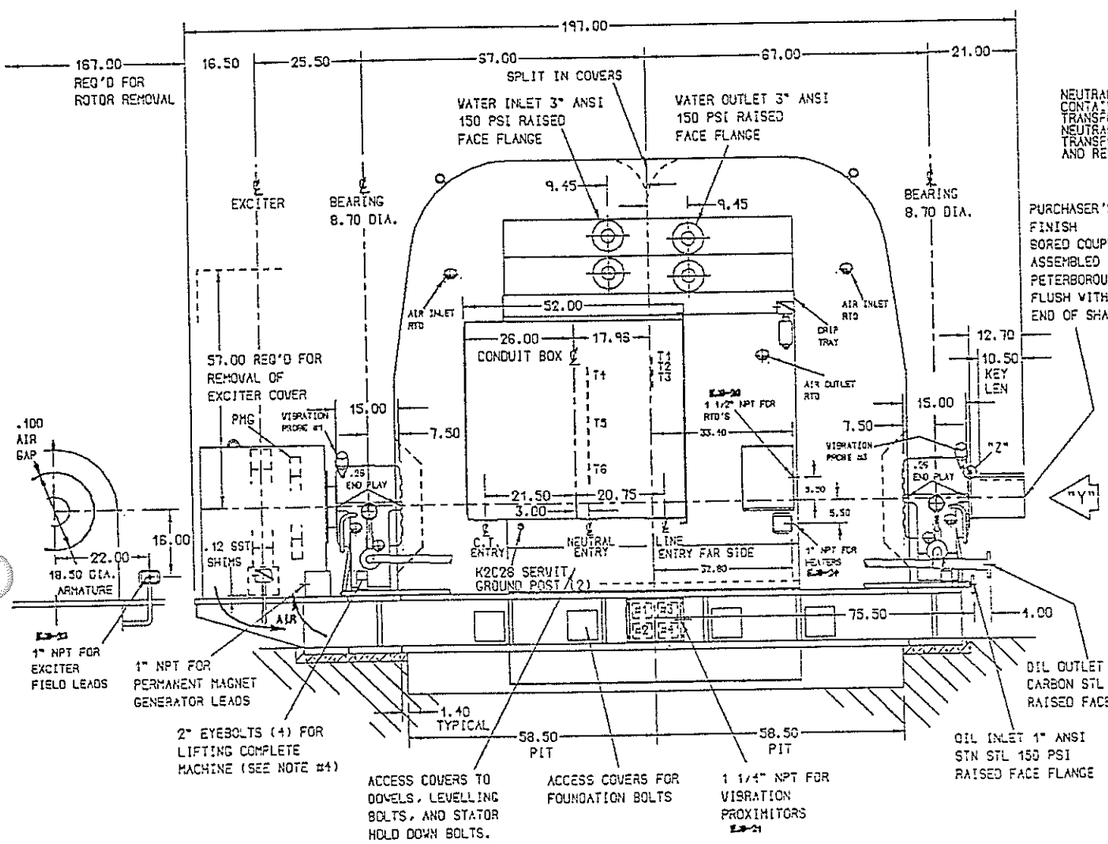
G.E.CANADA

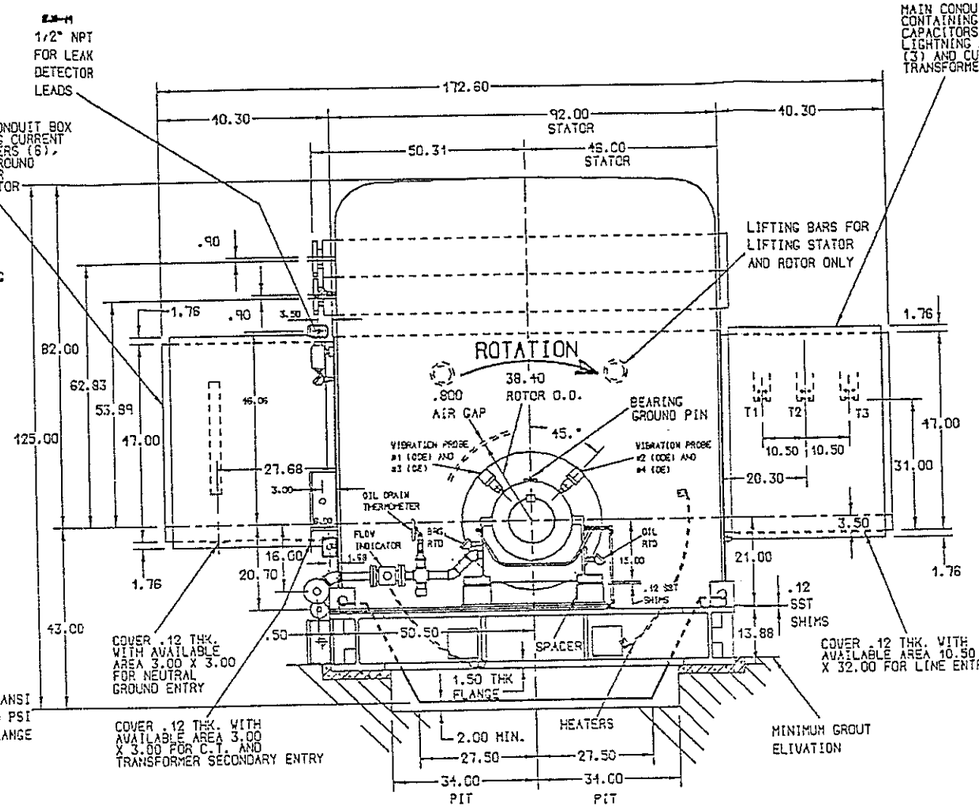
400401074 LS

3 RD ANGLE PROJECTION
DIMENSIONS IN INCHES

TITLE
OUTLINE OF SYNCHRONOUS GENERATOR
WITH BRUSHLESS EXCITER
FIRST MADE FOR HOTS / CNF / CHATEAUGAY

TYPE	RPM	POLES	K.V.	P.F.	KVA	VOLTS	HZ	PH	S.F.	REQUISITION	EN	PT.
ATB	1800	4	19700	.90	21889	13800	60	3	1.0	9285-79-94354	139883	1



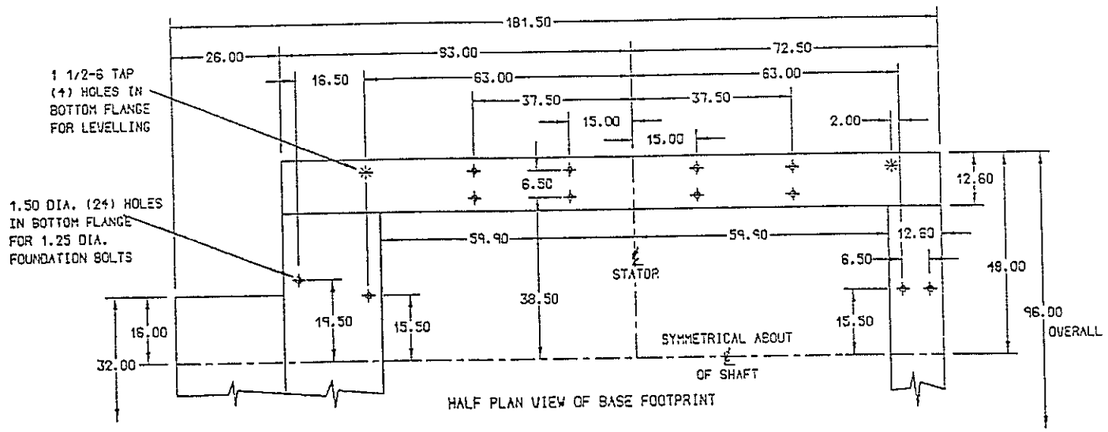


NOTES:

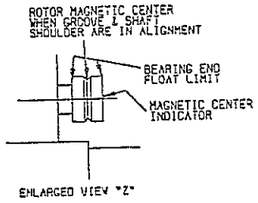
1. CAUTION: BEFORE INSTALLATION AND OPERATION READ INSTRUCTION BOOK PSEI 12311
2. UNDER FAULT CONDITIONS OF 10% OVER-VOLTAGE AND LINE-TO-LINE SHORT CIRCUIT AT THE MACHINE TERMINALS, THE MAXIMUM VERTICAL FORCE ON EACH OF THE TWO STATOR FEET IS ± 123,000 LBS. AND MAXIMUM AIR GAP TORQUE AT SHORT CIRCUIT IS 902,000 LB FT.
3. COUPLING BALANCE MUST BE ADEQUATE FOR 1800 RPM.
4. MACHINE IS SHIPPED ASSEMBLED MINUS THE 15 KV CONDUIT BOXES AND OIL PIPING. LIFTING POINTS ARE ADEQUATE TO SUPPORT COMPLETE MACHINE. SPREADER BEAM IS REQUIRED TO LIFT COMPLETE MACHINE.
5. BEARINGS ARE NOT DESIGNED TO TAKE CONTINUOUS END THRUST. COUPLING END FLOAT MUST BE LIMITED TO .19 INCH TOTAL.
6. BEARINGS ARE TO BE FLOOD LUBRICATED. OIL VISCOSITY 32 CENTISTOKES AT 40°C. OIL INLET TEMPERATURE 20°C TO 50°C. EACH BEARING REQUIRES 2.1 US GPM AT 20 PSI. HEAT LOAD FOR OIL 3.4 KW TOTAL. OIL RINGS ARE NOT SUPPLIED WITH THE BEARINGS.
7. ALL CONNECTIONS OF LOW ELECTRICAL RESISTANCE BETWEEN INSULATED BEARINGS AND GROUND MUST BE AVOIDED. THE DRIVE END BEARING IS SUPPLIED WITH A GROUND PIN. GROUND PIN MUST BE ENGAGED FOR NORMAL OPERATION.
8. COOLING WATER REQUIRED TO ONE COOLER IS 170 US GPM AT 95° F MAXIMUM AND 125 PSI MAXIMUM. PRESSURE DROP THROUGH COOLER IS 9.6 PSI. 350 KW HEAT REJECTION. SECOND COOLER IS REQUNDANT.
9. SHAFT PROFILE DRAWING IS 4003C1139UT.
10. SEAL BETWEEN BASE AND FOUNDATION FOR AIR TIGHT ENCLOSURE.
11. UNIT NOT DESIGNED FOR UNPROTECTED OUTDOOR SERVICE.
12. FOR ROTOR REMOVAL INSTRUCTIONS SEE 4003C1156SS.
13. FOR SCHEMATIC DIAGRAMS SEE 4003C1130KJ.
14. UNIT BUILT IN ACCORDANCE WITH GENERAL ELECTRIC ORDER DRAWING # 185A832XE.

APPROXIMATE WEIGHTS

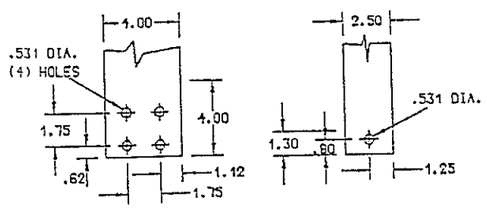
STATOR	47,400 LBS.
ROTOR	22,200 LBS.
BRG'S. & PEDESTALS	2,000 LBS.
EXCITER ARMATURE + PMG	600 LBS.
EXCITER FRAME	600 LBS.
BASE	8,100 LBS.
ENCLOSURE	800 LBS.
COOLERS (2)	2,050 LBS.
MAIN CONDUIT BOX	1,200 LBS.
NEUTRAL CONDUIT BOX	800 LBS.
TOTAL	85,750 LBS.



HALF PLAN VIEW OF BASE FOOTPRINT

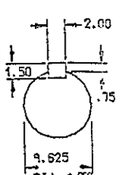


ENLARGED VIEW "Z"

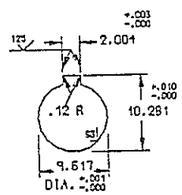


STATOR TERMINAL (.38 THK) T1, T2, T3

NEUTRAL TERMINAL (.50 THK)



VIEW AT "X"



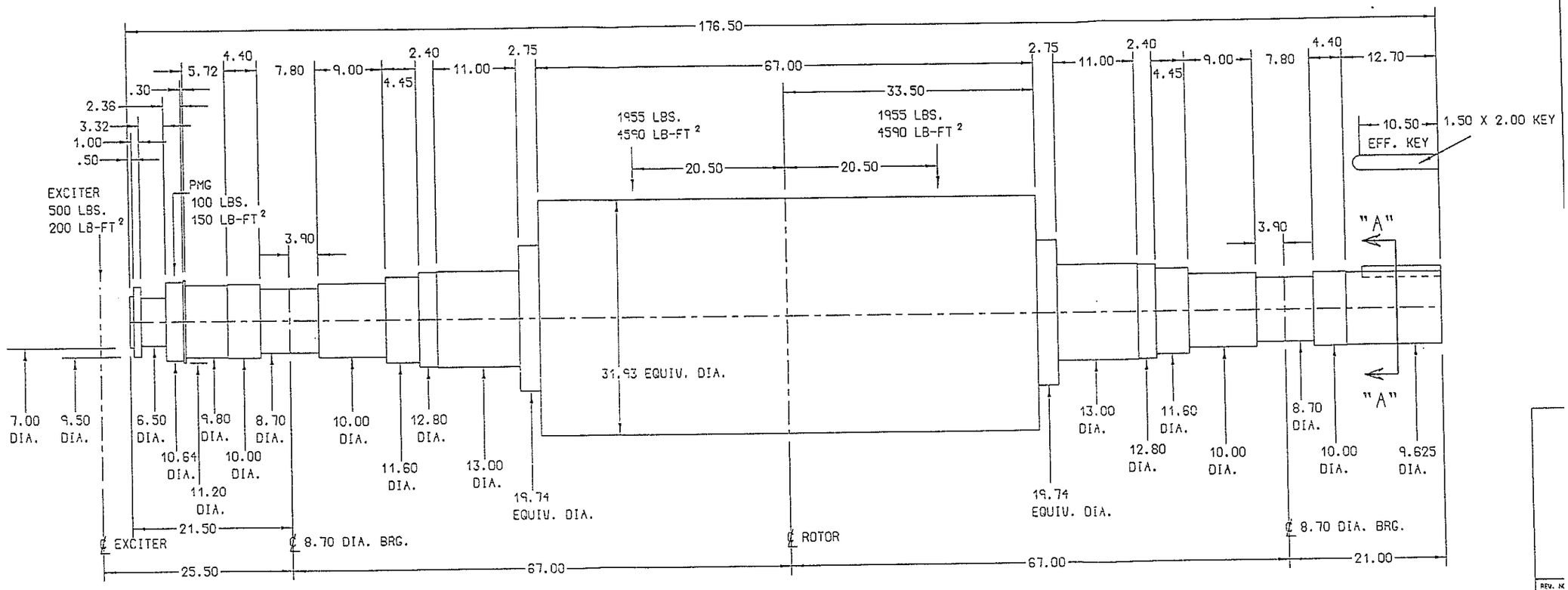
RECOMMENDED COUPLING BORE

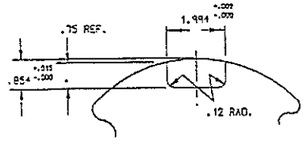
REVISIONS				PRINTS TO
1	APR 30/91	KVA WAS 21890, REV WATER CONNECTIONS	MCC	E1
10	MAY 3		MCC	
2	MAY 11/91	CLOTHIER RTD ENTRY 1 1/2" WAS 1"	MCC	
3	AUG 12/91	ADD 1.50 THK. FLANGE	MCC	
4	DEC 3/91	REV. NEUTRALS	MCC	NOTE COPY ON MICROF AND CADDS ON

DRAWN BY	CHECKED BY			
MIKE COURNEYA	APRIL 3/91	AC MACHINES	PETERBOROUGH PLANT	4004D1074 LS

4003C1138 JT

REV. NO.	G.E. CANADA		4003C1138 JT
	TITLE: SHAFT PROFILE	NOTS SO 155030 NOTS PO 091P58610	
	FIRST MADE FOR NOTS / CNF / CHATEAUGAY	REQ'N 9285-79-94354	
	ATB-4P-19701KV-1800RPM-13800V	EN-139863	





ENLARGED SECTION "A"-"A"

NOTES :

1. SHAFT MATERIAL IS G.E. CANADA SPECIFICATION M73298
   WHICH IS EQUIVALENT TO AISI 4142
   ULTIMATE STRENGTH = 112 KSI
   YIELD STRENGTH = 86 KSI

2. WEIGHT OF ROTOR = 22,800 LBS. (INCLUDES EXCITER ARMATURE)
   WK^2 OF ROTOR = 23,500 LB-FT^2 (INCLUDES EXCITER ARMATURE)

REVISIONS			PRINTS TO
1	JUNE 24-91	DIMS 9.0 WAS 4.40, 4.45 WAS 9.05. MCC	E13

NOTE
COPY ON MICROFI
AND CADDS ONL

DRAWN BY	CHECKED BY		
MIKE COURNEYA	APRIL 3/91	AC MACHINES PETERBOROUGH PLANT	4003C1138 JT