

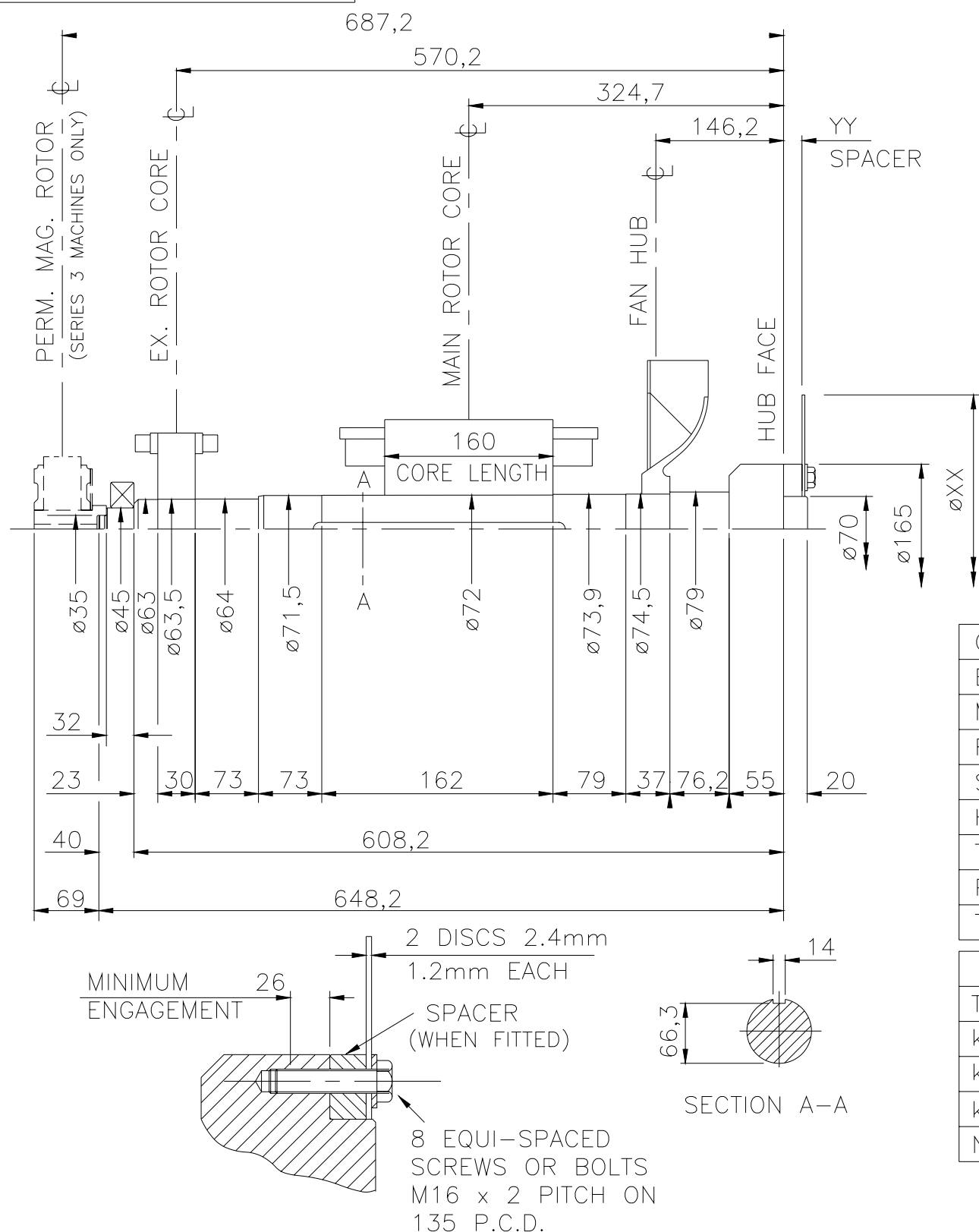
L15-12628

ISSUE D

IF IN DOUBT-ASK

FIRST W.O.

DO NOT SCALE



NOTES !

SHAFT STIFFNESS :-  
THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE ? AND THE COUPLING HUB FACE IS  $8,89 \times 10^6$  kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE).

SHAFT MATERIAL:-  
STEEL - C40E TO BSEN 10083-2 2006 (APPROVED BY MARINE AUTHORITIES WHEN APPROPRIATE)  
MAXIMUM RECOMMENDED VIBRATORY STRESS LEVEL IN THE SHAFT IS  $34.47 \times 10$  N/m? FOR SPEED RANGE OF 0.95 TO 1.1 X NOMINAL SPEED AND  $68.94 \times 10$  N/m? 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 BS ISO 1940 PARTS 1 AND 2. BALANCE GRADE 2.5

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

COMPONENT	Wt kg	WR <sup>2</sup> kgm <sup>2</sup>
EX. ROTOR	6,570	0,0394
MAIN ROTOR	44,780	0,3269
FAN	1,940	0,0271
SHAFT	20,442	0,0132
HUB	7,093	0,0300
TOTAL	80,825	0,4366
PERM. MAG.	5,450	0,0150
TOTAL	86,275	0,4516

COUPLING SAE No	COUPLING DIMEN's		COUPLING ASSEMBLY WEIGHT kg	COUPLING STIFFNESS 2-PLATES kgcm/rad	COUPLING DISC WR <sup>2</sup> kgm <sup>2</sup>
	XX	YY			
* 8	263	22,2	4,43	$164,4 \times 10^6$	0,0087
* 10	314	14,3	3,70	$144,3 \times 10^6$	0,0178
* 11½	352	-	1,76	$136,5 \times 10^6$	0,0282
! 11½	352	14,3	4,07	$136,5 \times 10^6$	0,0282
! 14	467	-	3,16	$126,1 \times 10^6$	0,0878
15½" DIA	394	-	2,22	$129,3 \times 10^6$	0,0563

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

NOTES

1.\*COUPLING DETAILS NOT APPLICABLE WHEN USED WITH SAE No 1 FLYWHEEL HOUSING

2.!COUPLING DETAILS APPLICABLE TO SAE No 1 FLYWHEEL HOUSING ONLY

SECTION THROUGH SHAFT END AND COUPLING SCREWS OR BOLTS

MOD'N	ISSUE	DRAWN	DATE	ALTERATION
5-0645-01	D	TW	28.05.10	CORRECTION TO INERTIA TOTAL VALUES (WERE 0,4066 AND 0,4216).
4-8664-16	C	USD	05.11.07	NEW ERN TO REFLECT RE-RELEASE OF DRAWINGS BY MODEL (IN SMALLER BATCHES).
4-8664-03	B	USD	14.09.07	CHANGES TO STEEL SPECIFICATION; STANDARDS REFERENCES. CHANGE OF COMPANY NAME.
4/2892/5	A	S.MC.	08.11.00	ORIGINAL ISSUE

CERTIFIED PRINT (ONLY IF SIGNED)		
BY		
DATE		
DRAWN	S.MC.	08.11.00
CH'D	JKB	28.05.10
APP'D	SFA	28.05.10

UC224D-SINGLE BEARING MOMENTS OF INERTIA AND SHAFT DETAILS  
CUMMINS GENERATOR TECHNOLOGIES LTD.

SCALE	FIRST W.O.
NTS	UNIT OF MEASUREMENT MILLIMETRES (mm)
L15-12628	ISSUE D