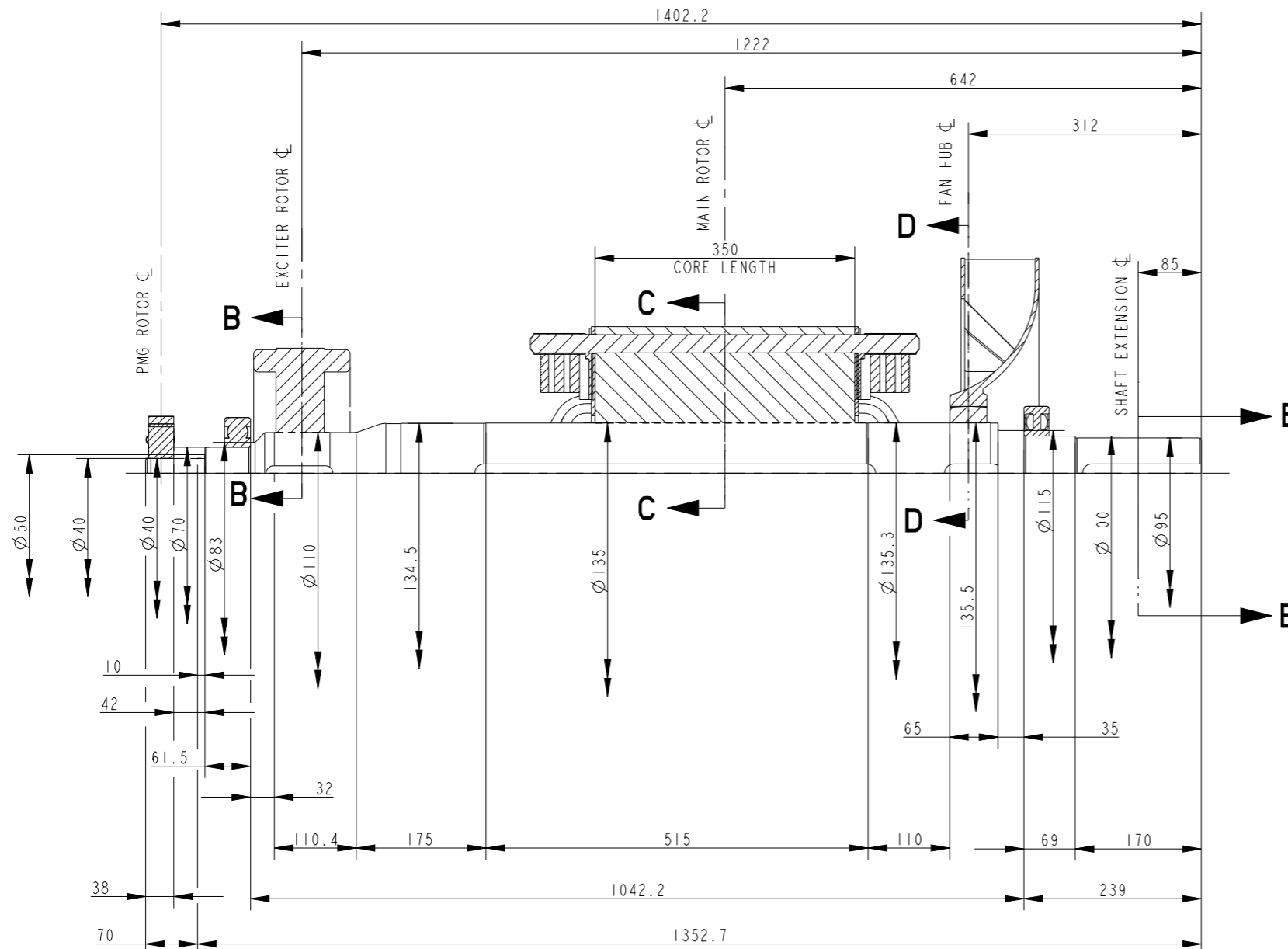


REL NO	REV	NO	REVISION	DWN	CKD	APVD	DATE
ECO-178539	B	1	MINOR DIMENSIONING ERRORS CORRECTED	DGL	MR	K.WEJRZANOWSKI	26 JUN 18

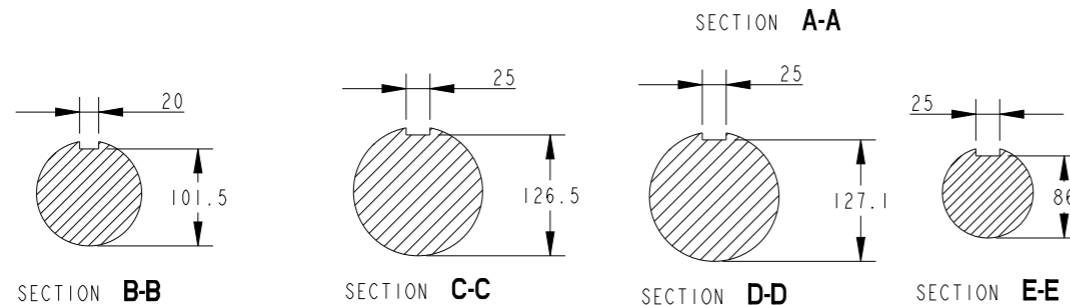
NOTES:

- SHAFT STIFFNESS:-  
THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$  AND THE SHAFT EXTENSION  $\phi$  IS  $25.94 \times 10^6$  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	296.820	5.4390
FAN	12.530	0.3930
SHAFT	124.919	0.2546
PM EXC ROTOR	6.970	0.0180
PM STUB SHAFT	0.929	0.0003
TOTAL	473.458	6.6149

CONVERSION FACTORS		
TO CONVERT	TO	DIVIDE 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



UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIM TO .		DWN T. KULKARNI			CUMMINS GENERATOR TECHNOLOGIES																												
DO NOT SCALE PRINT		DATE 17APR18		CKD P. NAIK			DRAWING, TORSIONAL																												
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