INFORMATION ONLY

PRELIMINARY DATA: DRAWING DETAILS ARE TO BE FIELD-VERIFIED

3/4 -150 LB. ANSI R.F. FLANGE FOR OIL INLET WITH 16 GA. STAINLESS STEEL ORIFICE PLATE - EACH BEARING - SEE NOTE •6

1/2 N.P.T. FOR DIFFERENTIAL PRESSURE SWITCH LEADS - DWYER MODEL 1950-0 SET TO CLOSE CIRCUIT ON PRESSURE INCREASE OF .3 INCH OF WATER

CUSTOMERS EXHAUST DUCT TO PREVENT ANY FOREIGN MATERIAL (INCLUDING WATER) FROM ENTERING MOTOR ENCLOSURE - LIMIT EXHAUST AIR PRESSURE DROP TO .3 INCHES OF WATER WITH 13000 C.F.M. AND 55°C EXHAUST AIR TEMPERATURE

CENTERLINE SHAFT

4 SP.@ 13.5 = 54.0

27.0

14 X 3/8-16 NC-2 THREADED HOLES FOR AIR DISCHARGE DUCT

18.75

36.0

18.0

3 SP.@ 12.5 = 37.5

TOP AIR DISCHARGE

AIR FILTER ACCESS COVERS 4 PLACES - SEE NOTE •5

DISTANCE REQUIRED TO REMOVE ENCLOSURE

1.5

CENTERLINE FRAME

1.5

26.25

52.5

DISTANCE REQ'D TO INSTALL FILTERS ON BOTH SIDES SEE NOTE •5

61.0

21.0

3.0

30.5

1.5

4.7

.25

AIR INTAKE BOTH ENDS SEE NOTE •5

SPLIT REMOVABLE LEAD THROAT

106.6

46.3 46.3

45.75 45.75

44.1 44.1

CENTERLINE OF FRAME

WRONG SIDE, OVER HERE

TOP MAT BOLTS

35.5

35"

FRONT (NON-COUPLING) END

61.7

92.1

123.6

DRAWING FRAME (MINE)

LIFTING BOLT

32.2

ROTATION

MAIN LEADS TERMINAL BOX SHOWN IN PHANTOM CUSTOMER TO PROVIDE SUPPORT UNDER BOX

SEE SHEET 2 OF 2 FOR VIBRATION PROBE CONDUIT CONNECTION LOCATIONS

7.0

66.0

32.0

11.5

3.8

8.8

5.1

16.0

7.1

30.0

1.8

17.0 17.0

.375

6.0 6.0

.375

27.0 27.0

28.0 28.0

30.0

60.0

18.0

40.0

32.0

35.5

39.1

127.1

SEE DETAIL A

Foot TV Foot = 59" OK

9.0

9.0

60.6

1." N.P.T. FOR MOTOR SPACE HEATER LEADS

ACCESS COVERS TO MOTOR SPACE HEATERS ON BOTH SIDES

ACCESS OPENING TO FRAME HOLD DOWN BOLTS & JACKSCREWS

2." N.P.T. FOR STATOR RTD LEADS (6) 100 OHM

1." N.P.T. FOR GROUND DETECTION LEADS

1/2 N.P.T. FOR BEARING THERMOCOUPLE LEADS 2 TYPE "K" THERMOCOUPLES PER BEARING

(2) GROUND PADS LOCATED DIAGONALLY OPPOSITE - EACH PAD CONTAINS (2) 1/2-13 NC-2B X 1." DEEP THREADED HOLES SPACED 1.7 APART FOR MOUNTING GROUND LUG VERTICALLY OR HORIZONTALLY

132.0

SPACE REQUIRED TO PULL ROTOR STRAIGHT OUT

1."N.P.T. FOR EXCITER FIELD LEADS

CENTERLINE OF FRAME

48.5

.75

LIFTING MEANS FOR ENCLOSURE ONLY

TOP MAT BOLTS TOGETHER

(4) SPOOLS FOR LIFTING MOTOR - ENCLOSURE TO BE REMOVED WHEN LIFTING MOTOR

48.0

24.0 28.0

SEE NOTE •9

2.0 X 1.5 X 10.17 KEY SEE NOTE •8

2.000 1.996

8.623 8.608

Ø 8.0042 8.0030

SEE NOTE •7

1/2 NPT FOR BEARING INSULATION TEST LEAD ON REAR END ONLY

≈84.5"

13.5

1.0

5.0 5.0

15.0 15.0

38.0 38.0

27.0

44.5

89.0

60.6

78.7

65.0

143.7

(2) X Ø.406 PILOT HOLES IN DRIVE END FEET ONLY REAM AT ASS'Y. FOR •8 TAPER DOWEL PINS SEE NOTE •1

(4) X Ø1.25 HOLES IN FRAME FEET FOR STATOR HOLD DOWN BOLTS SEE NOTE •1

(4) 1."-8 NC-2 THREADED HOLES IN FRAME FEET FOR LEVELING SCREWS - SEE NOTE •1

MOTOR TO BE DESIGNED WITH CLASS-F INSULATION PER SPECIFICATIONS

Ø 2." FOR OIL DRAIN

Ø6.4

45°

4 X 5/8-11 NC-2B X .9 DP. THREADED HOLES EQ. SP. ON Ø 4.75 B.C. FOR 2."-150 LB. PIPE FLANGE-EA. END-SEE NOTE •6

FRONT FACE OF BEARING BRACKET

.1

4.0

43.65 TO CENTERLINE OF FRAME-EA. END FOR OIL DRAIN

DETAIL A (2) PLACES

SEE PAGE 2 OF 2 FOR NOTES AND REVISIONS.

FIRST USED	ENGINEERING REFERENCE
94-3411-11	1240567-1240418 1240594-1240518

APPROX. WTS. (LBS.)	
ROTOR	9800
STATOR	14700
BRG & BRKT (1000 EA)	2000
ENCLOSURE	2000
EXCITER	500
TERM. BOX(MAIN)	1000
MISC.	500
TOTAL	30500

DRESSER ROOTS CONTRACT •HAO-3366
NASA JOB •NAS3-27517

CERTIFIED PRINT FOR DRESSER ROOTS/NASA/LEWIS RESEARCH CENTER
P.O. NO. 894-0003655 EM-SALE NO. 84-3411-11
KVA --- KW/HP 9800 VOLT 9800 AMP 369 PF 1.0 PH 3 SF 1.15 & CLASS F
CYCLE 60 TEMP RISE: STATOR 85 °C BY DET ROTOR 60 °C BY RES RPM 1800
ENCLOSURE DPR-TAD WITH FILTERS ROTATION (FACING END OPP. DRIVE) CW
PHASE SEQUENCE 1-2-3 EXC. FIELD VOLTS 42/53 EXC. FIELD AMPS 3.5/4.4
SP. HTR.: WATTS 1803 VOLTS 208 PHASE 2 PR. 6444
NOMINAL AIR GAPS: MOTOR AIR GAP (INCH) .055 EXCITER AIR GAP (INCH) .050
WK^2 4878 LBS-FT^2 MAG PULL 3200 LBS AT .031 INCHES
ROTOR WT. 9800 LBS. STATOR WT. 14700 LBS. TOTAL WT. 30500 LBS.

BY: DAK DATE: 21 MARCH 1984

DIMENSIONS AND DATA CERTIFIED
CUSTOMER ORDER NAS3-27157
ROOTS ORDER HA03366
BY ASH DATE 7/1984
ROOTS DIVISION

EM NAMEPLATE LISTS "CLASS D" LOCKED ROTOR 6600 RTD

Electric Machinery COMPUTER GRAPHICS SYSTEM

DRESSER-RAND STEAM TURBINE, MOTOR & GENERATOR DIVISION MINNEAPOLIS, MN 55415

TITLE OUTLINE SYN. MOTOR

DIMENSIONS IN INCHES - DO NOT SCALE

DFTM DAK 21 MAR '84	APPD LEE 3/24/84	REF	
CHKD SDS 3/24/84	APPD JMC 3/24/84	DRAWING NUMBER 128D489	
APPD BC 3/24/84	APPD	REV A	SHEET 1 OF 2