

NOTE
 TCI 700.02 SHEET 2 SHOWS BASEBOX, COLUMNS & AZIMUTH DRIVE
 TCI 700.02 SHEET 3 SHOWS RISING FLOOR & CENTRE SECTION
 TCI 700.02 SHEET 4 SHOWS PRIMARY MIRROR CELL & TOP RING
 TCI 700.02 SHEET 5 SHOWS BASEBOX ON PUMP WIRING

TOP RING TEMP SENSOR
 & TRANSMITTER DRG N° TCI 222

BOLT DRIVE MOTORS
 PARVALUX REF. 5013M
 SEE DRG N° TCI 208
 WIRING DRG N° TCI 752.02

FOCUS DRIVE MOTORS & ENCODER
 2 OFF PRINTED MOTORS TYPE G12 MAT
 1 OFF LITTON ENCODER TYPE 58043 104430
 SEE DRAWING TCI 753.02

PRIME FOCUS TURNABLE
 LIMIT SWITCH SQUARE D
 TYPE BM53A2

ROTATOR PRIG DRIVE MOTOR
 NECO 3/4 MOTOR COUPLED TO GEARBOX
 SEE DRG N° TCI 752.02

MINI CONNECTOR PLATE

PRIME FOCUS TWISTER
 DRG N° TCI 252.02

TOP RING JUNCTION BOX

CABLE RUPS IN PRIME FOCUS ARE
 SHOWN ON DRG N° TCI 700.02 SHEET 4

PRIME FOCUS INSTRUMENT
 CONNECTOR PLATE

SECONDARY COLLIMATING
 DRIVE MOTORS
 JONES TYPE 17300-19
 SEE TCI 216 SHEET 1

PRIME FOCUS TURNABLE
 DRIVE MOTOR & ENCODERS
 SAME AS CASE T/TABLE DRIVE
 SEE DRG N° TCI 201.02
 SEE DRG N° TCI 201 SHEET 2
 FOR CABLE WRAP DETAILS

UPPER TRUSS TEMP SENSORS

NASMITH CONTROL BOX
 DRG N° TCI 750 & 751

NASMITH MIRROR MOUNT
 SEE DRG N° TCI 250.02

MAIN TUBE CONNECTOR PLATE

ALTITUDE AXIS CABLE WRAP

TEMP SENSORS CONTROL
 BOX & P.S.U. DRG N°
 TCI 754

CENTRE SECTION
 TEMP SENSOR

MOTORIZED COUNTERWEIGHTS 4-OFF
 MOTOR - NECO COAXIAL TYPE DS
 UPPER LIMIT SWITCH - BURGESS TYPE CT2-A2
 LOWER LIMIT SWITCH - BURGESS TYPE CT2-A2
 POTENTIOMETER - BOURNS N° 3500
 DRG N° TCI 203

NASMITH FOCUS DISTRIBUTION
 PANEL - DRIVE SIDE (TCI 707)

TO NAS PLAT
 E. STOPS
 (TCI 625)

MIRROR DRIVE COVER
 MOTOR 3 OFF
 NECO TYPE DS
 DRG N° TCI 260.02

LOWER TRUSS TEMP SENSORS (2 OFF)

NASMITH FOCUS DISTRIBUTION
 PANEL CABLE WRAP SIDE (TCI 706)
 TO NAS PLAT E. STOPS
 (TCI 625)

CABLES RUN DOWN
 LOWER VANES INSIDE
 DETAIL N°
 TCI 253.22

MIRROR TEMP SENSOR
 MOUNTED ON LIGHT
 BAFFLE (TCI 253.04)

CASSEGRAIN INSTRUMENT
 CONNECTOR PLATE

MIRROR SUPPORT
 CONTROL BOX
 DRG N° TCI 228

MIRROR COVER LIMIT SWITCHES
 1 OFF BURGESS TYPE CR12-RH-3
 1 OFF BURGESS TYPE CR12-RH-3
 POTENTIOMETER NOVOTECHNIK KP
 QUOPOT SERIES P1000 SW405

ENCODERS BOTH LINKED TO
 CASS TURNABLE DRIVE
 MOTOR 1 OFF BALDWIN INC.
 ENCL. TYPE 5Y2790
 1 OFF MOORE-REED ABS. ENC.
 13 BIT. TYPE 2100159

COUPLING TRANSDUCER &
 MICROSWITCHES
 TRANSDUCER - PENNY
 4 SILES TYPE 1328/AS
 MICROSWITCH 2 OFF
 SQUARE D TYPE BM53
 B2-AA1 C.W. & C.C.W.

CASS CABLE WRAP
 & CASS TURNABLE DRIVE
 MOTOR PRINTED MOTORS
 TYPE G12 MAT

MIRROR CELL JUNCTION BOX

CABLES ARE RUN FROM THE
 UNDER SIDE OF THE BOX TO
 THE AZIMUTH DRIVE

GEARBOX DRIVE MOTOR RELIANT
 TYPE TG572 & T10035 (2 OFF)

CONT. PLATES
 TCI 123 16-19

RISING FLOOR LIMIT SWITCHES
 2 OFF BURGESS TYPE M3 BMH
 2 OFF BURGESS TYPE M35 E3R
 2 OFF SQUARE D TYPE BM 61F
 4 OFF SQUARE D TYPE BM4
 SEE DRG N° TCI 610

RISING PLATFORM MOTOR MEETER
 FRAME SIZE 1130 MB 4 POLE

AZIMUTH ABSOLUTE ENCODERS 1 OFF MURHEAD
 VALTRIC SY 602 TBW 16 BIT. 1 OFF MURHEAD VALTRIC
 SYN 212 BM 4 HIT 2 OFF SYNCHRO'S (FINE & COARSE)
 1 OFF INCREMENTAL ENCODER ITEL 8202/100
 1 OFF INCREMENTAL ENCODER ITEL 8202/100

AZIMUTH CABLE TWISTER

TO CLIP LENSURE

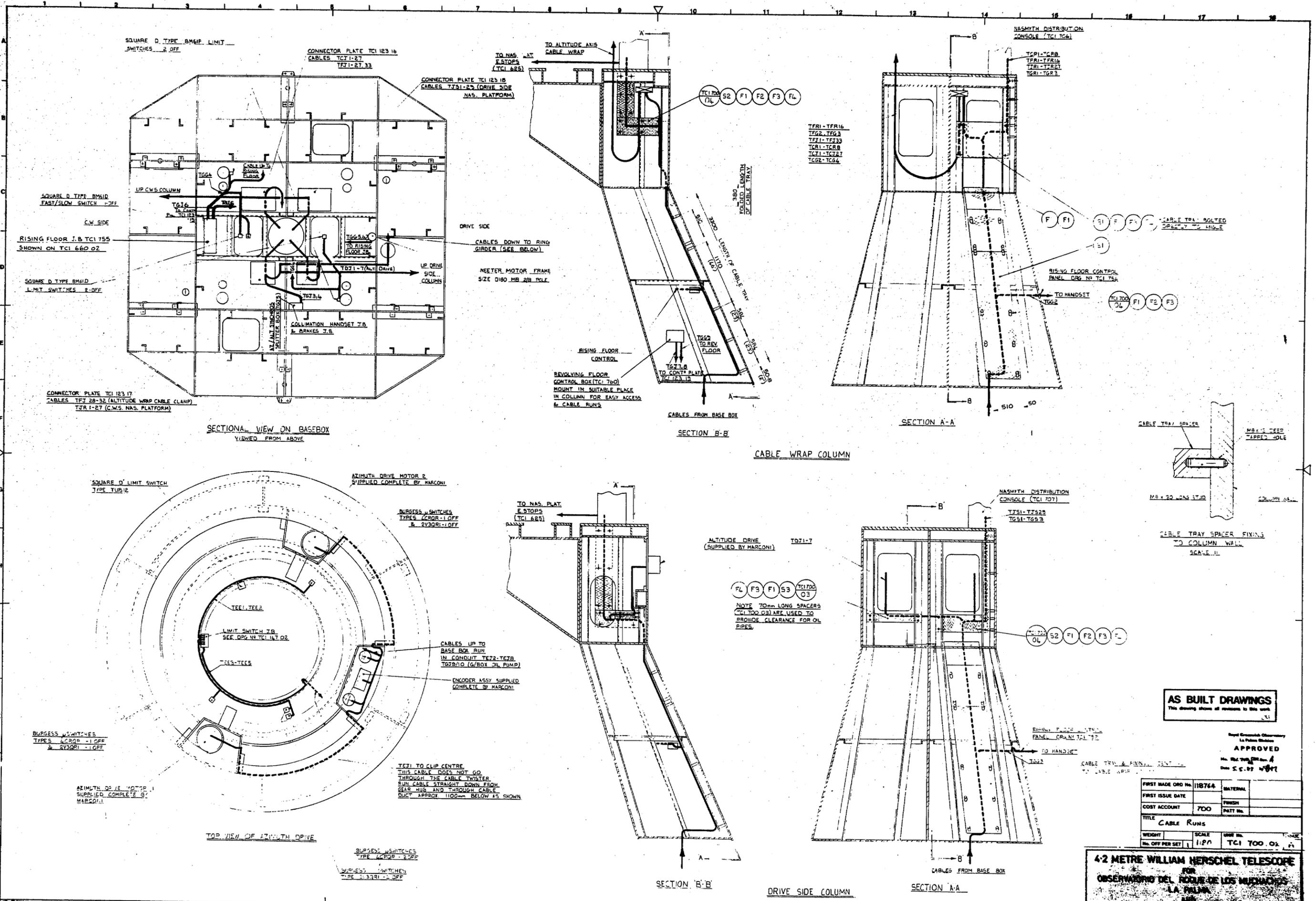
AS BUILT DRAWINGS
 THE DRAWING SHALL BE USED TO CONSTRUCT THE WORK

REVISIONS
 NO. DATE BY
 1 1-1-82
 2 1-1-82
 3 1-1-82
 4 1-1-82
 5 1-1-82

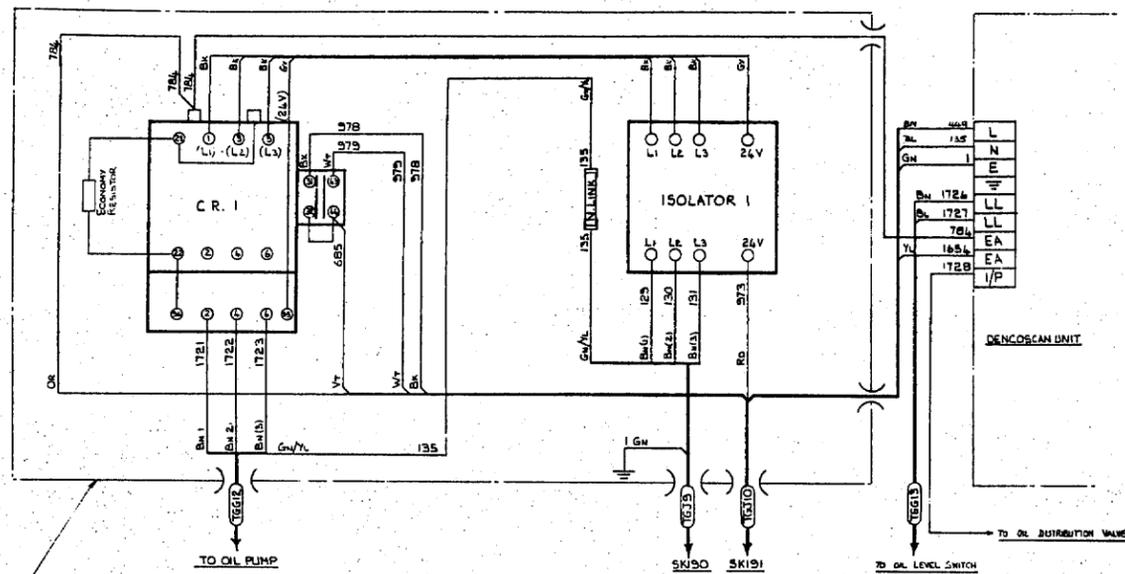
GRUBB PARSONS
 NEWCASTLE UPON TYNE NE4 7TB
 4-2 METRE TELESCOPE CABLE RUN

4-2 METRE WILLIAM HERSCHEL TELESCOPE
 OBSERVATORIO DEL ROQUE DE LOS MUJEROS
 LA PALMA

APPROVED
 TCI 700.02 A



GRUBB PARSONS A merger of Clarke Chapman and Rayrolle Parsons	SURFACE FINISH EQUIVALENTS MICROMETRES 4 8 16 32 63 125 250 500 MICROMETRES 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	SURFACE FINISH SYMBOLS DENOTES NOT NECESSARILY MACHINED DENOTES MACHINED	WELD SYMBOLS TO BS 499 PART 2 1908	FABRICATION TOLERANCES DIMENSIONS UP TO 250 ± 0.20 DIMENSIONS FROM 250 TO 2500 ± 0.30 ANGLES ± 1.000 STRAIGHTNESS/FLATNESS ± 1.000	THIS DRAWING IS THE PROPERTY OF NEI PARSONS LTD. AND MUST NOT BE COPIED OR DISCLOSED TO A THIRD PARTY WITHOUT GRUBB PARSONS WRITTEN CONSENT.	GENERAL MACHINING TOLERANCES (EXCEPT WHERE STATED OTHERWISE) UNFINISHED DIMENSIONS ± 0.50 DIMENSIONS WITH OVER ± 0.25 DIMENSIONS WITH UNDER ± 0.10	ALL DIMENSIONS ARE IN MILLIMETRES ANGLE 2 SCREW THREADS TO B.S. 3643 PART 2 MEDIUM FIT MACHINED DIA CONCENTRIC TO 0.1 TIR.	PROJECTION 3rd ANGLE CHECKED APPROVED	DRAWN S.G.M. v.c. DATE 21-4-92	TITLE 4.2 METRE TELESCOPE CABLE RUNS	SCALE 1:20	DRAWING NUMBER TCI 700 02	SHEET 2 OF 5
	4.2 METRE WILLIAM HERSCHEL TELESCOPE FOR OBSERVATION DEL ROSAS DE LOS MACHICOS LA PALMA ROYAL GREENWICH OBSERVATORY												



TCI 122
52
DENCO FARVAL OIL DISPERSAL
UNIT SUPPLIED BY MARCONI
TYPE SK466079 MOUNTED IN
BASE BOX

Approved
APPROVED
No. 21 200-02
Date 24-4-83

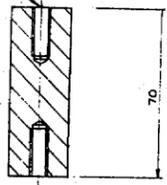
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DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	FIRST ISSUE DATE	FINISH
DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	COST ACCOUNT	PART No.
		700	
		TITLE	
		Gearbox Oil Pump Wiring	
WEIGHT	SCALE	UNIT No.	ISSUE
No. OFF PER SET		TCI 700 02	C

AS BUILT DRAWINGS

4.2 METRE WILLIAM HERSCHEL TELESCOPE
OBSERVATORY TEL. ROOM OF THE UNIVERSITY
OF NEWCASTLE
AND
ROYAL GREENWICH OBSERVATORY

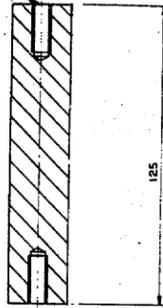
SURFACE FINISH EQUIVALENTS FINISHES 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 THIS DRAWING CONFORMS TO B.S. 308	SURFACE FINISH SYMBOLS DENOTES NOT NECESSARILY MACHINED DENOTES MACHINED	WELD SYMBOLS TO BS 499 PART 2 1969	FABRICATION TOLERANCES DIMENSIONS UP TO 250 : ± 0.20 DIMENSIONS FROM 250 TO 2500 : ± 0.30 ANGLES : ± 1:800 STRAIGHTNESS / FLATNESS : ± 0.100	THIS DRAWING IS THE PROPERTY OF NEI PARSONS LTD. AND MUST NOT BE COPIED OR DISCLOSED TO A THIRD PARTY WITHOUT GRUBB PARSONS WRITTEN CONSENT.	GENERAL MACHINING TOLERANCES (EXCEPT WHERE STATED OTHERWISE) UNFINISHED DIMENSIONS : ± 0.25 DIMENSIONS WITH - OVER : ± 0.1 AND ORIGINAL DIMENSIONS WITH - OVER : ± 0.1	ALL DIMENSIONS ARE IN MILLIMETRES ANGLES + SCREW THREADS TO B.S. 3842 PART 2 MEDIUM FIT MACHINED DIA CONCENTRIC TO 0.1 T.I.R.	PROJECTION CHECKED 3rd ANGLE	DRAWN S.G. M/Lm DATE 15-4-83	GRUBB PARSONS NEWCASTLE UPON TYNE NE8 2YB GEARBOX OIL PUMP WIRING	SCALE TC 700 02	SHEET 5 OF 5 ISSUE	
												A member of Clarke Chapman and Rayville Parsons

2 HOLES DRILL & TAP
M.A. X 2.0 DEEP



Royal Greenwich Observatory
La Palma Station
APPROVED
No. TCI. 700, Rev. A
Date 6.5.81 by *SPY*

2 HOLES DRILL & TAP
M.A. X 2.0 DEEP



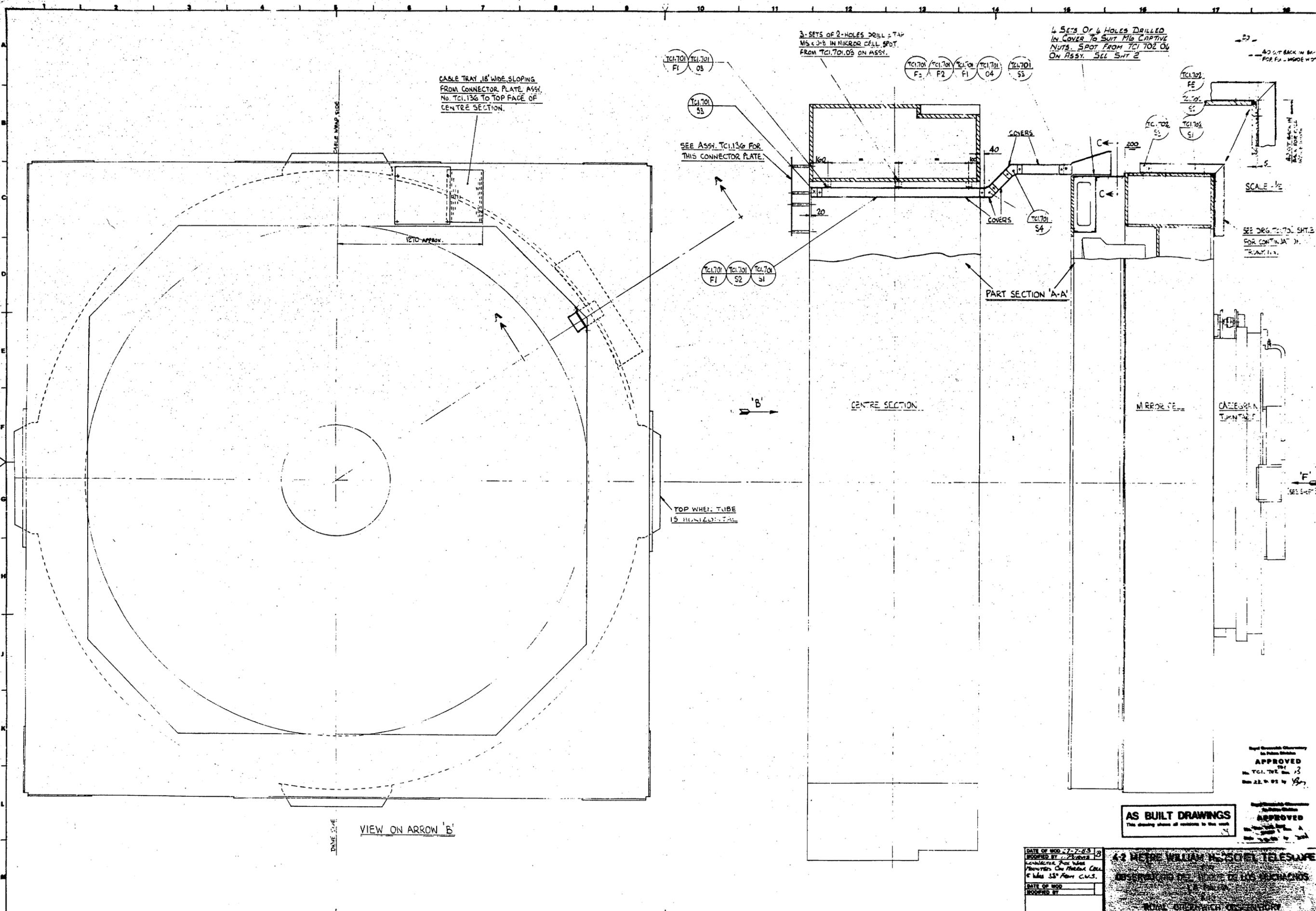
Royal Greenwich Observatory
La Palma Station
APPROVED
No. TCI. 700, Rev. A
Date 6.5.81 by *SPY*

DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	FIRST MADE ORD No. 118764	MATERIAL F.D.A. ALUM ALLOY BAR	FINISH NATURAL	DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	FIRST MADE ORD No. 118764	MATERIAL F.D.A. ALUM ALLOY BAR	FINISH NATURAL
		FIRST ISSUE DATE					FIRST ISSUE DATE		
		COST ACCOUNT 700					COST ACCOUNT 700		
		TITLE SPACER					TITLE SPACER		
		WEIGHT	SCALE 1:1	UNIT No. TCI 700 03	ISSUE		WEIGHT	SCALE 1:1	UNIT No. TCI 700 04
		No. OFF PER SET 4			A		No. OFF PER SET 4		A

AS BUILT DRAWINGS
This drawing shows all variations to the work.

4.2 METRE WILLIAM HERSCHEL TELESCOPE

GRUBB PARSONS A member of Clarke Chapman and Rayrolle Parsons	SURFACE FINISH EQUIVALENTS MICROMETRES 4 8 16 32 63 125 250 500 MILLIMETRES 0.1 0.2 0.4 0.8 1.6 3.2 6.3 12.5	SURFACE FINISH SYMBOLS DENOTES NOT NECESSARILY MACHINED DENOTES MACHINED	WELD SYMBOLS TO BS 499 PART 2 1969	FABRICATION TOLERANCES DIMENSIONS UP TO 250 : 20 DIMENSIONS FROM 250 TO 2500 : 30 ANGLES : 1:600 STRAIGHTNESS/FLATNESS : 1:600	THIS DRAWING IS THE PROPERTY OF HEI PARSONS LTD. AND MUST NOT BE COPIED OR DISCLOSED TO A THIRD PARTY WITHOUT GRUBB PARSONS WRITTEN CONSENT.	GENERAL MACHINING TOLERANCES (EXCEPT WHERE STATED OTHERWISE) UNMACHINED DIMENSIONS : 0.3 DIMENSIONS WITH OVER : 0.2 DIMENSIONS WITH - OVER : 0.1	ALL DIMENSIONS ARE IN MILLIMETRES ANGLES : SCREW THREADS TO B.S. 3643 PART 2 MEDIUM FIT MACHINED DIA CONCENTRIC TO 0.1 T.I.R.	PROJECTION 1st ANGLE APPROVED	DRAWN S.G.H.	DATE 6-1-83	GRUBB PARSONS NEWCASTLE UPON TYNE NE5 2YB	SHEET OF 100 03-04
	TITLE CABLE RUN DETAILS											



CABLE TRAY 18' WIDE SLOPING FROM CONNECTOR PLATE ASSY. NO. T.C.I. 136 TO TOP FACE OF CENTRE SECTION.

SEE ASSY. T.C.I. 136 FOR THIS CONNECTOR PLATE.

3 SETS OF 2 HOLES DRILL & TAP M5 x 0.8 IN MIRROR CELL SPOT FROM T.C.I. 701.03 ON ASSY.

4 SETS OF 4 HOLES DRILLED IN COVER TO SUIT M16 CAPTIVE NUTS. SPOT FROM T.C.I. 702.04 ON ASSY. SEE SHIT 2

PART SECTION 'A-A'

CENTRE SECTION

MIRROR CELL

TOP WHEN TUBE IS HORIZONTAL

VIEW ON ARROW 'B'

SCALE - 1/2

SEE DRG. T.C.I. 701 SHIT 2 FOR CONTIN. DET. FROM T.C.I.

CABLES IN TURN

APPROVED
T.C.I. 701.03

APPROVED
T.C.I. 701.03

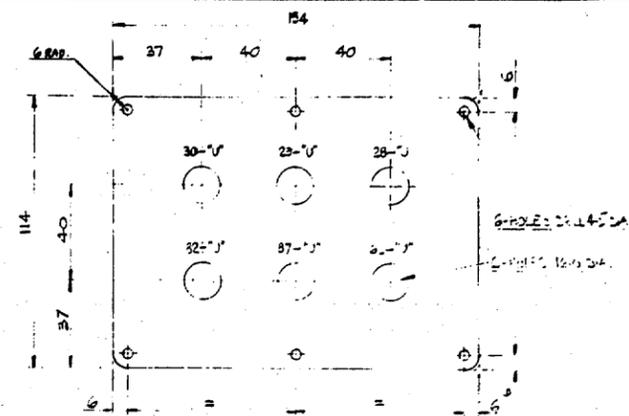
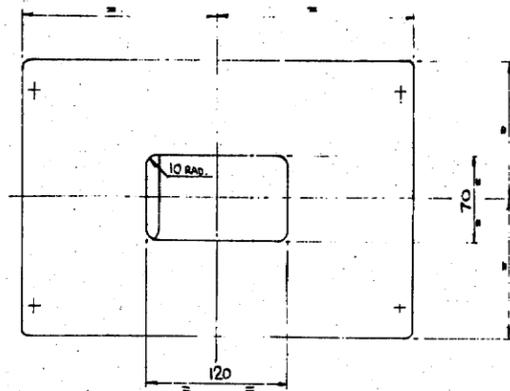
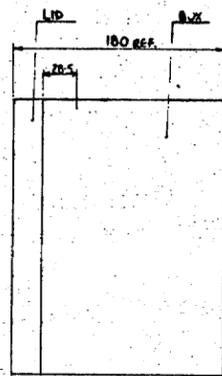
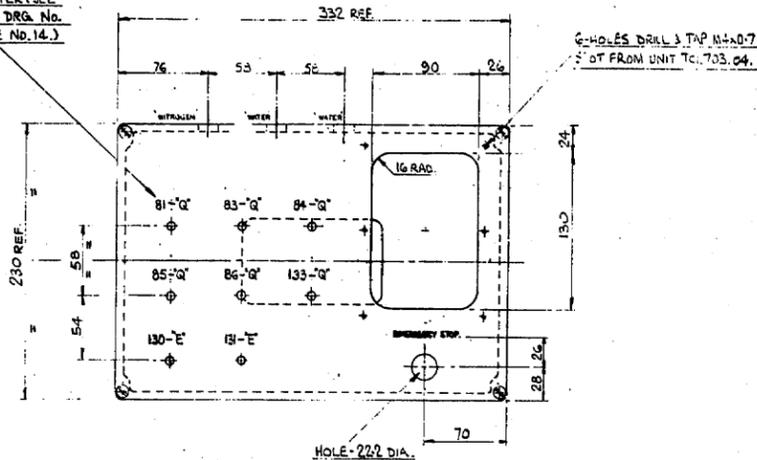
AS BUILT DRAWINGS
This drawing shows all variations in the work

DATE OF MOD. 13-1-83
DRAWN BY W. Keene
DATE 13-1-83

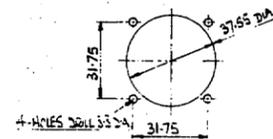
4-2 WIRE WILLIAM H. SOBEL TELESCOPE
ASSEMBLY OF CABLE RUNS BELOW TOP FACE OF CENTRE SECTION.

SURFACE FINISH EQUIVALENTS FINISHES 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 THIS DRAWING CONFORMS TO B.S. 308	SURFACE FINISH SYMBOLS DENOTES NOT NECESSARILY MACHINED DENOTES MACHINED	WELD SYMBOLS TO BS 499 PART 2 1989	FABRICATION TOLERANCES DIMENSIONS UP TO 250 ± 0.20 DIMENSIONS FROM 250 TO 2500 ± 0.30 ANGLES ± 1:500 STRAIGHTNESS / FLATNESS ± 0.200	THIS DRAWING IS THE PROPERTY OF NEI PARSONS LTD. AND MUST NOT BE COPIED OR DISCLOSED TO A THIRD PARTY WITHOUT GRUBB PARSONS WRITTEN CONSENT.	GENERAL MACHINING TOLERANCES (EXCEPT WHERE SPECIFIED OTHERWISE) DIMENSIONS WITH DECIMALS ± 0.1 DIMENSIONS WITH OVER ± 0.1 AND DECIMAL SIGN	ALL DIMENSIONS ARE IN MILLIMETRES ANGLES & SCREW THREADS TO B.S. 3643 PART 2 MEDIUM FIT MACHINED DIA CONCENTRIC TO D1 T.I.R.	PROJECTION CHECKED 2ND ANGLE DATE 13-1-83	DRAWN BY W. Keene DATE 13-1-83	GRUBB PARSONS NEWCASTLE UPON TYNE NE6 3YB SCALE 1/2 T.C.I. 702	SHEET 1 OF 3

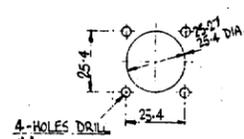
NOTE:-
POSITIONS ON LID ARE IDENTIFIED
BY CONNECTOR NUMBER FOLLOWED
BY SOCKET REF LETTER (SEE
TELESCOPE CABLING DRG. No.
TC1000.02 SCHEDULE No.14.)



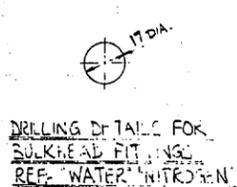
NOTE:-
POSITIONS ON PLATE ARE IDENTIFIED BY CONNECTOR
NUMBER FOLLOWED BY SOCKET REF LETTER (SEE
TELESCOPE CABLING DRG. No. TC1000.02
SCHEDULE No.14.)



DRILLING DETAILS FOR
SOCKETS REF. 'Q'



DRILLING DETAILS FOR
SOCKETS REF. 'E'



DRILLING DETAILS FOR
BULKHEAD FITTINGS
REF. WATER/NITROGEN

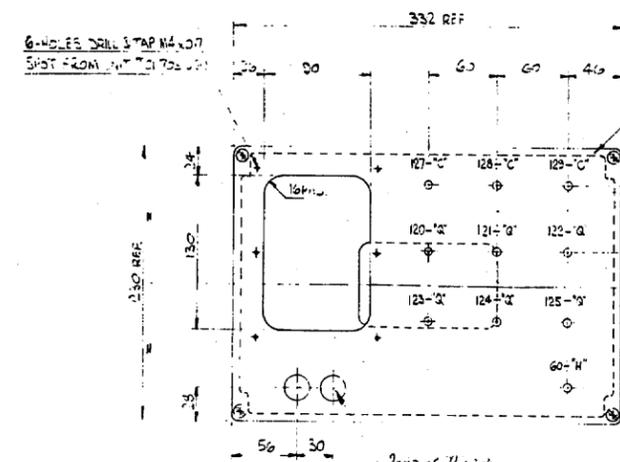
ENGRAVING:-
"EMERGENCY STOP" - 14 PT HELVETICA MEDIUM
CENTRALLY POSITIONED ABOVE CUTOUT.
FILLED RED.

APPROVED
12.2.93 by [Signature]

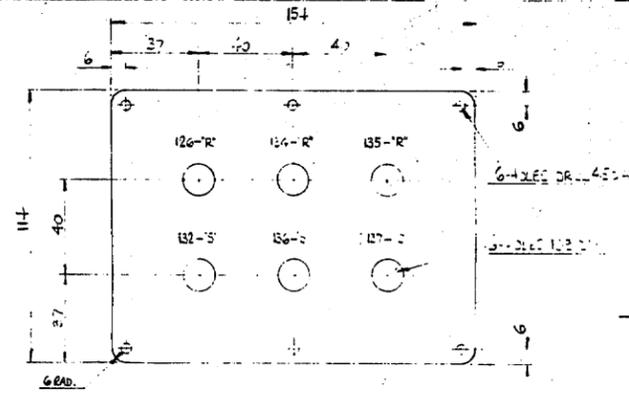
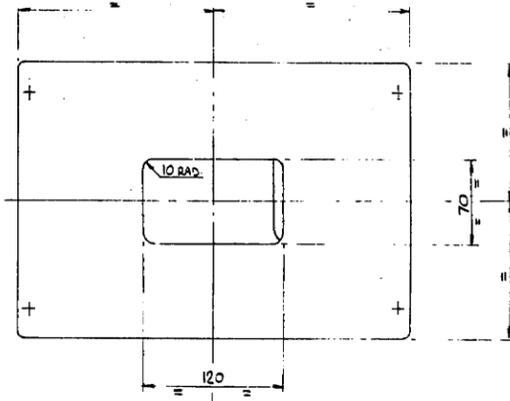
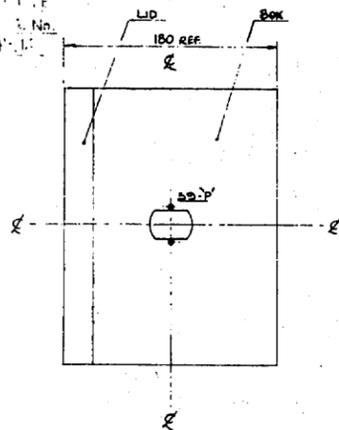
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12.2.93 by [Signature]

DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	FIRST MADE ORD No. 116764	MATERIAL	ONE CAST ALUMINUM BOX BOUGHT OUT AS TC1703.01
		FIRST ISSUE DATE	FINISH	PALE GREEN 14C31
		COST ACCOUNT 703	PART No.	
DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	TITLE	WEIGHT	SCALE
		CONNECTOR BOX	1/2	TC1703.03
			No. OFF PER SET	1

DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	FIRST MADE ORD No. 116764	MATERIAL	ONE CAST ALUMINUM BOX BOUGHT OUT AS TC1703.01
		FIRST ISSUE DATE	FINISH	PALE GREEN 14C31
		COST ACCOUNT 703	PART No.	
DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	TITLE	WEIGHT	SCALE
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			No. OFF PER SET	1



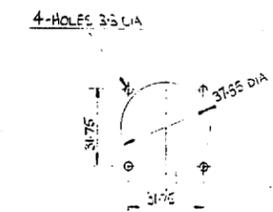
NOTE:-
POSITIONS ON LID ARE IDENTIFIED
BY CONNECTOR NUMBER FOLLOWED
BY SOCKET REF LETTER (SEE
TELESCOPE CABLING DRG. No.
TC1000.02 SCHEDULE No.14.)



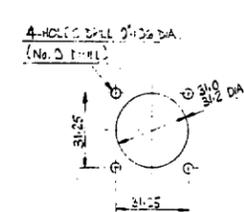
NOTE:-
POSITIONS ON PLATE ARE IDENTIFIED BY
CONNECTOR NUMBER FOLLOWED BY SOCKET
REF LETTER (SEE TELESCOPE
CABLING DRG. No. TC1000.02
SCHEDULE No.14.)

AS BUILT DRAWINGS
This drawing shows all material in this work

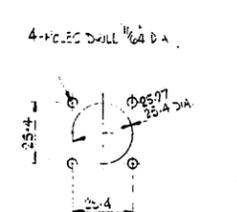
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12.2.93 by [Signature]



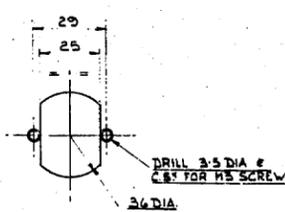
DRILLING DETAILS FOR
SOCKET REF. 'Q'



DRILLING DETAILS FOR
SOCKET REF. 'E'



DRILLING DETAILS FOR
SOCKET REF. 'P'



DRILLING DETAILS FOR
SOCKET REF. 'P'

APPROVED
12.2.93 by [Signature]

APPROVED
12.2.93 by [Signature]

DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	FIRST MADE ORD No. 116764	MATERIAL	ONE CAST ALUMINUM BOX BOUGHT OUT AS TC1703.01
		FIRST ISSUE DATE	FINISH	PALE GREEN 14C31
		COST ACCOUNT 703	PART No.	
DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	TITLE	WEIGHT	SCALE
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			No. OFF PER SET	1

DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	FIRST MADE ORD No. 116764	MATERIAL	ONE CAST ALUMINUM BOX BOUGHT OUT AS TC1703.01
		FIRST ISSUE DATE	FINISH	PALE GREEN 14C31
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DATE OF MOD MODIFIED BY	DATE OF MOD MODIFIED BY	TITLE	WEIGHT	SCALE
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			No. OFF PER SET	1