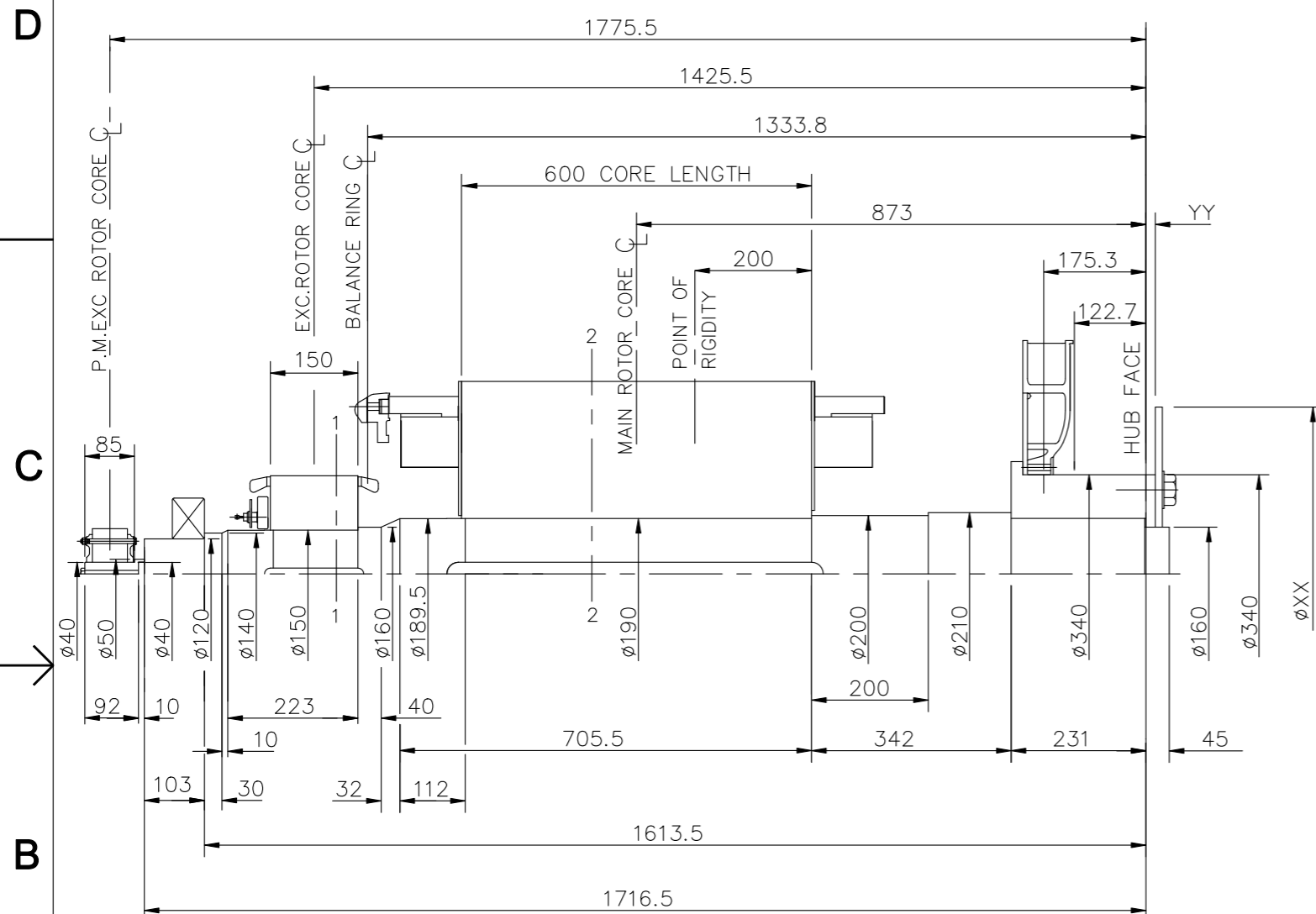


REL NO	REV	DETAILS	DWN	CKD	APVD	DATE
ECO-146332	D	STEEL SPEC CORRECTED FROM C40E+1 TO C40E+N	AGS	SPA	MJH	09SEP14



NOTES !

SHAFT STIFFNESS :-  
THE STIFFNESS OF THE SHAFT BETWEEN THE POINT OF RIGIDITY AND THE HUB FACE IS 21.64 MNm/Rad

SHAFT MATERIAL :-  
STEEL - C40E+N TO BSEN 10083-2 2006 (APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE ).

MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT IS 34.47 x 10<sup>6</sup>N/m<sup>2</sup> FOR A SPEED RANGE OF 0.95 TO 1.1 x NOMINAL SPEED, AND 68.94 x 10<sup>6</sup>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.

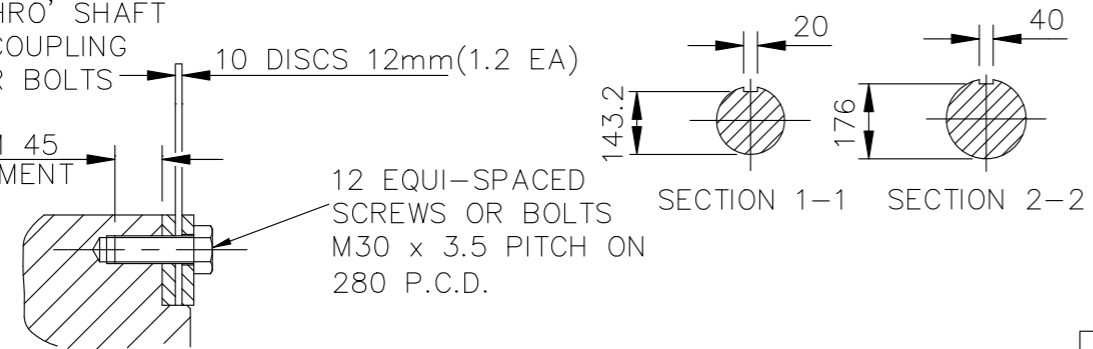
CUMMINS GENERATOR TECHNOLOGIES BALANCE ROTORS TO COMPLY WITH INTERNATIONAL STD. I.S.O. 1940 GRADE 2.5 AND B.S 6861 PART 1 GRADE 2.5

FOR UNBALANCED MAGNETIC PULL (U.M.P.) FORCES REFER TO FACTORY.

COMPONENT	Mass Kg	mk <sup>2</sup> kgm <sup>2</sup>	CPLNG SAE No	COUPLING DIMEN's XX YY	CPLNG ASSY MASS kg	COUPLING STIFFNESS 10-PLATES Nm/rad	CPLNG DISC mk <sup>2</sup> kg m <sup>2</sup>
SHAFT	359.27	1.5803					
HUB	111.30	2.1472					
FAN	23.17	2.1497					
BALANCE RING DE			18	572 16	29.2	316.8 x 10 <sup>6</sup>	0.980
MAIN ROTOR	1380.83	81.0998	21	673 00	31.6	287.3 x 10 <sup>6</sup>	1.891
BALANCE RING NDE	24.45	1.8722	24	733 00	37.9	278.1 x 10 <sup>6</sup>	2.668
EX. ROTOR	85.55	1.391	24 SPL	733 28,5	50.2	278.1 x 10 <sup>6</sup>	2.688
P.M. ROTOR	6.97	0.019					
P.M. STUB SHAFT	0.93	0.0003					
TOTAL	1992.47	90.2595					

CONVERSION FACTORS		
TO CONVERT	TO	DIVIDE BY
kg	lb	0.453592
kg m <sup>2</sup>	lb ft <sup>2</sup>	0.04214
Nm/rad	lbf in/rad	0.1130
N/m <sup>2</sup>	lbf/in <sup>2</sup>	6894.76

SECTION THRO' SHAFT END AND COUPLING SCREWS OR BOLTS



UNLESS SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS			<b>CUMMINS GENERATOR TECHNOLOGIES</b>	
<b>DO NOT SCALE PRINT</b>	DRAWN AGS			
	CHECKED SPA		P80 1T MOMENTS OF INERTIA AND SHAFT DETAILS	
<b>CONFIDENTIAL</b>	APPROVED MJH			
PROPERTY OF CUMMINS GENERATOR TECHNOLOGIES	DATE 21AUG14	SITE CODE STA	DWG SIZE A3	SHEET 1
	SCALE NTS	FIRST USED ON ---	L18-10558	REV D