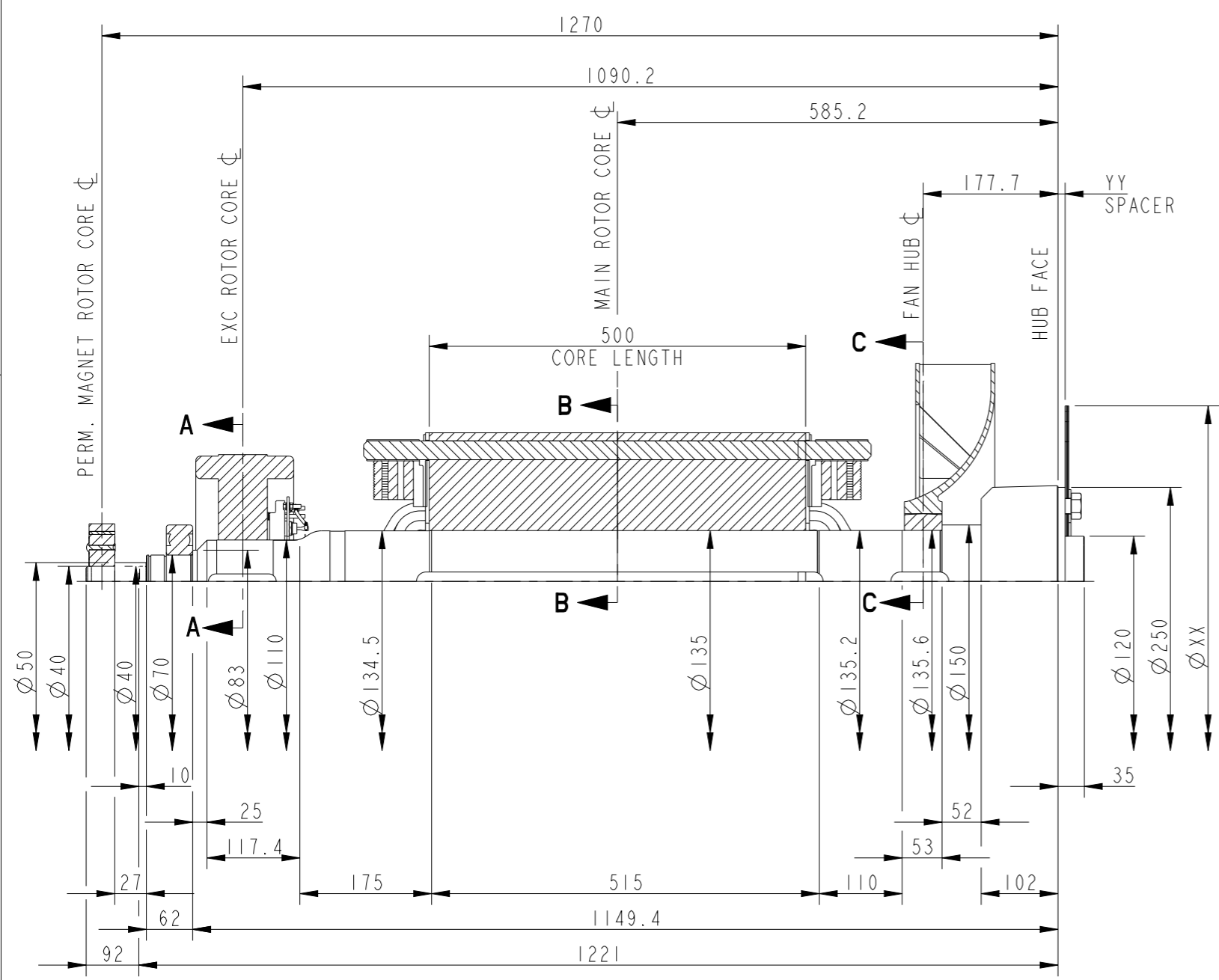


REL NO	REV	NO	REVISION	DWN	CKD	APVD	DATE
ECO-180669	B	1	SEE ECO DESCRIPTION	VDS	DGL	K.WEJRZANOWSKI	05DEC18

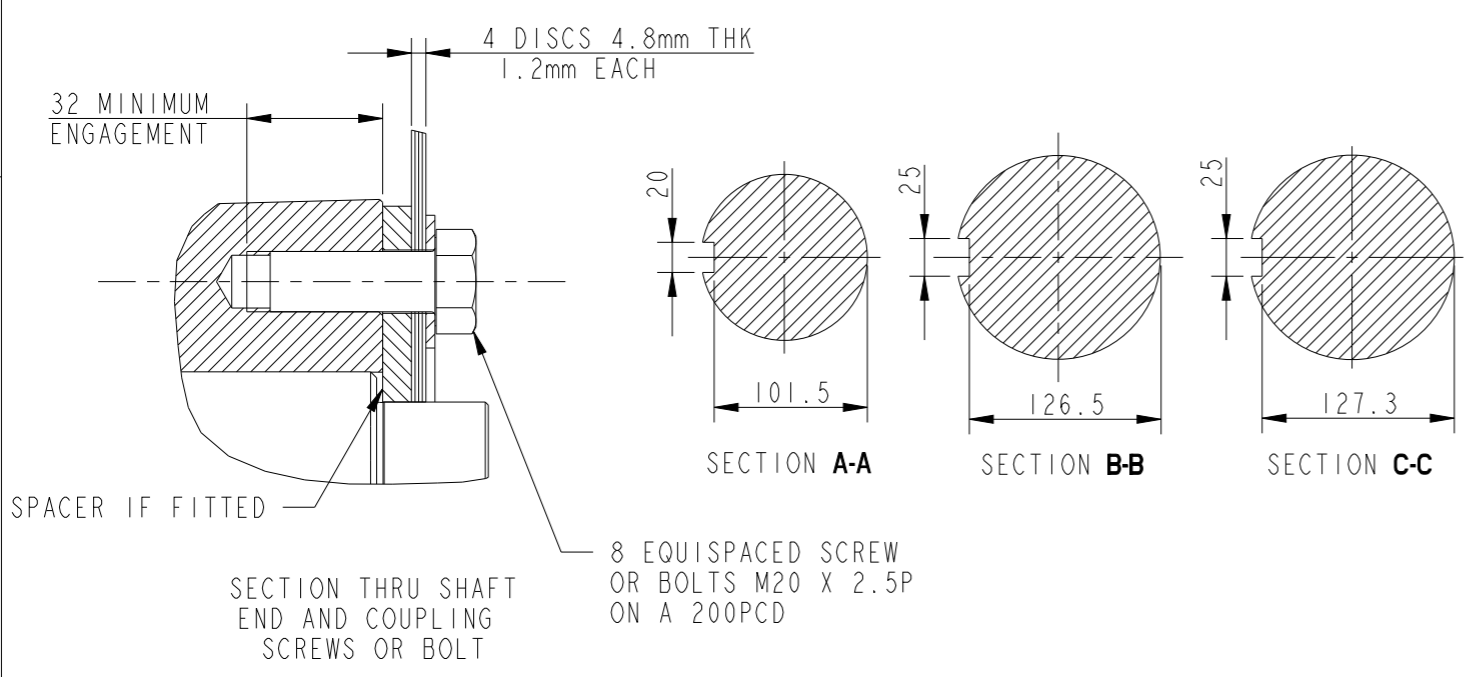
NOTES:

- SHAFT STIFFNESS: - THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE C AND THE COUPLING HUB FACE IS  $55.82 \times 10^6$  kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)
- SHAFT PROPERTIES: MINIMUM YIELD : 260MPA  
MINIMUM ULTIMATE TENSILE STRENGTH : 530MPA  
SHAFT MATERIAL IS 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 A SPEED RANGE OF 0.95 TO 1.1 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 ISO 1940 GRADE 2.5 AND BS 6861 PART 1 GRADE 2.5
- FOR UNBALANCED MAGNETIC PULL (U.M.P) FORCES PLEASE CONTACT CUMMINS GENERATOR TECHNOLOGIES LTD



COMPONENT	WT (Kg)	WR <sup>2</sup> kgm <sup>2</sup>
EX. ROTOR	31.290	0.5100
MAIN ROTOR	411.700	7.5290
FAN	12.530	0.3930
SHAFT	129.664	0.2870
HUB	23.922	0.2455
PM STUB SHAFT	0.929	0.0003
PM EXC ROTOR	6.970	0.0180
TOTAL	617.005	8.9828

CONVERSION FACTORS		
TO CONVERT	TO	DEVIDE BY
Kg	lb	0.453592
Kgm <sup>2</sup>	lb ft <sup>2</sup>	0.04214
Kgcm/rad	lbin/rad	1.1521246
N/M <sup>2</sup>	ibf/in <sup>2</sup>	6894.76



COUPLING SAE NO	COUPLING DIMENSIONS		COUPLING ASSEMBLY WEIGHT (Kg)	COUPLING STIFFNESS 4-PLATES (Kgcm/rad)	COUPLING DISC WR <sup>2</sup> (KgM <sup>2</sup> )
	XX	YY			
14	467	25.4	17.67	$632 \times 10^6$	0.174
18	572	16.0	18.06	$579 \times 10^6$	0.396
21	673	0	17.10	$554 \times 10^6$	0.756
Ø17.75"	450.9	18.2	14.97	$675 \times 10^6$	0.152

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS

SCALE 0.500

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SIM TO L15-12559

DO NOT SCALE PRINT

DWN V. SHIPPARKAR  
CKD P. NAIK  
APVD M. VUCENOVIC  
DATE 08MAR18

FIRST USED ON S5

FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ASME Y14.5-2009

CUMMINS GENERATOR TECHNOLOGIES

DRAWING, TORSIONAL  
S5L1D S5L1M S5L1S, E CORE 4P 1B

STA A2 A059K285

CAD SHEET 1 of 1