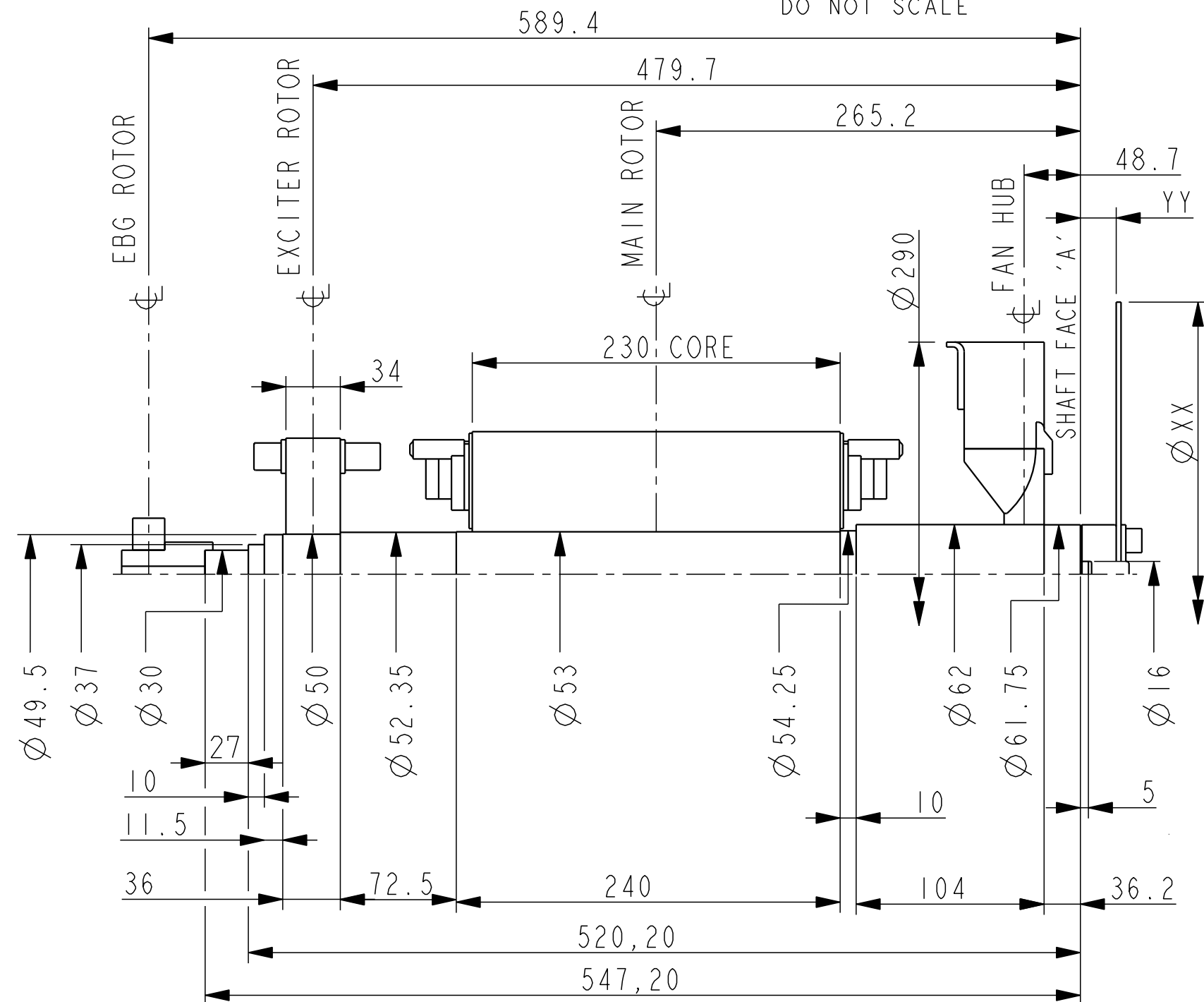


IF IN DOUBT-ASK  
DO NOT SCALE



NOTES:-

SHAFT STIFFNESS:-

THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$  AND THE SHAFT FACE 'A' IS  $3.2392 \times 10^6$  kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)

SHAFT MATERIAL:-

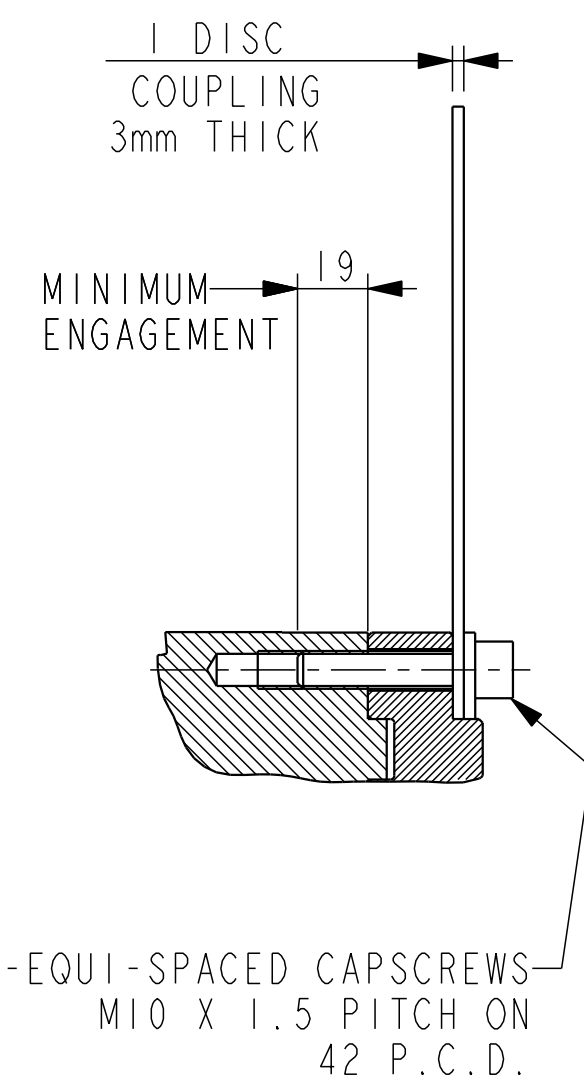
STEEL - C40E TO BSEN 10083-2 2006 (APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE) MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT IS  $34.47 \times 10^6$  N/m<sup>2</sup> FOR SPEED RANGE OF 0.95 TO 1.1 X NOMINAL SPEED AND  $68.94 \times 10^6$  N/m<sup>2</sup> FOR RUN THROUGH CONDITIONS, FOR 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 PART 1 AND 2 . BALANCE GRADE 2.5

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

APPROVED DOCUMENT



COMPONENT	MASS (kg)	WR <sup>2</sup> (kgm <sup>2</sup> )
SHAFT	9.854	0.0038
FAN	0.976	0.0067
MAIN ROTOR	30.090	0.1849
EXCITOR ROTOR	5.764	0.0225
TOTAL WITHOUT EBG ROTOR	55.684	0.2179
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	57.385	0.2196

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

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 <sup>2</sup> (kgm <sup>2</sup> )
		$\phi$ XX mm	YY mm						
4/5	6 1/2	215.8	10	0.850	0.233	0.069	1.152	$13.955 \times 10^6$	0.0049
4/5	7 1/2	241.2	10	1.069	0.233	0.069	1.371	$13.835 \times 10^6$	0.0079
3/4/5	8	263.5	41.8	1.275	0.974	0.069	2.318	$13.747 \times 10^6$	0.0111
2/3/4	10	314.2	33.6	1.819	0.783	0.069	2.671	$13.616 \times 10^6$	0.0225
2/3	11 1/2	352.3	19.4	2.287	0.452	0.069	2.808	$13.555 \times 10^6$	0.0355

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PI4G ONE BEARING  
MOMENTS OF INERTIA  
AND SHAFT DETAILS

MATERIAL PROPS	-	DIMENSIONS IN MILLIMETRES (MM) AT 20°C	PROJECTION	
FINISH SPEC	-			
GEOMETRY SPEC	-		WEIGHT	=
ASSEMBLY SPEC	-		DRAWN	BSR 25/04/07
PERFORMANCE SPEC	-	SURFACE FINISH VALUES IN MICRO METRES	CHECKED	DSG 22/05/07
QUALITY SPEC	-		APPROVED	DPC 22/05/07
UNLIMITED DIMS ± --			REL. PHASE	P
			DRG. SIZE	C
			MATERIAL	--
			CASTING No	-
			PART No	L15-13184
			ISSUE	A
			SHEET	1 OF 1 SHEETS

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