMINAL SPEED AND  $68.94 \times 10^6$  N/m<sup>2</sup> 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 <sup>2</sup> (kgm <sup>2</sup> )
SHAFT	7.968	0.0027
FAN	0.976	0.0067
MAIN ROTOR	15.956	0.0549
EXCITER ROTOR	2.710	0.0108
TOTAL WITHOUT EBG ROTOR	27.610	0.0751
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	29.311	0.0768



CONVERSION FACTORS		
TO CONVERT	TO	DIVIDE BY
kg	lb	0.453592
kgm <sup>2</sup>	lbf ft <sup>2</sup>	0.04214
kgcm/rad	lbin/rad	1.1521246
N/m <sup>2</sup>	lbf/in <sup>2</sup>	6894.76

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

<b>CONFIDENTIAL PROPERTY OF CUMMINS GENERATOR TECHNOLOGIES LTD.</b>				PO2G TWO BEARING MOMENTS OF INERTIA AND SHAFT DETAILS			
MATERIAL PROPS	-	DIMENSIONS IN MILLIMETRES (MM) AT 20°C	PROJECTION	SCALE	3:10	MATERIAL	-
FINISH SPEC	-	SURFACE FINISH VALUES IN MICRO METRES		DRG. SIZE	A	CASTING No	-
GEOMETRY SPEC	-			WEIGHT	=	PART No	L15-13230
ASSEMBLY SPEC	-	UNLIMITED DIMS ±	-	DRAWN	BSR	16.07.07	SHEET 1 OF 1 SHEETS
PERFORMANCE SPEC	-	APPROVED	DPC	16.07.07	REL. PHASE	P	
QUALITY SPEC	-	APPROVED	DPC	16.07.07	Prj ENGINEER		