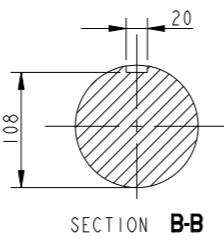
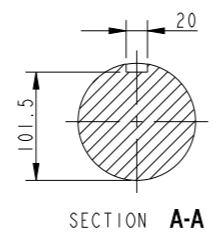
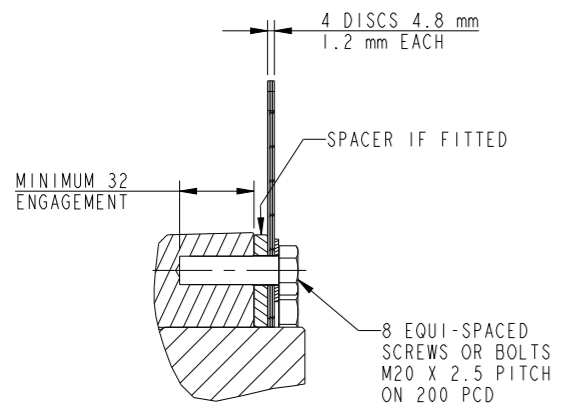
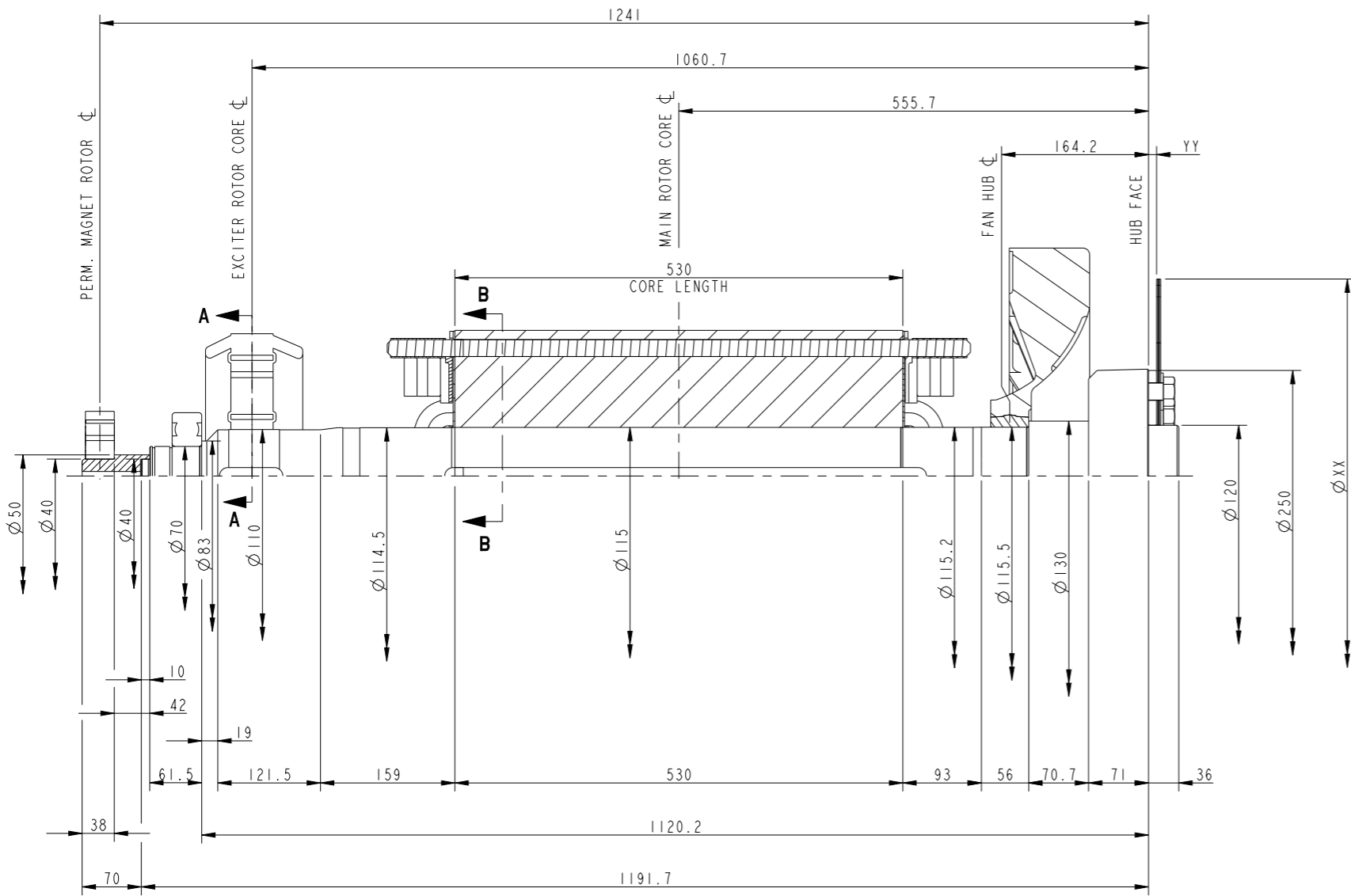


REL NO	REV NO	REVISION	DWN	CKD	APVD	DATE
ECO-164765	A	1	PP	AB	B_SURVE	12SEP16

NOTES:

- SHAFT STIFFNESS:-  
THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$  AND THE COUPLING HUB  
FACE  $\phi$  IS  $31.26 \times 10^6$  kgcm/radian  
(STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)
- SHAFT MATERIAL:-  
STEEL - 080M40 TO BS970 PART 1 (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 SHOULD BE NOTIFIED OF ANY ROTORS NOT COMPLYING  
WITH THESE RULES
- CUMMINS GENERATOR TECHNOLOGIES BALANCE ROTORS TO COMPLY WITH INTERNATIONAL STD  
ISO 1940 GRADE 2.5 AND BS 6861 PART 1 GRADE 2.5  
FOR UNBALANCED MAGNETIC PULL (U.M.P.) FORCES REFER TO THE GENERATOR MANUAL



COMPONENT	Wt kg	WR <sup>2</sup> kgm <sup>2</sup>
EX. ROTOR	31.290	0.5100
MAIN ROTOR	320.390	4.551
FAN	9.910	0.2630
SHAFT	96.979	0.1612
HUB	18.507	0.1779
P.M. STUB SHAFT	0.955	0.0002
P.M. EX. ROTOR	4.260	0.0120
TOTAL	482.291	5.6753

COUPLING SAE NO	COUPLING DIMEN's		COUPLING ASSEMBLY WEIGHT kg	COUPLING STIFFNESS 4-PLATES kgcm/rad	COUPLING DISC WR <sup>2</sup> kg m <sup>2</sup>
	XX	YY			
$\phi 11.5"$	352	23.8	12.08	$755.8 \times 10^6$	0.055
$\phi 17.75"$	450.9	2.5	9.11	$622.4 \times 10^6$	0.150
$\phi 14"$	467	9.5	11.66	$622.8 \times 10^6$	0.172

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

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIN TO		DWN P_PACHPUTE			CUMMINS GENERATOR TECHNOLOGIES	
DO NOT SCALE PRINT		APVD B_SURVE		CKD A_BIRARI			DRAWING, TORSIONAL	
DATE 12SEP16		SITE CODE		S4		S4 G 1-BRG		
SCALE 3:10		FIRST USED ON		STA		A056D397		
FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ASME Y14.5-2009		CUMMINS PROPRIETARY AND CONFIDENTIAL		CUMMINS PROPRIETARY AND CONFIDENTIAL		CAD SHEET 1 of 1		