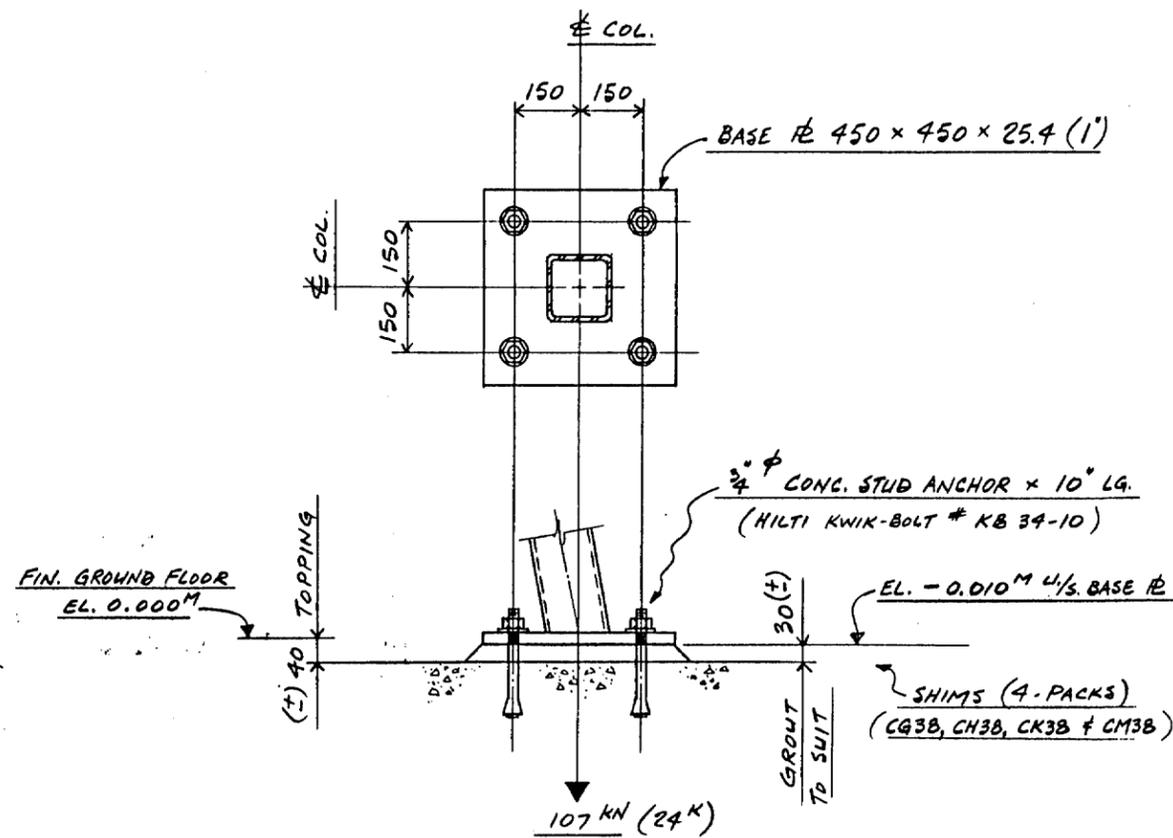


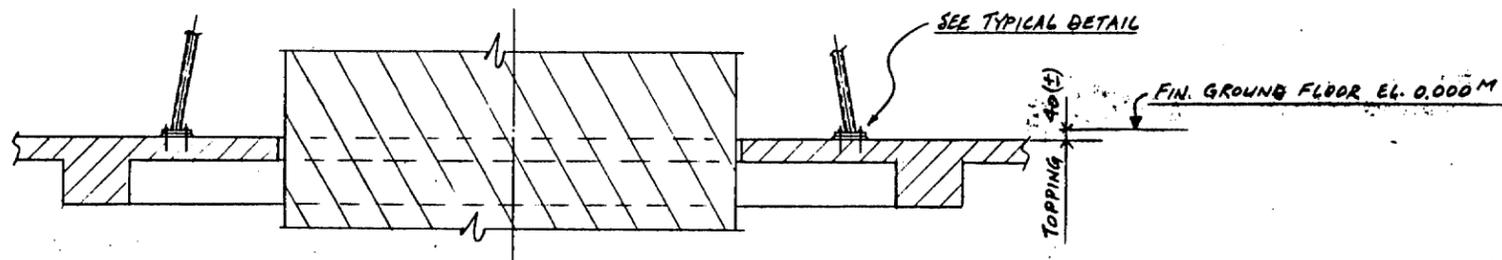
ERECTION TOWER ANCHOR SETTING PLAN



TYPICAL ANCHOR BOLT DETAIL

GENERAL NOTES:

- 1.) FOR ELEVATIONS & SECTIONS SEE DWG. E66 & E6C.
- 2.) FOR ERECTION TOWER DETAILS SEE DWG. SERIES #3B.



SECTION 'A-A'

3R/3001070

<b>BRITAIN</b>	MATERIAL				NO. BY DATE	REVISION
	SURF. PREP. & PAINT				DETAILS ERECTION TOWER ANCHOR SETTING DIAGRAM	
	OPEN HOLES				FOR 4.2 M TELESCOPE DOME LA PALMA	
DRAWN G.V.A.	DATE 26/1/83	CHECKED	DATE	DRAWING No. 1420-E6a	REV. 00	
<b>BRITAIN STEEL LTD.</b> 401 BALTON AVENUE, NEW WESTMINSTER, B.C.						
SHOP DEPARTMENT						

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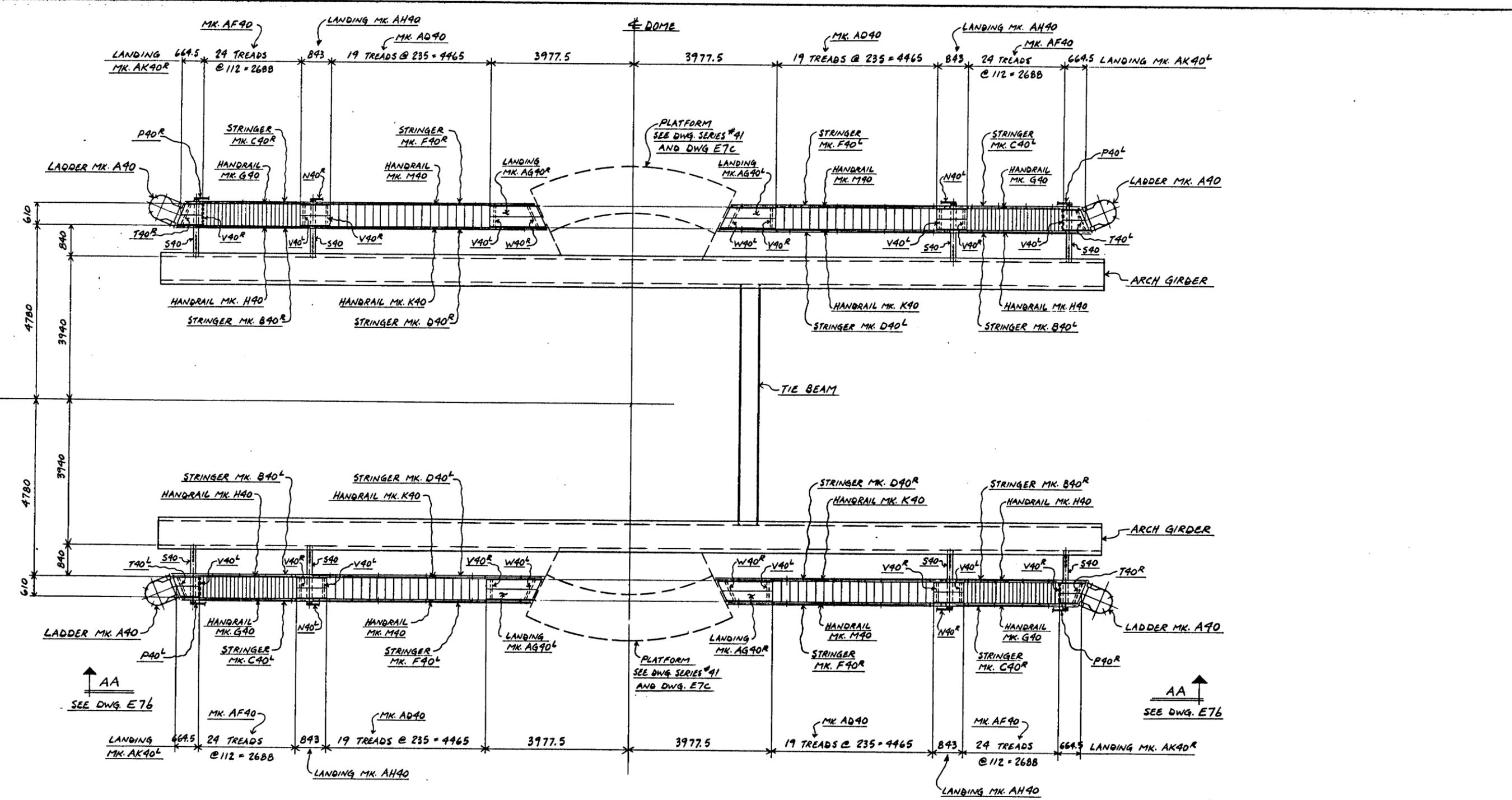
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100







☒ DOME



VIEW LOOKING DOWN ON DOME  
 (SHOWING FINAL LOCATIONS OF EXT. STAIR STRINGERS, LADDERS, ETC.)

GENERAL NOTES:  
 1.) FOR DETAILS OF ITEMS ON THIS DWG. SEE DWGS. 90a, 90b, 90c, 90d, 90f, 90g, 90h & 90k.

3R/3001073

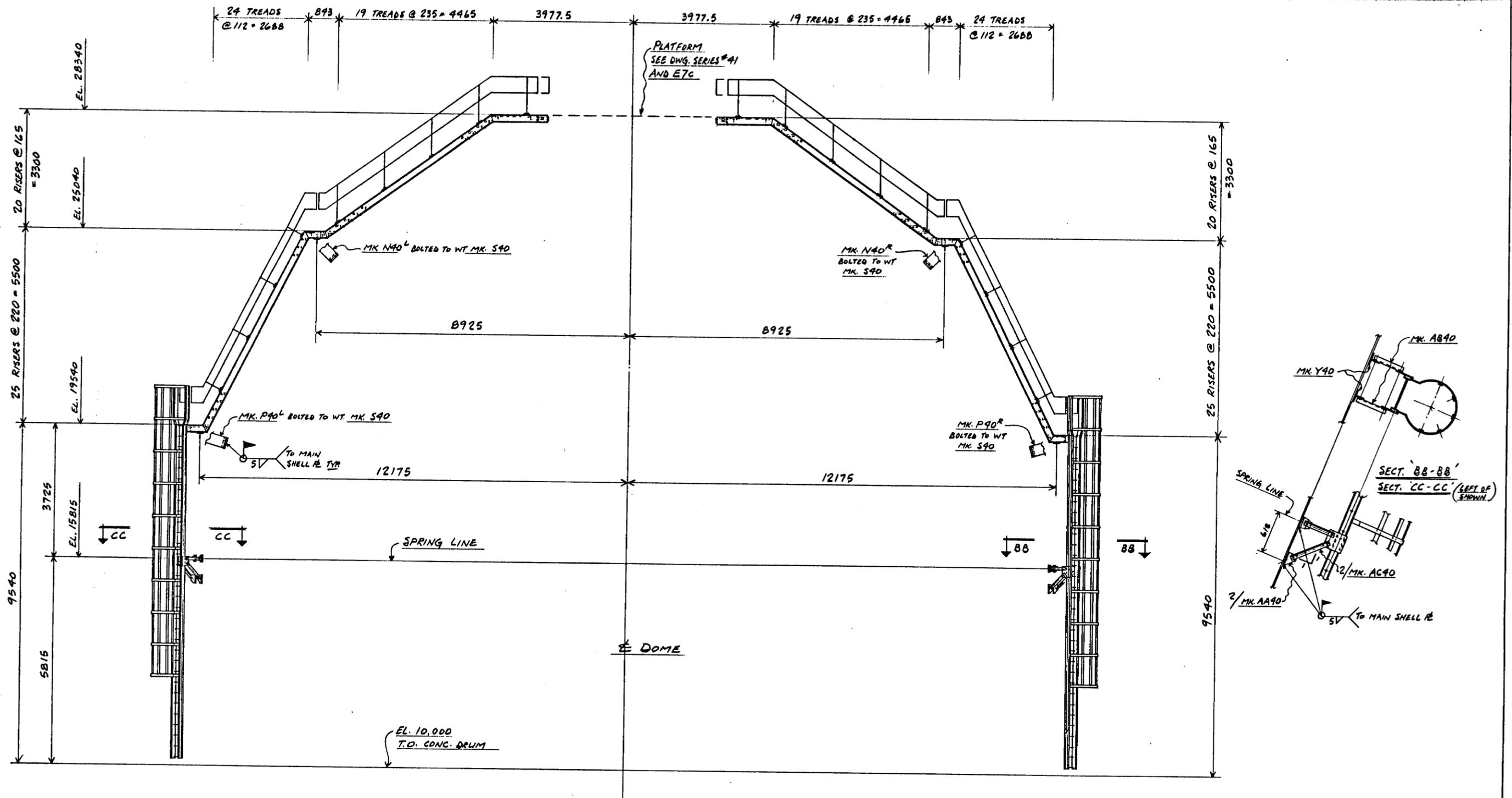
	MATERIAL	REVISION		
	SURF. PREP.	DETAILS EXTERIOR STAIRS		
	PAIN	FINAL LOCATIONS		
	OPEN HOLES	FOR 4.2M TELESCOPE DOME LA PALMA		
DRAWN	DATE	CHECKED	DATE	DRAWING No.
G.V.A.	MAR/84			1420-E7a
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, S.C.				No. 10/11
SHOP DEPARTMENT				

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U.S.F. S.O.M. I.P. S.H. D. AG. PA. FR.



VIEW 'AA-AA'  
(FROM DWG. E7a)

GENERAL NOTES:  
1) FOR DETAILS OF ITEMS ON THIS DWG. SEE DWGS. 40a, 40b, 40c, 40d, 40f, 40g, 40h & 40k.

3R/3001074

	MATERIAL		No. BY DATE		REVISION
	SURF. PREP. & PAINT		DETAILS EXTERIOR STAIRS		FINAL LOCATIONS
	OPEN HOLES		FOR 42M TELESCOPE DOME		LA PALMA
	DRAWN	DATE	CHECKED	DATE	DRAWING No. 1420-E76
G.V.A. MAR/09					
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, S.C.					
SHOP DEPARTMENT		MATERIALS / P / SH / DP / AS / PA / ER			No. PRINTS

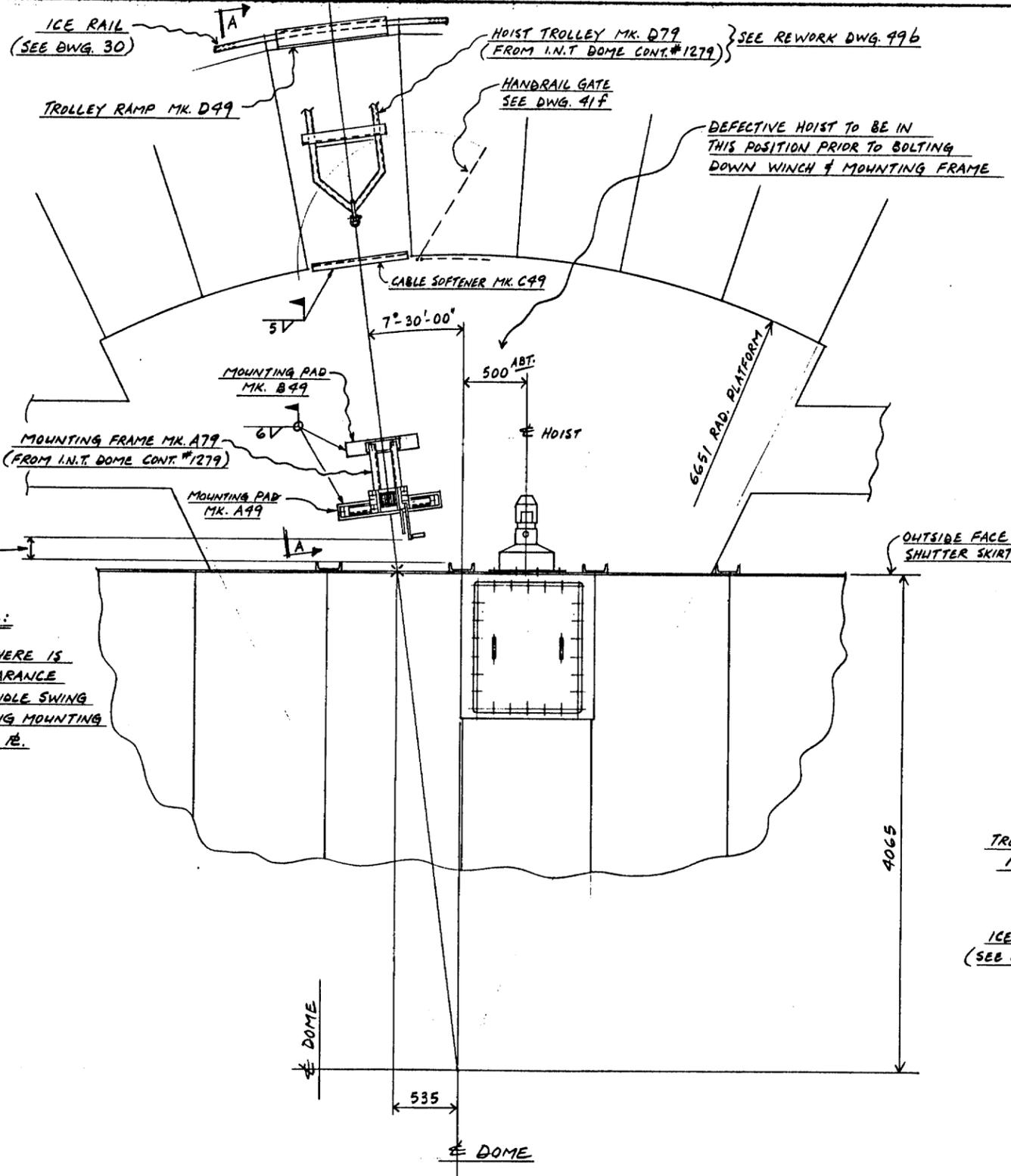
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AMF





**FIELD NOTES:**

- 1) BEEBE WINCH C/W WIRE ROPE & SHACKLE & TROLLEY MK. D79 ARE TO BE KEPT INSIDE WHEN NOT IN USE. 1/2" S.S. BOLTS CAN BE LEFT IN MOUNTING FRAME MK. A79.
- 2) MOUNTING FRAMES MK. A79 MUST BE UNBOLTED AND SET ASIDE ON PLATFORM WHEN NOT IN USE SO AS NOT TO INTERFERE WITH SHUTTER OPERATION. THESE FRAMES ARE EXPECTED TO BE LEFT OUTSIDE ON PLATFORM.
- 3) 3/4" S.S. BOLTS ARE TO BE INSTALLED IN THREADED HOLES IN MOUNTING PADS MK. A99 & B99 WHEN THERE NOT HOLDING DOWN FRAME MK. A79 THIS IS TO PREVENT HOLES FROM FILLING WITH ICE OR SNOW.

109'-0" OF 5/8" WIRE ROPE C/W SPLICED EYE AND THIMBLE AT ONE END.

KONE HOIST TYPE 2185B MODIFIED FOR SHUTTER DRIVE AS PER DWG. SERIES #B

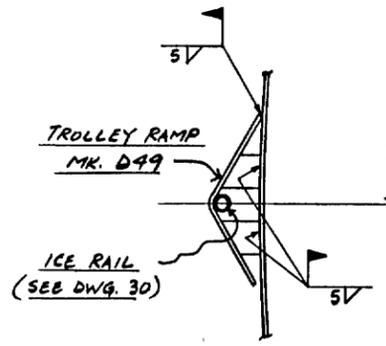
BEEBE (ONE TON) HANDI WINCH MODEL B-6B C/W HAND BRAKE BOLT TO ADAPTER BRACKET MK. G99 WITH 7/8" S.S. BOLTS X 1 1/2" LG. C/W S.S. NUT & WASHER

ADAPTER BRACKET MK. G99 BOLT TO FRAME MK. A79 WITH 7/8" S.S. BOLTS X 1 1/2" LG. C/W S.S. NUT & WASHER

T.O. PLAT. EL. 28340 SEE DWG. SERIES #41

FRAME MK. A79 (FROM I.N.T. DOME CONT. #1279) - BOLT TO PADS WITH 3/4" S.S. BOLTS X 1 1/2" LG. C/W S.S. WASHER

HOIST TROLLEY MK. D79 C/W SHACKLE (FROM I.N.T. DOME CONT. #1279) MODIFIED TO SUIT KONE HOIST 2185B SEE REWORK DWG. 996



DOME SPRING LINE EL. 15815

**SECTION 'A-A'**

**FIELD NOTE:**  
MAKE SURE THERE IS ADEQUATE CLEARANCE FOR WINCH HANDLE SWING & RE WELDING MOUNTING PADS TO CHK'D. 12.

PART PLAN LOOKING DOWN SHOWING LOCATION OF HOIST REMOVAL WINCH FOR SHUTTER DRIVES SIMILAR BOTH SIDES OF DOME

**GENERAL NOTES:**

- 1) FOR ITEMS ON THIS DWG. SEE DWG. 99a. & 99b
- 2) FOR REWORK TO HOIST TROLLEY MK. D79 SEE DWG. 996

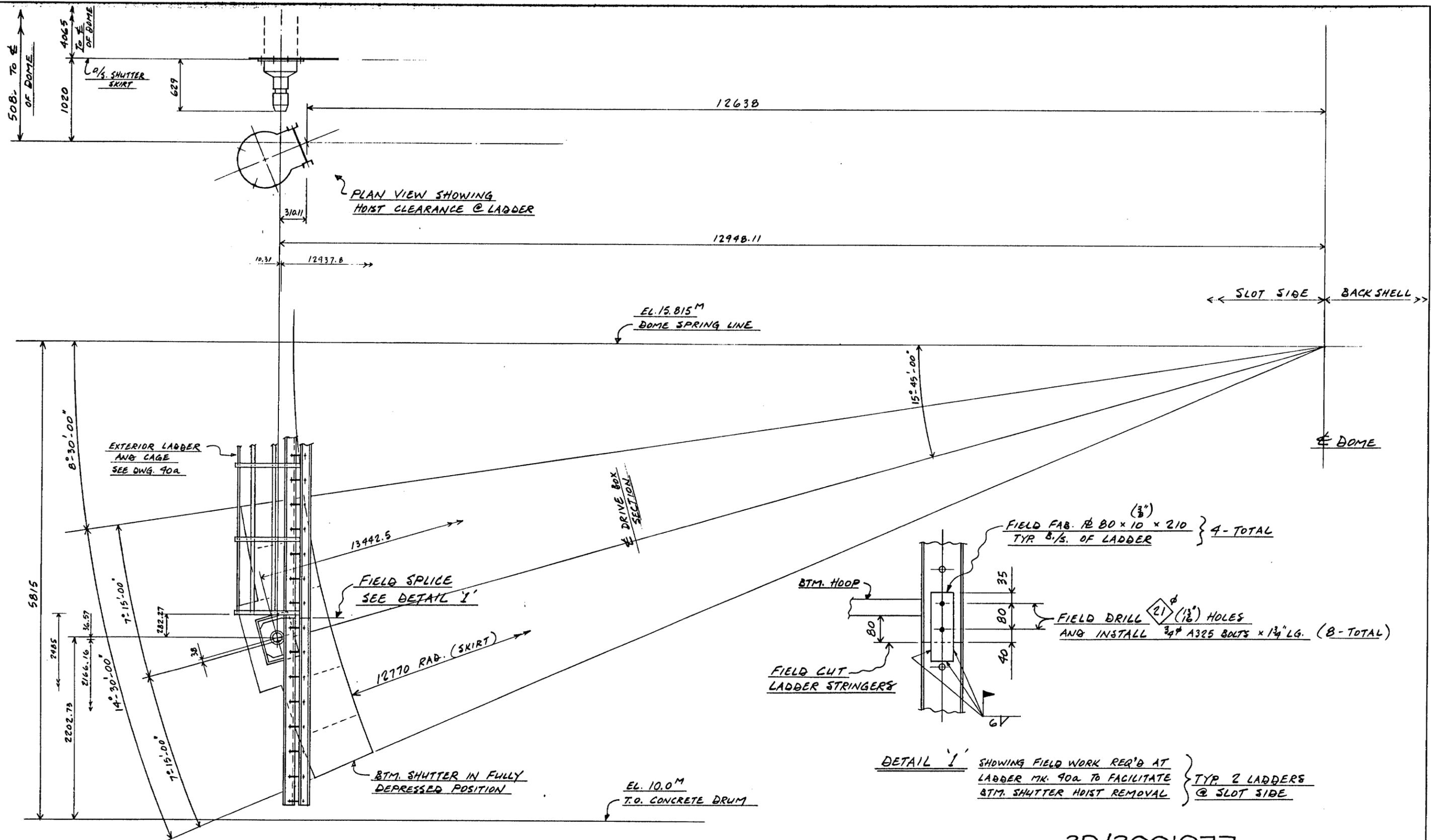
3R/3001076

	MATERIAL			No.	BY	DATE	REVISION
	SURF. PREP & PAINT			DETAILS SHUTTER HOIST REMOVAL			
	OPEN HOLES			FOR 4.2 M TELESCOPE DOME LA PALMA			
	DRAWN	DATE	CHECKED	DATE	DRAWING No.	REV.	
	G.V.A.	MAY/89			1420-EBa		MT
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.							
SHOP DEPARTMENT				INS / F / B / O / M / T / P / SH / DP / AS / PA / ER			
				No. PRINTS			

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ELEVATION SHOWING HOIST REMOVAL CLEARANCE @ LADDER AND FIELD SPLICE DETAIL

3R/3001077

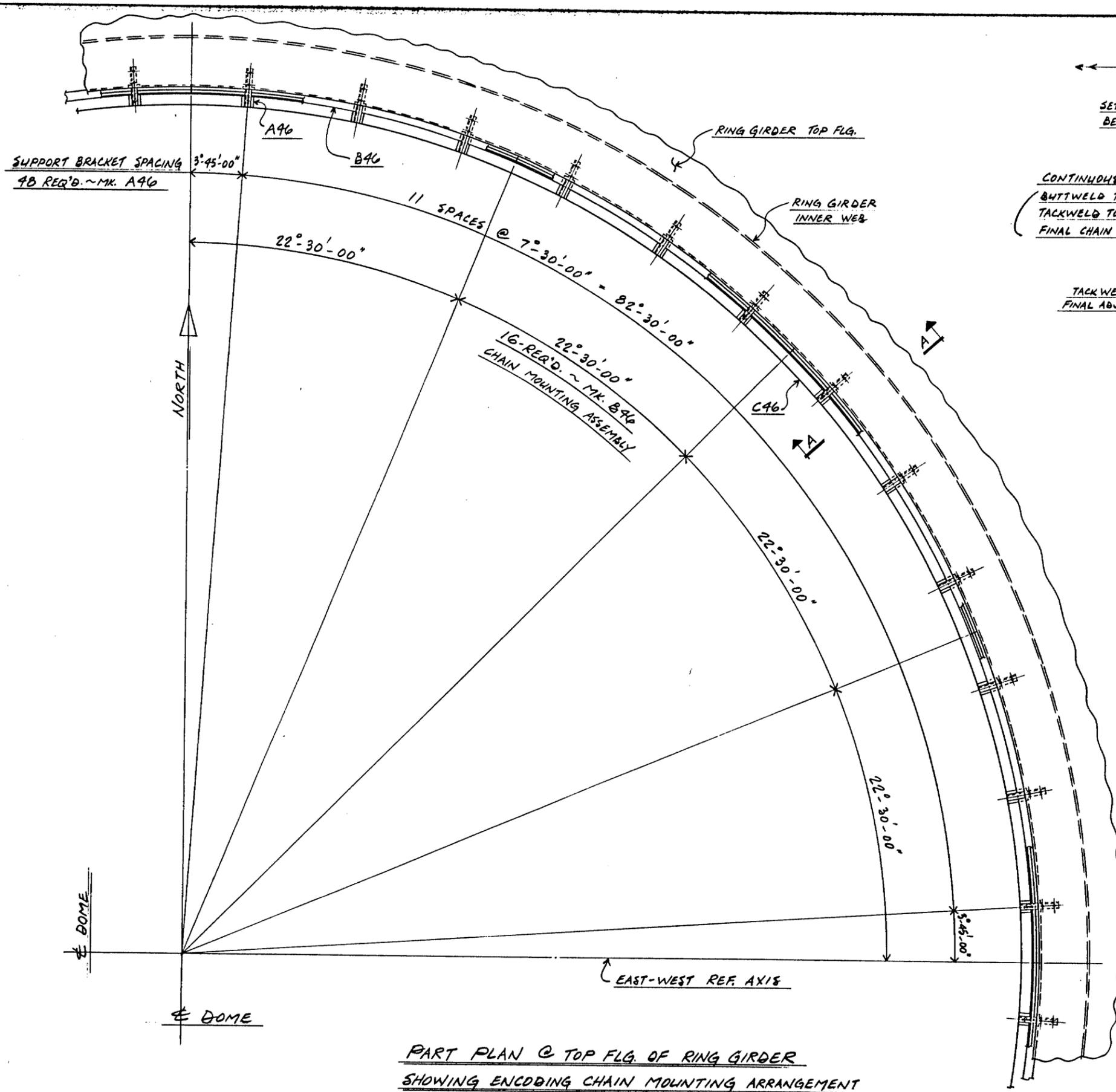
<b>BRITAIN</b>	MATERIAL	DETAILS FIELD WORK EXT. LADDER TO FACILITATE HOIST REMOVAL	
	SURF. PREP. & PAINT	FOR 4.2M TELESCOPE DOME LA PALMA	
	OPEN HOLES	DRAWING No. 1420-EB6	
	DRAWN: G.V.A. DATE: MAY/84 CHECKED: [ ] DATE: [ ]	BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C. SHOP DEPARTMENT	

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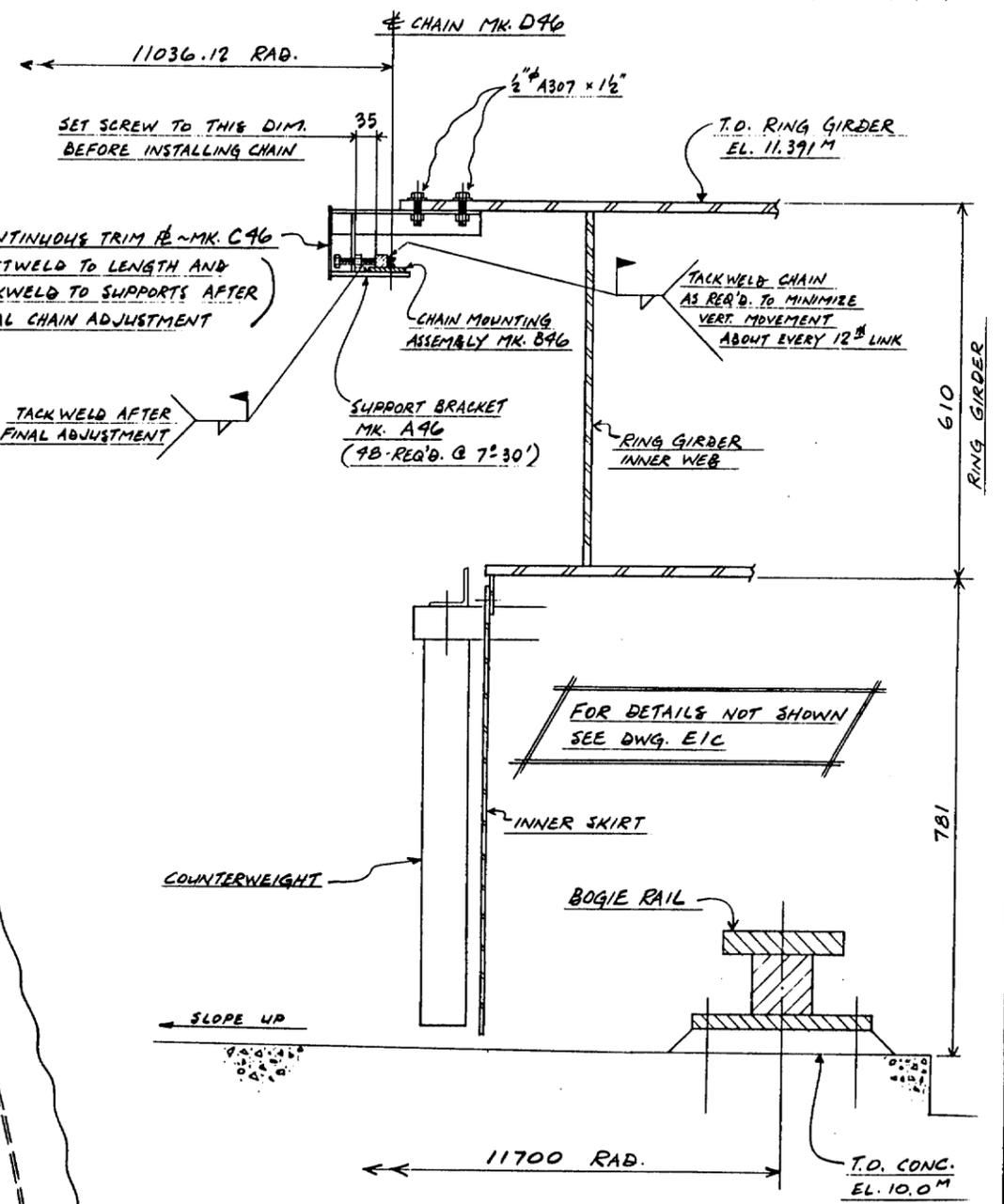
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INS P/B/O/M/T/P/SH/DP/AS/PA/ER



PART PLAN @ TOP FLG. OF RING GIRDER  
SHOWING ENCODING CHAIN MOUNTING ARRANGEMENT



SECTION 'A-A'

- GENERAL NOTES:
- 1) FOR DETAILS OF ITEMS ON THIS DWG. SEE DWG. SERIES #46.
  - 2) WORK THIS DWG. WITH DWG. E96.

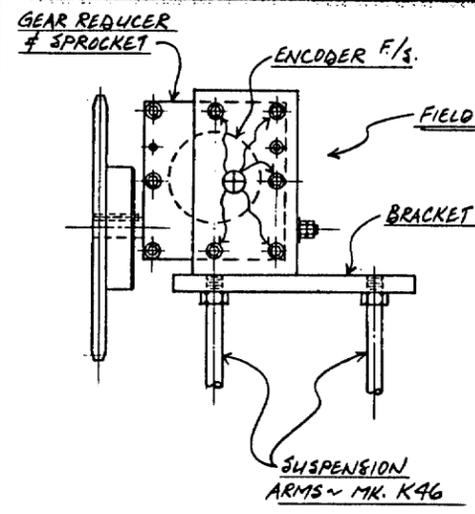
3R/3001078

	MATERIAL		No. BY DATE		REVISION
	SURF. PREP. & PAINT		DETAILS DOME ENCODING CHAIN MOUNTING ARRANGEMENT		
	OPEN HOLES		FOR 4.2 M TELESCOPE DOME LA BALMA		
DRAWN G.V.A.	DATE MAY/84	CHECKED	DATE	DRAWING No. 1420-E9a	REVISION 
BRITAIN STEEL LTD. 401 BALZER AVENUE, NEW WESTMINSTER, B.C.					
SHOP DEPARTMENT			INS / F / S / O / M / T / P / SH / DP / AB / PA / ER		No. PRINTS

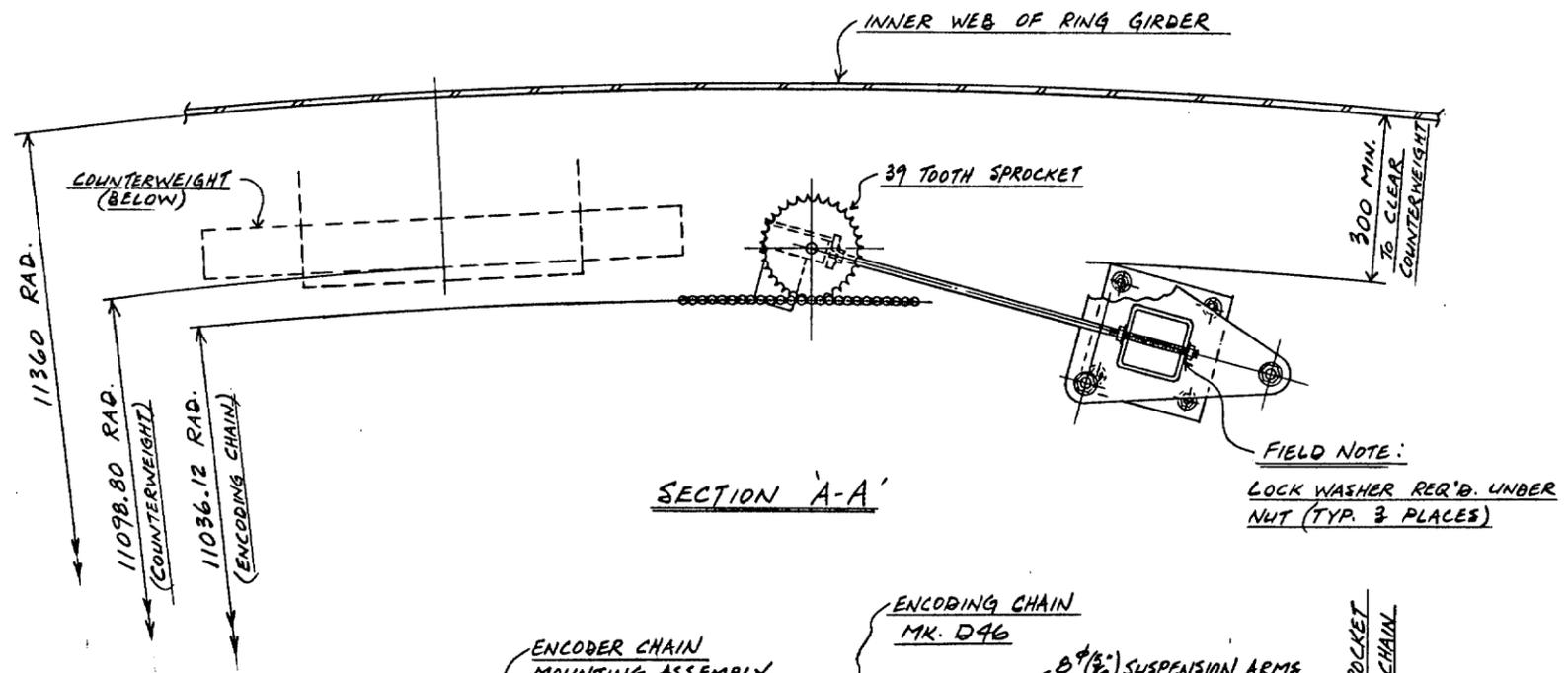
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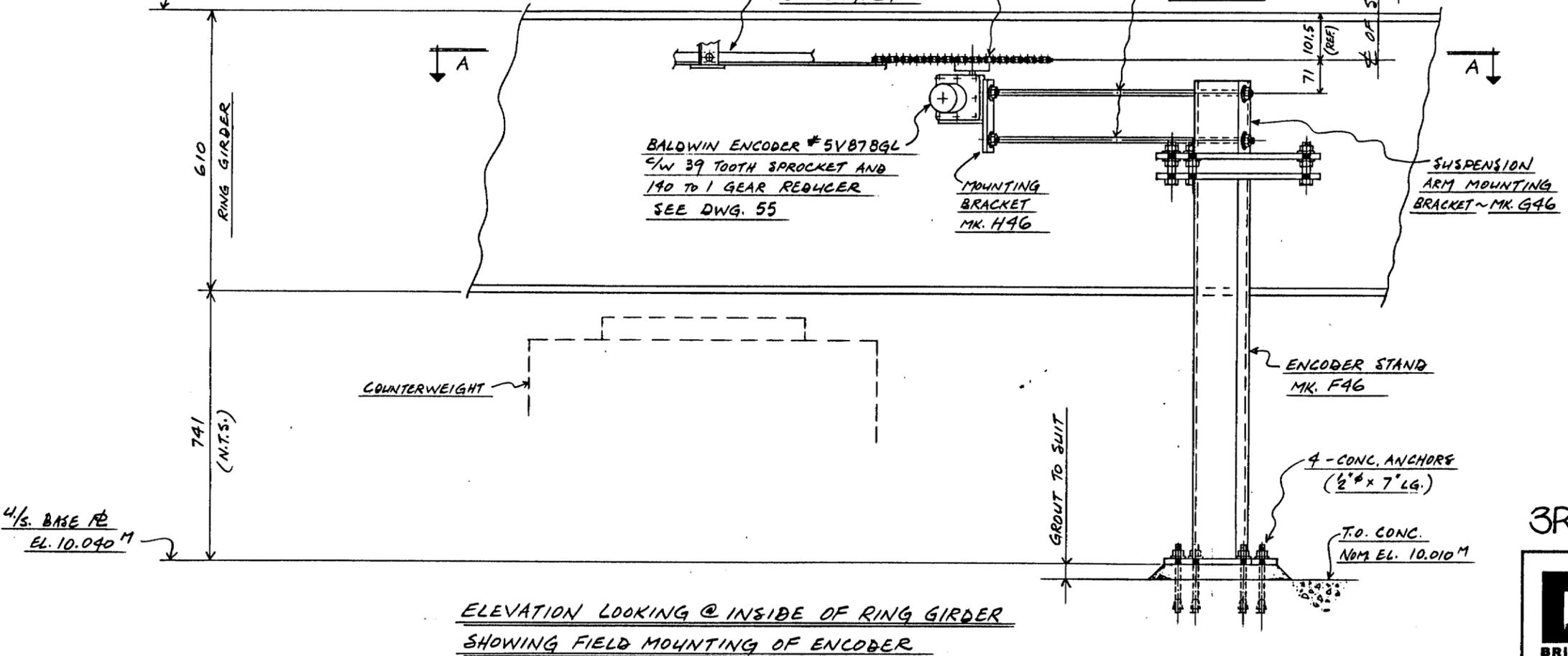
FIELD NOTE: 5 EXISTING CAP SCREWS MARKED THUS ⊕ TO BE REMOVED FROM REDUCER. REDUCER TO BE ATTACHED TO BRACKET WITH 5 NEW CAP SCREWS (#10-32 x 3/4" LG.) IN EXISTING HOLES. USE LOCK WASHERS PROVIDED



FIELD NOTE: LOCK WASHER REQ'D. UNDER NUT (TYP. 3 PLACES)

DETAIL SHOWING CONNECTION OF GEAR REDUCER TO MOUNTING BRACKET

T.O. RING GIRDER EL. 11.391 M



ELEVATION LOOKING @ INSIDE OF RING GIRDER SHOWING FIELD MOUNTING OF ENCODER

GENERAL NOTES:

- 1) FOR DETAILS OF ITEMS ON THIS DWG. SEE DWG. SERIES # 90.
- 2) VERTICAL ADJUSTMENT OF ASSEMBLY IS OBTAINED BY VERT. BOLTS @ ENCODER STAND SPLICE.
- 3) LATERAL ADJUSTMENT OF ASSEMBLY IS OBTAINED BY SLOTS IN TOP PL @ ENCODER STAND SPLICE.
- 4) ASSEMBLY IS TO BE ADJUSTED VERTICALLY SO THAT E OF SPROCKET & E OF CHAIN ARE ALIGNED.
- 5) ASSEMBLY IS TO BE ADJUSTED LATERALLY TO PROVIDE APPROX. 15 LBS. FORCE OF SPROCKET AGAINST CHAIN.
- 6) CUSTOMER TO DETERMINE LOCATION OF ENCODER ASSEMBLY
- 7) WORK THIS DWG. WITH DWG. E9a

3R/3001079

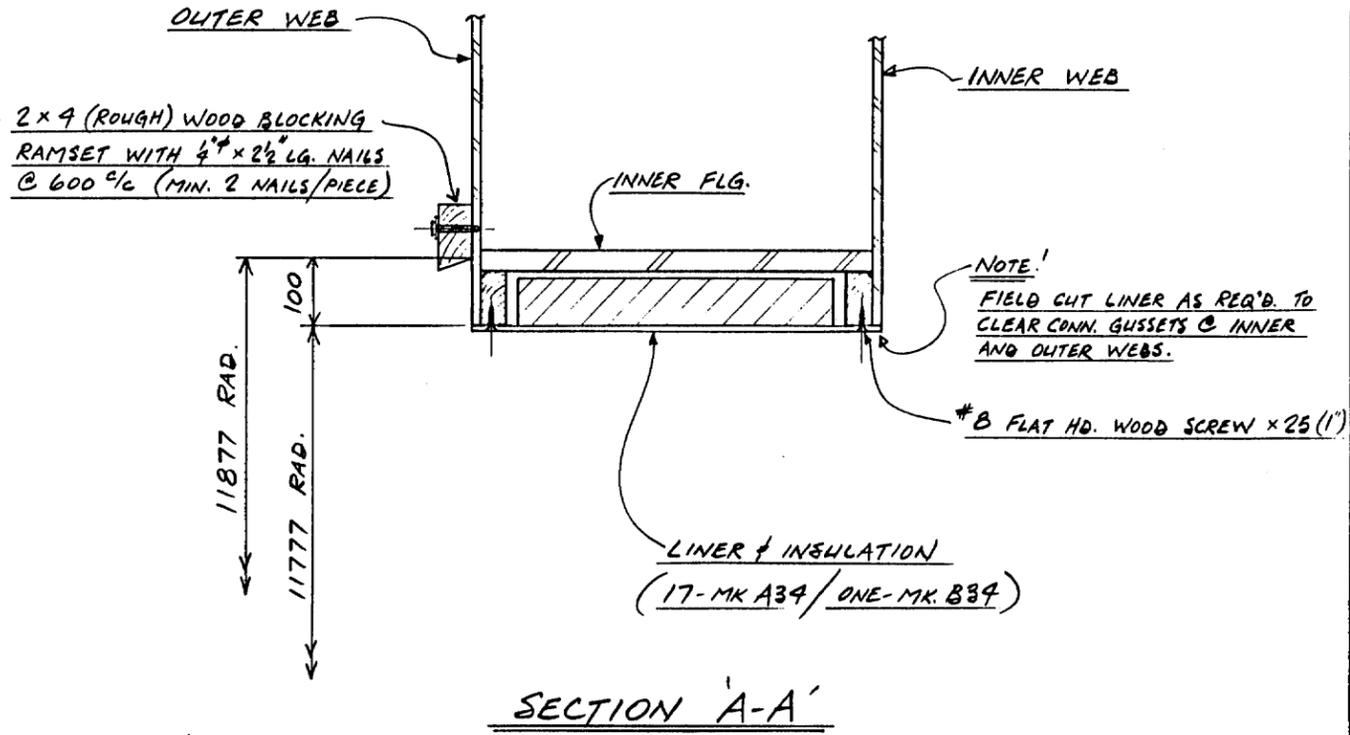
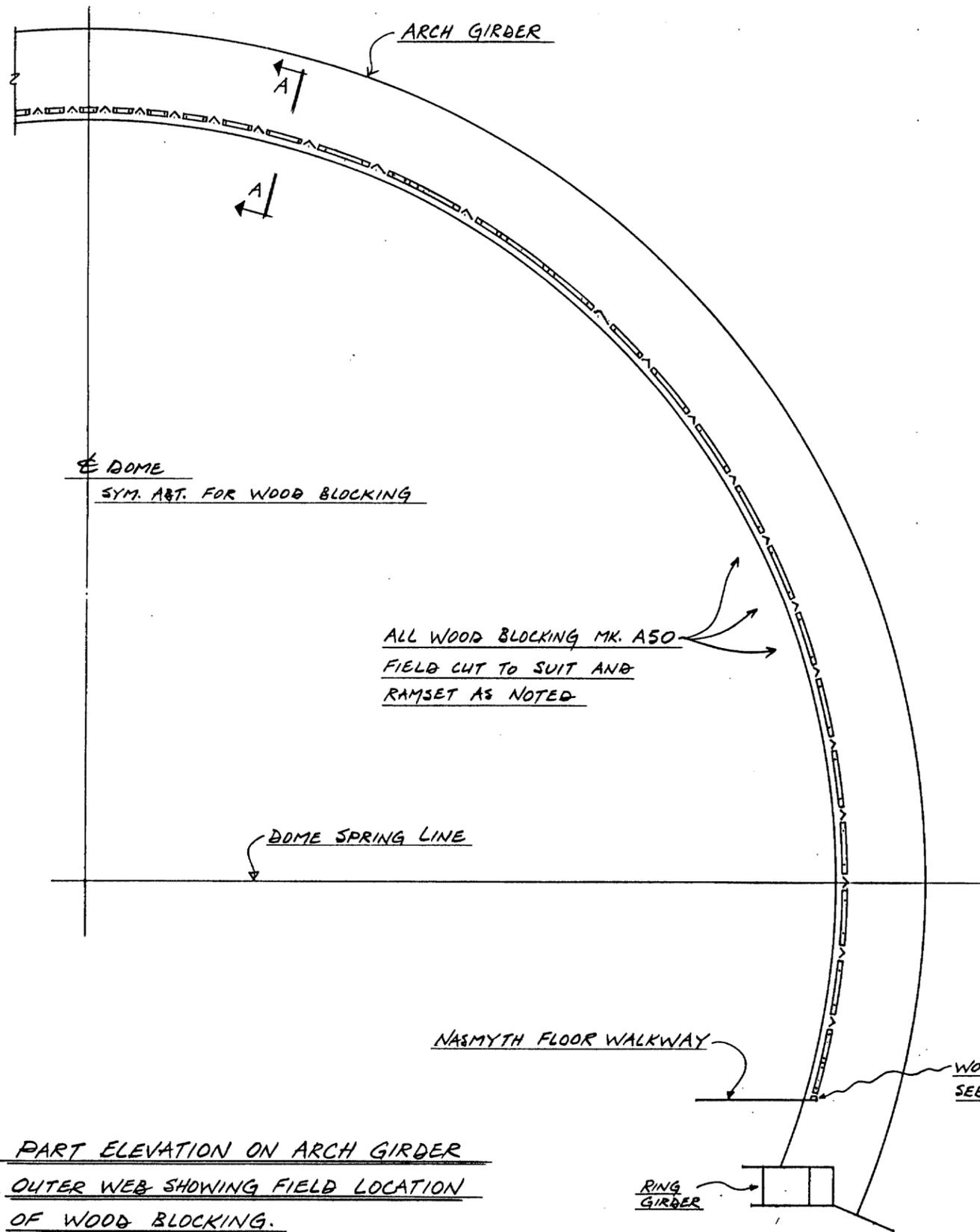
<b>BRITAIN</b>	MATERIAL	[REDACTED]		NO. BY DATE	REVISION
	SURF. PREP. & PAINT	[REDACTED]		DETAILS DOME ENCODER MOUNTING ASSEMBLY	
OPEN HOLES		[REDACTED]		FOR 4.2 M TELESCOPE DOME LA PALMA	
DRAWN	DATE	CHECKED	DATE	DRAWING No. 1420-E96	
G.V.A.	MAY/89				
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.					
SHOP DEPARTMENT		INS / F / S / O / M / T / P / SH / DP / AS / PA / ER		NO. PRINTS	

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Mt.



ALL WOOD BLOCKING MK. A50  
FIELD CUT TO SUIT AND  
RAMSET AS NOTED

SECTION 'A-A'

GENERAL NOTES:

- 1.) FOR DETAILS OF WOOD BLOCKING SEE DWG. 50
- 2.) FOR DETAILS OF LINER & INSULATION @ INNER FLG. SEE DWG. 34

PART ELEVATION ON ARCH GIRDER  
OUTER WEB SHOWING FIELD LOCATION  
OF WOOD BLOCKING.

3R/3001080

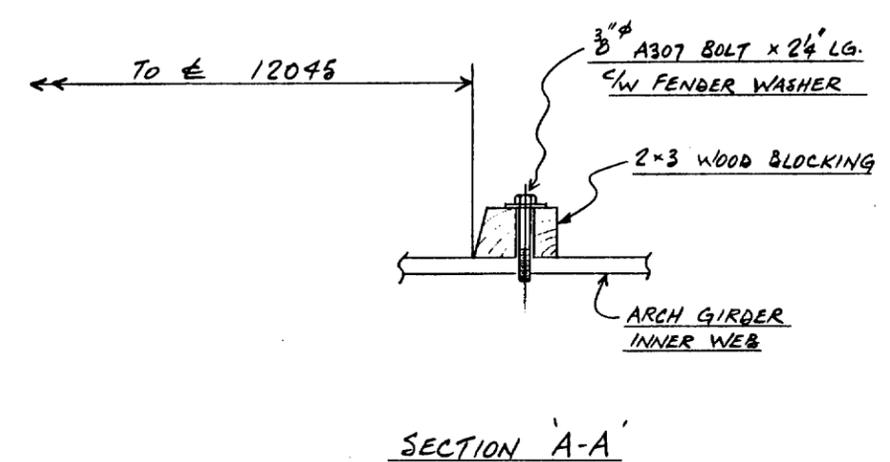
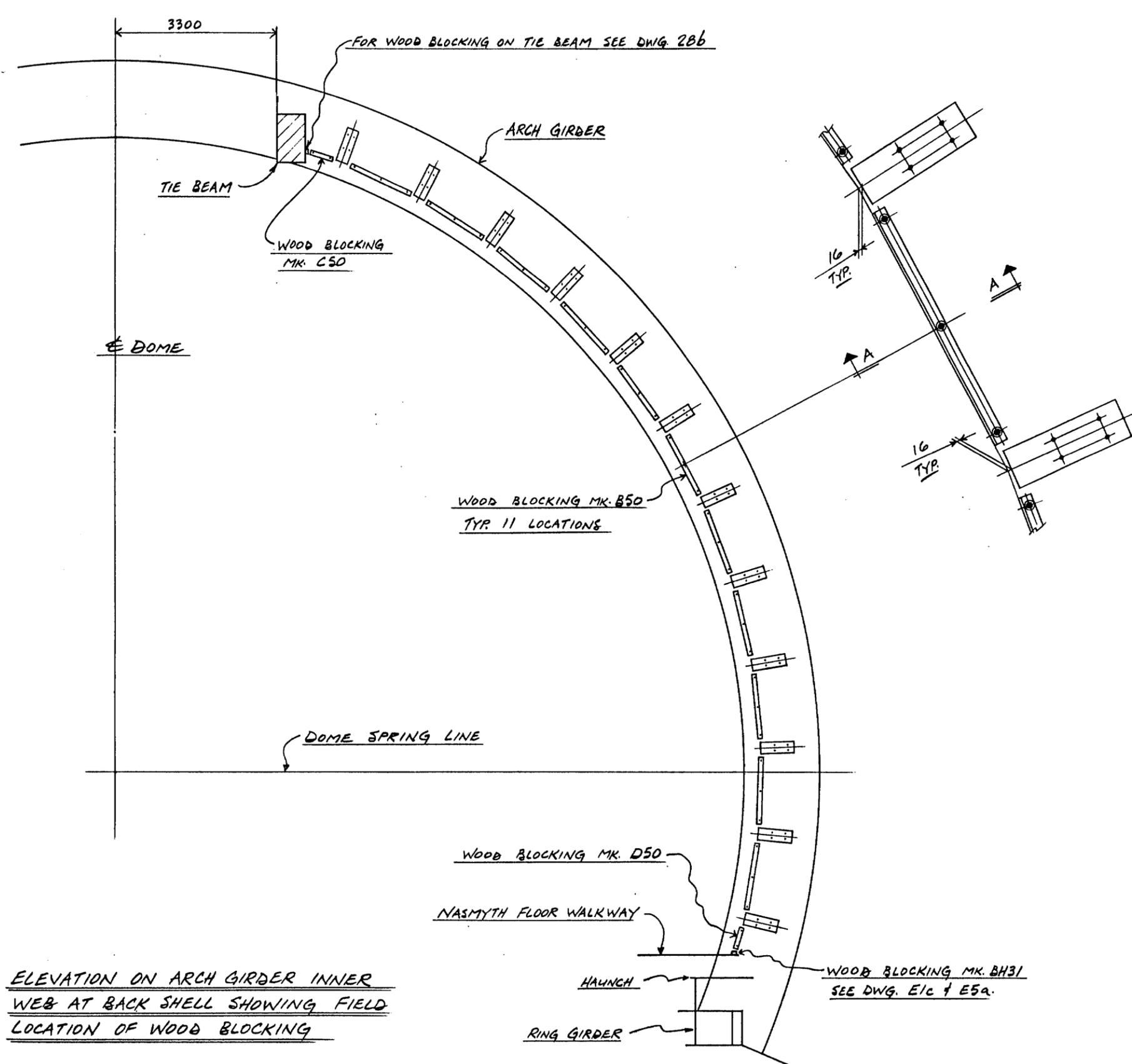
	MATERIAL	[REDACTED]		No.	BY	DATE	REVISION
	SURF. PREP. & PAINT	[REDACTED]		DETAILS WOOD BLOCKING AT A/A FOR MAIN SHELL LINER.			
	OPEN HOLES	[REDACTED]		FOR 4.2 M TELESCOPE DOME LA PALMA			
	DRAWN	DATE	CHECKED	DATE	DRAWING No. 1420-E10a		
G.V.A.		MAY/84					
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.							
SHOP DEPARTMENT				INS / F / S / O / M / T / P / SH / DP / AS / PA / ER			

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M/F



ELEVATION ON ARCH GIRDER INNER WEB AT BACK SHELL SHOWING FIELD LOCATION OF WOOD BLOCKING

GENERAL NOTES:  
1) FOR DETAILS OF WOOD BLOCKING SEE DWG. 50

3R/3001081

	MATERIAL		NO. BY DATE		REVISION
	SURF. PREP. & PAINT		DETAILS WOOD BLOCKING @ A/G FOR BACK SHELL LINER		
	OPEN HOLES		FOR 4.2M TELESCOPE DOME LA PALMA		
DRAWN	DATE	CHECKED	DATE	DRAWING No.	REV.
G.V.A.	MAY/84			1420-E106	MVF
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, S.C.					
SHOP DEPARTMENT		INS / F / S / Q / W / T / P / SH / DP / AS / PA / ER			No. PRINTS

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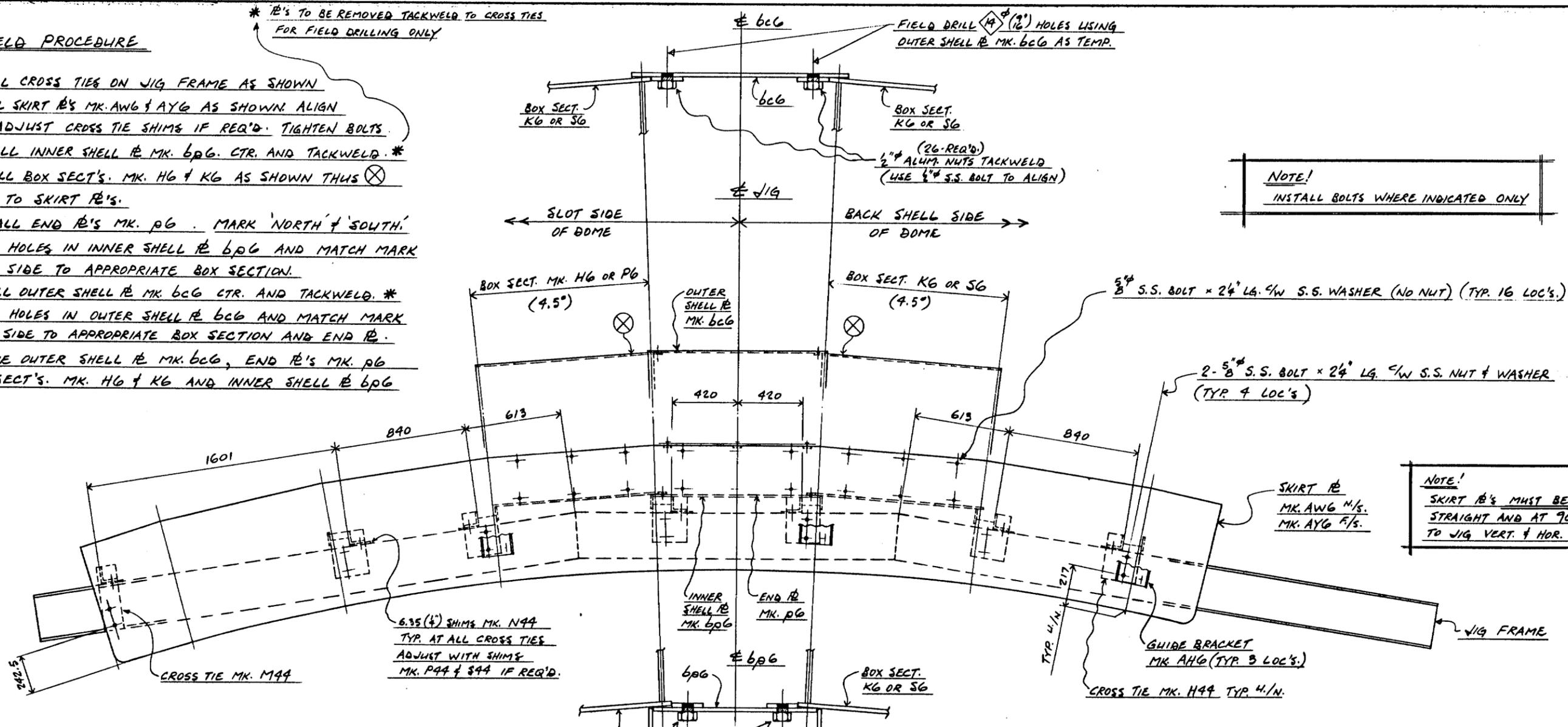
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**FIELD PROCEDURE**

- 1) INSTALL CROSS TIES ON JIG FRAME AS SHOWN
- 2) INSTALL SKIRT R'S MK. AW6 & AY6 AS SHOWN. ALIGN AND ADJUST CROSS TIE SHIMS IF REQ'D. TIGHTEN BOLTS.
- 3) INSTALL INNER SHELL R MK. 6PG. CTR. AND TACKWELD.\*
- 4) INSTALL BOX SECT'S. MK. H6 & K6 AS SHOWN THUS ⊗ BOLT TO SKIRT R'S.
- 5) INSTALL END R'S MK. PG. MARK 'NORTH' & 'SOUTH'.
- 6) DRILL HOLES IN INNER SHELL R 6PG AND MATCH MARK EACH SIDE TO APPROPRIATE BOX SECTION.
- 7) INSTALL OUTER SHELL R MK. 6CG CTR. AND TACKWELD.\*
- 8) DRILL HOLES IN OUTER SHELL R 6CG AND MATCH MARK EACH SIDE TO APPROPRIATE BOX SECTION AND END R.
- 9) REMOVE OUTER SHELL R MK. 6CG, END R'S MK. PG BOX SECT'S. MK. H6 & K6 AND INNER SHELL R 6PG

\* R'S TO BE REMOVED TACKWELD TO CROSS TIES FOR FIELD DRILLING ONLY



**NOTE!**  
INSTALL BOLTS WHERE INDICATED ONLY

**NOTE!**  
SKIRT R'S MUST BE STRAIGHT AND AT 90° TO JIG VERT. & HOR. C'S.

- 10) TACKWELD NUTS AS SHOWN TO BOX SECTIONS AND INNER SHELL R
- 11) MARK INNER AND OUTER SHELL R'S AND END R "FOR FIELD SPLICE #2" AND SET ASIDE FOR FIELD SPLICE AT TOP OF DOME SEE DWG. E11F.
- 12) REPEAT PROCEDURES 3 TO 10 ABOVE USING BOX SECTIONS MK. PG & SG.
- 13) MARK INNER AND OUTER SHELL R'S AND END R "FOR FIELD SPLICE #1" AND SET ASIDE FOR FIELD SPLICE AT TOP OF DOME SEE DWG. E11F.
- 14) LEAVE CROSS TIES, SKIRT R'S & GUIDE BRACKETS ON JIG AS SHOWN FOR ASSEMBLY OF TOP SHUTTER SECTION MK. S1. (SEE DWG. E116)

ELEVATION (LOOKING NORTH) SHOWING FIELD MATCH DRILLING & MARKING FOR INNER & OUTER SHELL R'S AT TOP SHUTTER SPLICES. (F/S. ELEV. LEFT OF SHOWN)

- GENERAL NOTES:**
- 1) FOR DETAILS OF SHUTTER JIG SEE DWG. SERIES #44.
  - 2) FOR DETAILS OF SHUTTER SEE DWG. SERIES #6.
  - 3) FOR FIELD ASSEMBLY OF SHUTTER SECTIONS SEE DWGS. E116, E11C, E11D & E11F.

3R/3001082

<b>BRITAIN</b>	MATERIAL	REVISION
	SURF. PREP. & PAINT	DETAILS MATCH DRILLING & MARKING FOR TOP SHUTTER SPLICE
	OPEN HOLES	FOR 4.2" TELESCOPE DOME LA PALMA
DRAWN G.V.A.	DATE JUNE 84	CHECKED DATE
DRAWING No. 1920-E11a		REV. 1
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		
SHOP DEPARTMENT	INS. F/S/O/M/T/P/SH/DP/AS/PA/ER	NO. PRINTS

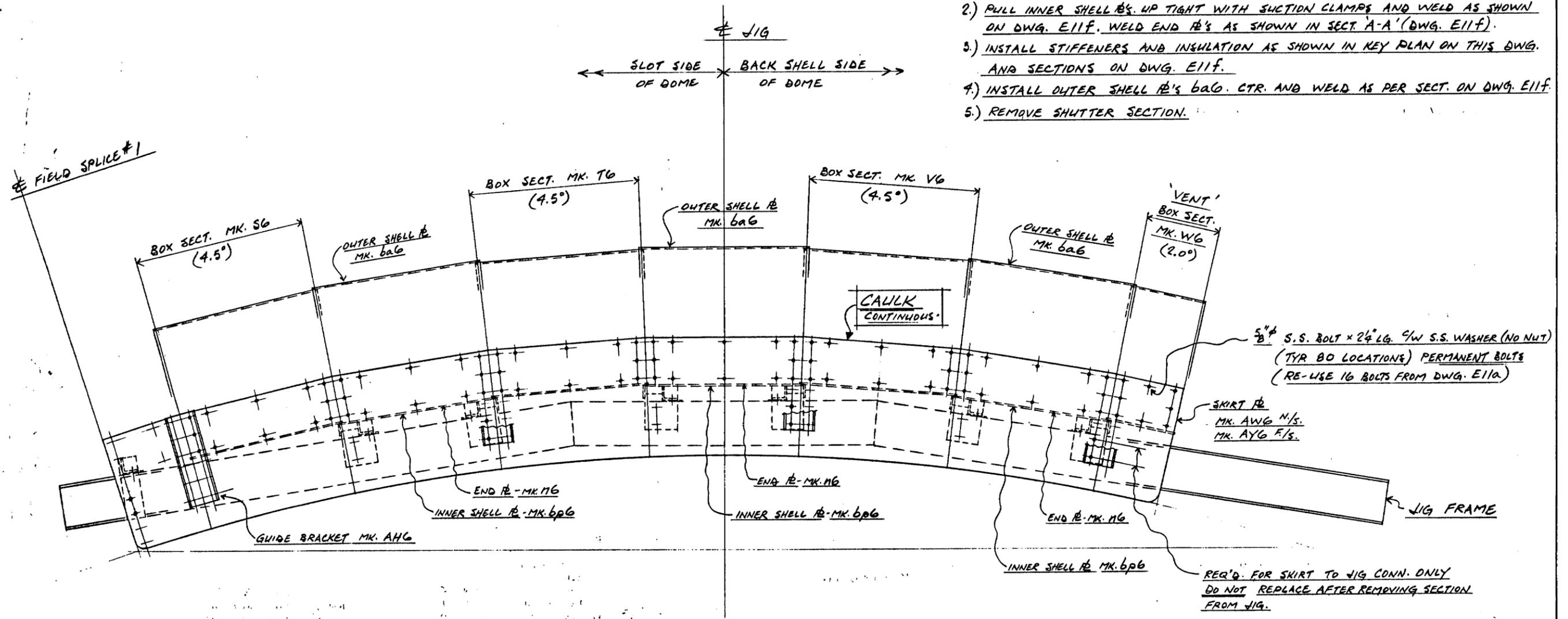
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FIELD PROCEDURE

- 1) WITH CROSS TIES, SKIRT R'S & GUIDE BRACKETS ASSEMBLED ON JIG AS PER DWG. E11a. INSTALL INNER SHELL R'S R66, SHOP ASSEMBLED BOX SECTIONS S6, T6, V6 & W6 AND END R'S N6 & GUIDE BRACKET AH6.
- 2) PULL INNER SHELL R'S UP TIGHT WITH SUCTION CLAMPS AND WELD AS SHOWN ON DWG. E11f. WELD END R'S AS SHOWN IN SECT. A-A' (DWG. E11f).
- 3) INSTALL STIFFENERS AND INSULATION AS SHOWN IN KEY PLAN ON THIS DWG. AND SECTIONS ON DWG. E11f.
- 4) INSTALL OUTER SHELL R'S 6a6. CTR. AND WELD AS PER SECT. ON DWG. E11f.
- 5) REMOVE SHUTTER SECTION.



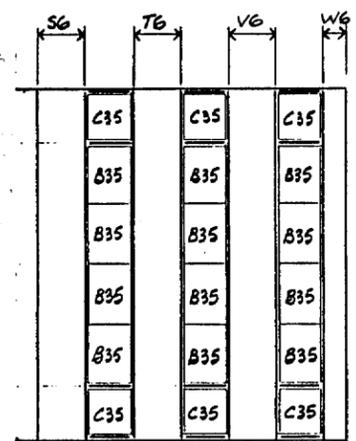
— ELEVATION (LOOKING NORTH) SHOWING FIELD ASSEMBLY OF TOP SHUTTER SECTION WITH VENT BOX — THIS SECTION REF. MK. 'S1' — (F/S. ELEV. LEFT OF SHOWN)

GENERAL NOTES:

- 1) FOR DETAILS OF SHUTTER JIG SEE DWG. SERIES #44
- 2) FOR DETAILS OF SHUTTER SEE DWG. SERIES #6
- 3) ALL ALUMINUM TO ALUMINUM SURFACES TO BE COATED WITH TREMPROOF B50
- 4) ALL PERMANENT S.S. BOLTS TO BE COATED WITH TREMCO BUTYL SEALANT

NOTE:

- CROSS TIES, SKIRT R'S AND GUIDE BRACKETS AS ASSEMBLED ON DWG. E11a UNLESS NOTED.
- INSTALL BOLTS WHERE INDICATED ONLY.



KEY PLAN

SHOWING LOC. OF INSULATION IN FIELD ASSEMBLED BOX SECTIONS

3R/3001083

	MATERIAL		No. BY DATE REVISION	
	SURF. PREP. & PAINT		DETAILS	
	OPEN HOLES		SHUTTER SECTION ASSEMBLY	
DRAWN G.V.A.		DATE JUNE 84	CHECKED	DATE
DRAWING No. 1420-E116		REV. NVT		
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.				

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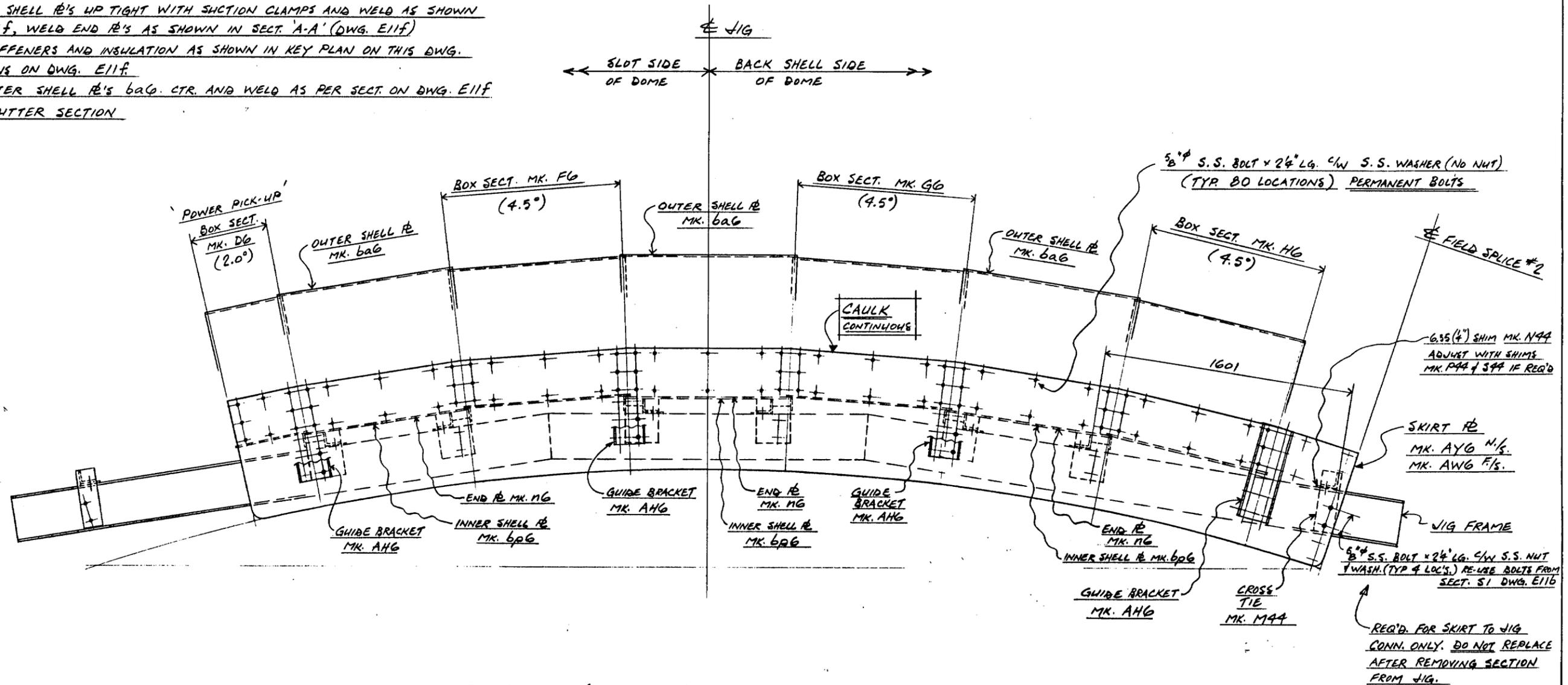
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FIELD PROCEDURE

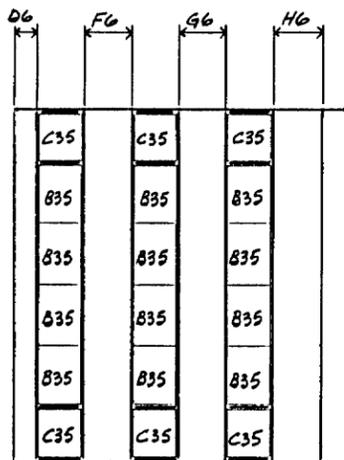
- 1) INSTALL CROSS TIE M99, SKIRT R'S AY6 & AW6 AND GUIDE BRACKETS AH6.
- 2) INSTALL INNER SHELL R'S 6P6, SHOP ASSEMBLED BOX SECTIONS DG, FG, GG & HG AND END R'S NG.
- 3) PULL INNER SHELL R'S UP TIGHT WITH SHCTION CLAMPS AND WELD AS SHOWN ON DWG. E11F, WELD END R'S AS SHOWN IN SECT. 'A-A' (DWG. E11F)
- 4) INSTALL STIFFENERS AND INSULATION AS SHOWN IN KEY PLAN ON THIS DWG. AND SECTIONS ON DWG. E11F.
- 5) INSTALL OUTER SHELL R'S 6A6. CTR. AND WELD AS PER SECT. ON DWG. E11F
- 6) REMOVE SHUTTER SECTION

NOTE!

SKIRT R'S MUST BE STRAIGHT AND AT 90° TO JIG VERT. & HOR. E'S.



— ELEVATION (LOOKING NORTH) SHOWING FIELD ASSEMBLY OF TOP SHUTTER WITH POWER BOX — THIS SECTION REF. MK. 'S2'  
— (F/S. ELEV. LEFT OF SHOWN)



KEY PLAN

SHOWING LOCATION OF INSULATION IN FIELD ASSEMBLED BOX SECTIONS

NOTE!

- CROSS TIES AS ASSEMBLED ON DWG. E11A UNLESS NOTED.
- INSTALL BOLTS WHERE INDICATED ONLY

GENERAL NOTES:

- 1) FOR DETAILS OF SHUTTER JIG SEE DWG. SERIES #44
- 2) FOR DETAILS OF SHUTTER SEE DWG. SERIES #6.
- 3) ALL ALUMINUM TO ALUMINUM SURFACES TO BE COATED WITH TREMPROOF 850.
- 4) ALL PERMANENT S.S. BOLTS TO BE COATED WITH TREMCO BUTYL SEALANT.

3R/3001084

<b>BRITAIN</b>	MATERIAL	SHUTTER SECTION ASSEMBLY	
	SURF. PREP. & PAINT	FOR 7.2 M TELESCOPE DOME LA PALMA	
	OPEN HOLES		
	DRAWN	DATE	CHECKED
G.V.A.		1980/08	
DRAWING No.		1920-E11c	
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.			
RHOP DEPARTMENT		No. PRINTS	

p-a-b-d-g-k-m-n-p-s-t-v-w-y

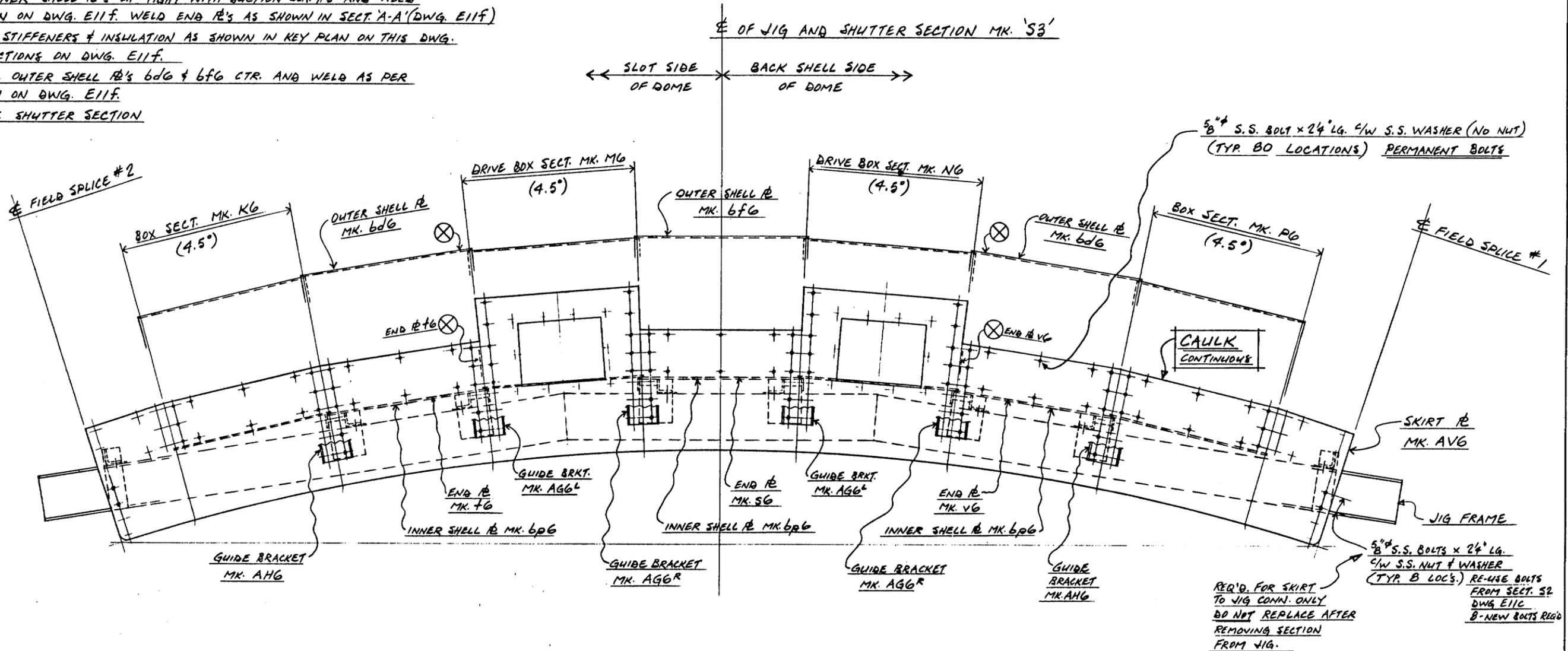
m-a-b-c-d-f-g-h-k-m-n-p-s-t-v-w-y

s-a-b-c-d-f-g-h-k-m-n-p-s-t-v-w-y

**SHOP PROCEDURE**

- 1.) INSTALL SKIRT R<sub>E</sub>'S AVG AND GUIDE BRACKETS AHG & AGG<sup>R</sup>
- 2.) INSTALL INNER SHELL R<sub>E</sub>'S bpg, SHOP ASSEMBLED BOX SECTIONS KG, MG, NG, & PG AND END R<sub>E</sub>'S VG, SG & TG.
- 3.) PULL INNER SHELL R<sub>E</sub>'S UP TIGHT WITH SUCTION CLAMPS AND WELD AS SHOWN ON DWG. E11F. WELD END R<sub>E</sub>'S AS SHOWN IN SECT. A-A (DWG. E11F)
- 4.) INSTALL STIFFENERS & INSULATION AS SHOWN IN KEY PLAN ON THIS DWG. AND SECTIONS ON DWG. E11F.
- 5.) INSTALL OUTER SHELL R<sub>E</sub>'S bpg & bfg CTR. AND WELD AS PER SECTION ON DWG. E11F.
- 6.) REMOVE SHUTTER SECTION

**NOTE!**  
SKIRT R<sub>E</sub>'S MUST BE STRAIGHT AND AT 90° TO JIG VERT. & HOR. E'S.

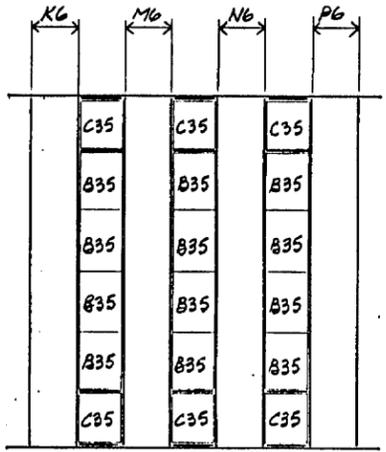


5/8" S.S. BOLT x 24' LG. C/W S.S. WASHER (NO NUT)  
(TYP. BO LOCATIONS) PERMANENT BOLTS

5/8" S.S. BOLTS x 24' LG.  
C/W S.S. NUT & WASHER  
(TYP. B LOC'S.) RE-USE BOLTS FROM SECT. S2 DWG. E11C B-NEW BOLTS REQ'D

REQ'D. FOR SKIRT TO JIG CONN. ONLY DO NOT REPLACE AFTER REMOVING SECTION FROM JIG.

— ELEVATION (LOOKING NORTH) SHOWING FIELD ASSEMBLY OF TOP SHUTTER MIDDLE SECTION WITH DRIVE BOXES — THIS SECTION REF. MK. 'S3'  
— (F/S. ELEV. LEFT OF SHOWN)



**KEY PLAN**

SHOWING LOC. OF INSULATION IN FIELD ASSEMBLED BOX SECTIONS

**NOTE!**  
— CROSS TIES AS ASSEMBLED ON DWG. E11A, E11B & E11C  
— INSTALL BOLTS WHERE INDICATED ONLY.

**GENERAL NOTES:**

- 1.) FOR DETAILS OF SHUTTER JIG SEE DWG. SERIES #44
- 2.) FOR DETAILS OF SHUTTER SEE DWG. SERIES #6.
- 3.) ALL ALUMINUM TO ALUMINUM SURFACES TO BE COATED WITH TREMPROOF B50.
- 4.) ALL PERMANENT S.S. BOLTS TO COATED WITH TREMCO BUTYL SEALANT.

3R/3001085

	MATERIAL	SHUTTER SECTION ASSEMBLY	
	SURF. PREP. & PAINT	FOR 4.2M TELESCOPE DOME LA BALMA	
	OPEN HOLES		
DRAWN	DATE	CHECKED	DATE
G.V.A	JUNE/64		
DRAWING No. 1420-E11d		REV. AUT	
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.			
SHOP DEPARTMENT		No. 141115	

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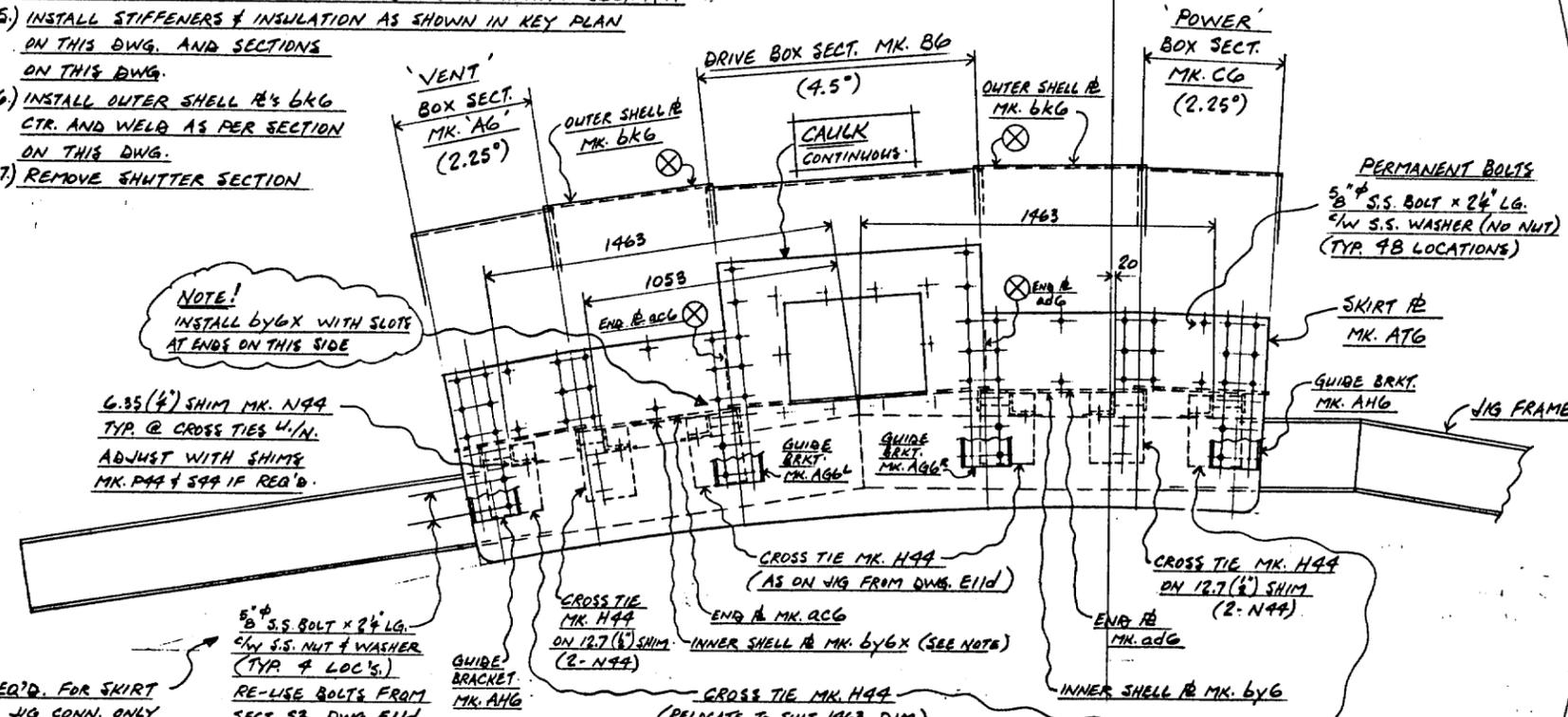
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**FIELD PROCEDURE**

- 1) RELOCATE AND ADD CROSS TIES AS SHOWN.
- 2) INSTALL SKIRT RIBS ATG, GUIDE BRACKETS AHG & AGG & R
- 3) INSTALL INNER SHELL RIBS BYG, SHOP ASSEMBLED BOX SECTIONS AG, BG & CG AND END RIBS ACG & ADG
- 4) PULL INNER SHELL RIBS UP TIGHT WITH SUCTION CLAMPS AND WELD AS SHOWN ON THIS DWG. WELD END RIBS AS SHOWN IN SECT. A-A
- 5) INSTALL STIFFENERS & INSULATION AS SHOWN IN KEY PLAN ON THIS DWG. AND SECTIONS ON THIS DWG.
- 6) INSTALL OUTER SHELL RIBS BKG CTR. AND WELD AS PER SECTION ON THIS DWG.
- 7) REMOVE SHUTTER SECTION

**NOTE!**

SKIRT RIBS MUST BE STRAIGHT AND AT 90° TO JIG VERT. & HOR. RIBS.



6.35 (1/4) SHIM MK. N44 TYP. @ CROSS TIES H/N. ADJUST WITH SHIMS MK. P44 & S44 IF REQ'D.

NOTE! INSTALL BYGX WITH SLOTS AT ENDS ON THIS SIDE

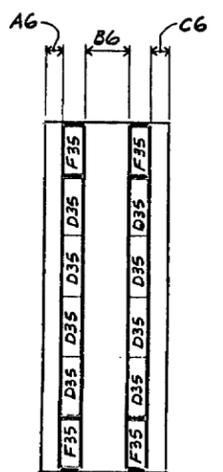
5/8\" S.S. BOLT x 2\" LG. C/W S.S. NUT & WASHER (TYP. 4 LOC'S.) RE-USE BOLTS FROM SECT. S3 DWG. E11D

REQ'D. FOR SKIRT TO JIG CONN. ONLY DO NOT REPLACE AFTER REMOVING SECTION FROM JIG

ELEVATION (LOOKING NORTH) SHOWING FIELD ASSEMBLY OF BTM. SHUTTER SECTION - THIS SECTION REF. MK. 'S4' (F/S. ELEV. LEFT OF SHOWN)

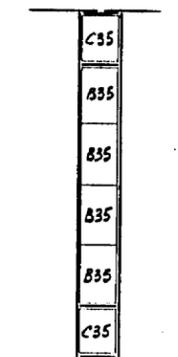
**NOTE!**

- 2 CROSS TIES AS INSTALLED ON DWG. E11D.
- 2 CROSS TIES RELOCATED WITH 12.7 (1/2) SHIM PACK.
- 2 CROSS TIES RELOCATED TO SUIT 1463 DIM.
- INSTALL BOLTS WHERE INDICATED ONLY.



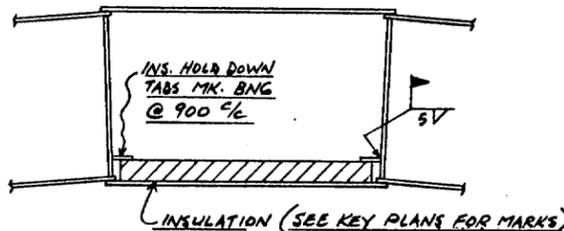
**KEY PLAN**

SHOWING LOCATION OF INSULATION IN FIELD ASSEMBLED BOX SECT'S.

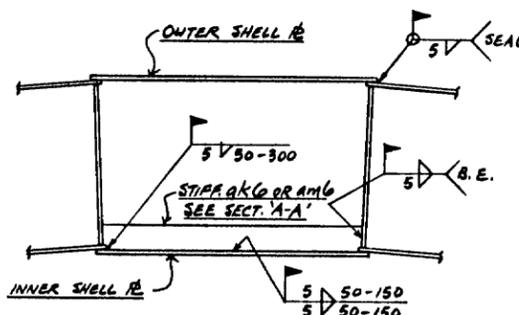


**KEY PLAN**

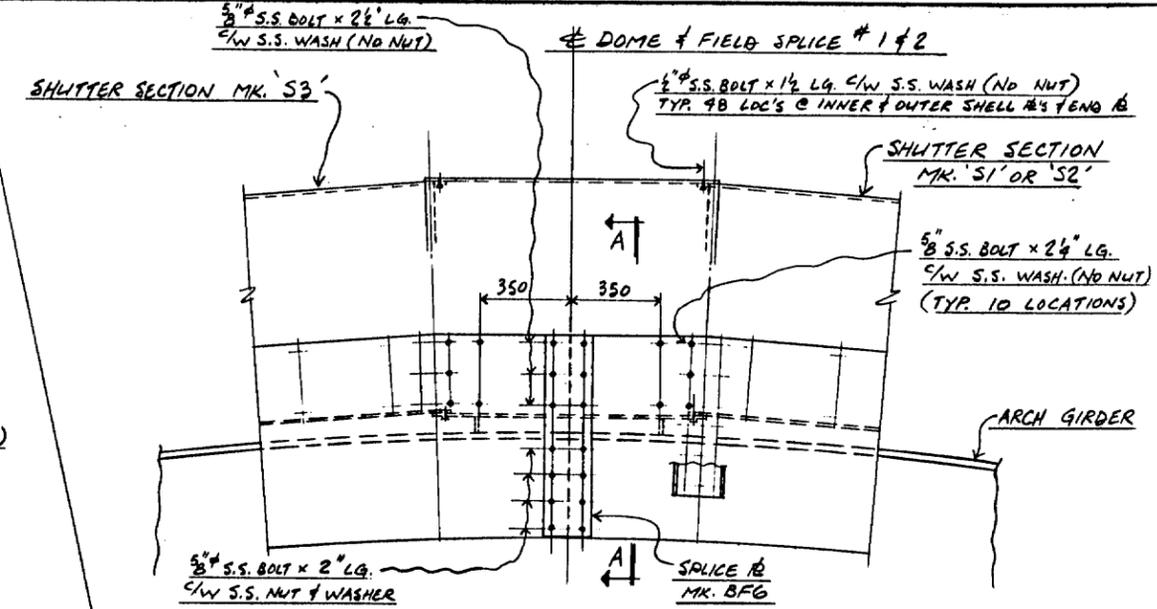
SHOWING LOCATION OF INSULATION IN BOX SECT. AT FIELD SPLICE (2-LOC'S.)



SECTION @ FIELD ASSEMBLED BOX SECTIONS SHOWING INSULATION



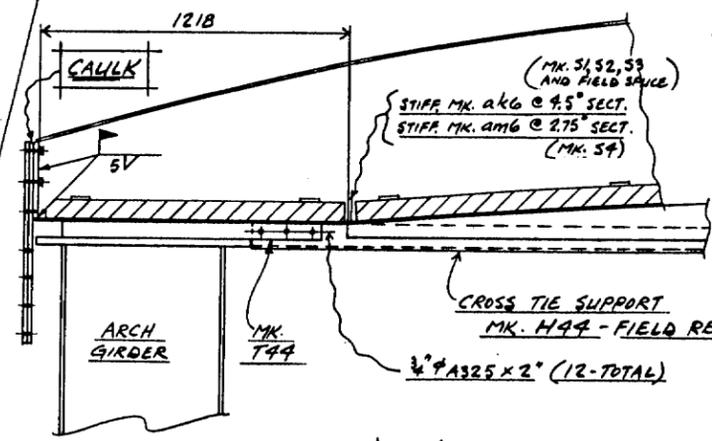
SECTION @ FIELD ASSEMBLED BOX SECTIONS SHOWING STIFFENERS AND FIELD WELDING OF SHELL RIBS.



ELEVATION @ TOP OF DOME (LOOKING NORTH) SHOWING FIELD SPLICE - AS SHOWN FOR SECTION 'S1' TO 'S3' - FIELD SPLICE #1 - LEFT OF SHOWN FOR SECTION 'S2' TO 'S3' - FIELD SPLICE #2 (F/S. ELEV. LEFT OF SHOWN)

**NOTE!**

- INSTALL BOLTS WHERE INDICATED ONLY.
- USE INNER & OUTER SHELL RIBS AND END RIB FOR FIELD SPLICE AS MATCH DRILLED & MARKED ON DWG. E11D AND SET ASIDE MARKED FOR FIELD SPLICE #1 OR #2



SECTION A-A

**GENERAL NOTES:**

- 1) FOR DETAILS OF SHUTTER JIG SEE DWG. SERIES #44
- 2) FOR DETAILS OF SHUTTER SEE DWG. SERIES #6
- 3) ALL ALUMINUM TO ALUMINUM SURFACES TO BE COATED WITH TREMCO B50.
- 4) ALL PERMANENT S.S. BOLTS TO BE COATED WITH TREMCO BUTYL SEALANT.

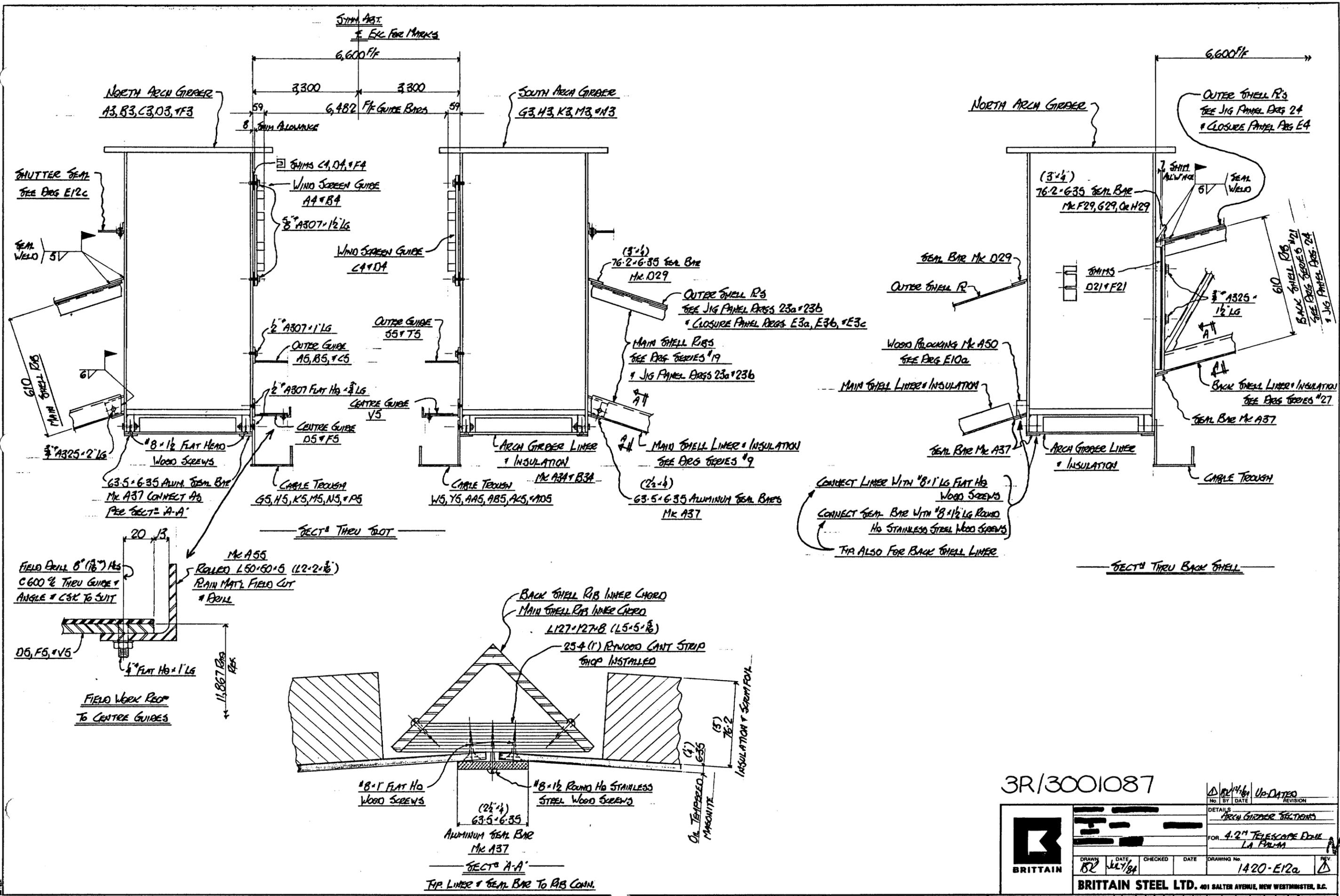
3R/3001086

	MATERIAL		No. BY DATE		REVISION
	SURF. PREP. & PAINT		DETAILS		SHUTTER SECTION ASSEMBLY
	OPEN HOLES		FOR		4.2M TELESCOPE DOME LA PALMA
DRAWN	DATE	CHECKED	DATE	DRAWING No. 1420-E11F	
G.V.A.	JUNE/89			BRITAIN STEEL LTD. 401 BALTER AVENUE, NEW WESTMINSTER, B.C.	
SHOP DEPARTMENT			No. PRINTS		

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m-abcdefghijklmnpstvw

s-abcdefghijklmnpstvw



p-abcdefghijklmnpstvw y

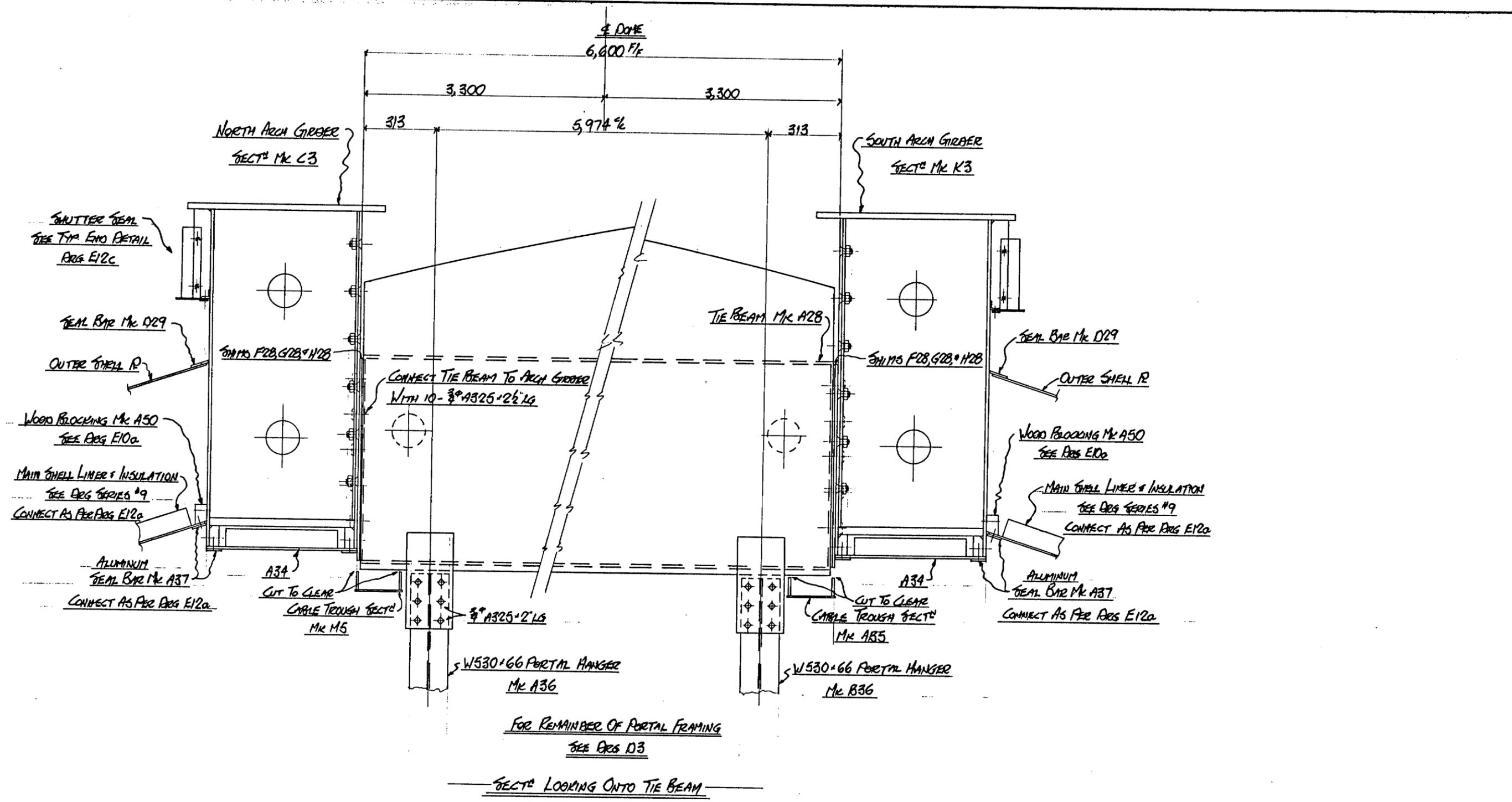
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3R/3001087

	DRAWN: <b>BR</b> DATE: <b>JULY/84</b>		CHECKED: _____ DATE: _____		DRAWING No: <b>1420-E12a</b>	REV: <b>Δ</b>
	BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.					
SHOP DEPARTMENT				INS / F / S / O / M / T / P / RH / DP / AS / PA / BR		

MF



3R/3001088

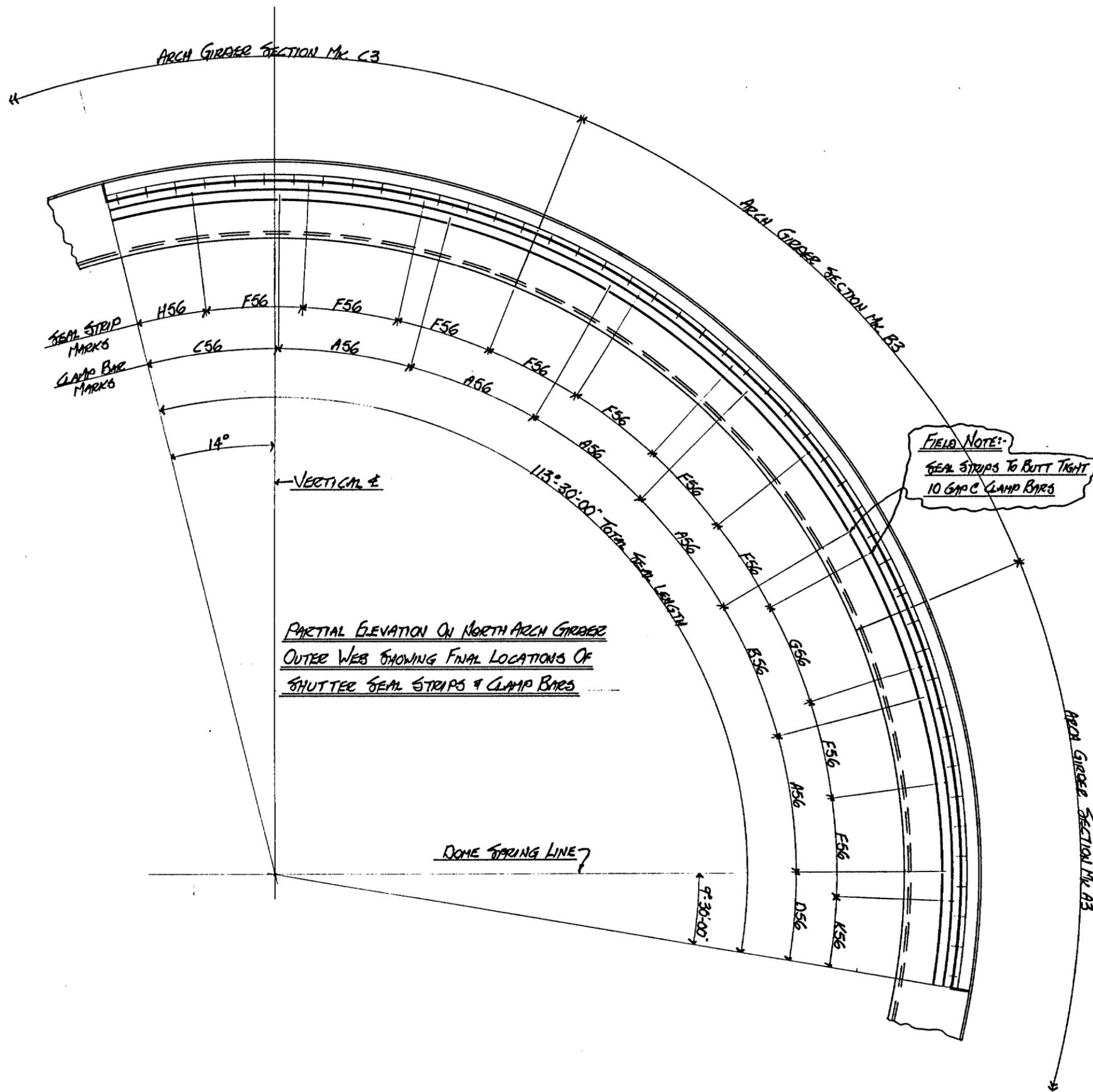
<b>BRITAIN</b>	No. BY DATE REVISION _____ _____ _____					
	DETAIL S ARCH GIRDER SECTION FOR 4.2M TELESCOPE DOME LA PALMA					
	DRAWN RL	DATE JUN/81	CHECKED _____	DATE _____	DRAWING No. 1420-E12b	REV MF
	<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.					

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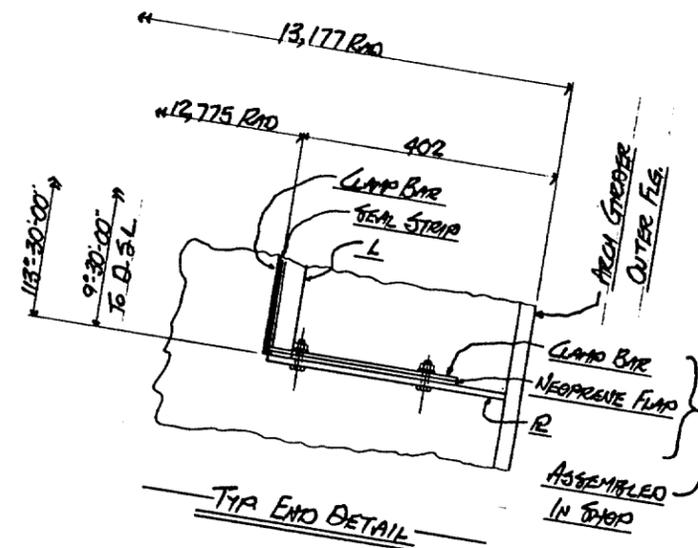
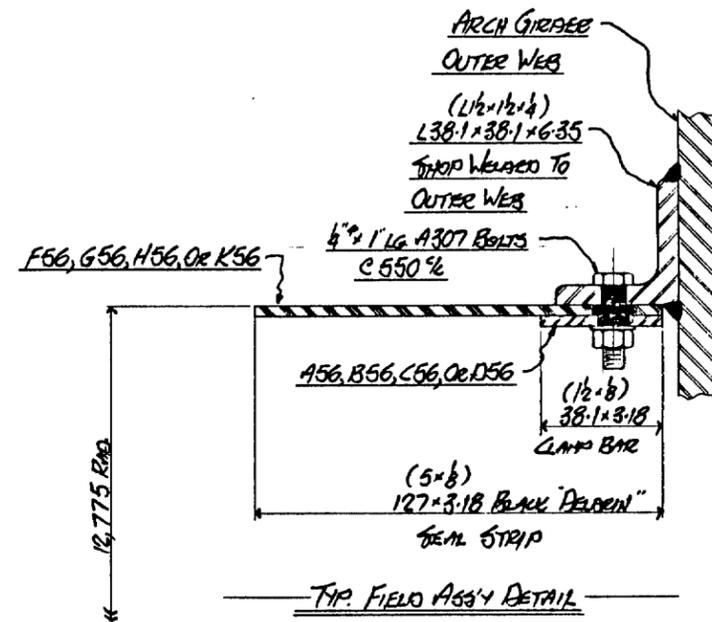
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SHOP DEPARTMENT      INS / F / S / O / M / T / P / SH / DP / AS / PA / ER      NO PRINTS



PARTIAL ELEVATION ON NORTH ARCH GIRDER  
OUTER WEB SHOWING FINAL LOCATIONS OF  
SHUTTER SEAL STRIPS & CLAMP BARS

FIELD NOTE:  
SEAL STRIPS TO BUTT TIGHT  
10 GAP C CLAMP BARS



GENERAL NOTES

- 1.) FOR DETAILS OF SEAL STRIPS & CLAMP BARS SEE CROSS 562 & 566.

3R/3001089

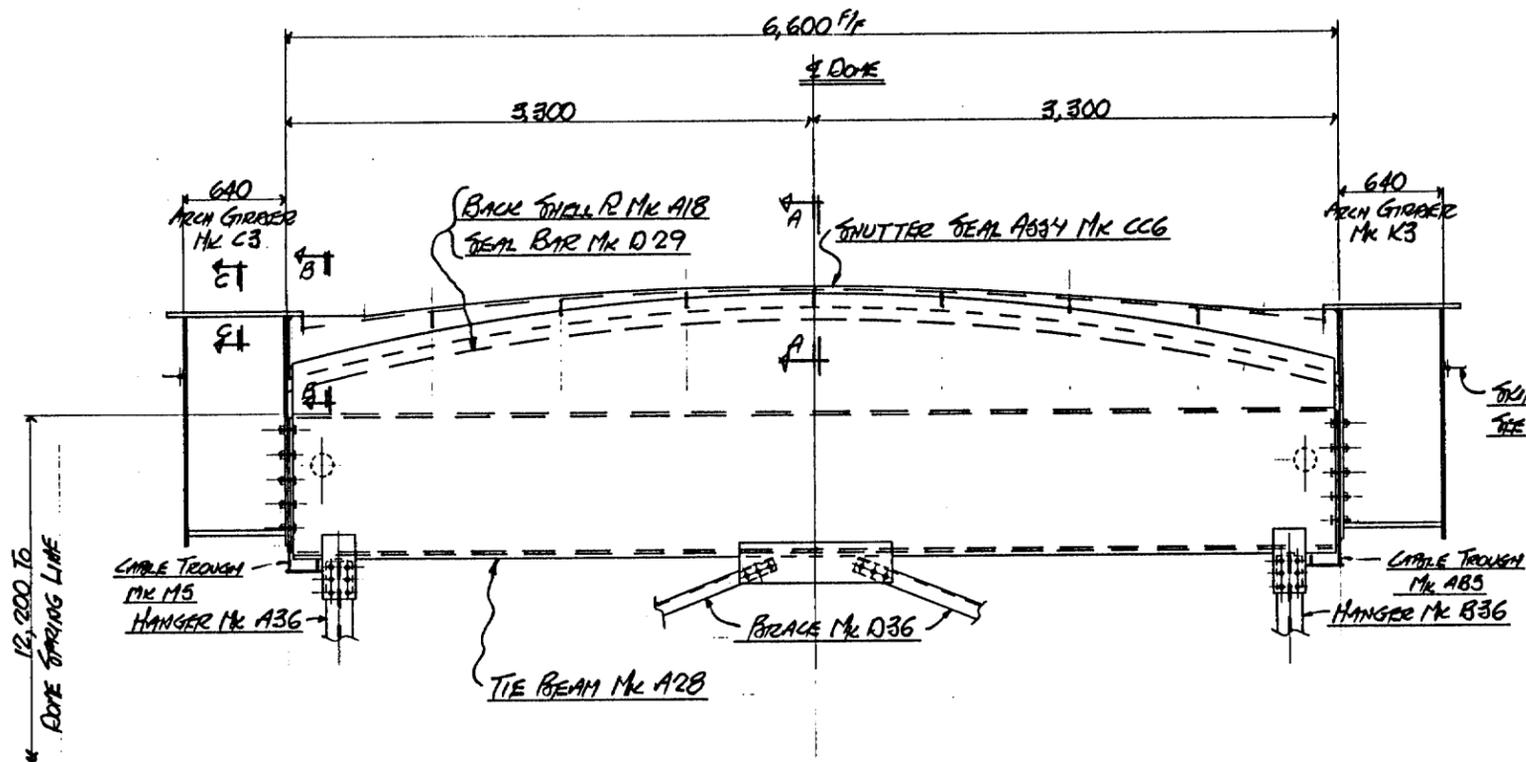
	No. BY DATE REVISION DETAILS SHUTTER SEAL FINAL LOCATIONS	
	FOR 4.2M TELESCOPE DOME LA PALMA	
DRAWN BY BK	DATE JUL/86	CHECKED DATE DRAWING No. 1420-E12C
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		
SHOP DEPARTMENT		INS / P / S / O / M / T / P / SH / DP / AS / PA / ER

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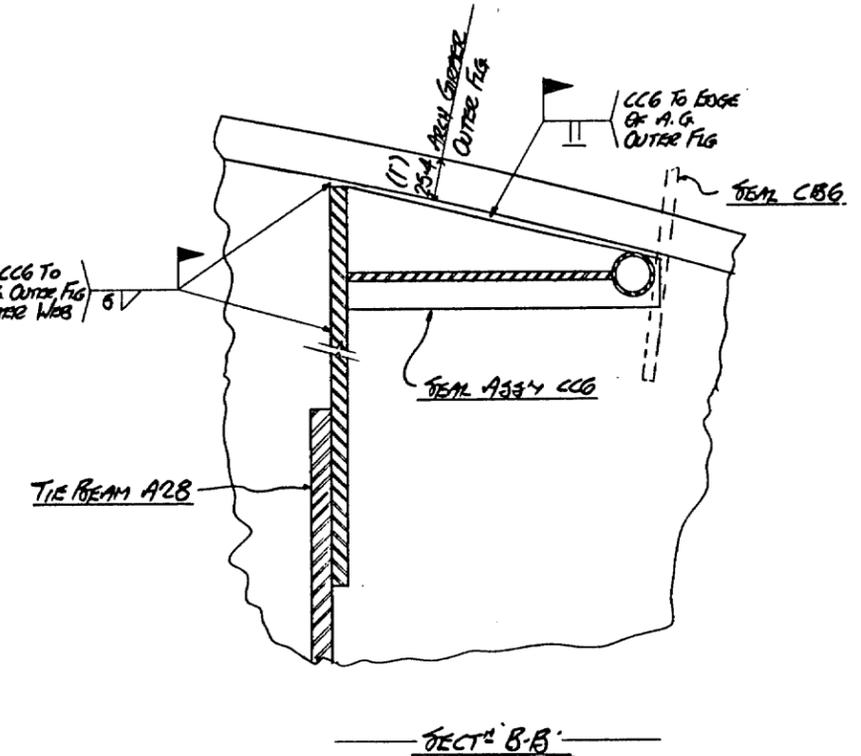
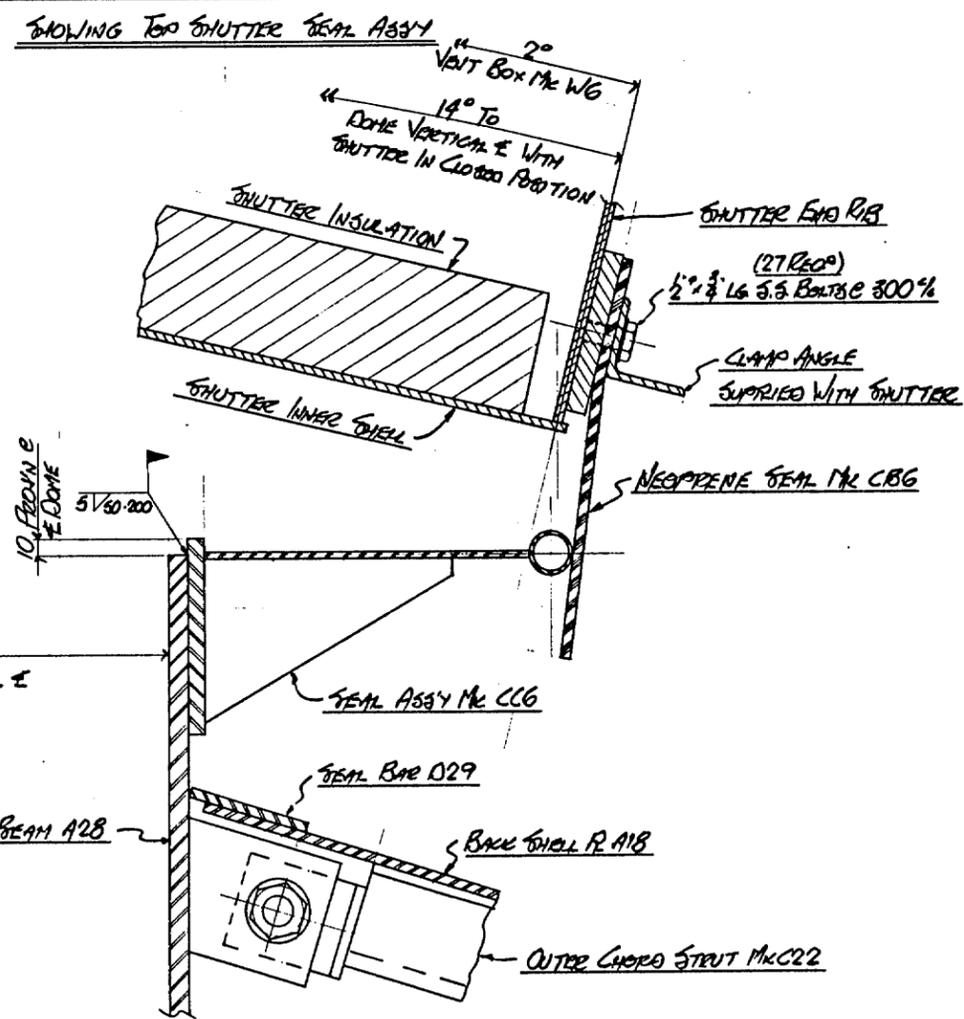
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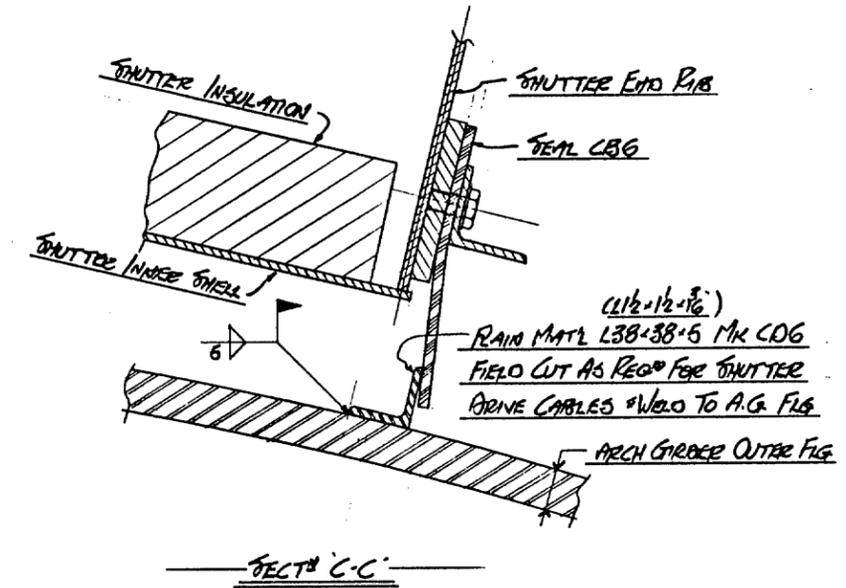
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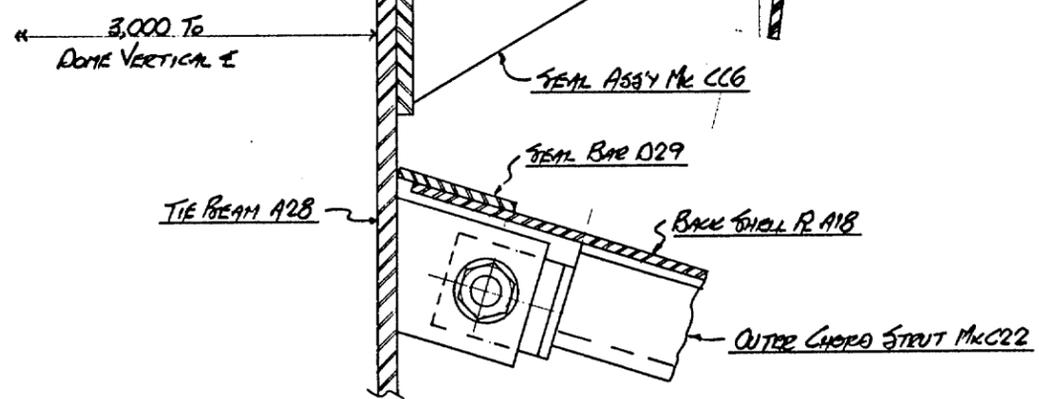
SECTION THRU DOME LOOKING ONTO TIE BEAM



SECTION B-B



SECTION C-C



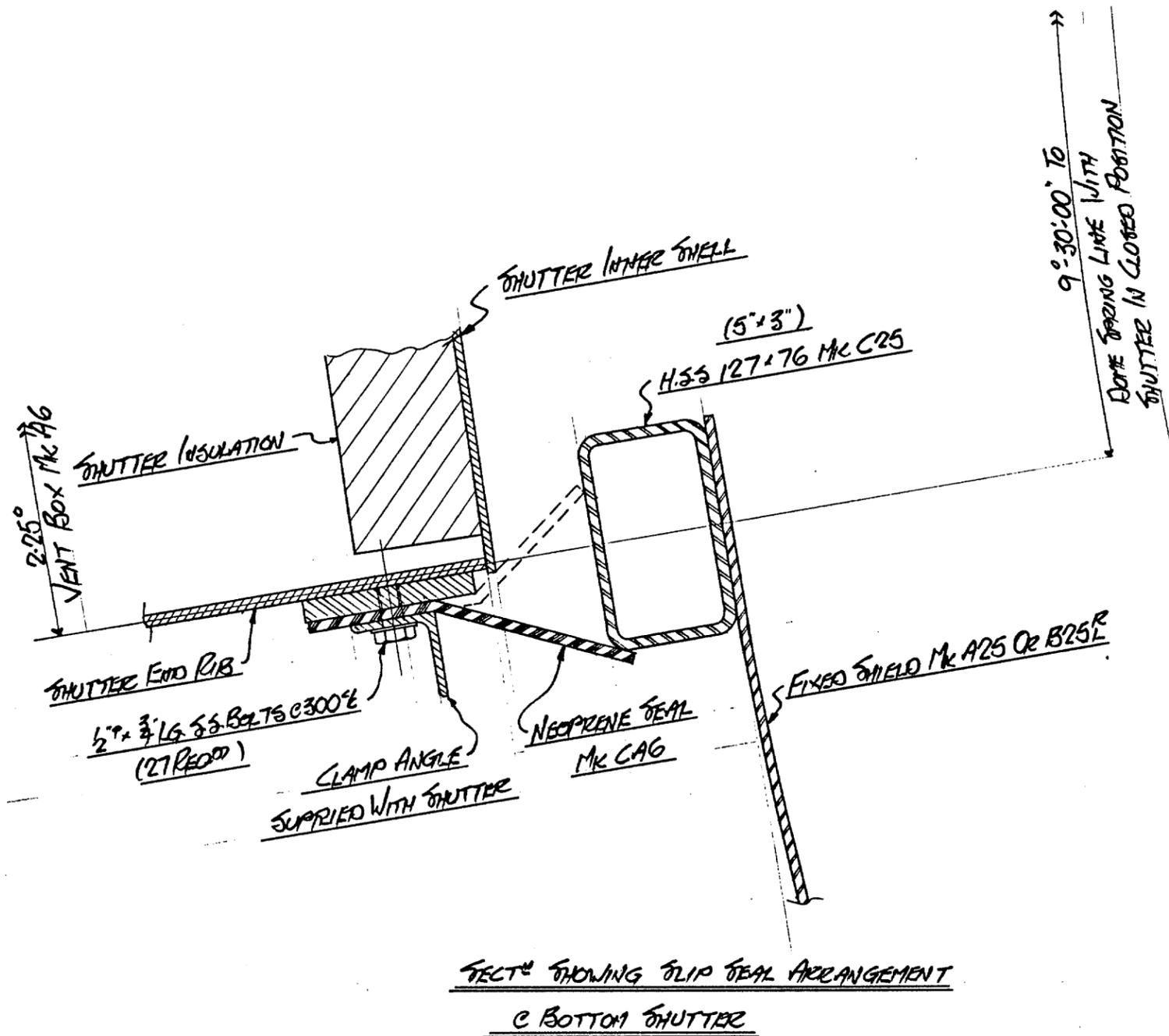
3R/3001090

	DRAWN RL	DATE Oct/84	CHECKED 	DATE 	DRAWING No. 1420-E13a	REV 
	BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.					No. BY DATE REVISION DETAILS TOP SHUTTER SEAL FOR 4.2" TELESCOPE DOME LA. PANDA
SHOP DEPARTMENT					INS. F. S. O. M. T. P. SH. DP. AS. PA. ER No. PRINTS	

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s-abcdefghijklmnpstvw



3R/3001091

No.	BY	DATE	REVISION

	DETAILS OF <b>BOTTOM SHUTTER SLIP SEAL</b>			
	FOR <b>4.2M TELESCOPE DOME LA PALMA</b>			
DRAWN <b>FBK</b>	DATE <b>Oct/84</b>	CHECKED	DATE	DRAWING No. <b>1420-E136</b>

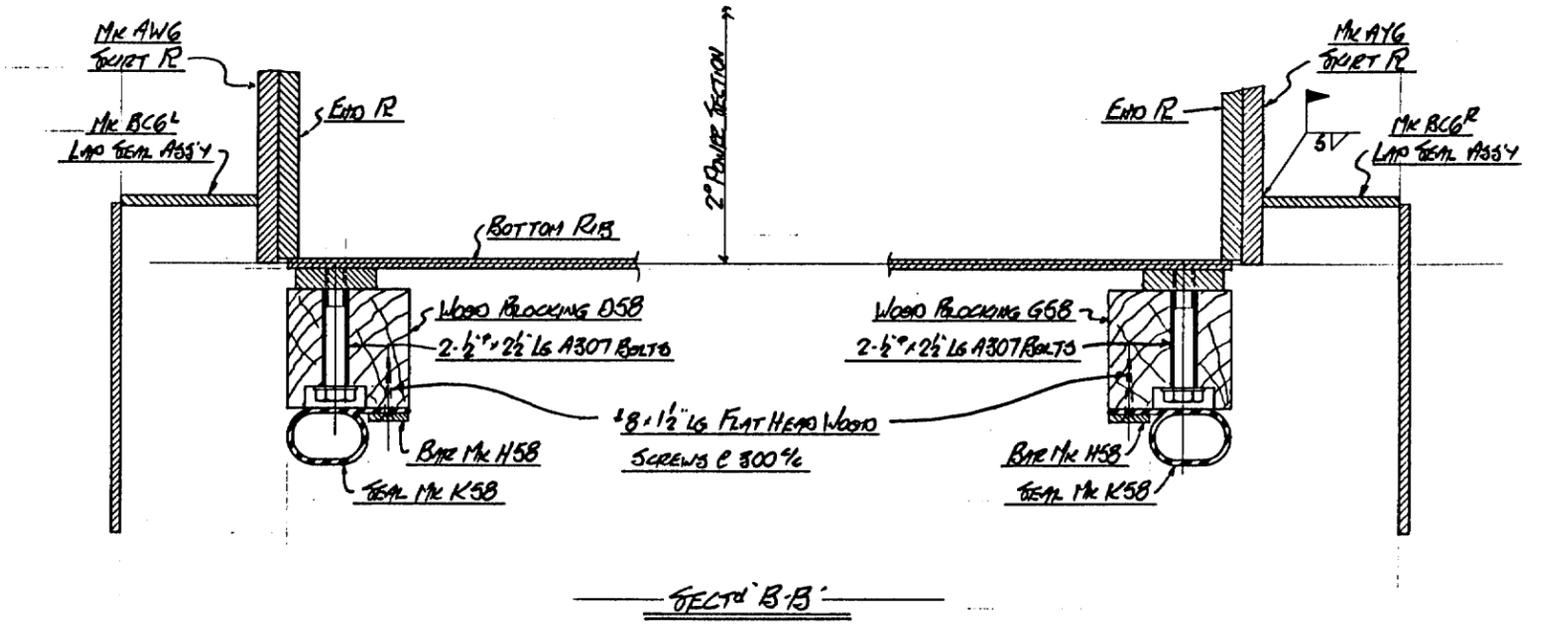
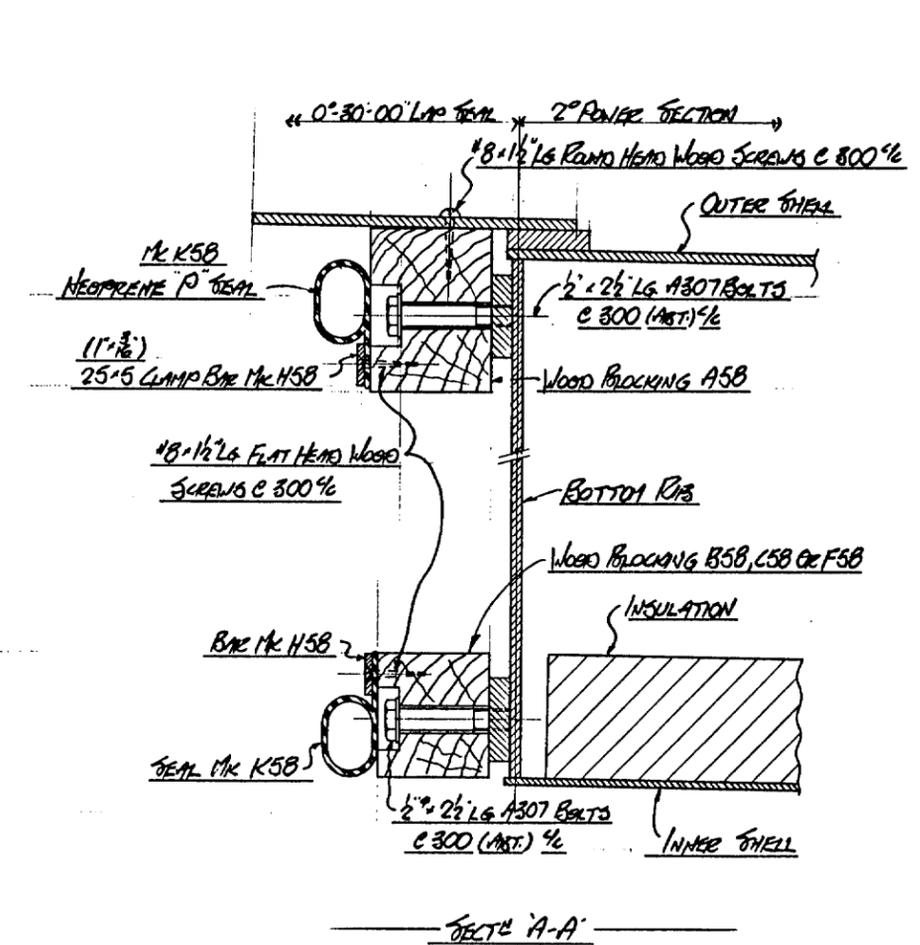
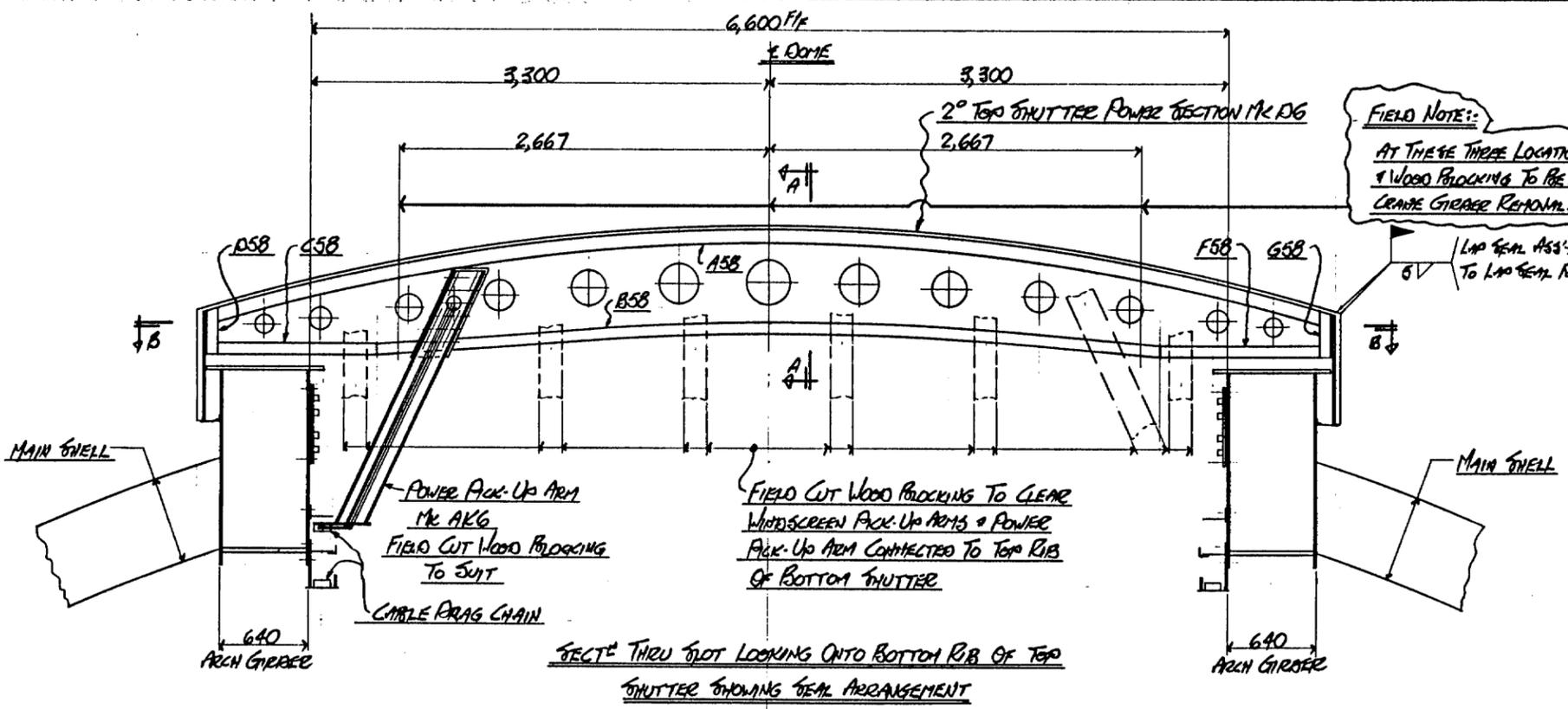
**BRITAIN STEEL LTD.** 401 SALTER AVENUE, NEW WESTMINSTER, B.C.

p - a b c d f g h k m n p s t v w y

m - a b c d f g h k m n p s t v w y

SHOP DEPARTMENT	INS / F / S / O / M / T / P / SH / DP / AS / PA / ER	No. PRINTS
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WF

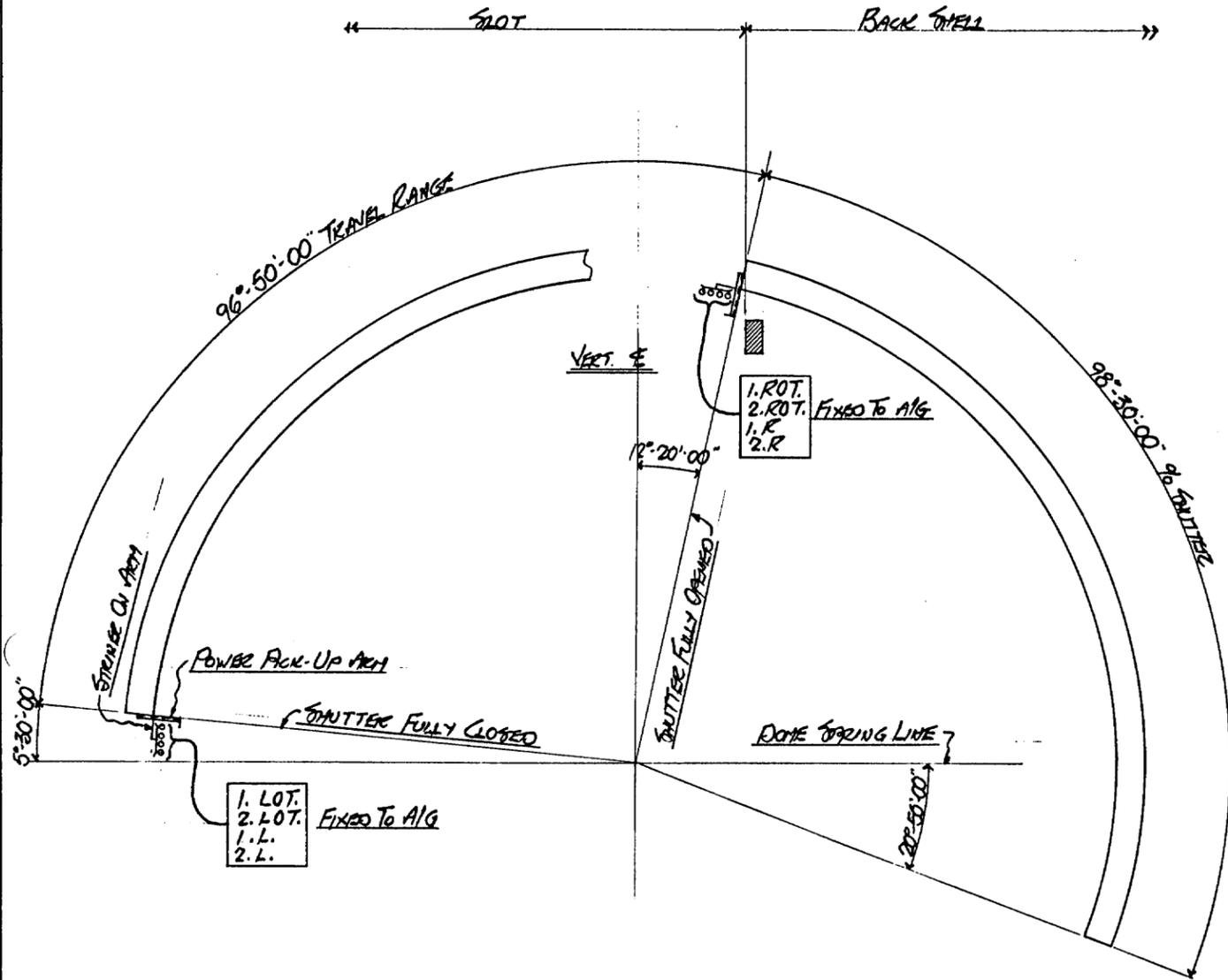


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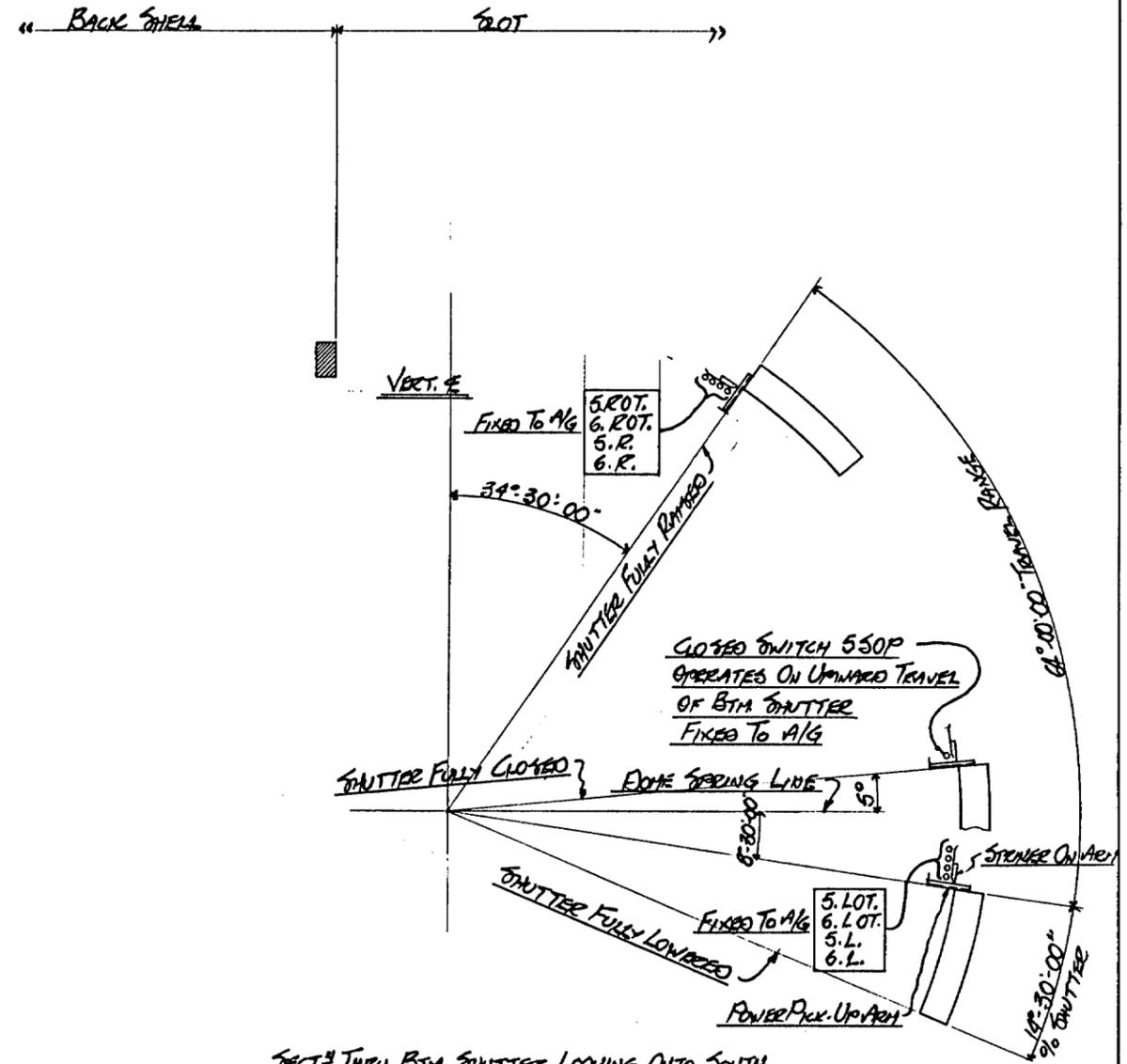
No.		BY		DATE		REVISION	
DETAILS							
SHUTTER LAP SEAL							
FOR 4.2M TELESCOPE DOME L3 PHVA							
DRAWN		DATE		CHECKED		DATE	
BR		02/81					
DRAWING No.				1420-E13c			
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, S.C.							
SHOP DEPARTMENT		INS		F/S/O/M/T/P/BH/DP/AS/PA/ER		No PRINTS	

BRITAIN

p-abcdefghijklmnpstvw y m-abcdefghijklmnpstvw y s-abcdefghijklmnpstvw y



SECT 2 THRU TOP SHUTTER LOOKING ONTO NORTH ARCH GIRDER SHOWING LIMIT SWITCH ARRANGEMENT



SECT 3 THRU BTH SHUTTER LOOKING ONTO SOUTH ARCH GIRDER SHOWING LIMIT SWITCH ARRANGEMENT

3R/3001093



NO		BY		DATE		REVISION	
DETAILS		SHUTTER'S		LIMIT SWITCH ARR'GTS			
FOR 4.2" TELESCOPE DOME LA PALMA							
DRAWN	DATE	CHECKED	DATE	DRAWING NO.			
RJR	11/1/85			1420-E14			
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.							
SHOP DEPARTMENT				INS / F / S / O / M / T / P / SH / DP / AS / PA / ER			
				NO PRINTS			

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s-abcdefghijklmnpstvw

SHOP DEPARTMENT

INS / F / S / O / M / T / P / SH / DP / AS / PA / ER

NO PRINTS





4.2M TELESCOPE DOME - LA PALMA

SHOP PAINT MEMO

BLAST CLEAN TO SSPC-SP7

ONE COAT ALL SURFACES "RUSTBOND 8HB" 2 MILS THICK

TYP. ALL STRUCTURAL  
STEEL EXC AS NOTED

BLAST CLEAN TO SSPC-SP6

ONE COAT ALL SURFACES "CARBOWELD 11" .5 TO ONE MIL THICK

MAIN & BACK SHELL

RATES ONLY  
(PRG. SERIES #17 & #18)

FIELD PAINT MEMO

HAND TOOL CLEAN TO SSPC-SP2

2 FINISH COATS "POLYCLAD 936 WHITE" 3 MILS THICK EA COAT.

3R/3001096

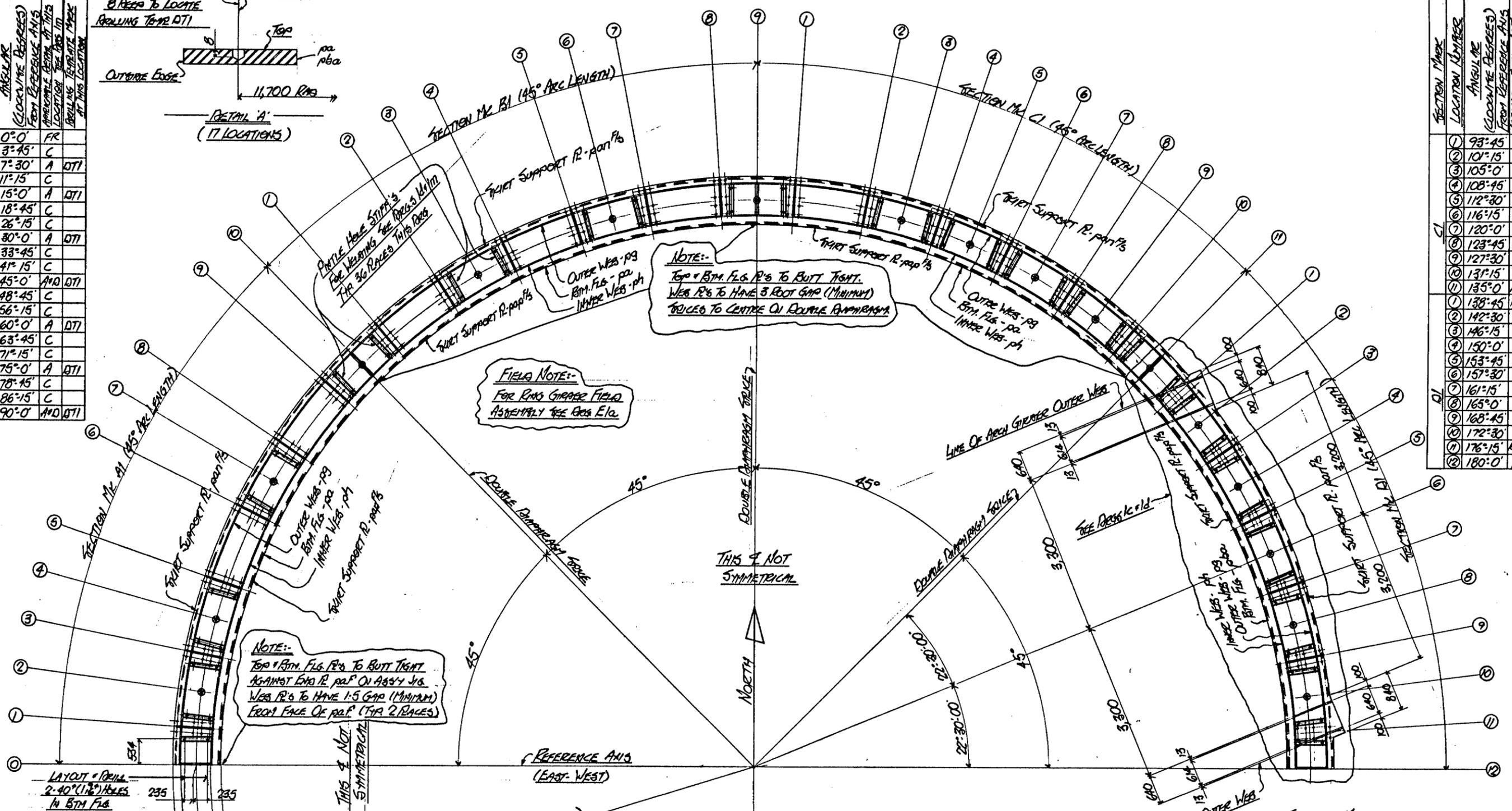
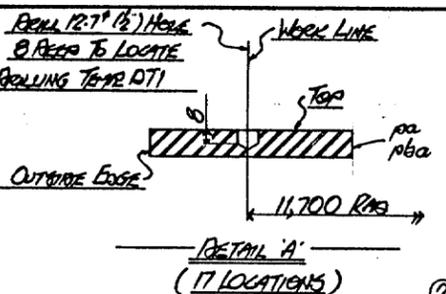
No.	DIV.	1	2	3	4	5	6	7	8	9	10
		DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
BRITAIN		BRITAIN STEEL LTD.									
NEW WESTMINSTER		B.C.									
BRITAIN		BRITAIN									
REV.		REV.									
DWG. No.		DWG. No.									
CONTRACT		CONTRACT									
1420		1420									
PM1		PM1									
REV.		REV.									
1		1									
DATE		DATE									
14/08/83		14/08/83									
BY		BY									
BR/12/10/83		BR/12/10/83									
NO.		NO.									
1		1									
DATE		DATE									
14/08/83		14/08/83									
BY		BY									
BR/12/10/83		BR/12/10/83									
NO.		NO.									
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DATE		DATE									
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BY		BY									
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1		1									
DATE		DATE									
14/08/83		14/08/83									
BY		BY									
BR/12/10/83		BR/12/10/83									

ORG. SERIES NOS. REVISED FOR MAIN & BACK SHELL

MAF

SECTION	LOCATION NUMBER	ANGULAR (CLOCKWISE DEGREES) FROM REFERENCE AXIS	APPROXIMATE POSITION AT THIS LOCATION	ROLLING TEMPERATURE MARK AT THIS LOCATION
AI	0	0°-0'	FR	
	1	3°-45'	C	
	2	7°-30'	A DTI	
	3	11°-15'	C	
	4	15°-0'	A DTI	
	5	18°-45'	C	
	6	26°-15'	C	
	7	30°-0'	A DTI	
	8	33°-45'	C	
	9	41°-15'	C	
BI	1	48°-45'	C	
	2	56°-15'	C	
	3	60°-0'	A DTI	
	4	63°-45'	C	
	5	71°-15'	C	
	6	75°-0'	A DTI	
	7	78°-45'	C	
	8	86°-15'	C	
	9	90°-0'	A/D DTI	

SECTION	LOCATION NUMBER	ANGULAR (CLOCKWISE DEGREES) FROM REFERENCE AXIS	APPROXIMATE POSITION AT THIS LOCATION	ROLLING TEMPERATURE MARK AT THIS LOCATION
CI	1	93°-45'	C	
	2	101°-15'	C	
	3	105°-0'	A DTI	
	4	108°-45'	C	
	5	112°-30'	A DTI	
	6	116°-15'	C	
	7	120°-0'	A DTI	
	8	123°-45'	C	
	9	127°-30'	A DTI	
	10	131°-15'	C	
	11	135°-0'	A/D DTI	
	12	138°-45'	FR ONLY	
DI	1	142°-30'	A DTI	
	2	146°-15'	G	
	3	150°-0'	A DTI	
	4	153°-45'	G	
	5	157°-30'	A DTI	
	6	161°-15'	G	
	7	165°-0'	A DTI	
	8	168°-45'	G	
	9	172°-30'	A DTI	
	10	176°-15'	FR ONLY	
11	180°-0'	FR		



**NOTE:-**  
 TOP & BTM. FLG. R'S TO BUTT TIGHT.  
 WEB R'S TO HAVE 3 ROOT GAP (MINIMUM)  
 BRICES TO CENTRE ON ROUTINE RADIUS.

**FIELD NOTE:-**  
 FOR RING GIRDER FIELD  
 ASSEMBLY SEE REG. ETC.

**NOTE:-**  
 TOP & BTM. FLG. R'S TO BUTT TIGHT  
 AGAINST END R. R.P. ON ASSY. J.G.  
 WEB R'S TO HAVE 1.5 GAP (MINIMUM)  
 FROM FACE OF R.P. (FOR 2 PLACES)

**PLAN ON RING GIRDER BTM. FIG. (LOOKING DOWN)**  
 SHOWING NORTHERN HALF  
 ONE COMPLETE RING GIRDER R.P.O.

- COMPOSED OF
- ONE SECTION MK AI AS DRAWN
  - ONE SECTION MK BI AS DRAWN
  - ONE SECTION MK CI AS DRAWN
  - ONE SECTION MK DI AS DRAWN
  - ONE SECTION MK EI AS DRAWN
  - ONE SECTION MK GI AS DRAWN
  - ONE SECTION MK HI AS DRAWN
  - ONE SECTION MK KI AS DRAWN

- GENERAL NOTES**
- 1) FOR WELD SIZES SEE REG. 16.
  - 2) FOR PLAN ON RING GIRDER TOP FIG. SEE REG. 16 (SHOWING NORTHERN HALF).
  - 3) FOR RING GIRDER ASSY. SOUTH OF REFERENCE AXIS SEE REGS. 1F & 1G.
  - 4) FOR ARCH GIRDER TO RING GIRDER ASSY. SEE REGS. 1C & 1D.
  - 5) FOR ITEM CUTTING DETAILS SEE REGS. 10, 13, 16 & 14.
  - 6) FOR ROLLING TEMPERATURE DETAILS SEE REG. 17.
  - 7) FOR SHOP ASSEMBLY PROCEDURE SEE REG. 12.

BRITAIN	MATERIAL	G4021 (44W) w/h	NO. BY DATE	REVISION
	SURF. PREP. & PAINT	SEE MEMO	DETAILS RING GIRDER ASSEMBLY PLAN ON BTM. FIG. NORTHERN HALF	
	OPEN HOLES		FOR 4.2" TELESCOPE DRIVE LA PALMA	
DRAWN	DATE	CHECKED	DATE	DRAWING No. 1420-1a
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.				
SHOP DEPARTMENT				

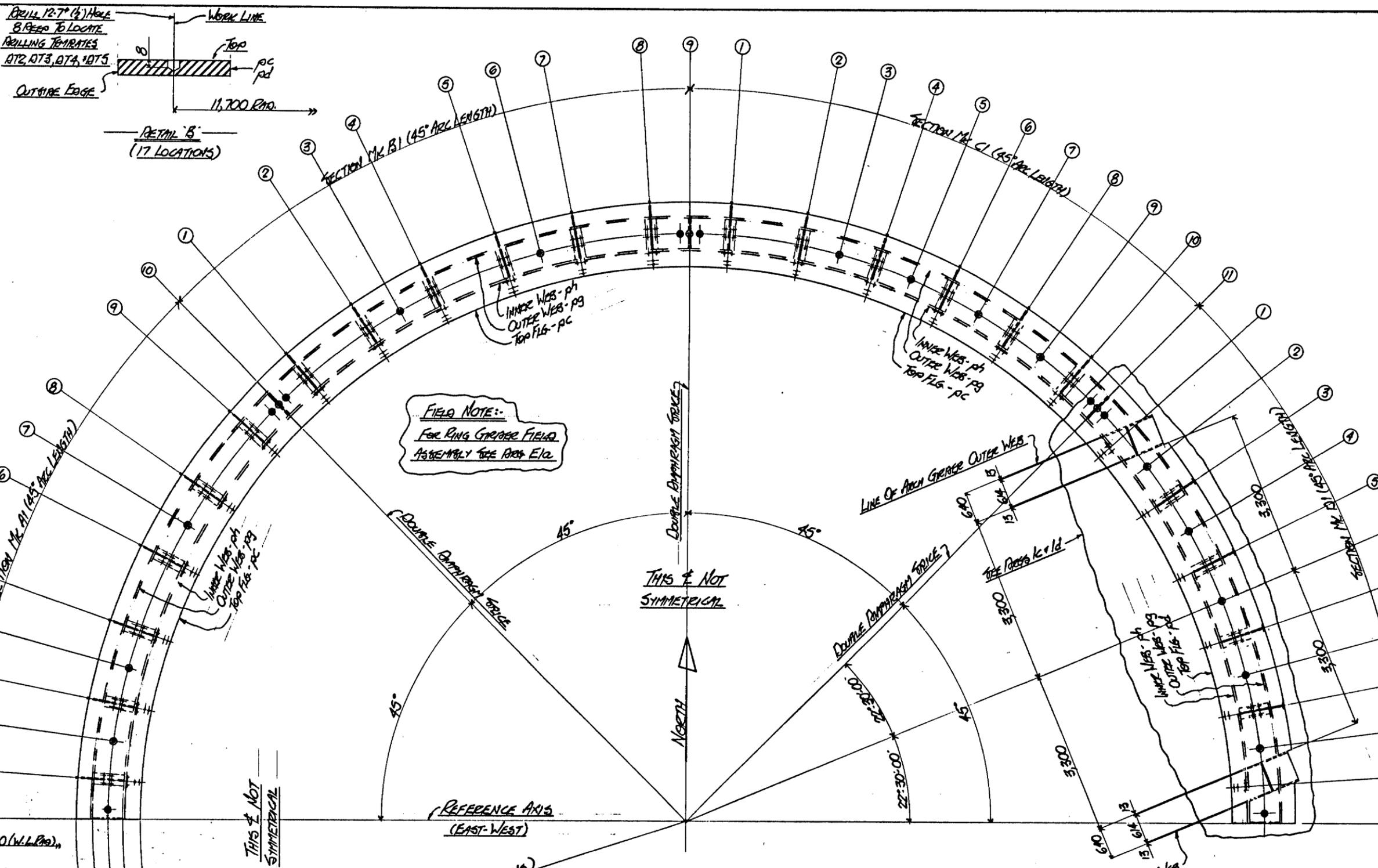
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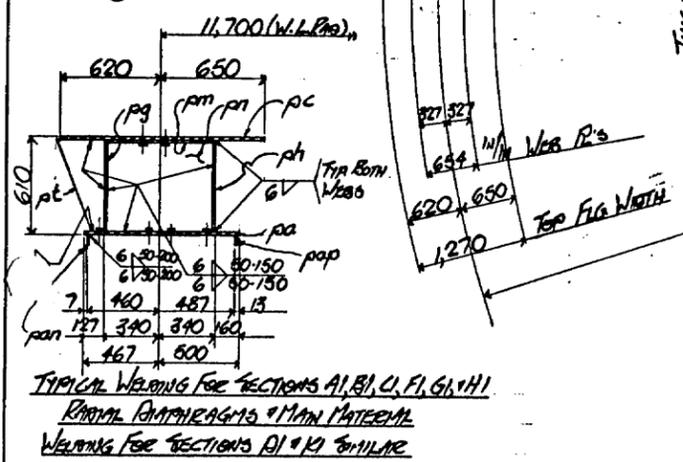
m-abcdefghijklmnpstvw

s-abcdefghijklmnpstvw

SECTION	LOCATION NUMBER	ANGULAR (CLOCKWISE DEGREES)	FROM REFERENCE AXIS	APPROXIMATE DETAIL AT THIS LOCATION	DRILLING TEMPLATE MARK AT THIS LOCATION
A1	0	0° 0'	C	FR	
	1	8° 45'	C		
	2	7° 30'	B	DT2	
	3	11° 15'	C		
	4	15° 0'	B	DT2	
	5	18° 45'	C		
	6	26° 15'	C		
	7	30° 0'	B	DT2	
	8	33° 45'	C		
B1	9	41° 15'	C		
	10	45° 0'	B	DT2	
	11	48° 45'	C		
	12	56° 15'	C		
	13	60° 0'	B	DT2	
	14	63° 45'	C		
	15	71° 15'	C		
	16	75° 0'	B	DT2	
	17	78° 45'	C		
C1	18	86° 15'	C		
	19	90° 0'	B	DT2	



SECTION	LOCATION NUMBER	ANGULAR (CLOCKWISE DEGREES)	FROM REFERENCE AXIS	APPROXIMATE DETAIL AT THIS LOCATION	DRILLING TEMPLATE MARK AT THIS LOCATION
C1	1	93° 45'	C		
	2	101° 15'	C		
	3	105° 0'	B	DT2	
	4	108° 45'	C		
	5	112° 30'	B	DT2	
	6	116° 15'	C		
	7	120° 0'	B	DT2	
	8	123° 45'	C		
	9	127° 30'	B	DT2	
	10	131° 15'	C		
	11	135° 0'	B	DT2	
	12	138° 45'	C		
A1	13	142° 30'	B	DT2	
	14	146° 15'	C		
	15	150° 0'	B	DT2	
	16	153° 45'	C		
	17	157° 30'	B	DT2	
	18	161° 15'	C		
	19	165° 0'	B	DT2	
	20	168° 45'	C		
	21	172° 30'	B	DT2	
	22	176° 15'	C		
23	180° 0'	B	DT2		



PLAN ON RING GIRDER TOP FLG (LOOKING DOWN)  
SHOWING NORTHERN HALF

GENERAL NOTES

- 1) FOR PLAN ON RING GIRDER BTM FLG SEE REFS 1a (SHOWING NORTH HALF)
- 2) FOR RING GIRDER ASSY SOUTH OF REFERENCE AXIS SEE REFS 1f, 1g
- 3) FOR ARCH GIRDER TO RING GIRDER ASSY SEE REFS 1c, 1d
- 4) FOR ITEM CUTTING DETAILS SEE REFS 1b, 1s, 1t, 1v
- 5) FOR DRILLING TEMPLATE DETAILS SEE REF 1n
- 6) FOR SHOP ASSEMBLY PROCEDURE SEE REF 1oo

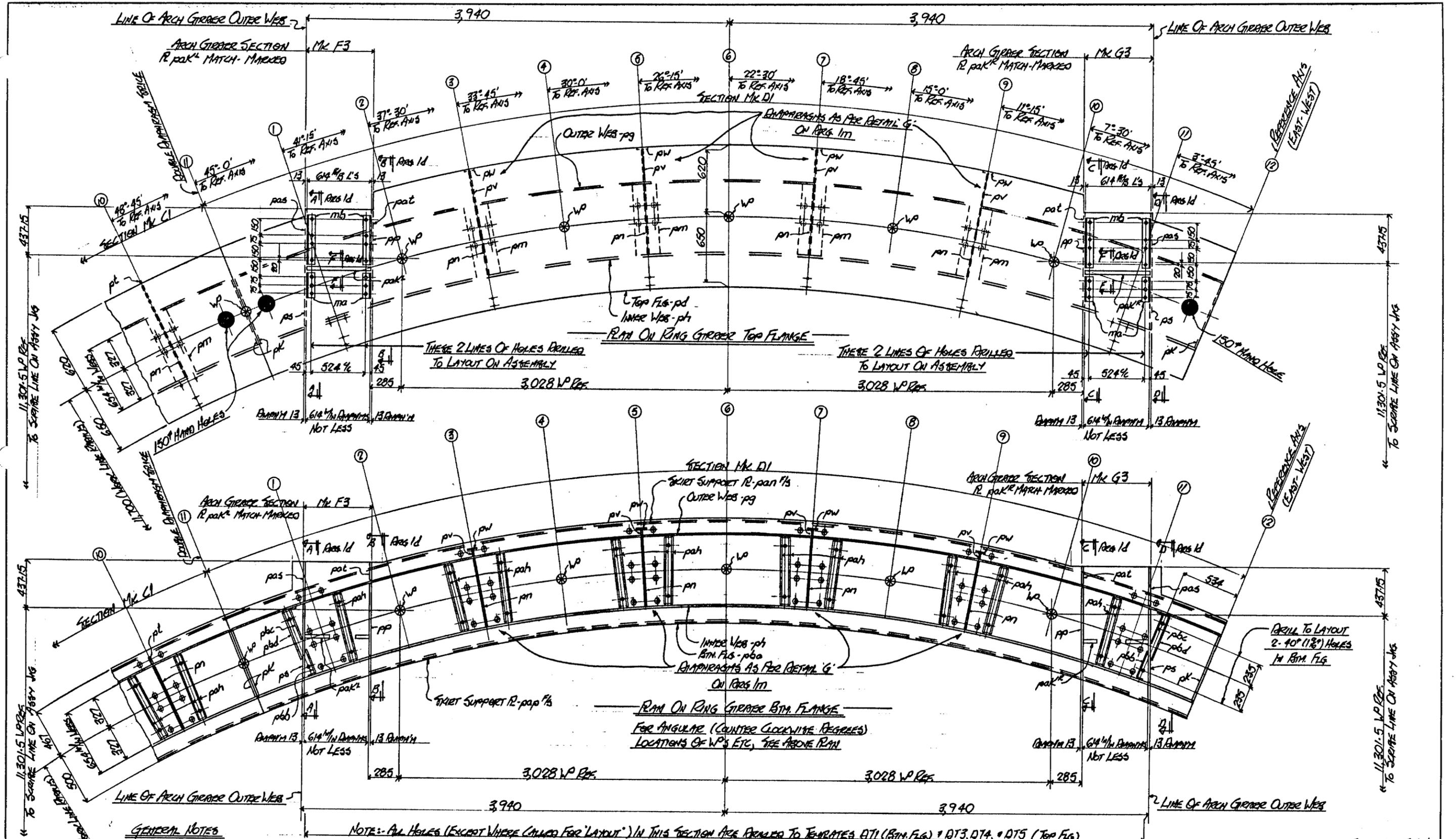
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	MATERIAL	G4021 (44W) W/H	NO. BY DATE	REVISION
	SURF. PREP.	PAINT	DETAILS RING GIRDER MANUFACTURE PLAN ON TOP FLG. NORTH HALF	
	OPEN HOLES	SEE MEMO	FOR 4.2" TELESCOPE DOME LA PALMA	
	DRAWN	DATE	CHECKED	DATE
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		DRAWING NO.		REV.
SHOP DEPARTMENT		1420-16		
		INS. F. B. Q. M. T. P. SH. DP. AS. PA. ER		NO. PRINTS

p-abcdefghijklmnpstvw y

m-abcdefghijklmnpstvw y

s-abcdefghijklmnpstvw y



**GENERAL NOTES**

- 1) FOR WELDING OF MAIN MATL. & REMOVAL DIMENSIONS SEE REG 16
- 2) FOR PLAN ON HALF RING GIRDER BTM FLG CONTAINING THESE DETAILS SEE REG 10
- 3) FOR PLAN ON HALF RING GIRDER TOP FLG CONTAINING THESE DETAILS SEE REG 10
- 4) FOR MAIN MATL. & REMOVAL DIMENSIONS WHEN CUTTING SEE REGS 10, 13, & 14
- 5) FOR DRILLING TEMPLATES & ITEM CUTTING OF OTHER MATL. SHOWN ON THIS REG. SEE REGS 10 & 14
- 6) FOR SHOP ASSEMBLY PROCEDURE SEE REG 10a

NOTE:- ALL HOLES (EXCEPT WHERE CALLED FOR 'LAYOUT') IN THIS SECTION ARE DRILLED TO TOLERANCES DT1 (BTM FLG) & DT3, DT4, & DT5 (TOP FLG)

**DETAILS OF RING GIRDER AT ARCH GIRDERS (RING GIRDER SECTION MK D1)**

p-abcdefghijklmnpstvw y

m-abcdefghijklmnpstvw y

s-abcdefghijklmnpstvw y



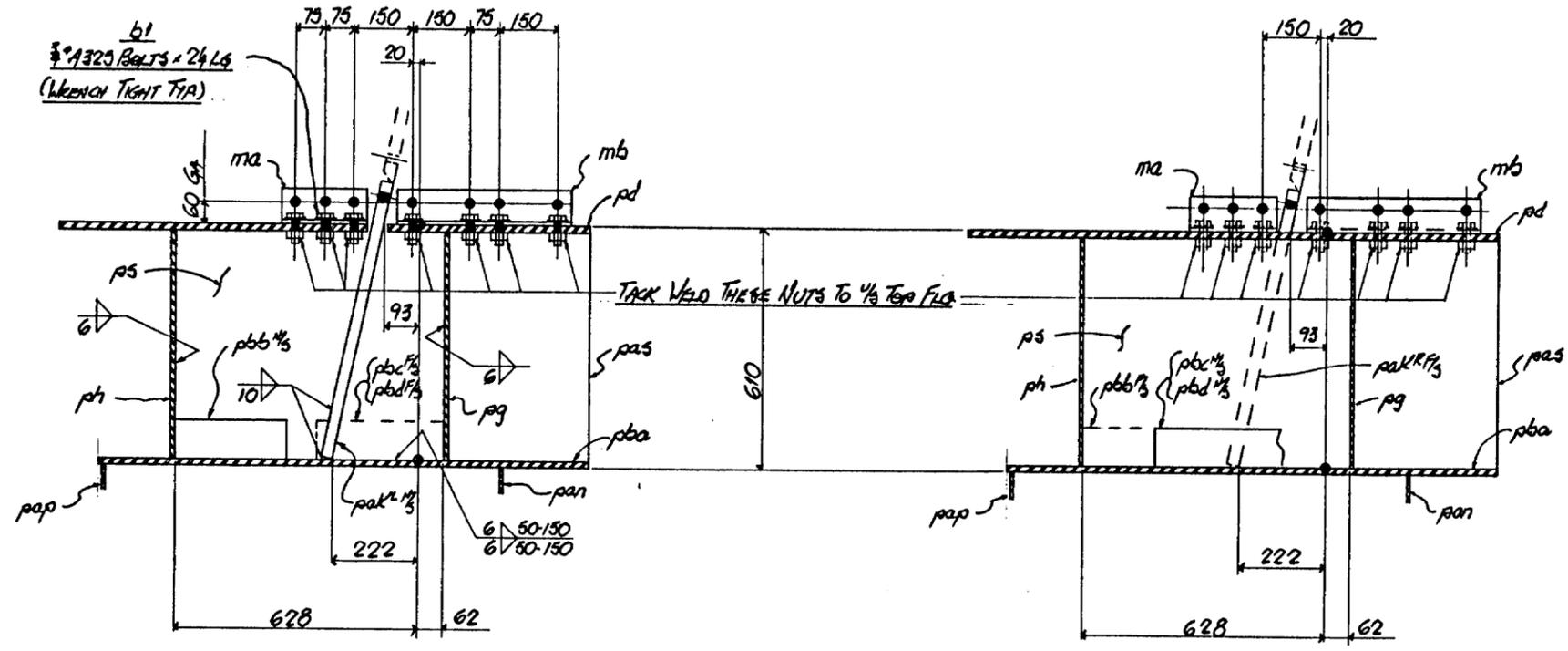
MATERIAL	G40 21 (44W) w/n	DATE	
SURF. PREP.	PAINT	DATE	
OPEN HOLES	SEE MEMO	DATE	
PRINT ON FINAL ASSEMBLY		DATE	
DRAWN	FBK	CHECKED	
DRAWING No.	1420-1c	REV	

BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.

SHOP DEPARTMENT

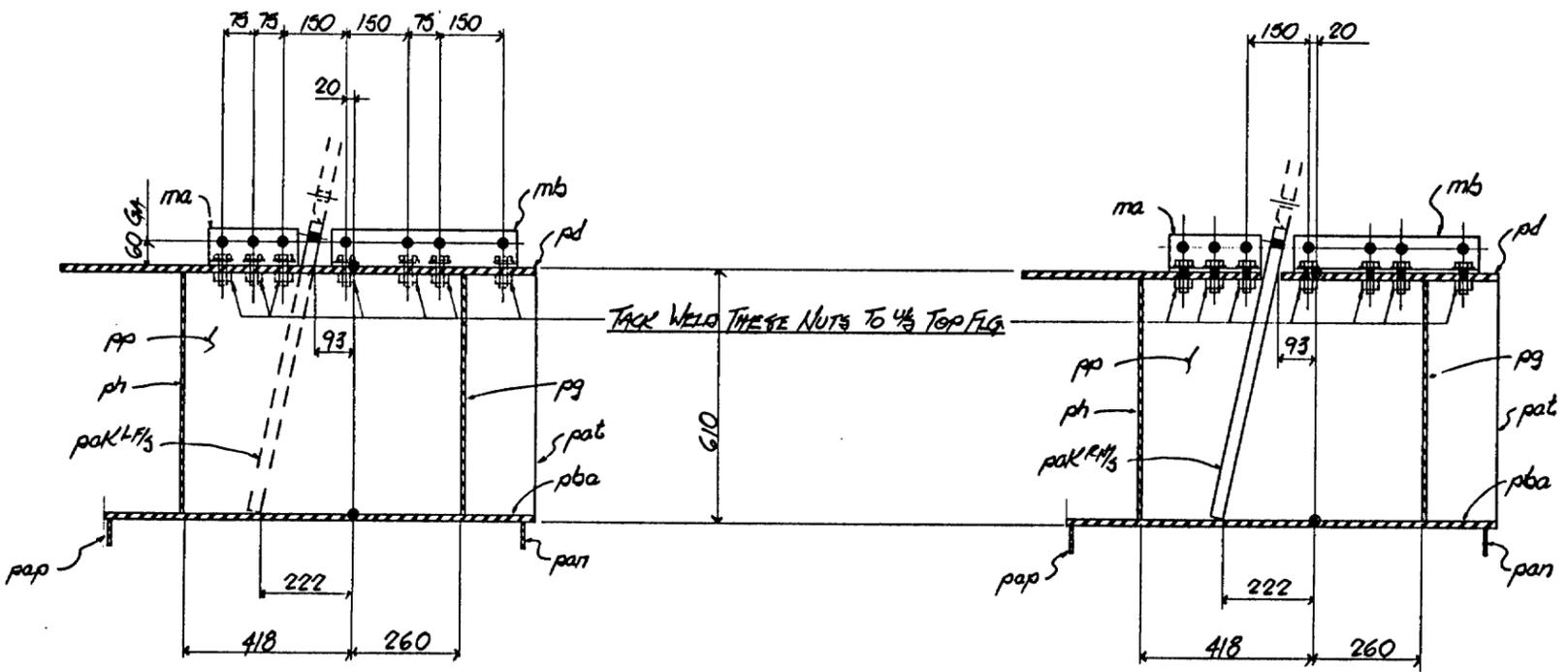
3R/3001099

61  
 3/4" A320 BOLTS - 24 L6  
 (WELDED TIGHT FIT)



SECT. A-A  
 PROJECTED FROM WORK POINT # 2

SECT. D-D' (WELD AS FOR A-A)  
 PROJECTED TO WORK POINT # 10

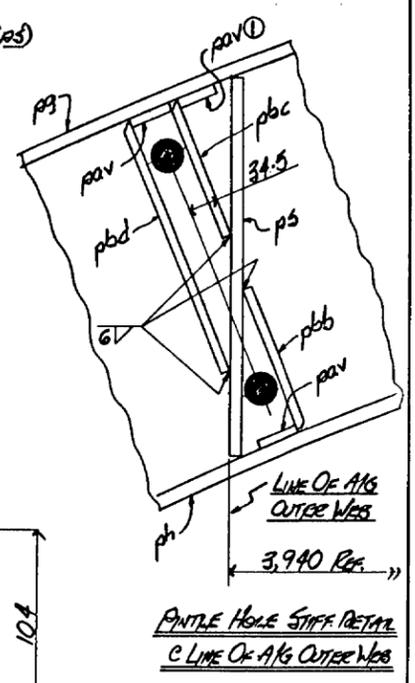


SECT. B-B (WELD AS FOR A-A)  
 PROJECTED FROM WORK POINT # 2

SECT. C-C' (WELD AS FOR A-A)  
 PROJECTED TO WORK POINT # 10

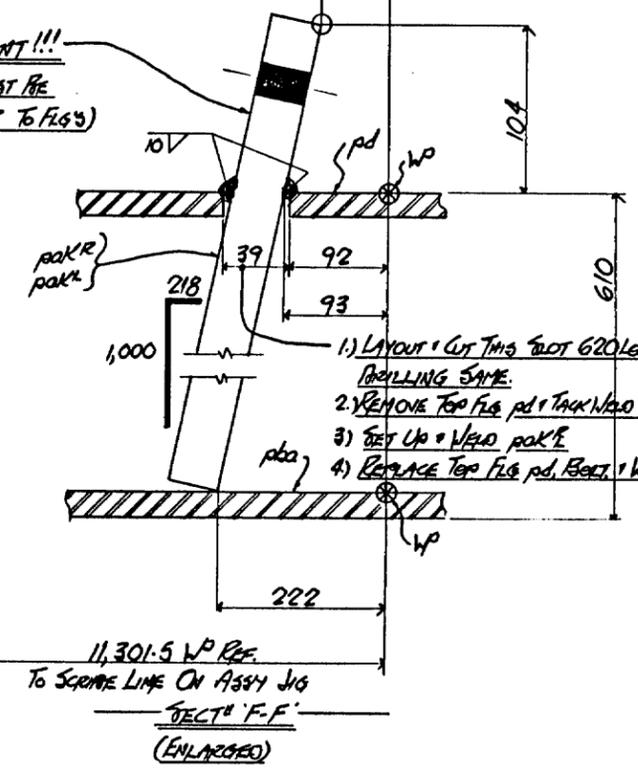
PROCEDURE (AFTER COMPLETE WELDING OF PARTS 1-5)

- 1) FIT & TACK WELD pcv NOTED ①
- 2) FIT & FULLY WELD pbc
- 3) FIT & TACK WELD 2 REMAINING pcv
- 4) FIT & FULLY WELD pbb & pbd



11,231 TO SCORE LINE ON ASSY JIG  
 AFTER ALL WELDING IS COMPLETE  
 RECORD THIS ACTUAL DIMENSION  
 & MATCH TO ARCH GRINDER

IMPORTANT!!!  
 2 OF pAK'S MUST BE  
 VERTICAL (C 90° TO FLS'S)



- 1) LAYOUT & CUT THIS TUB 620 LONG IN TOP FLG pd AFTER DRILLING SAME.
- 2) REMOVE TOP FLG pd & TACK WELD ALL NUTS FOR ANGLES mmm.
- 3) SET UP & WELD pAK'S.
- 4) REPLACE TOP FLG pd, BOLT & WELD.

GENERAL NOTES

- 1) FOR LOCATIONS OF THESE DETAILS SEE FIG. 1c
- 2) FOR WELDING OF MAIN MAT'L SEE FIG. 1b
- 3) FOR MAIN MAT'L & BRASS/ALUM ITEM CUTTING SEE FIGS. 1p, 1s, 1t
- 4) FOR ITEM CUTTING OF OTHER MAT'L SHOWN ON THIS FIG SEE FIG. 1v
- 5) FOR SHOP ASSEMBLY PROCEDURE SEE FIG. 1aa

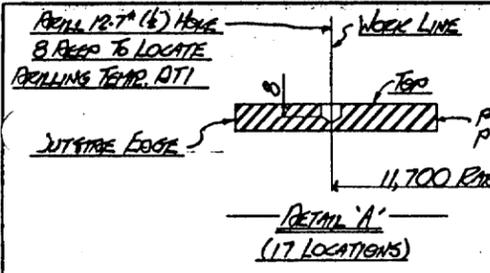
3R/3001100

	MATERIAL	G40 21 (44W) w/n	NO. BY DATE	REVISION
	SURF. PREP.	SEE MEMO	DETAILS RING GRINDER SECTION D1	
	OPEN HOLES	SEE MEMO	TELESCOPE DETAILS & ARCH GRINDER	
	PRINT ON FULL ASSEMBLY		FOR 2" TELESCOPE DOME LA 1420	
DRAWN	DATE	CHECKED	DATE	DRAWING No.
BRK				1420-1d
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.				
SHOP DEPARTMENT		INS / F / S / C / M / T / P / SH / DP / AS / PA / ER		

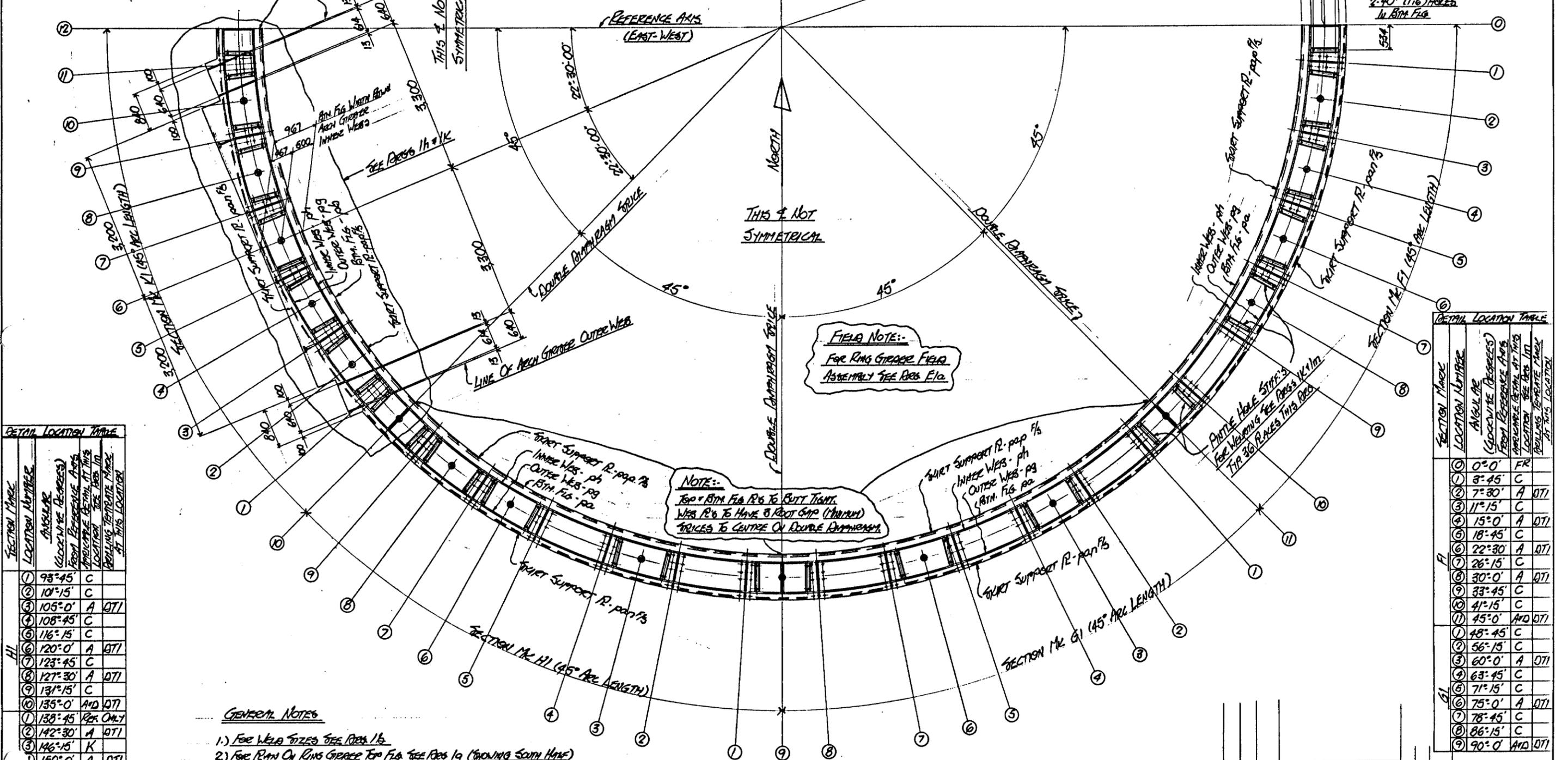
p-abcdefghijklmnopstvw y

m-abcdefghijklmnopst y

s-abcdefghijklmnopstvw y



**NOTE:**  
 TOP & BTM FLA R'S TO BUTT TIGHT AGAINST END R. PA  
 ON 45° J.G. W/S R'S TO HAVE 1.5 GAP (MINIMUM) FROM  
 FACE OF PA (TYP 2 PLACES)



**FIELD NOTE:**  
 FOR RING GIRDER FIELD  
 ASSEMBLY SEE PEGS ETC.

**NOTE:**  
 TOP & BTM FLA R'S TO BUTT TIGHT  
 W/S R'S TO HAVE 3 ROOT GAP (MINIMUM)  
 TRICES TO CENTRE OF DOUBLE BUTTWELD

SECTION MARK	LOCATION NUMBER	ANGULAR LOCATION (COORDINATE ADDRESS) FROM REFERENCE AXIS	SECTION MARK
H1	1	98°45'	C
H1	2	10°15'	C
H1	3	105°0'	A DTI
H1	4	108°45'	C
H1	5	116°15'	C
H1	6	120°0'	A DTI
H1	7	123°45'	C
H1	8	127°30'	A DTI
H1	9	131°15'	C
H1	10	135°0'	A DTI
H1	11	138°45'	Ref. Only
H1	12	142°30'	A DTI
H1	13	146°15'	K
H1	14	150°0'	A DTI
H1	15	153°45'	H
H1	16	157°30'	A DTI
H1	17	161°15'	H
K1	18	165°0'	A DTI
K1	19	168°45'	K
K1	20	172°30'	A DTI
K1	21	176°15'	Ref. Only
K1	22	180°0'	F

**GENERAL NOTES**

- 1) FOR WELD SIZES SEE PEGS 16
- 2) FOR PLAN ON RING GIRDER TOP FLA SEE PEGS 19 (SHOWING SOUTH HALF)
- 3) FOR RING GIRDER ASSEMBLY NORTH OF REFERENCE AXIS SEE PEGS 10, 11, 12
- 4) FOR ARCH GIRDER TO RING GIRDER ASSEMBLY SEE PEGS 14 & 15
- 5) FOR ITEM CUTTING DETAILS SEE PEGS 13, 14, 15 & 16
- 6) FOR ROLLING TEMPERATURE DETAILS SEE PEGS 17
- 7) FOR TIGER ASSEMBLY PROCEDURE SEE PEGS 100

SECTION MARK	LOCATION NUMBER	ANGULAR LOCATION (COORDINATE ADDRESS) FROM REFERENCE AXIS	SECTION MARK
F1	1	0°0'	FR
F1	2	8°45'	C
F1	3	7°30'	A DTI
F1	4	11°15'	C
F1	5	15°0'	A DTI
F1	6	18°45'	C
F1	7	22°30'	A DTI
F1	8	26°15'	C
F1	9	30°0'	A DTI
F1	10	33°45'	C
F1	11	41°15'	C
F1	12	45°0'	A DTI
G1	1	48°45'	C
G1	2	56°15'	C
G1	3	60°0'	A DTI
G1	4	63°45'	C
G1	5	71°15'	C
G1	6	75°0'	A DTI
G1	7	78°45'	C
G1	8	86°15'	C
G1	9	90°0'	A DTI

**PLAN ON RING GIRDER BTM FLA (LOOKING DOWN) SHOWING SOUTHERN HALF**

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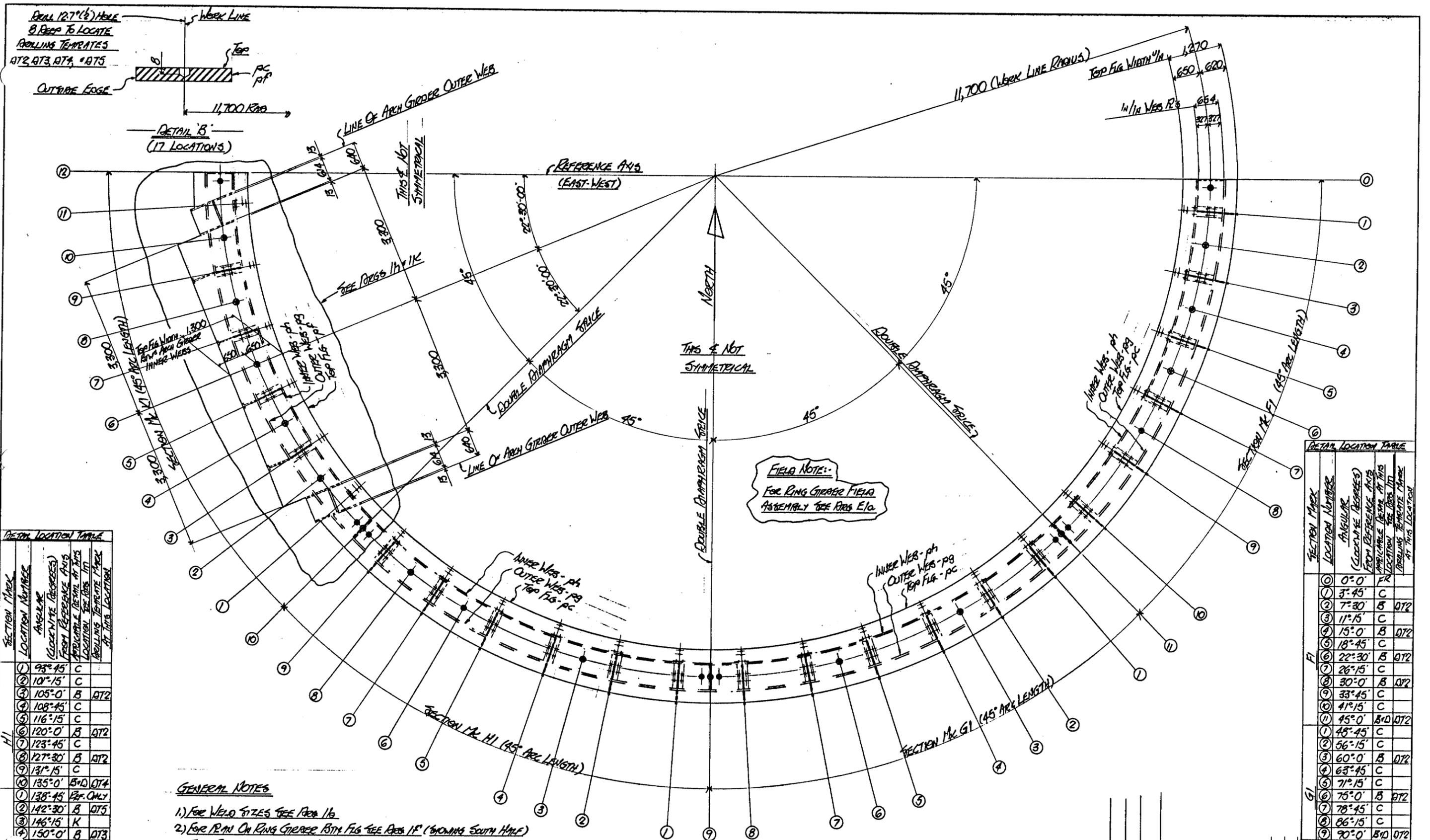
BRITAIN

NO. BY DATE: 1420-1F

REVISION: SEE MEMO

MATERIAL: G40.21 (44W) U/N

BRITAIN STEEL LTD.



DETAIL LOCATION TABLE

SECTION MARK	LOCATION NUMBER	ANGULAR	COORDINATE (DEGREES)	FROM REFERENCE AXIS	APPLICABLE TO THIS LOCATION	ROLLING TEMPERATURE	MARK AT THIS LOCATION
H1	1	93° 45'	C				
	2	101° 15'	C				
	3	105° 0'	B	DT2			
	4	108° 45'	C				
	5	116° 15'	C				
	6	120° 0'	B	DT2			
	7	123° 45'	C				
	8	127° 30'	B	DT2			
	9	131° 15'	C				
	10	135° 0'	B/D	DT4			
	11	138° 45'	Ref. Only				
	12	142° 30'	B	DT5			
	13	146° 15'	K				
	14	150° 0'	B	DT3			
	15	153° 45'	H				
	16	157° 30'	B	DT3			
	17	161° 15'	H				
	18	165° 0'	B	DT3			
	19	168° 45'	K				
	20	172° 30'	B	DT4			
	21	176° 15'	Ref. Only				
	22	180° 0'	F				

- GENERAL NOTES**
- 1) FOR WELD SIZES SEE Para 1/a
  - 2) FOR RAIL ON RING GIRDER BOTH FLG SEE Para 1/f (SHOWING SOUTH HALF)
  - 3) FOR RING GIRDER ASSY NORTH OF REFERENCE AXIS SEE Para 1/a & 1/b
  - 4) FOR ARCH GIRDER TO RING GIRDER ASSY SEE Para 1/h & 1/k
  - 5) FOR ITEM CUTTING DETAILS SEE Para 1/a, 1/b, 1/c & 1/n
  - 6) FOR DRILLING TEMPERATURE DETAILS SEE Para 1/n
  - 7) FOR SHIP ASSEMBLY PROCEDURE SEE Para 1/a

RAIL ON RING GIRDER TOP FLG (LOOKING DOWN)  
SHOWING SOUTHERN HALF

FIELD NOTE:  
FOR RING GIRDER FIELD ASSEMBLY SEE Para E/c

DETAIL LOCATION TABLE

SECTION MARK	LOCATION NUMBER	ANGULAR	COORDINATE (DEGREES)	FROM REFERENCE AXIS	APPLICABLE TO THIS LOCATION	ROLLING TEMPERATURE	MARK AT THIS LOCATION
F1	1	0° 0'	C				
	2	3° 45'	C				
	3	7° 30'	B	DT2			
	4	11° 15'	C				
	5	15° 0'	B	DT2			
	6	18° 45'	C				
	7	22° 30'	B	DT2			
	8	26° 15'	C				
	9	30° 0'	B	DT2			
	10	33° 45'	C				
	11	41° 15'	C				
	12	45° 0'	B/D	DT2			
G1	1	48° 45'	C				
	2	56° 15'	C				
	3	60° 0'	B	DT2			
	4	63° 45'	C				
	5	71° 15'	C				
	6	75° 0'	B	DT2			
	7	78° 45'	C				
	8	86° 15'	C				
	9	90° 0'	B/D	DT2			

BRITAIN

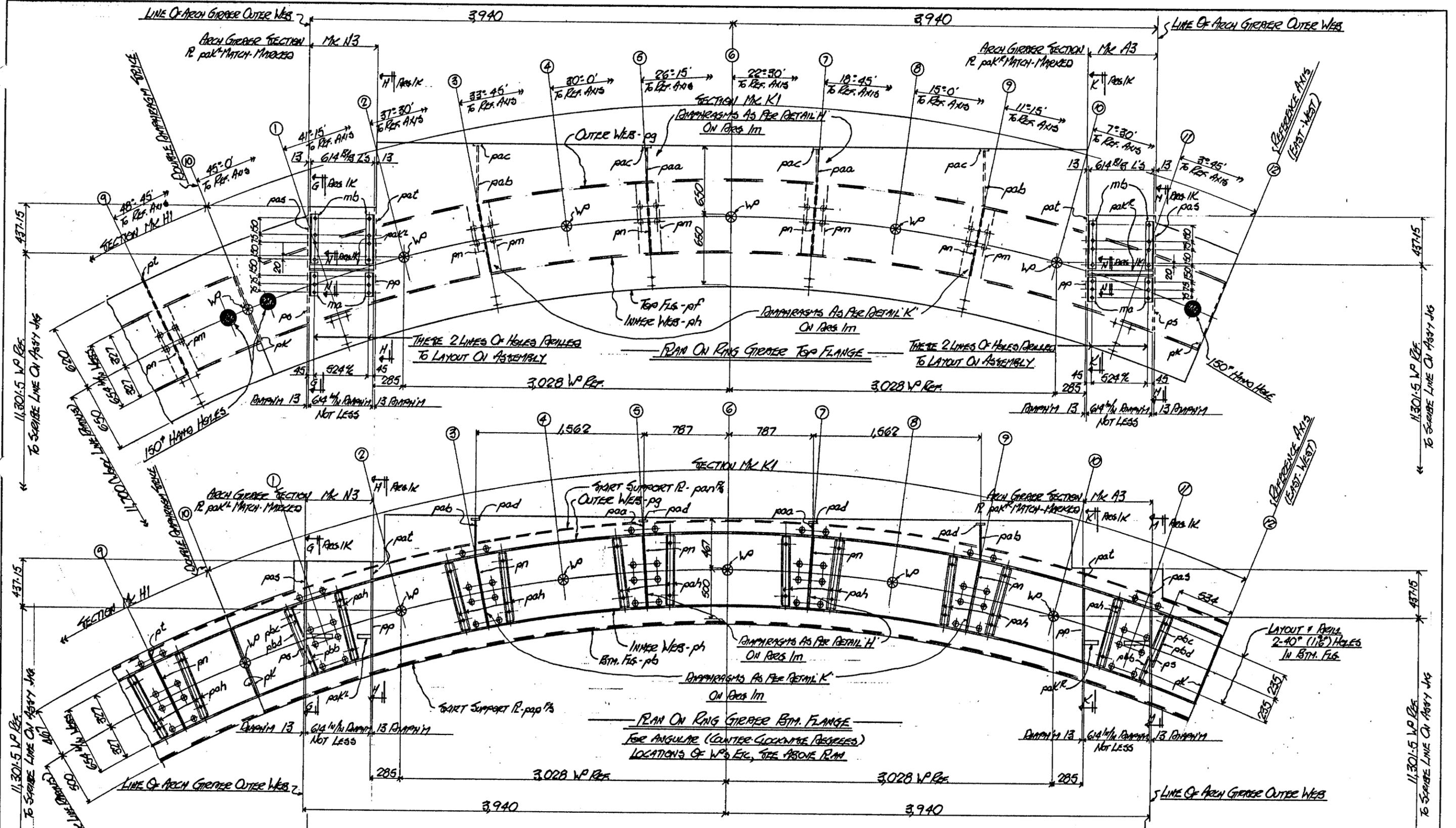
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, S.C.

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1420-1g

FOR 4.2" TELESCOPE DOME LA PALMA

p-abcdefghijklmnpstvw y m-abcdefghijklmnpstvw y s-abcdefghijklmnpstvw y



**GENERAL NOTES**

- 1) FOR WELDING OF MAIN MATL. & RIGID CONNECTIONS SEE PAGE 16
- 2) FOR PLAN ON HALF RING GIRDER BTM. FLG. CONTAINING THESE DETAILS SEE PAGE 17
- 3) FOR PLAN ON HALF RING GIRDER TOP FLG. CONTAINING THESE DETAILS SEE PAGE 19
- 4) FOR MAIN MATL. & RIGID CONNECTIONS ITEM CUTTING SEE PAGES 12, 13, & 14
- 5) FOR PERMISSIBLE TEMPERATURES & ITEM CUTTING OF OTHER MATL. SHOWN ON THIS PAGE SEE PAGE 10 & 11
- 6) FOR SHOP ASSEMBLY PROCEDURE SEE PAGE 100

**DETAILS OF RING GIRDER AT ARCH GIRDER (RING GIRDER SECTION MK K1)**

	MATERIAL	G40.21 (44W) w/n			
	SURF. PREP. & PAINT	SEE MEMO			
	OPEN HOLES	FOR 4.2" TELESCOPE ROPE LA PALMA			
	PRINT ON FROM ASSEMBLY				
DRAWN	DATE	CHECKED	DATE	DRAWING No.	1420-14
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.					

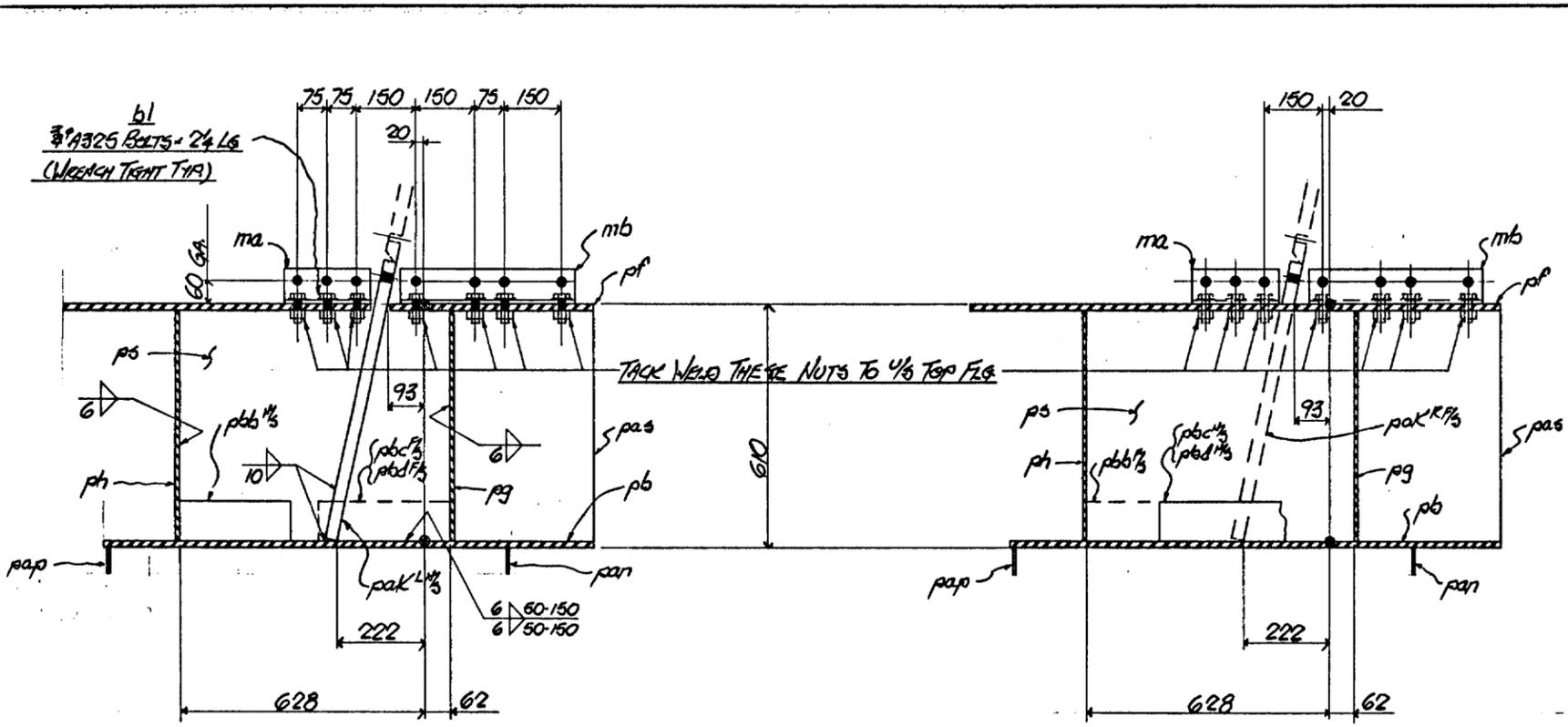
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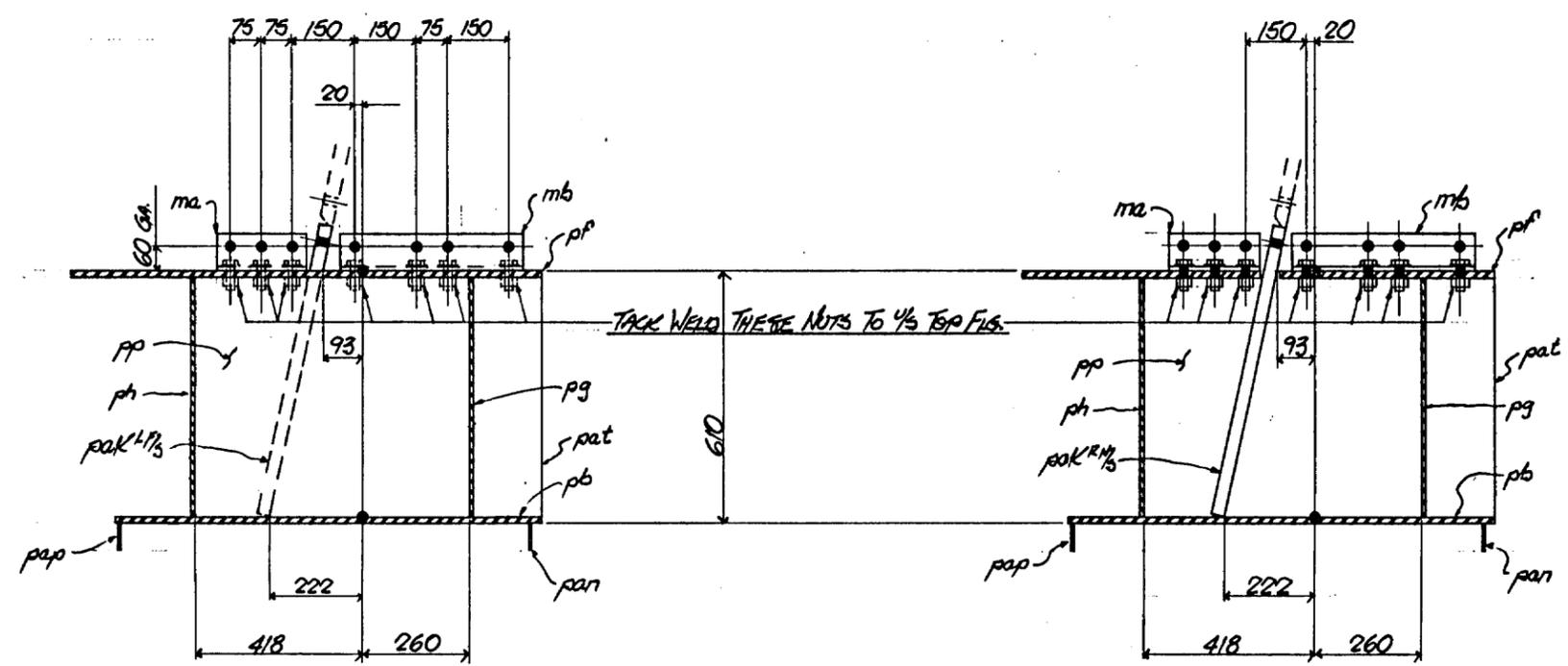
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SHOP DEPARTMENT  
 1/2 3/4 5/8 3/4 1 1 1/4 1 1/2 1 3/4 2 2 1/2 3 3 1/2 4 4 1/2 5 5 1/2 6 6 1/2 7 7 1/2 8 8 1/2 9 9 1/2 10 10 1/2 11 11 1/2 12 12 1/2 13 13 1/2 14 14 1/2 15 15 1/2 16 16 1/2 17 17 1/2 18 18 1/2 19 19 1/2 20 20 1/2 21 21 1/2 22 22 1/2 23 23 1/2 24 24 1/2 25 25 1/2 26 26 1/2 27 27 1/2 28 28 1/2 29 29 1/2 30 30 1/2 31 31 1/2 32 32 1/2 33 33 1/2 34 34 1/2 35 35 1/2 36 36 1/2 37 37 1/2 38 38 1/2 39 39 1/2 40 40 1/2 41 41 1/2 42 42 1/2 43 43 1/2 44 44 1/2 45 45 1/2 46 46 1/2 47 47 1/2 48 48 1/2 49 49 1/2 50 50 1/2 51 51 1/2 52 52 1/2 53 53 1/2 54 54 1/2 55 55 1/2 56 56 1/2 57 57 1/2 58 58 1/2 59 59 1/2 60 60 1/2 61 61 1/2 62 62 1/2 63 63 1/2 64 64 1/2 65 65 1/2 66 66 1/2 67 67 1/2 68 68 1/2 69 69 1/2 70 70 1/2 71 71 1/2 72 72 1/2 73 73 1/2 74 74 1/2 75 75 1/2 76 76 1/2 77 77 1/2 78 78 1/2 79 79 1/2 80 80 1/2 81 81 1/2 82 82 1/2 83 83 1/2 84 84 1/2 85 85 1/2 86 86 1/2 87 87 1/2 88 88 1/2 89 89 1/2 90 90 1/2 91 91 1/2 92 92 1/2 93 93 1/2 94 94 1/2 95 95 1/2 96 96 1/2 97 97 1/2 98 98 1/2 99 99 1/2 100 100 1/2 101 101 1/2 102 102 1/2 103 103 1/2 104 104 1/2 105 105 1/2 106 106 1/2 107 107 1/2 108 108 1/2 109 109 1/2 110 110 1/2 111 111 1/2 112 112 1/2 113 113 1/2 114 114 1/2 115 115 1/2 116 116 1/2 117 117 1/2 118 118 1/2 119 119 1/2 120 120 1/2 121 121 1/2 122 122 1/2 123 123 1/2 124 124 1/2 125 125 1/2 126 126 1/2 127 127 1/2 128 128 1/2 129 129 1/2 130 130 1/2 131 131 1/2 132 132 1/2 133 133 1/2 134 134 1/2 135 135 1/2 136 136 1/2 137 137 1/2 138 138 1/2 139 139 1/2 140 140 1/2 141 141 1/2 142 142 1/2 143 143 1/2 144 144 1/2 145 145 1/2 146 146 1/2 147 147 1/2 148 148 1/2 149 149 1/2 150 150 1/2 151 151 1/2 152 152 1/2 153 153 1/2 154 154 1/2 155 155 1/2 156 156 1/2 157 157 1/2 158 158 1/2 159 159 1/2 160 160 1/2 161 161 1/2 162 162 1/2 163 163 1/2 164 164 1/2 165 165 1/2 166 166 1/2 167 167 1/2 168 168 1/2 169 169 1/2 170 170 1/2 171 171 1/2 172 172 1/2 173 173 1/2 174 174 1/2 175 175 1/2 176 176 1/2 177 177 1/2 178 178 1/2 179 179 1/2 180 180 1/2 181 181 1/2 182 182 1/2 183 183 1/2 184 184 1/2 185 185 1/2 186 186 1/2 187 187 1/2 188 188 1/2 189 189 1/2 190 190 1/2 191 191 1/2 192 192 1/2 193 193 1/2 194 194 1/2 195 195 1/2 196 196 1/2 197 197 1/2 198 198 1/2 199 199 1/2 200 200 1/2 201 201 1/2 202 202 1/2 203 203 1/2 204 204 1/2 205 205 1/2 206 206 1/2 207 207 1/2 208 208 1/2 209 209 1/2 210 210 1/2 211 211 1/2 212 212 1/2 213 213 1/2 214 214 1/2 215 215 1/2 216 216 1/2 217 217 1/2 218 218 1/2 219 219 1/2 220 220 1/2 221 221 1/2 222 222 1/2 223 223 1/2 224 224 1/2 225 225 1/2 226 226 1/2 227 227 1/2 228 228 1/2 229 229 1/2 230 230 1/2 231 231 1/2 232 232 1/2 233 233 1/2 234 234 1/2 235 235 1/2 236 236 1/2 237 237 1/2 238 238 1/2 239 239 1/2 240 240 1/2 241 241 1/2 242 242 1/2 243 243 1/2 244 244 1/2 245 245 1/2 246 246 1/2 247 247 1/2 248 248 1/2 249 249 1/2 250 250 1/2 251 251 1/2 252 252 1/2 253 253 1/2 254 254 1/2 255 255 1/2 256 256 1/2 257 257 1/2 258 258 1/2 259 259 1/2 260 260 1/2 261 261 1/2 262 262 1/2 263 263 1/2 264 264 1/2 265 265 1/2 266 266 1/2 267 267 1/2 268 268 1/2 269 269 1/2 270 270 1/2 271 271 1/2 272 272 1/2 273 273 1/2 274 274 1/2 275 275 1/2 276 276 1/2 277 277 1/2 278 278 1/2 279 279 1/2 280 280 1/2 281 281 1/2 282 282 1/2 283 283 1/2 284 284 1/2 285 285 1/2 286 286 1/2 287 287 1/2 288 288 1/2 289 289 1/2 290 290 1/2 291 291 1/2 292 292 1/2 293 293 1/2 294 294 1/2 295 295 1/2 296 296 1/2 297 297 1/2 298 298 1/2 299 299 1/2 300 300 1/2 301 301 1/2 302 302 1/2 303 303 1/2 304 304 1/2 305 305 1/2 306 306 1/2 307 307 1/2 308 308 1/2 309 309 1/2 310 310 1/2 311 311 1/2 312 312 1/2 313 313 1/2 314 314 1/2 315 315 1/2 316 316 1/2 317 317 1/2 318 318 1/2 319 319 1/2 320 320 1/2 321 321 1/2 322 322 1/2 323 323 1/2 324 324 1/2 325 325 1/2 326 326 1/2 327 327 1/2 328 328 1/2 329 329 1/2 330 330 1/2 331 331 1/2 332 332 1/2 333 333 1/2 334 334 1/2 335 335 1/2 336 336 1/2 337 337 1/2 338 338 1/2 339 339 1/2 340 340 1/2 341 341 1/2 342 342 1/2 343 343 1/2 344 344 1/2 345 345 1/2 346 346 1/2 347 347 1/2 348 348 1/2 349 349 1/2 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433 1/2 434 434 1/2 435 435 1/2 436 436 1/2 437 437 1/2 438 438 1/2 439 439 1/2 440 440 1/2 441 441 1/2 442 442 1/2 443 443 1/2 444 444 1/2 445 445 1/2 446 446 1/2 447 447 1/2 448 448 1/2 449 449 1/2 450 450 1/2 451 451 1/2 452 452 1/2 453 453 1/2 454 454 1/2 455 455 1/2 456 456 1/2 457 457 1/2 458 458 1/2 459 459 1/2 460 460 1/2 461 461 1/2 462 462 1/2 463 463 1/2 464 464 1/2 465 465 1/2 466 466 1/2 467 467 1/2 468 468 1/2 469 469 1/2 470 470 1/2 471 471 1/2 472 472 1/2 473 473 1/2 474 474 1/2 475 475 1/2 476 476 1/2 477 477 1/2 478 478 1/2 479 479 1/2 480 480 1/2 481 481 1/2 482 482 1/2 483 483 1/2 484 484 1/2 485 485 1/2 486 486 1/2 487 487 1/2 488 488 1/2 489 489 1/2 490 490 1/2 491 491 1/2 492 492 1/2 493 493 1/2 494 494 1/2 495 495 1/2 496 496 1/2 497 497 1/2 498 498 1/2 499 499 1/2 500 500 1/2 501 501 1/2 502 502 1/2 503 503 1/2 504 504 1/2 505 505 1/2 506 506 1/2 507 507 1/2 508 508 1/2 509 509 1/2 510 510 1/2 511 511 1/2 512 512 1/2 513 513 1/2 514 514 1/2 515 515 1/2 516 516 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600 600 1/2 601 601 1/2 602 602 1/2 603 603 1/2 604 604 1/2 605 605 1/2 606 606 1/2 607 607 1/2 608 608 1/2 609 609 1/2 610 610 1/2 611 611 1/2 612 612 1/2 613 613 1/2 614 614 1/2 615 615 1/2 616 616 1/2 617 617 1/2 618 618 1/2 619 619 1/2 620 620 1/2 621 621 1/2 622 622 1/2 623 623 1/2 624 624 1/2 625 625 1/2 626 626 1/2 627 627 1/2 628 628 1/2 629 629 1/2 630 630 1/2 631 631 1/2 632 632 1/2 633 633 1/2 634 634 1/2 635 635 1/2 636 636 1/2 637 637 1/2 638 638 1/2 639 639 1/2 640 640 1/2 641 641 1/2 642 642 1/2 643 643 1/2 644 644 1/2 645 645 1/2 646 646 1/2 647 647 1/2 648 648 1/2 649 649 1/2 650 650 1/2 651 651 1/2 652 652 1/2 653 653 1/2 654 654 1/2 655 655 1/2 656 656 1/2 657 657 1/2 658 658 1/2 659 659 1/2 660 660 1/2 661 661 1/2 662 662 1/2 663 663 1/2 664 664 1/2 665 665 1/2 666 666 1/2 667 667 1/2 668 668 1/2 669 669 1/2 670 670 1/2 671 671 1/2 672 672 1/2 673 673 1/2 674 674 1/2 675 675 1/2 676 676 1/2 677 677 1/2 678 678 1/2 679 679 1/2 680 680 1/2 681 681 1/2 682 682 1/2 683 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933 1/2 934 934 1/2 935 935 1/2 936 936 1/2 937 937 1/2 938 938 1/2 939 939 1/2 940 940 1/2 941 941 1/2 942 942 1/2 943 943 1/2 944 944 1/2 945 945 1/2 946 946 1/2 947 947 1/2 948 948 1/2 949 949 1/2 950 950 1/2 951 951 1/2 952 952 1/2 953 953 1/2 954 954 1/2 955 955 1/2 956 956 1/2



SECTION G-G  
PROJECTED FROM WORK POINT #2

SECTION M-M (WELD AS FOR G-G)  
PROJECTED TO WORK POINT #10

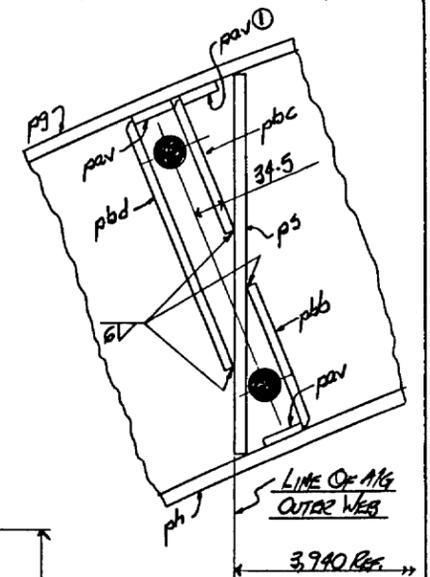


SECTION H-H (WELD AS FOR G-G)  
PROJECTED FROM WORK POINT #2

SECTION K-K (WELD AS FOR G-G)  
PROJECTED TO WORK POINT #10

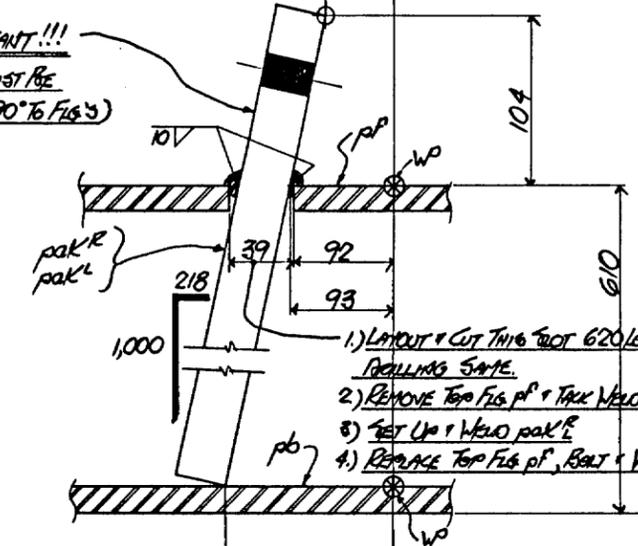
PROCEDURE (AFTER COMPLETE WELDING OF REMAINING PARTS)

- 1) FIT & TACK WELD PART NOTED ①
- 2) FIT & FULLY WELD part c
- 3) FIT & TACK WELD 2 REMAINING PARTS
- 4) FIT & FULLY WELD part b & part d



11,231 TO SQUARE LINE ON ASBY JOG  
AFTER ALL WELDING IS COMPLETE  
RECORD THIS ACTUAL DIMENSION  
& MATCH TO ARCH CHECKER

IMPORTANT!!!  
± OF part e MUST BE  
VERTICAL (± 90° TO FLG'S)



- 1) LAYOUT & CUT THIS FOOT 620 LONG IN TOP FLG. AFTER RECALLING SAME.
- 2) REMOVE TOP FLG. & TACK WELD ALL NUTS FOR ANGLES ma & mb
- 3) SET UP & WELD part e
- 4) REPLACE TOP FLG. & BOLT & WELD

11,301.5 WP REF.  
TO SQUARE LINE ON ASBY JOG  
SECTION N-N'  
(ENLARGED)

GENERAL NOTES

- 1) FOR LOCATIONS OF THESE DETAILS SEE PAGES 14
- 2) FOR WELDING OF MAIN MATL SEE PAGE 16
- 3) FOR MAIN MATL & DIAPHRAGM ITEM CUTTING SEE PAGES 10, 13, & 14
- 4) FOR ITEM CUTTING OF OTHER MATL SHOWN ON THIS PAGE SEE PAGES 14
- 5) FOR SHOP ASSEMBLY PROCEDURE SEE PAGE 100

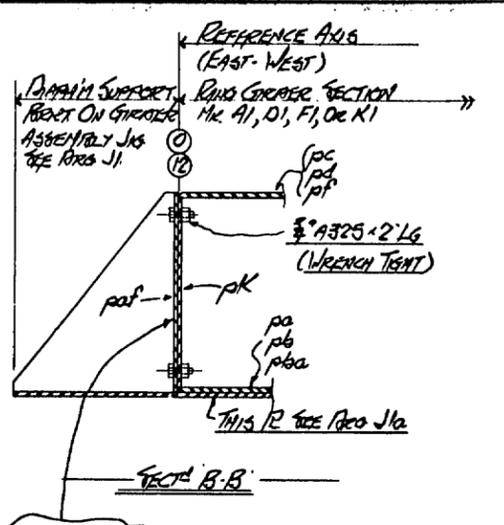
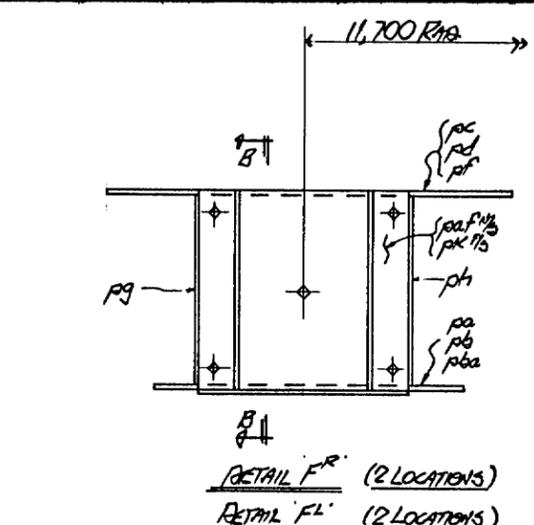
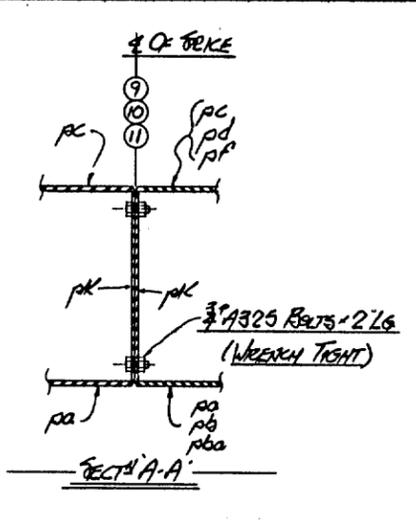
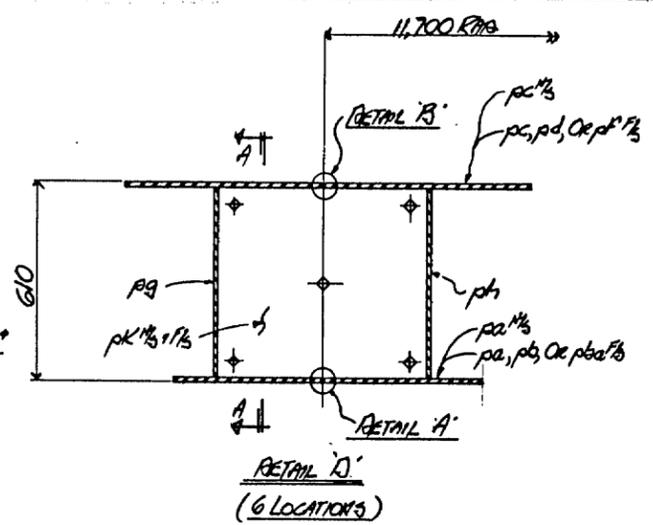
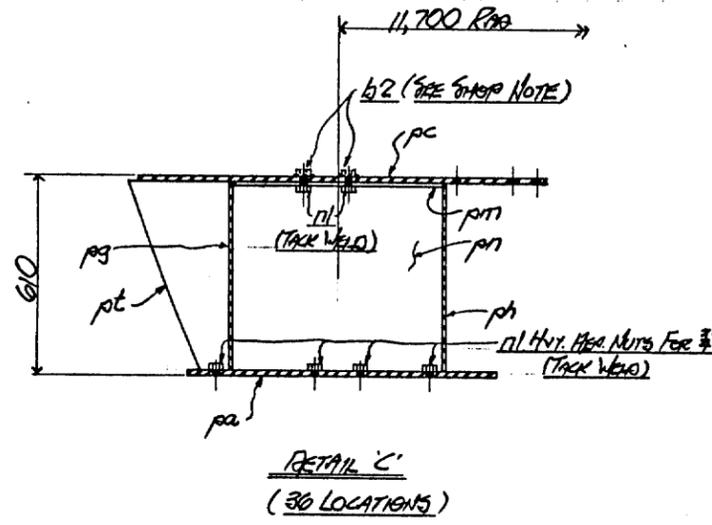
3R/3001104

BRITAIN	MATERIAL	G40.21 (44W) w/n	NO. BY DATE	REVISION
	SURF. PREP. & PAINT	SEE MEMO	DETAILS: EDGE CHECKER SECTION K1 TOPGAL DETAILS CHECK CHECKER GEAR	
	OPEN HOLES	PRINT ON FINAL ASSEMBLY	FOR 4.2M TELESCOPE ROPE LA PANDA	
	DRAWN	DATE	CHECKED	DATE
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		DRAWING NO.		1420-1K
SHOP DEPARTMENT		INS. F. S. O. M. T. P. SH. DP. AS. PA. ER.		NO. PRINTS

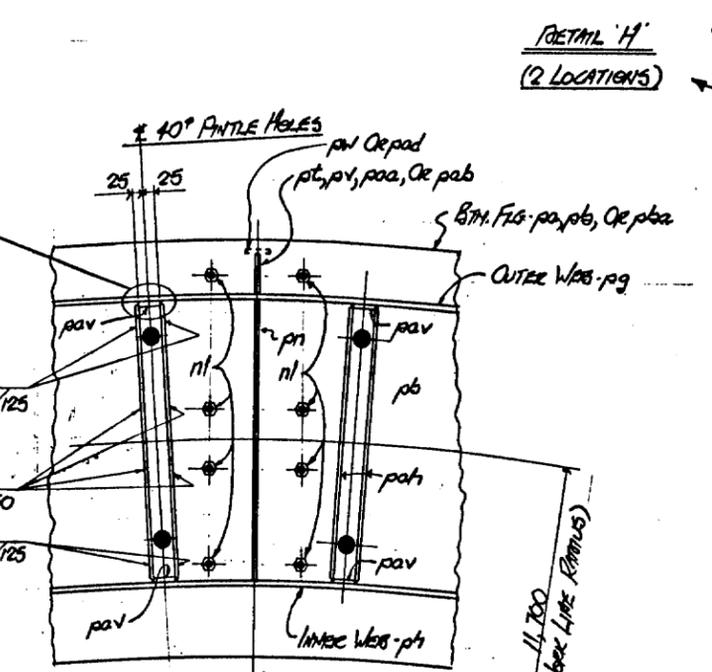
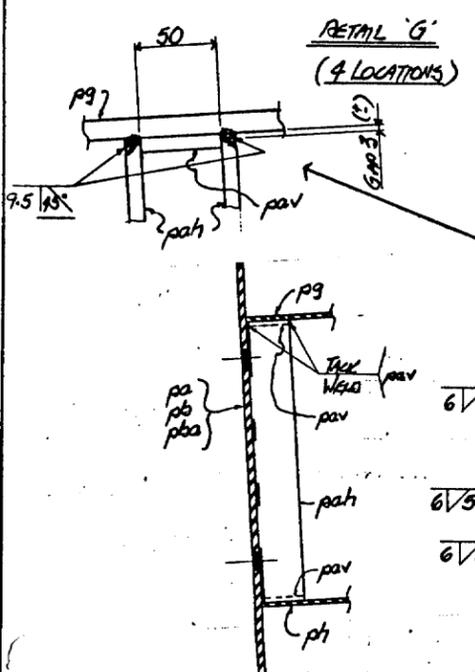
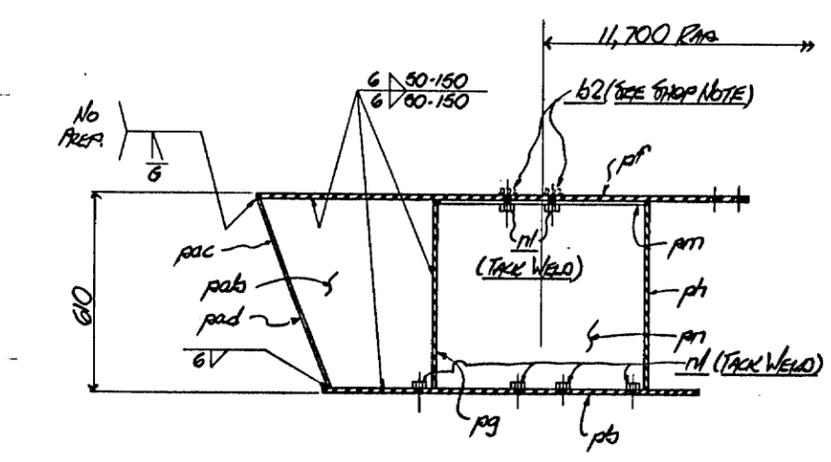
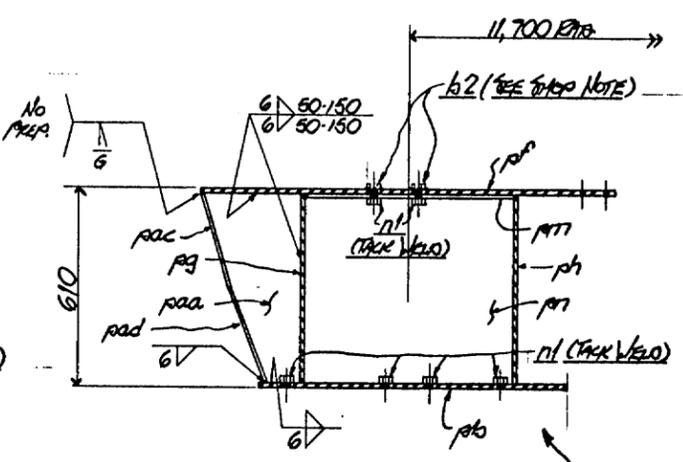
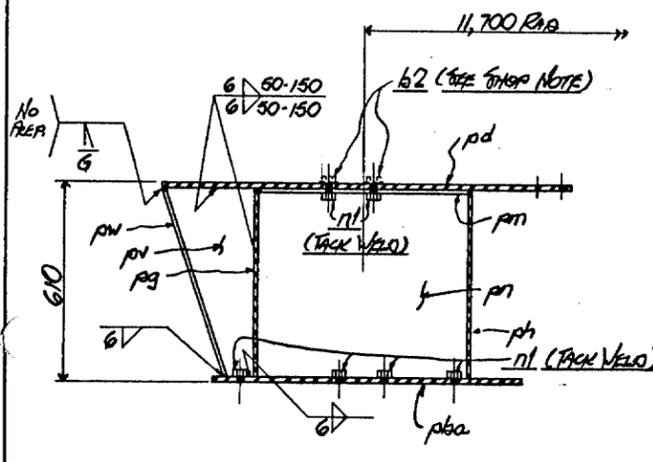
p-abcdefghijklmnpstvw

m-abcdefghijklmnpstvw

s-abcdefghijklmnpstvw



**SHOP NOTE:-**  
RING GIRDER ANCHORAGE PK + END R. PAJ ON ASSEMBLY JIG SUPPORT BRACKET HAVE BEEN SPALL REPAIRED + MARKED.



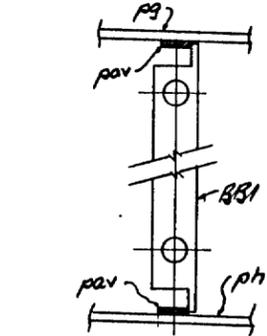
**SHOP NOTE:-**  
AT EACH APPROACH LOCATION FOR DETAILS C', G', H', & K' APPLY & WRENCH TIGHTEN 2 TEMPORARY BOLTS b2 (3/4" A325 + 2 LG 1/4" WASHER) BEFORE WELDING TOP FLG TO INNER & OUTER WEBS. TOTAL OF 88 BOLTS REQD (44 LOCATIONS) REMOVE & PUT BOLTS BACK INTO STORES AFTER ALL WELDING IS COMPLETE.

**GENERAL NOTES**

- 1) FOR LOCATIONS OF DETAILS ON THIS PAGE SEE PAGES 1a, 1b, 1f, 1g
- 2) FOR SHOP ASSEMBLY PROCEDURE SEE PAGE 1aa
- 3) FOR DETAILS OF BAKING BAR TEMPERATURE BBI SEE PAGE 1s

**PROCEDURE**

- 1) PLACE BBI ON Btm. FLG WITH PINS IN 40° PANTLE HOLES
- 2) PLACE pav TIGHT AGAINST Btm. FLG, WEBS, & FINGER OF BBI & TACK WELD TO Btm. FLG & WEBS
- 3) REMOVE BBI & FIT STIFF & pav



**SHOP NOTE:-**  
THIS PROCEDURE WILL APPLY TO ALL PANTLE HOLES EXCEPT THOSE COMPONENTS ON LINE OF ARCH GIRDER OUTER WEBS. FOR PROCEDURE C THESE LOCATIONS SEE PAGE 1a, 1b, 1f, 1g.

3R/3001105



MATERIAL	G40.21 (44W) w/n	No. BY DATE REVISION
SURF. PREP. & PAINT	SEE MEMO	DETAILS RING GIRDER ASSEMBLY CROSS SECTIONS
OPEN HOLES		FOR 4.2M TELESCOPE DOME LA PRIMA
DRAWN	DATE CHECKED DATE	DRAWING No. 1420-1m
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		PRINTS

p-abcdefghijklmnpstvw y

m-abcdefghijklmnpstvw y

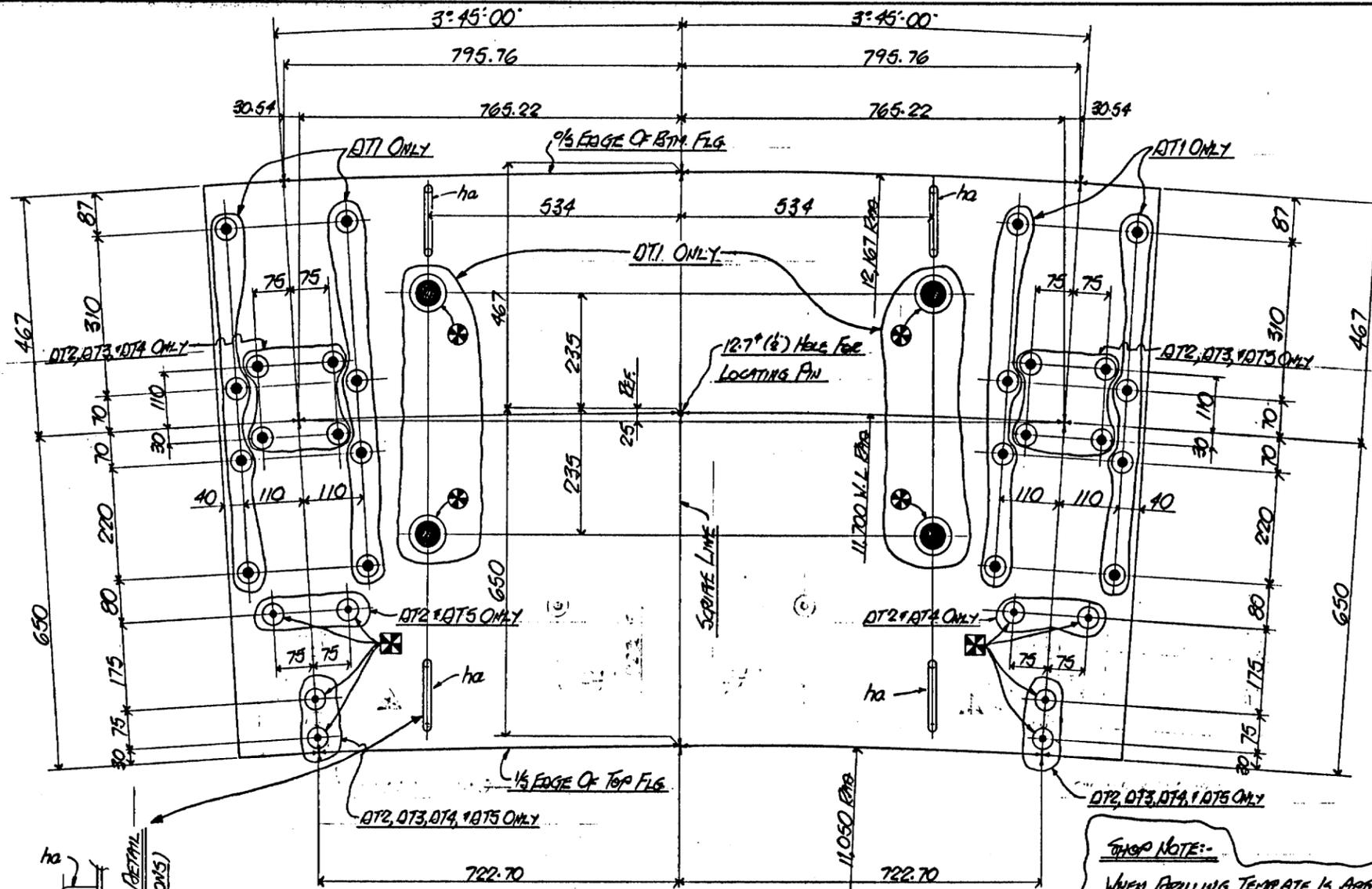
s-abcdefghijklmnpstvw y

SHOP DEPARTMENT

MATERIAL BILL  
BRITAIN STEEL LTD.

CONTRACT 1420

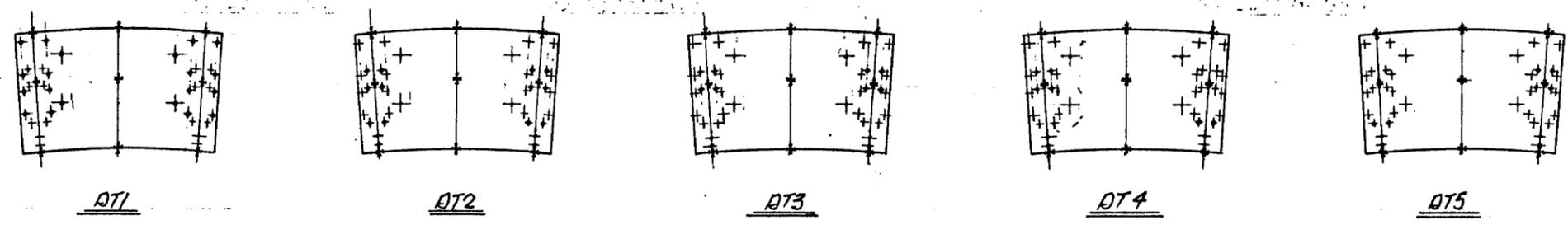
MARK	QTY	SHAPE	SIZE	LENGTH	REMARKS	MATL TYPE	W	L	WEIGHT
1	ONE	R			THICKNESS TO SUIT	A36			
2					BUSHINGS				
3	4	BAR	12.7"	255	(4) BUSH	A36			
4									
5	24				HARDENED BUSHINGS FOR 21" (1 1/8") HOLES				
6	4				4 40" (1 1/8")				
7	8				8 14" (1/2")				



**SHOP NOTE:-**  
 WHEN BRILLING TEMPERATE IS APPLIED AT INTERVALS OF 7:30, OUTSIDE SET OF HOLES WILL CONDUCE WITH HOLES BRILLED BY PREVIOUS TEMPERATE APPLICATION. DO NOT USE THESE HOLES FOR LOCATING TEMPERATE, USE 12.7 (1/2) HOLE FOR LOCATING PIN.

**ONE REQ<sup>d</sup> - COMBINED BRILLING TEMPERATE**  
 COMPOSED OF DT1, DT2, DT3, DT4, DT5  
 R THICKNESS \* HOLES TO SUIT 21" (1 1/8") HARDENED BUSHINGS EXCEPT AS NOTED  
 FOR 4 HOLES MARKED ⊕ THESE TO SUIT 40" (1 1/8") HARDENED BUSHINGS  
 FOR 8 HOLES MARKED ⊗ THESE TO SUIT 14" (1/2") HARDENED BUSHINGS

- GENERAL NOTES**
- 1) FOR APPLICATION OF BRILLING TEMPERATE SEE PAGES 10, 15, 17 & 19
  - 2) RETAIN THIS TEMPERATE FOR BRILLING OF FLG'S ON HANGINGS (SEE SPEC SERIES #2)



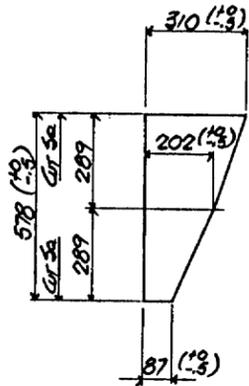
3R/3001106

	MATERIAL	G40 21 (44W) Wt	NO. BY DATE	REVISION
	SURF. PREP. & PAINT	NONE	DETAILS KING CROCKER SUB 19854 BRILLING TEMPERATES	
	OPEN HOLES	AS REQ <sup>d</sup>	FOR 4.2M TELESCOPE DOOR LA PALMA	
	DRAWN	DATE	CHECKED	DATE
		DRAWING NO. 1420-1n		

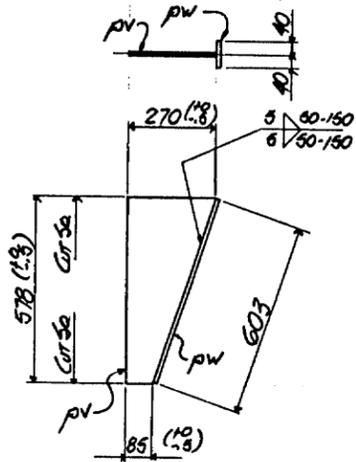




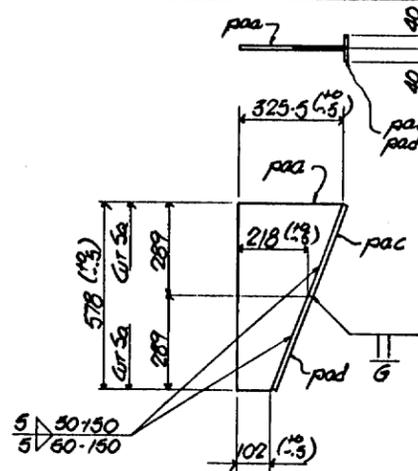
NO	MARK	QTY	SHAPE	SIZE	LENGTH	REMARKS	MATL TYPE	WEIGHT
1	pa	36	R	310x9.5	578	(3/8)R	44W	
2								
3	pv	4	R	270x9.5	578	(3/8)R	44W	
4	pv	4	R	80x9.5	603	(3/8)R	44W	
5								
6	pa	2	R	325.5x9.5	578		44W	
7	pac	2	L	80x9.5	308	(3/8)R		
8	pad	2	L	80x9.5	307.5			
9								
10	pa	2	R	530.5x9.5	578		44W	
11	pac	2	L			(3/8)R		
12	pad	2	L					
13								
14								
15								
16								
17								
18	pa	136	R	100x9.5	648	(3/8)R From 2 Ends	44W	
19								
20	pa	4	R	Cut From Area 3x				
21								
22	pa	16	R	175x9.5 Thick		(3/8)R	44W	
23								
24	pa	4	R	357x12.7	578	(5/8)R	44W	
25								
26	pa	4	R	160x12.7	578	(5/8)R	44W	
27								
28	pa	148	R	80x9.5	100	(3/8)R	44W	
29								
30	pa	4	R	100x9.5	249	(3/8)R From One End	44W	
31								
32	pa	4	R	100x9.5	343	(3/8)R From One End	44W	
33								
34	pa	4	R	100x9.5	488	(3/8)R From One End	44W	
35								
36								
37								
38								
39								
40								
41								
42								
43								
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48								
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51								
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53								
54								
55								



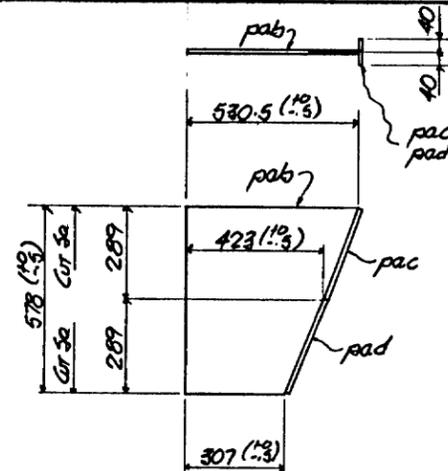
36 RECD-MK pa  
RING GIRDER RAMPBRASH EXTENSIONS  
FOR MAIN SHELL



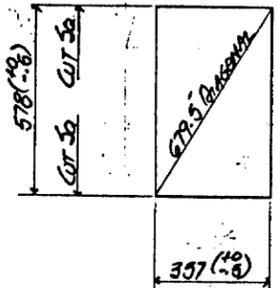
4 RECD THUS  
RING GIRDER RAMPBRASH EXTENSION ASSYS  
FOR BACK SHELL



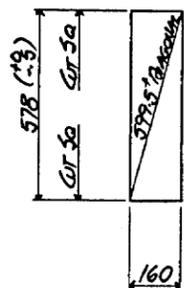
2 RECD THUS  
RING GIRDER RAMPBRASH EXTENSION ASSYS  
FOR FIXED SHELL



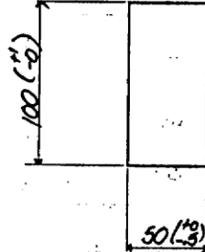
2 RECD THUS  
RING GIRDER RAMPBRASH EXTENSION ASSYS  
FOR FIXED SHELL



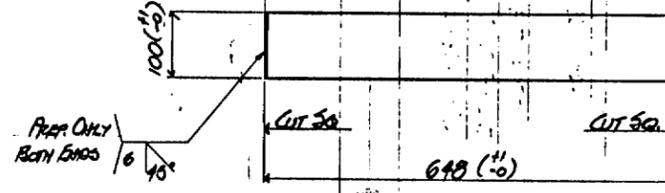
4 RECD-MK pa  
RING GIRDER RAMPBRASH EXTENSIONS  
C ARCH GIRDER CORR.



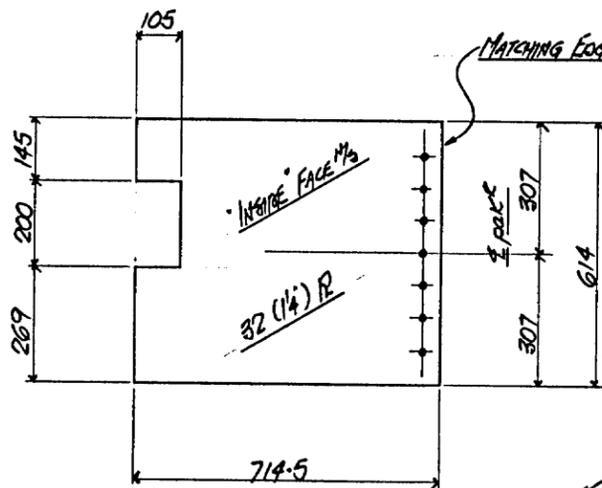
4 RECD-MK pa  
RING GIRDER RAMPBRASH EXTENSIONS  
C ARCH GIRDER CORR.



148 RECD-MK pa  
BACKING BAR FOR PANTLE HOLE  
STIFF'S

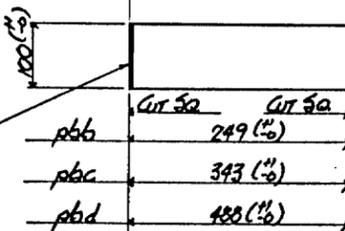


136 RECD-MK pa  
PANTLE HOLE STIFF'S



2 RECD-MK pa (AS DRAWN)  
2 RECD-MK pa (OPP. HAND)  
RING GIRDER RAMPBRASH C ARCH GIRDER CORR'S

SHOP NOTE:-  
ITEMS pa, R ARE CUT FROM MATCH-MARKED  
WITH THE INNER FLG OF ARCH GIRDER BOTTOM  
ENDS. SEE AREA 3x FOR DETAILS (ITEM pa.)  
SEE REG'S 1c & 1h FOR MATCHING ARCH GIRDER  
SECTIONS



4 RECD-MK pa  
4 RECD-MK pa  
4 RECD-MK pa  
PANTLE HOLE STIFF'S



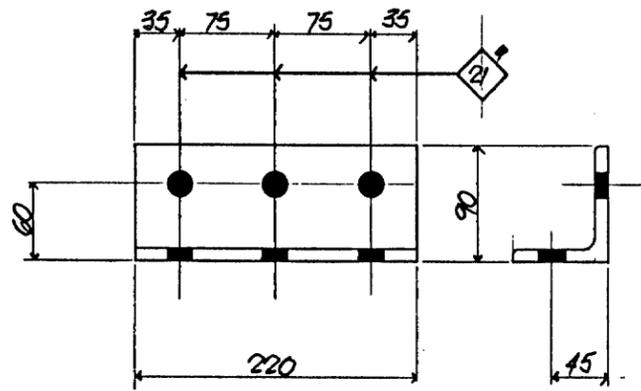
16 RECD-MK pa  
RING GIRDER HANG HOLE COVERS  
SHOP LOOSE FOR FIELD WELDING

GENERAL NOTES

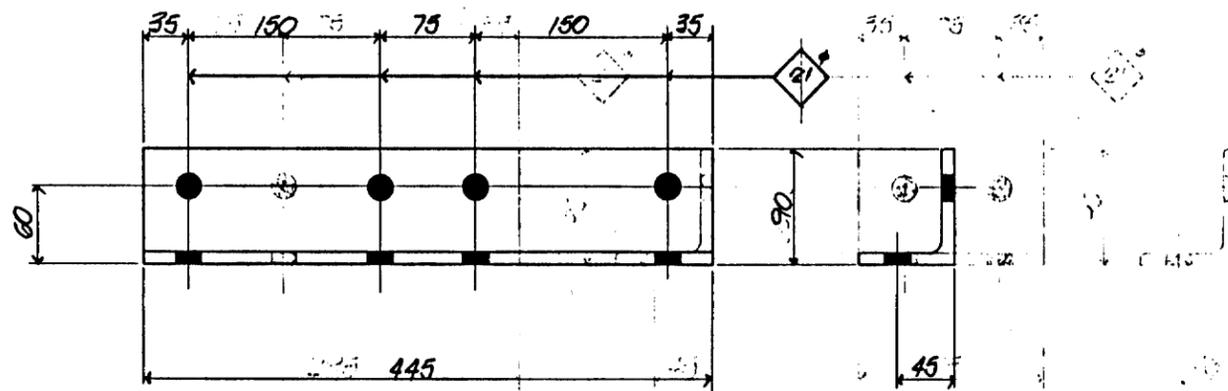
1) FOR SHOP ASSEMBLY & SHOP WELDING OF ITEMS ON THIS PAGE (EXCEPT FOR ITEMS pa) SEE REG'S 1a, 1b, 1c, 1d, 1e, 1g, 1h, 1k, & 1m

3R/3001109

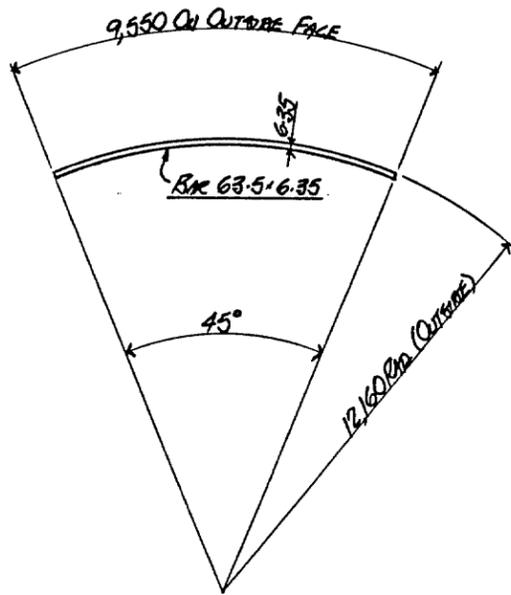
	MATERIAL	G4021 (44W) w/n	NO	BY	DATE	REVISION
	SURF. PREP. & PAINT	SEE MEMO	DETAILS RING GIRDER SUB ASSEMBLY ITEM CUTTING & SUB ASSEMBLY			
	OPEN HOLES	AS NOTED	FOR 4.2M TELESCOPE DONE LA 19/11/14			
	PRINT ON FULL ASSEMBLY					
DRAWN	DATE	CHECKED	DATE	DRAWING NO. 1420-16		
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, S.C.						
SHOP DEPARTMENT						
INS / F / S / Q / M / T / P / SH / DP / AS / PA / ER						
NO PRINTS						



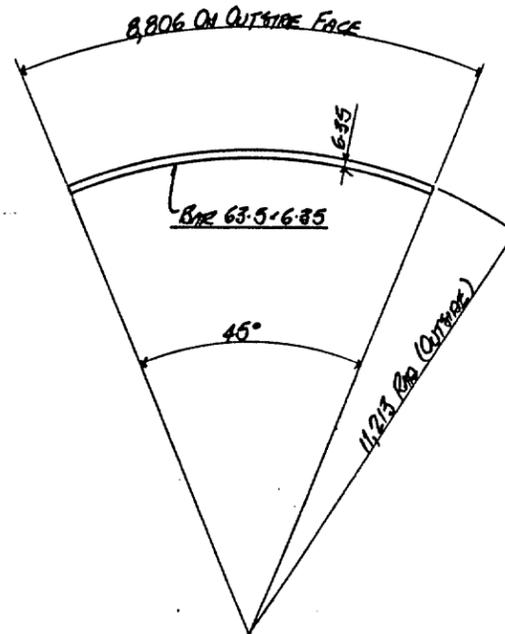
BRQ00-Mk ma  
ARCH GIRDER TO RING GIRDER CONNECTION L's



BRQ00-Mk mb  
ARCH GIRDER TO RING GIRDER CONNECTION L's



BRQ00-Mk pa  
OUTER GIRT SUPPORT R.



BRQ00-Mk pa  
INNER GIRT SUPPORT R.

**MATERIAL BILL**  
BRITAIN STEEL LTD.

CONTRACT 1420

MARK	QTY.	SHAPE	SIZE	LENGTH	REMARKS	MATL. TYPE	REV	WEIGHT
ma	B	L	90x75x10	220	(3x3x5)	44W	1	1.8
mb	B	L	90x75x10	445	(3x3x5)	44W	1	3.8
pa	B	Bar	63.5 x 6.35	9,550	(21°) ROLLED	44W		
pb	B	Bar	63.5 x 6.35	8,806	(21°) ROLLED	44W		
61	66	Bar	3/4" DIA	2'		A325		
62	88	Bar	3/4" DIA	2'	W/UT WELDER	A307		
71	660	Nut	1/2" HEX	2'		A325		
25	Bar	3/4" DIA	2'		TEMPORARY ASSEMBLY BOLTS & NUTS	A325		

GENERAL NOTES

- 1) USE 1/8" DRILL FOR 21° HOLES & 1/16" DRILL FOR 40° HOLES IF PREFERRED
- 2) FOR SHOP ASSEMBLY & SHOP WELDING OF ITEMS ON THIS AREA SEE PAGES 1a, 1b, 1c, 1d, 1e, 1f, 1g, 1h, 1i, 1j, 1k

3R/3001110



MATERIAL	G40.21 (44W) w/n		
SURF. PREP. & PAINT	SEE MEMO		
OPEN HOLES	AS NOTED		
PRINT ON FINAL ASSEMBLY			
DRAWN	DATE	CHECKED	DATE
REV			

REVISION	BY	DATE
1	AS	1/1/11
DETAILS RING GIRDER SUB ASSEMBLY		
FOR 4.2M TELESCOPE DOME		
LA PALMA		
DRAWING No.	1420-1V	REV
		1

BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.

SHOP DEPARTMENT

INS/ E/S/O/M/T/P/SH/DP/AS/PA/ER

p-abcdefghijklmnpstvw

m-abcdefghijklmnpstvw

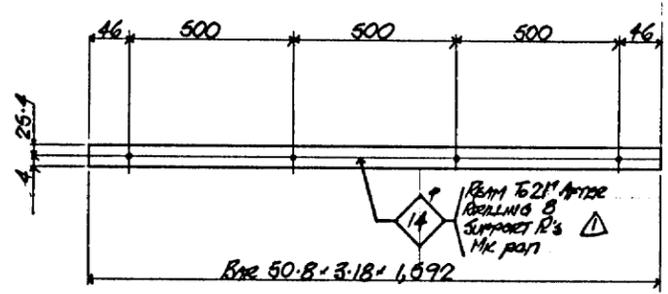
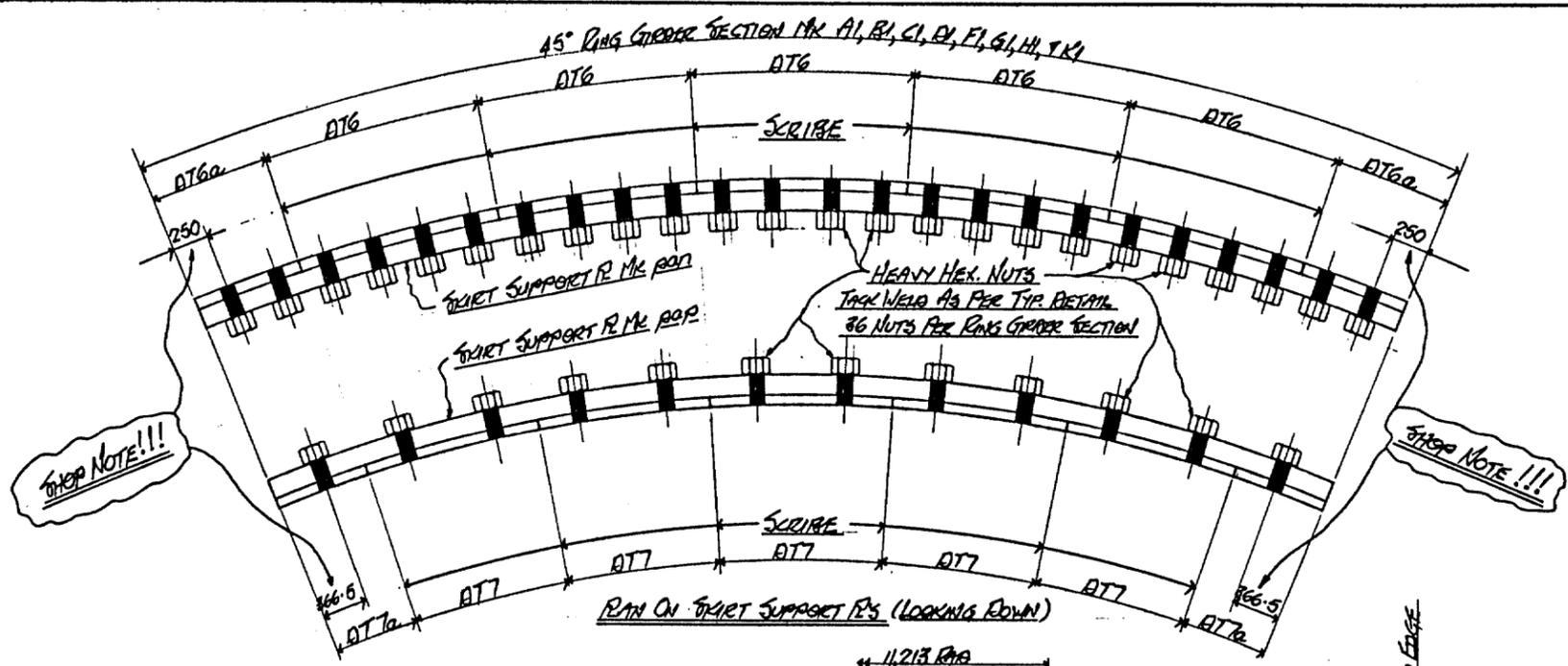
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MVF

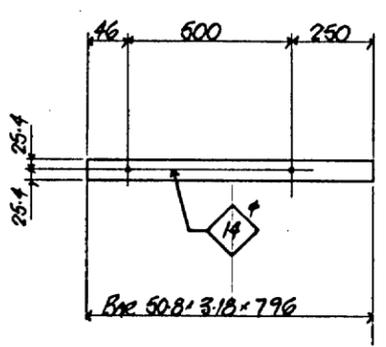
**MATERIAL BILL**  
BRITAIN STEEL LTD.

CONTRACT 1420

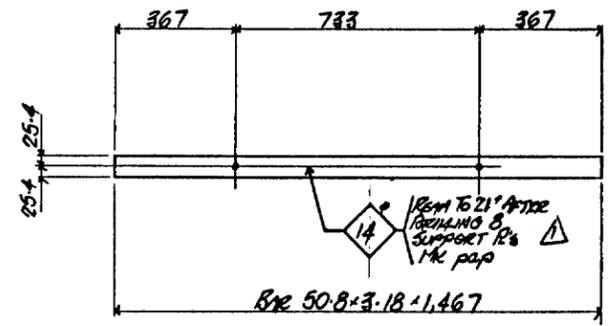
MARK	QTY	SHAPE	SIZE	LENGTH	REMARKS	MATL. TYPE	NO.	LINE	WEIGHT
1	ONE BAR	AT6		1,592		A36			
2									
3	ONE BAR	AT6a		796		A36			
4			60.8x3.18	(2.4)					
5	ONE BAR	AT7		1,467		A36			
6									
7	ONE BAR	AT7a		733.5		A36			
8									
9	288	HEAVY HEX. NUTS	FOR 2"			A307			
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
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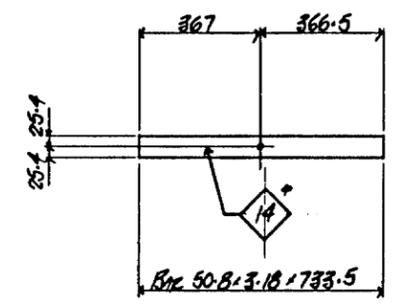
ONE REQ. - DRILLING TEMPLATE AT6



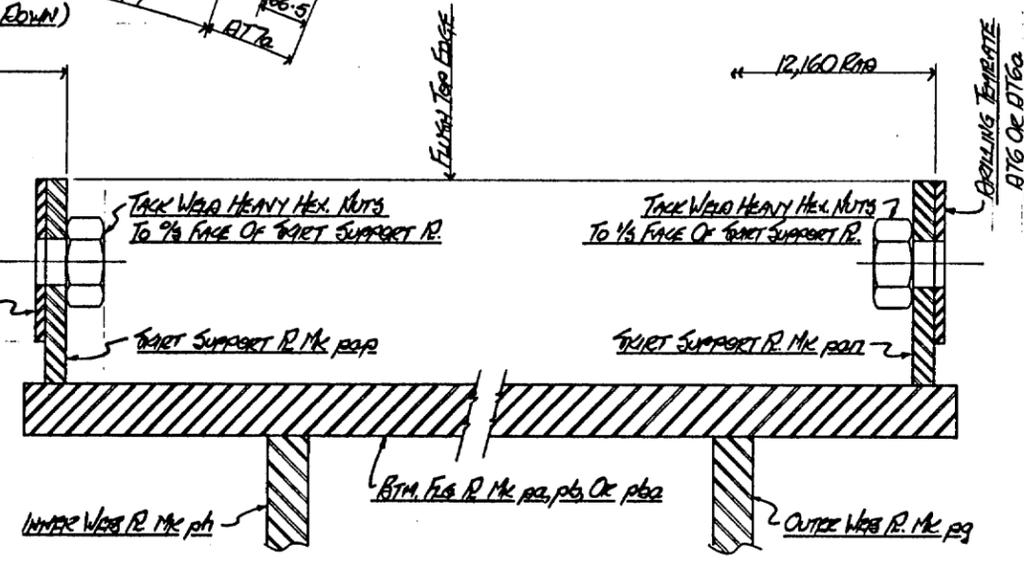
ONE REQ. - DRILLING TEMPLATE AT6a



ONE REQ. - DRILLING TEMPLATE AT7



ONE REQ. - DRILLING TEMPLATE AT7a



TYP. DETAIL (WITH RING GIRDER FLIPPED OVER ON JIG)

**GENERAL NOTES**

- 1) FOR DRILLING PROCEDURE SEE PROC. IAD. Δ
- 2) USE 1/8" DRILL FOR 14° HOLES & 1/8" REAM FOR 21° HOLES IF PREFERRED.
- 3) FOR DETAILS OF TRUET SUPPORT R.'S SEE PROC. N.
- 4) RETAIN TEMPS AT6 & AT7 FOR DRILLING INNER & OUTER QUARTS (SEE PROC. SERIES #)

3R/300111



MATERIAL	G40 21 (44W) w/n	DETAILS	SIZE OF HOLES PERMANENT AT6 & AT7 REVISION
SURF. PREP. & PAINT	SEE MEMO	DETAILS	ROCK CRIBBER ASSEMBLY TRUET MOUNTING HOLES
OPEN HOLES	AS NOTED	FOR	4.2" TELESCOPE DOME LA PRIMA
DRAWN	DATE	CHECKED	DATE
BY			
DRAWING No.		REV.	
1420-1W		Δ	

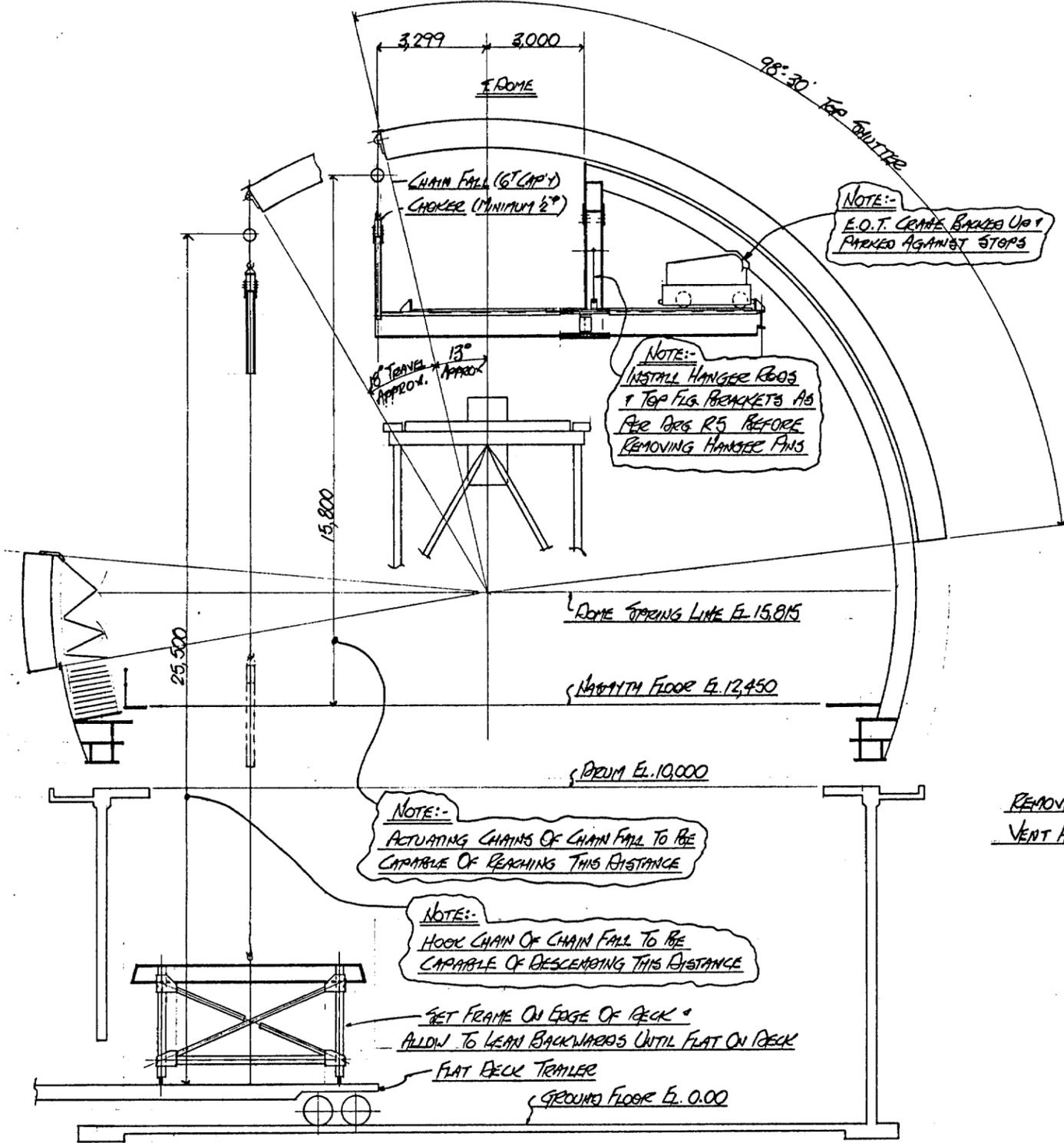
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.

p-abcdefghijklmnpstvw

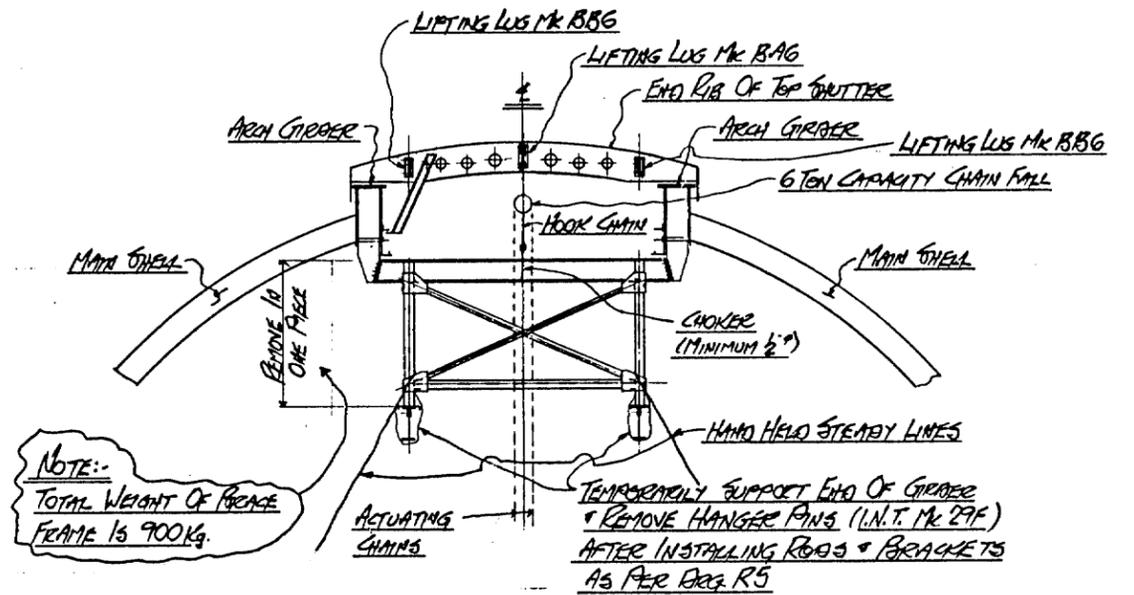
m-abcdefghijklmnpstvw

s-abcdefghijklmnpstvw

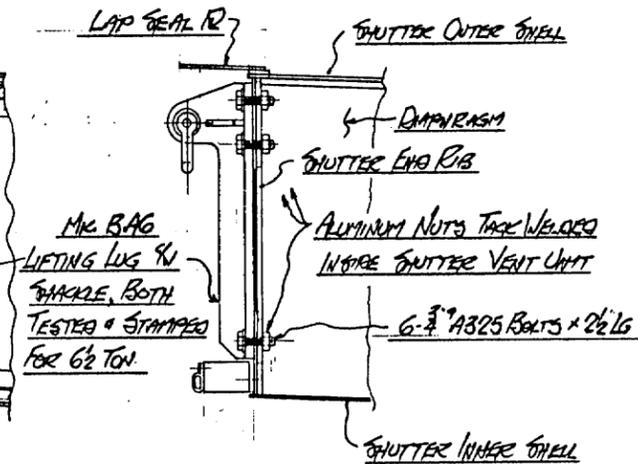
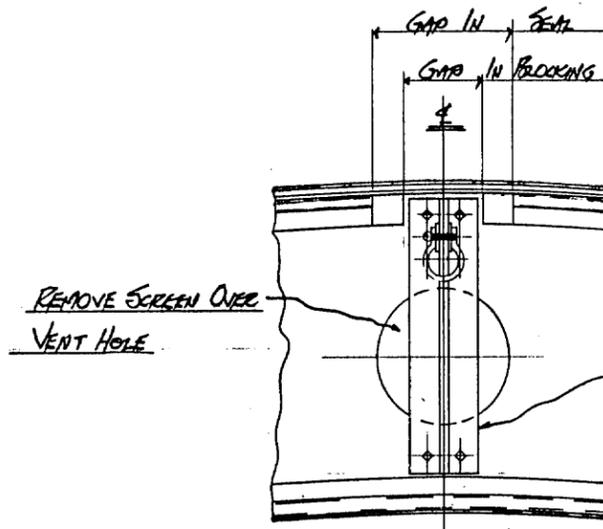
SHOP DEPARTMENT / INS / P / S / O / M / T / P / SH / DP / AS / PA / ER / NO. PRINTS



**BRACE FRAME REMOVAL**  
LOOKING TOWARDS NORTH ARCH GIRDER



**BRACE FRAME REMOVAL**  
LOOKING TOWARDS BACK SHELL



**GENERAL NOTES**

- 1) FOR REMOVAL PROCEDURE SEE DRS R9a & R9b
- 2) WORK THIS DRS WITH DRS R2 TO R8 INCL.

**LIFTING LUG DETAIL**

SCALE ON ORIGINAL 1:75  
SCALE ON REDUCED COPY 1:150

3R/3001044

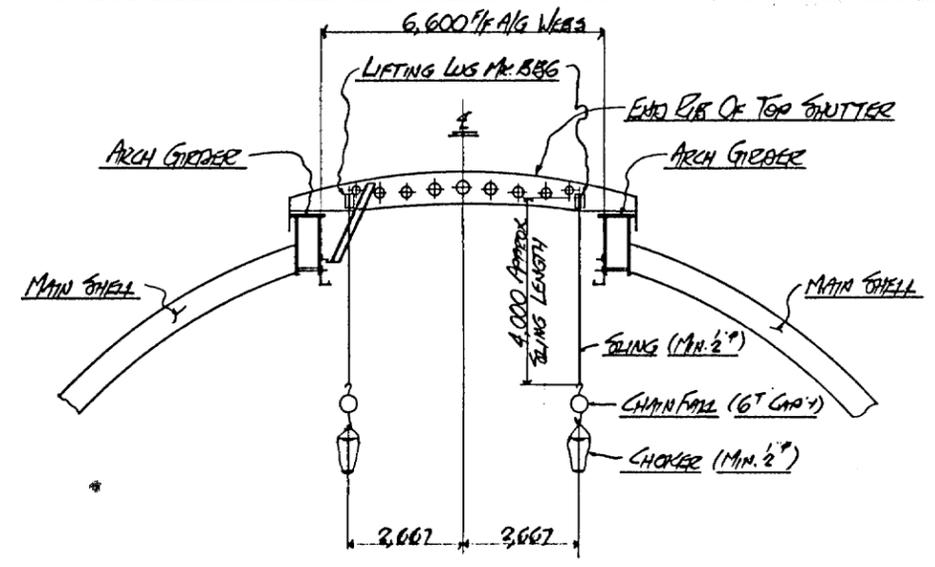
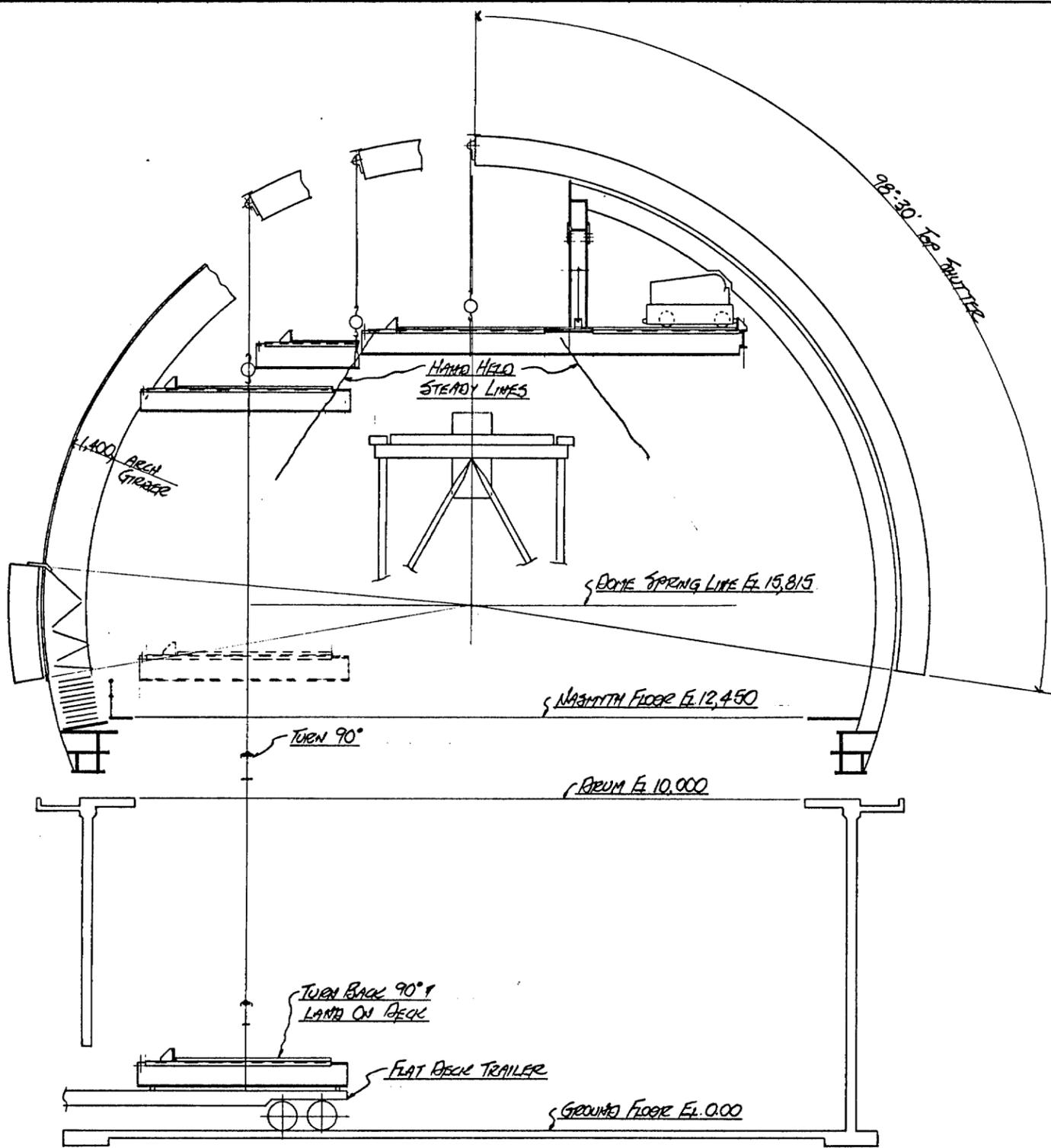
BRITAIN	DETAILS		REVISION	
	TEMPORARY BRACE FRAME REMOVAL			
	FOR 4.2M TELESCOPE DOME LA PALMA			
DRAWN	DATE	CHECKED	DATE	DRAWING NO.
BK				1420-R1
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.				
SHOP DEPARTMENT				

p-abcdefghijklmnpstvw y

m-abcdefghijklmnpstvw y

s-abcdefghijklmnpstvw y

INS / P / S / O / M / T / P / SH / DP / AS / PA / ER / NO PRINTS



CRANE GIRDER REMOVAL  
LOOKING TOWARDS BACK SHELL  
NOTE:-  
CRANE GIRDERS TO BE REMOVED  
ONE AT A TIME

GENERAL NOTES  
 1) FOR REMOVAL PROCEDURE SEE DES'S R9a, R9b  
 2) WORK THIS DES WITH DES'S R1, R3, R4, R5, R6, R7, R8

3R/3001045

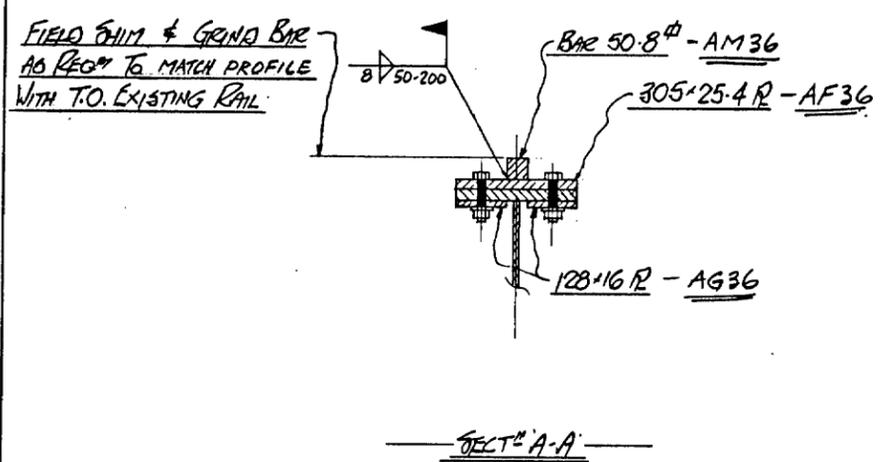
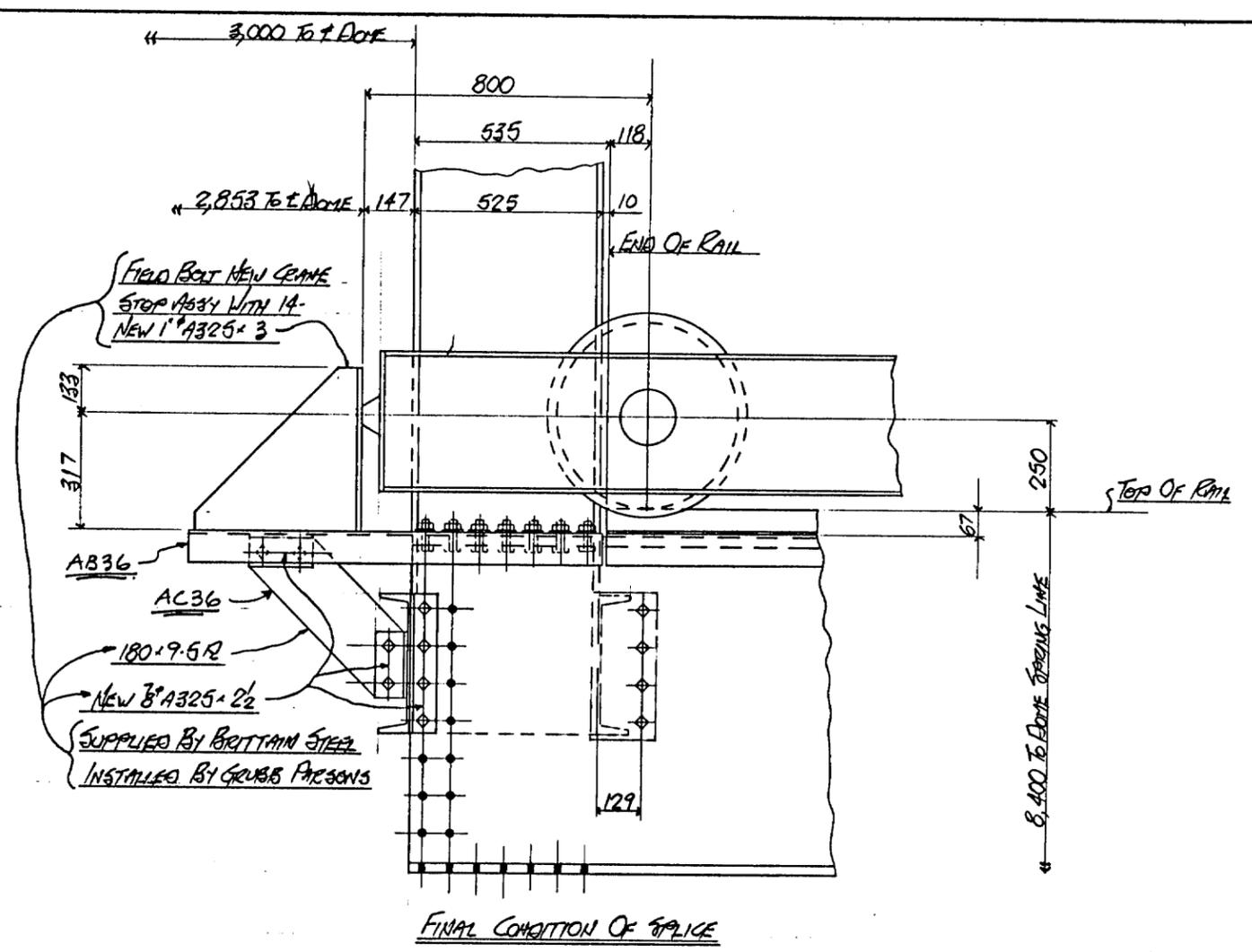
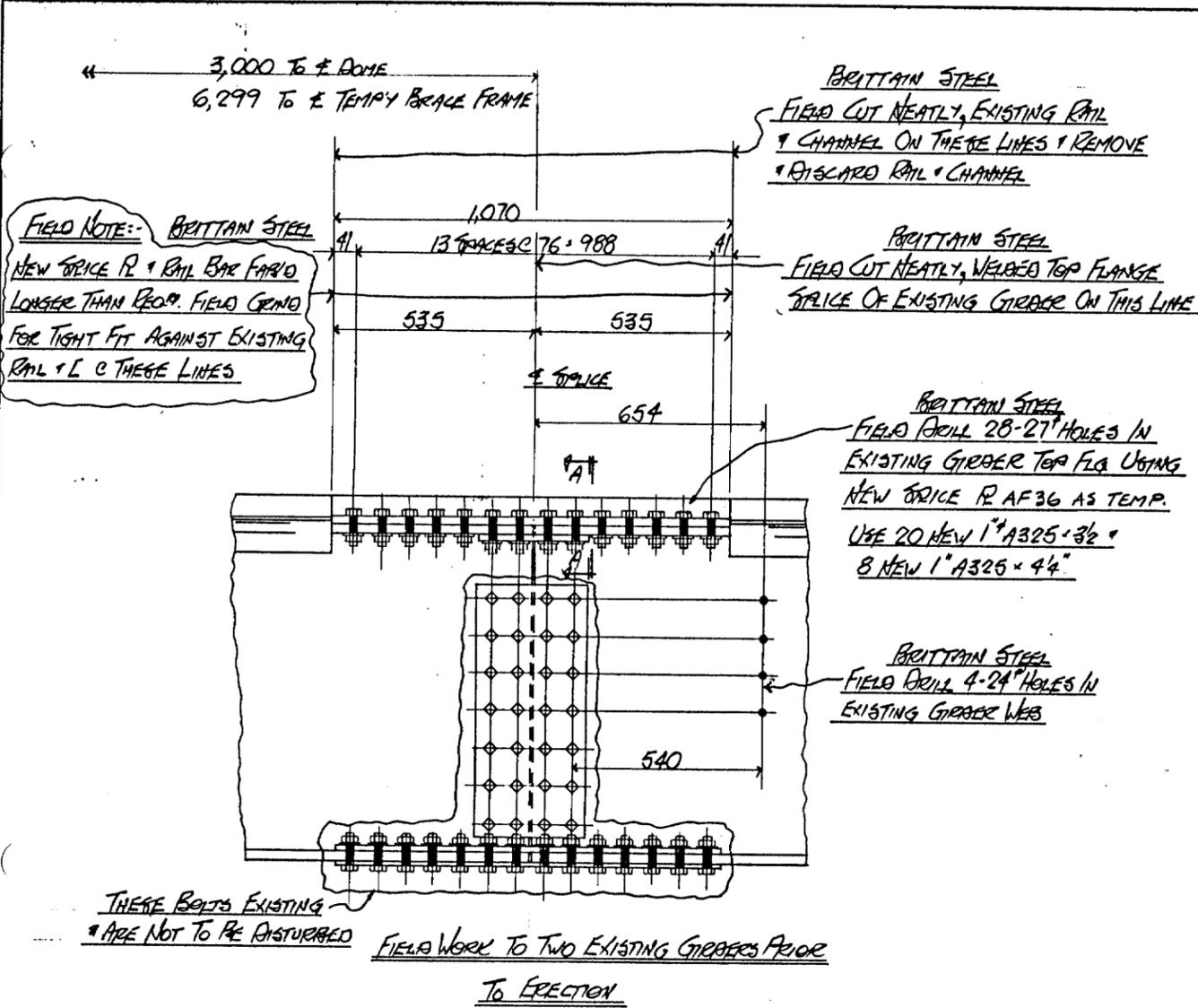
SCALE ON ORIGINAL 1:75  
 SCALE ON REDUCED COPY 1:150

	No. BY DATE Updated REVISION	
	DETAILS TEMP. CRANE GIRDER REMOVAL	
	FOR 4.2" TELESCOPE ROPE LA POLINA	
	DRAWN BK	DATE CHECKED DATE DRAWING No. 1420-R2
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		
SHOP DEPARTMENT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		

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abcdefghijklmnpstvw

s-abcdefghijklmnpstvw

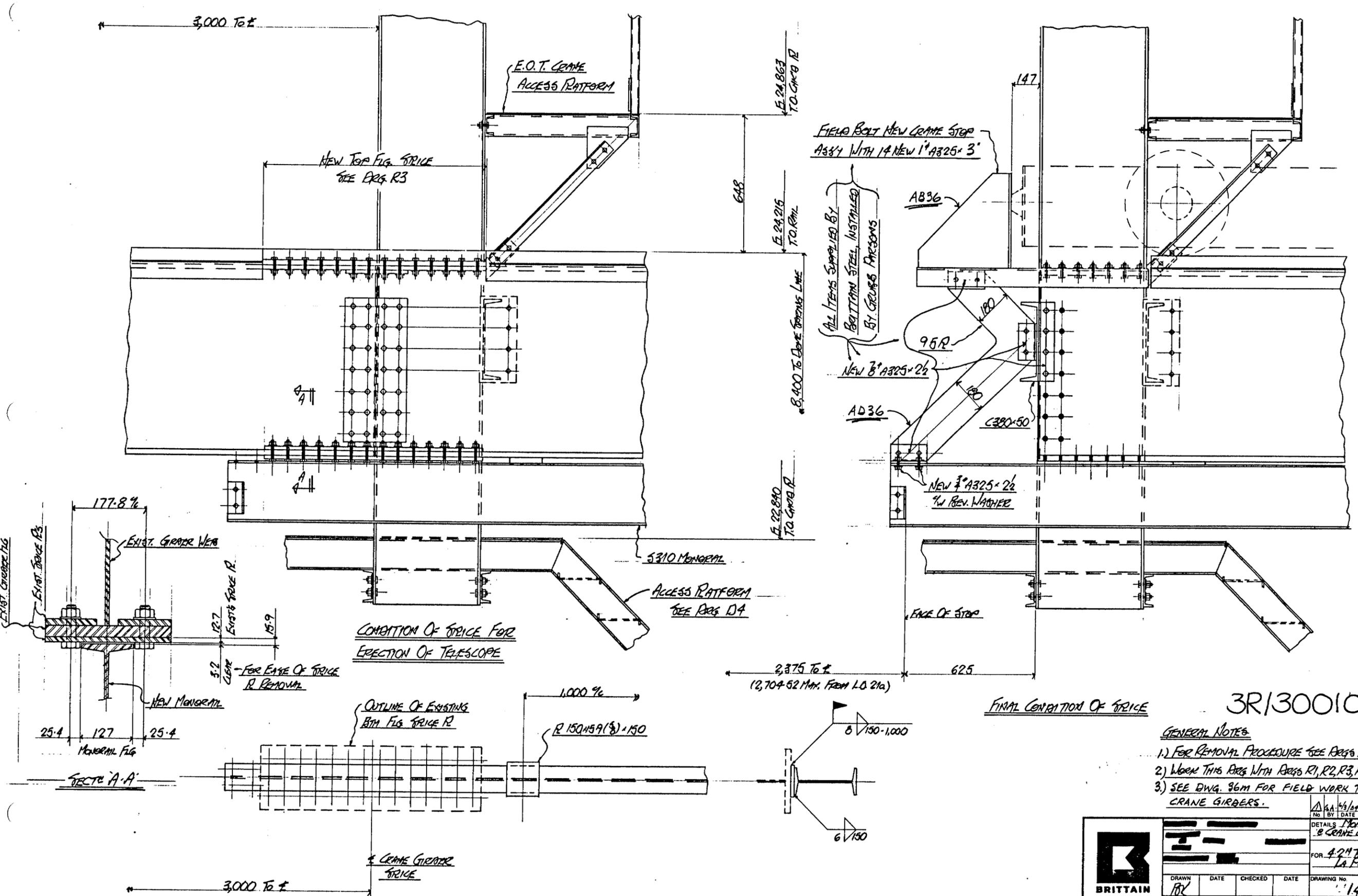


- GENERAL NOTES
- 1) FOR REMOVAL PROCEDURE SEE DGS R9a & R9b
  - 2) WORK THIS DGS WITH DGS R1, R2, R3, R5, R6, R7, & R8
  - 3) SEE DWG. 36M FOR FIELD WORK TO EXISTING CRANE GIRDERS.

3R/3001046

BRITAIN	NO.	BY	DATE	UPDATED	REVISION
	CRANE GIRDER SPICE				
FOR 4.2M TELESCOPE DOME					REV
LA PALMA					
DRAWN	DATE	CHECKED	DATE	DRAWING NO.	REV
FR.				1420-R3	
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.					
SHOP DEPARTMENT		INS / F / S / O / M / T / P / SH / DP / AB / FA / EH			

p-abcdefghijklmnpstvw y      m-abcdefghijklmnpstvw y      s-abcdefghijklmnpstvw y



- GENERAL NOTES**
- 1) FOR REMOVAL PROCEDURE SEE DRGS R9a & R9b
  - 2) WORK THIS DRG WITH DRGS R1, R2, R3, R5, R6, R7, & R8
  - 3) SEE DRG. 96M FOR FIELD WORK TO EXISTING CRANE GIRDERS.

<b>BRITAIN</b>	DRAWN		DATE		CHECKED		DATE		DRAWING No.	REV
	BY								1420-RA	Δ
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.										
SHOP DEPARTMENT / INS / F / S / O / M / T / P / SH / DP / AS / PA / ER / No PRINTS										

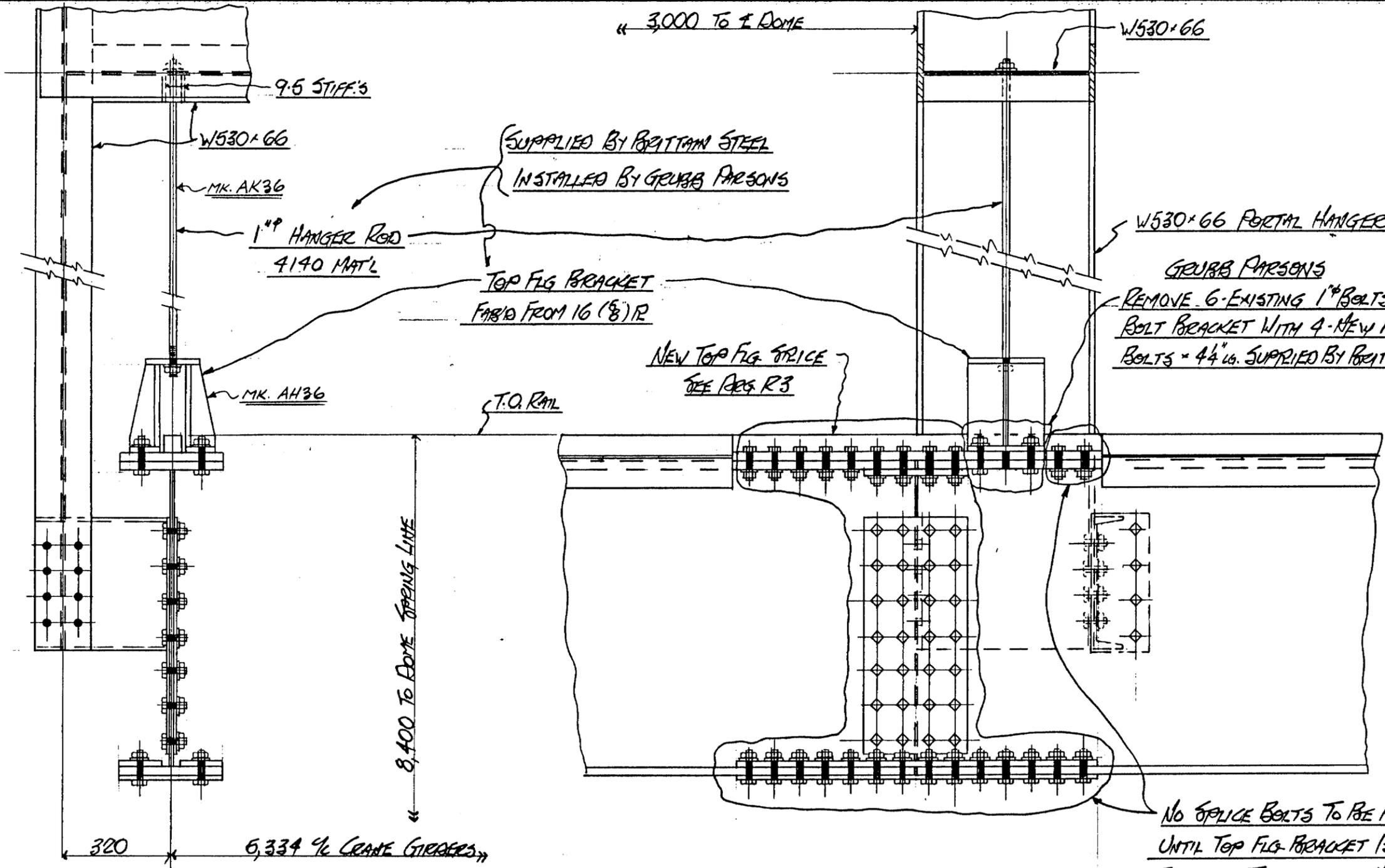
p-abcdefghijklmnpstvw

m-abcdefghijklmnpstvw

s-abcdefghijklmnpstvw

3R/3001047

MVF



SUPPLIED BY BRITTAIN STEEL  
 INSTALLED BY GRUBB PARSONS

W530x66 PORTAL HANGER  
 GRUBB PARSONS  
 REMOVE 6-EXISTING 1" BOLTS +  
 BOLT BRACKET WITH 4-NEW 1" A325  
 BOLTS = 4 1/2" LG. SUPPLIED BY BRITTAIN STEEL

TOP FLG BRACKET  
 FAB'D FROM 16 (#8) R

NEW TOP FLG SPICE  
 SEE DRG R3

T.O. RAIL

8,400 TO DOME SPRING LINE

320 6,334 #6 CRANE GIRDERS

CONDITION OF CRANE GIRDER SPICE  
BEFORE REMOVING HANGER PINS AT  
TEMPORARY BRACE FRAME

NO SPICE BOLTS TO BE REMOVED  
UNTIL TOP FLG BRACKET IS FULLY  
BOLTED + TIGHTENED + HANGER  
RODS ARE INSTALLED + GIRDER  
IS CONNECTED TO LIFTING LUG ON  
SHUTTER AS PER DRG R2

GENERAL NOTES

- 1) FOR REMOVAL PROCEDURE SEE DRGS R9a + R9b
- 2) WORK THIS DRG WITH DRGS R1, R2, R3, R4, R6, R7, + R8

3R/3001048

Δ	GA	1/18	UPDATED
No.	BY	DATE	REVISION

 <b>BRITTAIN</b>	DETAILS OF <b>CRANE GIRDER SPICE</b>	
	FOR 4.2M TELESCOPE DOME LA PALMA	
DRAWN BK	DATE	CHECKED
DRAWING No. 1420-R5		REV. Δ
<b>BRITTAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		

MVF

3,000 TO 4 DOME

NOTE:- GRUBB PARSONS  
BEFORE REMOVING ANY SPICE PLATES  
OR BOLTS, CRANE GIRDER MUST BE  
ATTACHED TO LIFTING LUG ON TOP  
SHUTTER AS PER FIG. R2

1" HANGER ROD + TOP FLG BRACKET  
 SEE FIG. R5

W530x66 PORTAL HANGER

DO NOT DISTURB TOP FLG  
 SPICE RATE ASSY + THESE 8 BOLTS

GRUBB PARSONS

REMOVE ALL EXISTING BOLTS  
 + SPICE PLATES EXC. AS NOTED

5310 MONORAIL (ONE SIDE ONLY)

CONDITION OF SPICE JUST PRIOR TO  
MOVING WITH SHUTTER

GENERAL NOTES

- 1.) FOR REMOVAL PROCEDURE SEE FIGS R9a + R9b
- 2.) WORK THIS FIG WITH FIGS R1, R2, R3, R4, R5, R7, + R8

3R13001049

GA 7/3/84	UPDATED
No.	REVISION

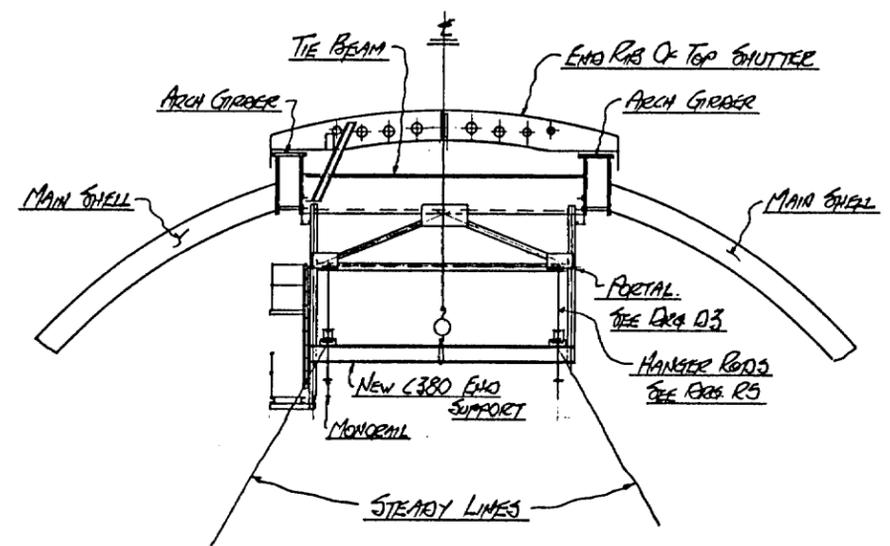
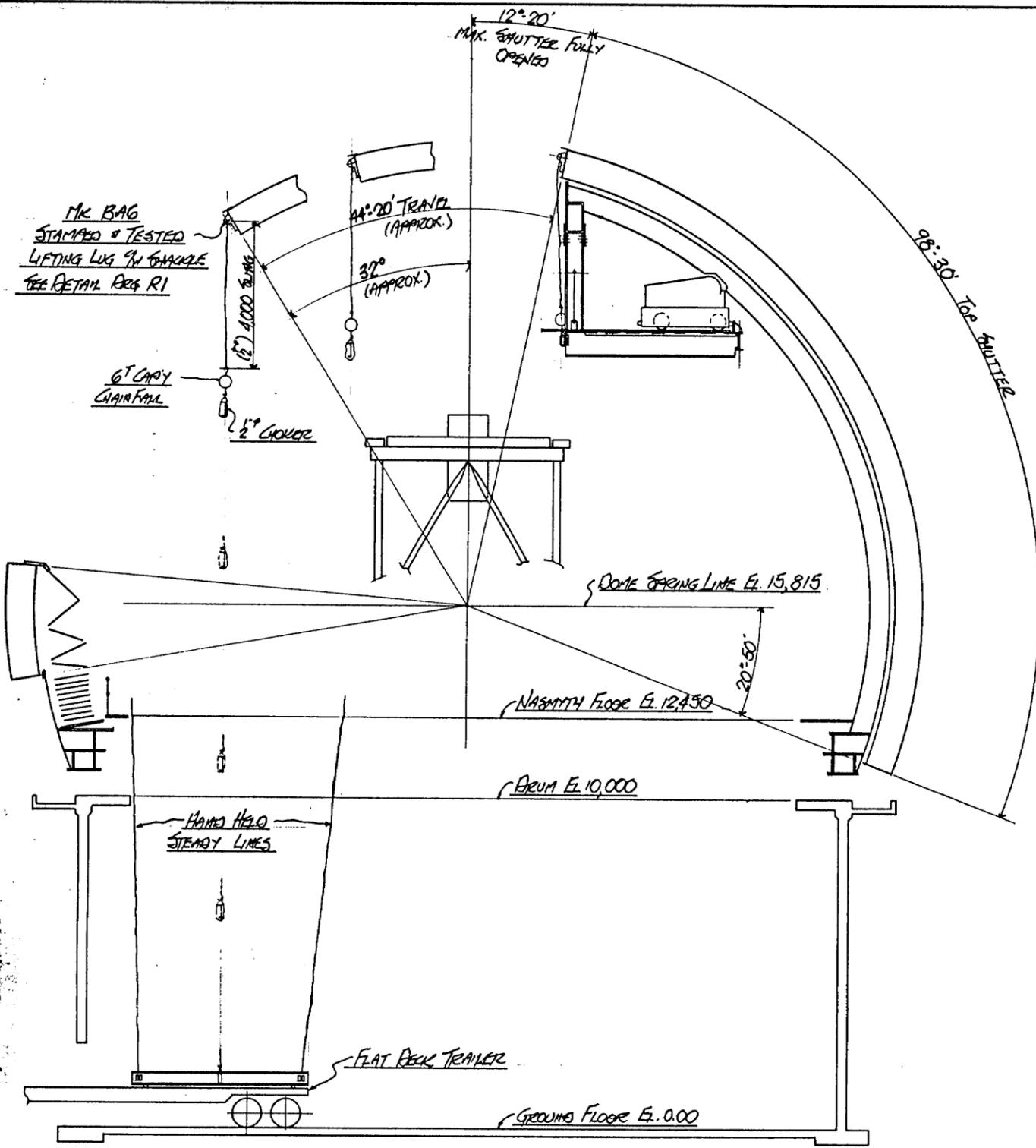
	DETAILS OF <b>CRANE GIRDER REMOVAL</b>			
	FOR <b>4.2M TELESCOPE DOME LA PALMA</b>			
DRAWN <i>BR</i>	DATE	CHECKED	DATE	DRAWING No. <b>1420-R6</b>

**BRITAIN STEEL LTD.** 401 SALTER AVENUE, NEW WESTMINSTER, B.C.

p - a b c d f g h k m n p s t v w y

m - a b c d f g h k m n p s t v w y

SHOP DEPARTMENT    INS / F / S / O / M / T / P / SH / DP / AS / PA / ER    No. PRINTS



NEW END SUPPORT INSTALLATION  
LOOKING TOWARDS BACK SHELL

GENERAL NOTES

- 1) FOR REMOVAL PROCEDURE SEE BRGS R79 & R91
- 2) WORK THIS BRG WITH BRGS R1, R2, R3, R4, R5, R6, & R8

3R/3001050

SCALE ON ORIGINAL 1:75  
SCALE ON REDUCED COPY 1:150

	DRAWN		DATE		CHECKED		DATE		DRAWING No.	REV
	BK								1420-R7	1
<b>BRITTAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.										
SHOP DEPARTMENT										

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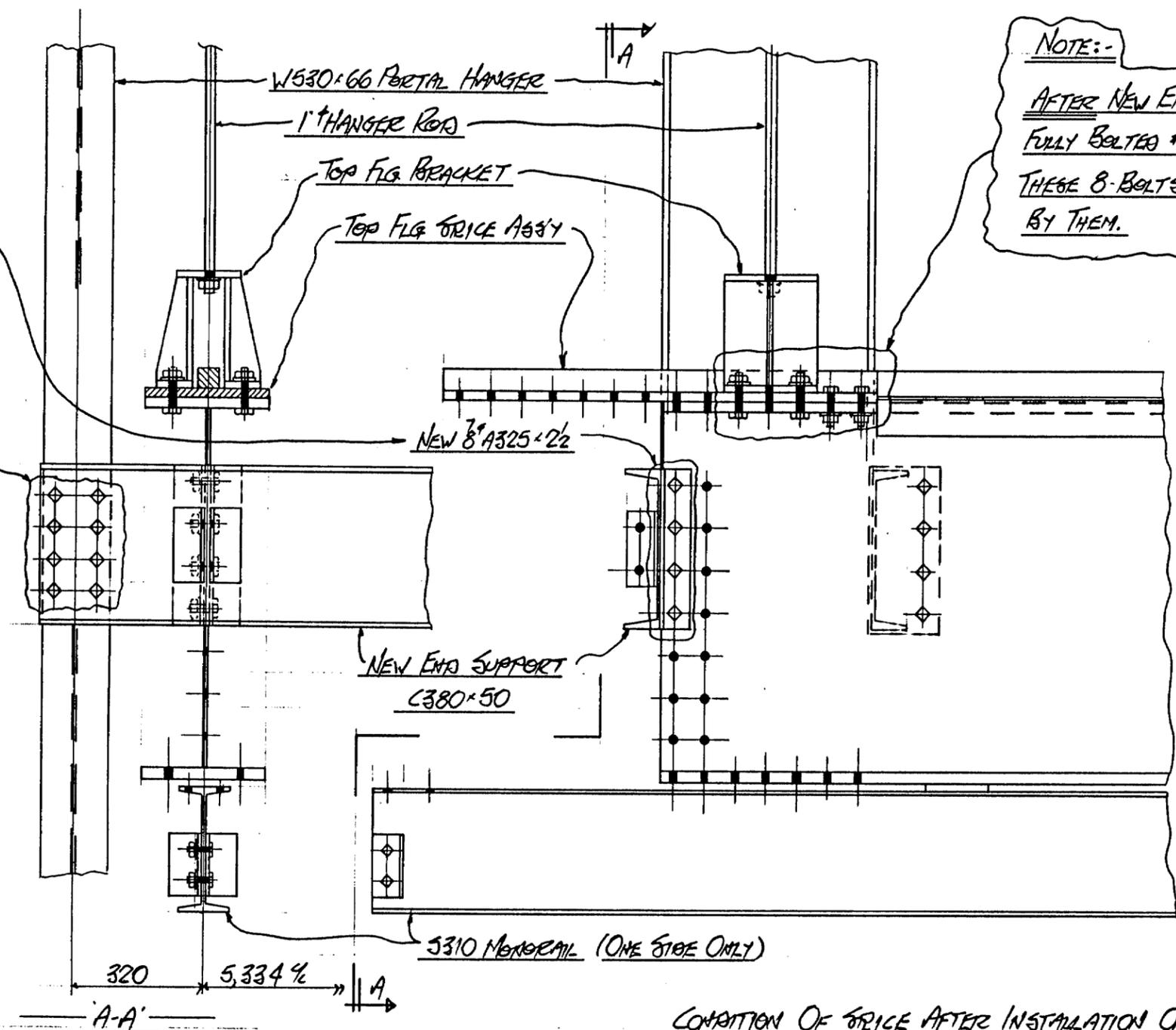
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INS / P / S / O / M / T / P / SH / DP / AS / PA / ER

SUPPLIED BY BRITAIN STEEL  
INSTALLED BY GRUBBS PARSONS

NEW 8" A325 x 24



**NOTE:- GRUBBS PARSONS**  
 AFTER NEW END SUPPORTS HAVE BEEN FULLY BOLTED & TIGHTENED IN PLACE, REMOVE THESE 8-BOLTS & ALL ITEMS CONNECTED BY THEM.

GENERAL NOTES

- 1.) FOR REMOVAL PROCEDURE SEE DRGS R9a & R9b
- 2.) WORK THIS DRG WITH DRGS R1 TO R7 INCL.

CONDITION OF BRACE AFTER INSTALLATION OF NEW END SUPPORT & PRIOR TO REMOVAL OF HANGER RODS, & TOP FLG BRACE ASSY

3R/3001051

GA	7/3/88	UPDATED
No.	BY	DATE
		REVISION

	DETAILS OF		NEW END SUPPORT DETAIL	
	FOR		4.7m TELESCOPE DOME LA PAVIA	
DRAWN	DATE	CHECKED	DATE	DRAWING No.
BK				1420-R8
				REV.
				⚠

**BRITAIN STEEL LTD.** 401 SALTER AVENUE, NEW WESTMINSTER, B.C.

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m - a b c d f g h k m n p s t v w y

SHOP DEPARTMENT

INS / F / S / O / M / T / P / SH / DP / AS / PA / ER

No. PRINTS

AWF

FIELD REMOVAL PROCEDURE FOR TEMPORARY CRANE GIRDERS

- 1.) BACK E.O.T. CRANE AGAINST STOPS C BACK SHELL & PARK.
  - 2.) INSTALL HANGER RODS & TOP FLG BRACKETS C PORTAL AS SHOWN ON DRG R5.
  - 3.) REMOVE WOOD BLOCKING & SEALS ON SHUTTER & BOLT LIFTING LUGS IN RACE AS SHOWN ON DRG R1. (ONE MK BAG & 2 MK BBBG)
  - 4.) ACTIVATE & MOVE SHUTTER TO BRING LIFTING LUG IN VERTICAL ALIGNMENT WITH TEMPORARY BRACE FRAME AS SHOWN DRG R1.
  - 5.) CONNECT CHAIN FALL A CHOKER AS SHOWN DRG R1 & SNUG UP WITH CHAIN FALL.
  - 6.) TEMPORARILY SUPPORT PINNED ENDS OF CRANE GIRDERS (ONE AT A TIME) WITH A SLING & COMEALONG & REMOVE HANGER PINS (I.N.T. MK 29F)
  - 7.) SLOWLY RELEASE TEMPORARY SUPPORTS THEREBY ALLOWING CRANE GIRDERS TO CANTILEVER FROM PORTAL.
  - 8.) REMOVE BOLTS & SHIMS HOLDING TEMPORARY BRACE FRAME TO TROOPING BRACKETS ON ARCH GIRDERS AFTER CONNECTING STEADY
  - 9.) TEMPORARY BRACE FRAME IS NOW FREE TO BE MOVED BY SHUTTER & LOWERED BY CHAIN FALL. LINES
- NOTE:- AT THIS TIME, IT IS NOT KNOWN HOW MUCH (IF ANY) OF THE NASMYTH FLOOR PLATFORM STEELWORK WILL BE IN RACE. WE ARE PROCEEDING ON THE ASSUMPTION THAT NONE OF THIS STEEL WORK IS RACED & THEREFORE ALL TEMPORARY STEEL WORK MUST BE LOWERED TO THE GROUND FLOOR VIA THE SHUTTER & CHAIN FALL. IF HOWEVER THIS ASSUMPTION PROVES TO BE FALSE, THEN TEMPORARY STEEL WORK MAY BE LANDED C NASMYTH FLOOR & LOWERED TO THE GROUND FLOOR VIA THE E.O.T. CRANE OR THE MONORAIL AFTER ALL MODIFICATIONS ARE COMPLETE AS PER FINAL CONDITION OF STRICE SHOWN ON DRGS R3 & R4. THIS WILL CONSIDERABLY SHORTEN THE DISTANCE OF TRAVEL FOR THE CHAIN HOOR OF THE CHAIN FALL AS CALLED FOR ON DRG R1.
- 10.) AFTER LOWERING & DISCONNECTING BRACE FRAME, TRANSFER CHAIN FALL TO EITHER LIFTING LUG MK BBBG
  - 11.) RECONNECT CHAIN FALL WITH SLING AS CALLED FOR ON DRG R2 & CONNECT TO CRANE GIRDER WITH CHOKER AS SHOWN.
  - 12.) REMOVE ALL STRICE R'S & BOLTS AS SHOWN ON DRG R6, AFTER CONNECTING STEADY LINES.
  - 13.) CRANE GIRDER IS NOW FREE TO BE MOVED BY SHUTTER & LOWERED BY CHAIN FALL.
  - 14.) AFTER LOWERING & DISCONNECTING CRANE GIRDER, REPEAT STEPS 10) TO 13) FOR OTHER CRANE GIRDER.
  - 15.) AFTER LOWERING & DISCONNECTING SECOND CRANE GIRDER, PROCEED WITH ERECTION OF NEW END SUPPORT.

CONTINUED ON DRG R9b

3R/3001052

No.	DIV.	1	2	3	4	5	6	7	8	9	10	DATE	CH'KD	DATE	MADE	BRITAIN STEEL LTD. NEW WESTMINSTER B.C.	3R/3001052	No. BY	DATE	REVISION	CONTRACT	DWG. No.	REV.



CONTINUED FROM DRG R9a

ERECTION OF NEW END SUPPORT

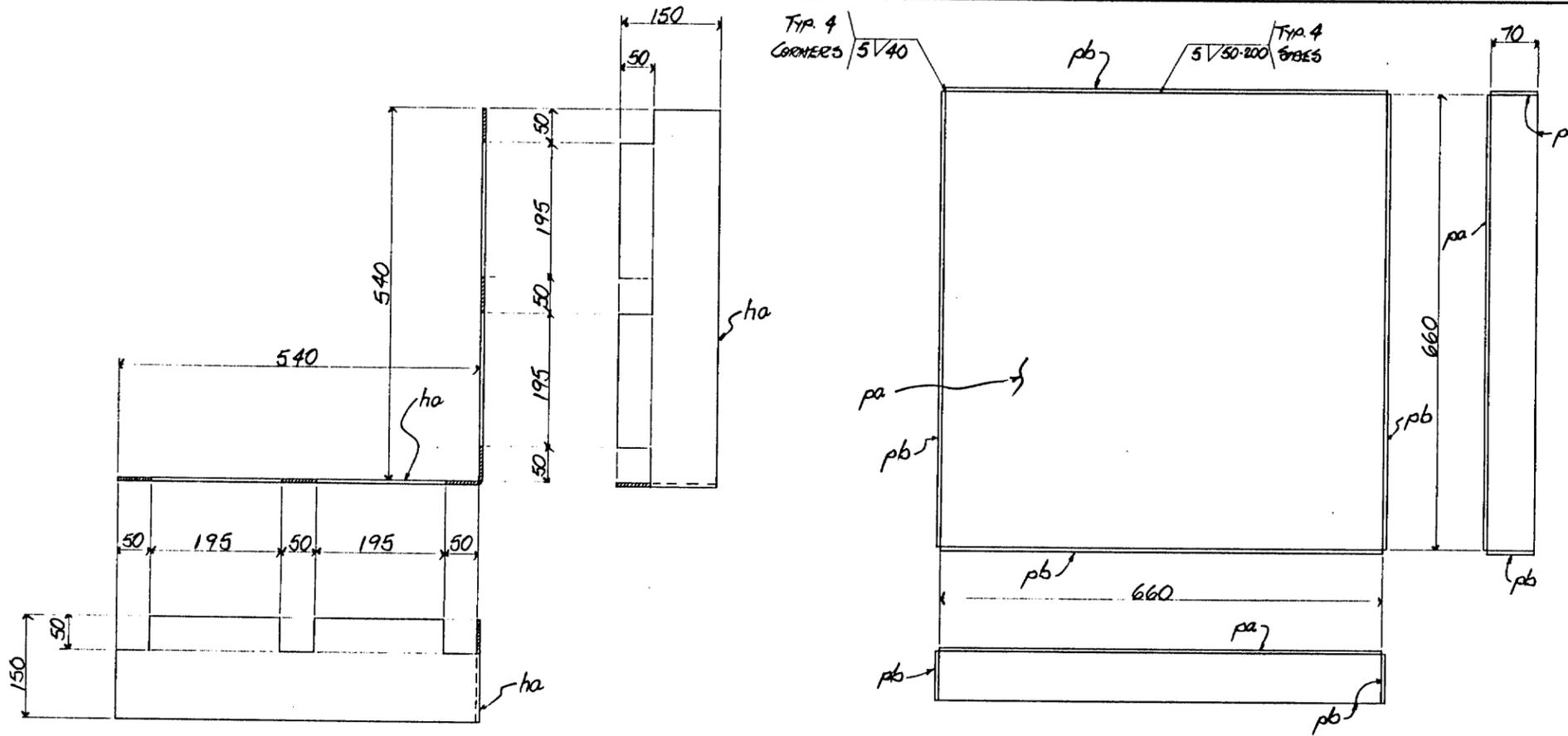
- 16.) TRANSFER SLING & CHAINFALL BACK TO CENTRE LIFTING LUG MR. BAG
- 17.) HOOK ONTO NEW END SUPPORT & USING CHAINFALL & SHUTTER, LIFT & MOVE INTO PLACE AFTER CONNECTING STEADY LINES AS SHOWN ON DRG R7.
- 18.) INSTALL & FULLY TIGHTEN ALL BOLTS AS CALLED FOR ON DRG R8.
- 19.) REMOVE BOLTS, HANGER RODS, TOP FLG BRACKETS, & TOP FLG BRACE ASSYS AS CALLED FOR ON DRG R8.
- 20.) BOLT NEW CRANE STOP ASSYS IN PLACE AS SHOWN ON DRGS R3 & R4.
- 21.) BOLT NEW 9.5/2 KNEE BRACE ASSYS IN PLACE AS SHOWN ON DRGS R3 & R4.
- 22.) REPLACE WOOD BLOCKING & SEALS REMOVED FROM SHUTTER

MODIFICATION IS NOW COMPLETE

3R/3001053

No. DIV.	1	2	3	4	5	6	7	8	9	10
	BRITAIN STEEL LTD. NEW WESTMINSTER B.C.									
MADE BY <i>RL</i>										
DATE CH'KD DATE										
DATE										
BY <i>D. B. W. / 09</i>										
REVISION										
OPERATED										
CONTRACT										
1420										
DWG. No.										
R96										
REV.										
A										

M.A.T



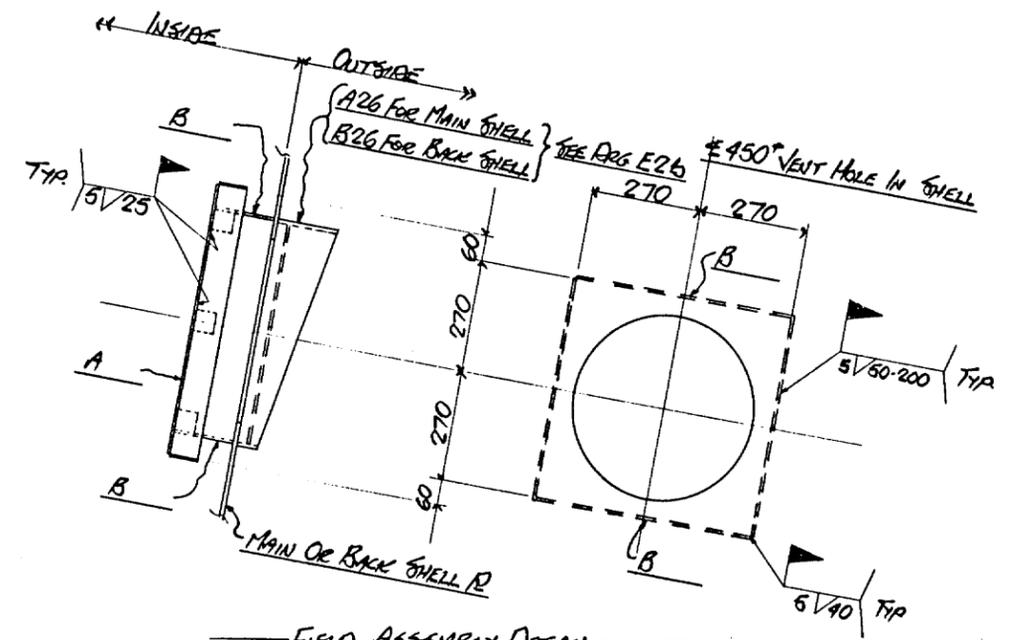
44 REQ. - BAFFLE R MR. A1

22 REQ. - BAFFLE TRAY MR. B1

MATERIAL BILL  
BRITAIN STEEL LTD.

CONTRACT 1420X1

LINE NO.	MARK	QTY.	SHAPE	SIZE	LENGTH	REMARKS	MATL. TYPE	W./H. LINE	WEIGHT
1									
2									
3	ha	44	R	150 x 4.78	1080	(1/8" R) BEND	A36		
4									
5									
6									
7									
8									
9	pa	22	R	660 x 4.78	660	(1/8" R)	A36		
10	pb	88	R	70 x 4.78	660	(1/8" R)			
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FIELD ASSEMBLY DETAIL  
TYP. FOR 20 HOLES IN MAIN SHELL  
1 2 HOLES IN BACK SHELL

3R/3001054

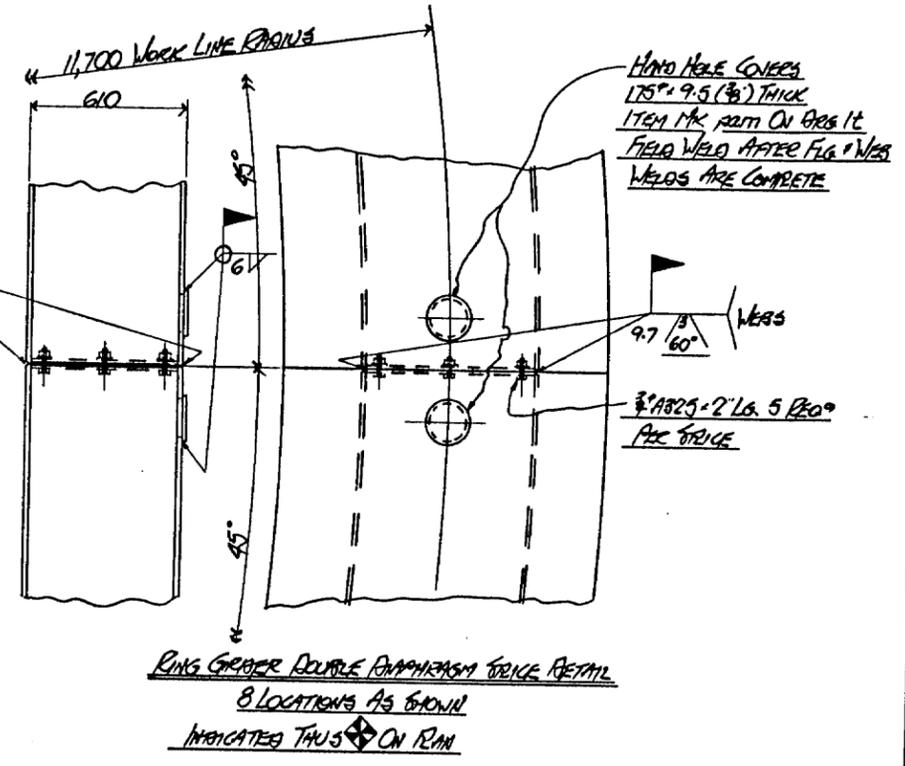
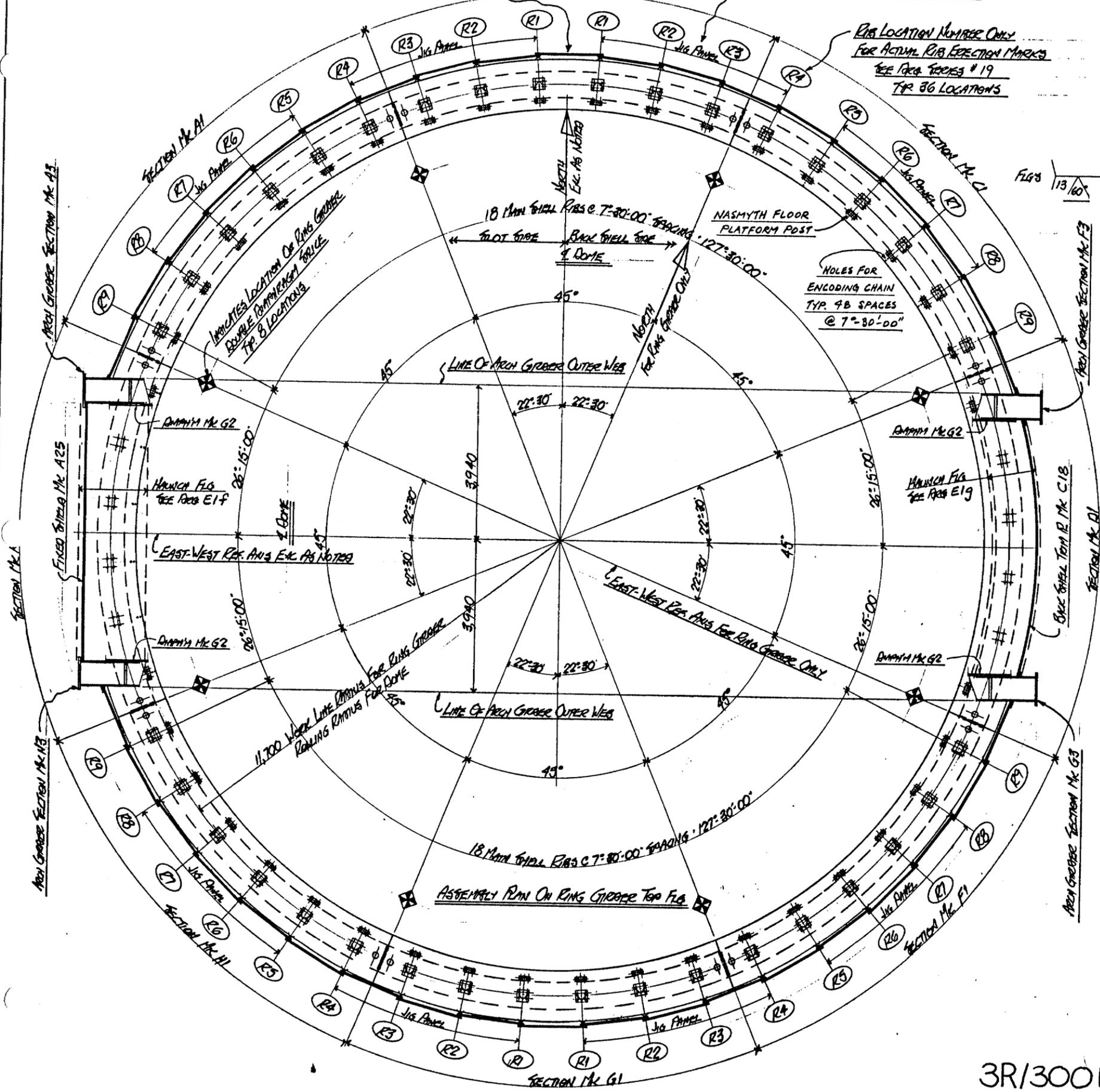
	MATERIAL	A36	DETAILS	VENT HOLE BAFFLES
	SURF. PREP. & PAINT	SEE MEMO	FOR	4.2' TELESCOPE DOME LA. POLYMA
	DRAWN	DATE	CHECKED	DATE
	BRK	AVS/BA		
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		DRAWING No.		1420X1-1
SHOP DEPARTMENT		INS./F./S./O./M./T./P./SH./DP./AS./PA./ER		NO. PRINTS

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m-abcdefghijklmnpstvw

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SEE DWG SERIES E3 FOR CLOSURE R.I'S. SECTION M.B. SEE DWG. SERIES #23 FOR JIG PANELS.



GENERAL NOTES

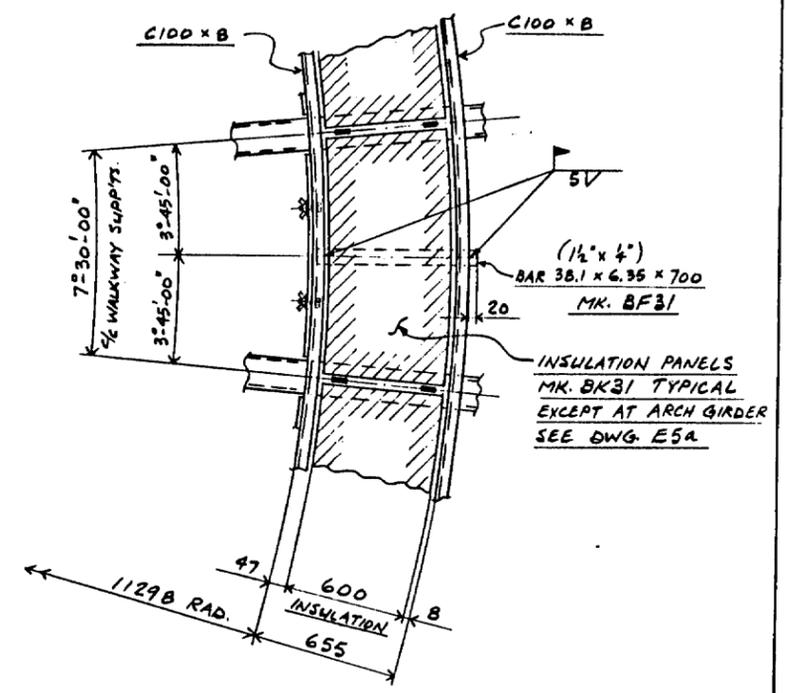
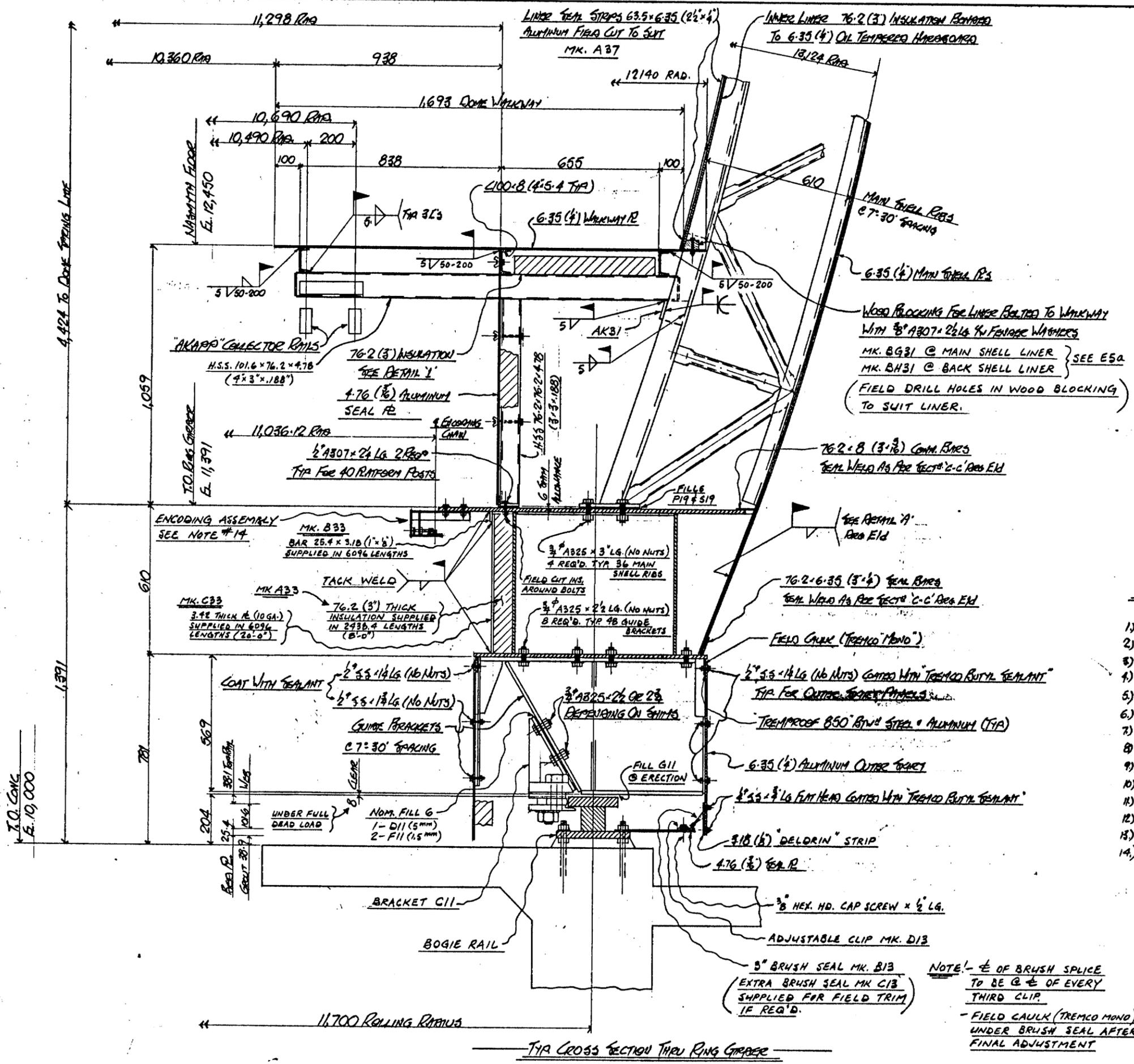
- 1) FOR DETAILS OF RING GIRDER SEE FIGS SERIES #1
- 2) HAUNCHES SEE FIGS SERIES #2
- 3) ARCH GIRDERS SEE FIGS SERIES #3
- 4) MAIN SHELL RIBS SEE FIGS SERIES #19
- 5) NASMYTH FLOOR PLATFORM POSTS SEE FIGS SERIES #31
- 6) MAIN SHELL R.I'S SEE FIGS SERIES #17
- 7) FIXED GIMBALS SEE FIGS #25
- 8) BACK SHELL TRIM R SEE FIGS SERIES #18
- 9) FOR ARCH GIRDERS TO RING GIRDER CONN. SEE FIGS E1B
- 10) FOR TIP CROSS SECTION THRU RING GIRDER SEE FIGS E1C
- 11) FOR MAIN SHELL TO RING GIRDER CONN. SEE FIGS E1D
- 12) FOR FIXED GIMBAL & BACK SHELL TRIM R CONN. TO RING GIRDER SEE FIGS E1F & E1G

3R/3001055

	No. 1 BY DATE REVISION DETAILS OF RING GIRDER TOP FLG FOR 4.2M TELESCOPE DOME LA HAYMA				
	DRAWN BY BK	DATE 27-82	CHECKED DATE [ ] [ ]	DRAWING No. 1420-E1a	REV. [ ]
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.			SHOP DEPARTMENT		

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**NOTE!**  
FIELD LAY INSULATION ON WALKWAY SUPPORT FRAMES AS SHOWN BEFORE PLACING WALKWAY RIB.

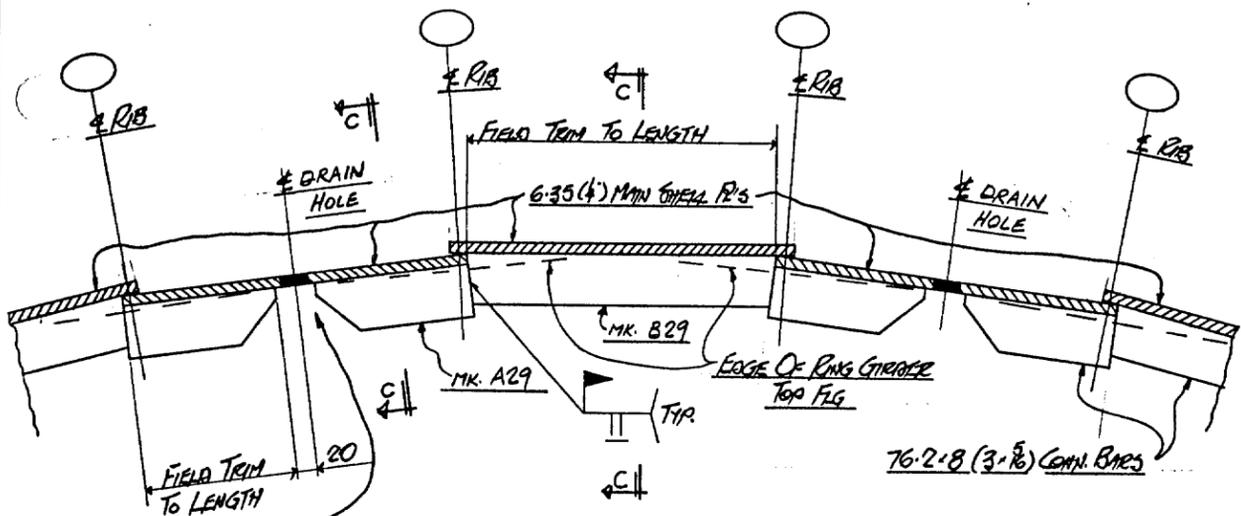
**GENERAL NOTES**

- 1) FOR DETAILS OF BOGIE RAIL SEE DWG. SERIES # 12
- 2) GUIDE BRACKETS SEE DWG. 11a
- 3) RING GIRDER SEE DWG. SERIES # 1
- 4) INNER & OUTER SKIRTS SEE DWG. SERIES # 14
- 5) SEAL RIB & BRUSH SEAL SEE DWG. SERIES # 13
- 6) MAIN SHELL RIBS SEE DWG. SERIES # 19
- 7) RIBS # 17
- 8) LINER # 9
- 9) SEAL RIBS SEE DWG. # 29
- 10) CONN. BARS SEE DWG. # 29
- 11) LINER SEAL STRIPS SEE DWG. # 37
- 12) DOME WALKWAY & SUPPORT STEEL SEE DWG. SERIES # 31
- 13) WALKWAY SEAL RIBS SEE DWG. SERIES # 32
- 14) DOME ENCODING CHAIN SEE DWG. SERIES # 40 AND DWG. E9a & E9b.

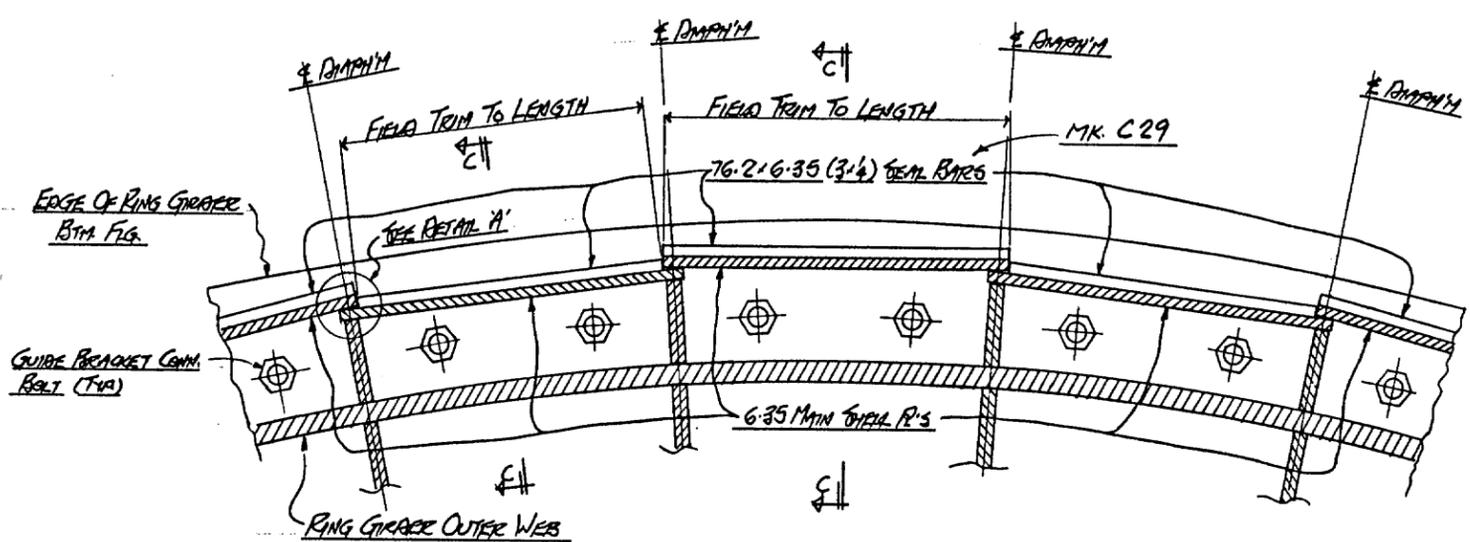
**NOTE!** -  $\frac{1}{2}$  OF BRUSH SPICE TO BE @  $\frac{1}{2}$  OF EVERY THIRD CLIP.  
- FIELD CAULK (TREMCO MONO) UNDER BRUSH SEAL AFTER FINAL ADJUSTMENT

3R/3001057

<b>BRITAIN</b>	NO.	BY	DATE	REVISION
	DETAILS OF TELESCOPE SECTION THROUGH GIRDER			
FOR 4.2 TELESCOPE DOME LA. 14/11/61				REV.
DRAWN	DATE	CHECKED	DATE	DRAWING NO.
RL	11/10/61			1420-E1C
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.				
SHOP DEPARTMENT				NO. PRINTS
INB / B / O / M / T / P / R / I / P / AS / PA / E / I				

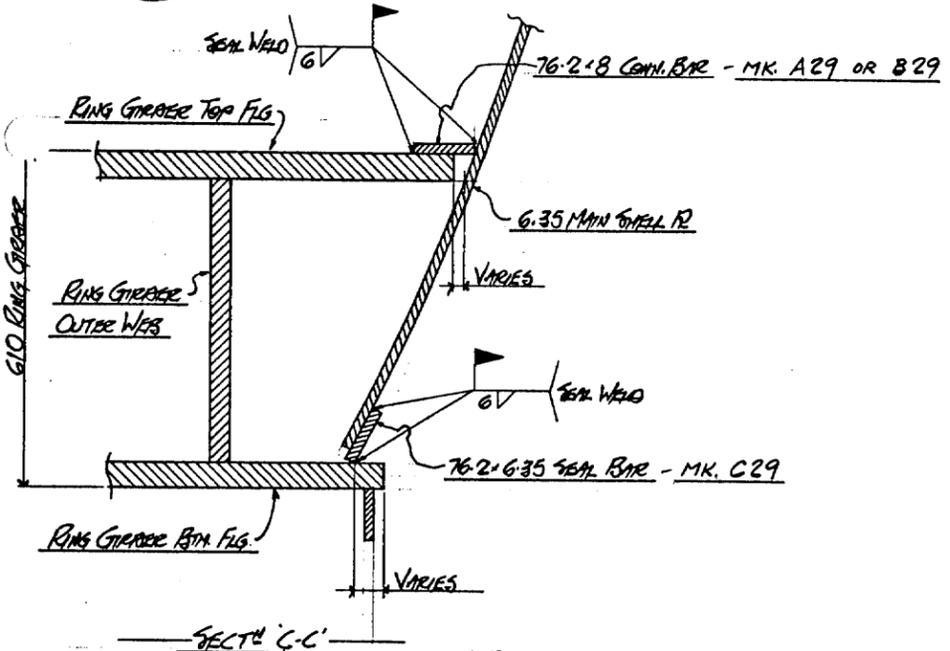


MAIN SHELL R'S TO RING GIRDER TOP FLG CONN. DETAIL

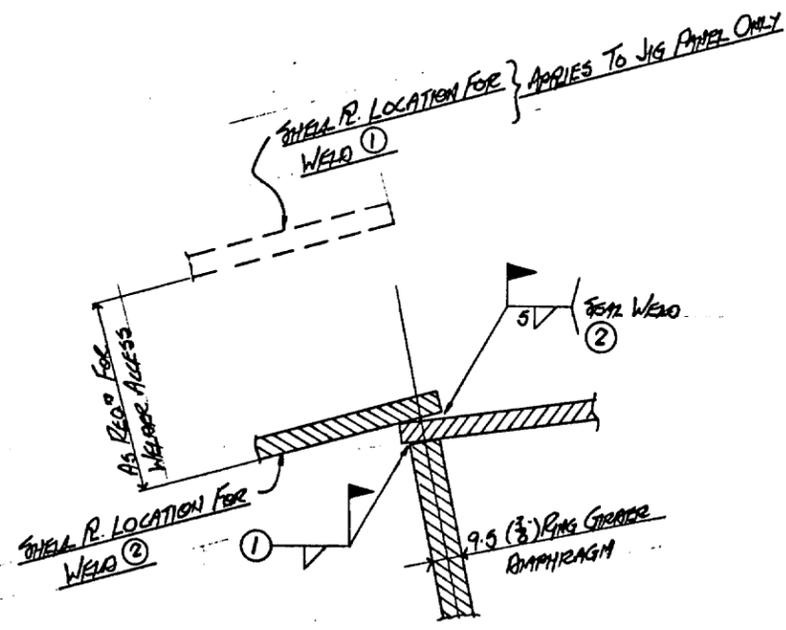


MAIN SHELL R'S TO RING GIRDER BOTM FLG CONN. DETAIL

**FIELD NOTE:-**  
 IT IS IMPORTANT THAT RIG TOP FLG, MAIN SHELL R, & CONN. BARS ARE TESTED IN AREA OF DRAIN HOLE TO PREVENT INGRESS OF WATER DOWN 1/3 OF SHELL R TO RIG BOTM FLG.



**FIELD NOTE:-**  
 DO NOT WELD SEAL OF CONN. BARS UNTIL WELDS SHOWN IN DETAIL 'A' ARE COMPLETE.



DETAIL 'A' (MAIN SHELL R TO DIAPHRAGM CONN.)  
 TYP. C 36 DIAPHRAGMS

**FIELD NOTE:-**  
 WHEN A SHELL JIG PANEL IS ERECTED, THE BOTTOM 2,200 OF SEAL WELD IS OMITTED UNTIL COMPLETION OF WELD 1. THIS ALLOWS ADJACENT R TO BE PROPPED OUT OF THE WAY FOR WELDER ACCESS.

GENERAL NOTES

- 1) FOR DETAILS OF RING GIRDER SEE DRG SERIES #1
- 2) MAIN SHELL R'S SEE DRG SERIES #17
- 3) SEAL BARS SEE DRG #29a
- 4) CONN. BARS SEE DRG #29a

3R/3001058

<b>BRITAIN</b>	DRAWN RK		DATE 1/12/82		CHECKED		DATE		DRAWING No. 1420-E1d		REV
	<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, S.C.										
SHOP DEPARTMENT											
INS E/S O/M T/P BH/DP AS/PA/ER											
NO. PRINTS											

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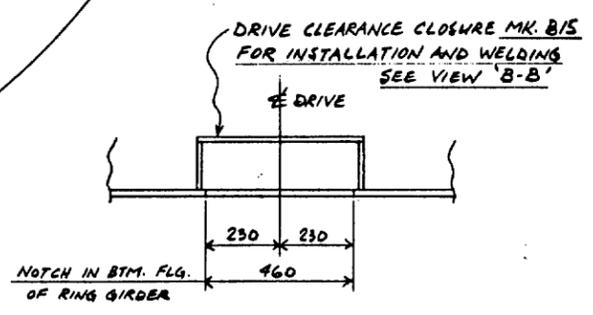
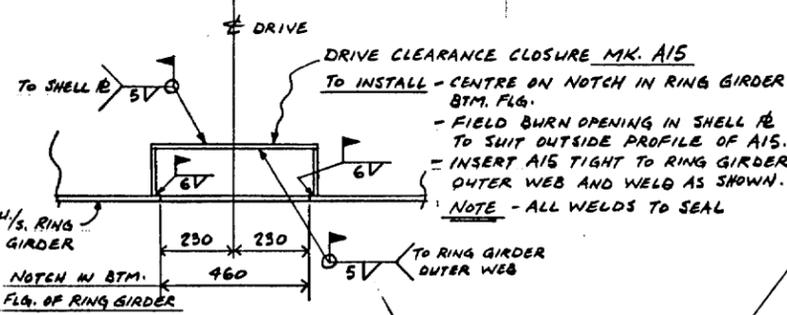
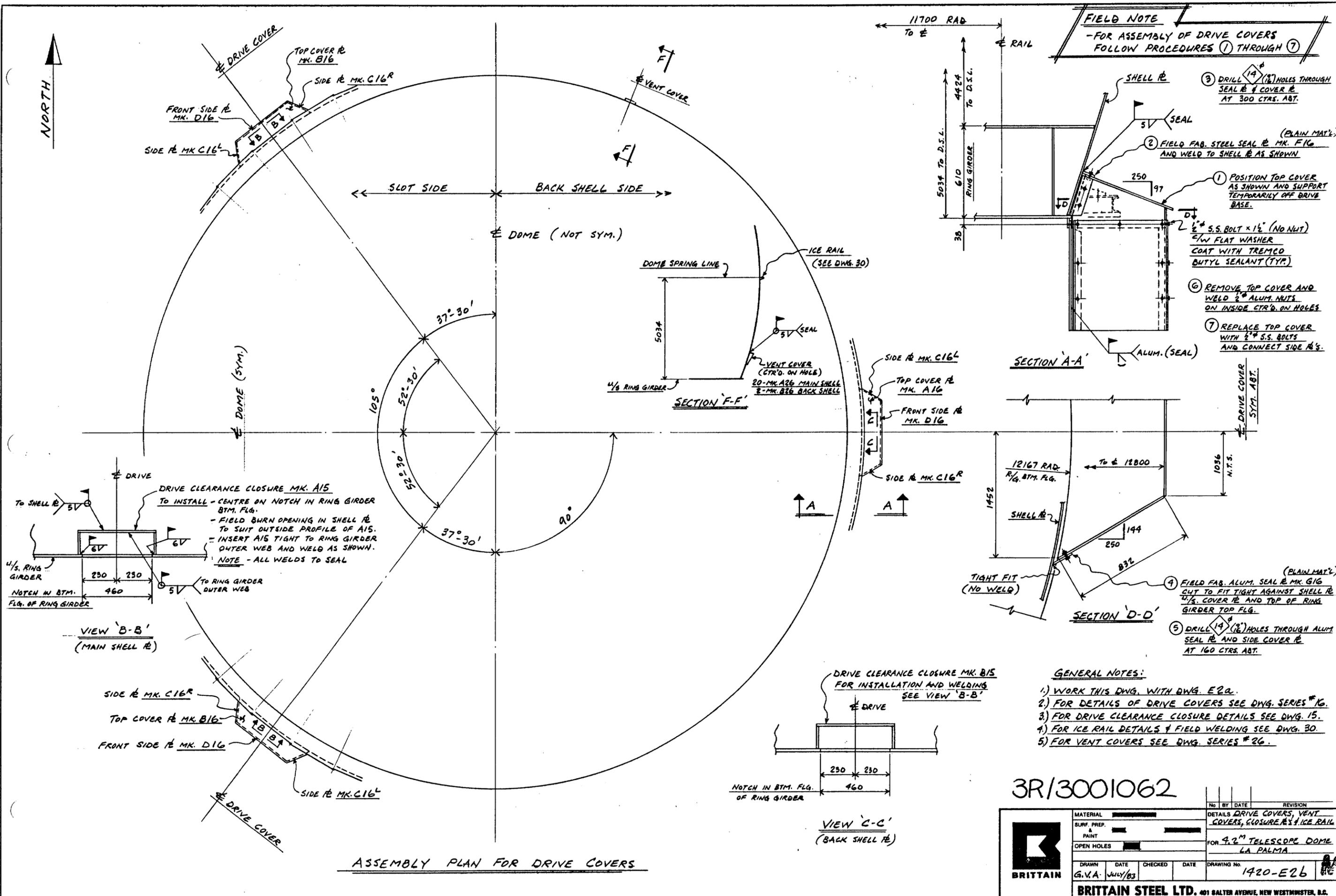
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- GENERAL NOTES:**
- 1) WORK THIS DWG. WITH DWG. E22.
  - 2) FOR DETAILS OF DRIVE COVERS SEE DWG. SERIES #16.
  - 3) FOR DRIVE CLEARANCE CLOSURE DETAILS SEE DWG. 15.
  - 4) FOR ICE RAIL DETAILS & FIELD WELDING SEE DWG. 30.
  - 5) FOR VENT COVERS SEE DWG. SERIES #26.

3R/3001062

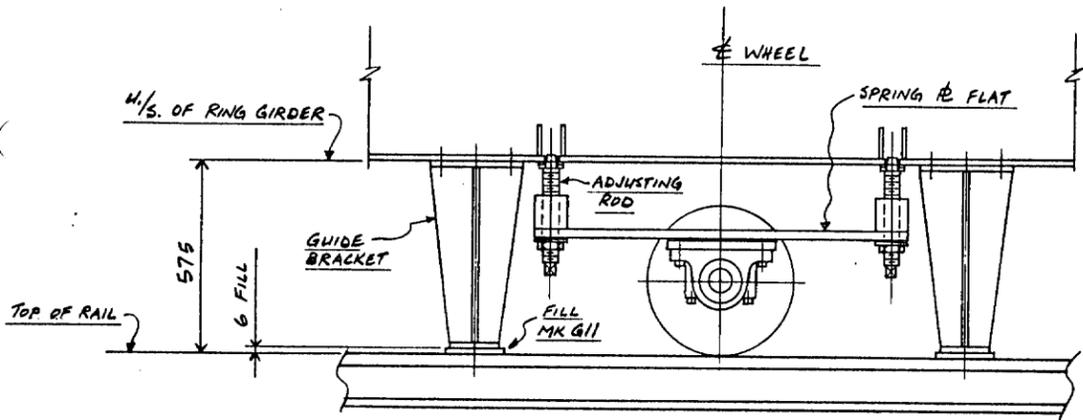
	MATERIAL	DETAILS DRIVE COVERS, VENT COVERS, CLOSURE & ICE RAIL
	SURF. PREP. & PAINT	FOR 4.2" TELESCOPE DOME LA PALMA
DRAWN G.V.A.	DATE July/83	CHECKED DATE
DRAWING No. 1420-E26		REVISION
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.S.		

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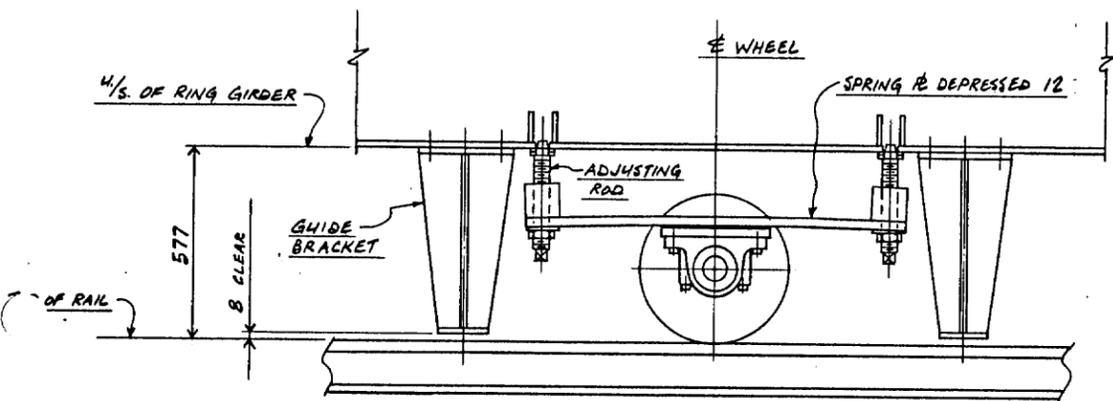
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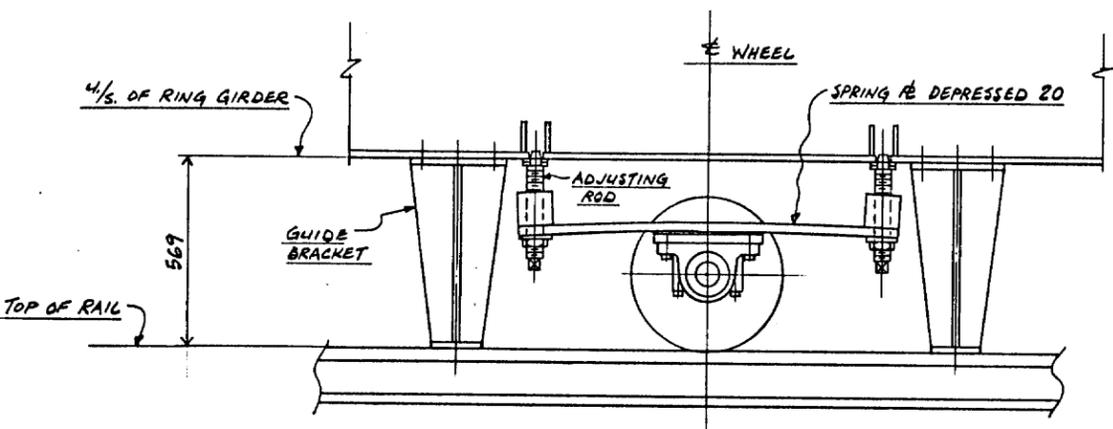
SHOP DEPARTMENT



DETAIL '1' - RING GIRDER WITH GUIDE BRACKETS  
ERECTED ON BOGIE RAIL WITH 6<sup>mm</sup> FILLS SPRING RAIL FLAT



DETAIL '2' - UNDER FULL DEAD LOAD AT COMPLETION OF ERECTION  
SPRING RAIL DEPRESSED 12<sup>mm</sup> AND DOME RAISED 2<sup>mm</sup> ABOVE FILLS  
BY TIGHTENING VERT. ADJUSTING RODS TO GIVE 8<sup>mm</sup> CLEARANCE  
FILLS REMOVED



DETAIL '3' - UNDER FULL DEAD LOAD + LIVE LOAD SPRING RAIL DEPRESSED 20<sup>mm</sup>  
AND GUIDE BRACKETS BOTTOMED OUT ON BOGIE RAIL

3R/3001063

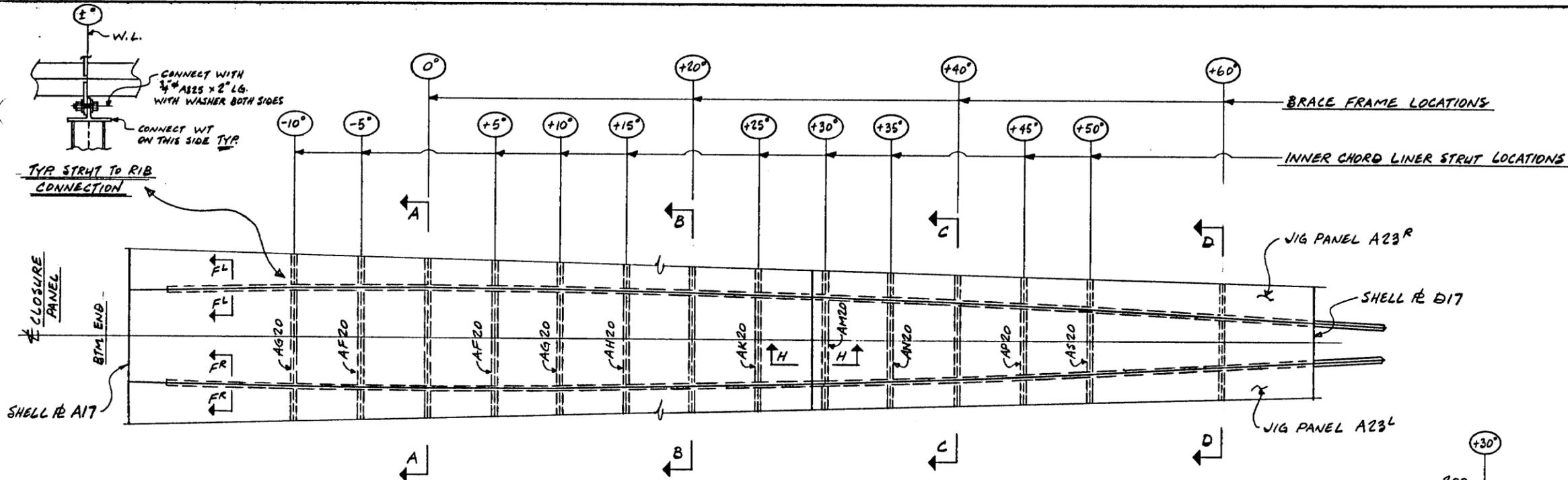
	No. BY DATE		REVISION	
	DETAILS SCHEMATIC ARRANGEMENT OF DRIVE & IDLER BOGIES			
	FOR 9.2 <sup>m</sup> TELESCOPE DOME LA PALMA			
	DRAWING No. 1920-E2C			
DRAWN	DATE	CHECKED	DATE	REV.
G.V.A.	SEPT/83			
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.				
SHOP DEPARTMENT		INS. F. S. O. M. T. P. SH. DP. AS. PA. ED.		

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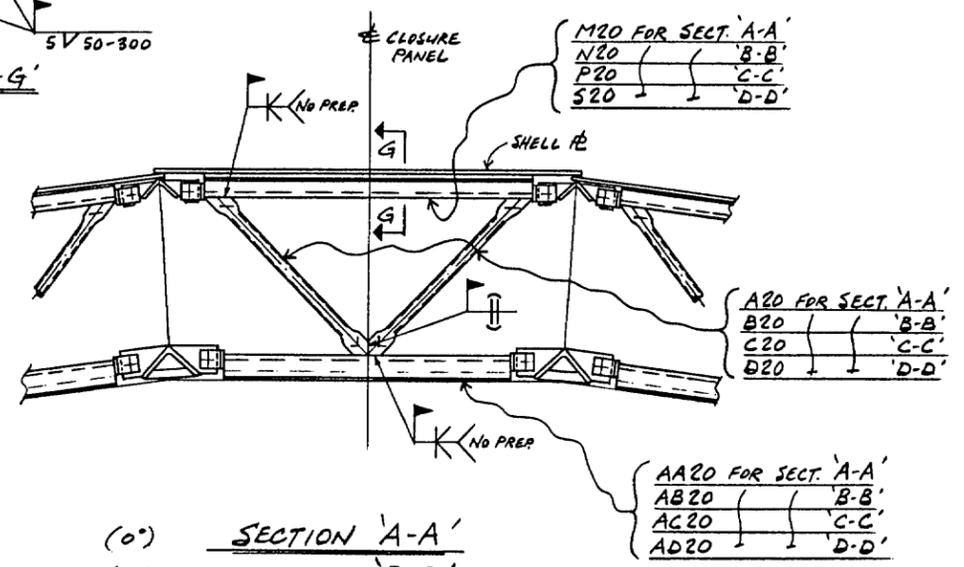
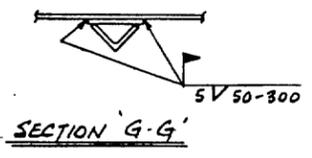
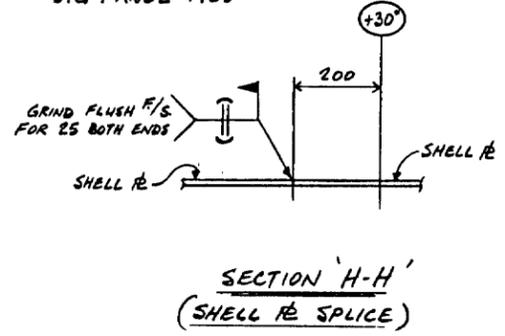
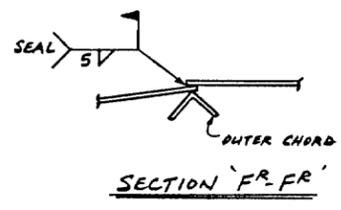
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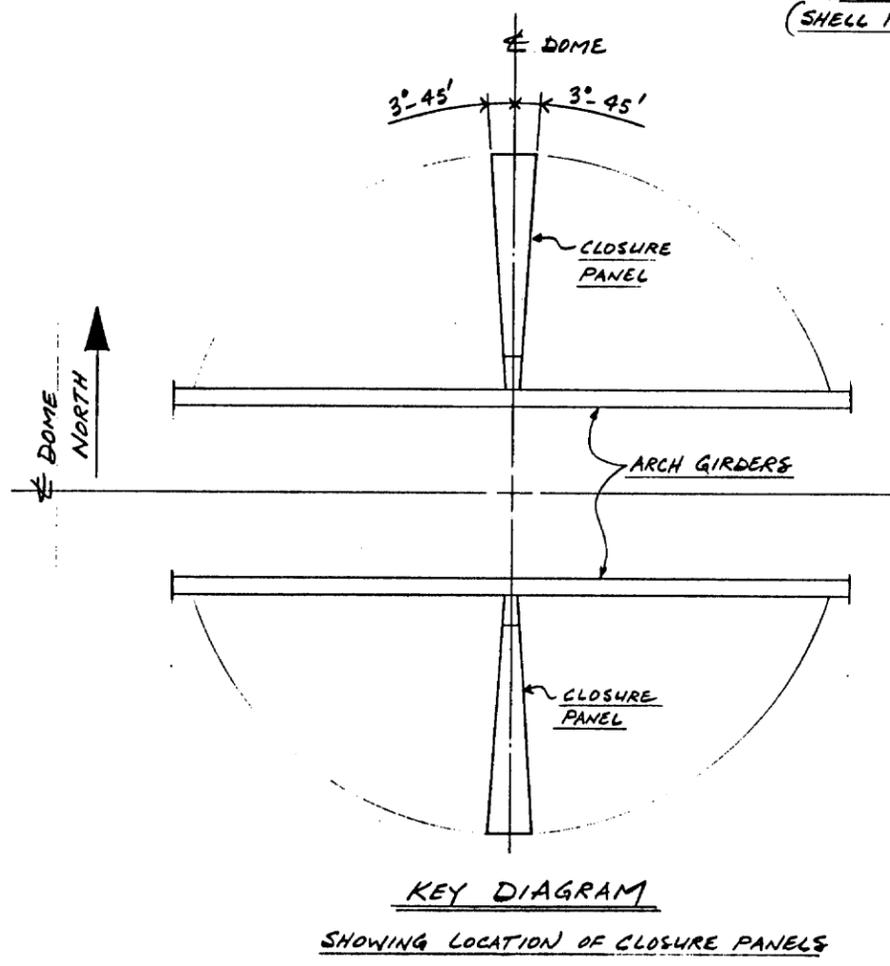
**ITEM LIST FOR ONE CLOSURE PANEL**

ITEM MARK	QTY.	DESCRIPTION	REF DWG.
A17	1	SHELL RIB	17a
D17	1		17b
A20	2	BRACE FRAME WEB MEMBER	20a
B20	2		
C20	2		
D20	2		
M20	1	OUTER CHORD STRUT	20b
N20	1		
P20	1		
S20	1		
AA20	1	INNER CHORD STRUT	20c
AB20	1		
AC20	1		
AD20	1		
AE20	2		
AG20	2		
AH20	1		
AK20	1		
AM20	1		20d
AN20	1		
AP20	1		
AS20	1		

**SCHEMATIC PLAN ON CLOSURE PANEL (2-AS SHOWN)**



- (0°) SECTION 'A-A'
- (20°) SECTION 'B-B'
- (40°) SECTION 'C-C'
- (60°) SECTION 'D-D'



**GENERAL NOTES:**  
1) FOR ASSEMBLY TO RING GIRDER SEE DWG. E1c & E1d.

3R/3001064

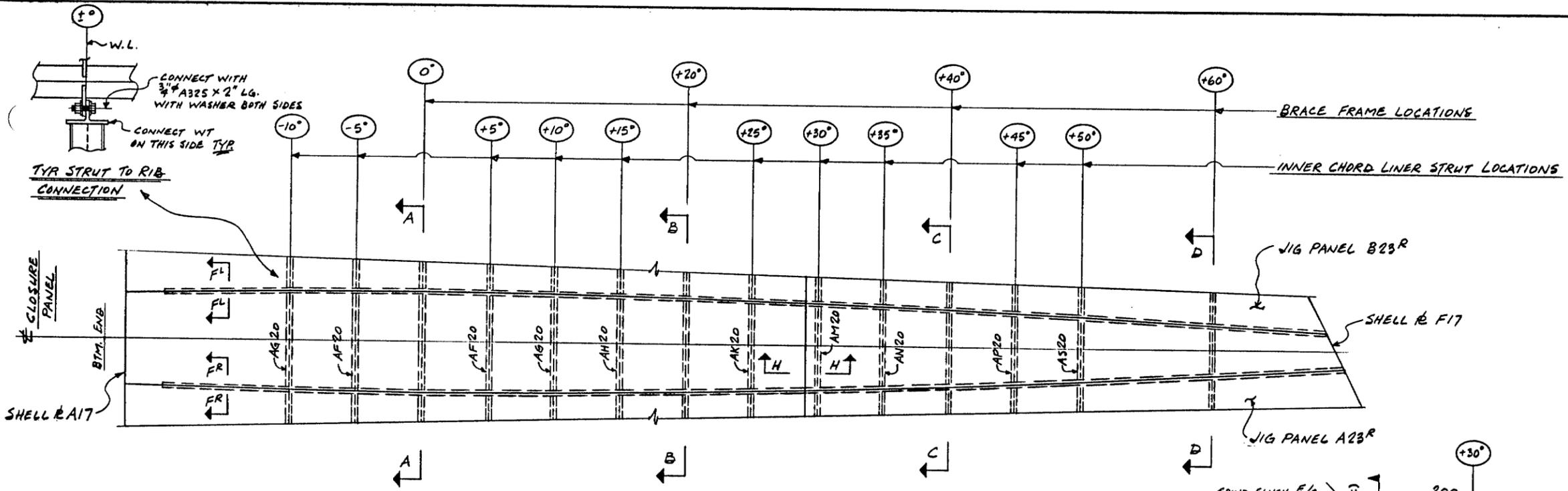
<b>BRITAIN</b>	MATERIAL	SEE MEMO	NO. BY DATE	REVISION
	SURF. PREP. & PAINT	SEE MEMO	DETAILS MAIN SHELL CLOSURE PANEL	
OPEN HOLES			FOR 4.2M TELESCOPE DOME LA PALMA	
DRAWN G.V.A.	DATE	CHECKED	DATE	DRAWING No. 1420-E8a
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, S.C.				

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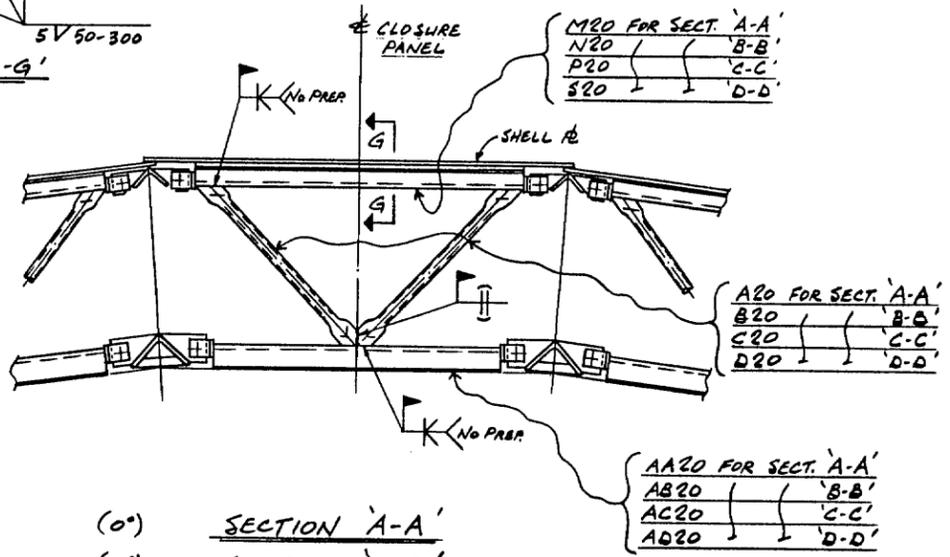
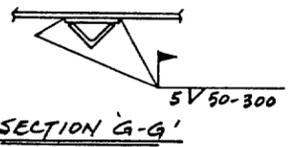
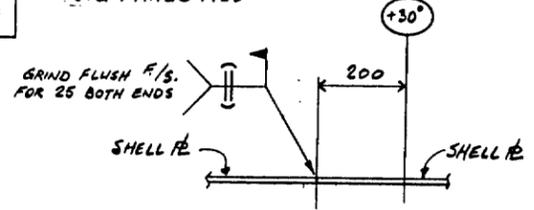
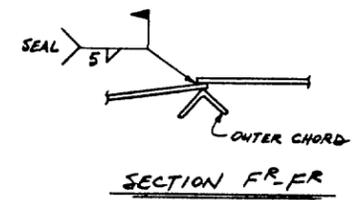
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SHOP DEPARTMENT

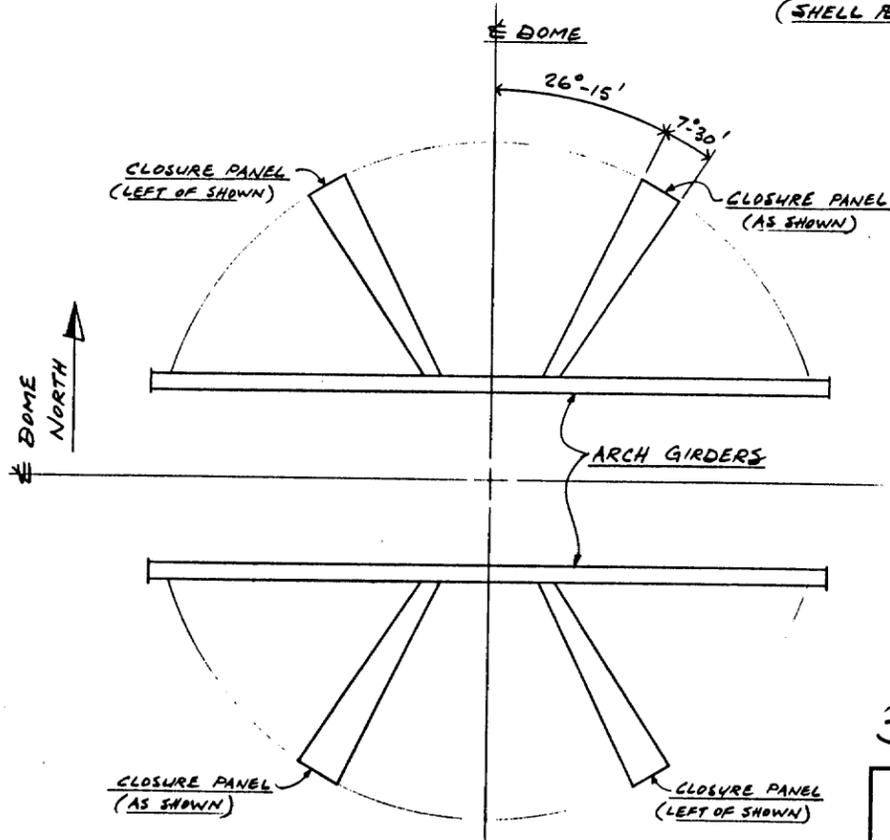


ITEM LIST FOR ONE CLOSURE PANEL			
ITEM MARK	QTY	DESCRIPTION	REF DWG
A17	1	SHELL R	17A
F17	1	↓ ↓ ↓	17B
A20	2	BRACE FRAME WEB MEMBER	20A
B20	2	↓ ↓ ↓ ↓ ↓	
C20	2	↓ ↓ ↓ ↓ ↓	
D20	2	↓ ↓ ↓ ↓ ↓	
M20	1	OUTER CHORD STRUT	20B
N20	1	↓ ↓ ↓ ↓ ↓	
P20	1	↓ ↓ ↓ ↓ ↓	
S20	1	↓ ↓ ↓ ↓ ↓	
AA20	1	INNER CHORD STRUT	20C
AB20	1	↓ ↓ ↓ ↓ ↓	
AC20	1	↓ ↓ ↓ ↓ ↓	
AD20	1	↓ ↓ ↓ ↓ ↓	
AF20	2	↓ ↓ ↓ ↓ ↓	
AG20	2	↓ ↓ ↓ ↓ ↓	
AH20	1	↓ ↓ ↓ ↓ ↓	
AK20	1	↓ ↓ ↓ ↓ ↓	
AM20	1	↓ ↓ ↓ ↓ ↓	20d
AN20	1	↓ ↓ ↓ ↓ ↓	
AP20	1	↓ ↓ ↓ ↓ ↓	
AS20	1	↓ ↓ ↓ ↓ ↓	

**SCHEMATIC PLAN ON CLOSURE PANEL**  
 (2 - PANELS AS SHOWN)  
 (2 - PANELS LEFT OF SHOWN)



- (0°) SECTION 'A-A'
- (20°) SECTION 'B-B'
- (40°) SECTION 'C-C'
- (60°) SECTION 'D-D'



**GENERAL NOTES:**  
 1.) FOR ASSEMBLY TO RING GIRDER SEE DWG. E1C & E1D.  
 2.) FOR ASSEMBLY TO ARCH GIRDER SEE DWG.

3R/3001065

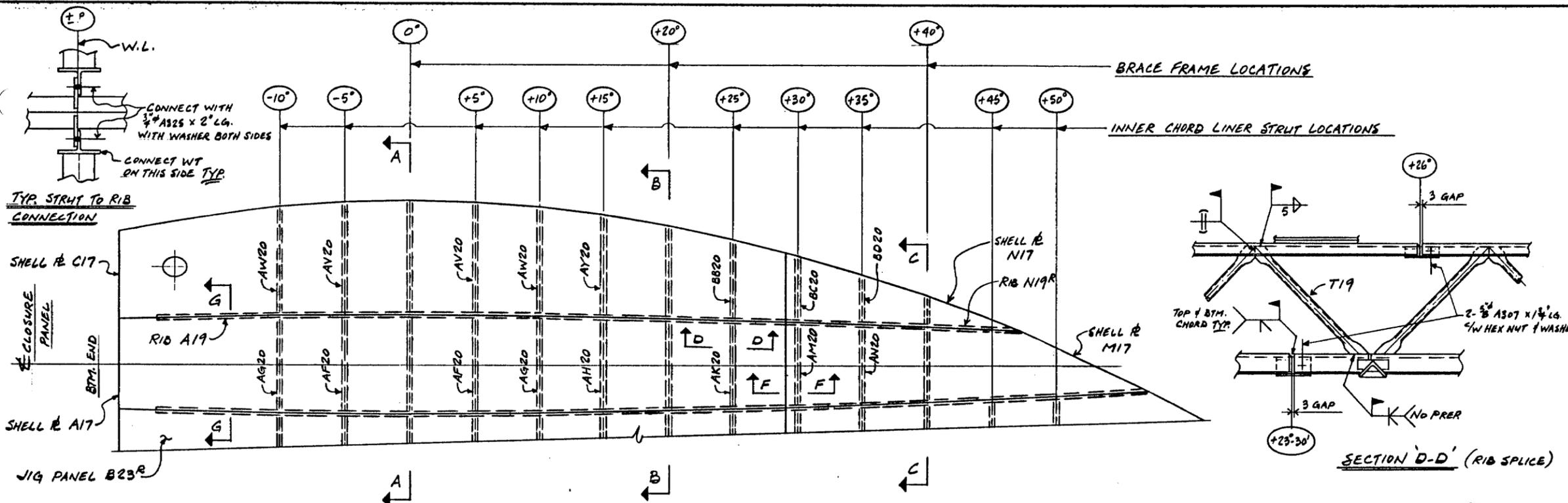
<b>BRITAIN</b>	MATERIAL	SEE MEMO	NO. BY DATE REVISION
	SURF. PREP. & PAINT	SEE MEMO	DETAILS MAIN SHELL CLOSURE PANELS
DRAWN G.V.A. SEPT/02		CHECKED DATE	DRAWING NO. 1420-E36
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.		REV. <b>AVF</b>	

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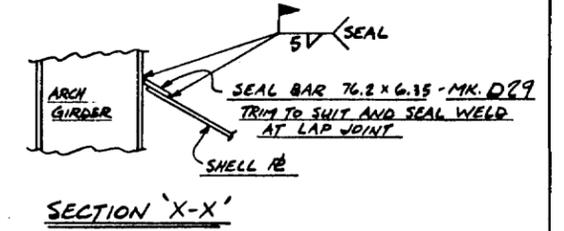
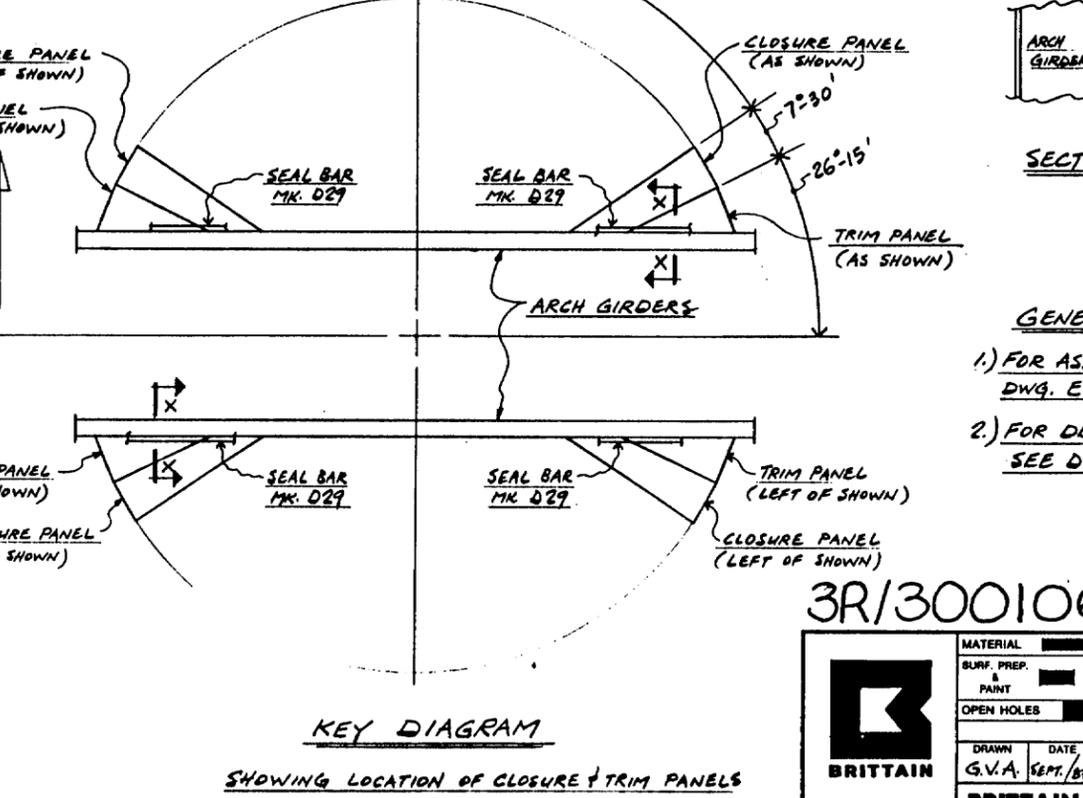
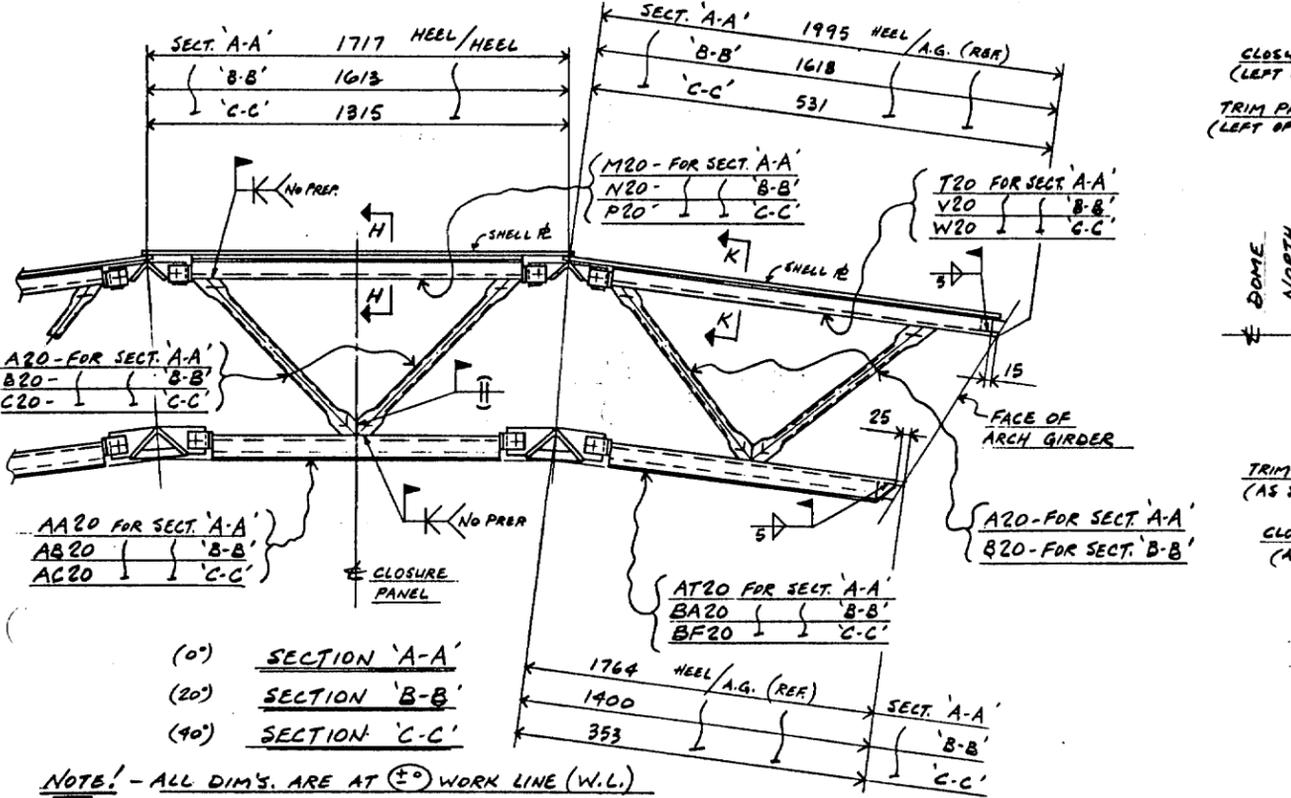
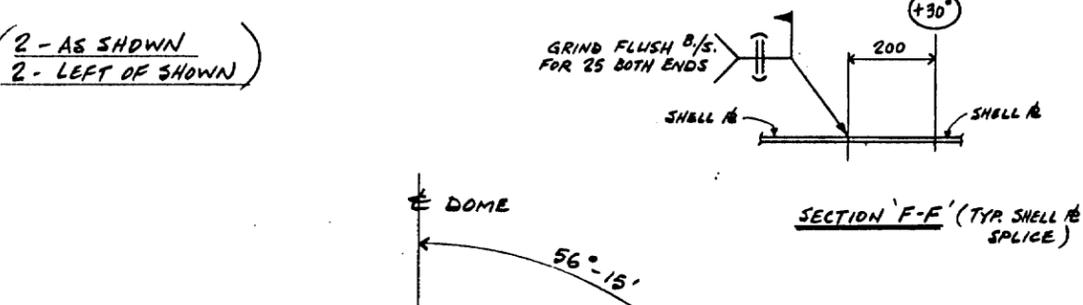
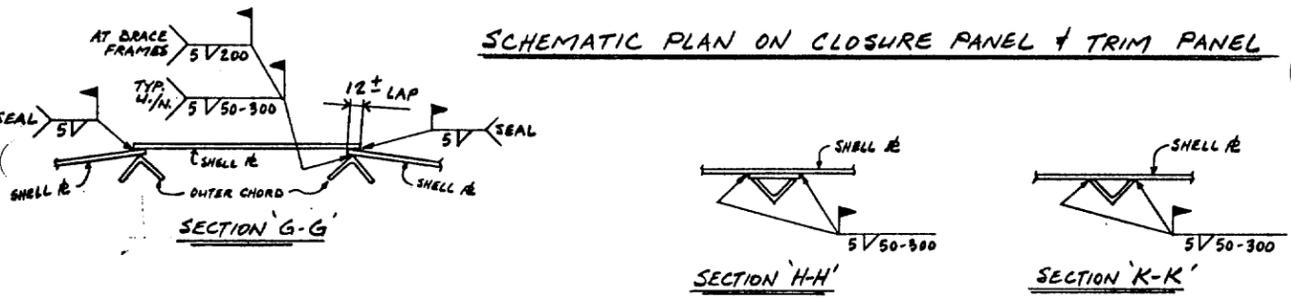
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SHOP DEPARTMENT



ITEM LIST FOR ONE CLOSURE PANEL AND ONE TRIM PANEL

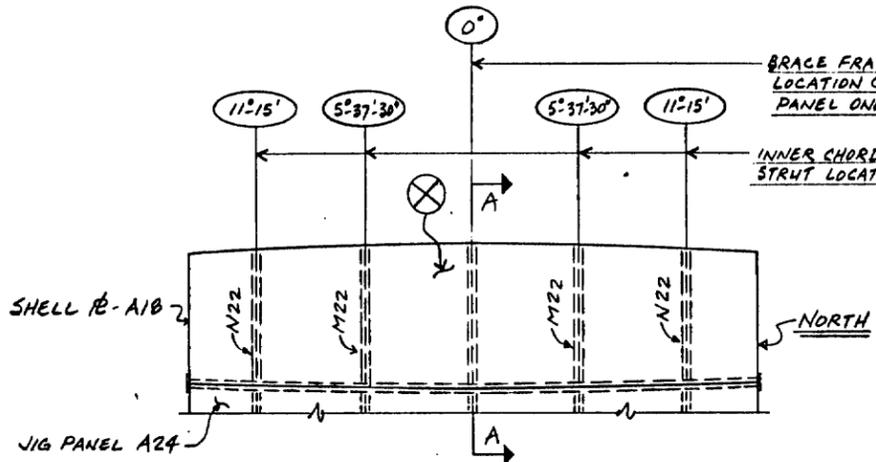
ITEM MARK	QTY	DESCRIPTION	REF DWG
A19	1	LOWER RIB SECTION	19c
N19R	1	UPPER RIB SECTION	19c
A17	1	SHELL #	17a
C17	1		
M17	1		17d
N17	1		17f
A20	4	BRACE FRAME WEB MEMBER	20a
B20	4		
C20	2		
M20	1	OUTER CHORD STRUT	20b
N20	1		
P20	1		
T20	1		
V20	1		
W20	1		
AA20	1	INNER CHORD STRUT	20c
AB20	1		
AC20	1		
AF20	2		
AG20	2		
AH20	1		
AK20	1		
AM20	1		20d
AN20	1		
AT20	1		
AV20	2		
AW20	2		
AY20	1		
BA20	1		
BB20	1		
BC20	1		
BD20	1		
BE20	1		
T19	1	RIB WEB MEMBER	19b



GENERAL NOTES:  
 1) FOR ASSEMBLY TO RING GIRDER SEE DWG. E1C & E1D.  
 2) FOR DETAIL OF SEAL BAR MK. D29 SEE DWG. 296.

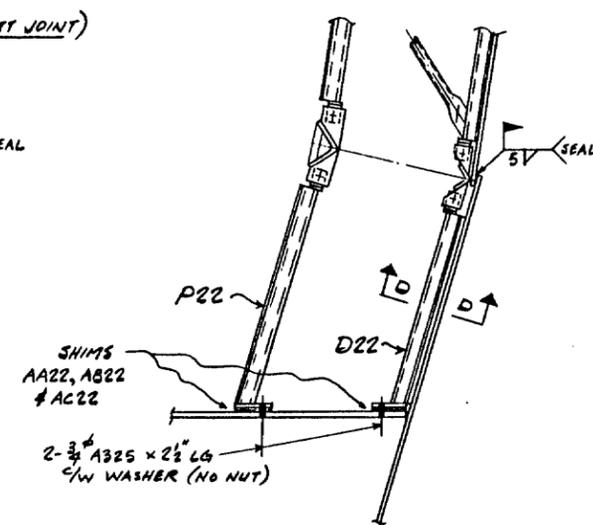
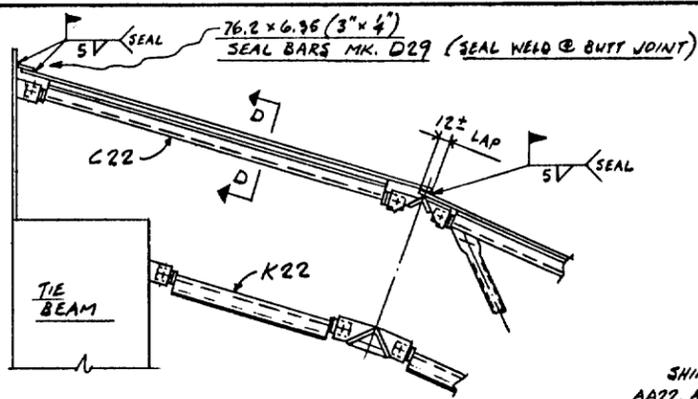
3R/3001066

MATERIAL		NO. BY DATE		REVISION
SURF. PREP.		SEE MEMO		DETAILS MAIN SHELL
PAINT				CLOSURE + TRIM PANEL
OPEN HOLES				FOR 4.2 TELESCOPE DOME
				LA PALMA
DRAWN	DATE	CHECKED	DATE	DRAWING No.
G.V.A.	SEPT/85			1420-E3C
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.				



BRACE FRAME LOCATION & CLOSURE PANEL ONLY

INNER CHORD LINES STRUT LOCATION TYP.

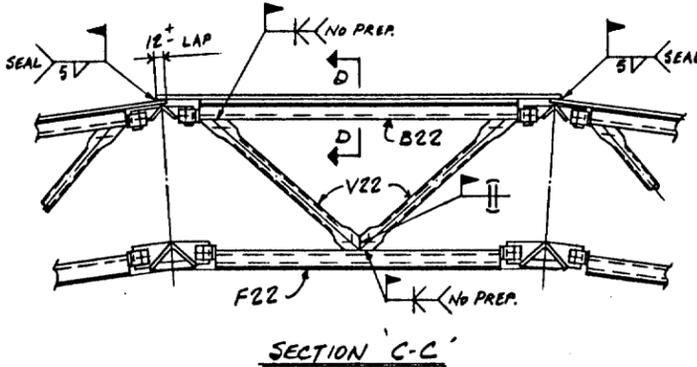
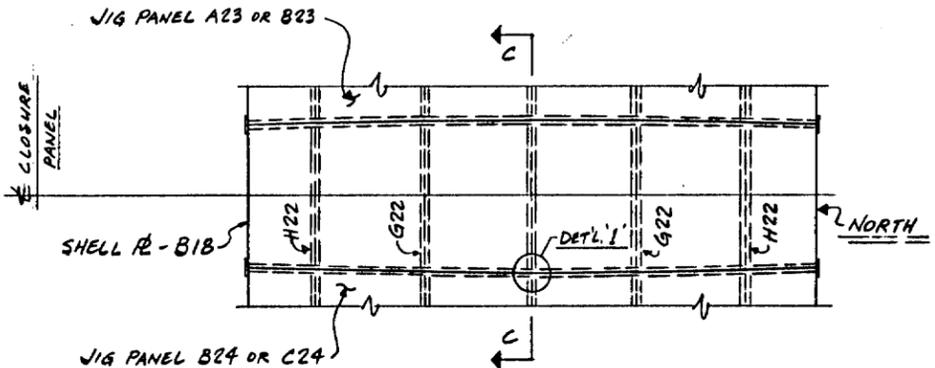


ITEM LIST FOR TOP TRIM PANEL

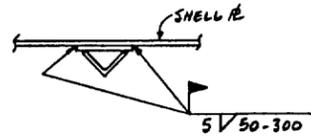
ITEM MARK	QTY.	DESCRIPTION	REF DWG
A1B	1	SHELL R	1B9
C22	1	OUTER CHORD STRUT	22A
K22	1	INNER CHORD STRUT	22L
M22	2		
N22	2		

ITEM LIST FOR ONE CLOSURE PANEL

ITEM MARK	QTY.	DESCRIPTION	REF DWG
B1B	1	SHELL R	1B9
V22	2	BRACE FRAME WEB MEMBER	22B
B22	1	OUTER CHORD STRUT	22A
F22	1	INNER CHORD STRUT	
G22	2		
H22	2		



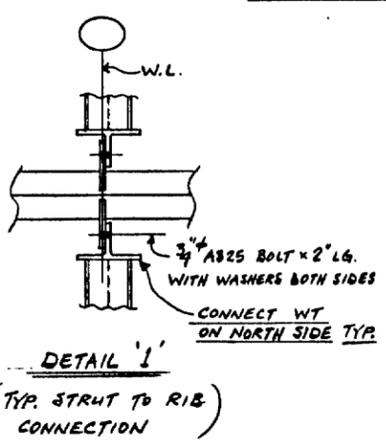
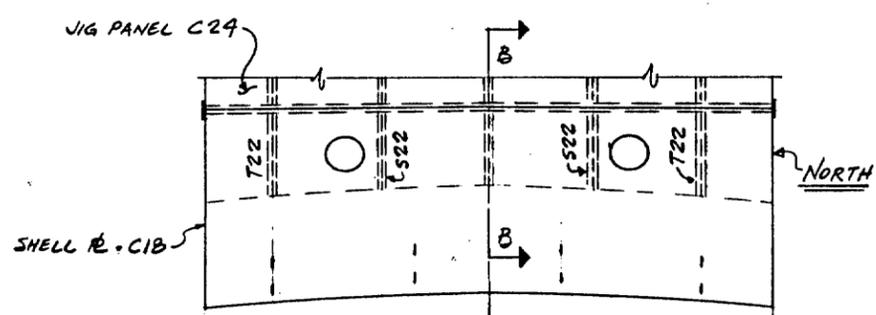
SECTION B-B (SHOWN IN TRUE ORIENTATION)



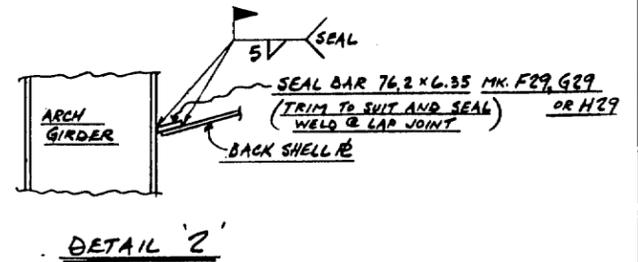
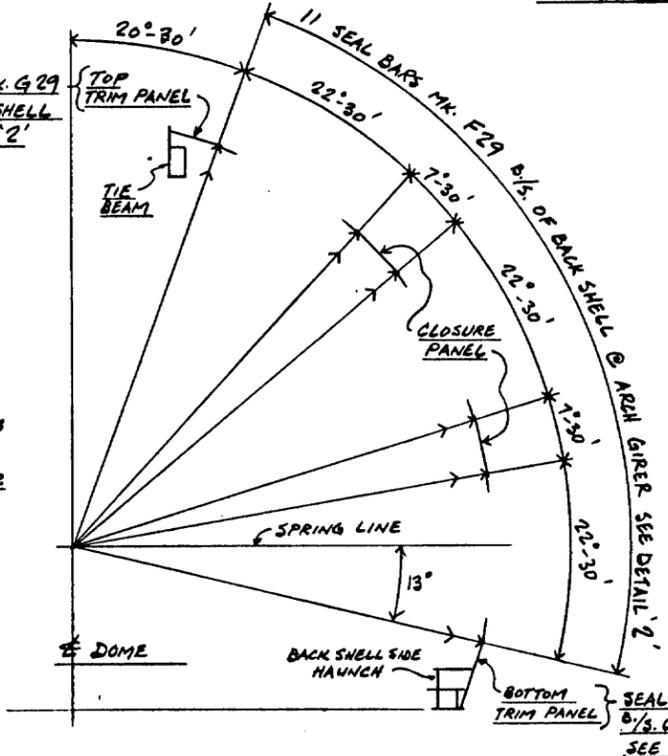
ITEM LIST FOR BOTTOM TRIM PANEL

ITEM MARK	QTY.	DESCRIPTION	REF DWG
C1B	1	SHELL R	1B6
D22	1	OUTER CHORD STRUT	22A
P22	1	INNER CHORD STRUT	22B
S22	2		
T22	2		

SCHEMATIC PLAN ON CLOSURE PANEL (2-LOCATIONS)

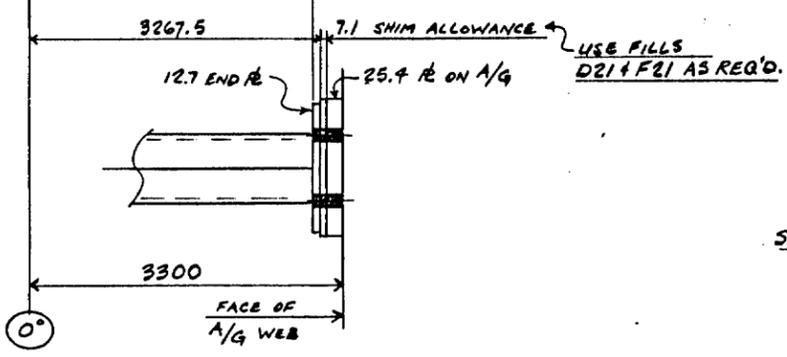


SEAL BARS MK. G29  
8/8 OF BACK SHELL  
SEE DETAIL '2'



- GENERAL NOTES:
- 1) FOR ASSEMBLY TO HANNAH AND RING GIRDER SEE DWG. E19
  - 2) FOR SEAL BARS MK. F29, G29 & H29 SEE DWG. 296

3R/3001067



BRITAIN

MATERIAL: [REDACTED]  
SURF. PREP. & PAINT: [REDACTED] SEE MEMO  
OPEN HOLES: [REDACTED]

DETAILS: BACK SHELL TRIM & CLOSURE PANELS  
FOR 9.2 M TELESCOPE DOME LA PALMA

DRAWN: G.V.A. DATE: SEPT/83  
CHECKED: [REDACTED] DATE: [REDACTED]

DRAWING No. 1420-E4

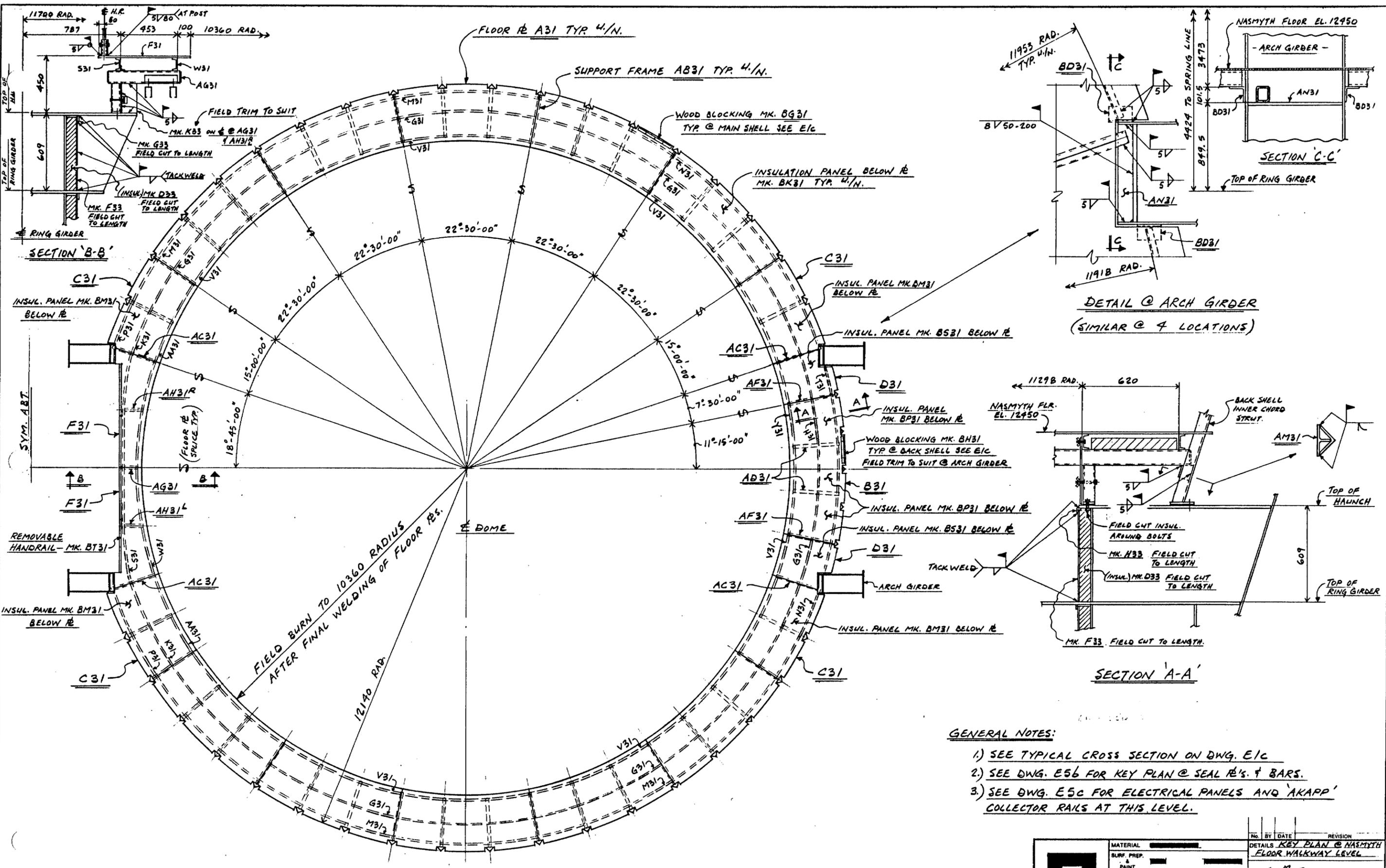
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, S.C.

SHOP DEPARTMENT

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KEY PLAN @ NASMYTH FLOOR LEVEL

3R/3001068

**GENERAL NOTES:**

- 1) SEE TYPICAL CROSS SECTION ON DWG. ETC
- 2) SEE DWG. E56 FOR KEY PLAN @ SEAL R's. & BARS.
- 3) SEE DWG. E5C FOR ELECTRICAL PANELS AND 'AKAPP' COLLECTOR RAILS AT THIS LEVEL.



MATERIAL		REVISION	
SURF. PREP. & PAINT		DETAILS KEY PLAN @ NASMYTH FLOOR WALKWAY LEVEL	
OPEN HOLES		FOR 4.2" TELESCOPE DOME LA PALMA	
DRAWN	DATE	CHECKED	DATE
G.V.A.	Nov/87		
DRAWING No. 1420-ESa		REV. MF	
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.			

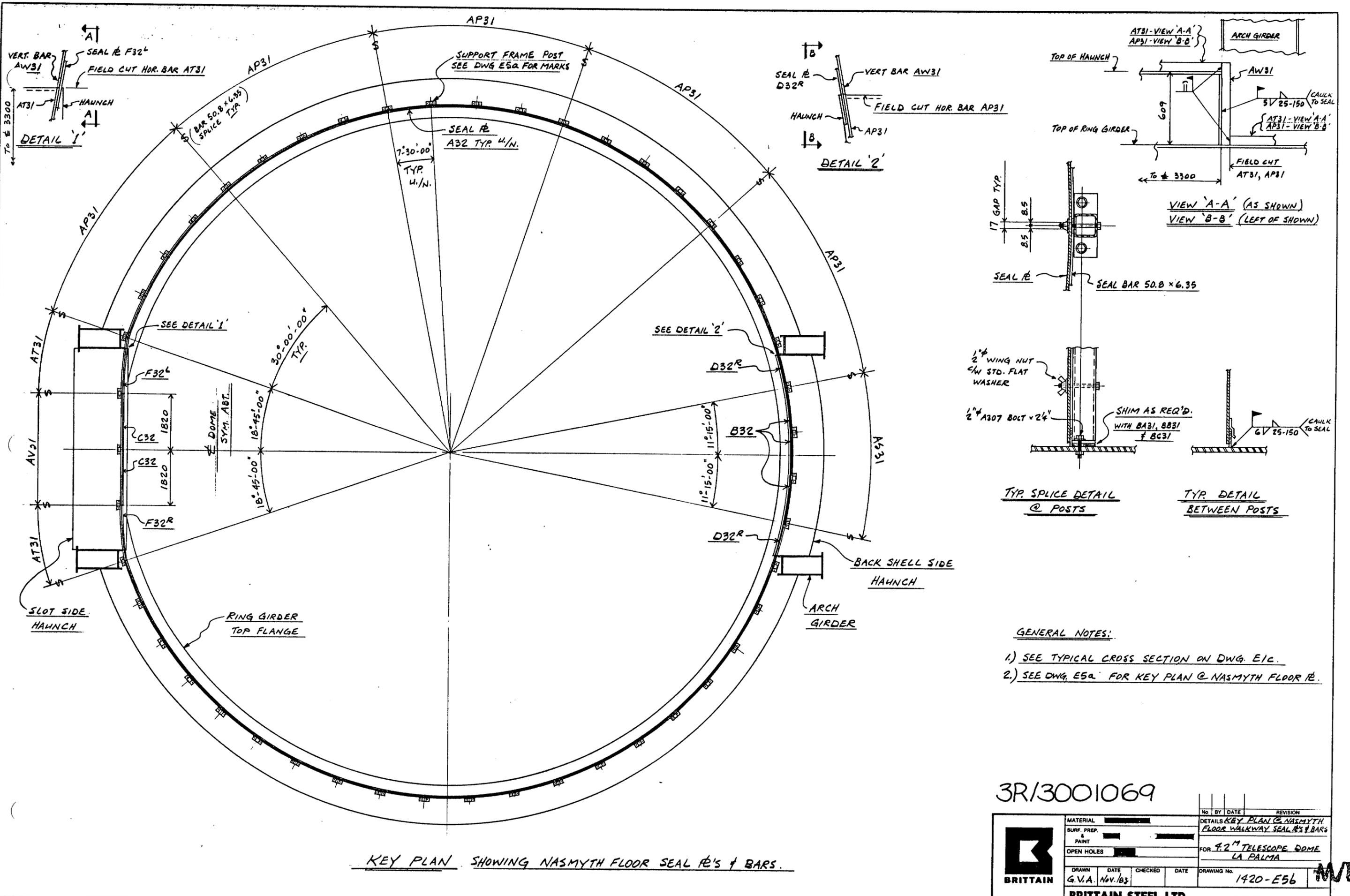
BHOP DEPARTMENT

115 E S O M L P S I L B P A S I S I

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m-abcdefghijklmnpstvw

s-abcdefghijklmnpstvw



KEY PLAN SHOWING NASMYTH FLOOR SEAL RIBS & BARS.

- GENERAL NOTES:**
- 1) SEE TYPICAL CROSS SECTION ON DWG. E1C.
  - 2) SEE DWG. E5a FOR KEY PLAN @ NASMYTH FLOOR RIB.

3R/3001069

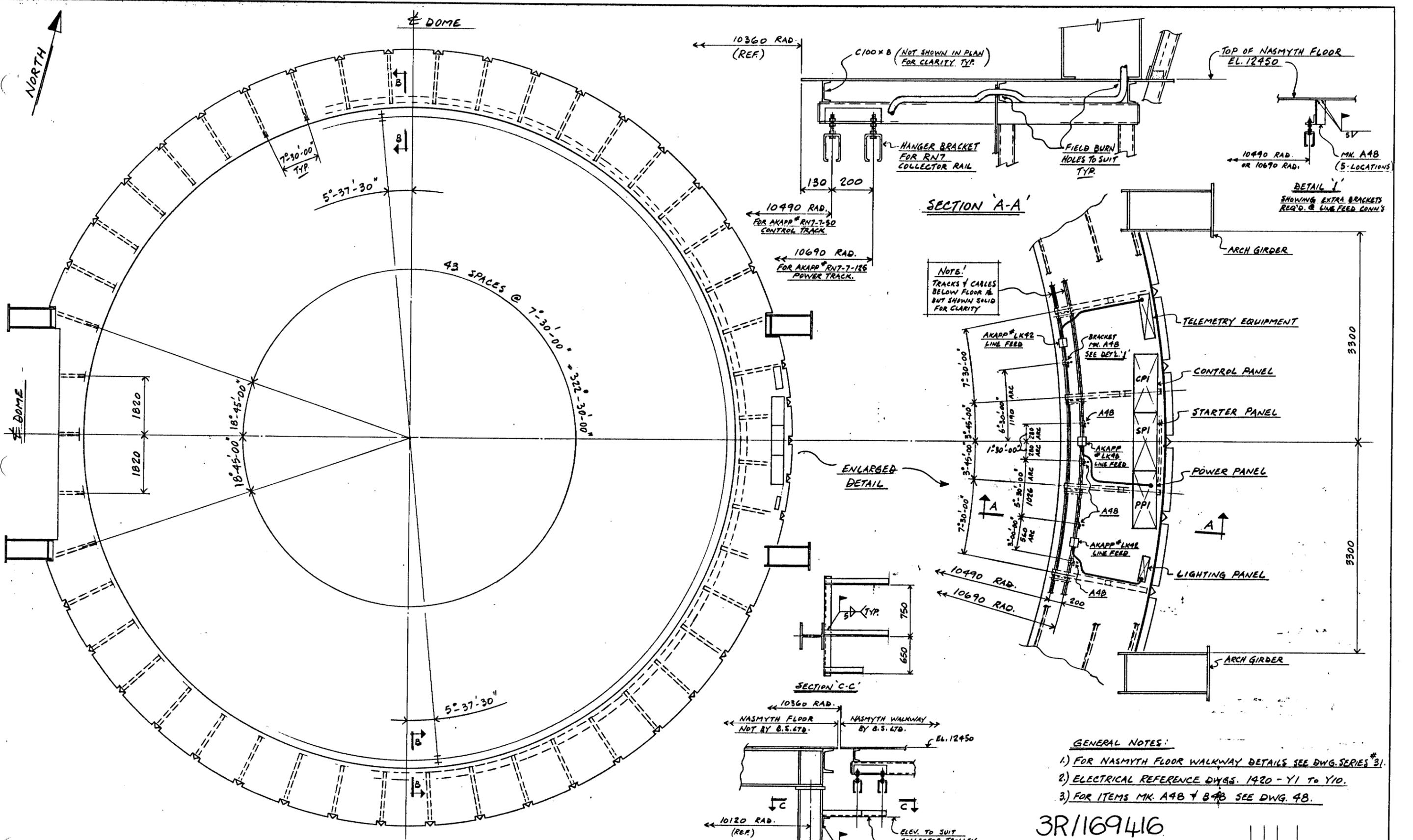
<b>BRITAIN</b>	MATERIAL		No. BY DATE		REVISION
	SURF. PREP. & PAINT		DETAILS KEY PLAN @ NASMYTH FLOOR WALKWAY SEAL RIBS & BARS		
	OPEN HOLES		FOR 4.2" TELESCOPE DOME LA PALMA		
	DRAWN	DATE	CHECKED	DATE	DRAWING No.
G.V.A.	Nov. 1953			1420-E56	
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, S.C.					
SHOP DEPARTMENT		INS / S / Q / M / T / P / RH / DP / AS / PA / ER		No. PRINTS	

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m-abcdefghijklmnpstvwyz

s-abcdefghijklmnpstvwyz

MVF



PLAN AT NASMYTH FLOOR LEVEL

- GENERAL NOTES:**
- 1) FOR NASMYTH FLOOR WALKWAY DETAILS SEE DWG. SERIES #31.
  - 2) ELECTRICAL REFERENCE DWGS. 1920-Y1 TO Y10.
  - 3) FOR ITEMS MK. A4B & B4B SEE DWG. 48.

3R/169416

	MATERIAL		No. BY DATE		REVISION
	SURF. PREP. & PAINT		DETAILS KEY PLAN & NASMYTH FLOOR FOR ELECTRICAL CONNS.		
OPEN HOLES		FOR 4.2 M TELESCOPE DOME LA PALMA			
DRAWN	DATE	CHECKED	DATE	DRAWING No.	REV.
G.V.A.	DEC/83			1920-E5c	
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, B.C.					
SHOP DEPARTMENT			INS. F. S. D. M. T. P. SH. DP. AS. PA. ED.		

p-abcdefghijklmnpstvw y

m-abcdefghijklmnpstvw y

s-abcdefghijklmnpstvw y

ANT

RING GIRDER SHOP ASSEMBLY PROCEDURE (STEPS 1.) TO 24.) APPLY TO SECTIONS MK A1, B1, C1, & D1)

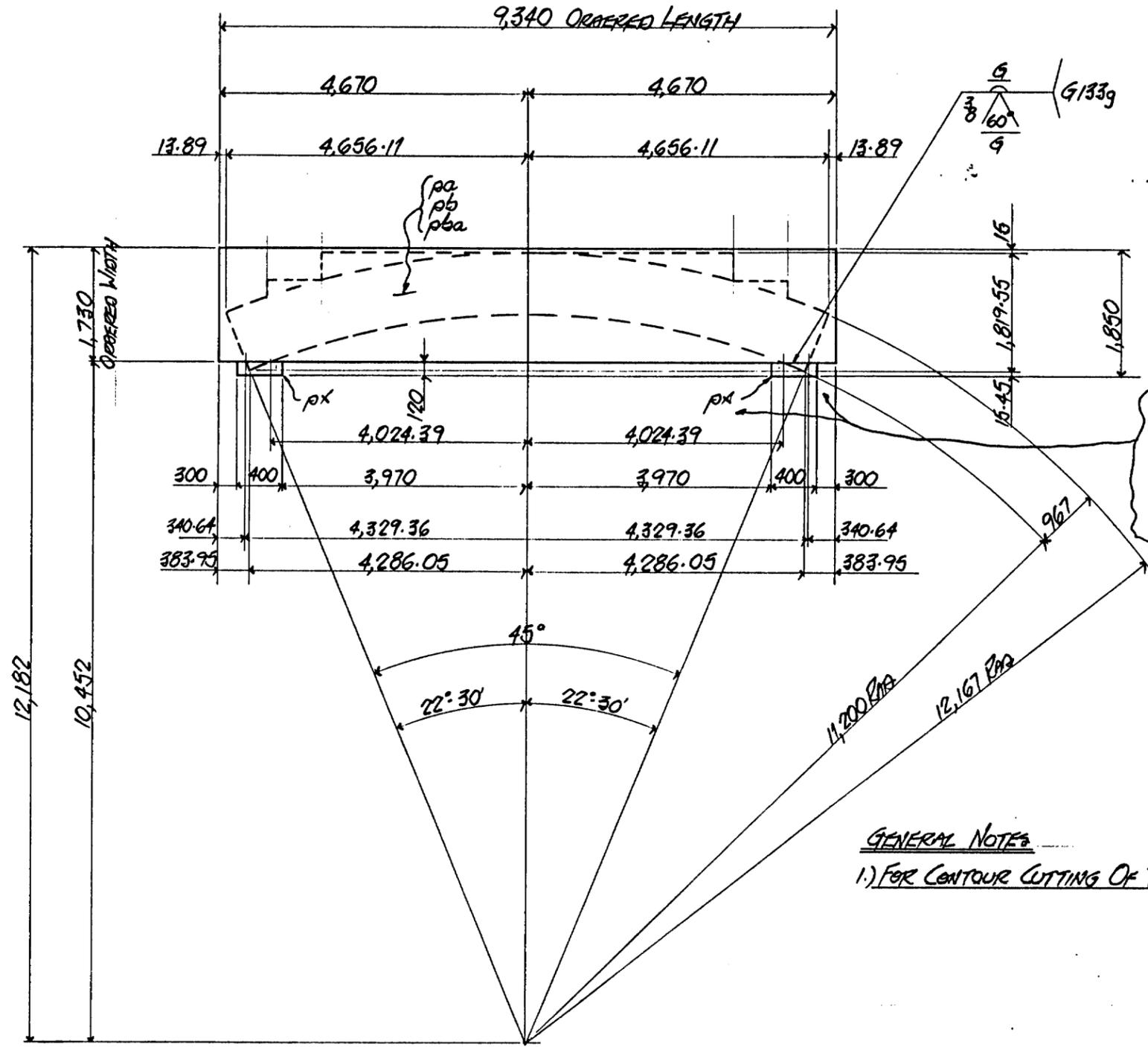
- 1.) LOCATE BTM. FLG. R'S pa & pb ON FLAT & LEVEL JIG WITH 3 BRICE JOINTS BUTTING TIGHT TOGETHER & 2 ENDS BUTTING TIGHT AGAINST DIAPHRAGM SUPPORT R'S ON JIG.
  - 2.) SECURE R'S TO JIG & OBSERVE ORIENTATION OF EAST-WEST REFERENCE AXIS.
  - 3.) DRILL TEMPLATE LOCATION HOLES (DETAIL 'A' ON DRG 1a)
  - 4.) DRILL ALL 21° & 40° HOLES TO TEMPLATE DT1 & DRILL ALSO 4-40° HOLES TO LAYOUT AS CALLED FOR ON DRGS 1a & 1c
  - 5.) MARK ALL DIAPHRAGM LOCATIONS & TACK WELD 192 NUTS n1 OVER 21° HOLES. (ALIGNMENT OF THESE NUTS WITH HOLES IS IMPORTANT)
  - 6.) LOCATE & TACK WELD ALL DIAPHRAGMS (NOTE:-DOUBLE DIAPHRAGMS AT BRICES TO CENTRE ON JOINT)
  - 7.) LOCATE & TACK WELD INNER & OUTER WEB R'S (MAINTAIN 3 MIN. ROOT GAP AT BRICES & 1.5 MIN. ROOT GAP AT DIAPHRAGM SUPPORT R ON JIG)
  - 8.) LOCATE & TACK WELD PINTLE STIFF. BACKING BARS pbv AS SHOWN ON DRG 1m. USING TEMPLATE R3B1
  - 9.) LOCATE & TACK WELD PINTLE STIFF'S pbw AS SHOWN ON DRG 1m.
  - 10.) WELD DIAPHRAGMS & PINTLE STIFF'S TO BTM. FLG & WEBS.
  - 11.) LOCATE, TACK WELD, & WELD PINTLE STIFF'S pbx, pbz, & pbd & BACKING BARS pbv AS PER DETAILS ON DRG 1d. (DIAPHRAGM LINE OF ALL OUTER WEBS)
  - 12.) APPLY & TEMPORARILY SECURE TOP FLG R'S pc & pd WITH BRICE JOINTS & ENDS BUTTING TIGHT AS PER STEP 1.)
  - 13.) DRILL TEMPLATE LOCATION HOLES (DETAIL 'B' ON DRG 1b)
  - 14.) DRILL ALL 14° & 21° HOLES TO TEMPLATES DT2, DT3, DT4, & DT5 & DRILL ALSO 28-21° HOLES TO LAYOUT AS CALLED FOR ON DRG 1c.
  - 15.) LAYOUT & CUT SLOTS (AS PER SECTE 'F-F' ON DRG 1d)
  - 16.) REMOVE TOP FLG R'S & TACK WELD 28 NUTS TO 1/3 FLG AS PER SECTIONS A-A, B-B, C-C, & D-D ON DRG 1d.
  - 17.) TACK WELD 88 NUTS n1 TO DIAPHRAGM FLG'S AS SHOWN ON DETAILS 'C', 'G', 'H', & 'K' ON DRG 1m.
  - 18.) LOCATE & WELD ARCH GIRDER INNER FLG. EXTENSION R'S pk & pe NOTE:-PRECISE LEVEL & LOCATION IS VERY IMPORTANT (SEE SECTE 'F-F' ON DRG 1d)
  - 19.) RE-APPLY & TACK WELD TOP FLG R'S (WITH BRICE JOINTS & ENDS BUTTING TIGHT) & INSTALL BOLTS b2 AS CALLED FOR IN DETAILS 'C', 'G', 'H', & 'K' ON DRG 1m
  - 20.) SEAL WELD INNER WEB TO TOP & BTM. FLG'S (SIMULTANEOUSLY TO PREVENT WARPING)
  - 21.) SEAL WELD OUTER WEB TO TOP & BTM. FLG'S (SIMULTANEOUSLY TO PREVENT WARPING)
  - 22.) SEAL WELD SLOTS IN TOP FLG (SEE STEP 15.) MEASURE ACTUAL DIMENSION WP TO SCRIBE LINE FOR ITEMS pk & pe & RECORD DIMENSION FOR USE ON ARCH GIRDER DRG. (ALL AS SHOWN ON DRGS 1c & 1d)
  - 23.) UNSCUT INTO 4 SECTIONS, FLIP OVER (GENTLY SO AS NOT TO DISTURB JIG) & RE-ALIGN ON JIG.
  - 24.) LOCATE & WELD SKIRT SUPPT R'S pan & pap, DRILL SAME, & TACK WELD NUTS AS PER DRG 1w
  - 25.) LAYOUT & CUT NOTCHES IN SKIRT SUPPT R'S & BTM. FLG AS PER DRG 1af, REMOVE FROM JIG, PRIME COAT, & GET AHEAD FOR SHIPMENT
- PROCEDURE FOR SECTIONS MK F1, G1, H1, & K1 IS IDENTICAL EXCEPT THAT SOME ITEM MARKS & DRG NUMBERS CHANGE

3R/300112

STEP 24.) TACK WELD OF PINTLE HOLE R'S DELETED  
NO. BY DATE  
13/6/83

BRITAIN NEW WESTMINSTER B.C.	BRITAIN STEEL LTD.	MADE IN ENGLAND	DATE	CHKD	DATE	REVISION	CONTRACT	DWG. NO.	REV.
							1420	100	A





**TOP NOTE:-**  
 WELD TAPS 'px' TO 8 ORDERED R's  
 AS SHOWN BEFORE CONTOUR CUTTING  
 RING GIRDER Btm. Flg's pa, pb, pba

**GENERAL NOTES**  
 1.) FOR CONTOUR CUTTING OF THESE R's SEE FIG-1/P

3R/300113

LINE	SHIP No. REOD.	FAB	MARK	DESCRIPTION	MAT'L	FT.	INS.	R.B.	LINE	REMARKS	CUTTING INSTRUCTIONS	WEIGHT	DIVISIONS
						LENGTH					SPLICING	ALLOWED	
7													
6													
5													
4													
3		16	px	R 120x16	44W	400			2	(8"R)			
2													
1		8		R 1,730x16	44W	9,340			1	(8"R)			



MATERIAL G40.21 (44W) 1/2  
 SURF. PREP. & PAINT SEE MEMO  
 OPEN HOLES NONE  
 PAINT ON FINAL ASSEMBLY  
 DRAWN DATE CHECKED DATE  
 ROR

No.	BY	DATE	REVISION

DETAILS OF RING GIRDER SUB ASSEMBLY  
 Btm. Flg. R. MODIFICATIONS  
 FOR 4.2m TELESCOPE DOME  
 LA PALMA  
 DRAWING No. 1420-1ac  
 REV.

**BRITAIN STEEL LTD.** 401 SALTER AVENUE, NEW WESTMINSTER, B.C.

p - a b c d f g h k m n p s t v w y

m - a b c d f g h k m n p s t v w y

SHOP DEPARTMENT

INS / F / S / O / M / T / P / SH / DP / AS / PA / ER / No PRINTS

MF

DRILLING PROCEDURE FOR SKIRT MOUNTING HOLES AS SHOWN ON FIG 1W (AFTER FLIPPING RING GIRDER OVER ON JIG)

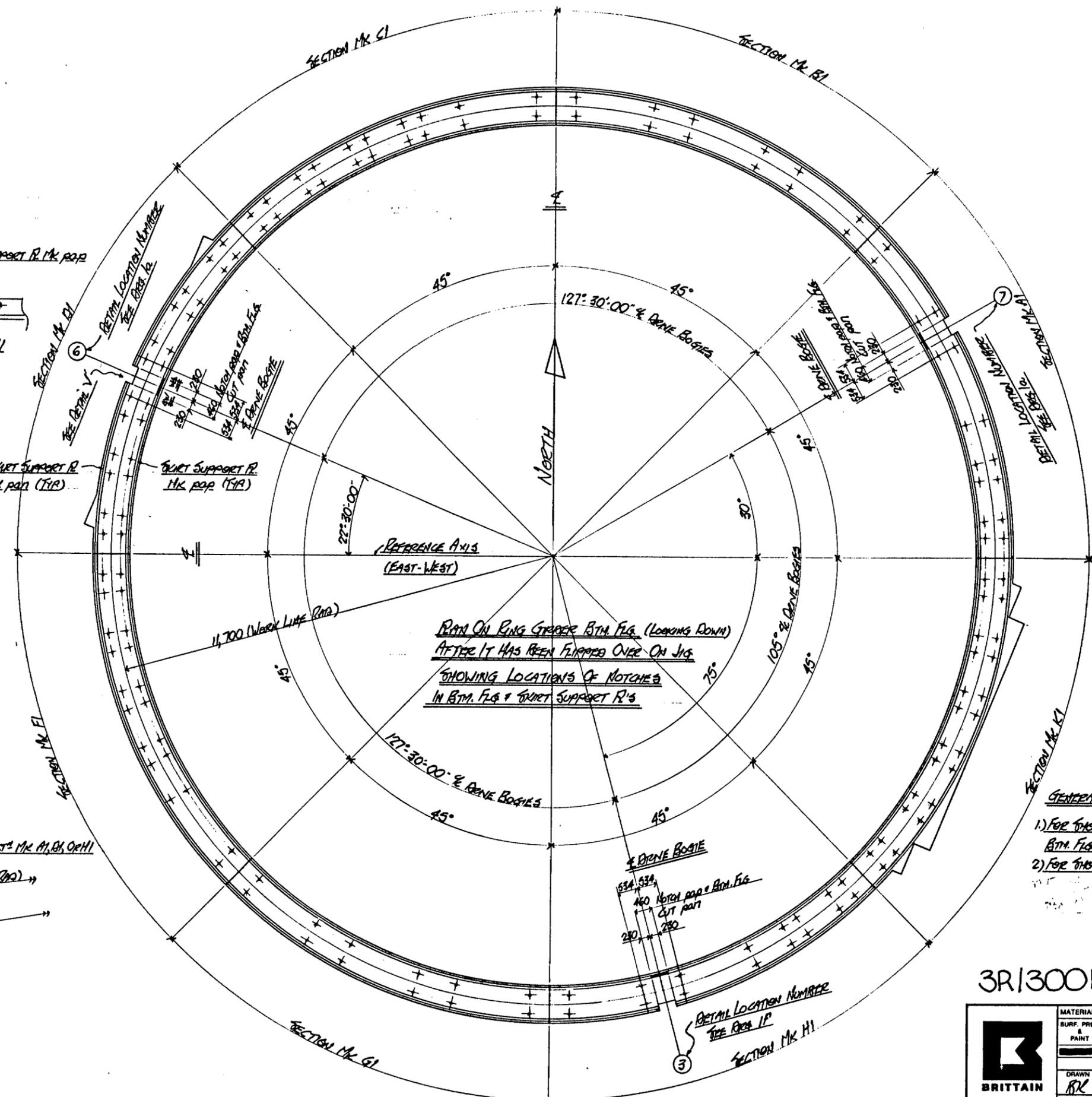
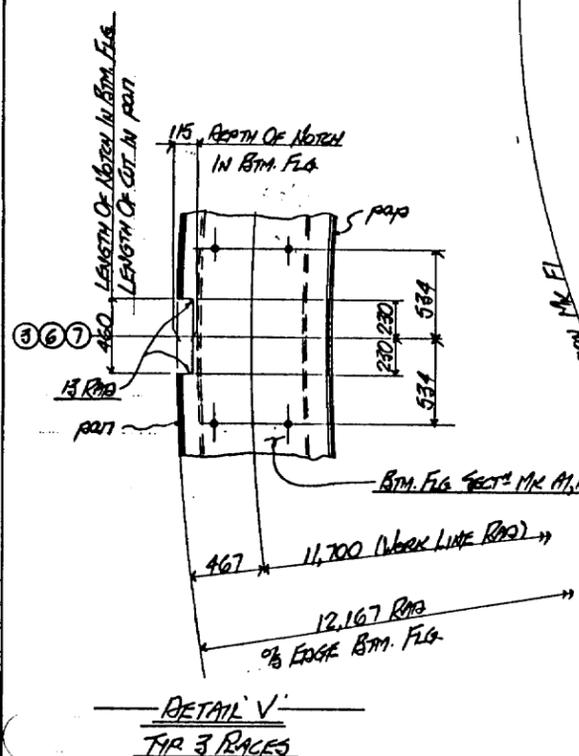
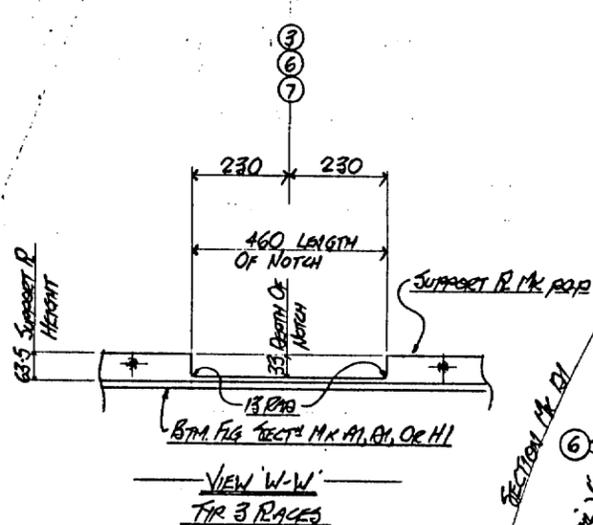
- 1.) FABRICATE DRILLING TEMPERATES DT6 & DT6a AS SHOWN.
- 2.) CLAMP DT6a TO SKIRT SUPPORT R2 WITH END OF DT6a FLUSH WITH END OF SUPPORT R2.  
NOTE:- FIRST HOLE LOCATION C 250 IN FROM END
- 3.) DRILL THRU SUPPORT R2 WITH 14° BIT.
- 4.) SCRIBE SUPPORT R2 AT OTHER END OF DT6a.
- 5.) REMOVE DT6a & CLAMP DT6 TO SUPPORT R2 WITH END ALIGNED WITH SCRIBE LINE.
- 6.) REPEAT STEP 3) & SCRIBE SUPPORT R2 AT OTHER END OF DT6.
- 7.) UNCLAMP DT6 & SLIDE AROUND UNTIL END IS ALIGNED WITH SCRIBE LINE.
- 8.) RE-CLAMP DT6 & REPEAT STEP 6).
- 9.) MOVE TO OTHER END OF SUPPORT R2 & REPEAT STEPS 2) TO 8) INCLUSIVE.
- 10.) CLAMP DT6 TO UNDRILLED CENTRE PORTION OF SUPPORT R2 WITH ENDS OF DT6 CENTRED BTWN SCRIBE LINES & DRILL THRU SUPPORT R2 WITH 14° BIT.
- 11.) REPEAT STEPS 1) TO 10) INCLUSIVE USING DT7 & DT7a. NOTE:- FIRST HOLE LOCATION C 366.5 IN FROM END.
- 12.) MOVE TO NEXT RING GIRDER SECTION & REPEAT PROCEDURE
- 13.) AFTER ALL HOLES ARE DRILLED, TACK WELD NUTS AS SHOWN. NOTE:- INSERT 2" BOLTS x 1' LG THRU HOLES & FINGER TIGHTEN NUTS BEFORE TACK WELDING (THIS IS TO ENSURE PROPER ALIGNMENT)
- 14.) REMOVE BOLTS & PUT BACK IN STORES
- 15.) CUT NOTCHES @ 3 RACES IN SKIRT SUPPORT R2'S AS SHOWN ON FIG 1aF
- 16.) REAM 14° HOLES TO 18° IN DT6 & DT7 & SET ASIDE FOR INNER & OUTER SKIRTS FABRICATION

3R/3001114

REVISION	DWG. No.	REV.
CONTRACT	1420	lad
NO. BY	DATE	

NO.	10	9	8	7	6	5	4	3	2	1
DIV.										
	DATE	CHK'D	DATE	DATE	MADE					





PLAN ON RING GRADER BTM. FLG. (LOOKING DOWN)  
 AFTER IT HAS BEEN FLIPPED OVER ON JIG  
 SHOWING LOCATIONS OF NOTCHES  
 IN BTM. FLG. & TRUET SUPPORT R's

**GENERAL NOTES**

- 1) FOR SHOP ASBY & SHOP WEARING OF TRUET SUPPORT R's TO BTM. FLG. SEE PAGE 16
- 2) FOR SHOP DRILLING OF TRUET MOUNTING HOLES SEE PAGE 17

3R/300115

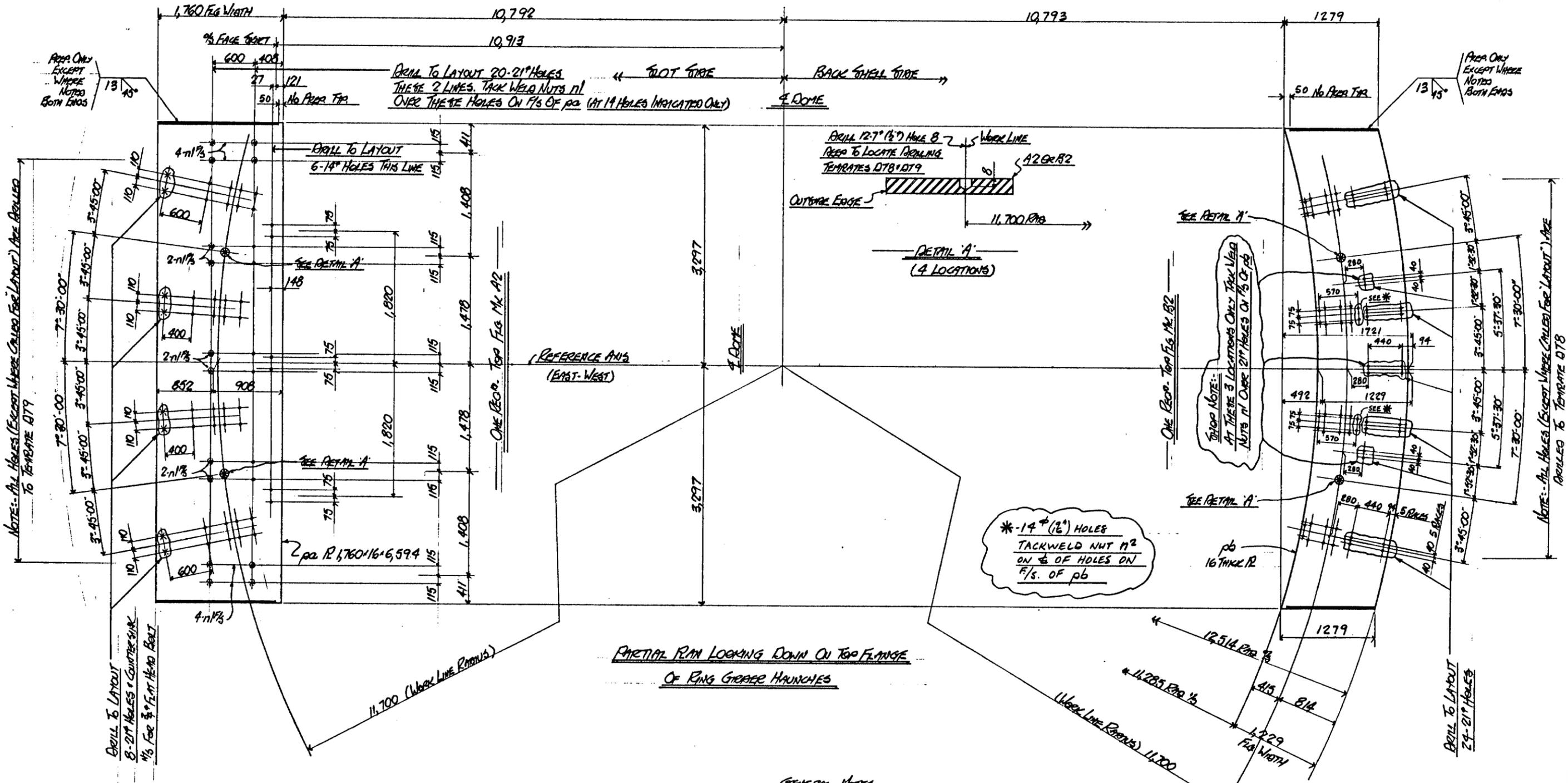
<b>BRITAIN</b>	MATERIAL	G40.21 (44W) W/n	NO.	BY	DATE	REVISION
	SURF. PREP. & PAINT	SEE MEMO	1	BR/MLA	14/64	DELETE
DRAWN	DATE	CHECKED	DATE	DRAWING NO.	REV.	
RR				1420-laf	Δ	
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.						
SHOP DEPARTMENT		INS / F / S / G / M / T / P / SH / DP / AS / PA / ER			NO. PRINTS	

p-abcdefghijklmnpstvw y

m-abcdefghijklmnpstvw y

s-abcdefghijklmnpstvw y

MF



AREA ONLY EXCEPT WHERE NOTED BOTH ENDS

AREA ONLY EXCEPT WHERE NOTED BOTH ENDS

NOTE: ALL HOLES (EXCEPT WHERE CALLED FOR LAYOUT) ARE DRILLED TO TEMPERATE DT9

NOTE: ALL HOLES (EXCEPT WHERE CALLED FOR LAYOUT) ARE DRILLED TO TEMPERATE DT8

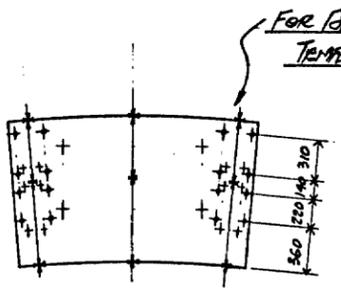
DRILL TO LAYOUT 8-21 HOLES & COUNTER SINK 1/8 FOR 3/4 EAST HEAD BEZEL

DRILL TO LAYOUT 24-21 HOLES

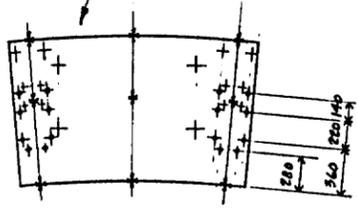
PARTIAL RIM LOOKING DOWN ON TOP FLANGE OF RING GREESE HAUNCHES

**GENERAL NOTES**

- 1) FOR FIELD ASSY & FIELD WELDING OF ITEMS ON THIS PAGE SEE PAGES E1F & E1G
- 2) FOR CALL-UP OF MATL ON THIS PAGE SEE PAGE 26
- 3) USE 1/8" DRILL FOR 21 HOLES & 3/16" DRILL FOR 14 HOLES IF PREFERRED



DT9  
USED FOR DRILLING HOLES IN A2



DT8  
USED FOR DRILLING HOLES IN B2

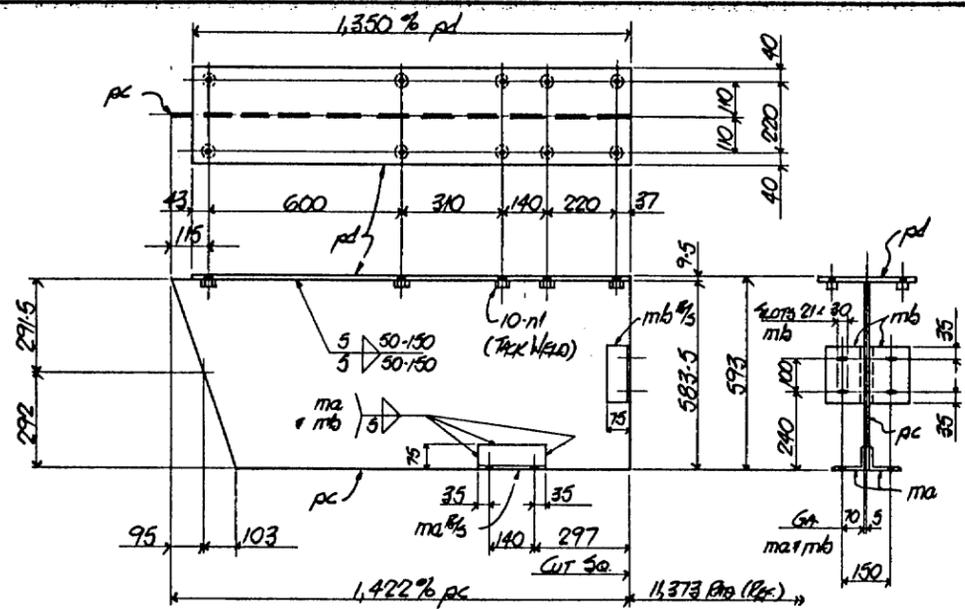
3R/300116

	MATERIAL	G40.21 (44W) w/n	NO	BY	DATE	REVISION
	SURF. PREP. & PAINT	SEE MEMO	DETAILS RING GREASE HAUNCHES			
	OPEN HOLES	AS NOTED	SUB: ASSY - ITEM IDENTIFICATION			
	FOR 4.2" TELESCOPE DOOR LA RUMM					
DRAWN	DATE	CHECKED	DATE	DRAWING NO.	REV.	
10K	24/82			1420-2a		
<b>BRITAIN STEEL LTD.</b> 401 SALTER AVENUE, NEW WESTMINSTER, B.C.						
SHOP DEPARTMENT			INS. F. S. O. M. T. P. SH. DP. AS. PA. ER			
			NO PRINTS			

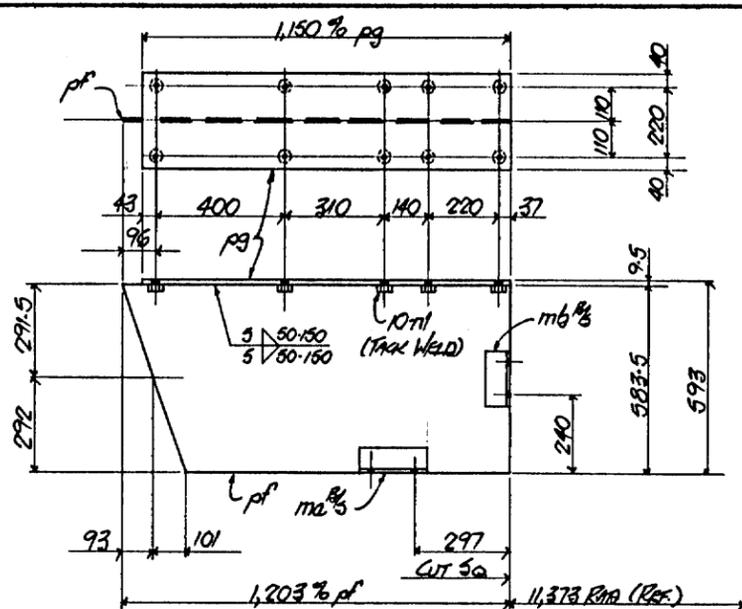
p-abcdefghijklmnpstvw

m-abcdefghijklmnpstvw

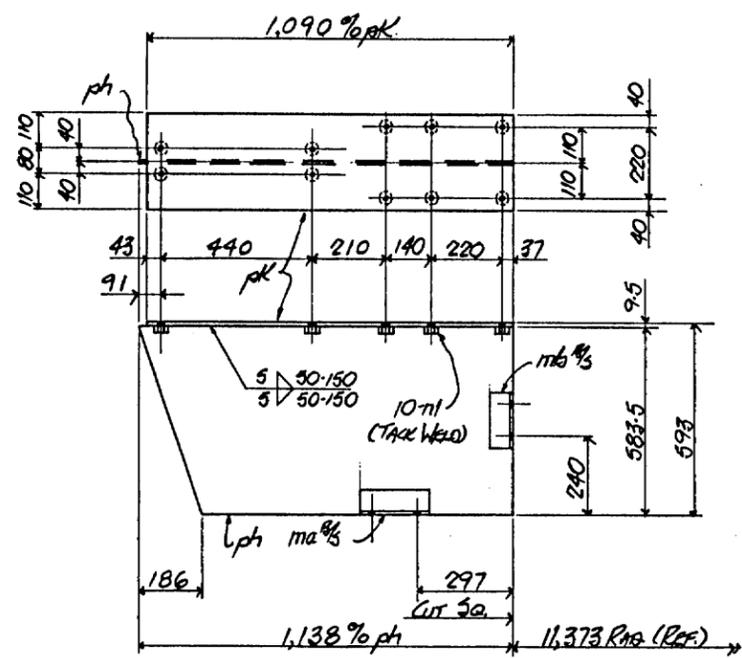
s-abcdefghijklmnpstvw



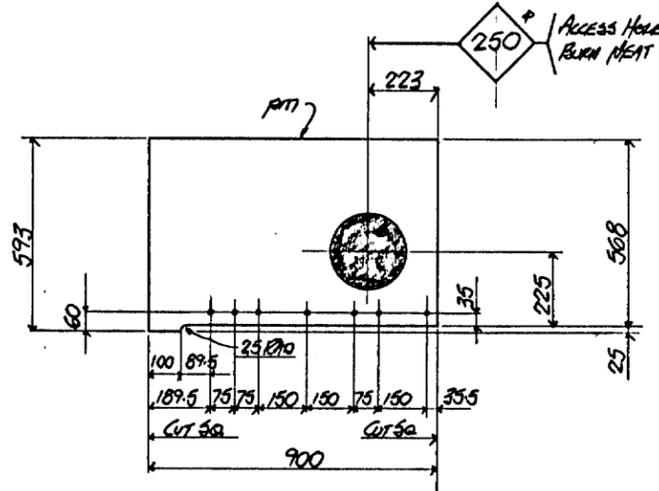
2 REQ'D - DIAPHRAGM ASSY MK C2



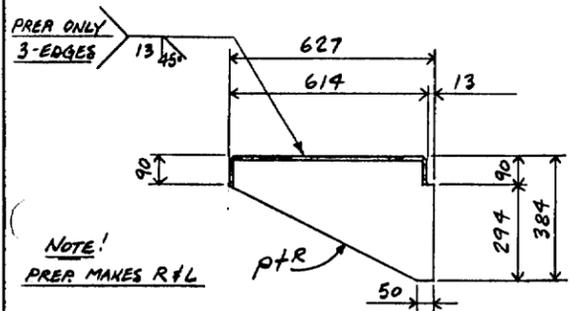
2 REQ'D - DIAPHRAGM ASSY MK D2



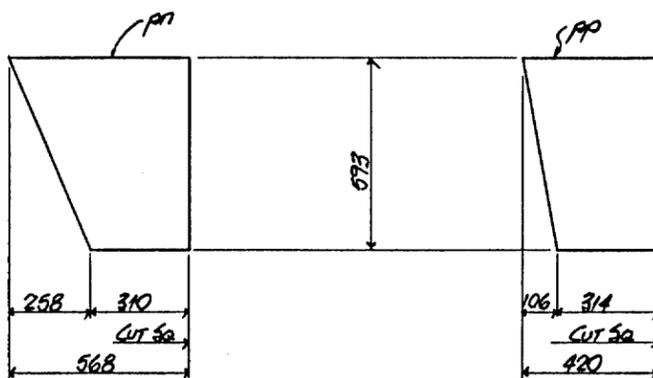
4 REQ'D - DIAPHRAGM ASSY MK F2



4 REQ'D - END DIAPHRAGM MK G2



2-REQ'D ~ STIFF. ~ MK. N2R (AS SHOWN)  
2-REQ'D ~ STIFF. ~ MK. N2L (OPP. HAND)



ONE REQ'D - STIFF MK H2

2 REQ'D STIFF MK K2

MATERIAL BILL  
BRITAIN STEEL LTD.

CONTRACT 1420

NO	MARK	QTY	SHAPE	SIZE	LENGTH	REMARKS	MATL TYPE	WGT
1						ONE REQ'D - MK A2		
2								
3	pg	ONE	R	1,760x116	6,594 (3/2)		44W	3.9
4	nl	14	NUT	HEX HEX FOR 3"			A325	
5								
6						ONE REQ'D - MK B2		
7								
8								
9	pb	ONE	R	16 THICK CUT TO CONTOUR (3/2)			44W	3.10
10	nl	8	NUT				A325	
11	nl	4	NUT	HEX FOR 1/2"			A307	
12								
13								
14						2 REQ'D - MK C2		
15								
16	pc	2	R	583.5x9.5	1,422 (3/2)		44W	
17	pd	2	L	300x9.5	1,350 (3/2)			
18	ma	4	L	100x75x10	210 (1.2x3x3)			
19	mb	4	L	125x75x10	170 (1.5x3x3)			
20	nl	20	NUT				A325	
21								
22								
23						2 REQ'D - MK D2		
24								
25								
26	pe	2	R	583.5x9.5	1,203 (3/2)		44W	
27	pg	2	L	300x9.5	1,150 (3/2)			
28	ma	4	L					
29	mb	4	L					
30	nl	20	NUT				A325	
31								
32								
33								
34						4 REQ'D - MK F2		
35								
36	ph	4	R	583.5x9.5	1,090 (3/2)		44W	
37	pk	4	L	300x9.5	1,090 (3/2)			
38	ma	8	L					
39	mb	8	L					
40	nl	40	NUT				A325	
41								
42						4 REQ'D - MK G2		
43	pm	4	R	593 x 9.5	900 (3/2)		44W	
44								
45						ONE REQ'D - MK H2		
46	pn	ONE	R	568 x 9.5	593 (3/2)		44W	
47								
48						2 REQ'D - MK K2		
49	pp	2	R	420 x 9.5	593 (3/2)		44W	
50								
51						2 REQ'D - MK N2R		
52						2 REQ'D - MK N2L		
53	pr	4	R	384 x 16	627 (3/2)		44W	
54								
55								

GENERAL NOTES

- 1) FOR FIELD ASSY & FIELD WELDING OF ITEMS ON THIS PAGE SEE PAGES E1F & E1G
- 2) USE 1/2" ROLL FOR 21" HOLES IF PREFERRED

3R/300117

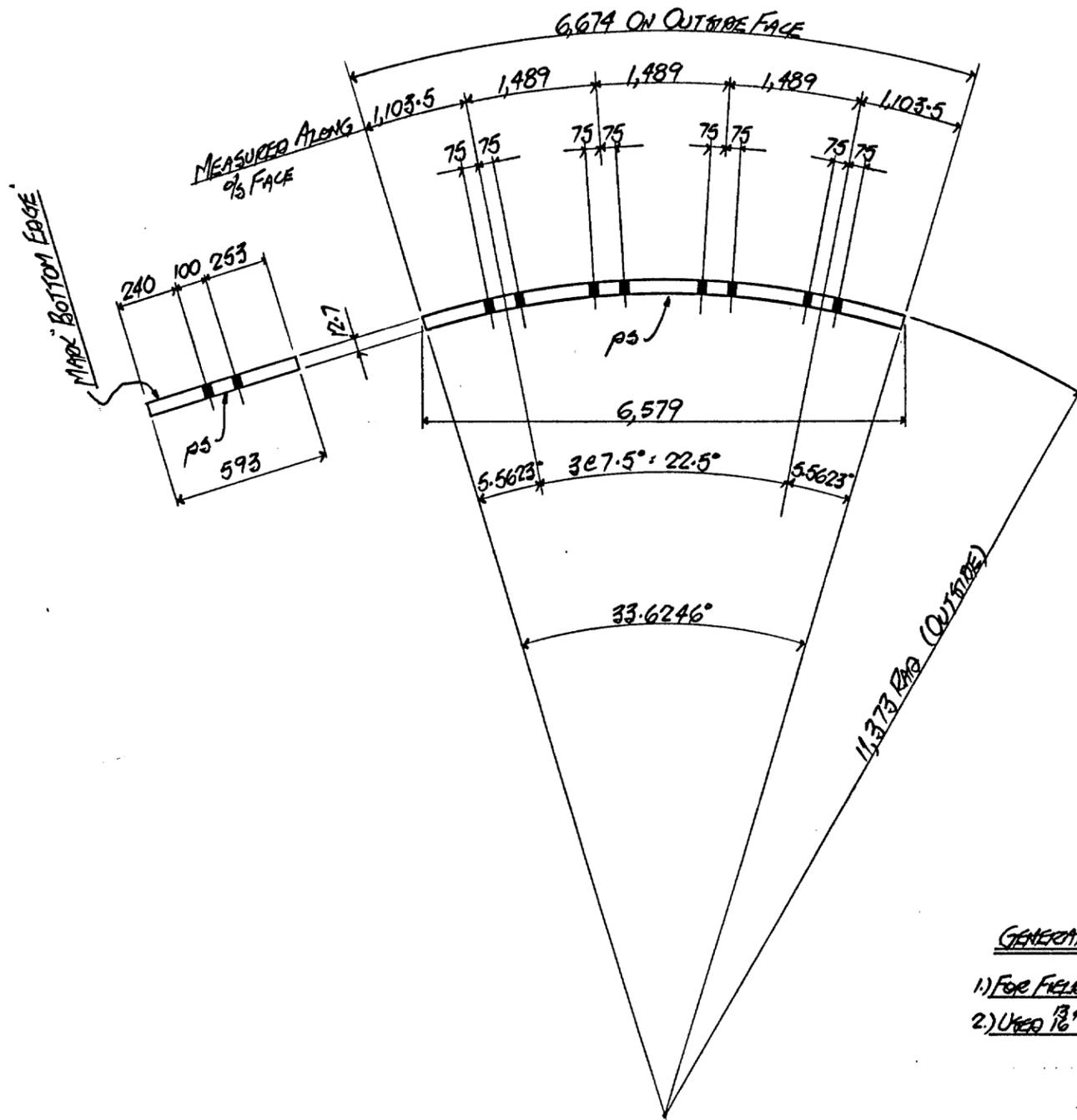
	MATERIAL	G40.21 (44W) w/n	NO. BY DATE	REVISION
	SURF. PREP. & PAINT	SEE MEMO	DETAILS KING GEORGE BRANCHES SUB-ASSY. ITEM IDENTIFICATION	
	OPEN HOLES	21" dia	FOR 4.2M TELESCOPE DOME LA PALMA	
DRAWN	DATE	CHECKED	DATE	DRAWING NO.
BR	28/7/82			1420-26
BRITAIN STEEL LTD. 401 SALTER AVENUE, NEW WESTMINSTER, S.C.				
SHOP DEPARTMENT				

p-abcdefghijklmnpstvw y

m-abcdefghijklmnpstvw y

s-abcdefghijklmnpstvw y

NO. PRINTS



2 REQ. - WEB MR. M2

GENERAL NOTES

- 1) FOR FIELD ASSY & FIELD ASSY OF ITEMS ON THIS DRAWG SEE DRESS E1F & E1g
- 2) USE 1/8" DRILL FOR 21" HOLES IF PREFERRED

3R/300118

LINE	SHIP No. REQD.	FAB	MARK	DESCRIPTION	MAT'L	FT. LENGTH	INS. LENGTH	R.B.	LINE	REMARKS	CUTTING INSTRUCTIONS	WEIGHT	DIVISIONS	
											SPLICING	ALLOWED		
7														
6														
5														
4														
3	2		PS	R 593-12.7	44W	6,674	3	11		(S/R) ROLLED				
2														
1	2	2	M2											



MATERIAL	G40.21 (44W) 1/2"		
SURF. PREP. & PAINT	SEE MEMO		
OPEN HOLES	21"		
DRAWN	DATE	CHECKED	DATE
BK	29/1/82		

No.	BY	DATE	REVISION
DETAILS OF KING GEORGE HAWKES SUB ASSY - ITEM FABRICATION FOR 4.2" TELESCOPE DOME LA PALMA			
DRAWING No.			REV.
1420-2C			

**BRITAIN STEEL LTD.** 401 SALTER AVENUE, NEW WESTMINSTER, B.C.

p - a b c d f g h k m n p s t v w y

m - a b c d f g h k m n p s t v w y

SHOP DEPARTMENT

INS / F / S / O / M / T / P / SH / DP / AS / PA / ER

No. PRINTS

