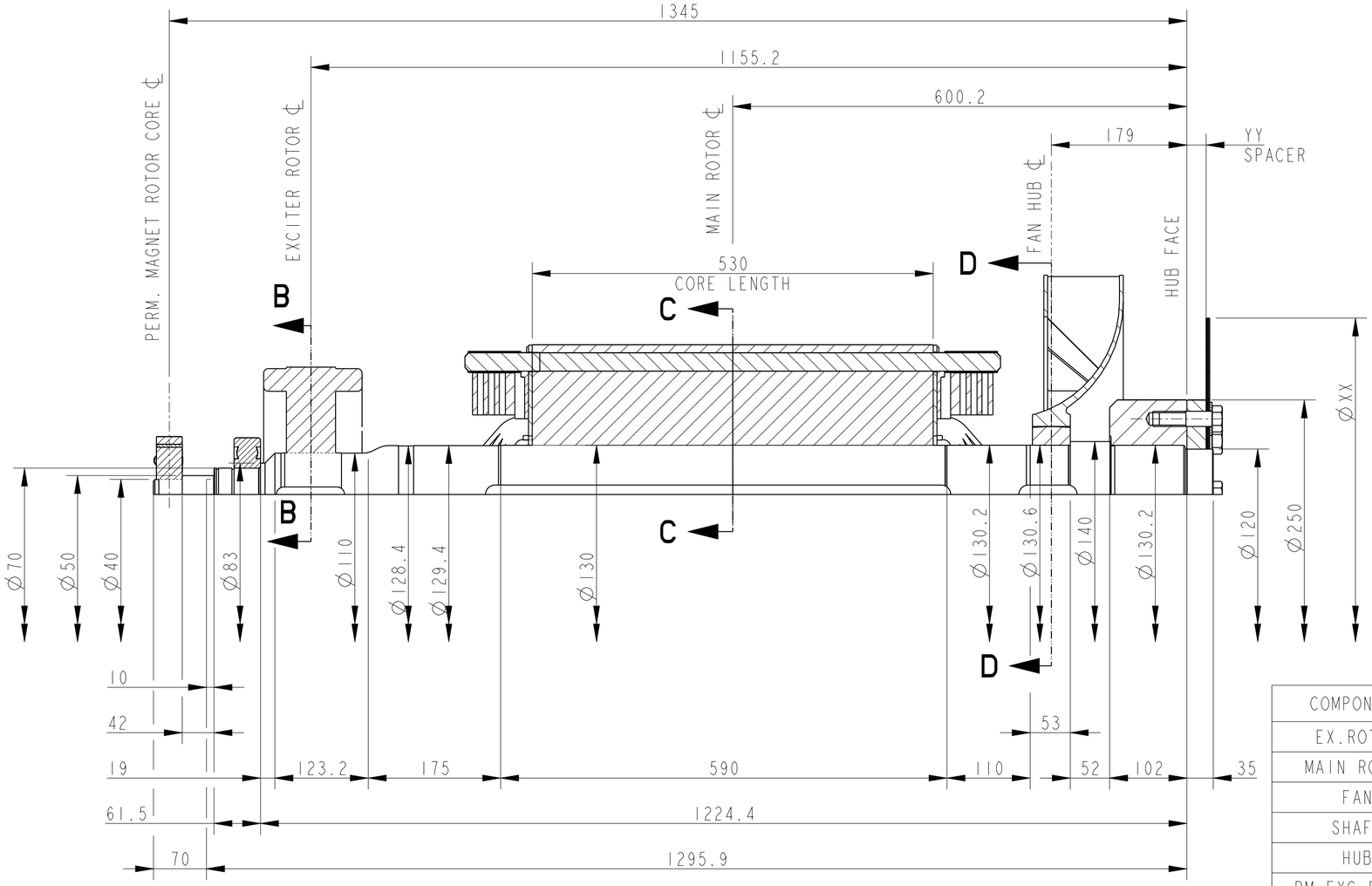
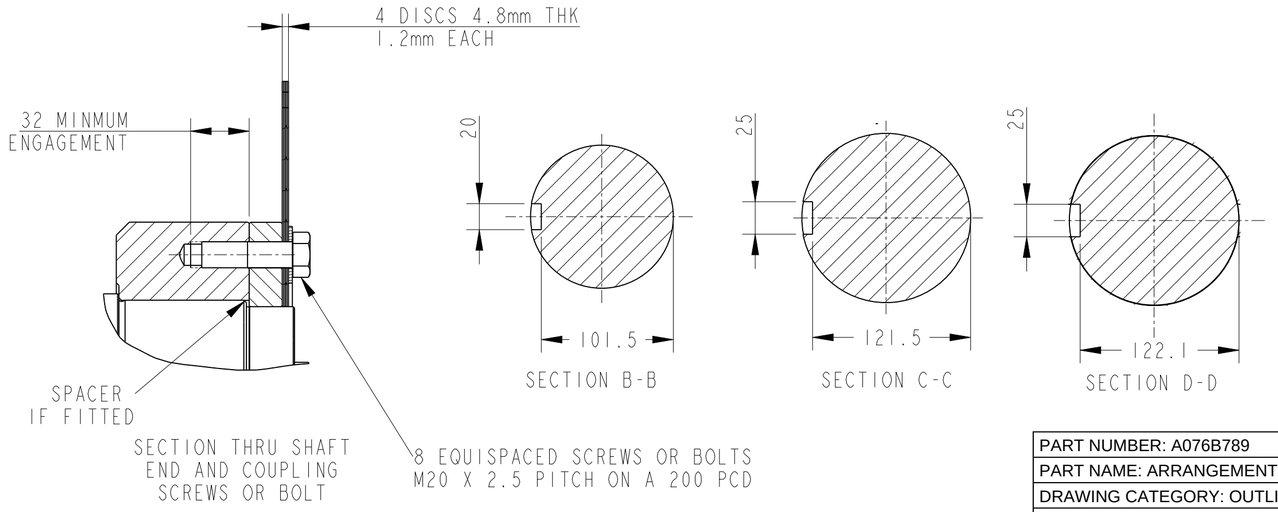


NOTES:

1. SHAFT STIFFNESS:-
   THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE ℄ AND THE COUPLING HUB FACE IS 45.90 x 10^6 kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)
2. SHAFT PROPERTIES:
   MINIMUM YIELD : 260MPA
   MINIMUM ULTIMATE TENSILE STRENGTH : 530MPA
   SHAFT MATERIAL IS APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE
3. MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT IS 34.47 X 10^6 N/M^2 FOR A SPEED RANGE OF 0.95 TO 1.1 X NOMINAL SPEED AND 68.94 X 10^6 N/M^2 FOR RUN THROUGH CONDITIONS FOR INDUSTRIAL MACHINES.
4. FOR MARINE AUTHORITIES, THEIR APPROPRIATE RULES WILL APPLY
5. CUMMINS GENERATOR TECHNOLOGIES LTD SHOULD BE NOTIFIED OF ANY ROTORS NOT COMPLYING WITH THESE RULES.
6. CUMMINS GENERATOR TECHNOLOGIES LTD BALANCE ROTORS TO COMPLY WITH INTERNATIONAL STD ISO 1940 GRADE 2.5 AND BS 6861 PART 1 GRADE 2.5
7. FOR UNBALANCED MAGNETIC PULL (U.M.P) FORCES PLEASE CONTACT CUMMINS GENERATOR TECHNOLOGIES LTD

COMPONENT	WT (Kg)	WR^2 kgm^2
EX.ROTOR	36.920	0.5603
MAIN ROTOR	417.396	8.6822
FAN	12.326	0.3890
SHAFT	127.251	0.2582
HUB	25.260	0.2516
PM EXC ROTOR	4.014	0.0117
PM STUB SHAFT	0.860	0.0003
TOTAL	624.028	10.1532

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



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

DRAWING SPECIFICATION DESCRIPTION
S5 F-CORE, 1-BRG, 4-POLE

PART NUMBER: A076B789	PART REVISION: B
PART NAME: ARRANGEMENT,GENERATOR ROTOR TORSIONAL	
DRAWING CATEGORY: OUTLINE	
STATE: RELEASED	SHEET: 1 OF 2
CUMMINS DATA CLASSIFICATION: CUMMINS CONFIDENTIAL	

Cummins Generator Technologies

DIMENSIONS ARE IN: MILLIMETERS
[ ] ARE IN: -

SIZE: A2 SCALE:1:5

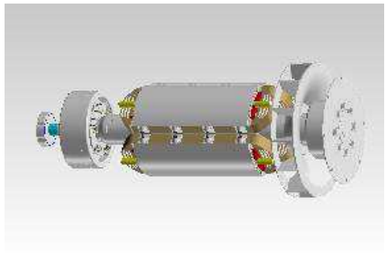
DIMENSIONING AND TOLERANCING PER: ASME Y14.5-2009

THIRD ANGLE PROJECTION

CAD SYSTEM
PTC® Creo® Parametric

Part Number: A076B789

Change Notice	CN00167696	Alternates	
Manufacturer Part (MEP)	No	Usage	Production Only
Release Phase Code	Production (P)	Drawing Specification	Number: DS47148670
External Regulations	No External Regulation		Revision: B



3D image provided when available for visual reference only.

Drawing Revision Information

Description of Change(s)
Note: Change information is provided for reference only and does not supersede the drawing's primary content.
1) MOMENT OF INERTIA & STIFFNESS VALUE UPDATES ADMINISTRATIVE CHANGE(S) TO PART ATTRIBUTES, BILL OF MATERIAL, OR ASSOCIATED SPECIFICATIONS.

Drawing Authorization

Drafter	Junzhe Wang	Date	17FEB2025
Checker	Milo Chen	Date	17FEB2025
Approver	Alin Dumitru Visian	Date	18FEB2025

Document Generated: **18FEB2025 07:47 GMT**