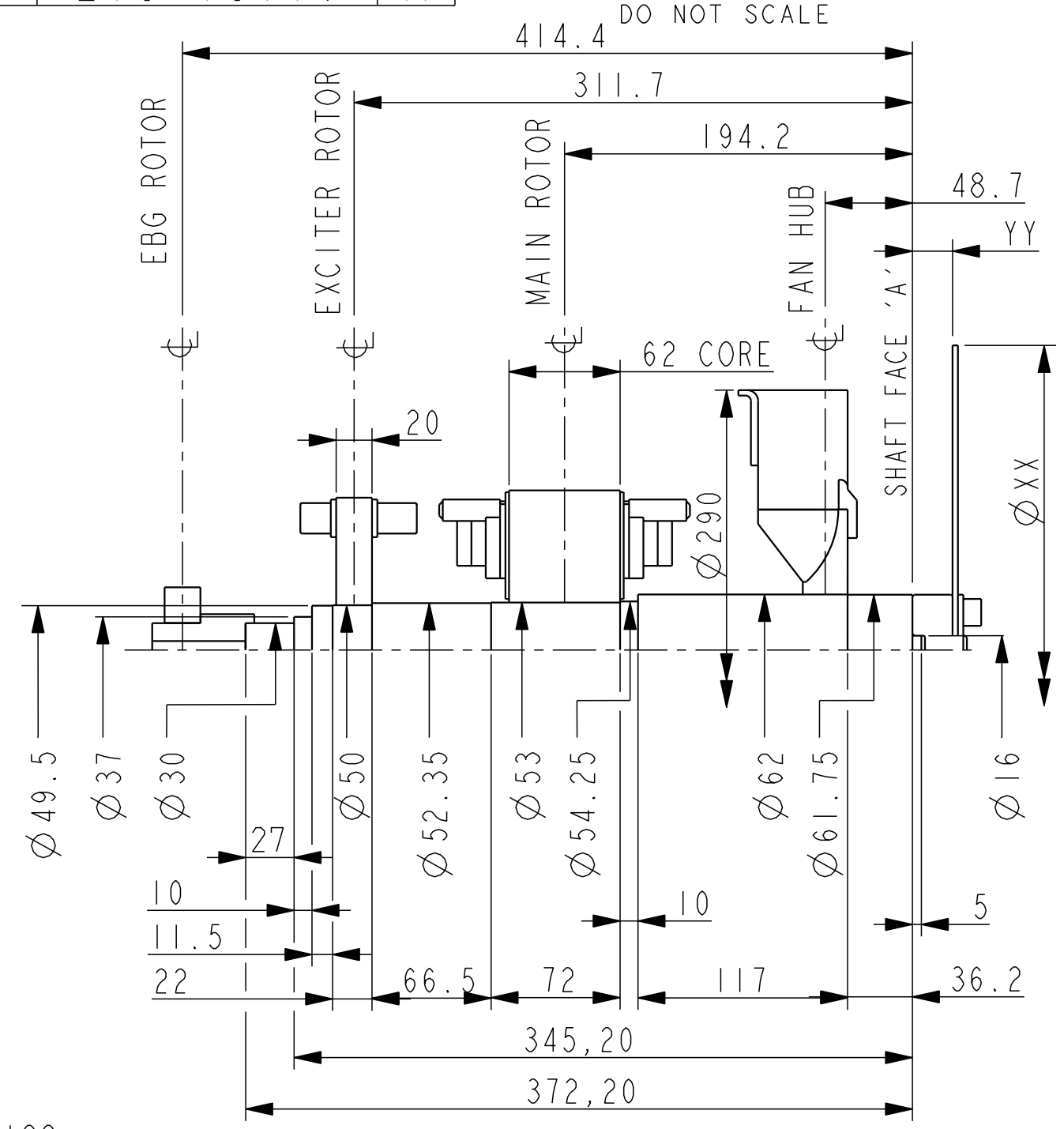


IF IN DOUBT-ASK
DO NOT SCALE



NOTES:-

SHAFT STIFFNESS:-

THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE ϕ AND THE SHAFT FACE 'A' IS 5.4167×10^6 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

1 DISC
COUPLING
3mm THICK

MINIMUM
ENGAGEMENT

COMPONENT	MASS (kg)	WR ² (kgm ²)
SHAFT	6.936	0.0028
FAN	0.976	0.0067
MAIN ROTOR	13.207	0.0642
EXCITOR ROTOR	3.495	0.0139
TOTAL WITHOUT EBG ROTOR	24.614	0.0876
EBG ROTOR	1.701	0.0017
TOTAL WITH EBG ROTOR	26.315	0.0893

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

CONVERSION FACTORS		
TO CONVERT	TO	DIVIDE BY
kg	lb	0.453592
kgm ²	lbf 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.

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P04D 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	-		CHECKED	DSG	22/05/07
QUALITY SPEC	-	UNLIMITED DIMS ±	APPROVED	DPC	22/05/07

SCALE 3:10	MATERIAL --
DRG. SIZE C	CASTING No -
REL. PHASE P	PART No L15-13176
PRO/ENGINEER	ISSUE A
SHEET 1 OF 1 SHEETS	

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