

CREO PARAMETRIC

4

3

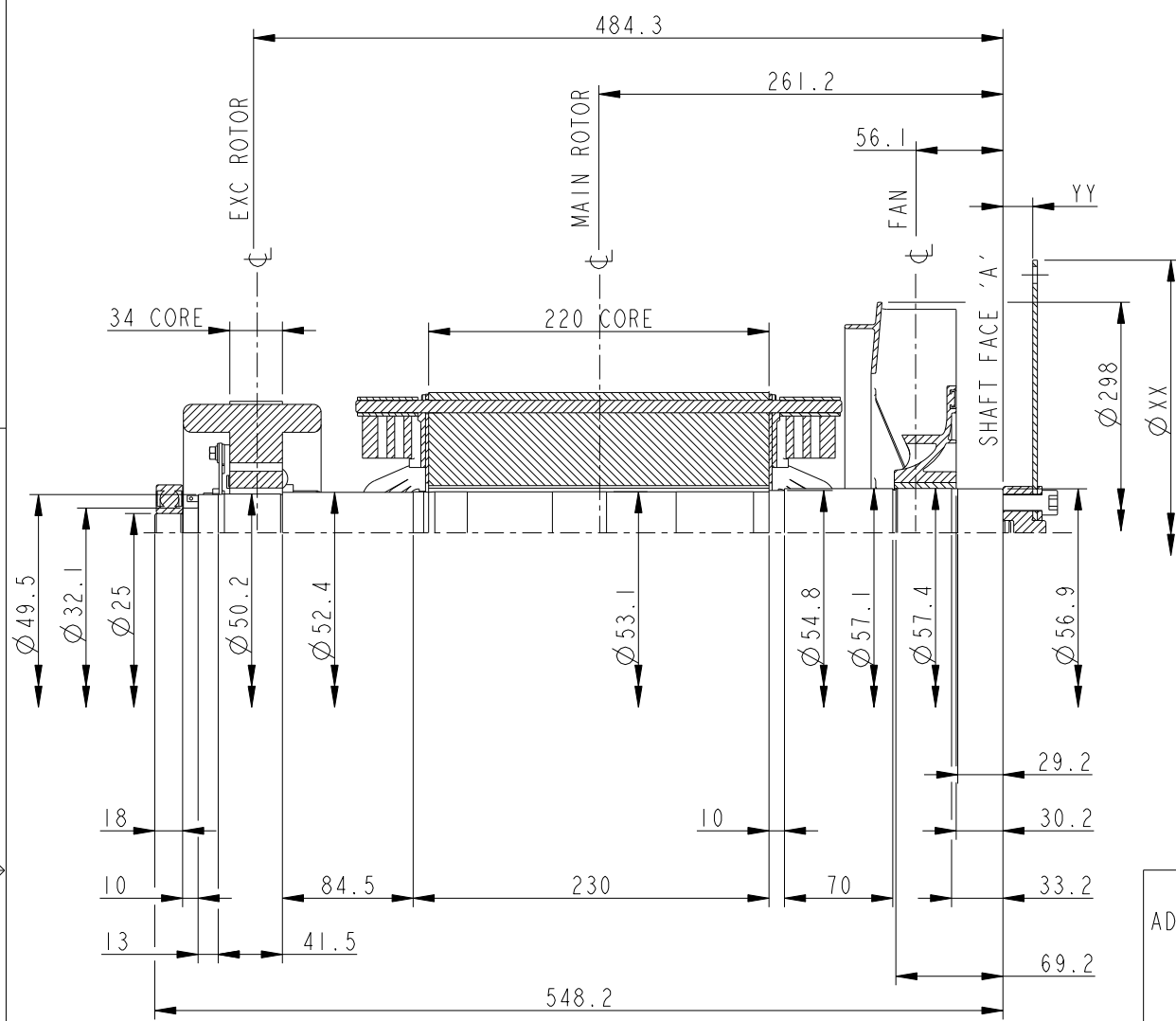
2

1

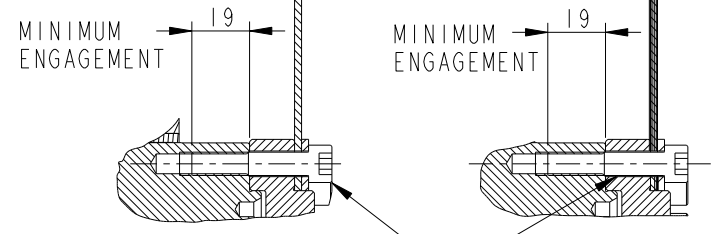
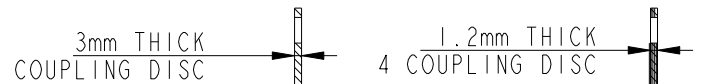
REL NO	REV	DETAIL	DWN	CKD	APVD	DATE
ECO-160793	C	PRODUCTION RELEASE	PS	UKD	S. JOSHI	21 JUL 16
SEE ECO						

NOTES:

- SHAFT STIFFNESS:  
THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$  AND THE SHAFT FACE 'A' IS  $2.8251 \times 10^6$  kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE)
- SHAFT MATERIAL:  
STEEL - C40E TO BSEN 10083-2 2006  
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.
- 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 BS ISO 1940 PARTS 1 AND 2. BALANCE GRADE 2.5
- FOR UNBALANCED MAGNETIC PULL (U.M.P.) REFER BACK TO THE FACTORY



ADAPTOR SAE No.	COUPLING SAE No.	COUPLING DIMENSIONS		MASS OF DISCS (kg) (1 X 3mm THICK)	MASS OF DISCS (kg) (4 X 1.2mm THICK)	MASS OF SHAFT SPACER (kg)	MASS OF PRESSURE PLATE (kg)	TOTAL MASS OF COUPLING ASSEMBLY (kg)	COUPLING STIFFNESS (kgcm/rad)	COUPLING DISC WR <sup>2</sup> (kgm <sup>2</sup> )
		$\phi$ XX mm	YY mm							
4/5	6 1/2	215.8	9.8	0.835	-	0.175	0.048	1.058	$12.00 \times 10^6$	0.0049
4/5	7 1/2	241.2	9.8	1.047	-	0.175	0.048	1.270	$11.90 \times 10^6$	0.0077
3/4	10	314.2	33.4	1.790	-	0.592	0.048	2.431	$11.71 \times 10^6$	0.0221
3	11 1/2	352.3	19.2	2.260	-	0.341	0.048	2.650	$11.66 \times 10^6$	0.0351
3	11 1/2	352.3	17.6	-	3.616	0.309	0.048	3.973	$18.70 \times 10^6$	0.0562



6 EQUI-SPACED SOCKET HEAD SCREW M10 X 1.5 PITCH ON 39 PCD TORQUE 73 Nm  
SECTION A-A SCALE 1:2

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

COMPONENT	Wt Kg	WR <sup>2</sup> Kg m <sup>2</sup>
FAN	0.797	0.0069
SHAFT	9.294	0.0033
MAIN ROTOR	35.678	0.1480
EXCITER ROTOR	5.85	0.0270
TOTAL	51.619	0.1852

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN MILLIMETERS		SIM TO -	DWN S. PRABHA		CUMMINS GENERATOR TECHNOLOGIES											
DO NOT SCALE PRINT			CKD U. DAGWALE		DRAWING, TORSIONAL											
<table border="1"> <tr> <th>DIM</th> <th>HOLE</th> </tr> <tr> <td>X ± 1</td> <td>0.00-4.99 +0.15/-0.08</td> </tr> <tr> <td>X.X ± 0.1</td> <td>5.00-9.99 +0.20/-0.10</td> </tr> <tr> <td>X.XX ± 0.01</td> <td>10.00-17.99 +0.25/-0.13</td> </tr> <tr> <td></td> <td>17.50-24.99 +0.30/-0.13</td> </tr> </table>		DIM	HOLE	X ± 1	0.00-4.99 +0.15/-0.08	X.X ± 0.1	5.00-9.99 +0.20/-0.10	X.XX ± 0.01	10.00-17.99 +0.25/-0.13		17.50-24.99 +0.30/-0.13	DATE 22JUL15	APVD S. JOSHI	SITE CODE	SOL2-U1 4P	
DIM	HOLE															
X ± 1	0.00-4.99 +0.15/-0.08															
X.X ± 0.1	5.00-9.99 +0.20/-0.10															
X.XX ± 0.01	10.00-17.99 +0.25/-0.13															
	17.50-24.99 +0.30/-0.13															
ANG TOL: ± 0.5°	SCALE: 1:4		FOR INTERPRETATION OF DIMENSIONING AND TOLERANCING, SEE ASME Y14.5M-1994	FIRST USED ON FORTUNA	PUN	<table border="1"> <tr> <td>DWG SIZE A2</td> <td>A053HI83</td> <td>SHEET 1</td> <td>REV C</td> </tr> </table>	DWG SIZE A2	A053HI83	SHEET 1	REV C						
DWG SIZE A2	A053HI83	SHEET 1	REV C													

4

3

2

1