#1209

#1 .3123

#2 .3121

#3 .3118

#4 .3141

#5 .3138

#6 .3123

#7 .3115

#8 .3118

7.749

7.764

7.750

7.763

15.0 REF [0.59]

5.423

228.6 REF [9.00]

139.7 REF [5.50]

57.2 [2.25]

A

9.960

5.885

9.922

5.903

254.0 REF [10.00]

5.936

5.957

5.873

5.008

5.898

114.3 REF [4.50]

CH-12-COLDMASS-#XXX
CH-12-SOL-#XXX

A

5

LEAD END

RETURN END

REF: SCRIBE LINE ON WELD FLANGE TYP. @ BOTH ENDS OF SOLENOID.

5.885

151.26 MAX. [5.955]

OUTER EDGES PULLED IN APP. .015-.020

.015 TO .020 CONV.

5.970 ACROSS WELD

VAC. LEAK TIGHT SEE NOTE-2 TYP 2-PLACES

5 FAR SIDE 6 7 8

5.967 ACROSS WELD

REF: LEAD END WELD FLG.

4

A

(REF)-SUPPORT SURFACE

-A-

1

REV	DESCRIPTION	DRAWN / APPROVED	DATE
	E.R. #8523		
A	ECO-8826 ROTATED ITEMS-1 & 2 90°	G. DAVIS / T. PAGE	04-OCT-2007 / 15-OCT-2007
B	ECO-8972 RELOCATED LEAD END REVERSED ITEMS 3&4; ADDED FINISHED BORE ADDED WIRING SCHEME REVISED ALL NOTES	G. DAVIS / I. TERECHKINE	07-NOV-07 / 08-NOV-07
C	REV ITEMS NO. 2 ECO NO. 9230	S.L. MEREDITH / T. PAGE	11-APR-2008 / 15-APR-2008
D	ECO-9305 NEW NOTE-4. OLD NOTES 4-6 - NOW NOTES 5-7 NEW NOTE-8, OLD NOTE-7 IS NOW NOTE-9	G. DAVIS / I. TERECHKINE	26-JUN-08 / 26-JUN-08
E	ECO-9274 REV. NOTE-1, ADDED REFERENCE NOTES	G. DAVIS / I. TERECHKINE	07-OCT-2008 / 09-OCT-2008
F	ECO-9291 REV. NOTE 10, REMOVED (3) F.S. CHANGED M.C. OUTER (RED) TO INNER.	G. DAVIS / [illegible]	21-JAN-2009 / Jan 22, 09

BC INNER LEAD (PRIMARY) BLUE

LEAD END BUCKING COIL

BC OUTER LEAD (RETURN) BLACK

VERT. CORR. DIPOLE LEAD (PRIMARY) BROWN

LEAD END

MC OUTER LEAD (RETURN) BLACK

MAIN COIL

CORR. DIPOLE LEADS (RETURN) BLACK

MC INNER LEAD (PRIMARY) RED

RETURN END

RETURN END BUCKING COIL

BC OUTER LEAD (RETURN) BLACK

HORIZ. CORR. DIPOLE LEAD (PRIMARY) ORANGE

BC INNER LEAD (PRIMARY) YELLOW

WIRING SCHEMATIC

NOTES:

1. A) INSTALL SOLENOID ASSEMBLY INTO LHe VESSEL WITH PROPER LEAD SIDE LOCATION AS SHOWN
   B) ADD BOTH END PLATES (ITEMS 3&4) WITH THE PIN OF THE LOCKING PLATE ENGAGING THE PIN HOLE ON THE LEAD END OF THE SOLENOID ASSEMBLY
   C) ROTATE THE SOLENOID ASSEMBLY SO THAT SCRIBE LINE ON THE LEAD END WELD FLANGE IS PARALLEL TO THE SUPPORT POST MOUNTING BLOCK SURFACE (DATUM-A) WITHIN 1/2° (THIS WILL ESTABLISH THE VERTICAL PLANE OF THE DIPOLE CORRECTOR.) TACK WELD BOTH END PLATE FLANGES IN PLACE
2. ALL WELDS SHALL BE IN ACCORDANCE WITH THE ASME BOILER & PRESSURE VESSEL CODE (EXCEPT AS SHOWN), SECTION VIII, DIVISION 1. THE VESSEL NEED NOT BE CODE STAMPED, BUT SHALL BE CONSTRUCTED PER THE CODE, MAWP 42 PSI 20°C.
3. HI-POT ALL COILS TO 1000V. AND RING TEST
4. He LEAK CHECK WELDED ASSEMBLY PER FERMI SPEC #ES-107240.
5. IN PREPARATION FOR COLD MASS TESTING - CONNECT THE WINDING OF THE SOLENOID ASSEMBLY AS SHOWN IN THE WIRING SCHEME AT LEFT
6. PERFORM CRYTEST OF THE COLD-MASS IN ACCORDANCE WITH THE TEST REQUIREMENTS.
7. AFTER TESTING THE COLD-MASS - FINAL MACHINE THE INNER BORE OF THE LHe TUBE AS SHOWN IN THE CROSS-SECTION VIEW.
8. ETCH I.D. NO'S AT APPROX. LOCATION SHOWN IN 4mm MIN. HIGH CHARACTERS, AND RECORD NO'S ON REQUIRED PAPERWORK.
9. CLEAN & PACKAGE PER FERMI SPEC. #ES-107222

PRIMARY DIMENSIONS ARE IN MM. - MM[IN]

ITEM	PART NO	DESCRIPTION OR SIZE	QTY
5	MA-393436	SET SCR #10-28X3/8" STN. STL	2
4	MD-457117	HE VESSEL LOCK PLATE	1
3	ME-441949	HE VESSEL END PLATE	1
2	ME-457076	HE VESSEL SUB-ASSY (T-2)	1
1	ME-442657	SOLENOID ASSEMBLY (W/CORR. COILS)	1

PARTS LIST

UNLESS OTHERWISE SPECIFIED	ORDINATOR	I. TERECHKINE 01-JUN-2007
X ± XX ANGLES ±	DRAWN	G. DAVIS 27-JUN-2007
± .5 ± .13 ±	CHECKED	J. BRANDT 28-JUN-2007
1. BREAK ALL SHARP EDGES .005	APPROVED	J. BRANDT 28-JUN-2007
2. DO NOT SCALE DRAWING. TOLERANCES BASED UPON ASME Y14.5M-1994	USED ON	MD-457135
4. MAX. ALL MACH. SURFACES 125	MATERIAL	SEE PARTS LIST
5. JOINING ON TS METRIC		

FERMI NATIONAL ACCELERATOR LABORATORY
UNITED STATES DEPARTMENT OF ENERGY

HINS - FRONT END
CH-SECTION FOCUSING SOLENOID
TYPE-2 COLD-MASS ASSEMBLY

SCALE	DRAWING NUMBER	SHEET	REV
1:1	5520.000-ME-442964	1 OF 1	F

CREATED WITH Ideas NX3 Series | GROUP TD/DOCIS-DESIGN-DRAFTING

Created 13 17 25 on 28-01-09 (D-M-Y) By gedavis State 1-INITIAL