

DL15-12657

ISSUE  
A

IF IN DOUBT-ASK

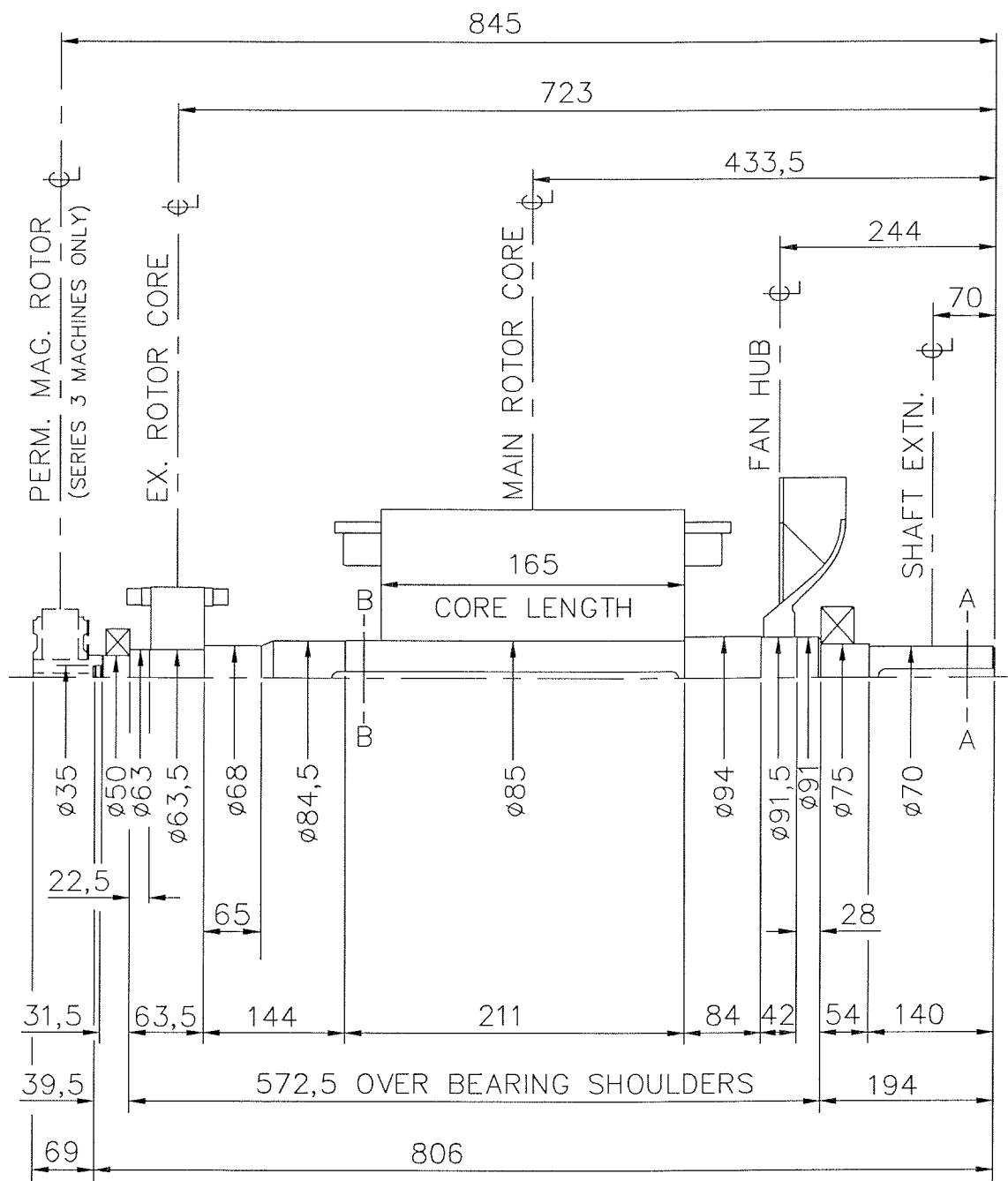
FIRST W.O.

DO NOT SCALE

NOTES !

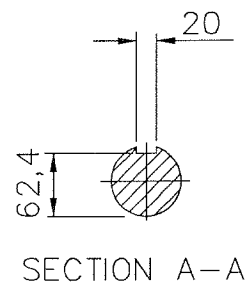
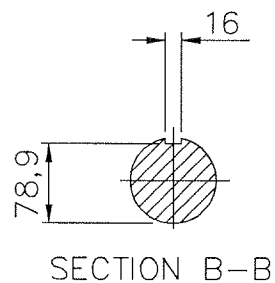
SHAFT STIFFNESS: -  
THE STIFFNESS OF THE SHAFT BETWEEN THE MAIN ROTOR CORE  $\phi$  AND THE SHAFT EXTENSION  $\phi$  IS  $9,44 \times 10^6$  kgcm/radian (STIFFENING EFFECT OF MAIN ROTOR CORE IS NOT INCLUDED IN THIS FIGURE).

SHAFT MATERIAL: -  
STEEL - 080M40 TO B.S.970 PART 1 (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 x 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.  
NEWAGE INTERNATIONAL Ltd SHOULD BE NOTIFIED OF ANY ROTORS NOT COMPLYING WITH THESE RULES.  
NEWAGE INTERNATIONAL Ltd BALANCE ROTORS TO COMPLY WITH INTERNATIONAL STD I.S.O. 1940 GRADE 2,5 & B.S.6861 PART 1 GRADE 2,5.  
FOR UNBALANCED MAGNETIC PULL (U.M.P.) FORCES REFER TO GENERATOR MANUAL.



COMPONENT	Wt kg	WR <sup>2</sup> kgm <sup>2</sup>
EX. ROTOR	8,490	0,0508
MAIN ROTOR	74,570	0,8155
FAN	3,389	0,0709
SHAFT	30,921	0,0259
TOTAL	117,370	0,9631
PERM. MAG.	5,450	0,0150
TOTAL	122,820	0,9781

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



CERTIFIED PRINT (ONLY IF SIGNED)	UC274C - TWO BEARING MOMENTS OF INERTIA AND SHAFT DETAILS	SCALE	FIRST W.O.
BY		NTS	UNIT OF MEASUREMENT MILLIMETRES (mm)
DATE	NEWAGE INTERNATIONAL LTD STAMFORD ENGLAND	DL15-12657	
DRAWN S.M.C. 15.11.00		ISSUE	
CH'D S.M.C. 20.11.00		A	
APP'D R.W. 21/11/00			

4/2892/5	A	S.M.C.	15.11.00	ORIGINAL ISSUE
MOD'N	ISSUE	DRAWN	DATE	ALTERATION