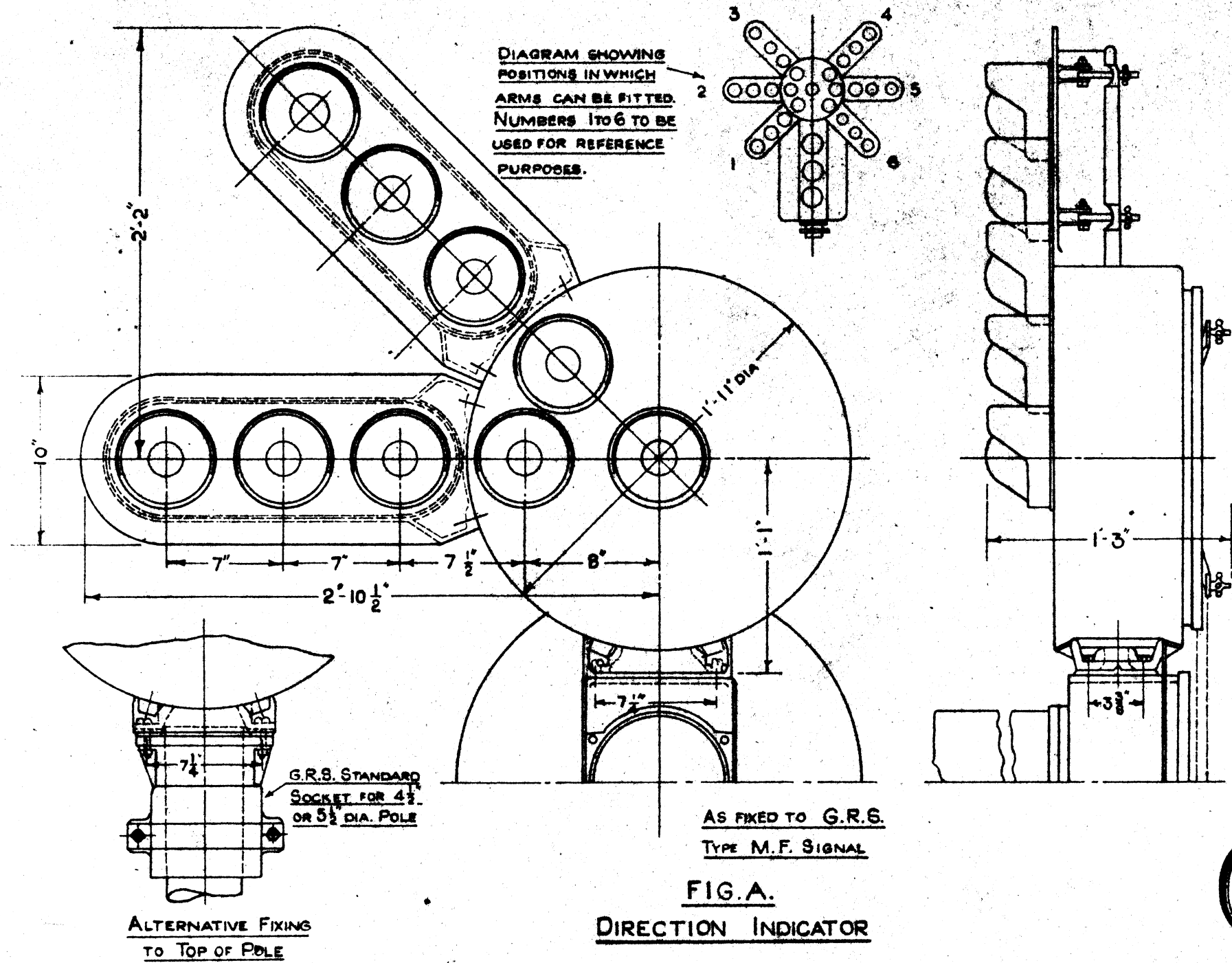
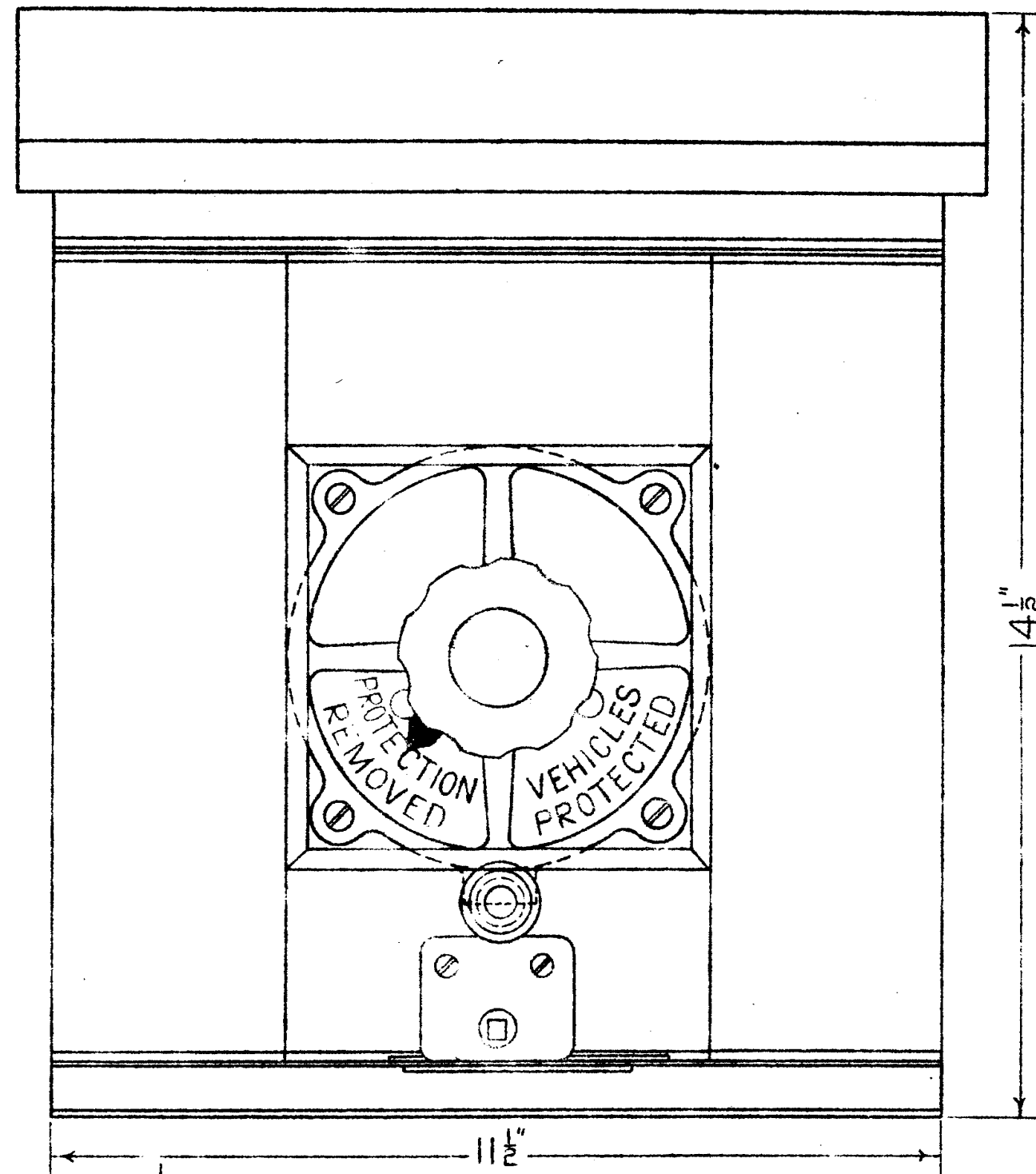
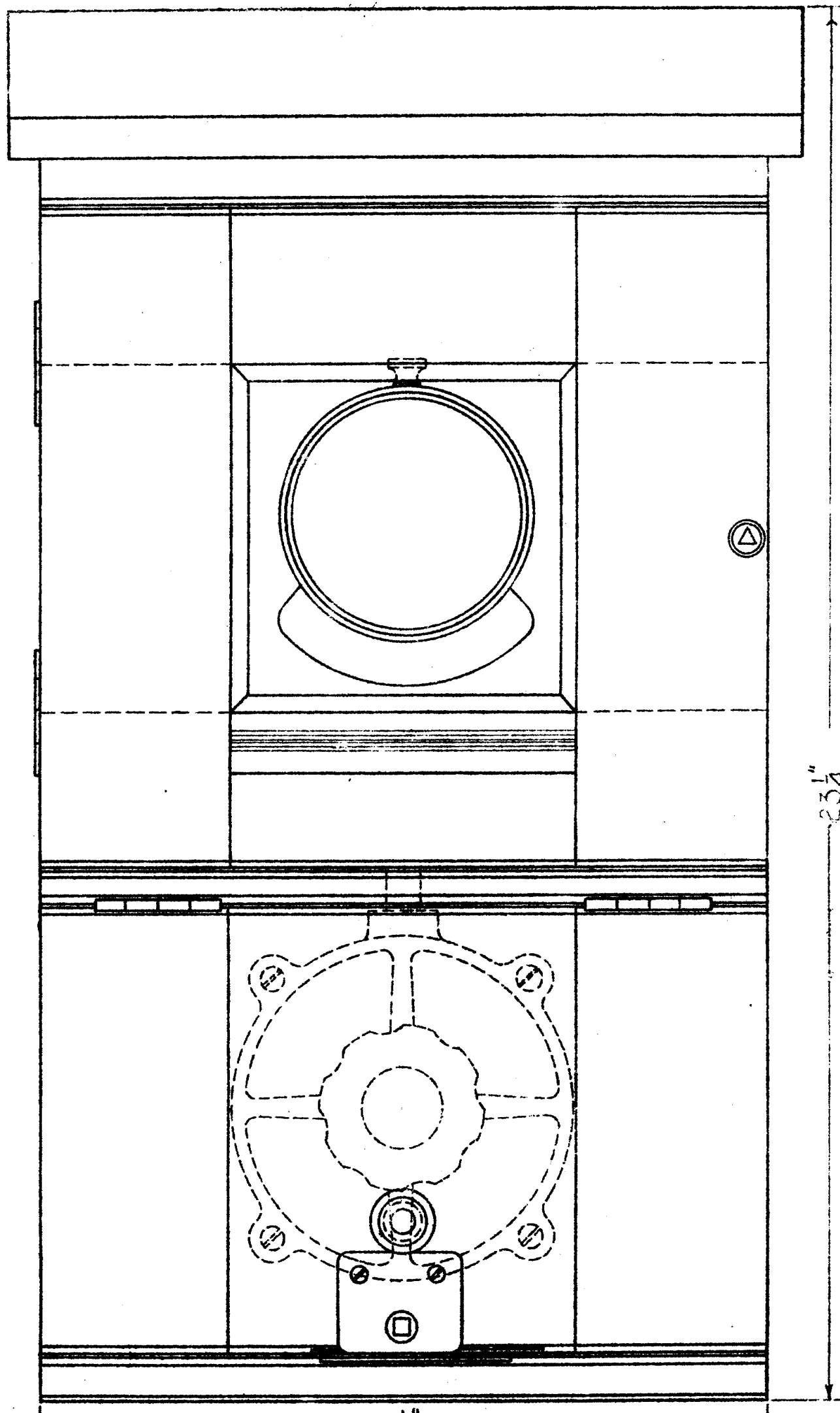




L.M. & S. A.
 SIGNAL & TELEGRAPH
 14 JAN 1947
 ENGINEER'S OFFICE,
 D. O.
 EUSTON



CUPBOARDS 7" DEEP (OUTSIDE)

CUPBOARD No. 1. T.D. 37047. CAT. No. 38/70005.
TO HOLD 1 V.O.L. SWITCH 28. CAT. No. 62/3192.

CUPBOARD No. 2. T.D. 37060. CAT. No. 38/70006.
TO HOLD 1 V.O.L. SWITCH 27. CAT. No. 62/3191, & 1 IND. 220.

V.O.L. CUPBOARDS.
SCALE: HALF FULL SIZE.

EXAMINED BY	
INDOOR ASST	
ELECTRICAL	
MATERIALS	

DRAWN BY	7/22
TRACED BY	0/10
CHECKED BY	7/20

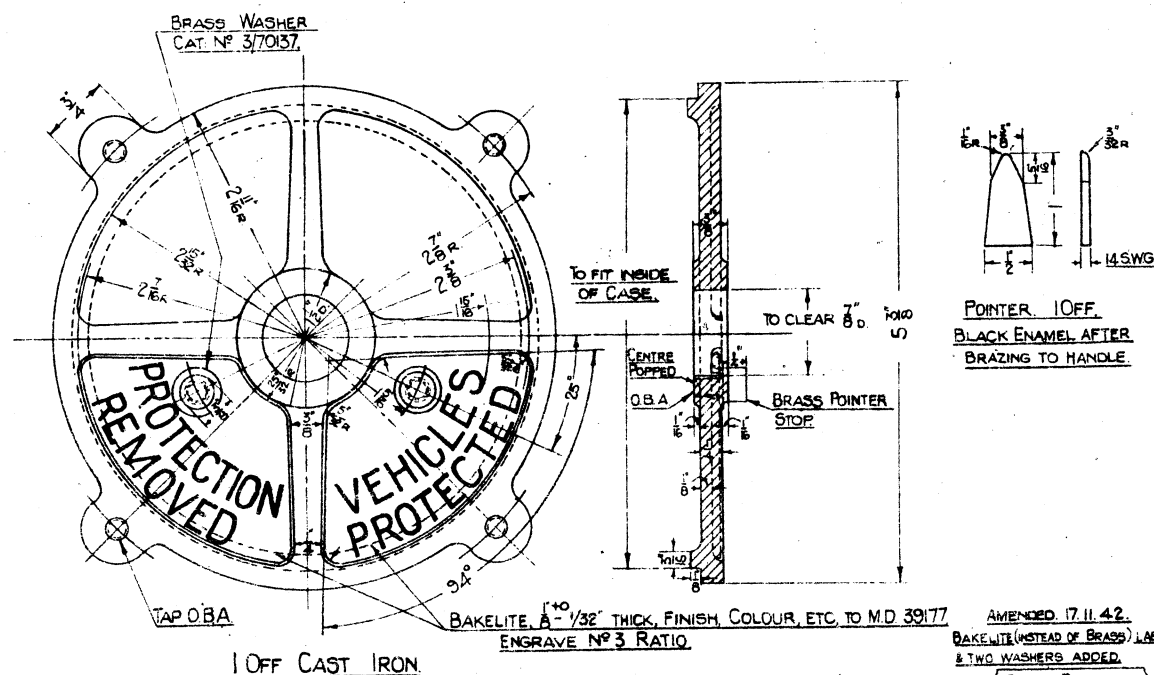
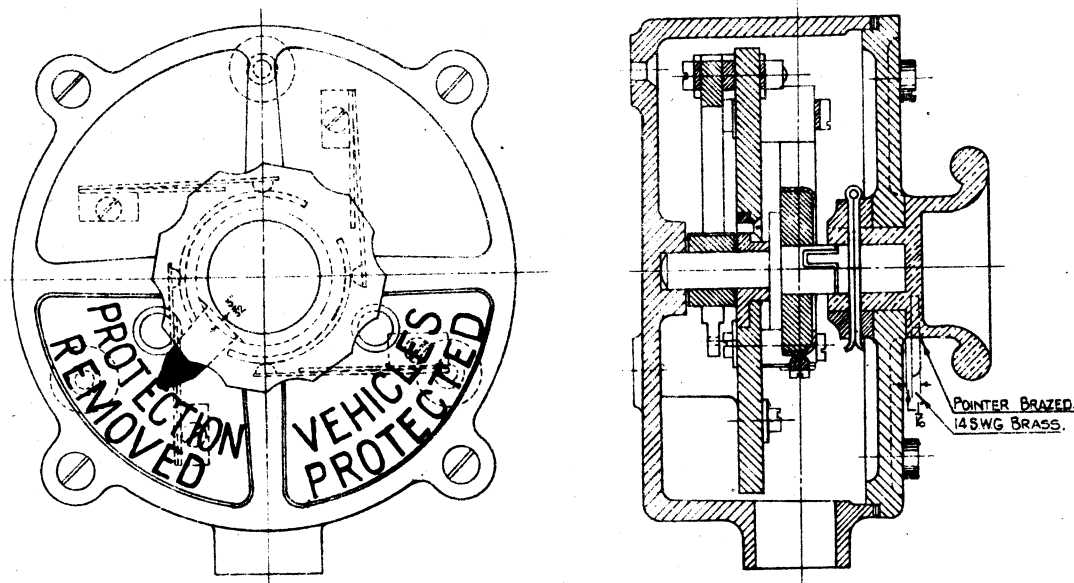
L.M.S. RAILWAY COMPANY
SIGNAL & TELEGRAPH ENG'G
OFFICE, EUSTON, L.M.S.I.
PLAN No. T.D. 37066
PLAN DATE 13-5-37

V.O.L. SWITCH.

SWITCH 28.

FOR USE WITHOUT INDICATOR.

CAT. N° 62/3192



NOTE -
FOR COMPLETE DETAILS SEE
ORG. T.D. 30173 & 30174.

REFERENCES:-
ENGINEERING SERIALS 86 AND 101.
DIAGRAMS TO T.D. 37057, T.D. 37059.
VOL. CUPBOARD N°1, T.D. 37047, CAT. N° 38/70005.

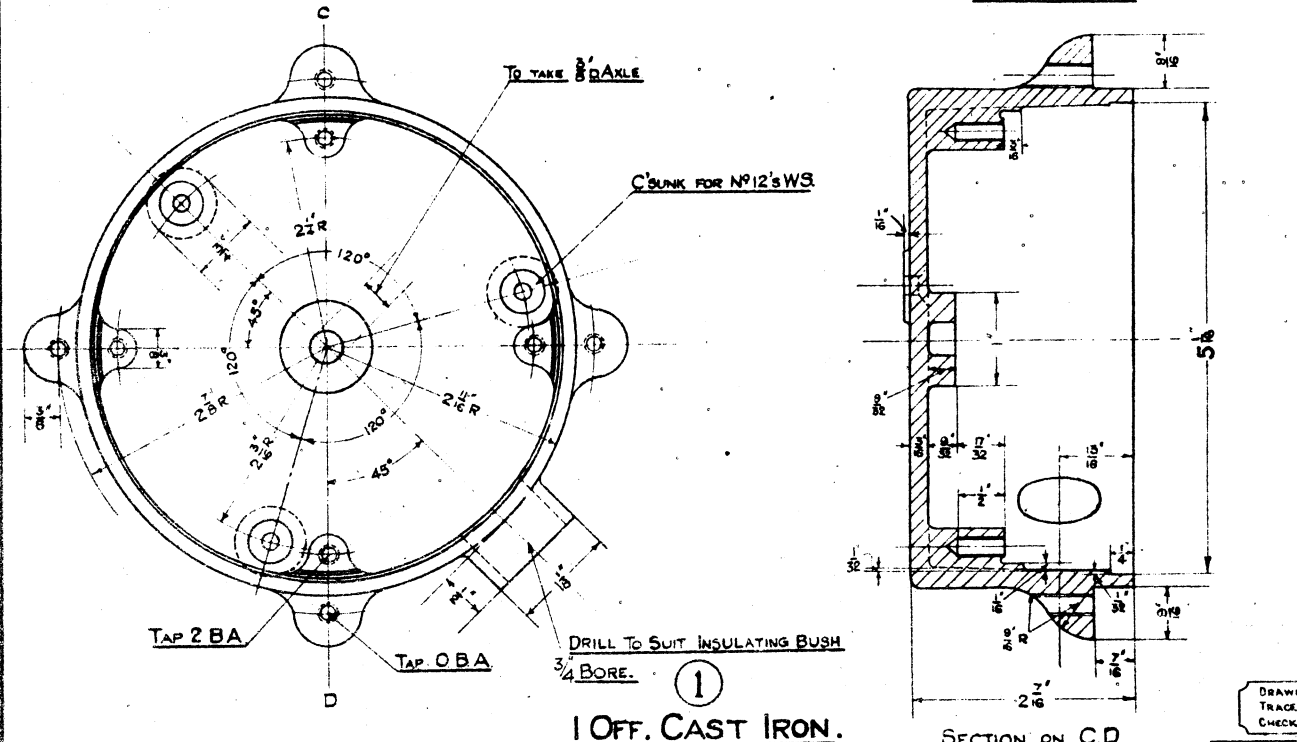
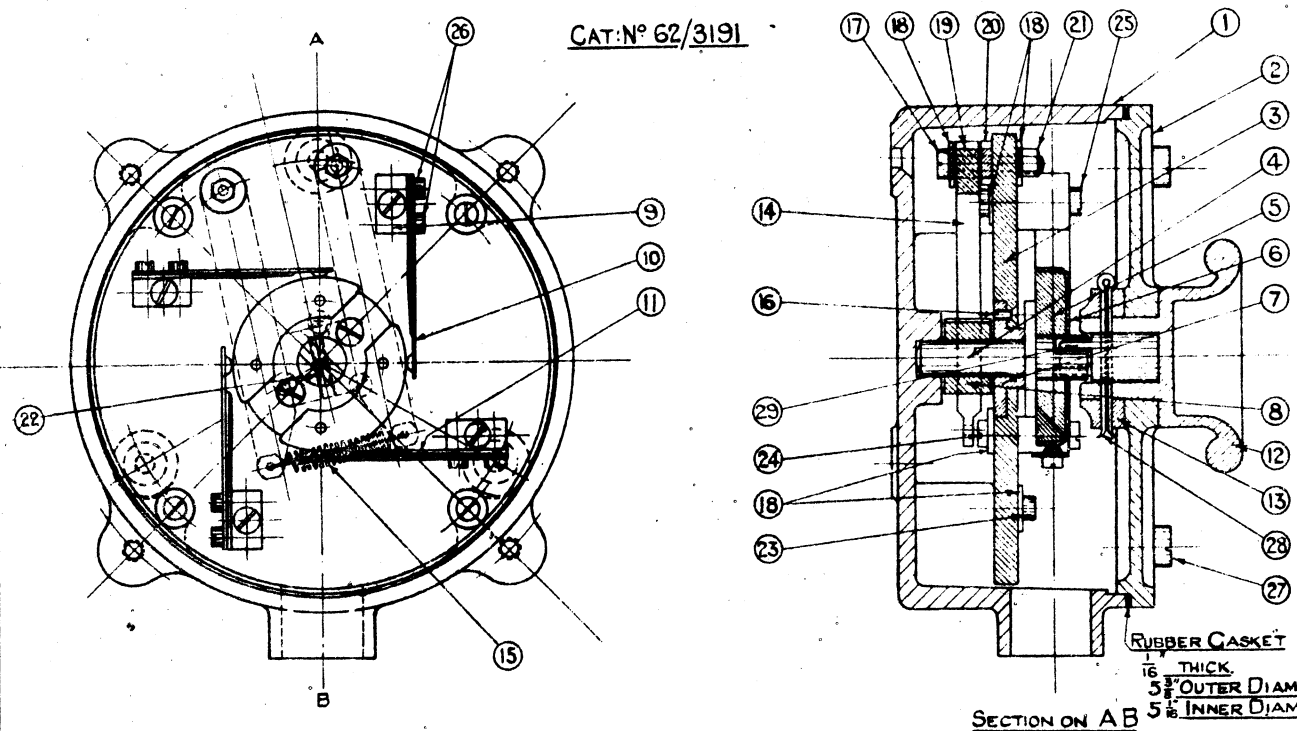
AMENDED 17.11.42.
BAKELITE (INSTEAD OF BRASS) LABELS,
& TWO WASHERS ADDED.
DRAWN BY: BH
CHECKED BY:
LONDON MIDLAND AND SCOTCH RAILWAY COMPANY
SIGNAL AND TELEGRAPH
ENGINEERS' OFFICE,
EUSTON, L.M.S.I.
PLAN N° T.D. 37054
PLAN DATE 15-4-37
DATE ISSUED

V.O.L. SWITCH.

SWITCH 27.

FOR USE WITH INDICATOR.

CAT. N° 62/3191

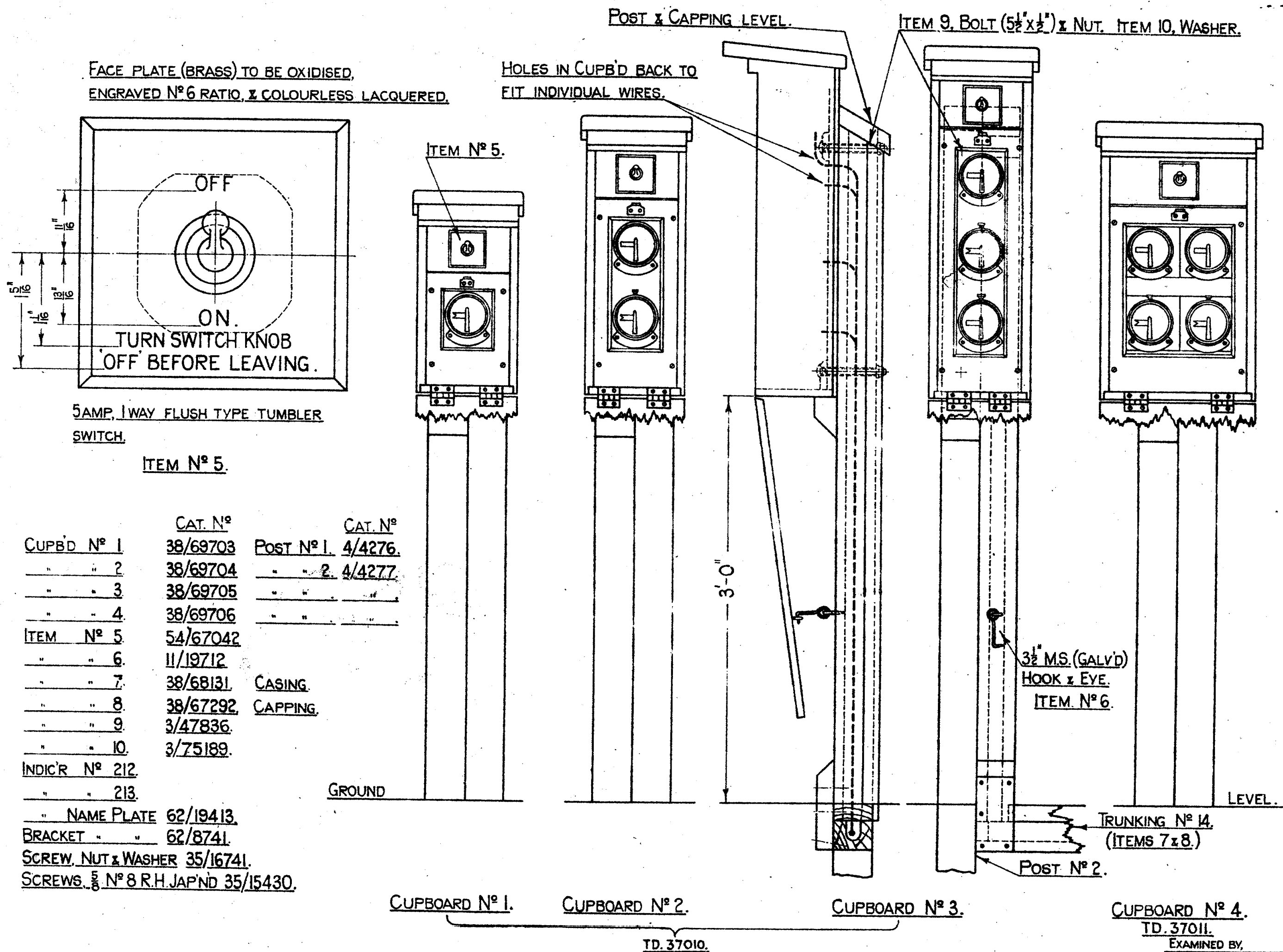


1 OFF. CAST IRON.

AMENDED 30-11-31.

SHEET. 1.
2 SHEETS.

DRAWN BY: J.S.
TRACED BY: A.B.
CHECKED BY: Y.M.
LONDON MIDLAND AND SCOTCH RAILWAY COMPANY
SIGNAL AND TELEGRAPH
ENGINEERS' OFFICE,
EUSTON, L.M.S.I.
PLAN N° T.D. 30173.
PLAN DATE 18-6-30.
DATE ISSUED



DRAWN BY ~~760~~
TRACED BY, N. O. A.
CHECKED BY, ~~760~~

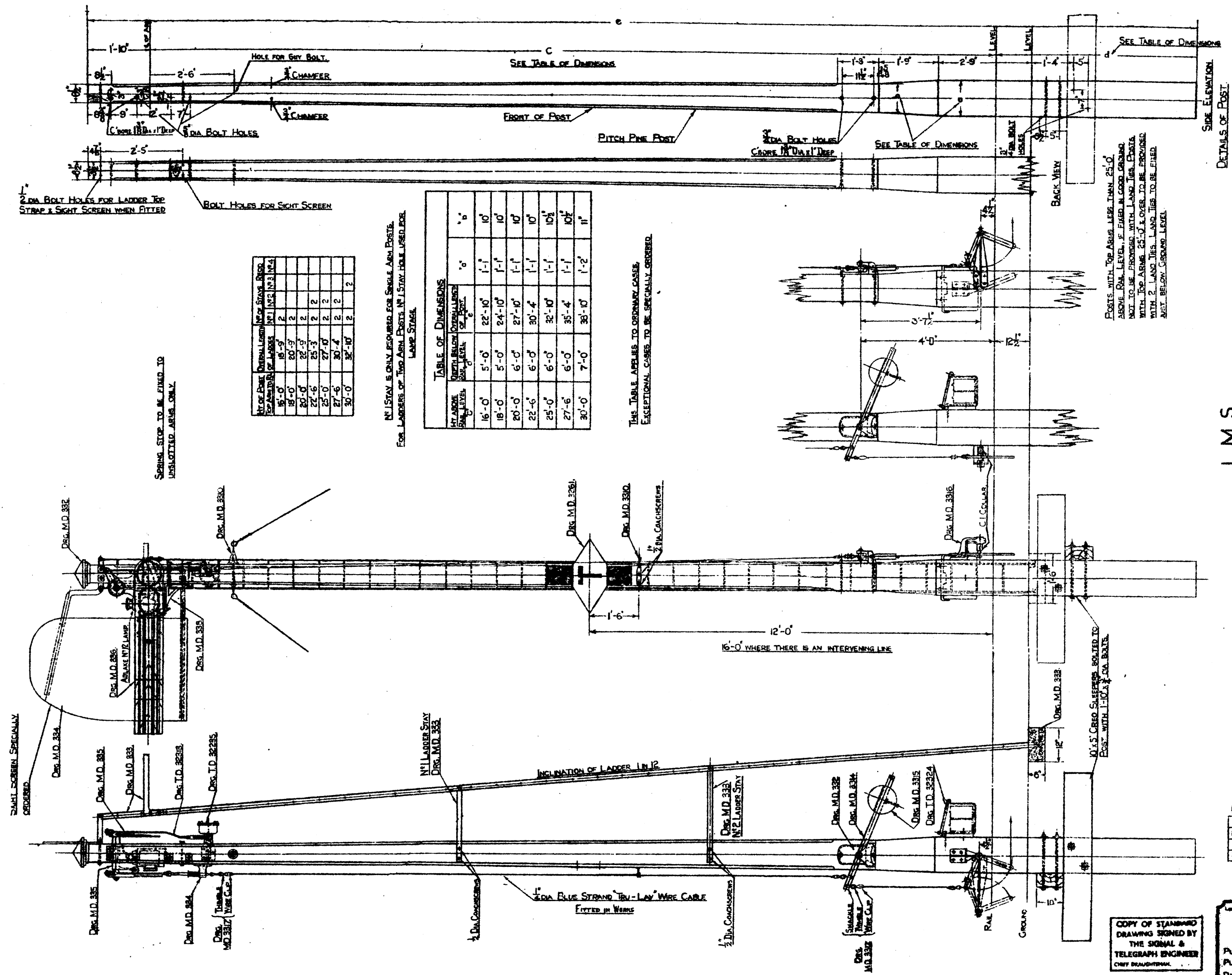
FIXING STANDARD FOGMANS REPEATERS.

SCALE :- $\frac{1}{8}$ AND FULL SIZE.

EXAMINED BY,

INDOOR ASST.	<i>[Signature]</i>
ELECTRICAL "	<i>[Signature]</i>
MATERIALS "	<i>[Signature]</i>

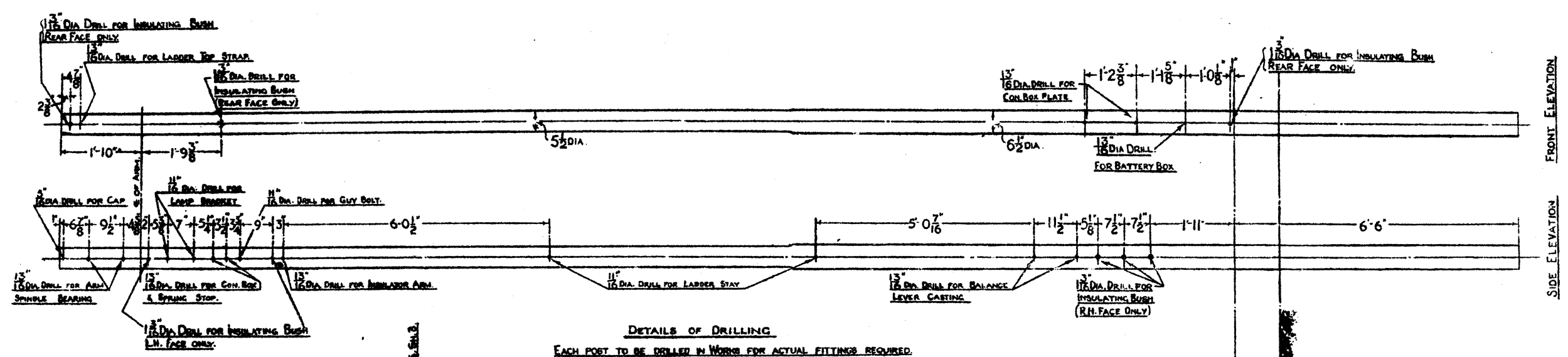
L. M. & S. R.
SIGNAL & TELEGRAPH ENGINEER
OFFICE. EUSTON. L.M.S.
PLAN NO. T.D. 37046.
PLAN DATE 19-3-37.



HT OF POOL TEMPERATURE	DEPTH OF LAZAR	NO OF STAYS REQ.
18'-0"	18'-9"	2
19'-0"	20'-3"	2
20'-0"	22'-9"	2
22'-6"	25'-3"	2
25'-0"	27'-0"	2
27'-6"	30'-4"	2
30'-0"	32'-10"	2

THIS TABLE APPLIES TO ORDINARY CASES,
EXCEPTIONAL CASES TO BE SPECIALLY ORDERED

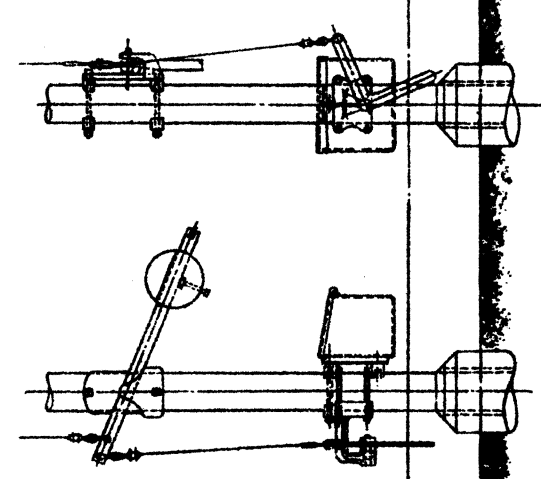




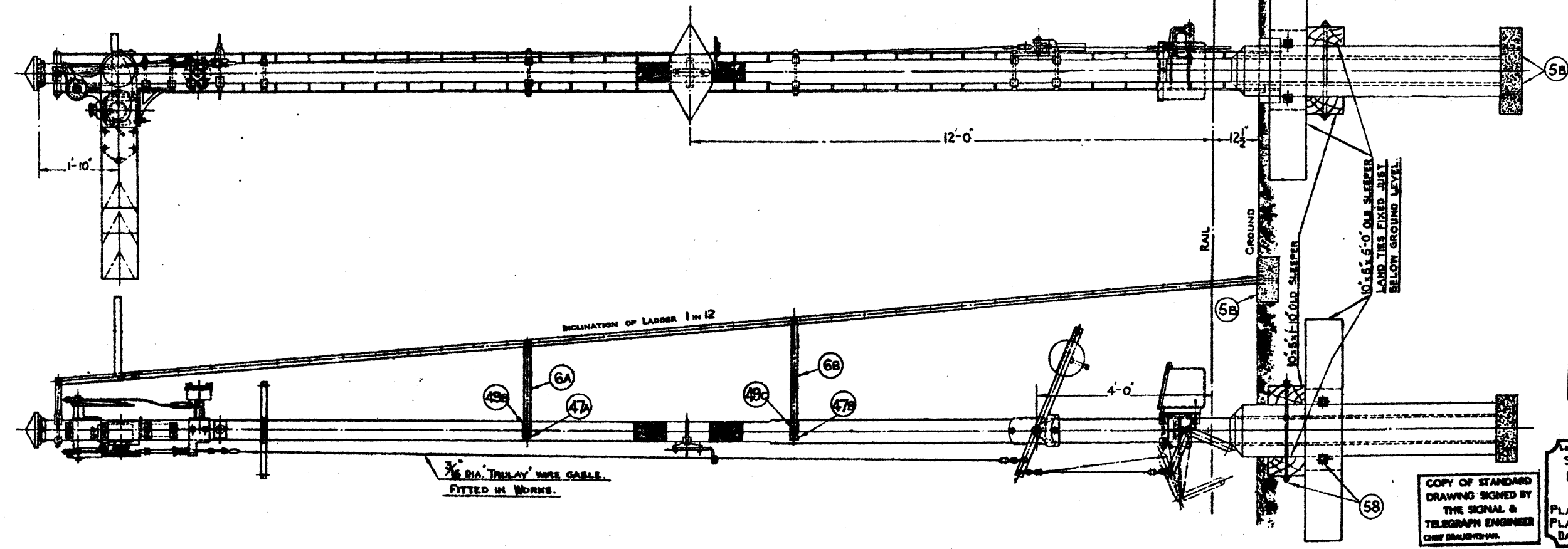
SPRING STOP TO BE FITTED TO UNSETTLED ARMS ONLY.

FOR UNSETTLED SIGNAL ARM TO BE FITTED COMPLETE WITH SPRING, WASHERS & LAMP. BACKLIGHT IN ORDER TO BE REPLACED BY STANDARD STOP CASTING IN ACCORDANCE WITH DMS. M.D. 5321.

FOR STANDARD SIZE OF POSTS SEE DMS. M.D. 2002.
- Assembly of Stop & Downward Arms see - DMS. M.D. 5321.
- Rail, Lenses, Con. Boxes & Cans see DMS. M.D. 5316, 5317, 5318.
- SCHEDULES see DMS. M.D. 5319.



ALTERNATIVE PULL

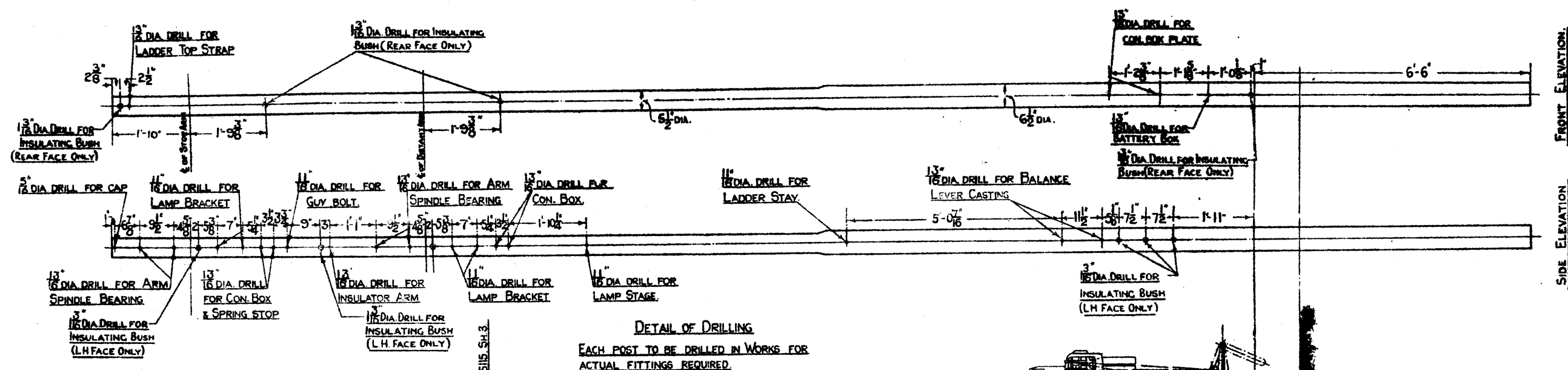


LMS
TUBULAR STEEL SIGNAL POST
ONE-ARM SIGNAL

EXAMINED BY	INSPECTOR ASST.	✓
	ELECTRICAL	✓
	MATERIALS	✓
DRAWN BY	THAMES BY	✓
CHECKED BY		

LONDON MIDLAND & SCOTLAND RLY.
SIGNAL & TELEGRAPH
ENGINEER'S OFFICE,
EUSTON L.M.S.I.
PLAN NO. M.D. 2016
PLAN DATE 15.7.35
DATE ISSUED

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF ENGINEER

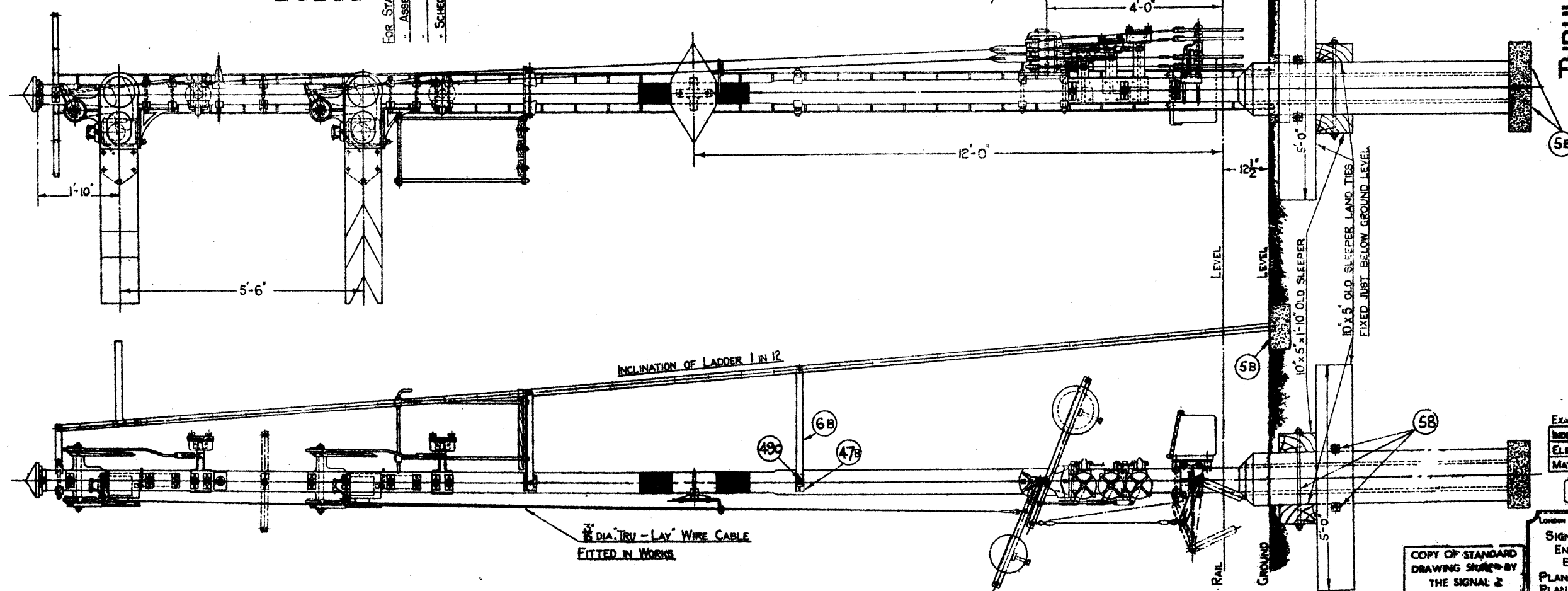


SPRING STOP TO BE FIXED TO
UNGLOTTED ARMS ONLY.

FOR UNWORKABLE SIGNAL ARM TO BE FITTED
COMPLETE WITH SPINDLE, BEARING & LAMP
BACKLIGHT BLINDER TO BE REPLACED BY
STANDARD STOP CASTING IN ACCORDANCE
WITH DRG. MD. 3321.

* FOR STANDARD SIZES OF POSTS SEE DRG M.D. 35029.
 " ASSEMBLY OF STOP & DIST ARMS " " 35115 SHL
 " " " BAL LEVERS, CON BOXES & CRANKS SEE DRG. M.D. 35115, SH. 3.
 * SCHEDULE SEE DRG M.D. 35119.

DETAIL OF DRILLING
EACH POST TO BE DRILLED IN WORKS FOR
ACTUAL FITTINGS REQUIRED.



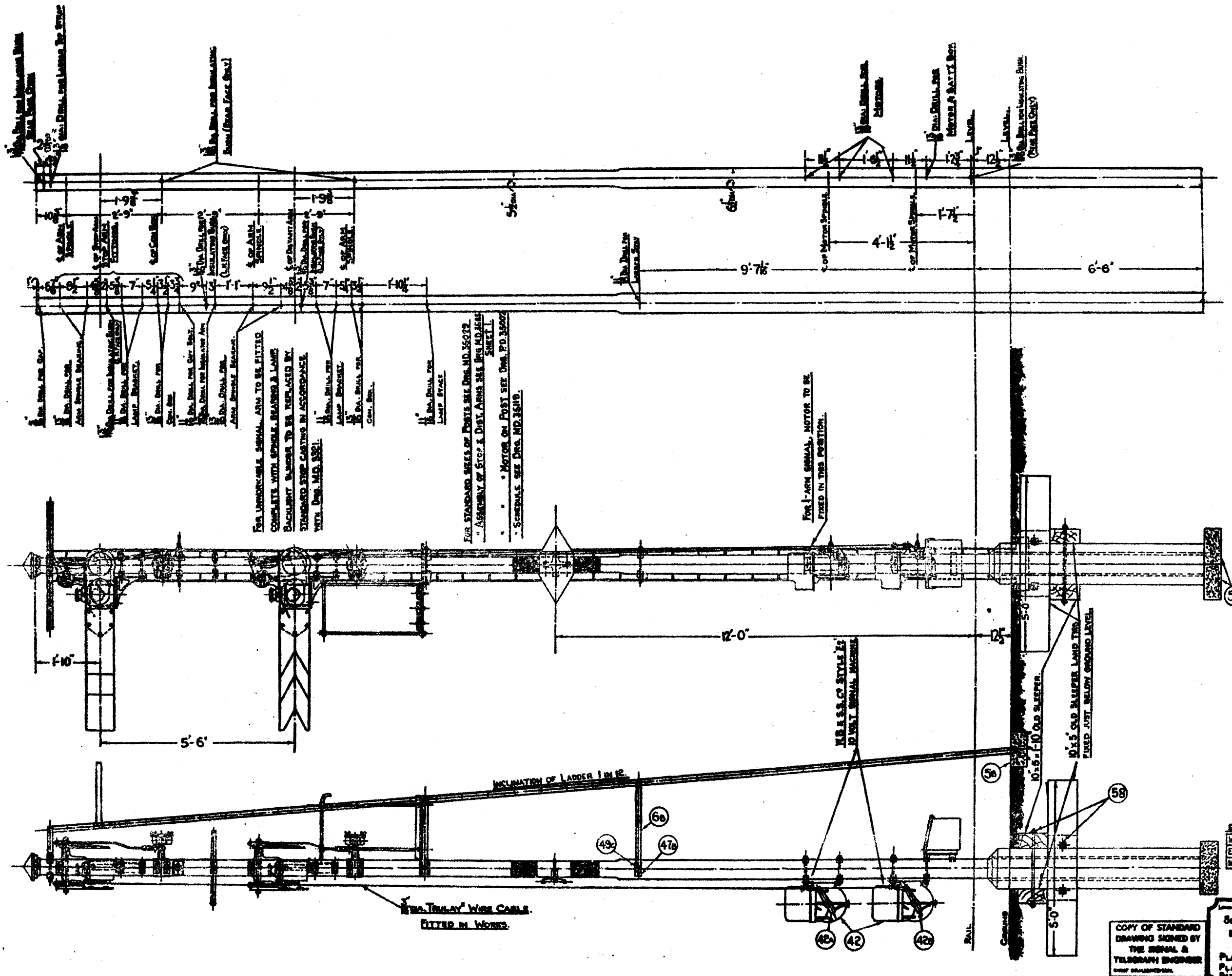
L.M.S.
TUBULAR STEEL SIGNAL POST
TWO-ARM SIGNAL

COPY OF STANDARD
DRAWING STORED BY
THE SIGNAL &
TELLGRAPH ENGINE

LONDON MIDLAND & SOUTHERN RAILWAY
SIGNAL & TELEGRAPH
ENGINEERS' OFFICE
EUSTON. L.M.S.
PLAN NO. M.D. 3517
PLAN DATE 16-7-25
DATE ISSUED

EXAMINED BY,	
INDOOR ASST	X
ELECTRICAL	✓
MATERIALS	✓

DRAWN BY
TRACED BY
CHECKED BY



L.M.S.
TUBULAR STEEL SIGNAL POST
MOTOR WORKED SIGNAL

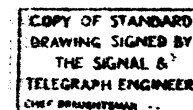
Side Elevation
End Elevation
LAYOUT OF DRILLING
EACH POST TO BE DRILLED IN ACCORDANCE
FOR ACTUAL FITTINGS REQUIRED

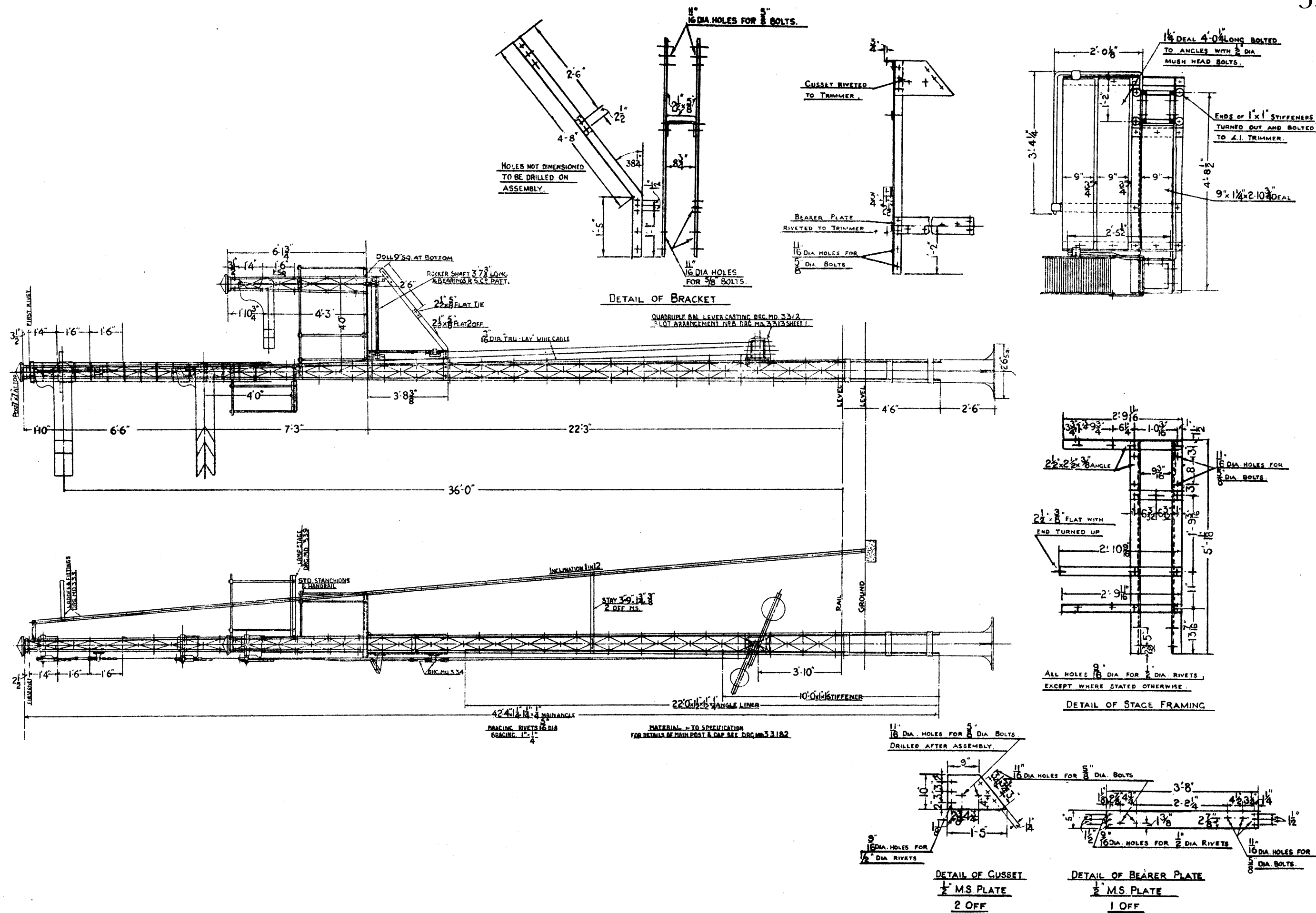
COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
DATE ISSUED

EXAMINED BY	
INDOOR ASST.	
ELECTRICAL	
MATERIALS	

DRAWN BY: J. H. J. J.
CHECKED BY: J. H. J. J.
DATE: 12-2-21

SIGNAL & TELEGRAPH
ENGINEER'S OFFICE
EUSTON, L.M.S.
PLAN NO. P.D. 35093
PLAN DATE 12-2-21
DATE ISSUED





L.M.S.R.

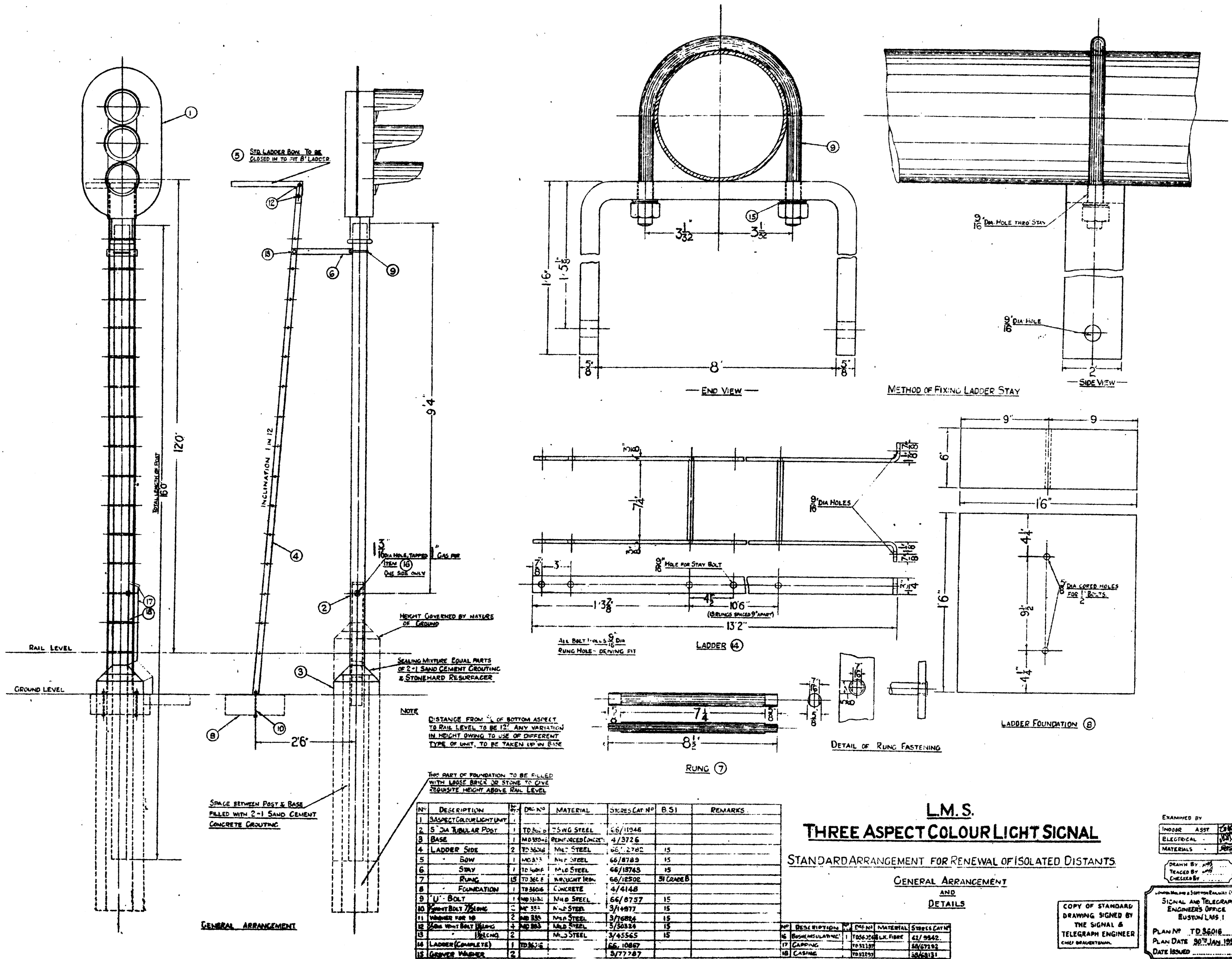
RUNNING LINE TO LOOP SIGNAL
RIGHT-HAND BRACKET

DEATH BY: W. W. W.
KILLED BY: 718
CHARGED BY: 718

RECORDS INCLUDED & BAPTIST REASON

SIGNAL & TELEGRAPH
ENGINEERS OFFICE
EUSTON LMS. I
PLANS NO 3418
PLAN DATE 20-7-56
DATE ISSUED.

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DESIGNER



L.M.S.
THREE ASPECT COLOUR LIGHT SIGNAL
STANDARD ARRANGEMENT FOR RENEWAL OF ISOLATED DISTANTS

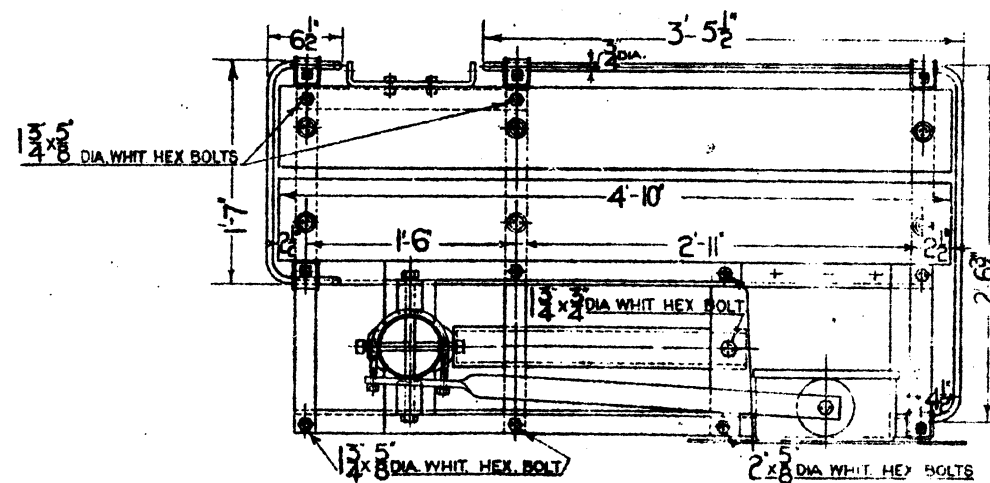
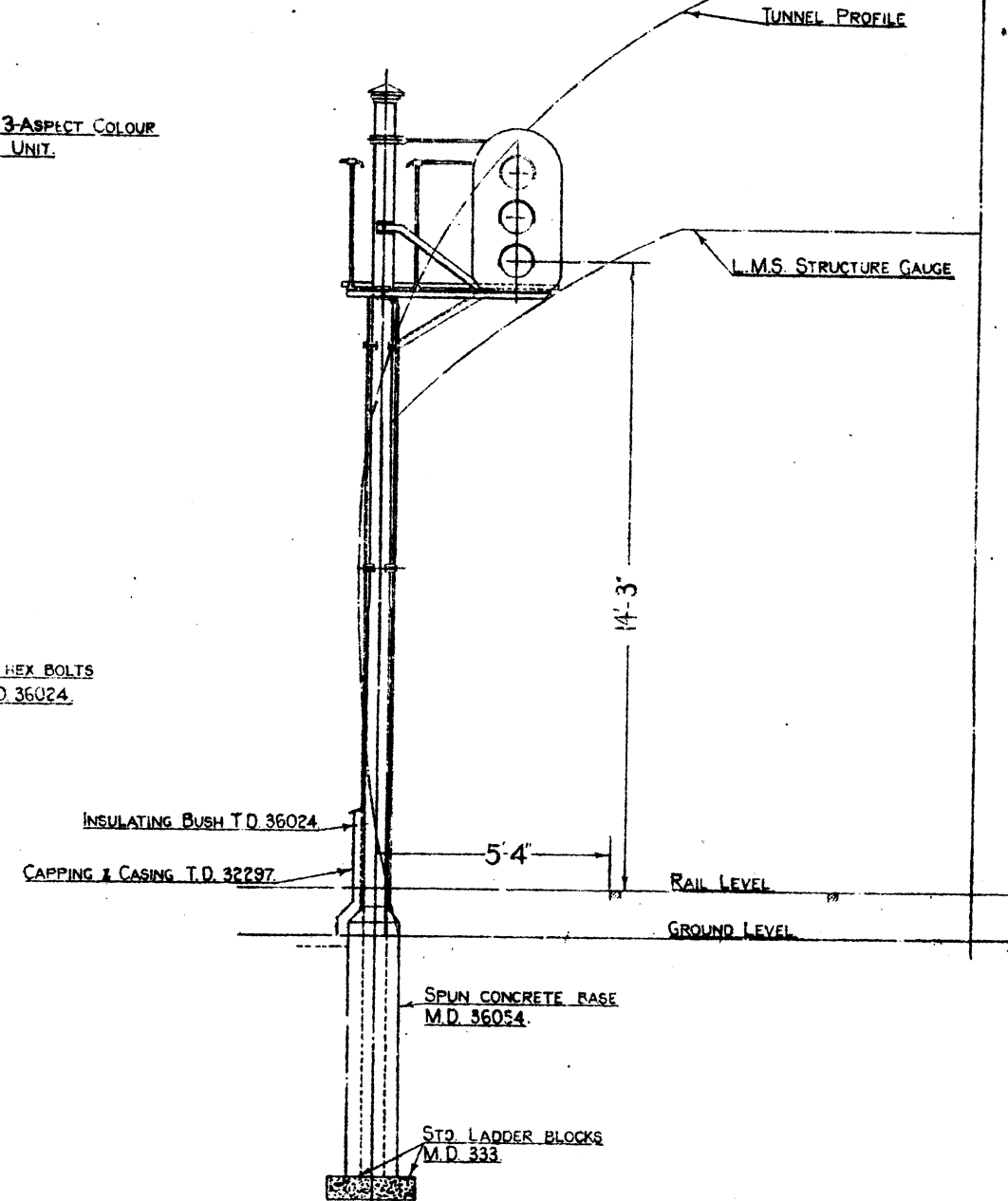
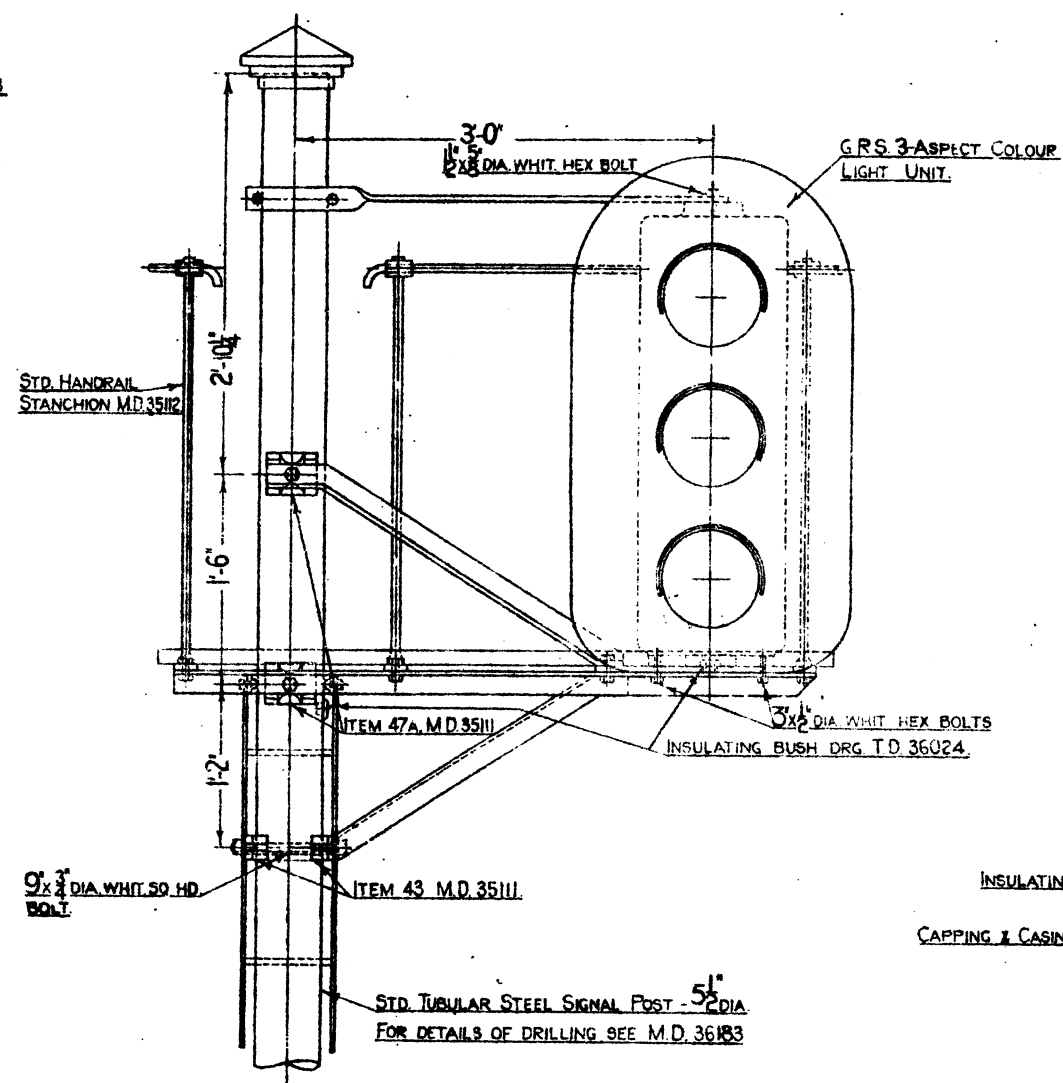
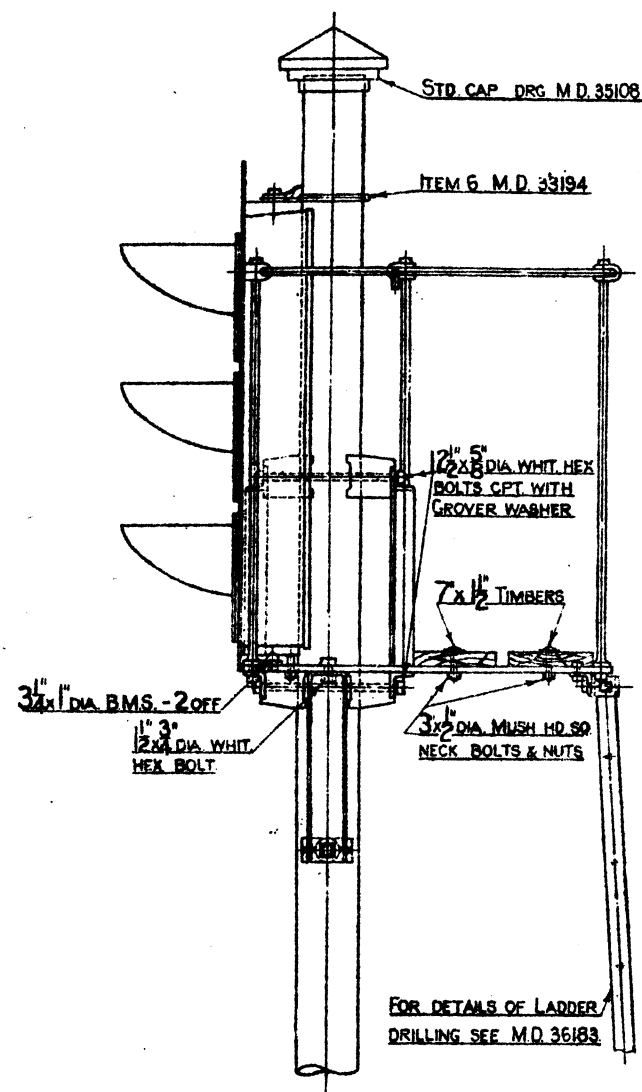
GENERAL ARRANGEMENT AND DETAILS

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN.

EXAMINED BY	
INDOOR ASST.	<i>[Signature]</i>
ELECTRICAL -	<i>[Signature]</i>
MATERIALS -	<i>[Signature]</i>

DRAWN BY *mtb* ...
 TRACED BY *mtb* ...
 CHECKED BY ...

LONDON, BRISTOL & SCOTCH RAILWAY CO. LTD
SIGNAL AND TELEGRAPH
ENGINEERS'S OFFICE
BUSTON LMS.
PLAN NO. TD 36016
PLAN DATE 30TH JAN 1936
DATE ISSUED

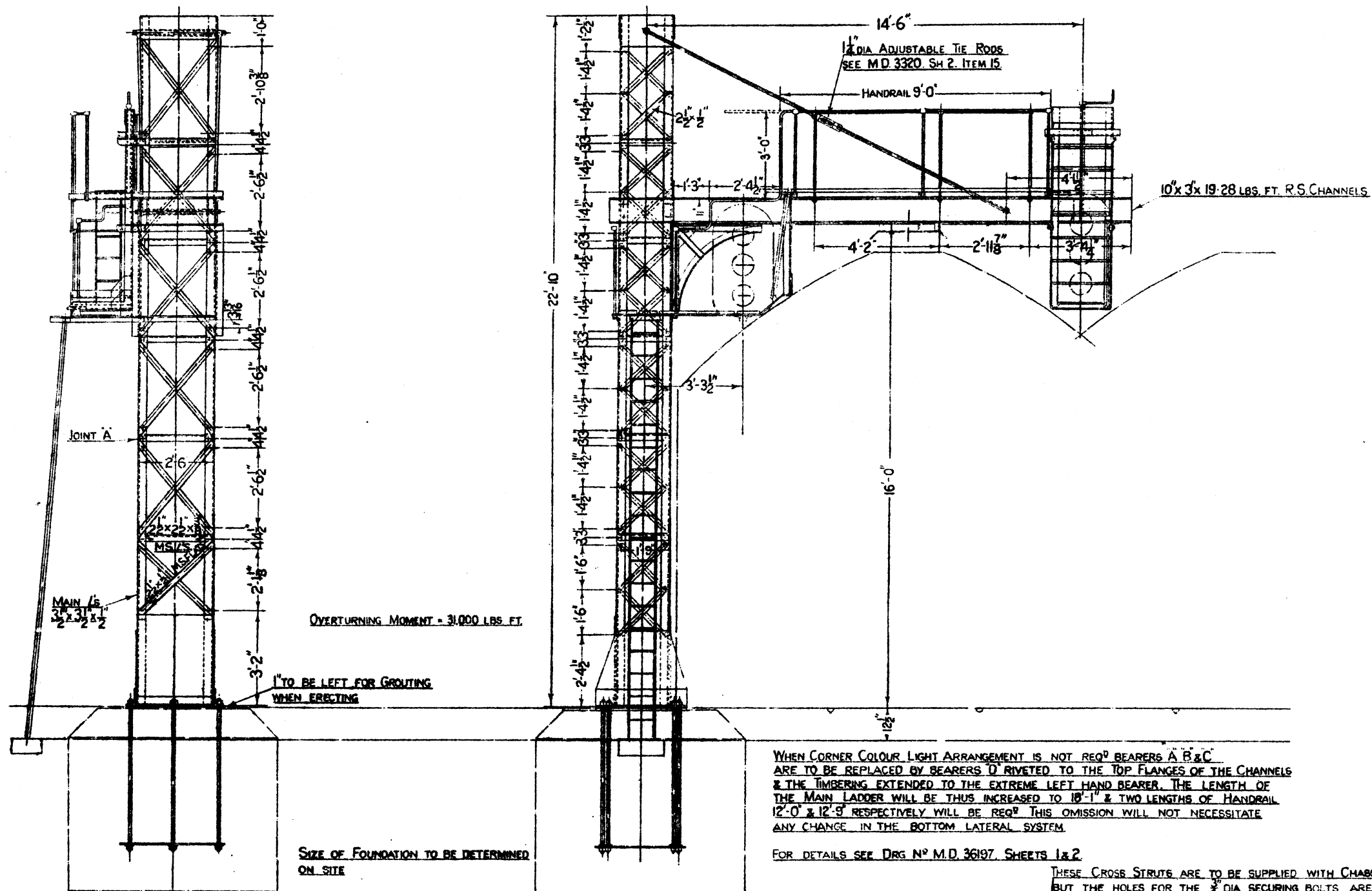


ALL ANGLES 2" x 2" x 3" M.S.
ALL RIVETS 5/8 DIA. SNAP HD.

L.M.S. STD. SIDE BRACKET COLOUR LIGHT SIGNAL.

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN

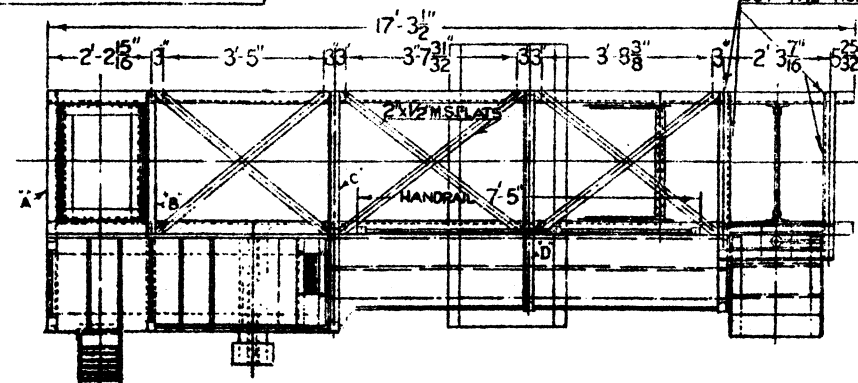
DRAWN BY... J.R.
CHECKED BY... H.D.A.
LONDON, MIDLAND & SCOTLAND RAILWAYS
SIGNAL & TELEGRAPH
ENGINEERS' OFFICE
EUSTON, L.M.S.
PLAN NO. M.D. 36182
PLAN DATE 3-9-26
DATE ISSUED



WHEN CORNER COLOUR LIGHT ARRANGEMENT IS NOT REQ^d BEARERS A B & C ARE TO BE REPLACED BY BEARERS D RIVETED TO THE TOP FLANGES OF THE CHANNELS & THE TIMBERING EXTENDED TO THE EXTREME LEFT HAND BEARER. THE LENGTH OF THE MAIN LADDER WILL BE THUS INCREASED TO 18'-1" & TWO LENGTHS OF HANDRAIL 12'-0" & 12'-9" RESPECTIVELY WILL BE REQ^d. THIS OMISSION WILL NOT NECESSITATE ANY CHANGE IN THE BOTTOM LATERAL SYSTEM.

FOR DETAILS SEE DRG N^o M.D. 36197, SHEETS 1 & 2.

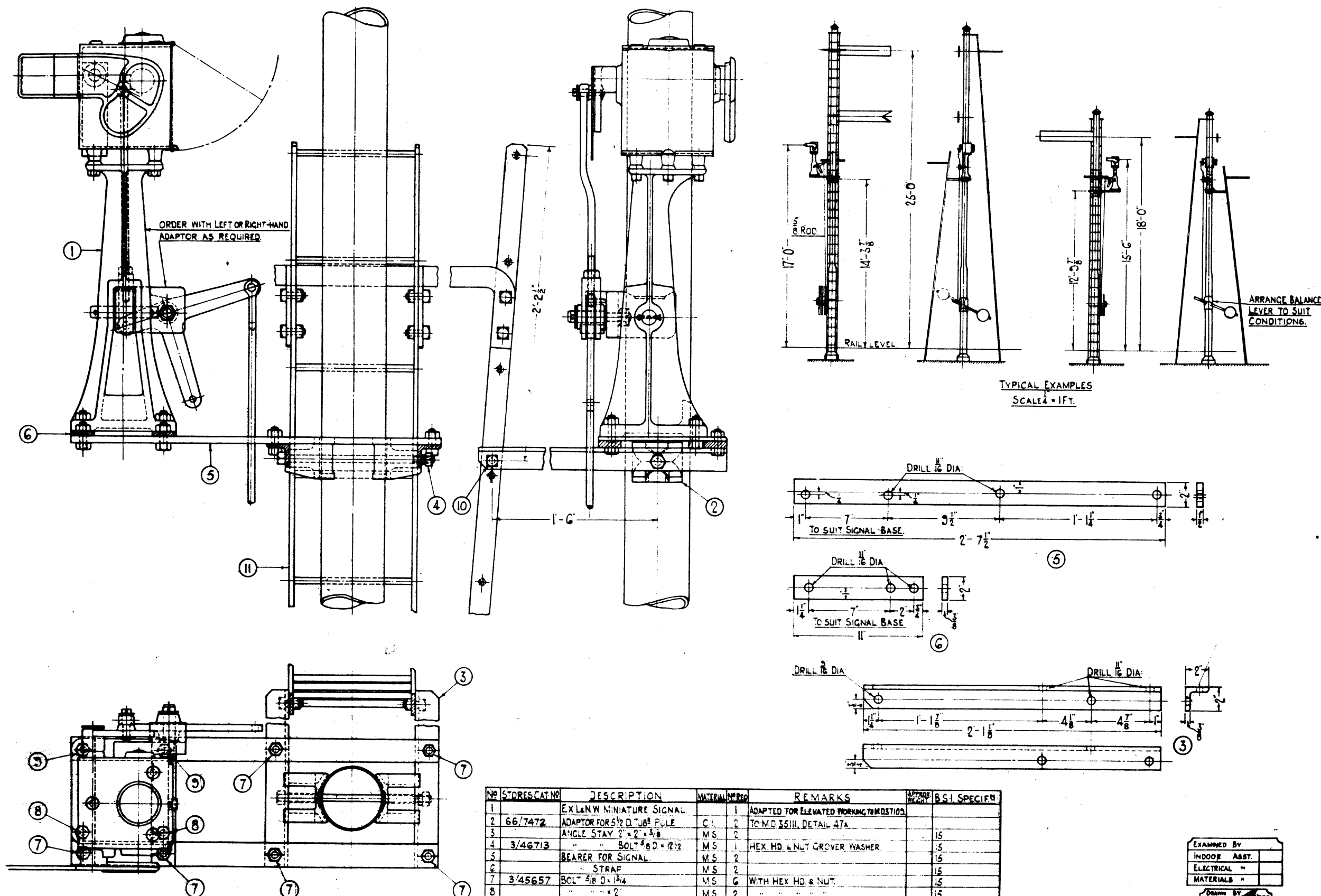
THESE CROSS STRUTS ARE TO BE SUPPLIED WITH CHASSIS BUT THE HOLES FOR THE 3/4" DIA SECURING BOLTS ARE TO BE DRILLED.



L.M.S.
STANDARD CANTILEVER
FOR
COLOUR LIGHT SIGNALS.

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN

DRAWN BY J.P.K.
TRACED BY N.D.A.
CHECKED BY M.B.
LONDON MILBANK & SCOTTON BLY
SIGNAL & TELEGRAPH
ENGINEERS OFFICE
EUSTON L.M.S. I
PLAN N^o M.D. 86078
PLAN DATE 23-8-26
DATE ISSUED



NO	STORES CAT NO	DESCRIPTION	MATERIAL	QTY	REMARKS	APPROV	BSI SPECIFN
1		EX L&N MINIATURE SIGNAL		1	ADAPTED FOR ELEVATED WORKING TO MD 3100		
2	66/7472	ADAPTOR FOR 5 1/2" D. TUBS POLE	C.I.	2	TO MD 3511, DETAIL 47A		
3		ANGLE STAY 2" x 2" x 3/8"	M.S.	2			15
4	3/46713	BOLT 5/8" D x 1 1/2"	M.S.	1	HEX. HD. & NUT GROVER WASHER		15
5		BEARER FOR SIGNAL	M.S.	2			15
6		STRAP	M.S.	2			15
7	3/45657	BOLT 5/8" D x 1 1/4"	M.S.	6	WITH HEX HD. & NUT		15
8		" " " " 2"	M.S.	2	" " " "		15
9		" " " " 2 1/2"	M.S.	2	" " " "		15
10	3/50324	" " " " 1/2" x 1 1/4"	M.S.	6	" " " " (AS MD 333 DET 15)		15
11		LADDER & BOW		1	TO MD 333		

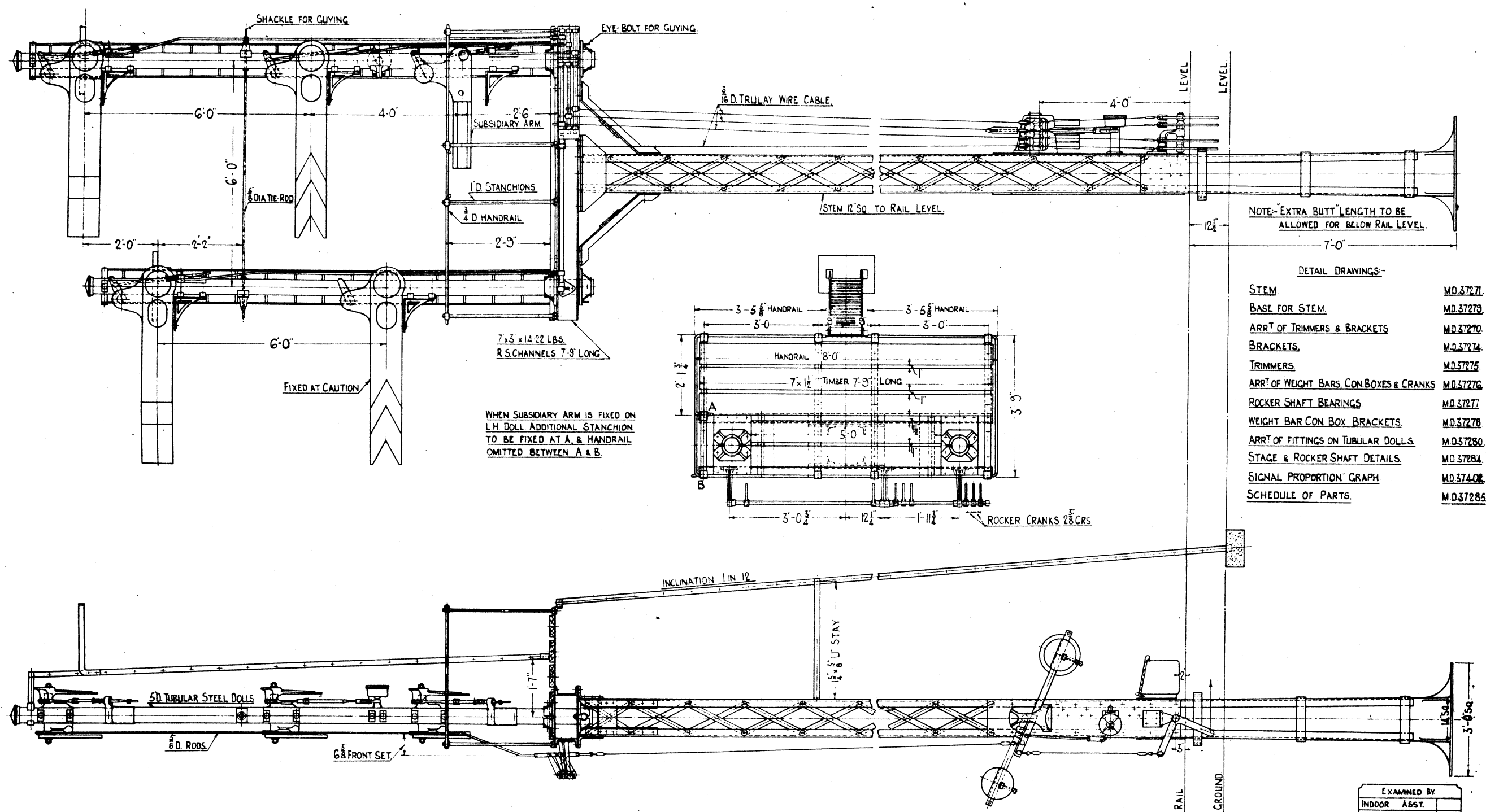
L.M.S.
SINGLE ARM MINIATURE SIGNAL ON TUBULAR POST.

EXAMINED BY	
INDOOR ASST.	
ELECTRICAL "	
MATERIALS "	

DRAWN BY
TRACED BY
CHECKED BY

LONDON SIGNAL AND TELEGRAPH ENGINEER'S OFFICE
EUSTON LMS. 1.

PLAN NO MD. 4713
PLAN DATE 19-4-27



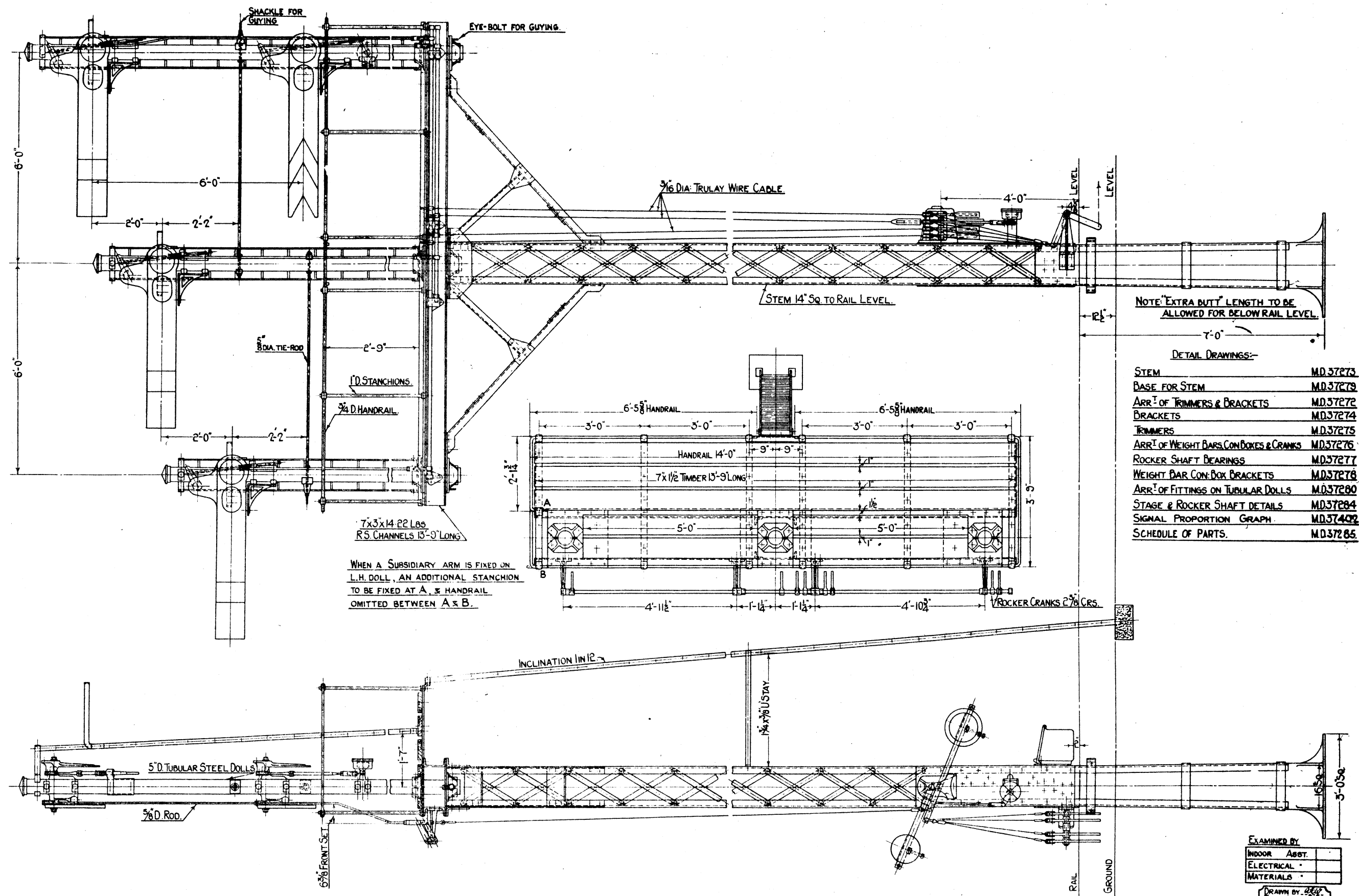
L.M.S.
 STD 2-DOLL SEMAPHORE BRACKET SIGNAL.
 GENERAL ARRANGEMENT

EXAMINED BY	
INDOOR ASST.	
ELECTRICAL	
MATERIALS	

DRAWN BY	W.M.
TRACED BY	F.M.
CHECKED BY	W.M.

LONDON MIDLAND & SCOTTISH RAILWAY CO.
 SIGNAL AND TELEGRAPH
 ENGINEER'S OFFICE
 EUSTON L.M.S.I.

PLAN NO. M.D. 37281
 PLAN DATE 14-8-37
 DATE ISSUED



L.M.S.
 STD. 3-DOLL SEMAPHORE BRACKET SIGNAL.
 GENERAL ARRANGEMENT.
 SCALE 3/4" = 1' 0"

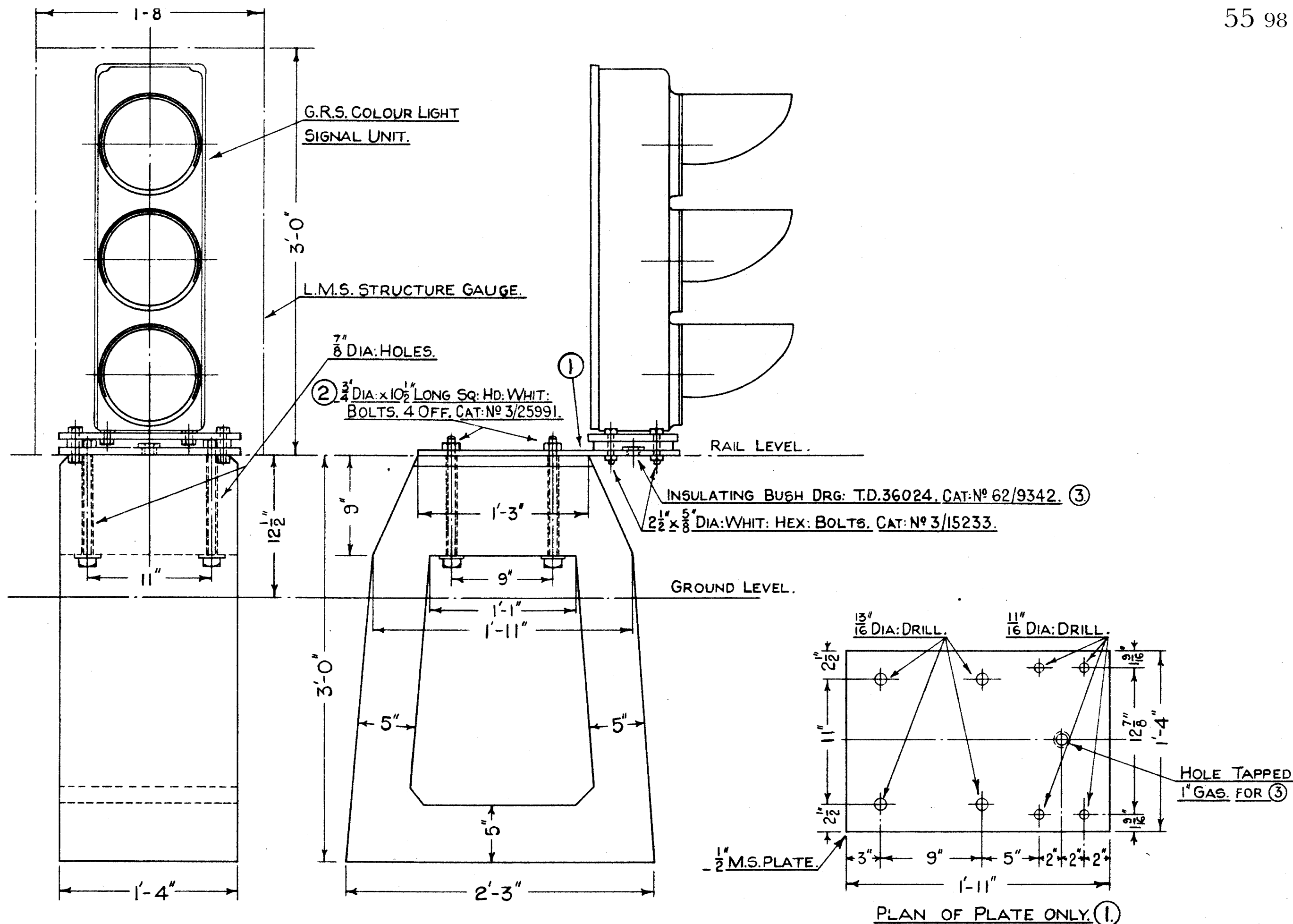
COPY OF STANDARD
 DRAWING SIGNED BY
 THE SIGNAL &
 TELEGRAPH ENGINEER
 CHIEF DRAUGHTSMAN

EXAMINED BY
 INDOOR ASST.
 ELECTRICAL
 MATERIALS

DRAWN BY 222
 TRACED BY 222
 CHECKED BY 222

LONDON MIDLAND & SCOTLAND RAILWAY CO.
 SIGNAL & TELEGRAPH
 ENGINEER'S OFFICE
 EUSTON, L.M.S.I.

PLAN NO. MD.37282
 PLAN DATE 14-8-37
 DATE ISSUED



CONCRETE BASE. APPROX 700 LBS.
CAT: N° 4/3733.

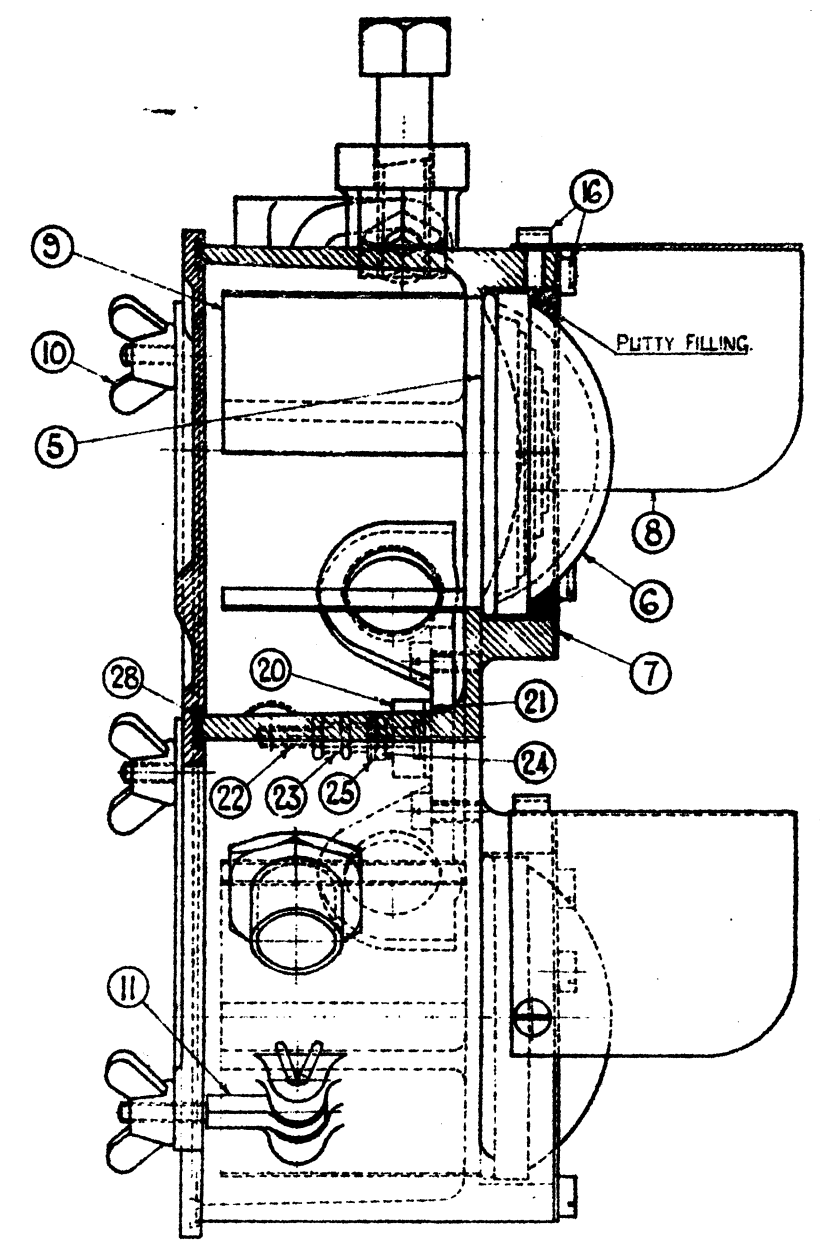
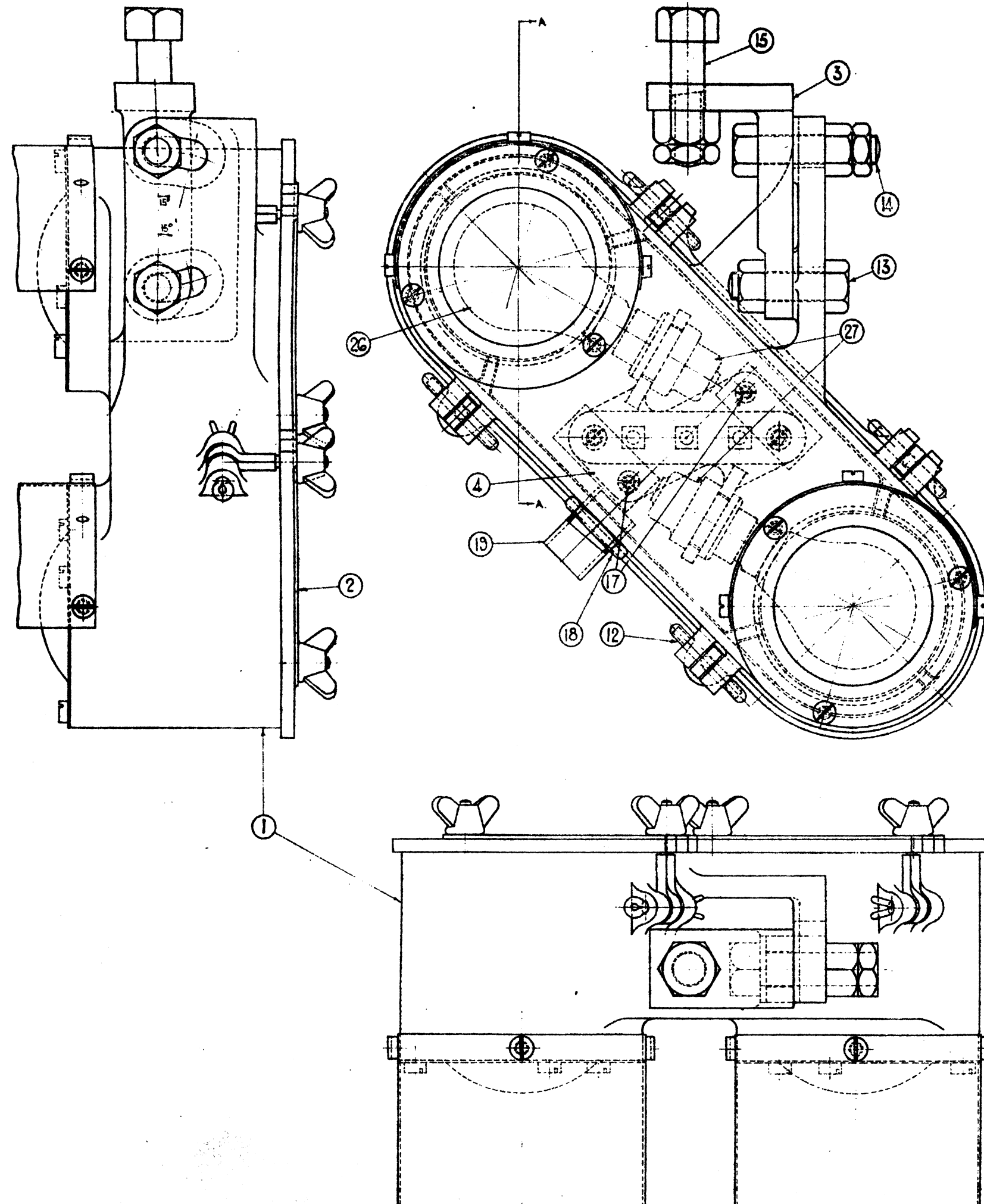
3 ASPECT COLOUR LIGHT DISTANT SIGNAL
FOR ERECTION IN 6 FT. WAY.
SCALE: 1 1/2" TO 1 FT.

CONCRETE BASE
AMENDED 17-12-40.

EXAMINED BY:	
INDOOR ASST	7/2/40
ELECTRICAL "	7/2/40
MATERIALS "	

DRAWN BY:	7/2/40
TRACED BY:	KB
CHECKED BY:	7/2/40

L.M.S. RAILWAY COMPANY.
SIGNAL & TELEGRAPH ENG ^{CS}
OFFICE. EUSTON. L.M.S.I.
PLAN N° MD.37299.
PLAN DATE. 24-6-37.



SECTION 'AA'

UNIT SUPPLIED COMPLETE TO CAT. 66/12862

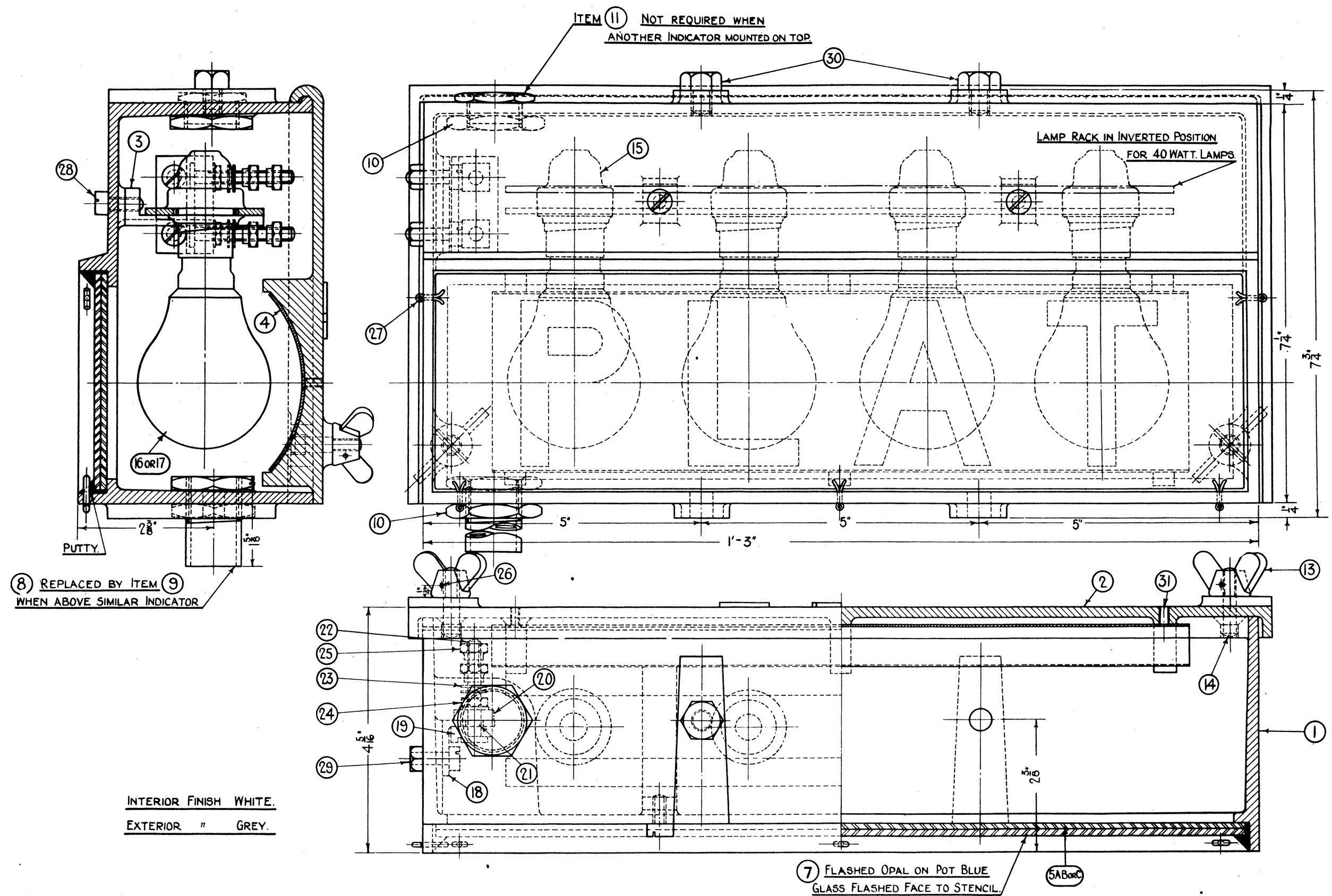
L.M.S. SUBSIDIARY POSITION LIGHT SIGNAL

4 SHEETS SHEET 1.
FOR SCHEDULE OF PARTS SEE DRG.
No PD.37009 SHEET 4.

EXAMINED BY	INDOOR	ABST.	EW.
ELECTRICAL			
MATERIALS			
DRAWN BY	AB.		
TRACED BY	F.M.		
CHECKED BY	J.W.		

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF BRILLIANTMAN.

SIGNAL AND TELEGRAPH
ENGINEER'S OFFICE.
EUSTON L.M.S.I.
PLAN No. PD.37009
PLAN DATE 9-11-57
DATE ISSUED



L. M. S.
ILLUMINATED WORD INDICATOR.
FULL SIZE.

EXAMINED BY	
INDOOR ASST.	28/2
ELECTRICAL "	28/2
MATERIALS "	28/2

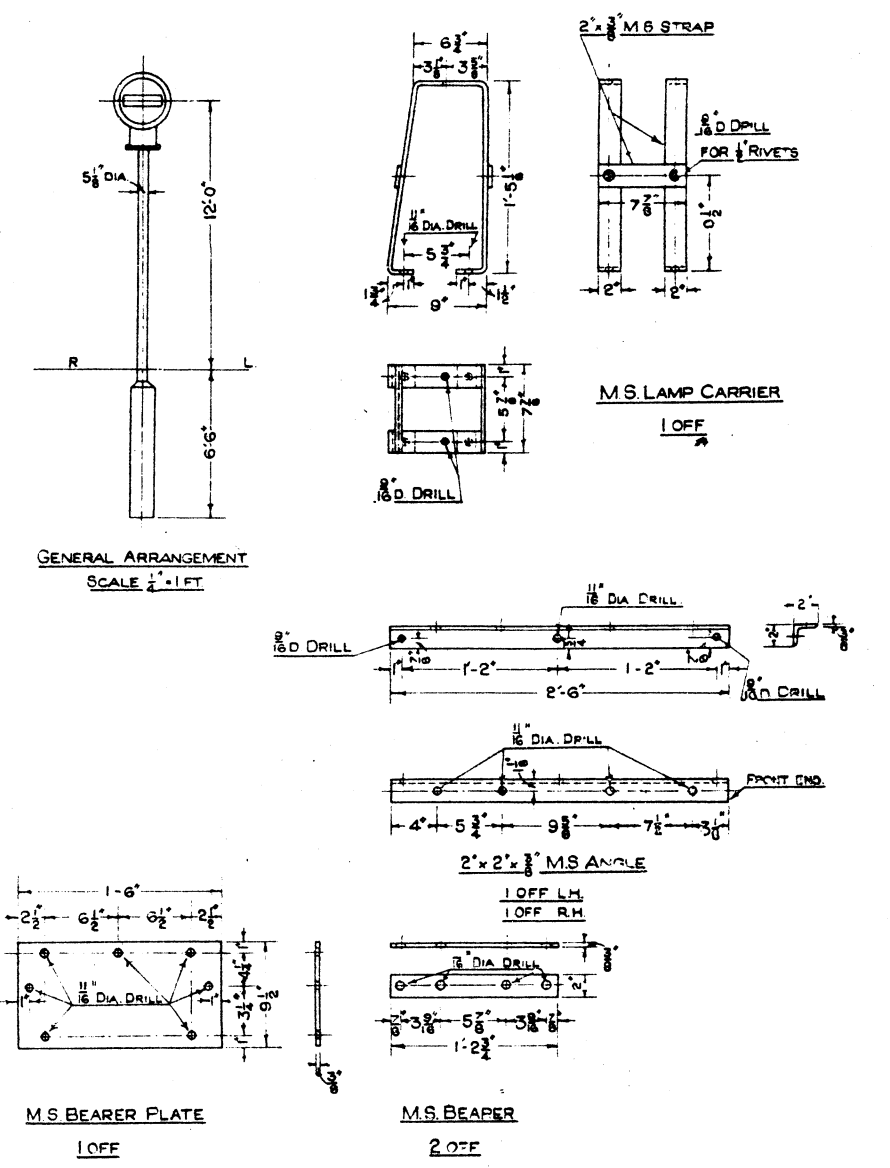
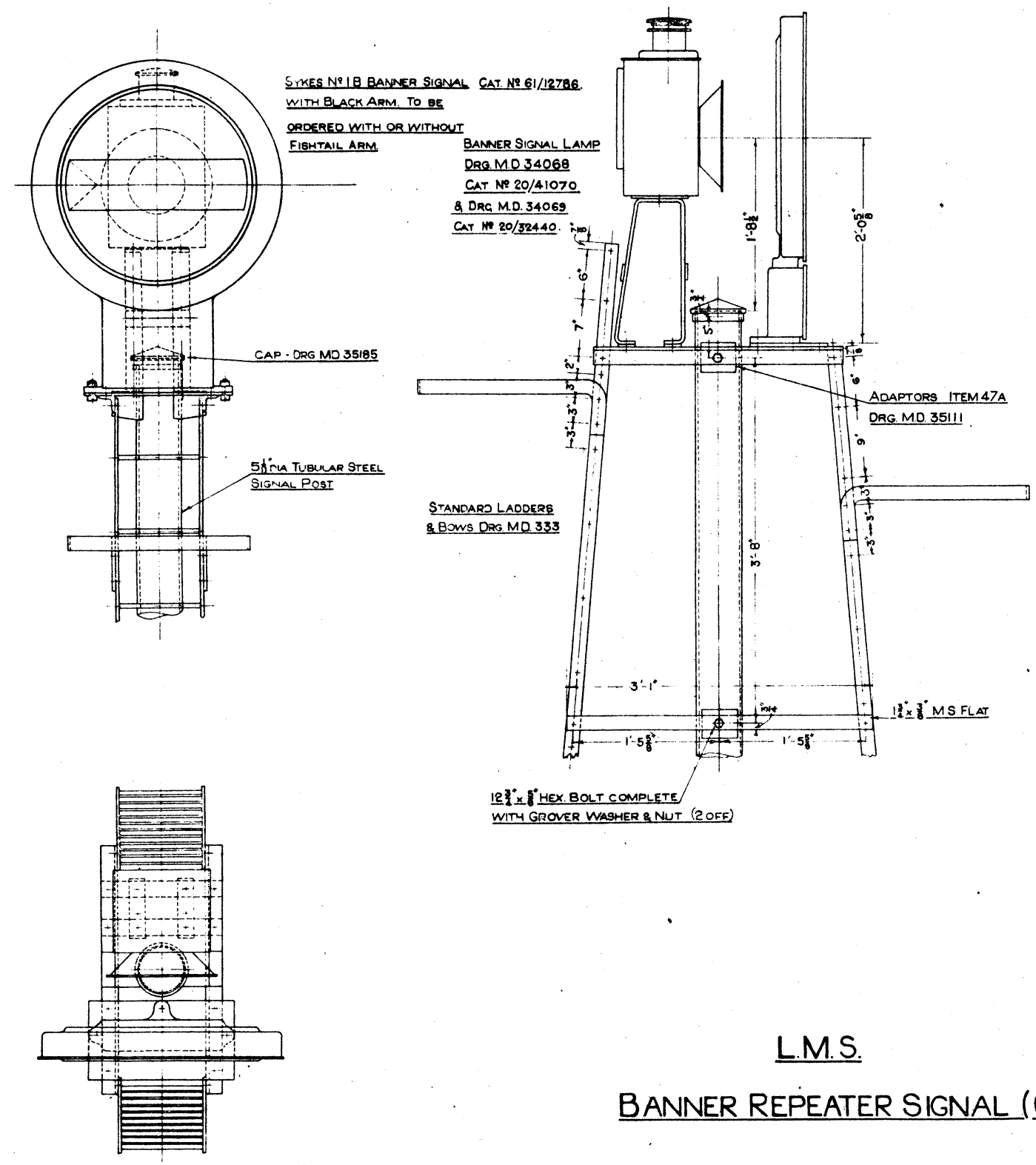
COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN

DRAWN BY	28/2
TRACED BY	28/2
CHECKED BY	28/2

LONDON MIDLAND & SCOTTISH RAILWAY CO
SIGNAL AND TELEGRAPH
ENGINEER'S OFFICE
EUSTON L.M.S.I.

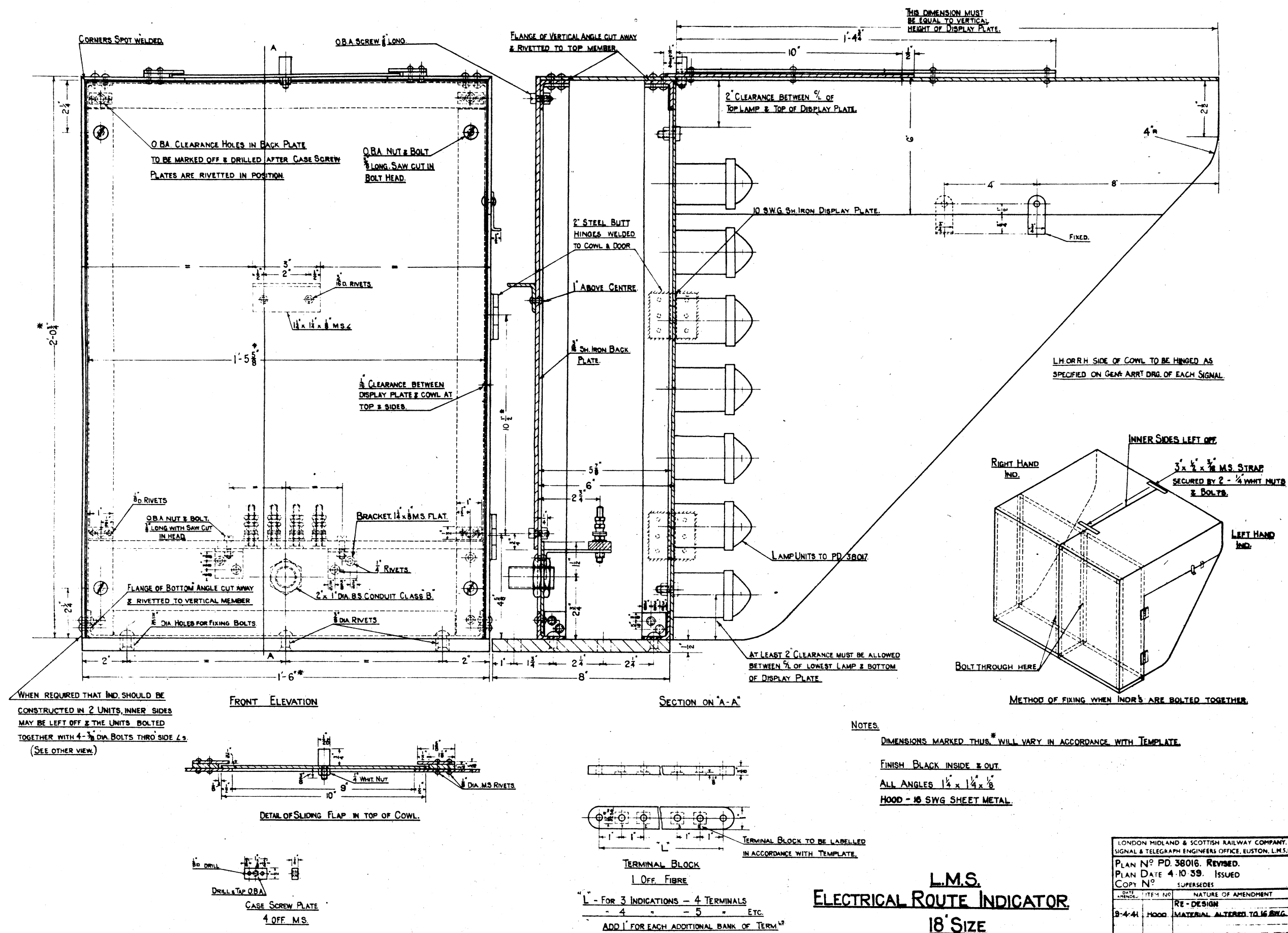
4 SHEETS SHEET 1.

PLAN No PD.37010
PLAN DATE 30-4-36
DATE ISSUED

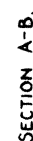


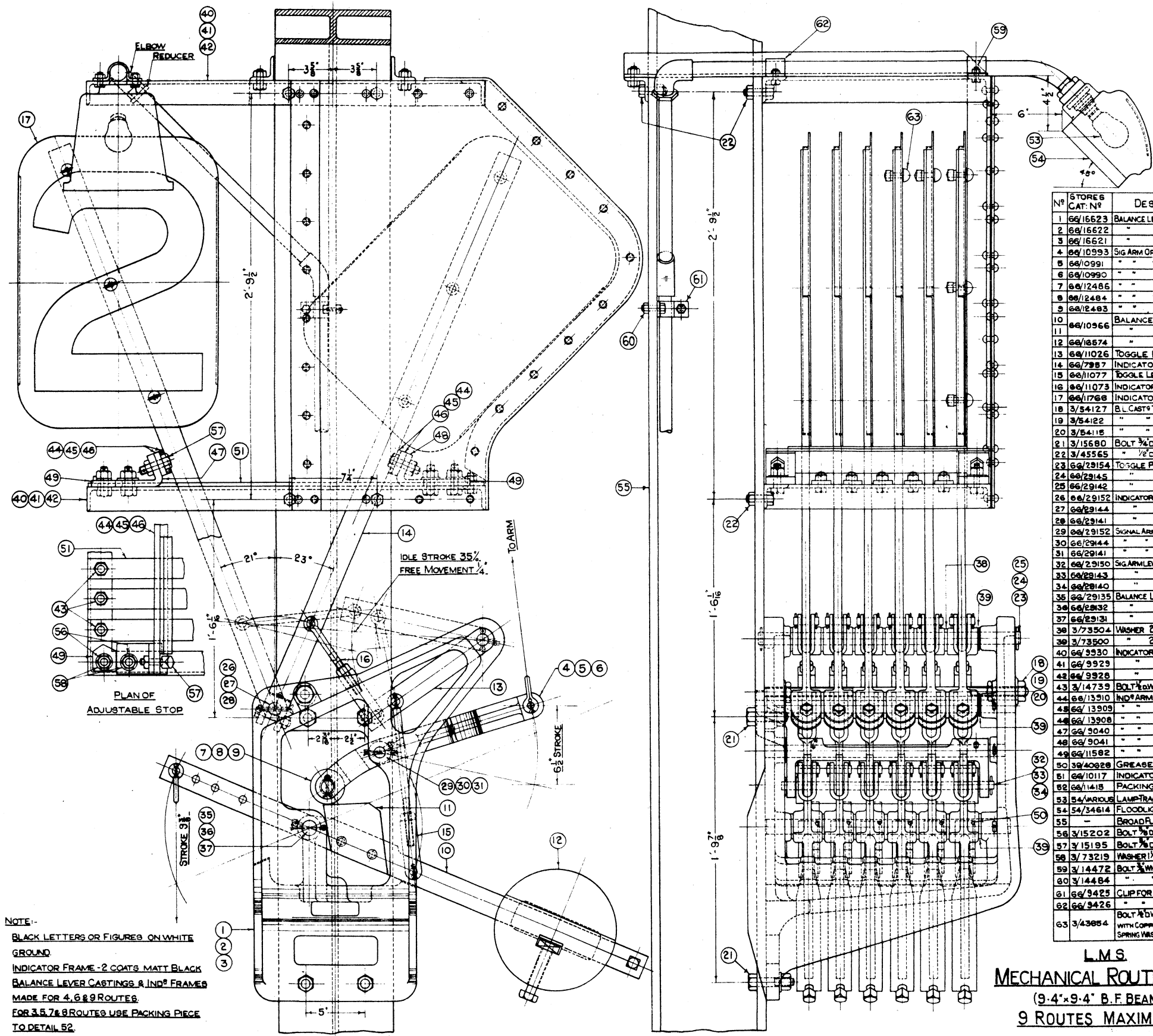
L.M.S.
BANNER REPEATER SIGNAL (OIL-LIT)

LONDON & LANCASHIRE STEEL WORKS COMPANY SHEET METAL & TUBE DIVISION			
PLAN N MD 38411 SHEET OF SHEETS			
PLAN DATE 2-12-38 ISSUED			
COPY NO. 1			
NATURE OF AMENDMENT			
2-2-42	BANNER FIXING HOLE CENTRES INCREASED FROM 3 1/2" TO 4 1/2"		
DESIGNED BY	INDOOR ASST. ENG.	DRAWN BY	WJW
CHECKED BY	ELECTRICAL	TRACED BY	WJW



LONDON MIDLAND & SCOTTISH RAILWAY COMPANY			
SIGNAL & TELEGRAPH ENGINEERS OFFICE, EUSTON, L.M.			
PLAN N° PD. 38016. REVISED.			
PLAN DATE 4-10-39. ISSUED			
COPY N°		SUPERSEDES	
ITEM NO		NATURE OF AMENDMENT	
8-4-41		RE-DESIGN	
HOOD		MATERIAL ALTERED TO 16 SW	
F. MACHINE		INDOOR ASST	
FF		ELECTRICAL	
D.G. SH. MACHINE		MATERIALS	
FF. FLY WINDSH		DRAWN BY A	
RED. FLY COPPER		TRACED BY A	
		CHECKED BY A	
		DRAWER 55 N° 135	

[illegible]



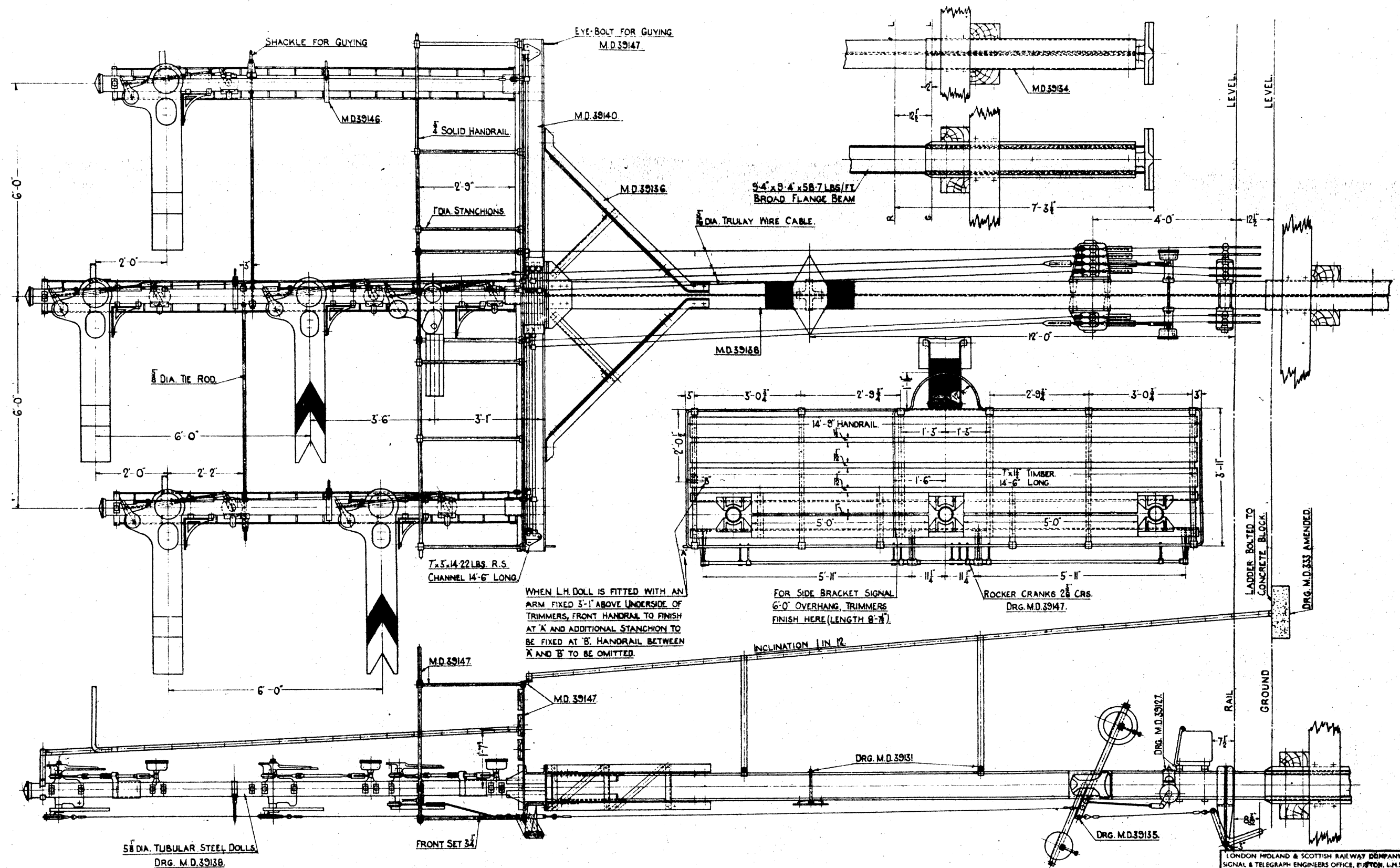
NOTE:-
BLACK LETTERS OR FIGURES ON WHITE GROUND
INDICATOR FRAME - 2 COATS MATT BLACK
BALANCE LEVER CASTINGS & IND⁹ FRAMES
MADE FOR 4, 6 & 9 ROUTES
FOR 3, 5, 7 & 8 ROUTES USE PACKING PIECE
TO DETAIL 52.

3 ROUTES COMPLETE CAT. N° 66/10570		
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-

N°	STORES	DESCRIPTION	MAT.	N° REQ.	REMARKS	APPR.	SPECIFICATION	B.S.I.	L.M.S.	SHEET
1	66/15623	BALANCE LEVER CAST ⁹ 9 ROUTE	C.I.	1			321	GRADE A		SHEET 2
2	66/15622	" " " " " 6 "	"	1						
3	66/15621	" " " " " 4 "	"	1						
4	66/10993	SIG ARM OPER ⁹ LEVER 9 "	STEEL	1			REP 24			
5	66/10991	" " " " " 6 "	CAST ⁹	1			PART 4			
6	66/10990	" " " " " 4 "	"	1			SPEC. 10			
7	66/12486	" " " " " ROLLER 9 "	C.I.	1			321	GRADE A		
8	66/12484	" " " " " 6 "	"	1						
9	66/12483	" " " " " 4 "	"	1						
10	66/10966	BALANCE LEVER	M.S.	1						
11	66/10966	" " " " " CAM	M.S.	1						
12	66/10574	" " " " " WEIGHT	C.I.	1						
13	66/11026	TOGGLE LEVER	M.S.	1						
14	66/7987	INDICATOR ARM	M.S.	1						
15	66/11077	TOGGLE LEVER ADJ ⁹ LINK	M.S.	1						
16	66/11073	INDICATOR ARM LINK	M.S.	1						
17	66/11768	INDICATOR PLATE	M.S.	1						
18	3/54127	B.L. CAST ⁹ TIE BOLT 9 ROUTE	"	1						
19	3/54122	" " " " " 6 "	M.S.	1						
20	3/54118	" " " " " 4 "	"	1						
21	3/15690	BOLT 3/4" DIA. WHIT-2 1/2"	M.S.	4						
22	3/45565	" 1/2" DIA. 1 1/2" SCREW FOR	M.S.	9						
23	66/29154	TOGGLE PIN 9 ROUTE	M.S.	1						
24	66/29145	" " " " " 6 "	BR. DR.	1						
25	66/29142	" " " " " 4 "	"	1						
26	66/29152	INDICATOR ARM PIN 9 ROUTE	M.S.	1						
27	66/29144	" " " " " 6 "	BR. DR.	1						
28	66/29141	" " " " " 4 "	"	1						
29	66/29152	SIGNAL ARM LEVER PIN 9 ROUTE	M.S.	1						
30	66/29144	" " " " " 6 "	BR. DR.	1						
31	66/29141	" " " " " 4 "	"	1						
32	66/29150	SIG ARM LEVER ROLLER PIN 9 "	M.S.	1						
33	66/29143	" " " " " 4 "	BR. DR.	1						
34	66/29140	" " " " " 4 "	"	1						
35	66/29135	BALANCE LEVER PIN 9 "	M.S.	1						
36	66/29132	" " " " " 6 "	BR. DR.	1						
37	66/29131	" " " " " 4 "	"	1						
38	3/73504	WASHER 2" DIA. x 3/4"	M.S.	1						
39	3/73500	" 2" DIA. x 1/2"	M.S.	6						
40	66/3930	INDICATOR FRAME 9 ROUTE	"	1						
41	66/3929	" " " " " 6 "	M.S.	1						
42	66/3928	" " " " " 4 "	"	1						
43	3/14739	BOLT 3/4" DIA. WHIT-1 1/2" SCREW FOR 3/4"	M.S.	1						
44	66/13310	INDICATOR STOP 9 ROUTE	M.S.	1						
45	66/13309	" " " " " 6 "	"	1						
46	66/13308	" " " " " 4 "	"	1						
47	66/3040	" " " " " BRACKET L.H.	M.S.	2						
48	66/3041	" " " " " R.H.	"	2						
49	66/11592	" " " " " ADJUST ⁹ PLATE	M.S.	4						
50	39/40828	GREASE NIPPLE	"	1						
51	66/10117	INDICATOR ARM GUIDE	M.S.	1						
52	66/1418	PACKING PIECE	M.S.	1						
53	54/34614	FLOODLIGHT UNIT S.G.E.	"	1						
54	54/34614	" " " " " S.G.E.	"	1						
55	-	BROAD FLANGE BEAM 3-4 x 3-4	"	1						
56	3/15202	BOLT 3/4" DIA. WHIT-2 1/2" SCREW FOR 3/4"	M.S.	1						
57	3/15195	BOLT 3/4" DIA. WHIT-2 1/2" SCREW FOR 3/4"	M.S.	1						
58	3/73219	WASHER 1 1/2" DIA. x 1/2" THICK	M.S.	8						
59	3/14472	BOLT 3/4" DIA. WHIT-1 1/2" SCREW FOR 3/4"	M.S.	1						
60	3/14484	" " " " " 1 1/2"	"	1						
61	66/3425	CLIP FOR CONDUIT (1' DIA.)	"	2						
62	66/3426	" " " " " 1 1/2"	"	2						
63	3/43854	BOLT 3/4" DIA. WHIT-2 1/2" SCREW FOR 3/4"	M.S.	1						

L.M.S.
MECHANICAL ROUTE IND⁹
(9'4" x 9'4" B.F. BEAM).
9 ROUTES MAXIMUM.

LONDON MIDLAND & SCOTTISH RAILWAY COMPANY.
SIGNAL & TELEGRAPH ENGINEERS' OFFICE, EUSTON, L.M.S.
PLAN N° MD.39159 SHEET 1 OF 3
PLAN DATE 28-2-39 ISSUED
COPY N° SUPERSEDES MD.36243
NATURE OF AMENDMENT
11-4-40 10 LEVER STRENGTHENED
14-5-40 16 LINK MADE ADJUSTABLE
DRAWN BY J.M.
CHECKED BY J.M.
DRAWER 55 N° 148



WHEN L.H. DOLL IS FITTED WITH AN
ARM FIXED 3'-1" ABOVE UNDERSIDE OF
TRIMMERS, FRONT HANDRAIL TO FINISH
AT 'A' AND ADDITIONAL STANCHION TO
BE FIXED AT 'B'. HANDRAIL BETWEEN
'A' AND 'B' TO BE OMITTED.

FOR SIDE BRACKET SIGNAL
6'-0" OVERHANG, TRIMMERS
FINISH HERE (LENGTH 8'-7").

ROCKER CRANKS 2³/₈ CRS.
DRG. M.D. 39147.

LADDER BOLTED TO
CONCRETE BLOCK.

DRG. M.D.333 AMENDED.

FOR SCHEDULE OF PARTS SEE M.D. 39137.

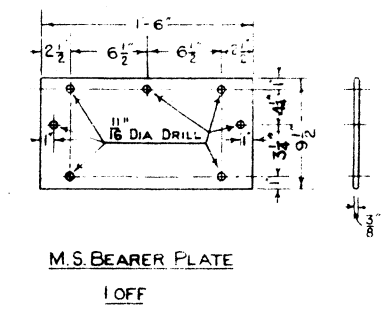
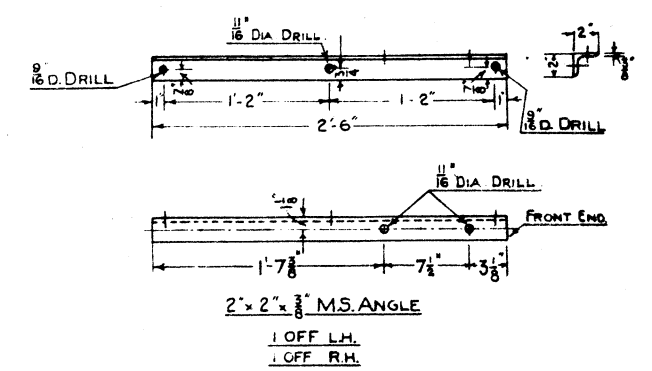
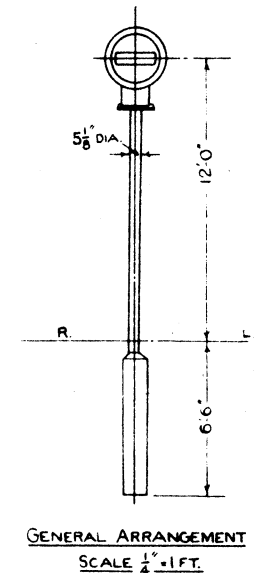
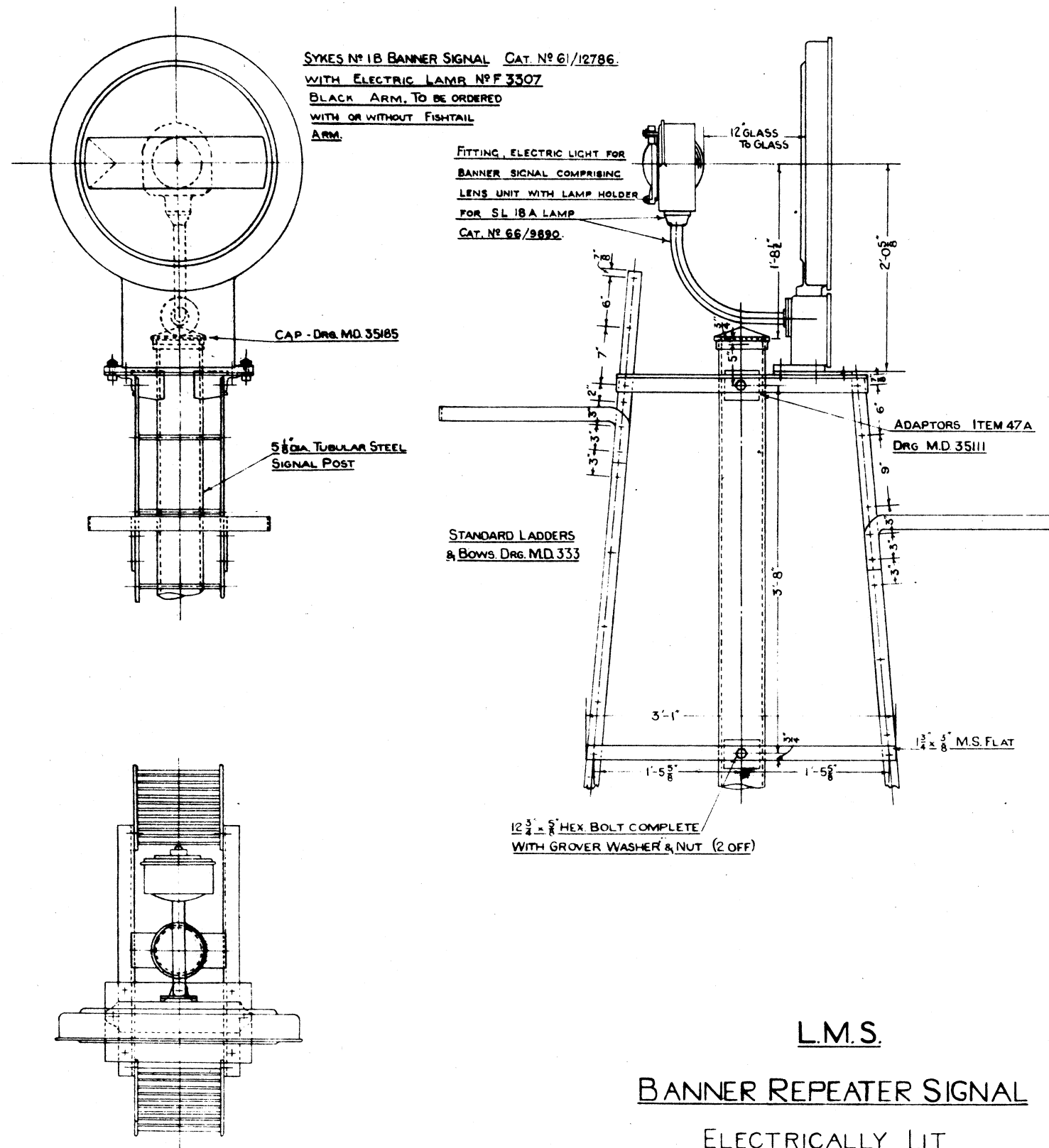
L.M.S.

3 DOLL BROAD FLANGE BEAM BRACKET SIGNAL.

[illegible]



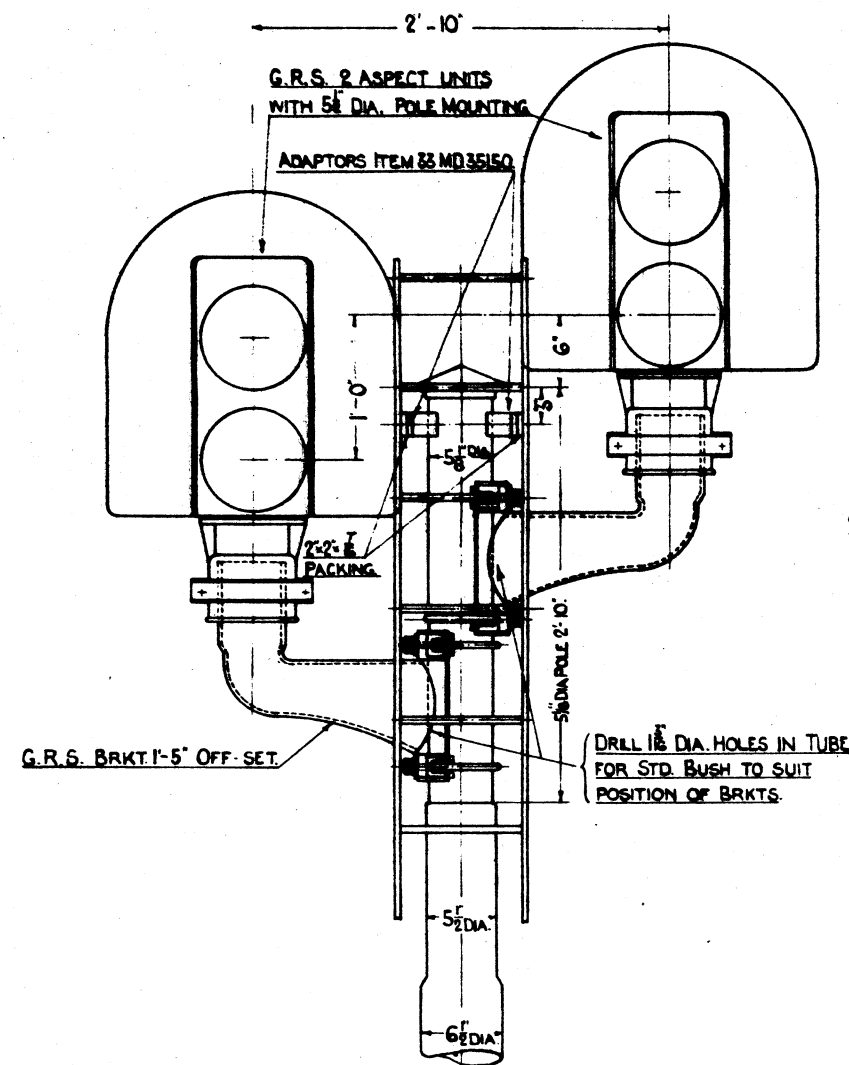
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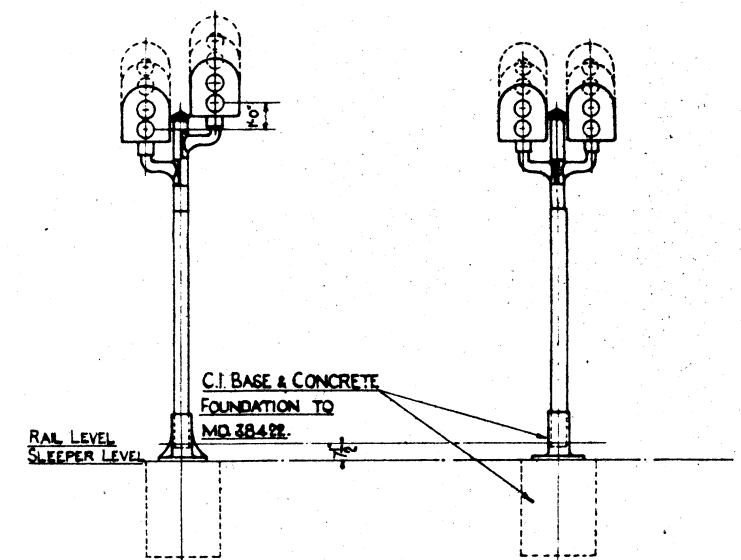
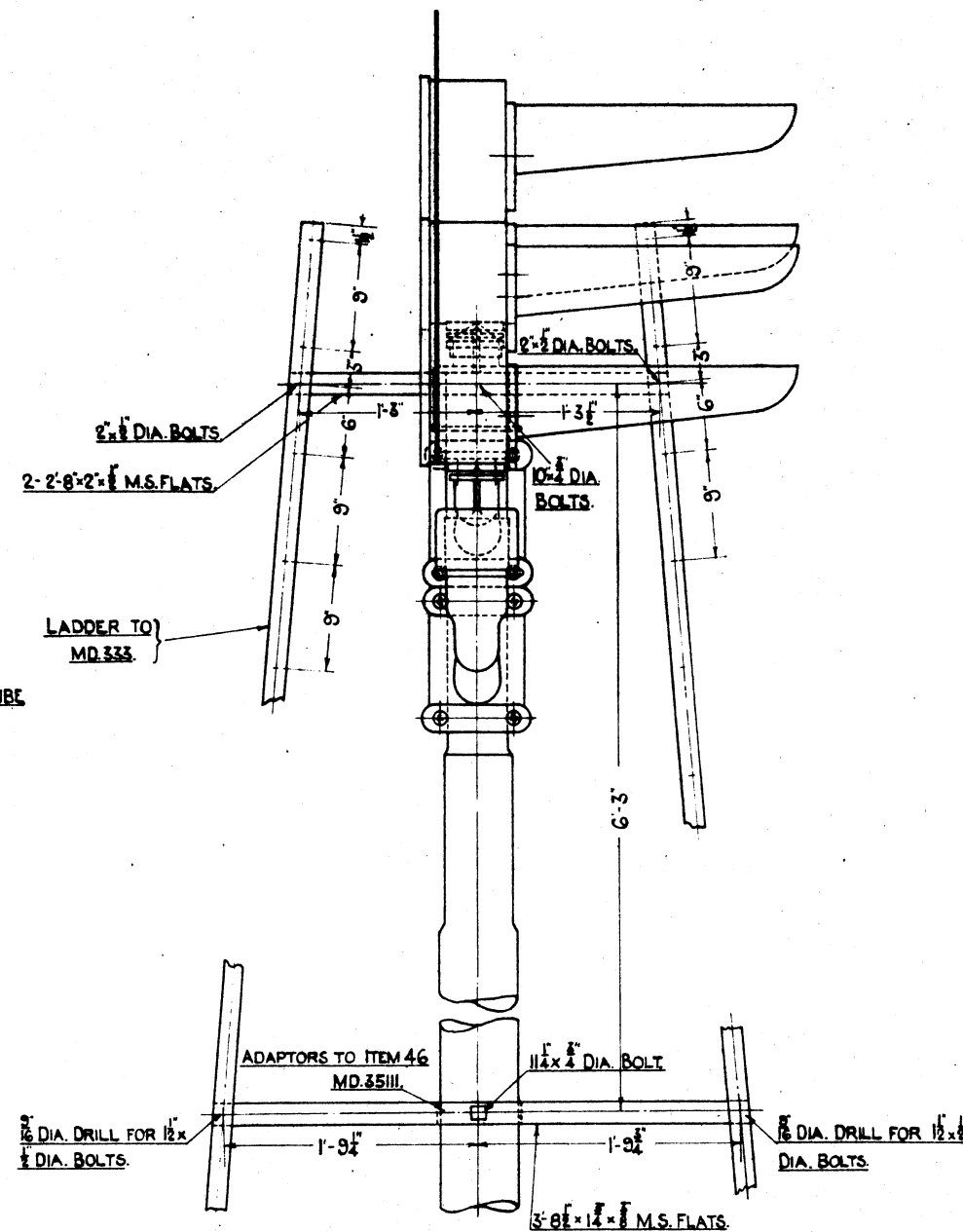
L.M.S.
 BANNER REPEATER SIGNAL
 ELECTRICALLY LIT

LONDON MIDLAND & SCOTTISH RAILWAY COMPANY. SIGNAL & TELEGRAPH ENGINEERS OFFICE, EUSTON, L.M.S.I.			
PLAN N° M.D. 39270 SHEET OF SHEETS			
PLAN DATE 10-7-39 ISSUED			
COPY N° SUPERSEDES			
DATE AMENDED	ITEM N°	NATURE OF AMENDMENT	
2-2-42		BANNER FIXING HOLE CENTRES INCREASED FROM 3 1/8" TO 4 1/8"	

[illegible]



N.B. - FOR EACH ADDITIONAL ASPECT ADD AN EXTRA
LADDER RUNG ABOVE TOP STRAP TO FORE
& AFT LADDERS.



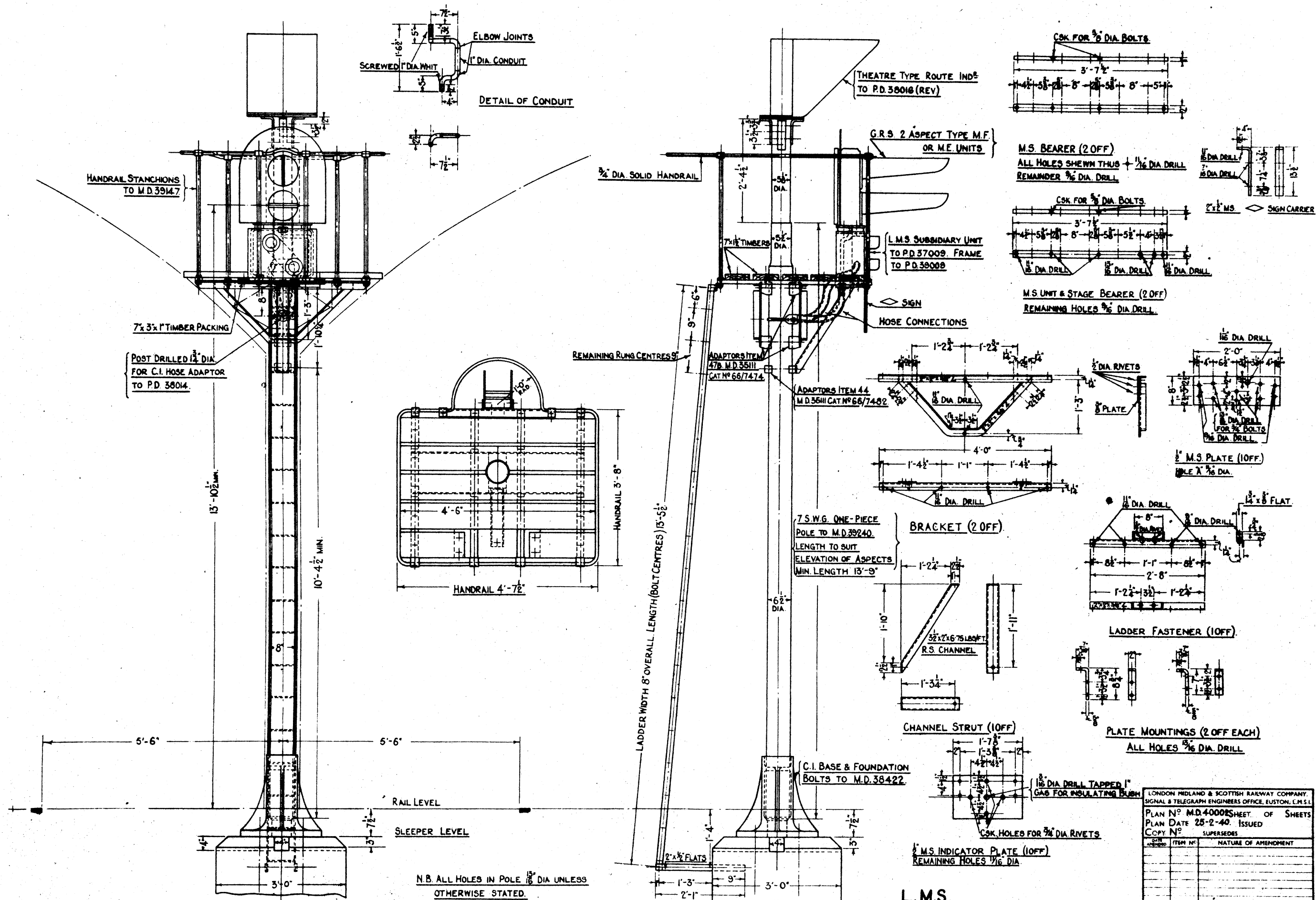
TYPICAL PROFILES FOR WHICH LARGE SCALE
ARR^T IS APPLICABLE
SCALE: - $\frac{1}{4}$ = 1 FOOT.

L.M.S.

COLOUR LIGHT BRACKET SIGNAL (EQUAL SIDED).

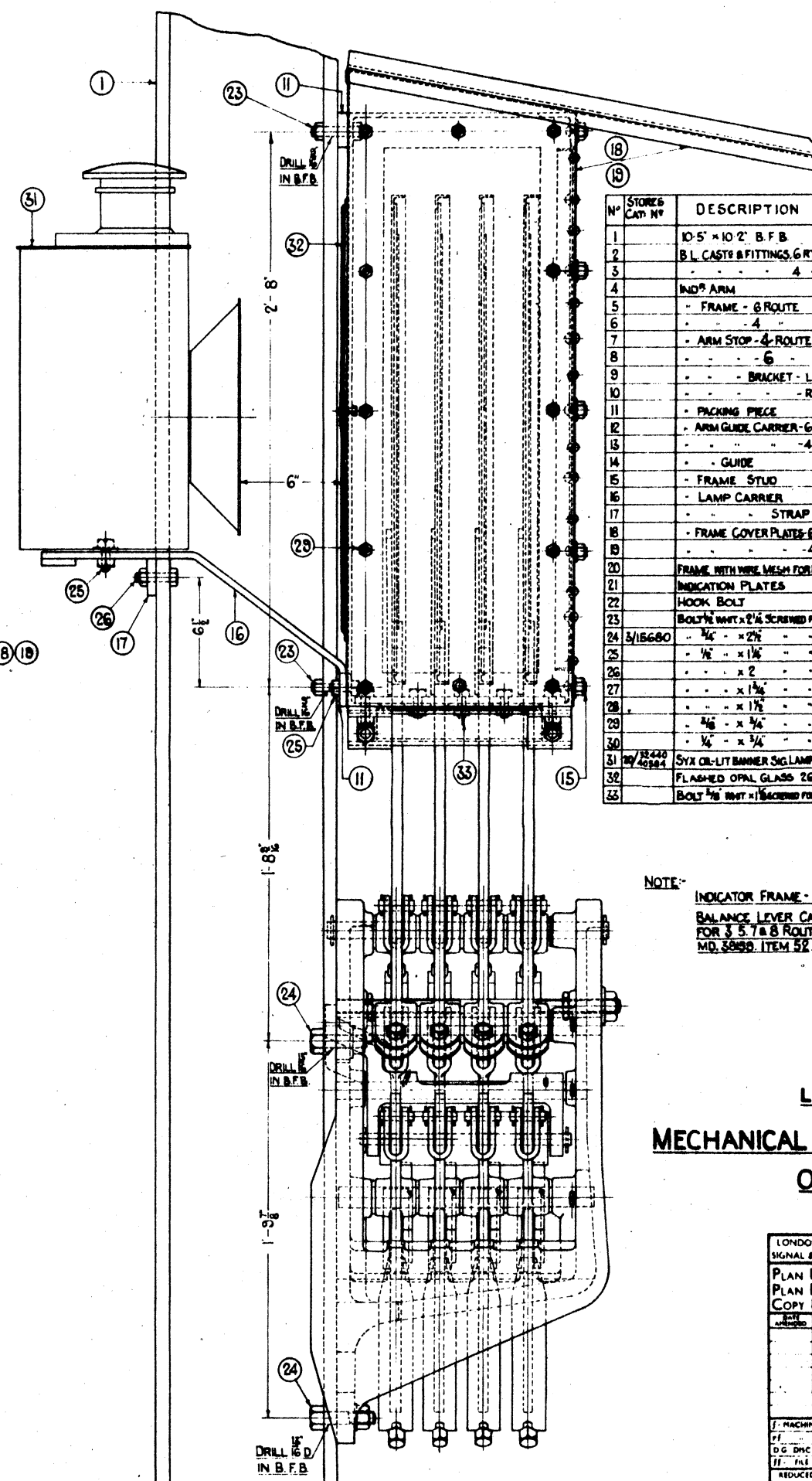
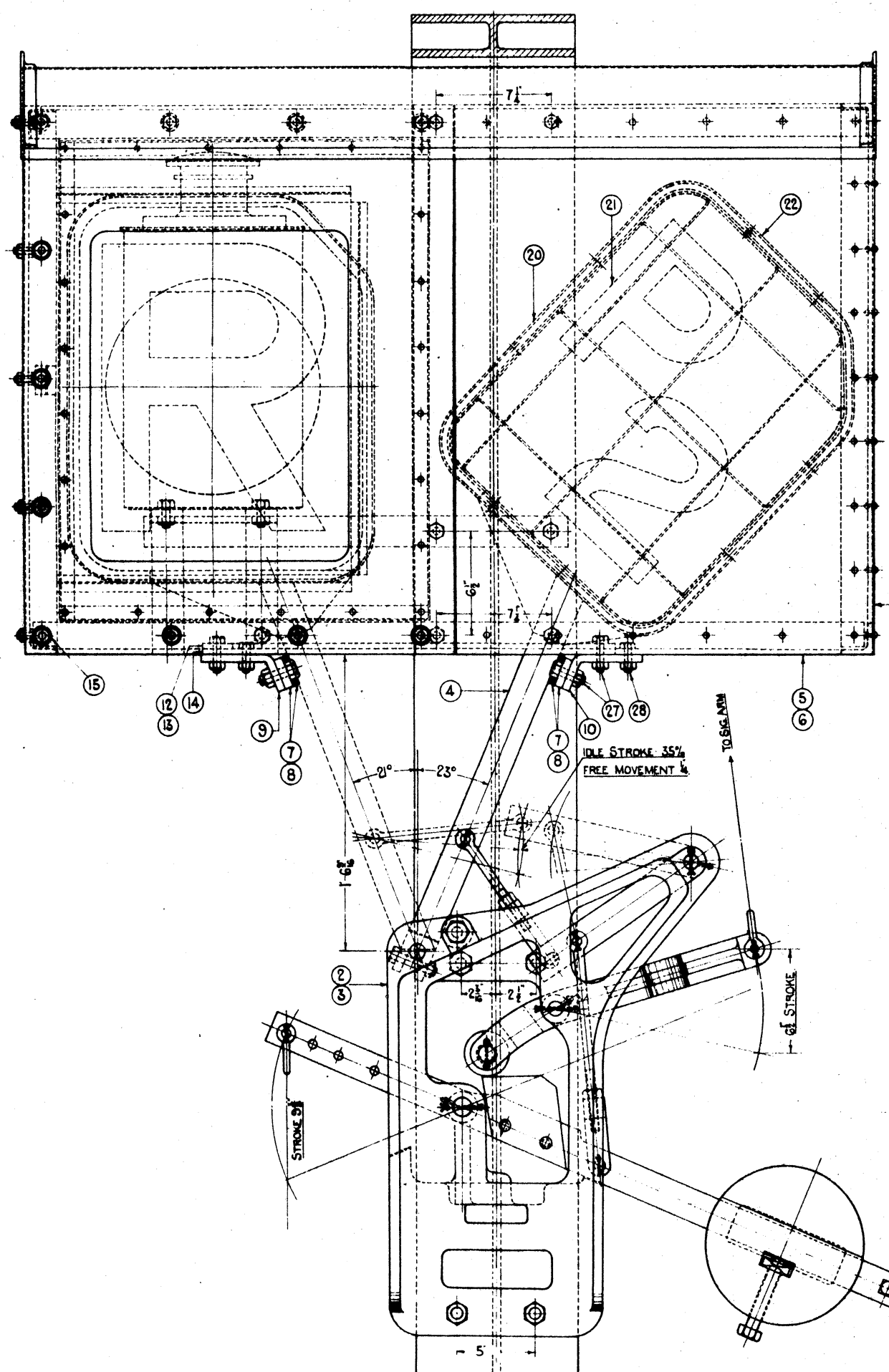
FOR TYPE M.F. OR M.E. (G.R.S) UNITS.

[illegible]



 L.M.S.
STD.COLOUR LIGHT SIGNAL WITH SUBSIDIARY
SIGNAL & THEATRE TYPE ROUTE IND^S ON TUBULAR POLE.

[illegible]



N° STORES CAT. N°	DESCRIPTION	MAT.	N° REQ.	REMARKS	APP. N°	B.S.I. SPEC.	SHEET N°
1	10'5" x 10'2" B.F.B.		1	TOMD 3065			-
2	B.L. CASTS & FITTINGS, G.R.T.E.		1	EXCEPT ITEM 14			-
3	- - - - - 4 -		1	REPLACES ITEM 14 ABOVE			4
4	IND. ARM	M.S.	1	2' x 2' x 1/4" & WELDED JOINTS		15	2
5	- FRAME - 8 ROUTE	M.S.	1			15	2
6	- - - - - 4 -		1			15	2
7	- ARM STOP - 4 ROUTE	M.S.	2	SUPPLIED BY T.B. ANDERSON RUBBER COY		15	2
8	- - - - - 6 -		2			15	2
9	- BRACKET - L.H.P.	M.S.	2	BENT AT 60°		15	2
10	- - - - - R.H.P.	M.S.	2	BENT AT 67°		15	2
11	- PACKING PIECE	M.S.	2			15	2
12	- ARM GUIDE CARRIER - G.R.T.E.	M.S.	2			15	2
13	- - - - - 4 R.T.E.		2			15	2
14	- GUIDE	M.S.	2			15	2
15	- FRAME STUD	M.S.	11	WITH HELIX NUT		15	2
16	- LAMP CARRIER	M.S.	1			15	2
17	- STRAP	M.S.	1			15	2
18	- FRAME COVER PLATE - G.R.T.E.	M.S.	1			15	3
19	- - - - - 4 -		1			15	3
20	FRAME WITH WIRE MESH FORMING INDICATION PLATES		1	INDICATION PLATES		15	4
21	HOOK BOLT	M.S.	4	WITH HELIX NUT		15	-
22	BOLT 1/2" DIA. x 2" LONG	M.S.	4	WITH HELIX NUT		15	-
23	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
24	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
25	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
26	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
27	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
28	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
29	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
30	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
31	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
32	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-
33	3/16" DIA. x 1/2" LONG	M.S.	4	WITH HELIX NUT		15	-

NOTE:-
INDICATOR FRAME - 2 COATS MATT BLACK.
BALANCE LEVER CASTINGS MADE FOR 4 G.S. ROUTES
FOR 3, 5, 7 & 8 ROUTES USE PACKING PIECE TO DRILL
MD. 3065, ITEM 52.

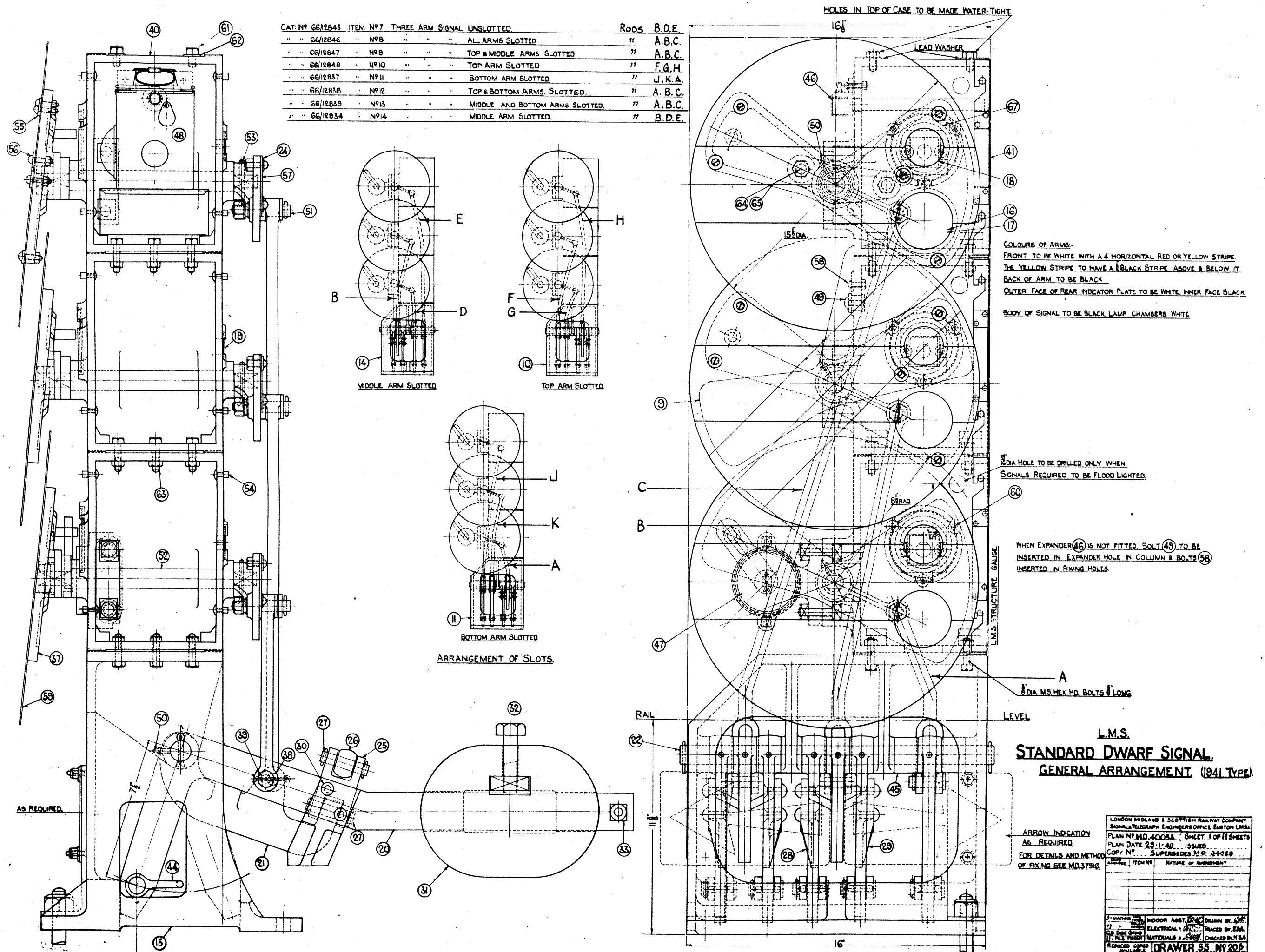
L.M.S.
MECHANICAL ROUTE INDICATOR.
OIL-LIT.

LONDON MIDLAND & SCOTTISH RAILWAY COMPANY.
SIGNAL & TELEGRAPH ENGINEERS' OFFICE, EUSTON, L.M.S.
PLAN N° MD.40257 SHEET 1 OF 4 SHEETS
PLAN DATE 8-11-40 ISSUED
COPY N° SUPERSEDES

ITEM N°	NATURE OF AMENDMENT

REDUCED COPIES NOT AVAILABLE

DRAWN BY *FM*
ELECTRICAL - *FM*
MATERIALS - *FM*
CHECKED BY *FM*
DRAWER 55 N° 202



CAT. No	66/2845	ITEM No	THREE ARM SIGNAL	UNSLOTTED	RODS	B.D.E.
" "	66/2846	" N°8	" " "	ALL ARMS SLOTTED	"	A.B.C.
" "	66/2847	" N°9	" " "	TOP & MIDDLE ARMS SLOTTED	"	A.B.C.
" "	66/2848	" N°10	" " "	TOP ARM SLOTTED	"	F.G.H.
" "	66/2837	" N°11	" " "	BOTTOM ARM SLOTTED	"	J.K.A.
" "	66/2838	" N°12	" " "	TOP & BOTTOM ARMS. SLOTTED.	"	A.B.C.
" "	66/2839	" N°13	" " "	MIDDLE AND BOTTOM ARMS SLOTTED.	"	A.B.C.
" "	66/2834	" N°14	" " "	MIDDLE ARM SLOTTED.	"	B.D.E.

COLOURS OF ARMS:-
FRONT TO BE WHITE WITH A 4" HORIZONTAL RED OR YELLOW STRIPE.
THE YELLOW STRIPE TO HAVE A BLACK STRIPE ABOVE & BELOW IT
BACK OF ARM TO BE BLACK.
OUTER FACE OF REAR INDICATOR PLATE TO BE WHITE, INNER FACE BLACK.
BODY OF SIGNAL TO BE BLACK, LAMP CHAMBERS WHITE.

15
IGDIA HOLE TO BE DRILLED ONLY WHEN
SIGNALS REQUIRED TO BE FLOOD LIGHTED.

WHEN EXPANDER (46) IS NOT FITTED, BOLT (49) TO BE
INSERTED IN EXPANDER HOLE IN COLUMN & BOLTS (58)
INSERTED IN FIXING HOLES.

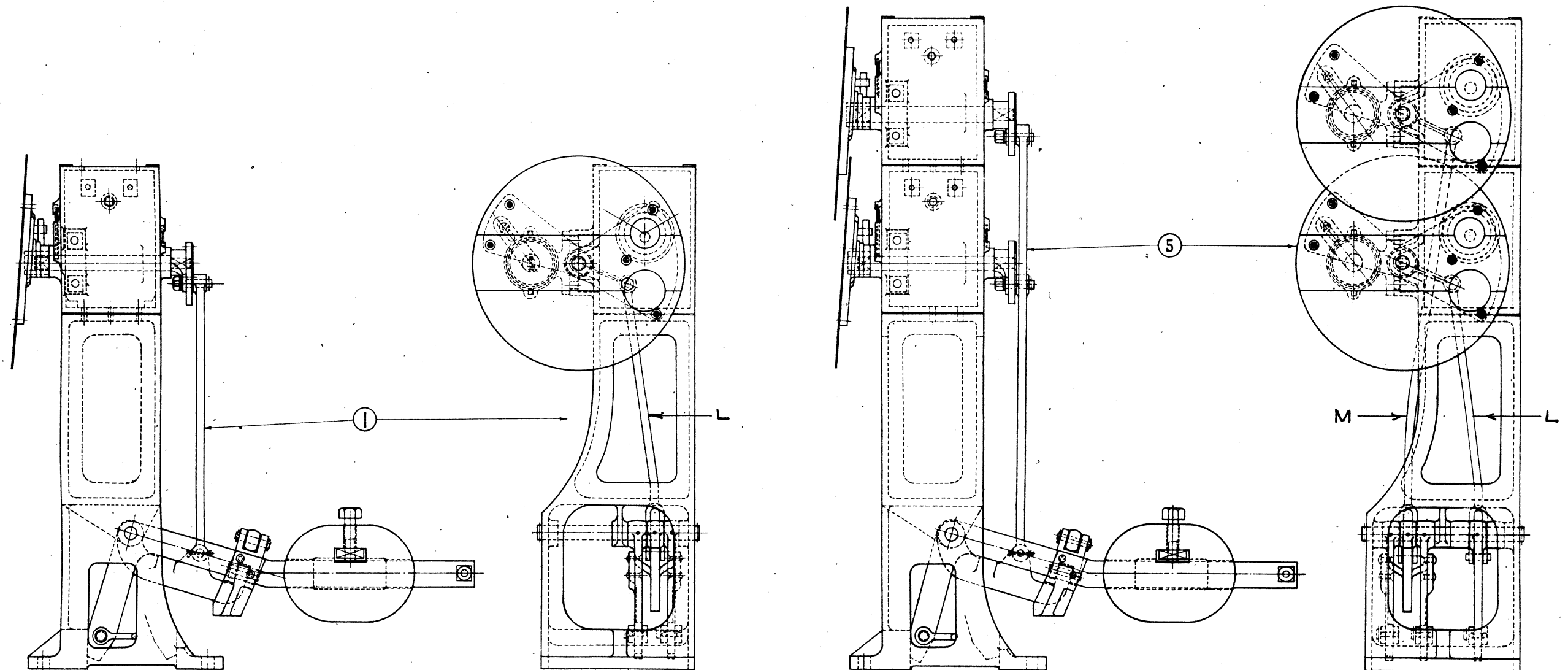
A
8 DIA. M.S. HEX. HD. BOLTS 18 LONG.

L.M.S.
STANDARD DWARF SIGNAL.
GENERAL ARRANGEMENT (1941 TYPE).

← ARROW INDICATION
AS REQUIRED
FOR DETAILS AND METHOD
OF FIXING SEE MD.37516.

[illegible]

CAT: N°	66/12840	ITEM N°1	SINGLE ARM	DWARF	SIGNAL	SLOTTED	RODS	L.
"	66/12841	N°2	"	"	"	UNSLOTTED	"	L.
"	66/12842	N°3	TWO	"	"	BOTH SLOTTED	"	L.M.
"	66/12843	N°4	"	"	"	UNSLOTTED	"	L.M.
"	66/12844	N°5	"	"	"	TOP ARM SLOTTED	"	L.M.
"	66/12849	N°6	"	"	"	BOTTOM SLOTTED	"	L.M.

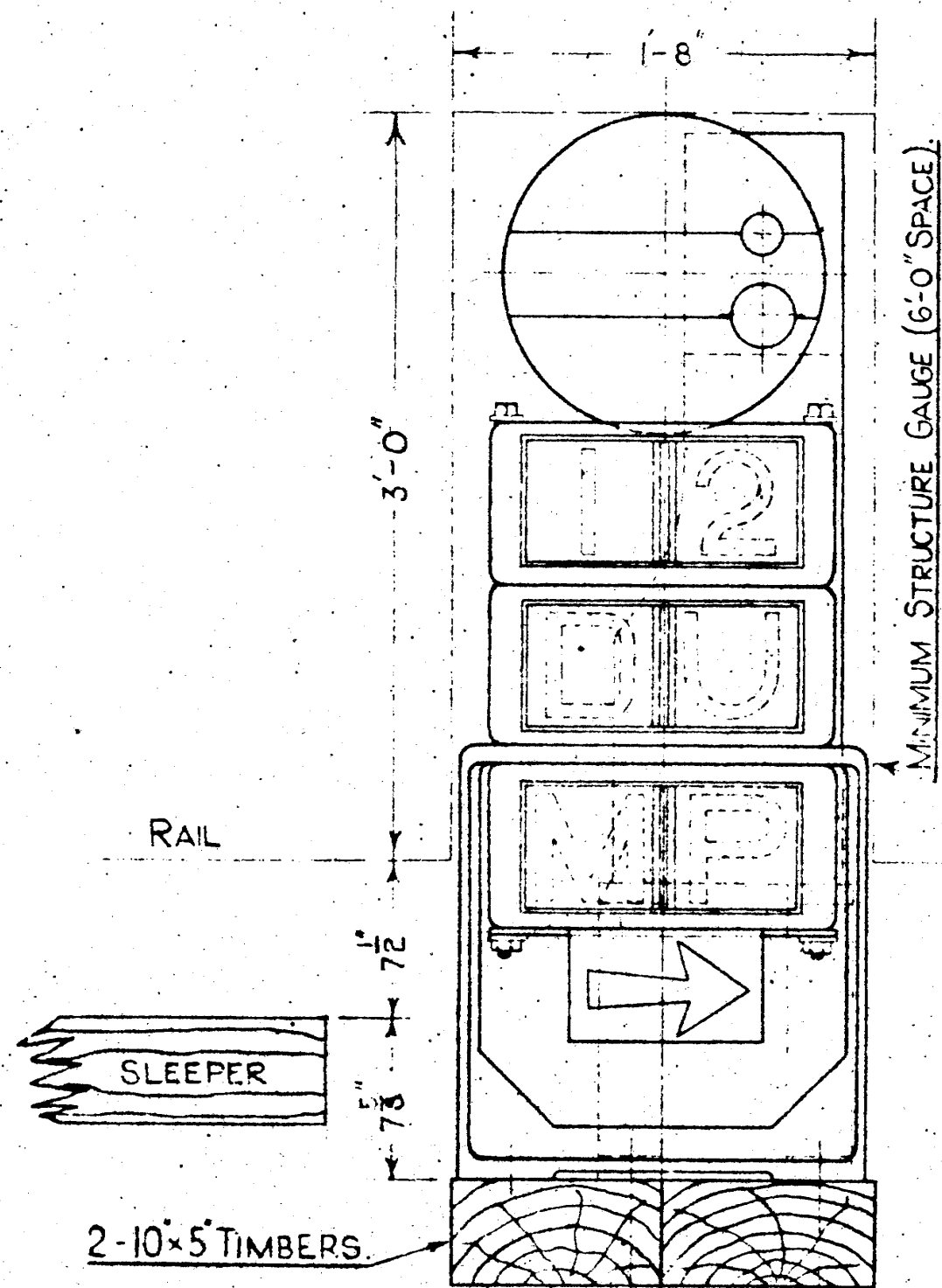


L.M.S.

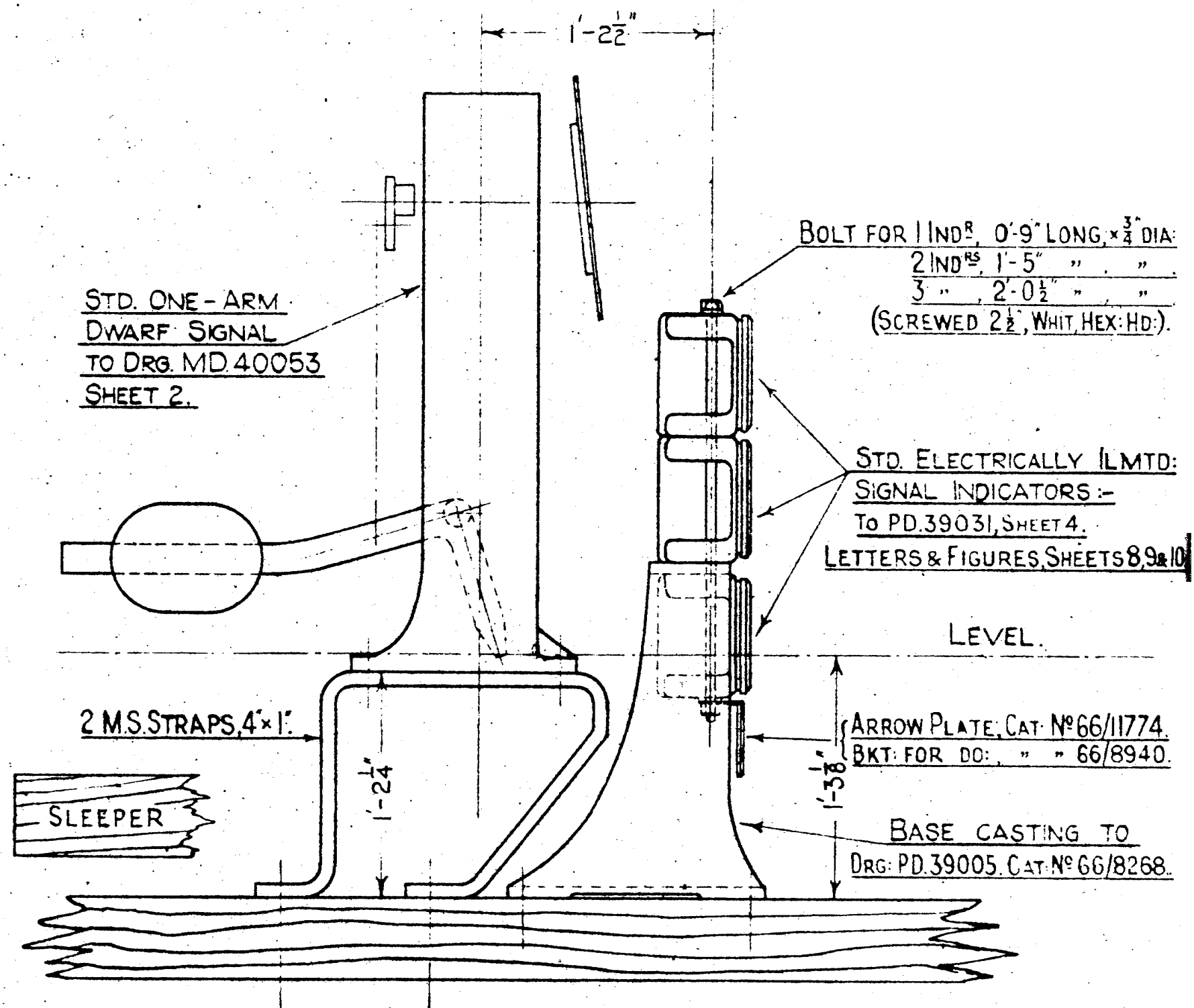
ONE AND TWO ARM DWARF SIGNALS (1941 TYPE.)

ARRANGEMENT OF SLOTS

LONDON MIDLAND & SCOTTISH RAILWAY COMPANY, SIGNAL & TELEGRAPH ENGINEERS OFFICE, EUSTON, L.M.S.I.					
PLAN N ^o M.D.40083 SHEET 2 OF A SHEETS PLAN DATE 27-1-41 ISSUED COPY N ^o SUPERSEDES M D 34029-O					
DATE APPROVED		ITEM NO. NATURE OF AMENDMENT			
I MACHINE AND ELECTRICAL		INDOOR ASST		DRAWN BY <i>[Signature]</i>	
II ELECTRICAL		ELECTRICAL -		TRACED BY P.M.	
III BNC CANN'D		ELECTRICAL -		CHECKED BY <i>[Signature]</i>	
IV TALK WIRING		MATERIALS			
REDUCED COPIES AVAILABLE		DRAWER 55 N ^o 208			

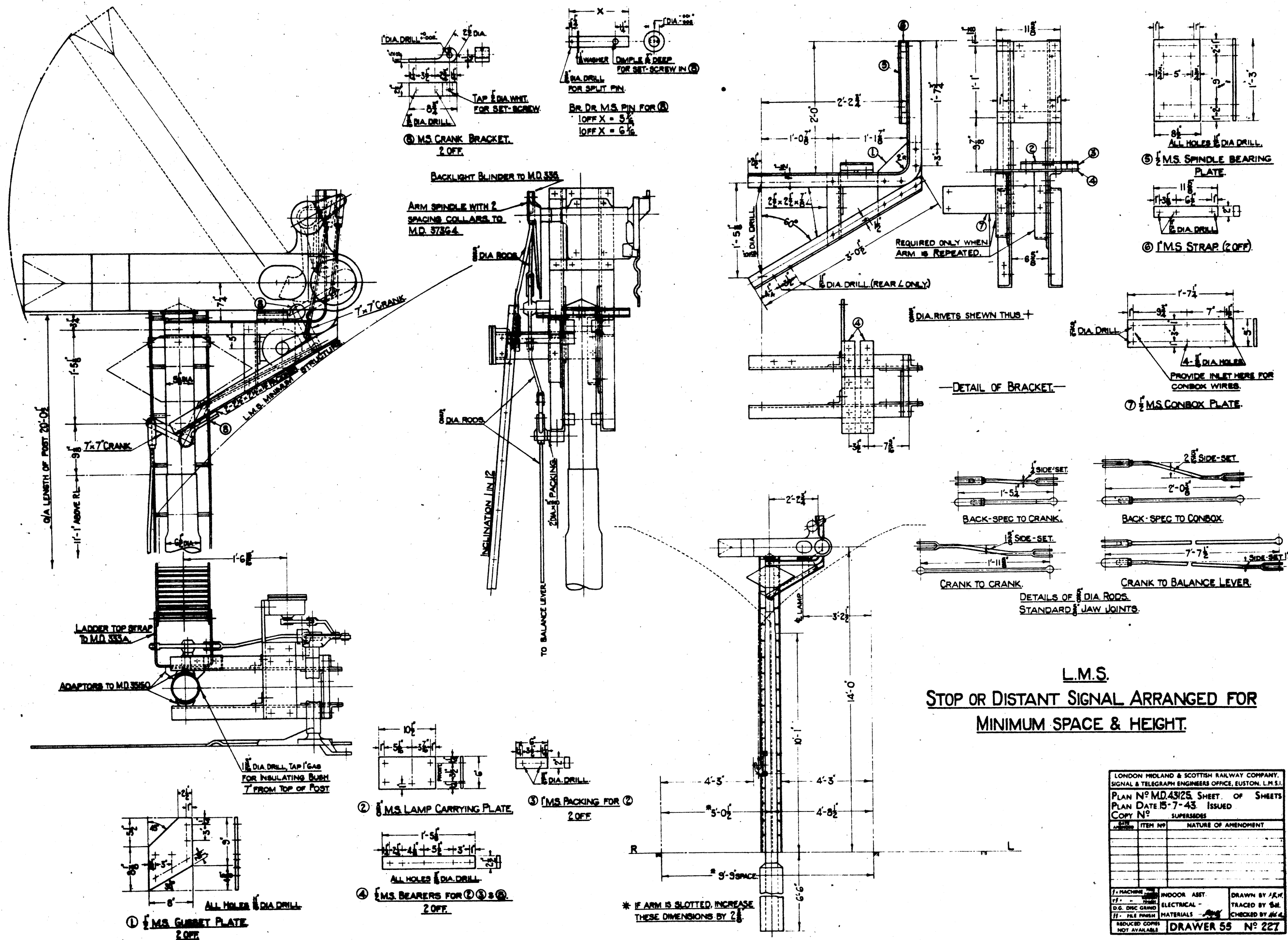


FRONT ELEVATION.

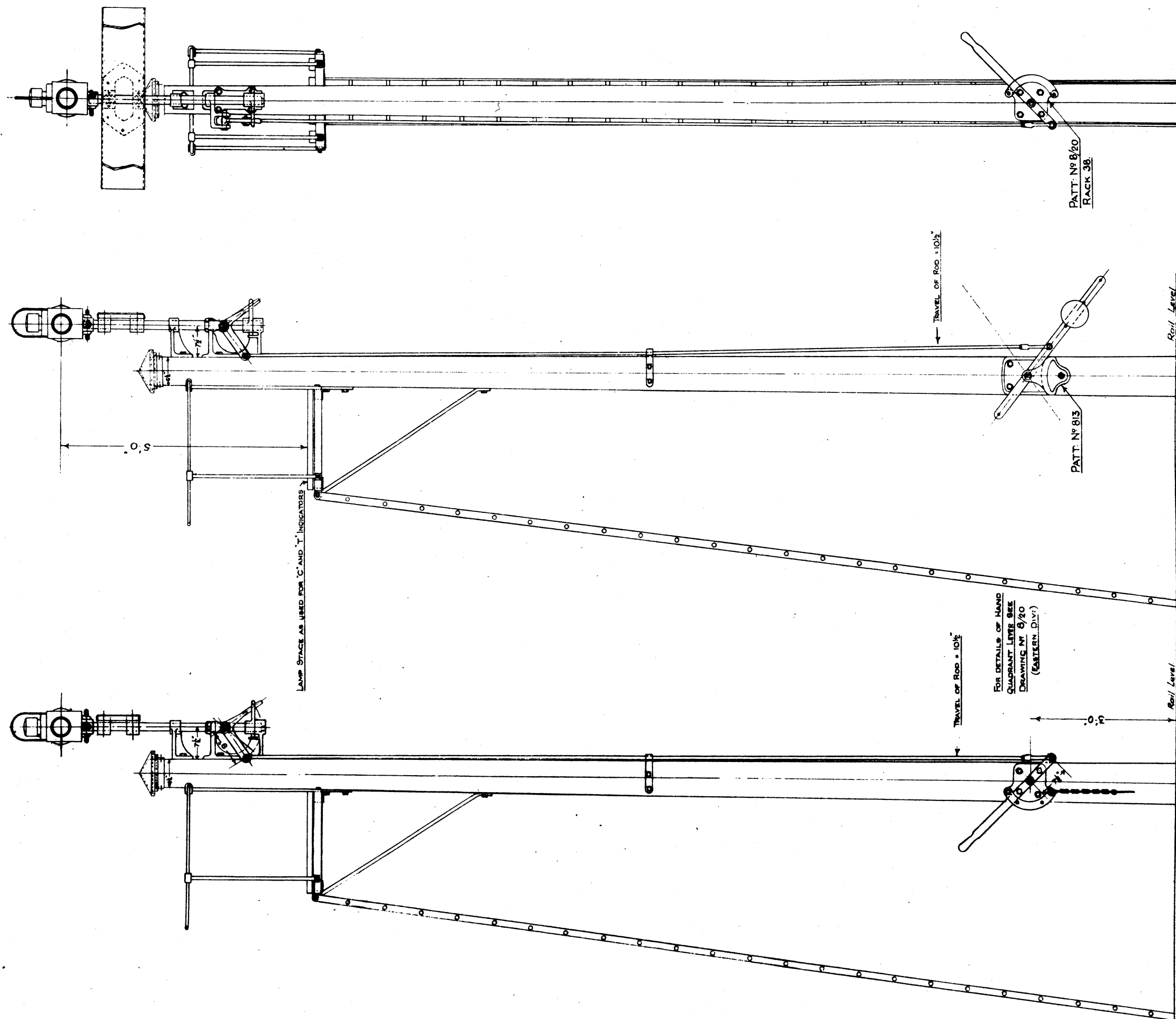


SIDE ELEVATION.

L.M.S.ARRANGEMENT OF MECH: DWARF SIGNAL WITH 6-WAY ELECT: INDICATOR (FIXED IN 6'-0" SPACE)SCALE 1 1/2" = 1'-0"



CROSS BAR SIGNAL.



FRONT ELEVATION
SEWING HAND QUADRANT
LEVER FIXED ON FRONT OF POST

SIDE ELEVATION.
SHOWING BALANCE LEVER
FIXED ON SIDE OF POST

FOR USE AS BLASTING SIGNALS
AND IN DOCK AREA.

SIDE ELEVATION.
CHWING HAND QUADRANT LEVER
FIXED ON SIDE OF POST.

LONDON MIDLAND & SCOTTISH RAILWAY COMPANY.
SIGNAL & TELEGRAPH ENGINEERS OFFICE, EUSTON, L.M.S.

PLAN N° D. 43116 SHEET OF SHEETS

PLAN DATE 14.12.43 ISSUED

COPY N° SUPERSEDES

SHEET AMOUNT	ITEM NO.	NATURE OF AMENDMENT

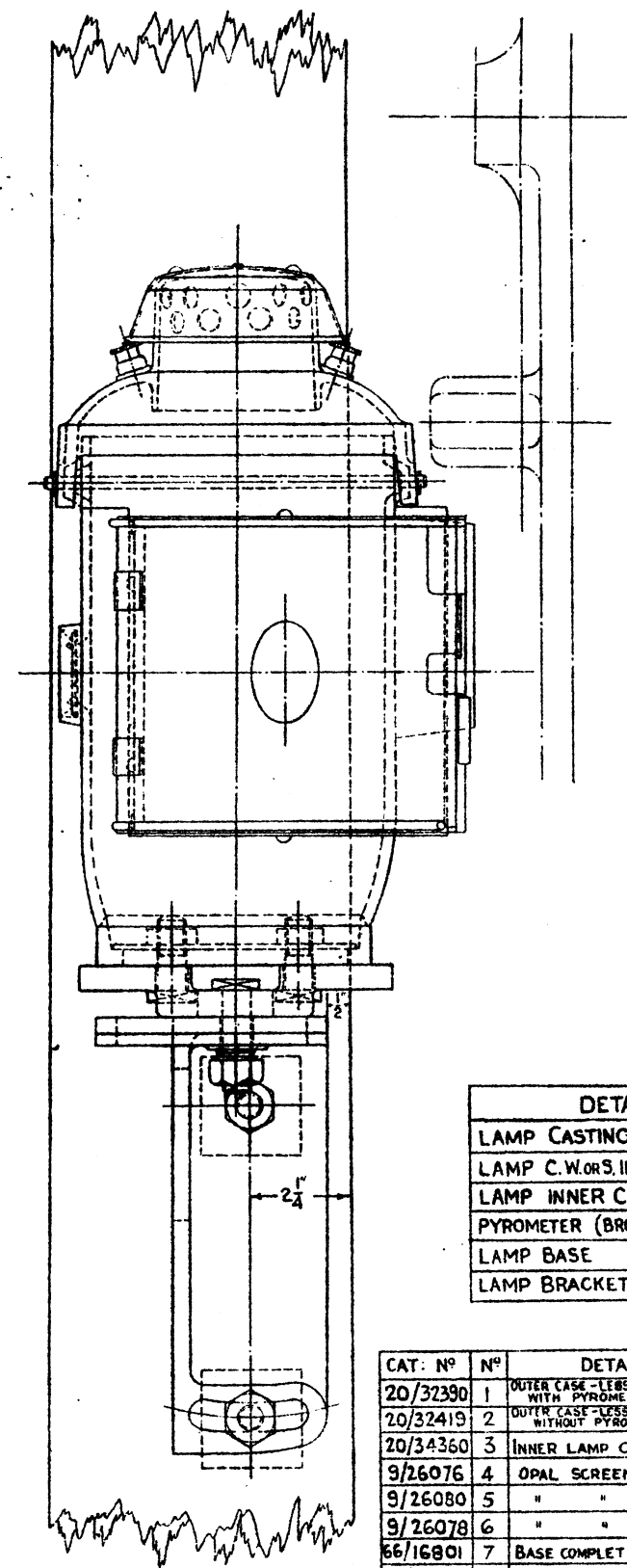
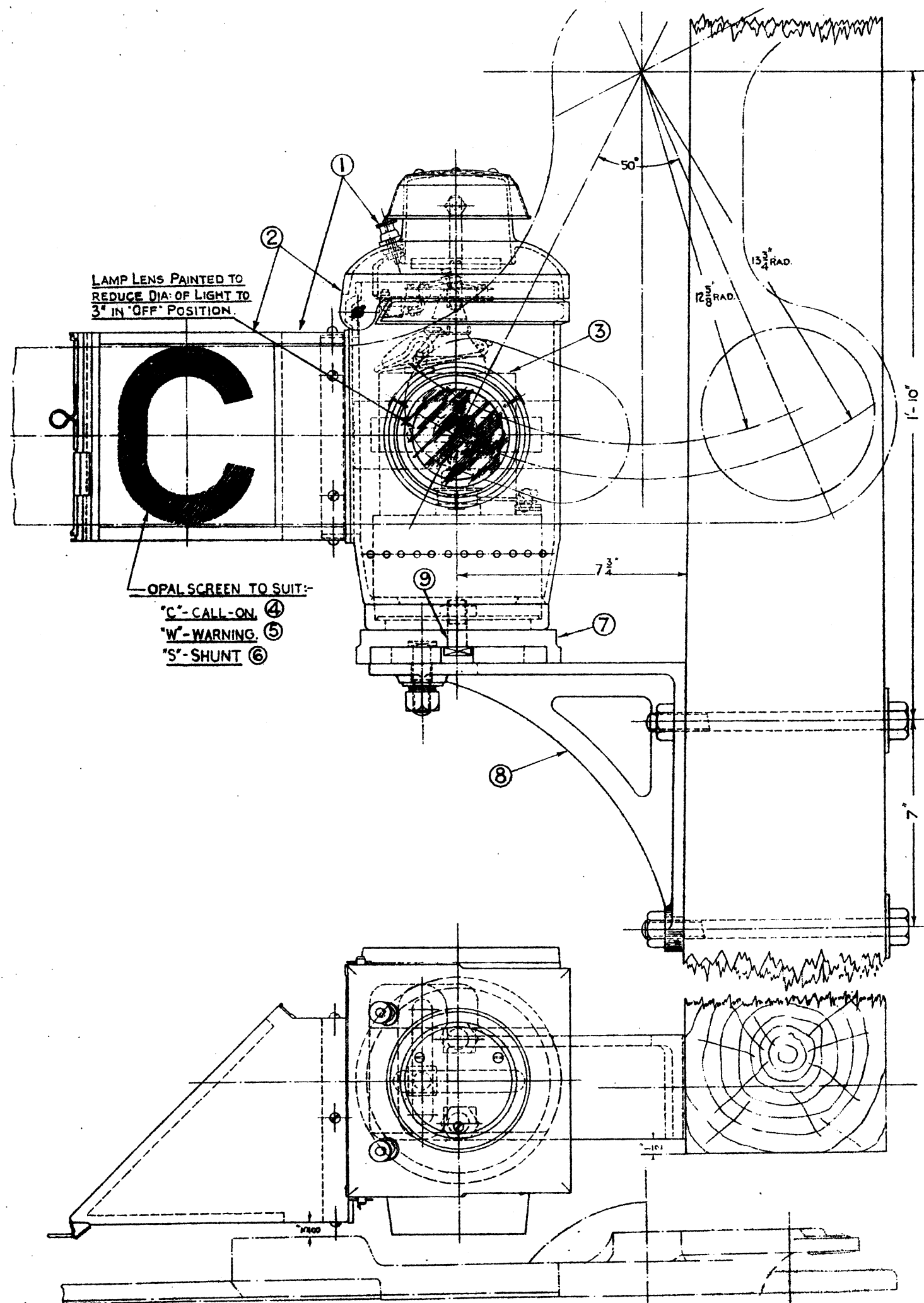
F. MACHINE MADE
T. -
D.G. DISC GRINDING
P.L. PALE FINISH

INDOOR ASST
ELECTRICAL
MATERIALS

DRAWN BY G.H.
CHECKED BY S.A.

REDUCED COPIES
NOT AVAILABLE

DRAWER 55 N°231



DETAIL	DRAWING N ^o
LAMP CASTING	MD.31128. SHEET 1.
LAMP C.W.O.R.S. INDICATION	MD.31128. SHEET 2.
LAMP INNER CASE	MD. 327
PYROMETER (BROOKER EXPANDER)	TD. 3253.
LAMP BASE	MD.33119
LAMP BRACKET	MD. 338

CAT. N ^o	N ^o	DETAIL	REMARKS.
20/32390	1	OUTER CASE - LESS OPAL SCREEN. WITH PYROMETER.	
20/32419	2	OUTER CASE - LESS OPAL SCREEN. WITHOUT PYROMETER.	
20/34360	3	INNER LAMP CASE COMPLETE.	
9/26076	4	OPAL SCREEN 'C'	
9/26080	5	" " 'W'	
9/26078	6	" " 'S'	
66/16801	7	BASE COMPLETE WITH BOLT ⑨	
66/16911	8	BRACKET COMPLETE.	ORG. MD. 338. ITEMS 1, 3, 4, 5.
3/48838	9	BOLT 3/8 DIA. WHIT.	USED WITH ⑦

L.M.S.

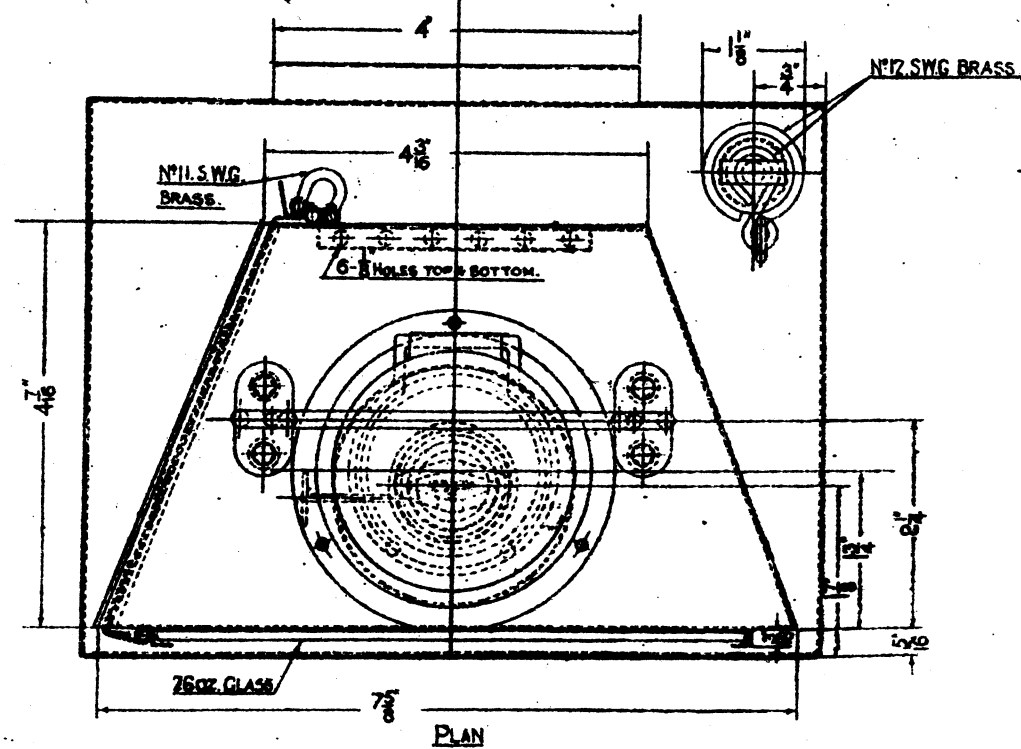
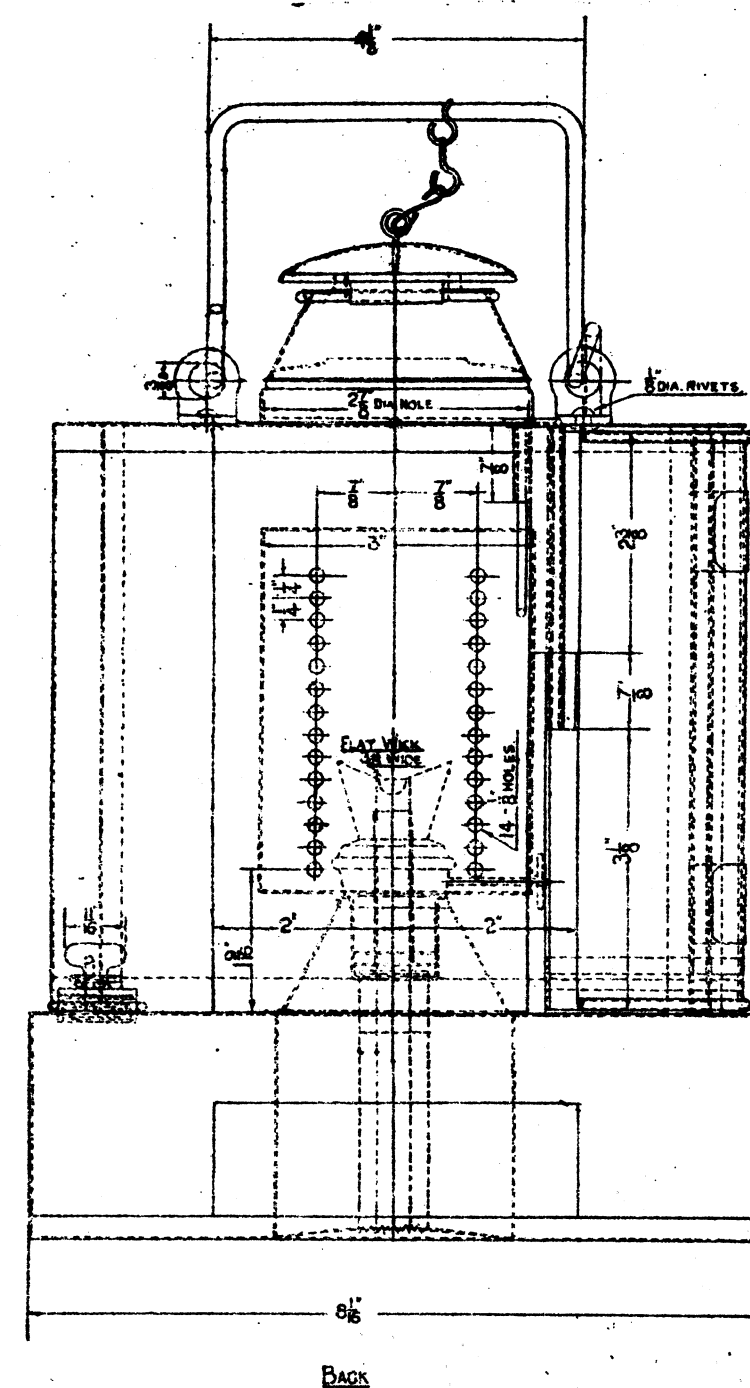
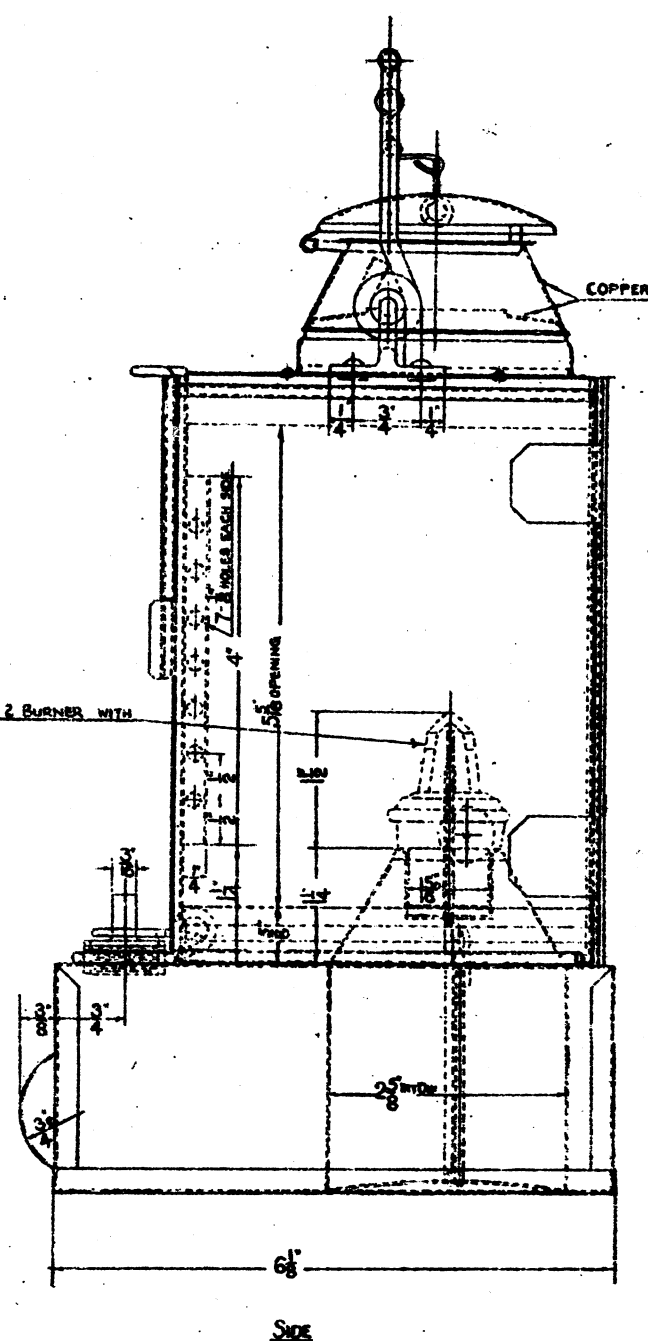
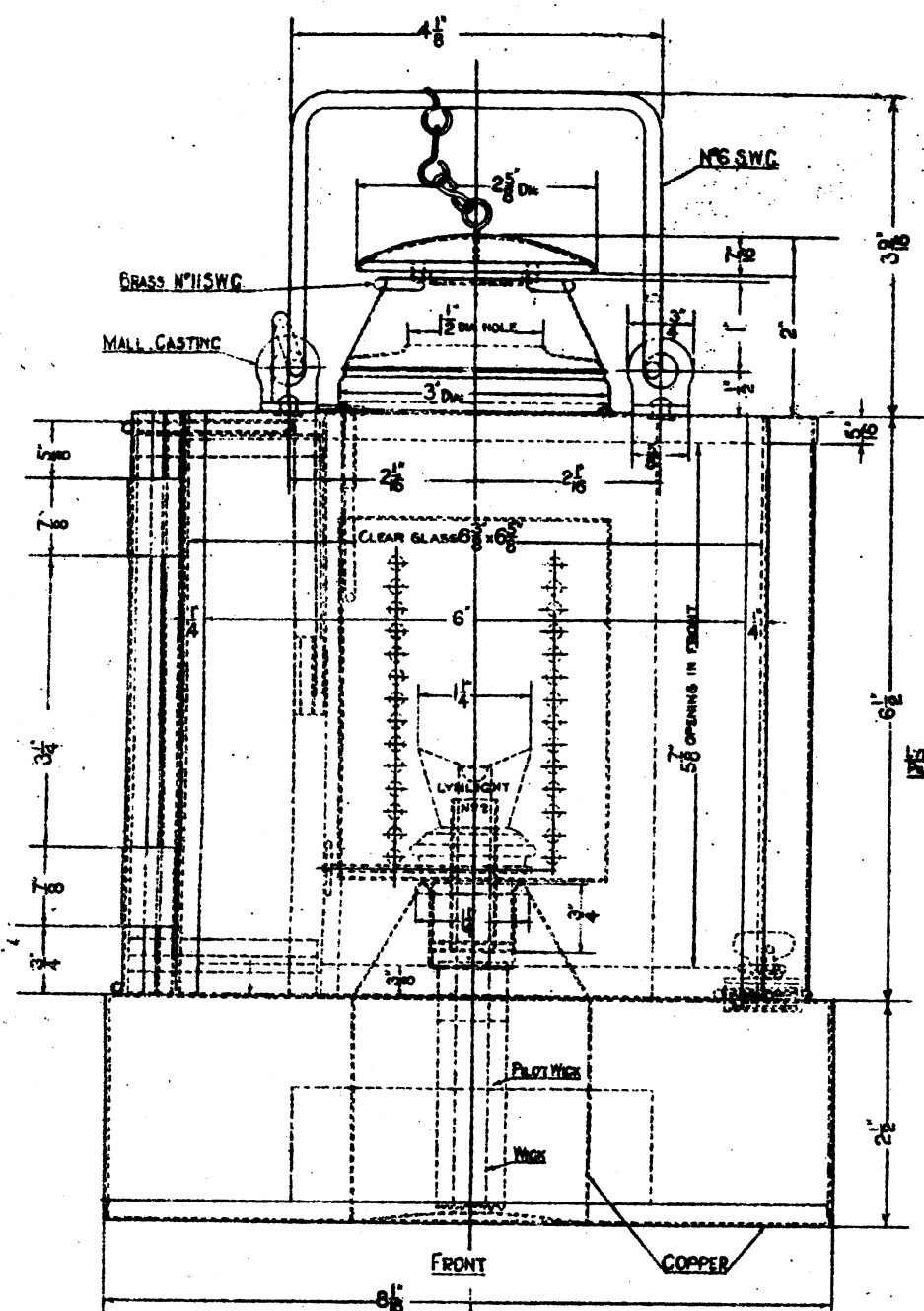
STANDARD SIGNAL LAMP FOR CALL-ON, WARNING & SHUNT INDICATIONS.

SUPERSEDES MD.3333
DATED 8-3-33.

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN.

EXAMINED BY
INDOOR ASST. *100*
ELECTRICAL " *R*
WORKS " *MLC*
MATERIALS " *EDW*
DRAWN BY *AB*
TRACED BY *MLC*
CHECKED BY *EDW*

LONDON MIDLAND & SCOTTISH RAILWAY CO.
SIGNAL & TELEGRAPH
ENGINEER'S OFFICE
DERBY. L.M.S. 49.
PLAN N^o M.D. 3333.
PLAN DATE 28-4-37.
DATE ISSUED.



FOR DETAILS OF LAMP CASE, SEE DRG MD 34053

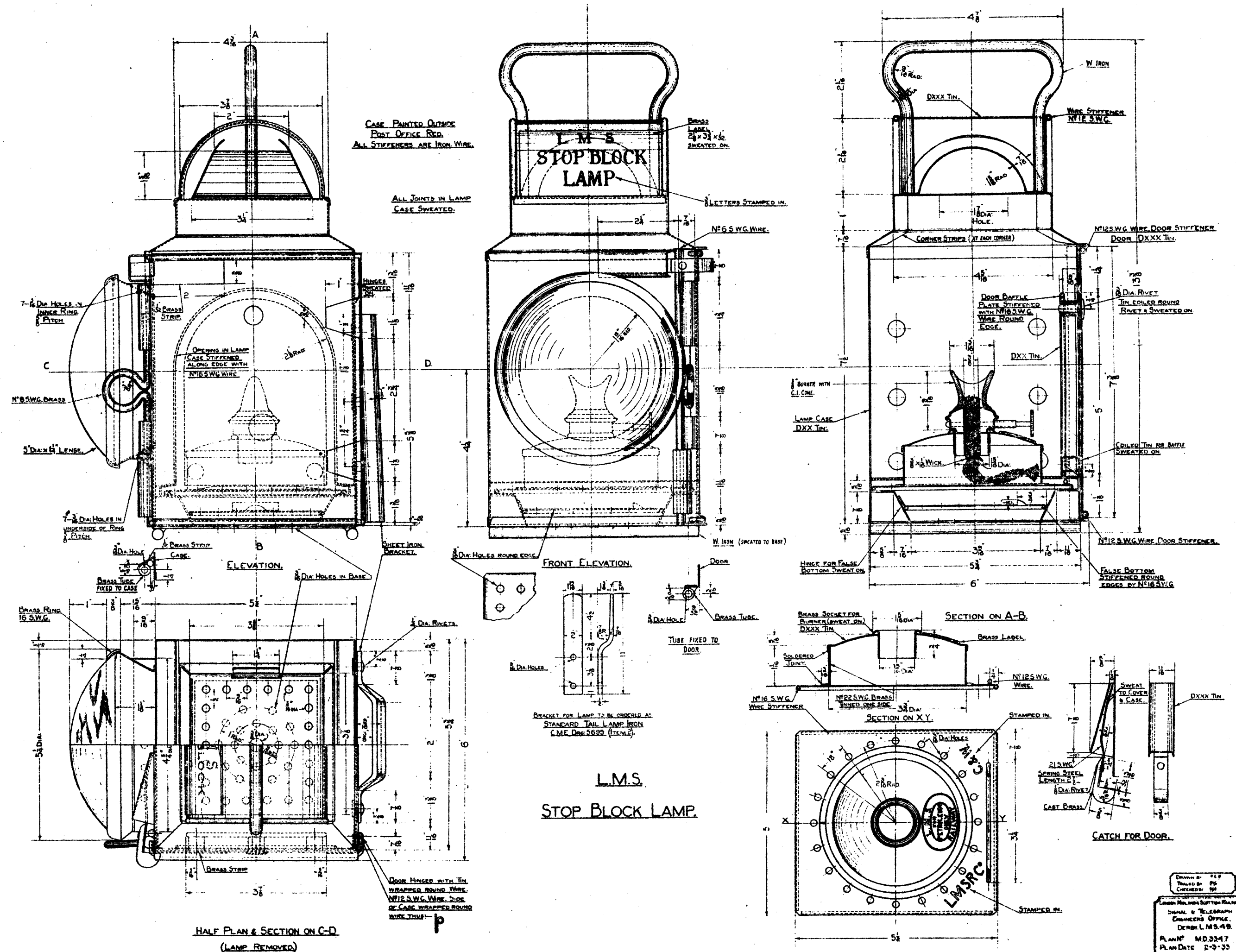
L.M.S.
STANDARD SHUNT LIMIT INDICATOR
DETAILS OF LAMP INTERIOR
—WELCH PATENT—

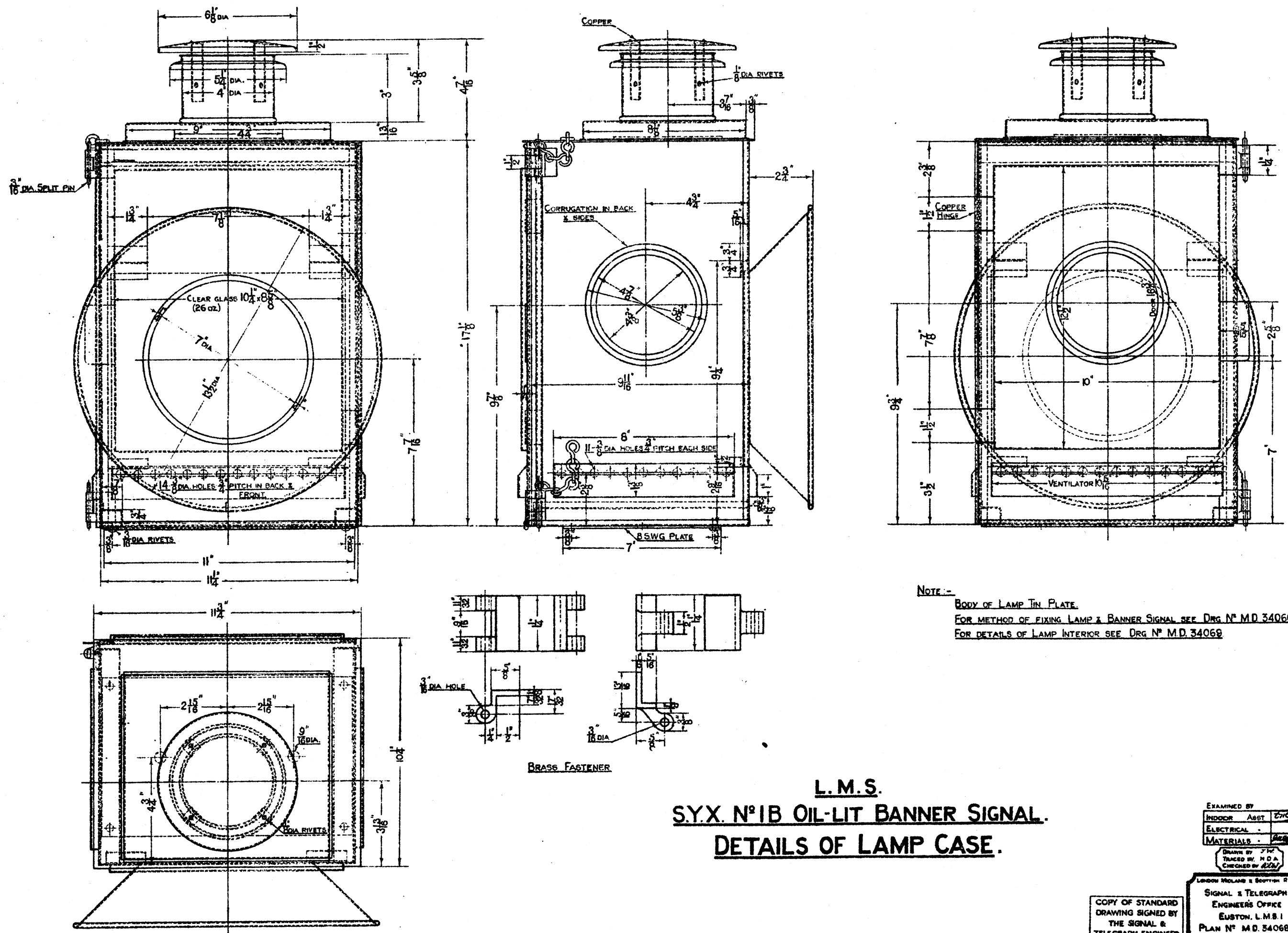
EXAMINED BY	
INDOOR ASST.	2540
ELECTRICAL ASST.	
MATERIALS ASST.	2540

DRAWN BY	J.W.
THROU BY	A.E.
CHECKED BY	2540

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
ON 11/11/1914

Signal and Telegraph
Engineer's Office
LONDON L.M.S.
PLAN N° MD 34054.
PLAN DATE. 1-8-14.
DATE ISSUED.



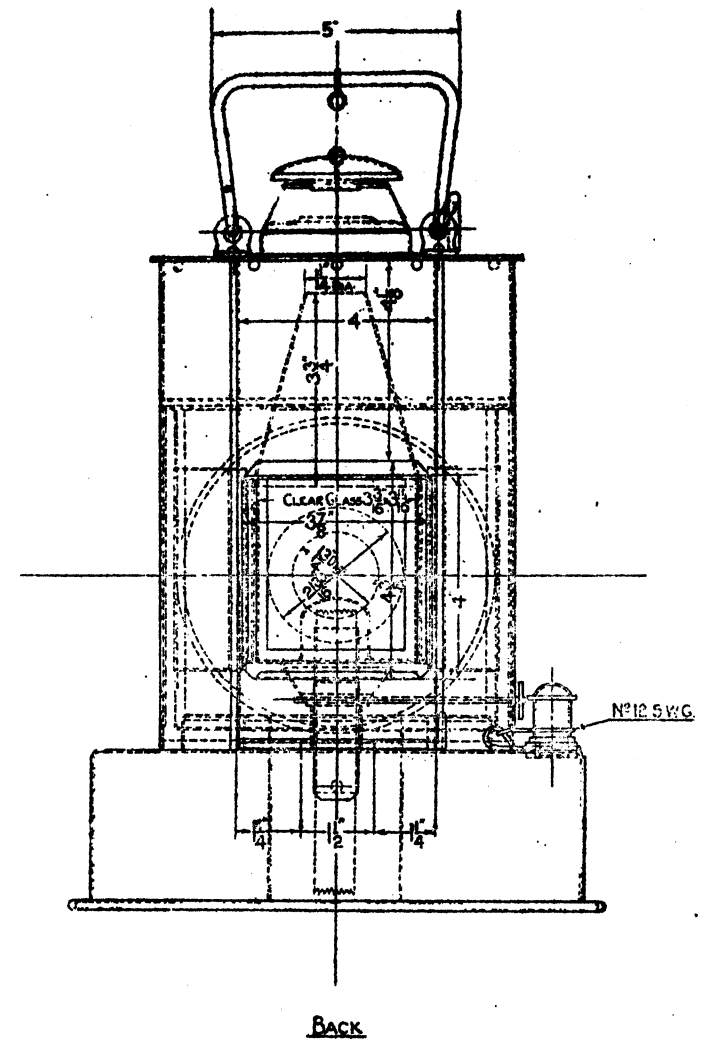
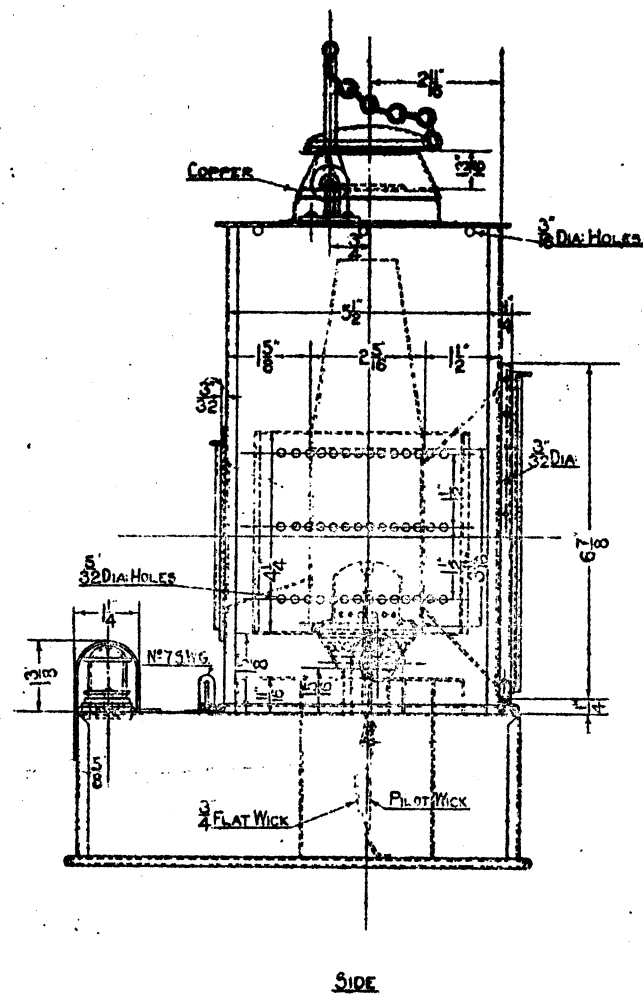
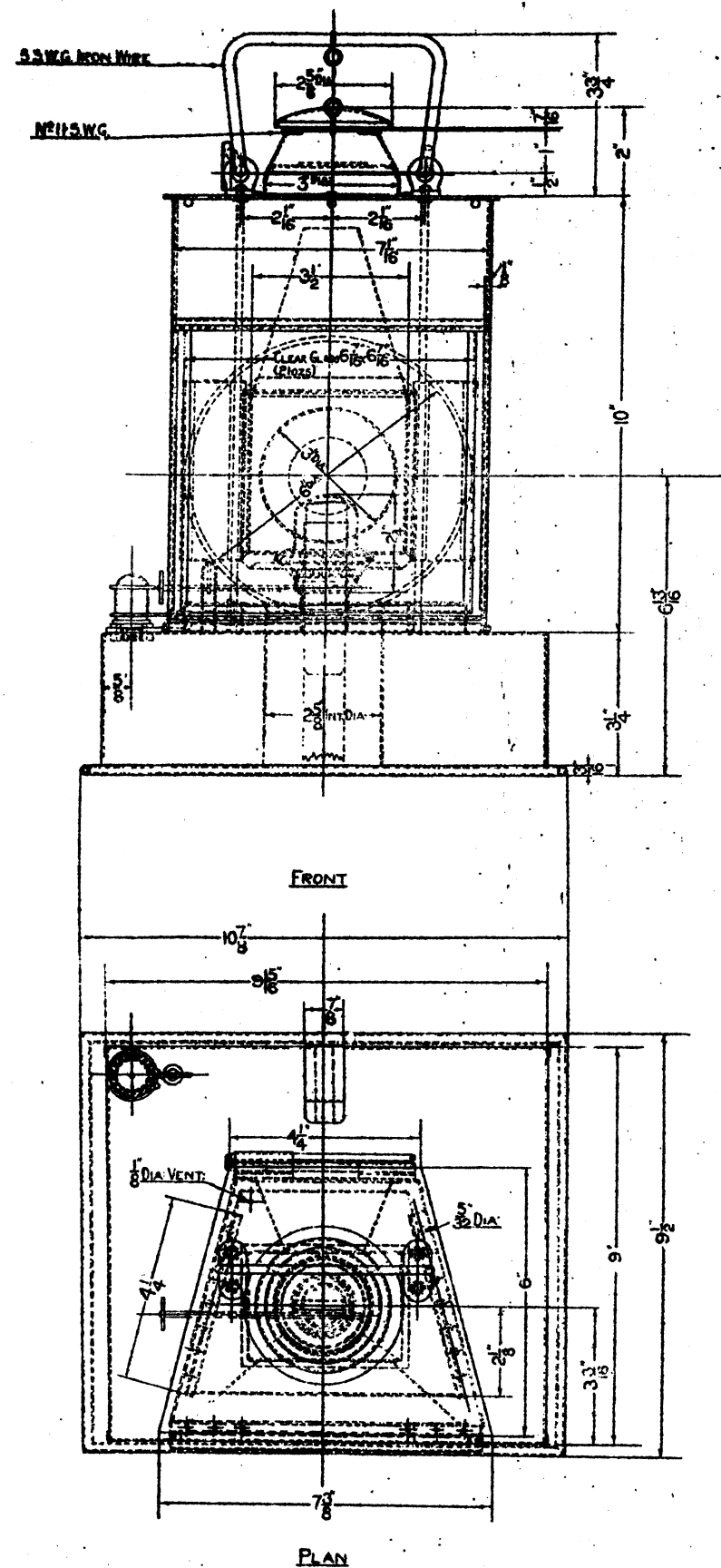


L.M.S.
S.Y.X. N°1B OIL-LIT BANNER SIGNAL.
DETAILS OF LAMP CASE.

COPY OF STANDARD
 DRAWING SIGNED BY
 THE SIGNAL &
 TELEGRAPH ENGINEER
 CHIEF DRAWING OFFICE

EXAMINED BY
 INDOOR ASST. *270*
 ELECTRICAL *270*
 MATERIALS *270*
 DRAWN BY *770*
 TRACED BY *N.O.A.*
 CHECKED BY *270*

LONDON MILANS & SCOTTISH RLY
 SIGNAL & TELEGRAPH
 ENGINEERS OFFICE
 EUSTON, L.M.S.I
 PLAN N° M.D. 34068
 PLAN DATE 28-10-34
 DATE ISSUED



NOTE—FOR METHOD OF FIXING LAMP & BANNER SIGNAL SEE DRG N° MD 34060
FOR DETAILS OF LAMP CASE SEE DRG N° MD 34068

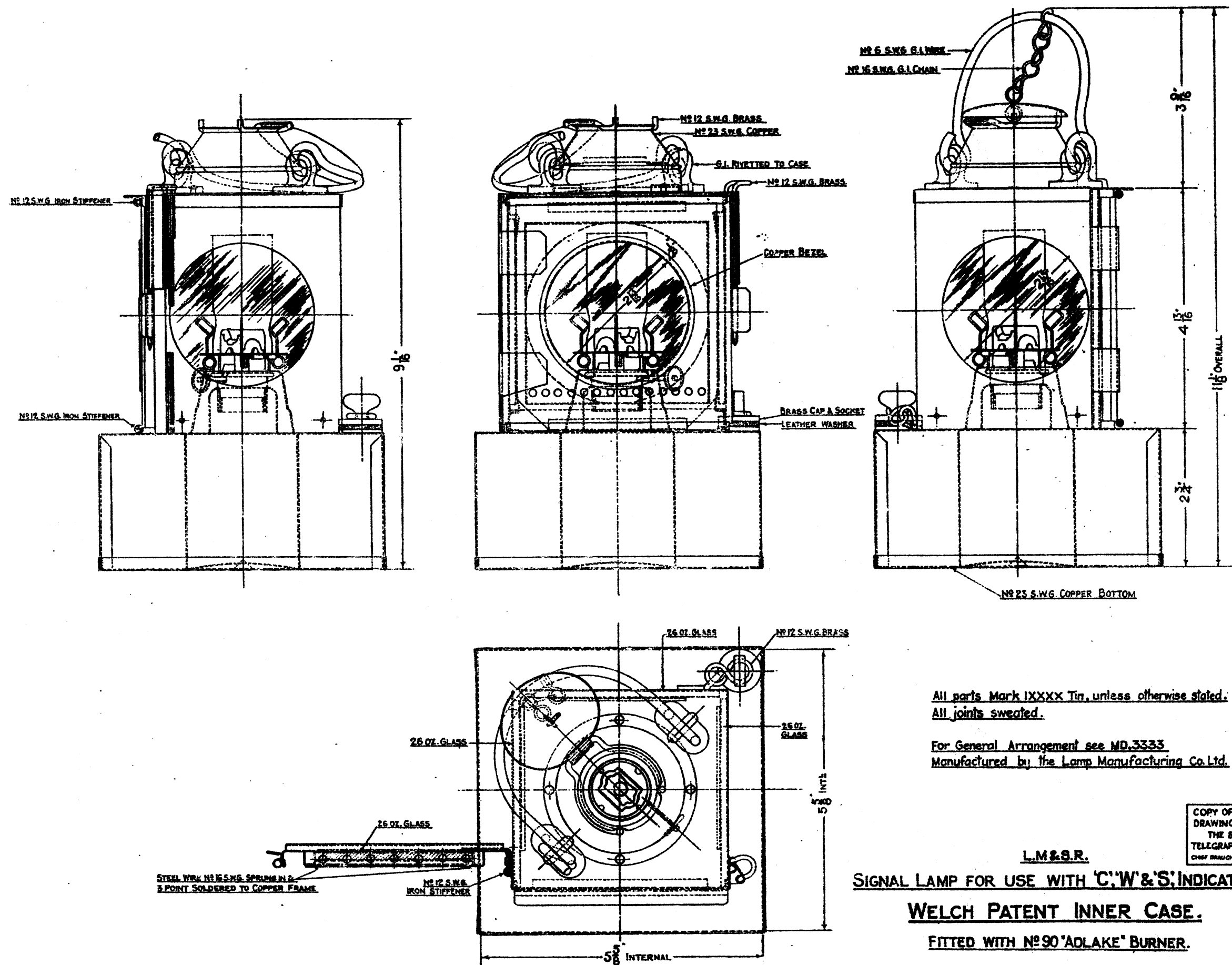
L.M.S.
S.Y.X.N°1B OIL-LIT BANNER SIGNAL
DETAILS OF LAMP INTERIOR

EXAMINED BY	
INDOOR ASST.	DND
ELECTRICAL "	
MATERIALS "	AB
DRAWN BY	
TRACED BY	AB
CHECKED BY	AB

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN.

LONDON MIDLAND & SCOTTISH RAILWAY CO.
SIGNAL & TELEGRAPH
ENGINEER'S OFFICE
EUSTON, L.M.S.I.

PLAN N° MD 34069
PLAN DATE 1-11-34
DATE ISSUED



All parts Mark IXXXX Tin, unless otherwise stated.
All joints sweated.

For General Arrangement see MD.3333
Manufactured by the Lamp Manufacturing Co. Ltd.

L.M.&S.R.

SIGNAL LAMP FOR USE WITH 'C.W.&S.' INDICATIONS.

WELCH PATENT INNER CASE.

FITTED WITH NO 90 'ADLAKE' BURNER.

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF BRANCHMAN.

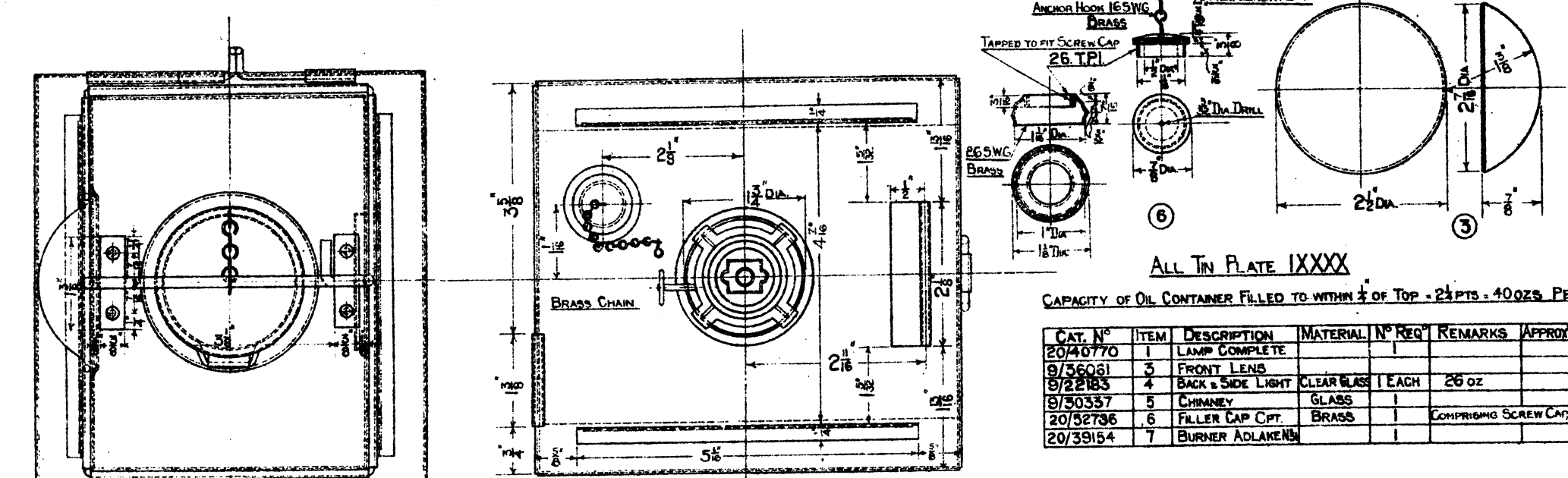
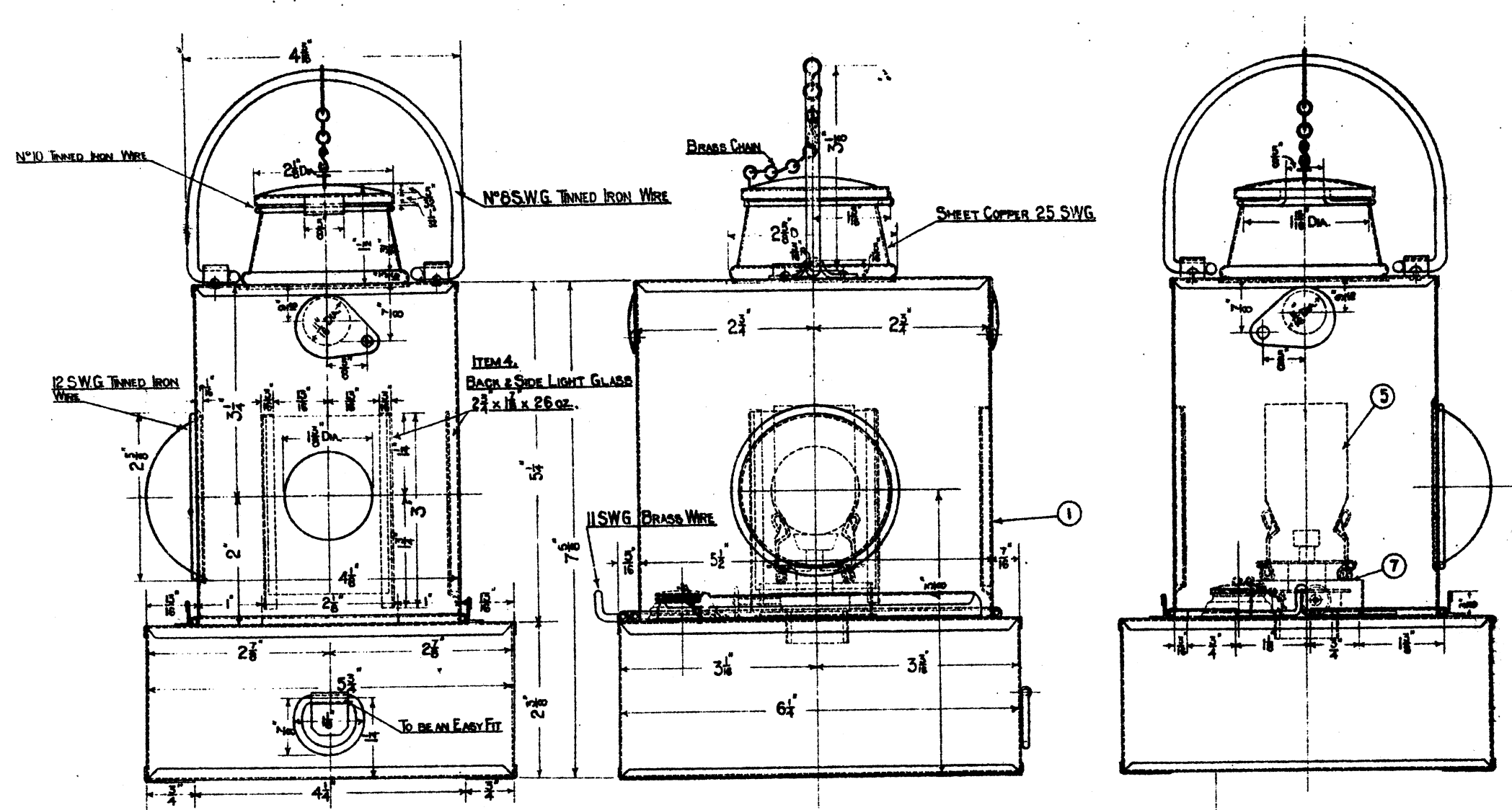
EXAMINED BY
INDOOR ASST.
ELECTRICAL
MATERIALS

DRAWN BY
TRACED BY
CHECKED BY

LONDON SIGNAL AND TELEGRAPH ENGINEERS
SIGNAL AND TELEGRAPH
ENGINEERS OFFICE
EUSTON, L.M.S.I.

PLAN No. MD.35215
PLAN DATE 25-1-36
DATE ISSUED

SUPERSEDES MD.327



CAPACITY OF OIL CONTAINER FILLED TO WITHIN 1/4 OF TOP - 2 1/8 PTS - 40 OZS PETROLEUM

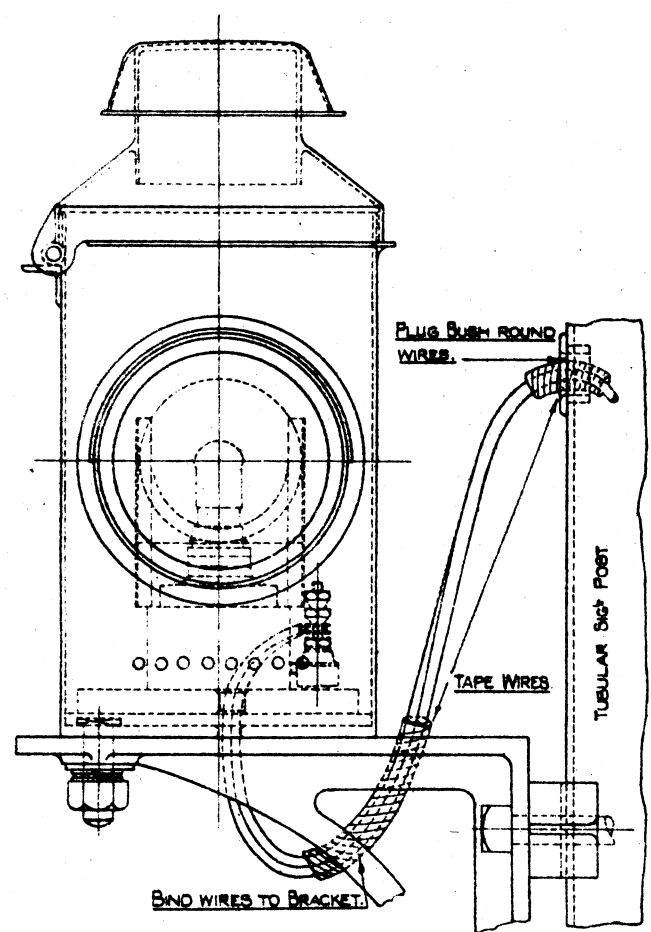
CAT. N°	ITEM	DESCRIPTION	MATERIAL	N° REQ	REMARKS	APPROX	SPEC
20/40770	1	LAMP COMPLETE					
9/36061	3	FRONT LENS					
9/22183	4	BACK & SIDE LIGHT	CLEAR GLASS	1 EACH	26 oz		
9/30337	5	CHIMNEY	GLASS				
20/32736	6	FILLER CAP OPT.	BRASS		COMPRISING SCREW CAP, CHIMNEY HEATING		
20/39154	7	BURNER ADJ. LAMP					

PLAN (UPPER PART REMOVED)

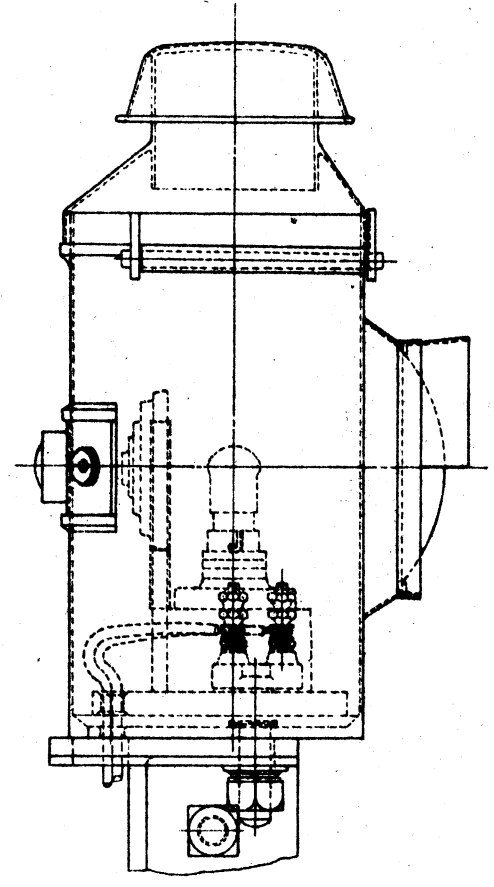
L.M.S.
STANDARD DWARF SIGNAL
LAMP

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN
AMENDED 3-1-38

EXAMINED BY
INDOOR ASST
ELECTRICAL
MATERIALS
DRAWN BY
CHECKED BY
SIGNAL AND TELEGRAPH
ENGINEER'S OFFICE
EUSTON, L.M.S.
PLAN N° MD. 37359
PLAN DATE 22-10-37
DATE ISSUED

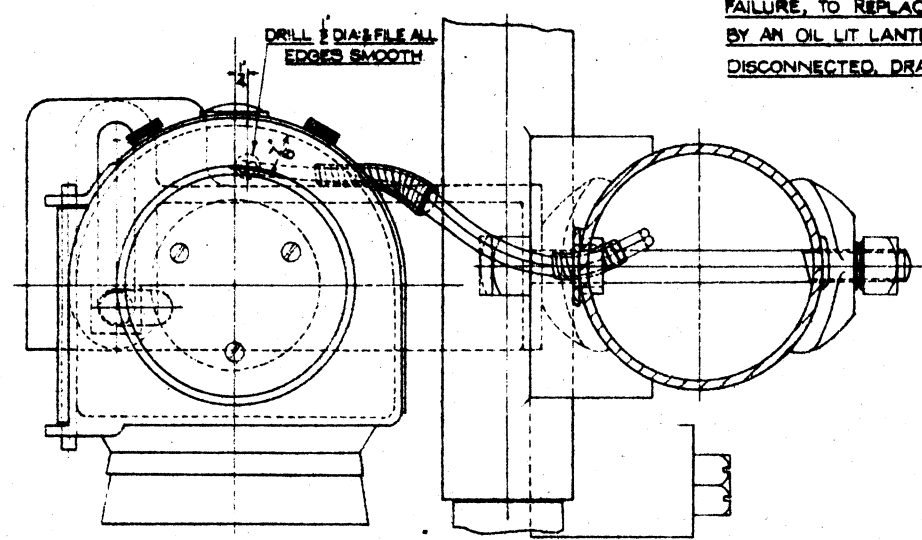


FRONT ELEVATION.

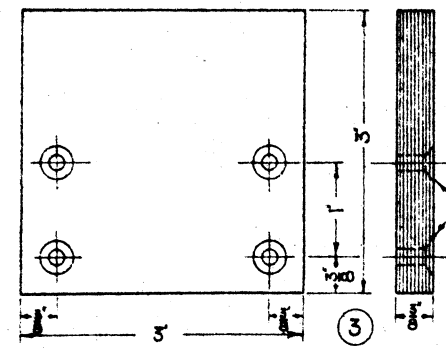


LEFT SIDE ELEVATION

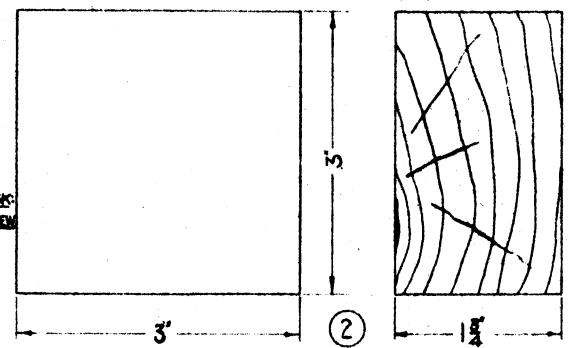
WHEN IT IS REQUIRED, BY REASON OF A POWER FAILURE, TO REPLACE THE ELECTRIC ADAPTOR BY AN OIL LIT LANTERN, THE WIRES ARE TO BE DISCONNECTED, DRAWN BACK AND TAPED.



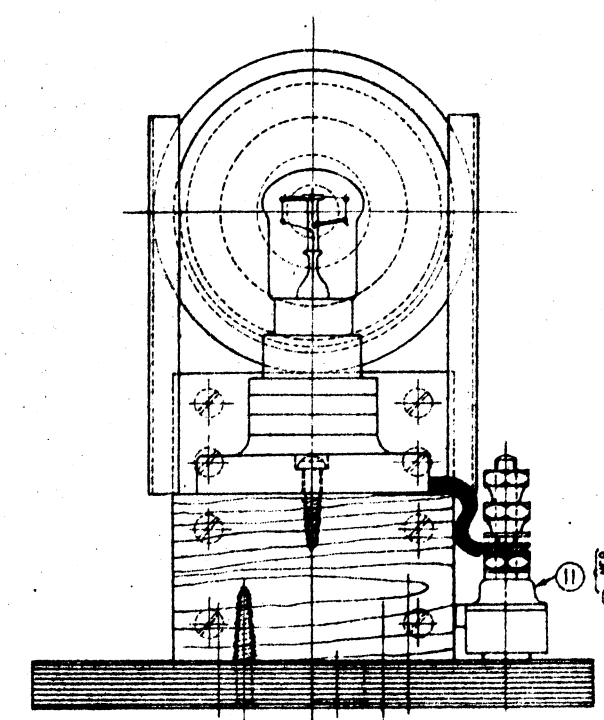
PLAN



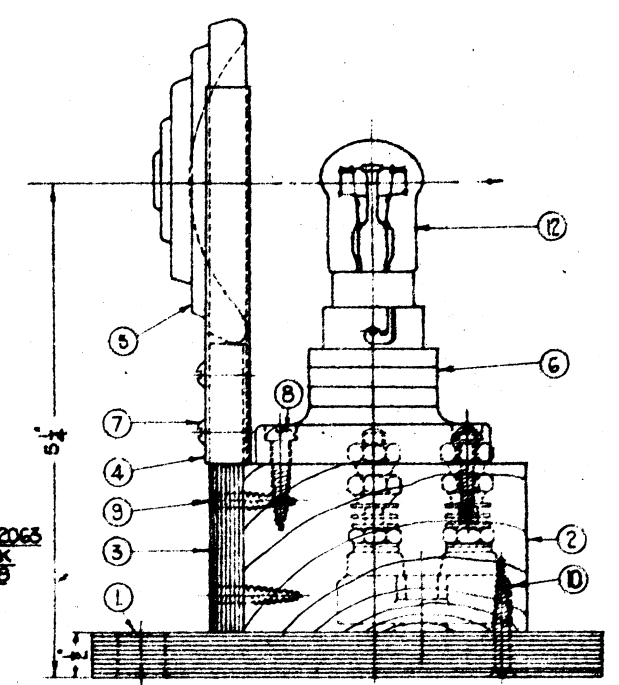
RESIN BONDED PLYWOOD



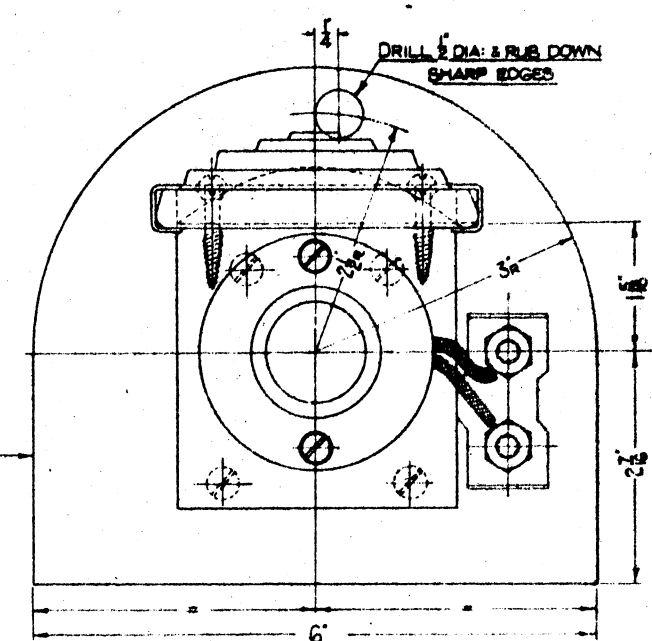
SEASONED HARD WOOD



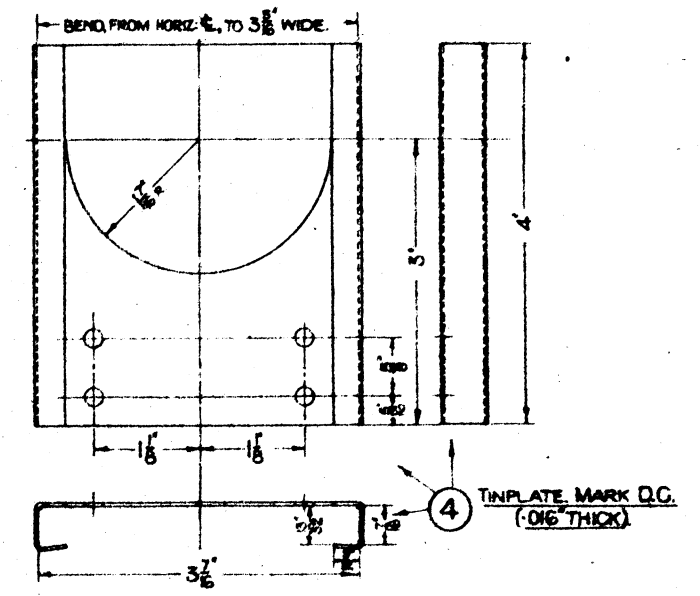
FRONT ELEVATION.



SIDE ELEVATION



PLAN

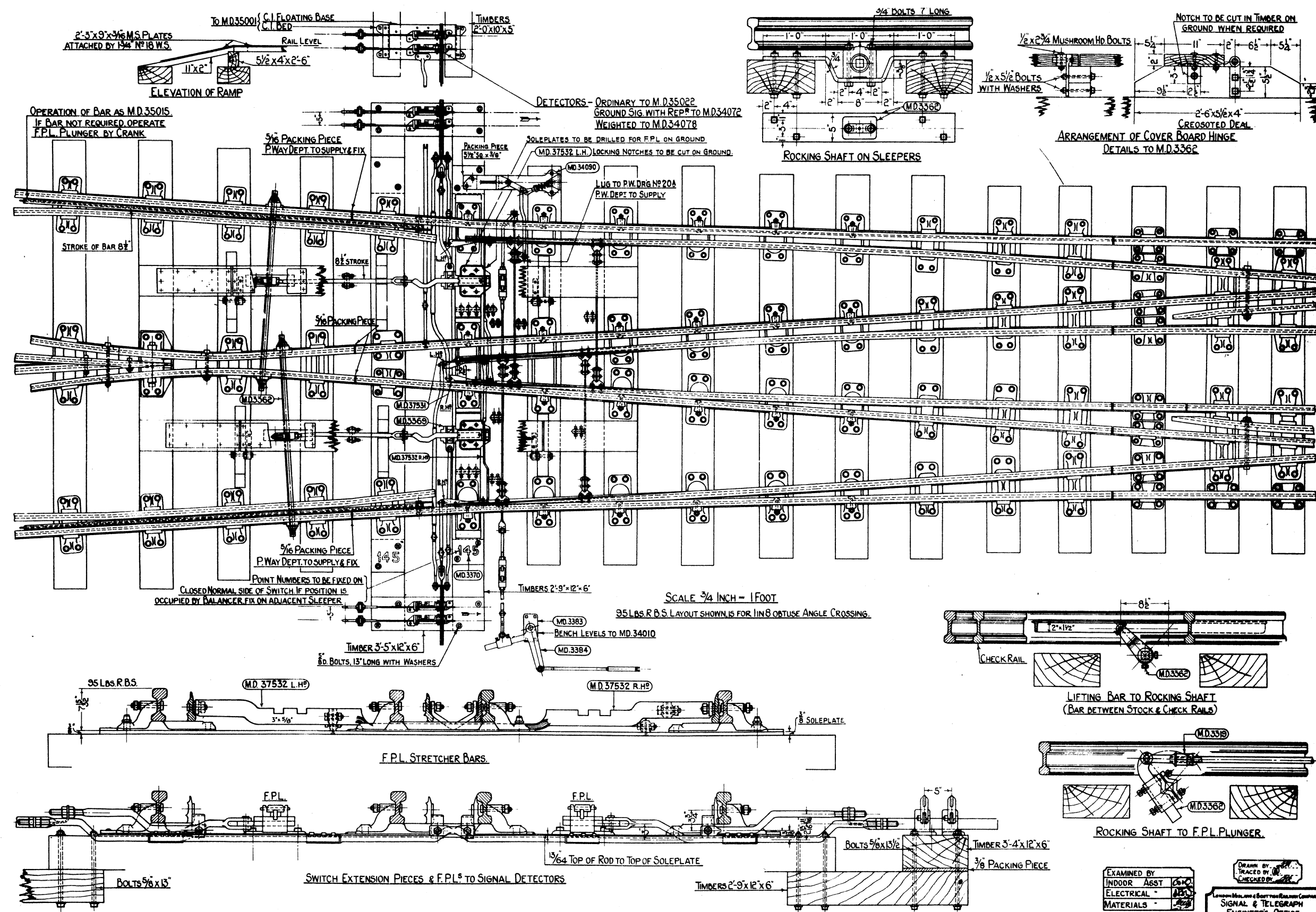


ITEM	CAT. NO.	DESCRIPTION	QTY	MATERIAL	REMARKS
5	9/37912	ADLAKES PRESSURIZED	1	GLASS	
6	54/45467	BATTEN LAMP HOLDER	1	INSULATION	
7		WOOD SCREW No. 8	4	STEEL, 1/4\"/>	
8	35/15402		2	1/4\"/>	
9	35/13244		4	1/4\"/>	
10	35/13246		4	1/4\"/>	
12	54/43663	PIGMY LAMP 110\"/>	1	CLEAR	

INTERIOR (ITEMS 11011) CAT. NO. 20/48600.

L.M.S.
ELECTRICALLY ILLUMINATED ADLAKES NO. 22 LAMP.

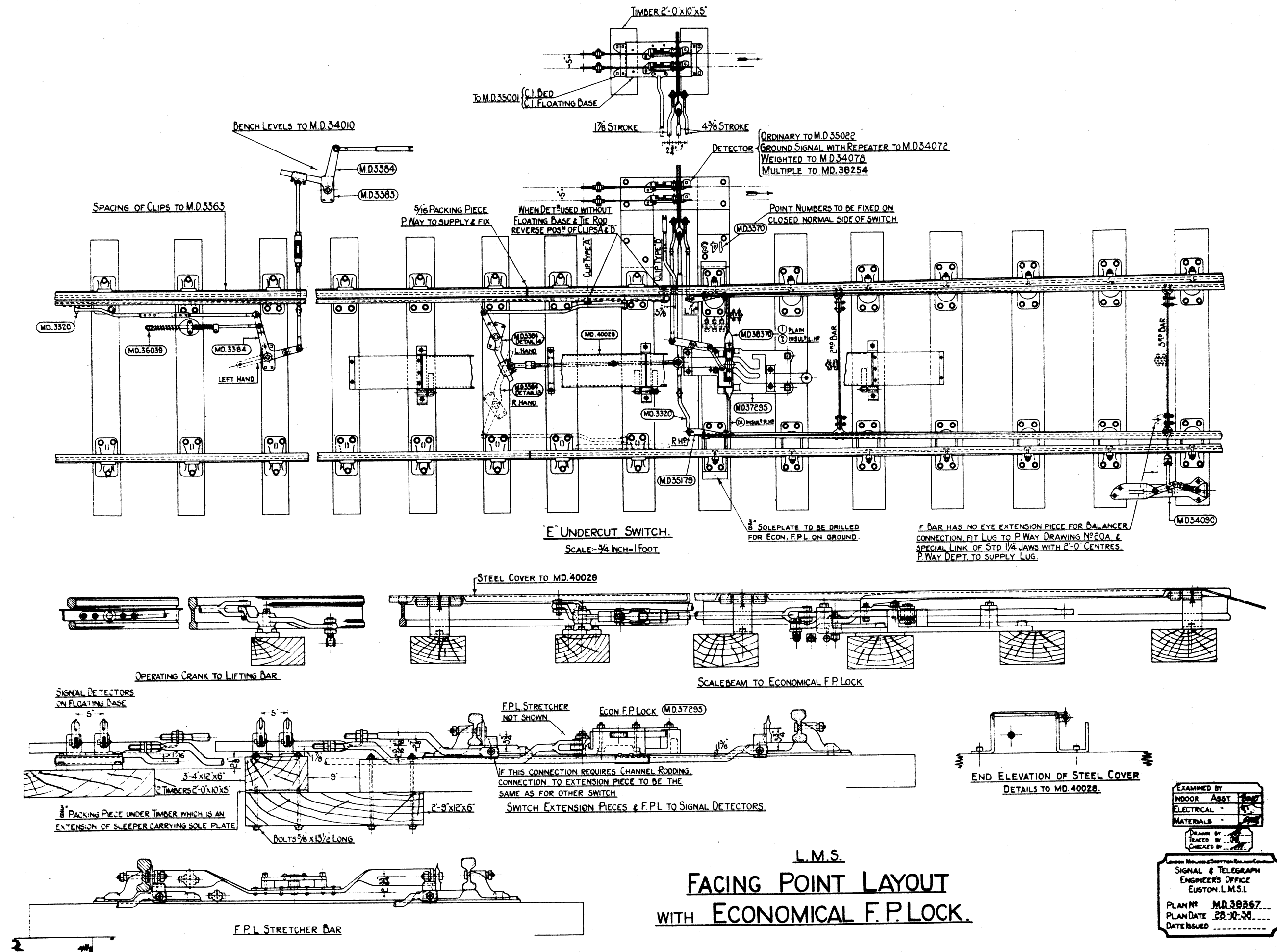
LONDON MIDLAND & SCOTTISH RAILWAY COMPANY
SIGNAL & TELEGRAPH ENGINEERS OFFICE, EUSTON, L.M.S.
PLAN NO. P.D. 44003 SHEET - OF - SHEETS
PLAN DATE 3-6-44. ISSUED
COPY NO. SUPERSEDES
NATURE OF AMENDMENT
DRAWN BY H.M.O.
TRACED BY S.H.
CHECKED BY H.M.O.
DRAWER 57 NO. 30.



SCALE 3/4 INCH = 1 FOOT
35 LBS. R.B.S. LAYOUT SHOWN IS FOR 1 IN 8 OBTUSE ANGLE CROSSING.

L.M.S.
F.P.L. LAYOUT FOR DOUBLE SLIPS.

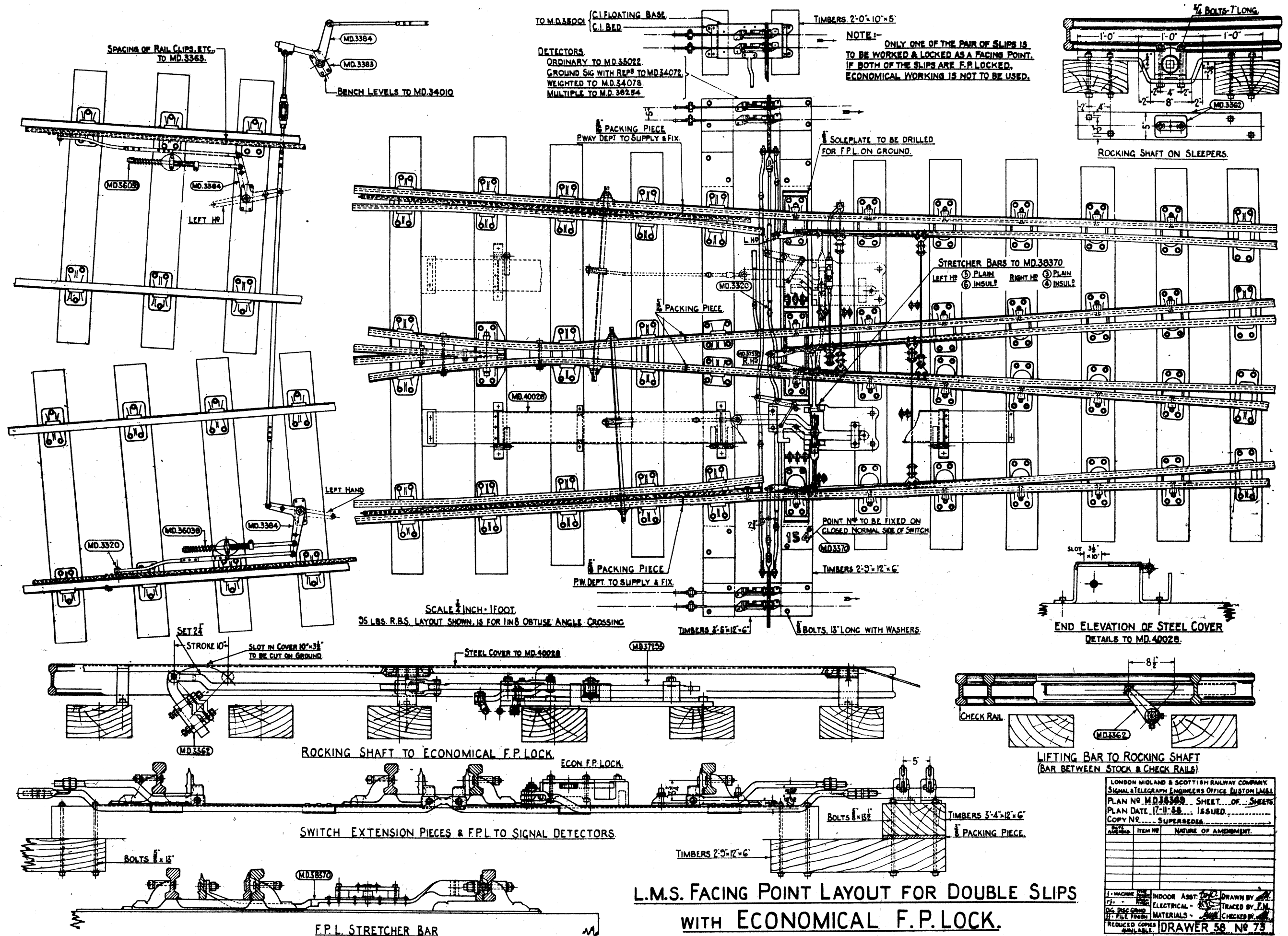
EXAMINED BY	INDOOR ASST	DATE	1-5-40
ELECTRICAL			
MATERIALS			
NATURE OF AMENDMENT F.P.L. STRETCHER BARS, ETC., ALTERED, CONSEQUENT UPON REARRANGEMENT OF SWITCHES BY ENGINEER'S DEPT.			
DRAWN BY TRACED BY CHECKED BY			
LONDON, MAN. & SCOT. RAILWAY COMPANY SIGNAL & TELEGRAPH ENGINEERS' OFFICE EUSTON, L.M.S.I.			
PLAN NO. M.D.37530			
PLAN DATE 19-1-38			
DATE ISSUED			

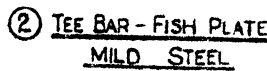
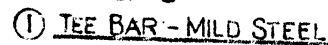
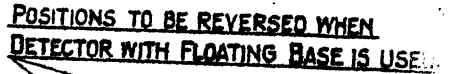


L.M.S.
FACING POINT LAYOUT
WITH **ECONOMICAL F.P. LOCK.**

EXAMINED BY	
INDOOR ASST.	
ELECTRICAL	
MATERIALS	
DRAWN BY	
TRACED BY	
CHECKED BY	

London, Manchester & Brighton Railway Company
SIGNAL & TELEGRAPH
ENGINEERS' OFFICE
EUSTON, L.M.S.I.
PLAN N° **MD 38367**
PLAN DATE **28-10-38**
DATE ISSUED





MAXIMUM SPACING OF CLIPS 4'-9"
END OF BAR IN REVERSED POSITION 4 1/2" FROM TOE OF SWITCH.
FOR DETAILS OF CLIPS & BRIDGES FOR BAR ON SWITCH
SEE DRAWING NO MD.3367.

SUPERSEDES MD.3363
DATED 25-4-33.

INDOOR ASST.	JHQ
ELECTRICAL "	
WORKS "	PHC
MATERIALS "	SH

DRAWN BY *[Signature]*
 THROD BY *[Signature]*
 CHECKED BY *[Signature]*

SIGNAL & TELEGRAPH
ENGINEERS' OFFICE
EUSTON, LMS. I.
PLAN NO MD. 3363
PLAN DATE 29-12-36.
DATE ISSUED

STORES CAT#	NO	DESCRIPTION	MATERIAL	Nº REQ	REMARKS	APPROX WEIGHT	SPECIFICATION
SEE BELOW	1	TEE BAR	M.S				B.S.I. 15
66/25081	2	FISH PLATE	M.3	2			B.S.I. 15
	3	BOLT $\frac{1}{2} \times 1\frac{1}{8}$	M.S.	4	COMPLETE WITH NUT 5/16" W/SHR		B.S.I. 15
66/25082	4	BOLT $\frac{1}{2} \times 1\frac{1}{4}$	M.S	4	COMPLETE WITH NUT 5/16" THICK		B.S.I. 15
66/24297		BAR 13'-6"					
66/24299	1	• 18'-6"					
66/24300		• 31'-6"					

**COPY OF STANDARD
DRAWING SIGNED BY**

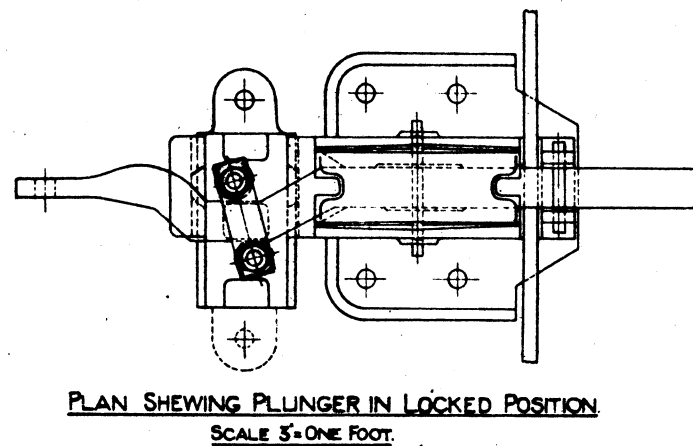
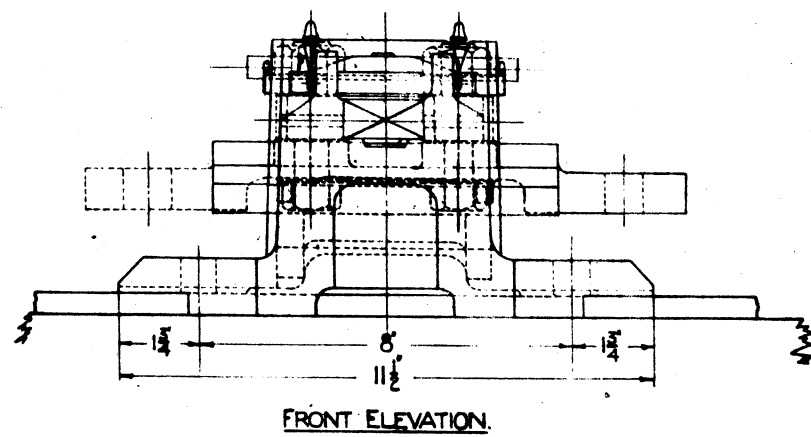
**COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN.**

FOR DETAILS OF CLIP A SEE DRAWING MD.3364
 " " " " B " " " 3365
 " " " " REST " " " 3362
 " ARRANGEMENT OF F.P. LAYOUTS SEE MD. 3366 & MD. 35015
 " DETAILS OF ROCKING SHAFT SEE MD. 3362

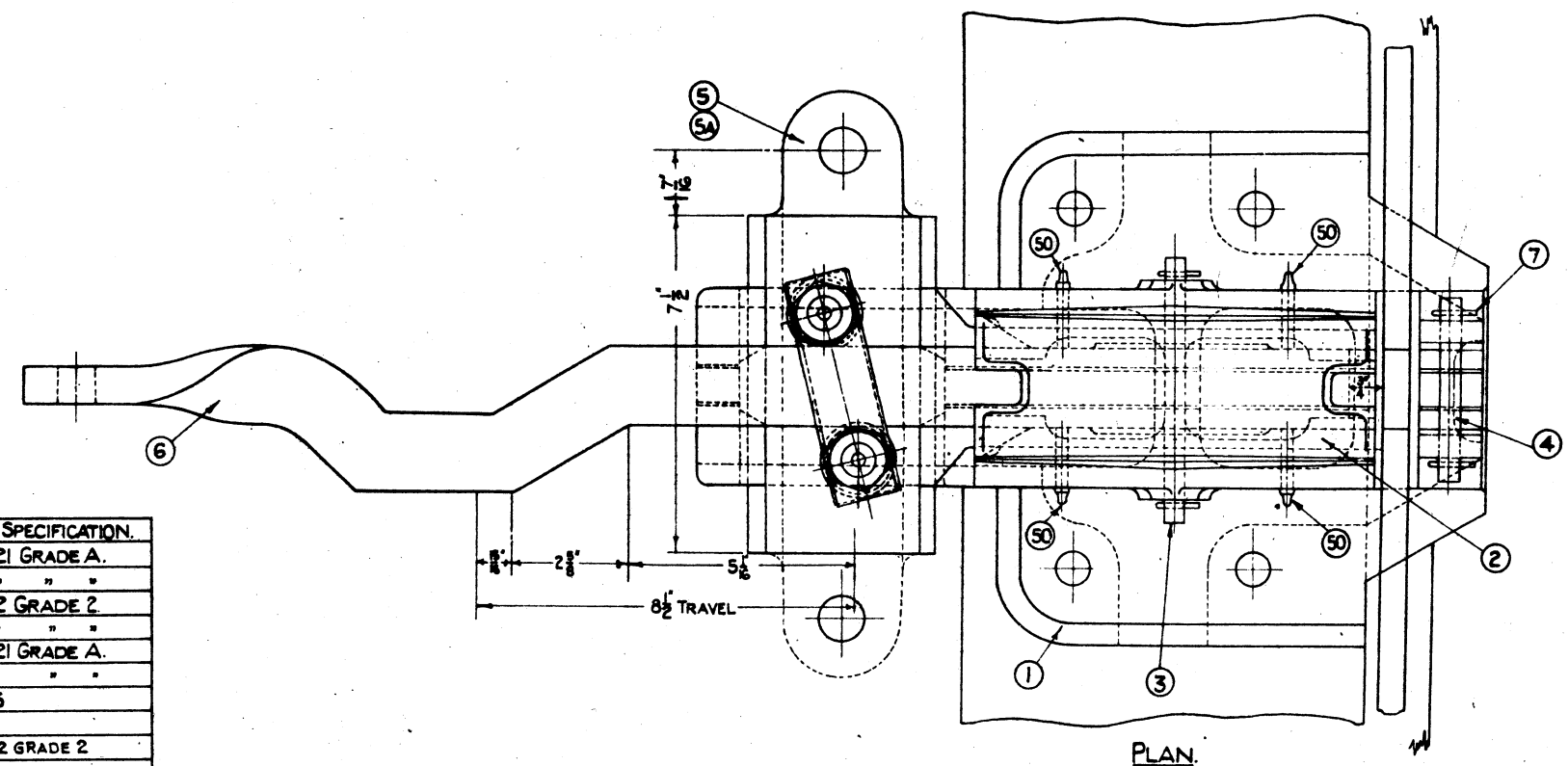
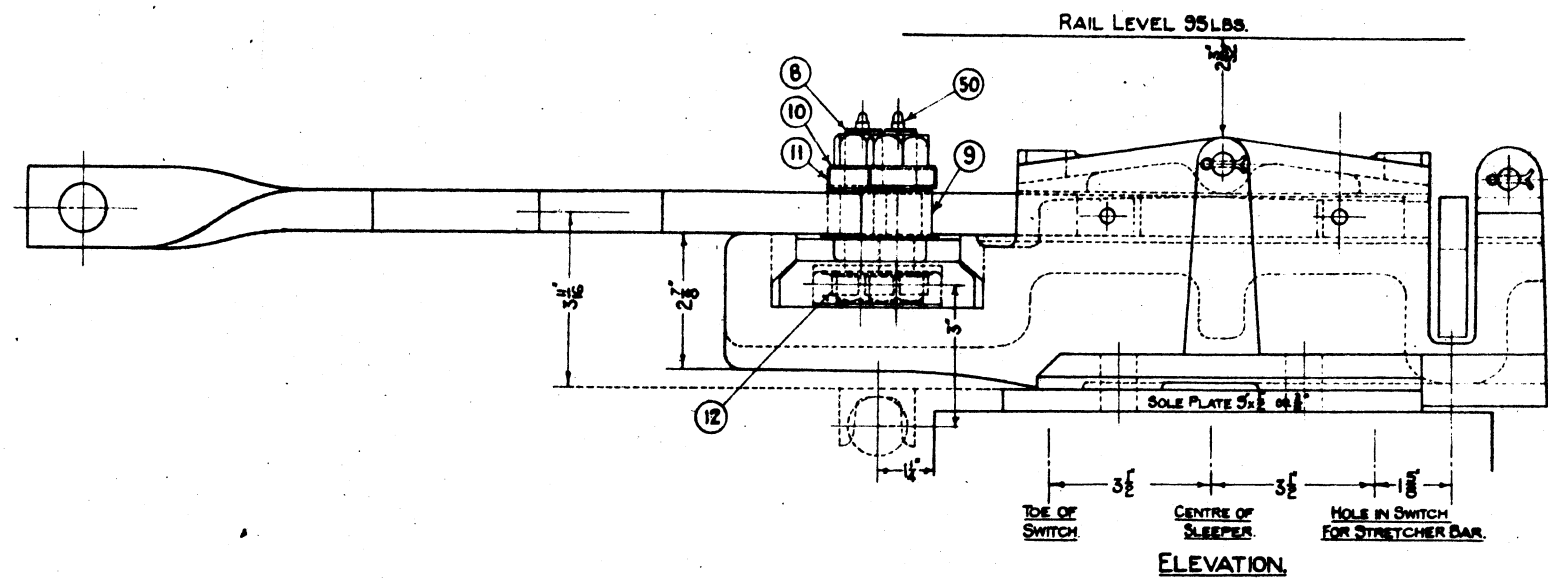
L.M.S.

F.P.L. LIFTING BAR

SPACING OF JOINTS, CLIPS & RESTS (60'-0" RAIL)

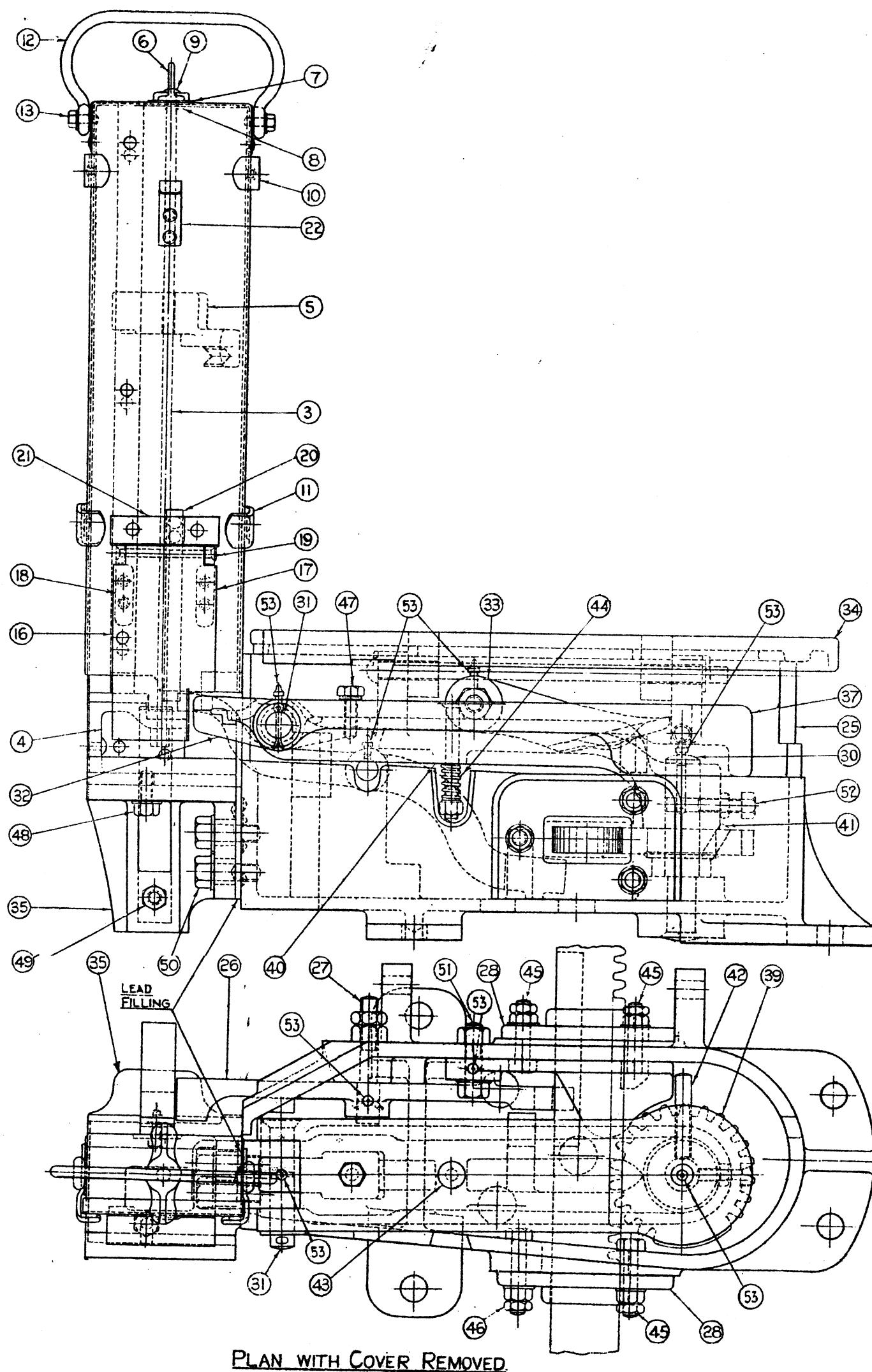


STORES CAT. N°	N°	DETAIL	MATERIAL	N° REQ.	REMARKS	APPROX. WEIGHT	B.S.I. SPECIFICATION.
66/24521	1	PLUNGER CASTING	CAST IRON	1			321 GRADE A.
66/24490	2	" " " " CAP	"	1			" " "
66/29003	3	RIN 5/8 x 1/2	MILD STEEL	1	PIN N° 115		32 GRADE 2
66/29000	4	" 4' x 1/2	"	1	" " 116		" " "
66/26280	5	PLUNGER DETECTOR SLIDE	CAST IRON	1	SINGLE DETECTION		321 GRADE A.
66/26288	5A	" " " "	"	1	DOUBLE		" " "
66/18117	6	PLUNGER	MILD STEEL	1	FOR MECH. OPER. POINTS		15
29/2750	7	1 x 1/2 SPLIT PIN	"	4			" " "
66/26412	8	DETECTOR SLIDE STUD	"	2	WITH NUTS TO B.S. SPEC. 5/16/1940 & GREASE NIPPLE		32 GRADE 2
66/26141	9	" " " " ROLLER	" -HARDENED	2			" " "
66/25780	10	" " " " PLATE	"	1			15
66/26350	11	LOCK WASHER	"	2			15
33/40628	89	GREASE NIPPLE	"	6	TO MD 33115		32 GRADE 2
66/25479		F.P.L. PLUNGER WITH SINGLE DETECTION-(COMPLETE)					
66/25480		" " " " DOUBLE					
66/26351	12	LOCK WASHER PLATE	MILD STEEL	1			15

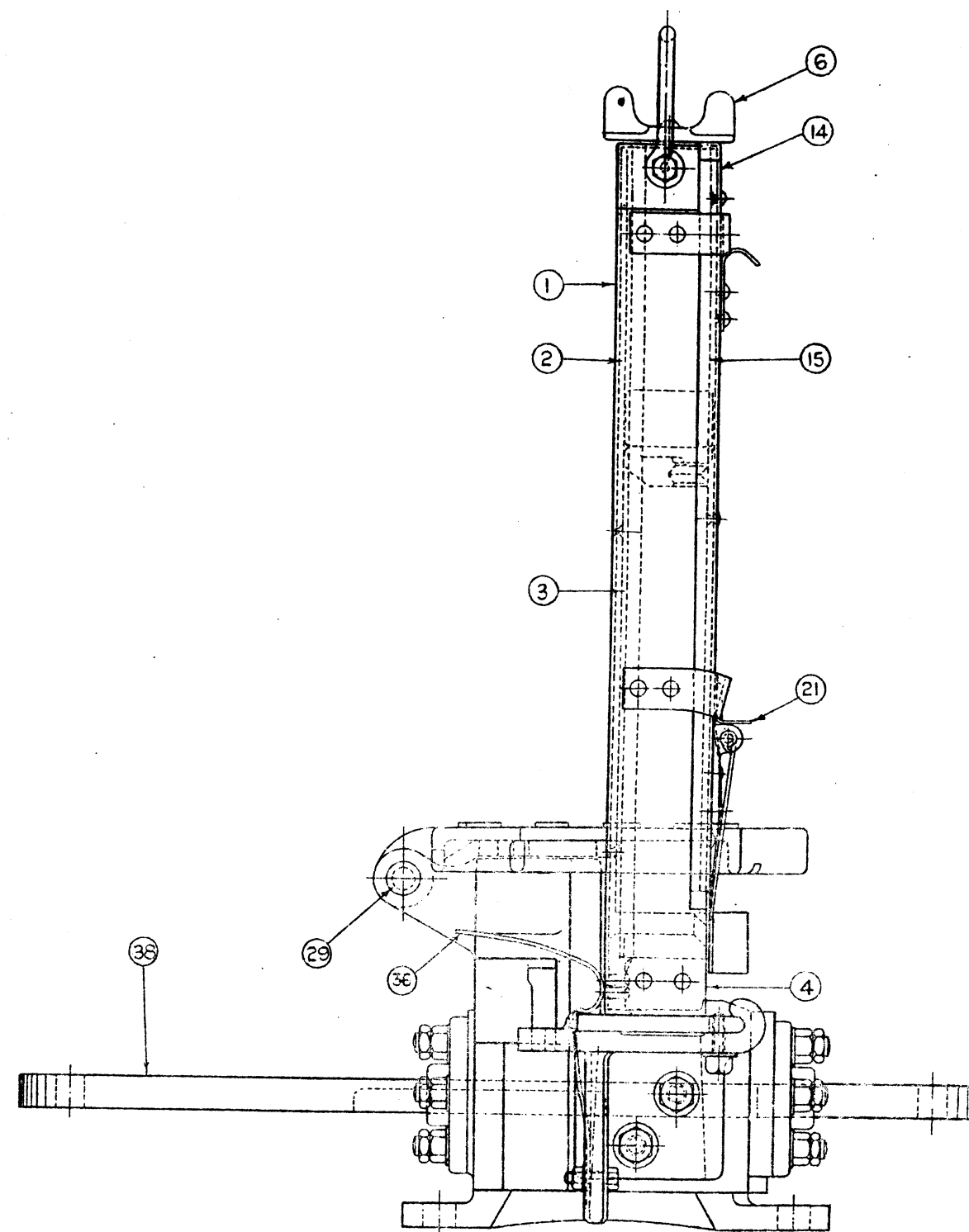


L.M.S.
FACING POINT LOCK PLUNGER & CASTING.

LONDON MIDLAND & SCOTTISH RAILWAY COMPANY. SIGNAL & TELEGRAPH ENGINEERS OFFICE, EUSTON, L.N.S.I.																			
PLAN N° MD.3369 SHEET 1 OF 2 SHEETS																			
PLAN DATE 4-2-37 ISSUED																			
COPY N° SUPERSEDES																			
DATE	ITEM N°	NATURE OF AMENDMENT																	
7-7-39	5A	DETAIL 5A ADDED-MADE FOR DOUBLE DETEC.																	
7-7-39	-	ADDITIONAL CAP N° FOR COMPLETE F.P.L.																	
8-11-40	5B	ROLLERS FITTED ON DETEC. SLIDE																	
7-10-43	5A	PLUNGER FOR ELEC. OPER. POINTS ADDED.																	
7-10-43	1	LUG FOR SOLE PLATE MADE 1/8"																	
<table border="1"> <tr> <td>1. MACHINE</td> <td>INDOOR</td> <td>ASST.</td> <td>DRAWN BY</td> </tr> <tr> <td>2. DISC</td> <td>ELECTRICAL</td> <td>TRACED BY</td> <td>BY</td> </tr> <tr> <td>3. FILE FINISH</td> <td>MATERIALS</td> <td>CHECKED BY</td> <td>BY</td> </tr> <tr> <td colspan="3">REDUCED COPIES AVAILABLE</td> <td>DRAWER 59 N° 13</td> </tr> </table>				1. MACHINE	INDOOR	ASST.	DRAWN BY	2. DISC	ELECTRICAL	TRACED BY	BY	3. FILE FINISH	MATERIALS	CHECKED BY	BY	REDUCED COPIES AVAILABLE			DRAWER 59 N° 13
1. MACHINE	INDOOR	ASST.	DRAWN BY																
2. DISC	ELECTRICAL	TRACED BY	BY																
3. FILE FINISH	MATERIALS	CHECKED BY	BY																
REDUCED COPIES AVAILABLE			DRAWER 59 N° 13																



PLAN WITH COVER REMOVED



NOTE:-

FOR DETAILS OF ITEMS 1 TO 52, SEE SHEETS 2 TO 5

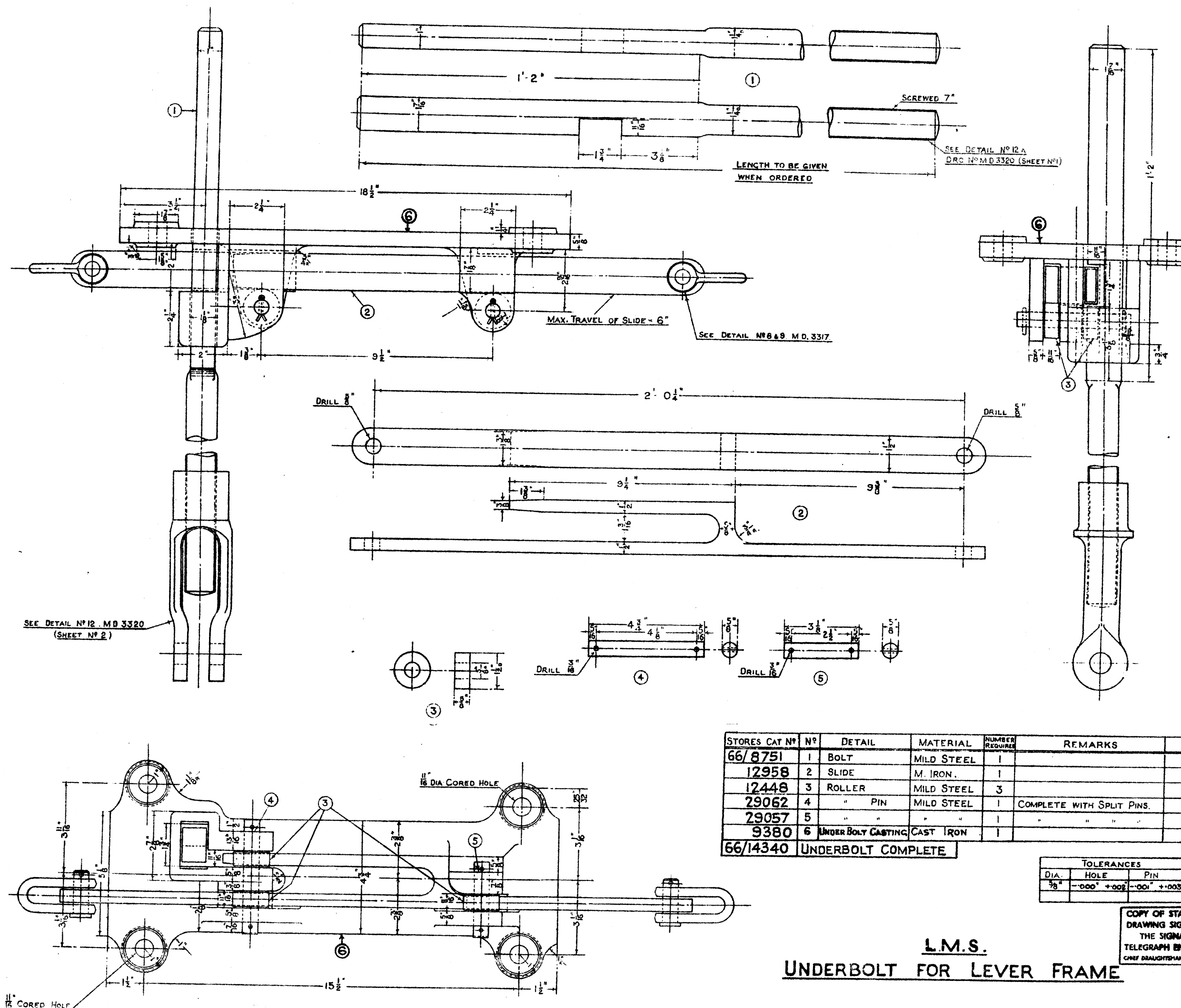
FOR DETAILS OF ITEM 53, SEE DRAWING NO. MD.33115 (DETAIL 50)

L.M.&S.R.

FOG SIGNALLING MACHINE
(CLAYTON'S)COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN5 SHEETS
SHEET 1

EXAMINED BY		
INDOOR ASST.		Z110
ELECTRICAL "		
WORKS "		RWS
MATERIALS "		RWS

DRAWN BY... J.A.
TRACED BY... J.A.
CHECKED BY...LONDON MIDLAND & SCOTTISH RAILWAY
SIGNAL & TELEGRAPH
ENGINEERS OFFICE
DERBY. LMS. 49PLAN NO. M.D. 33103
PLAN DATE 22-5-33
DATE ISSUED



STORES CAT N°	N°	DETAIL	MATERIAL	NUMBER REQUIRED	REMARKS	BSI SPECIFICATION
66/8751	1	BOLT	MILD STEEL	1		15
12958	2	SLIDE	M. IRON.	1		308 or 310.
12448	3	ROLLER	MILD STEEL	3		32 GRADE 2.
29062	4	" PIN	MILD STEEL	1	COMPLETE WITH SPLIT PINS.	32 GRADE 2
29057	5	" "	" "	1	" " " "	" " "
9380	6	UNDERBOLT CASTING	CAST IRON	1		321 " A.
66/14340	UNDERBOLT COMPLETE					

TOLERANCES		
DIA.	HOLE	PIN
$\frac{5}{8}$ "	$-.000" +.002"$	$-.001" +.000"$

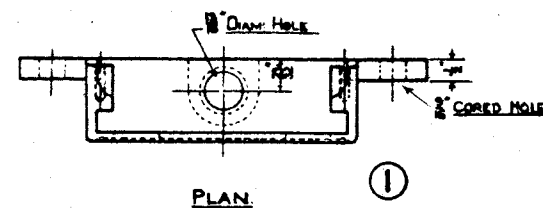
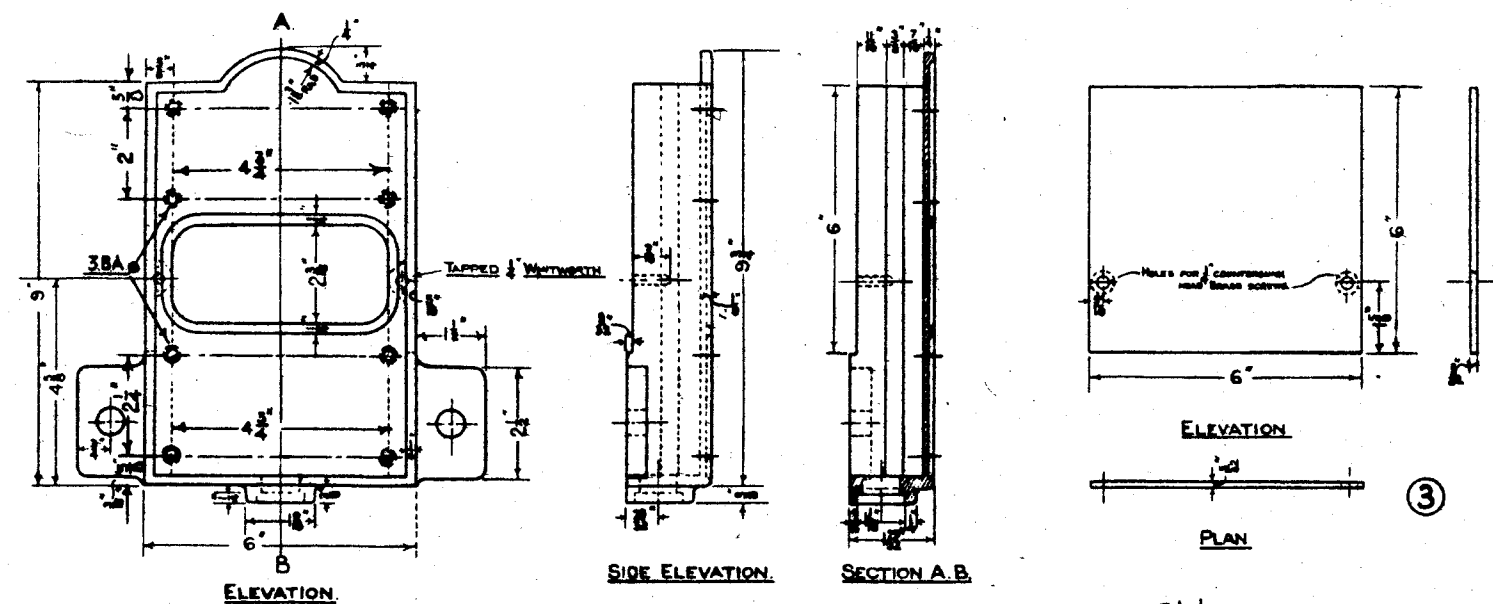
**COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN**

<u>EXAMINED BY</u>	
INDOOR ASST.	INC
ELECTRICAL	
WORKS	
MATERIALS	

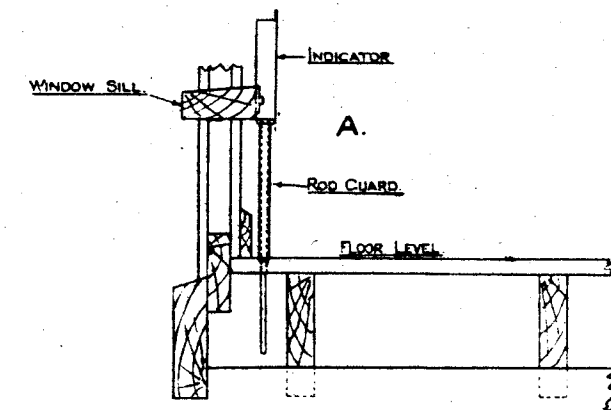
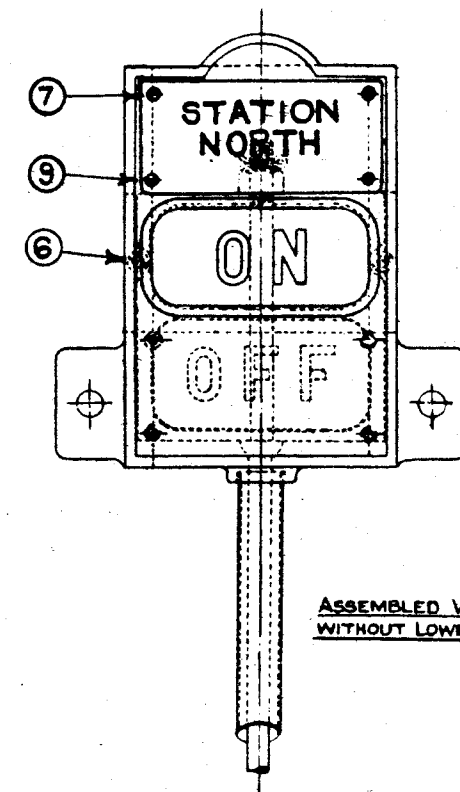
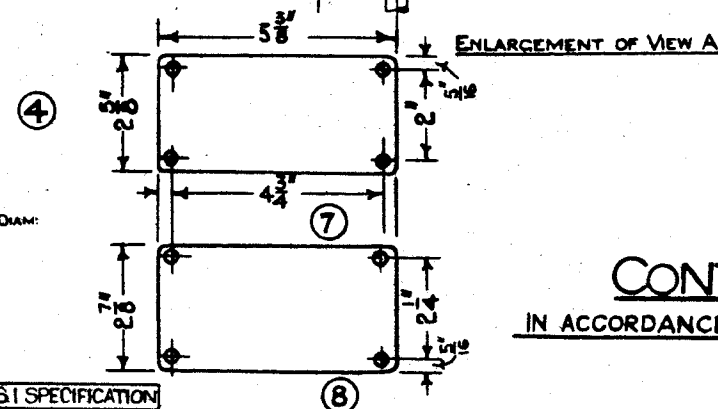
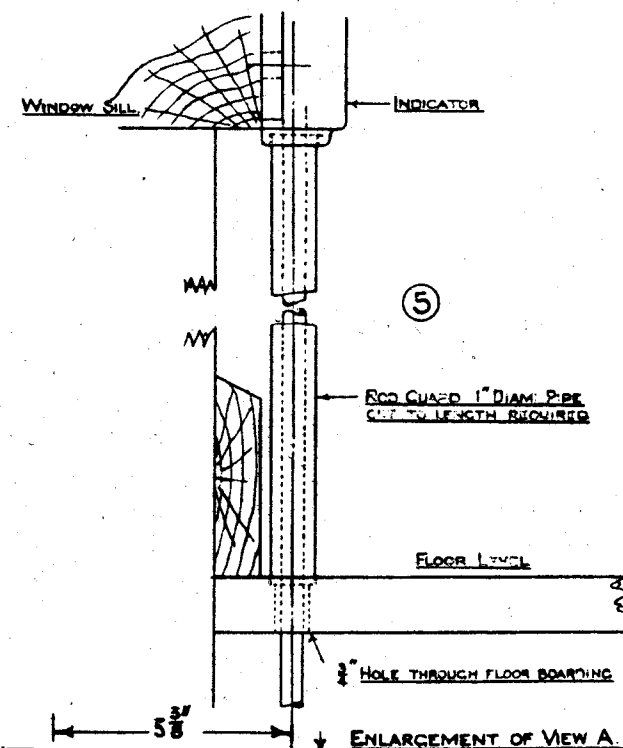
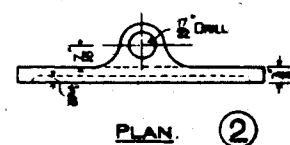
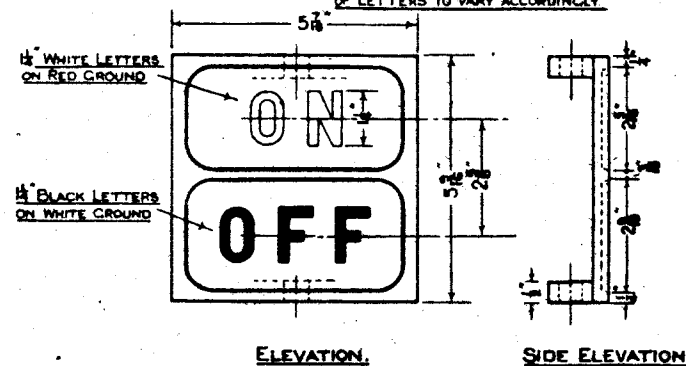
DRAWN BY.....
TRACED BY: W. J. W.
CHECKED BY: [Signature]

LONDON MIDLAND & SCOTTYISH RAILWAY
SIGNAL & TELEGRAPH
ENGINEER'S OFFICE
DERBY L.M.S. 48
PLAN No. M.D. 3310Z
PLAN DATE 25-2-36
DATE ISSUED

L.M.S.
UNDERBOLT FOR LEVER FRAME



NOTE:
NAMING TO BE AS REQUIRED, I.E.
ON, OFF, BATTERY, FREE,
LATCH, UNLATCH, ETC. SIZE
OF LETTERS TO VARY ACCORDINGLY.



L.M.S. CONTROL INDICATOR.

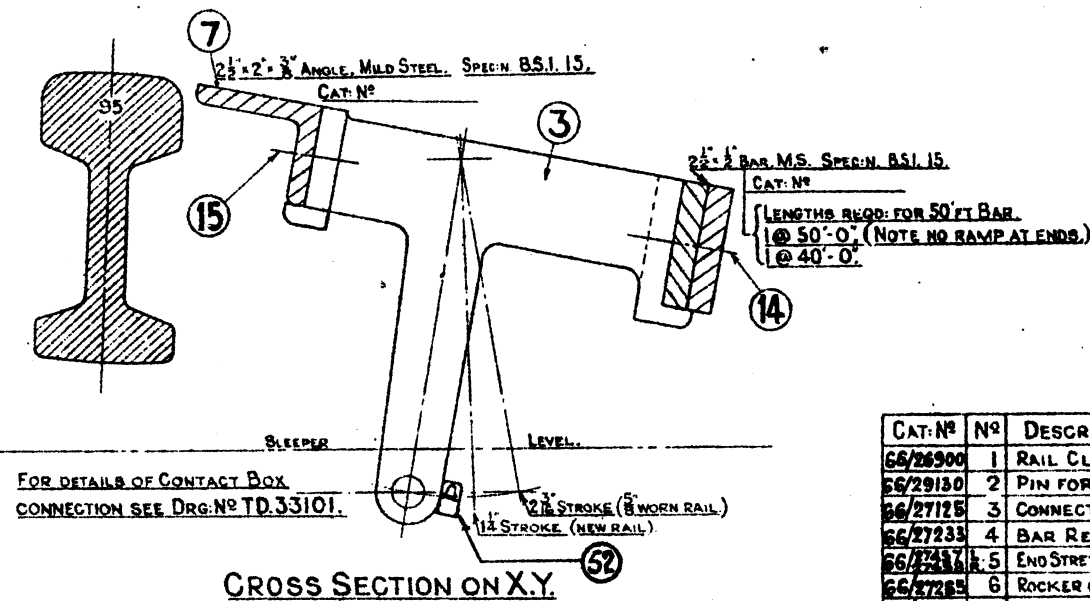
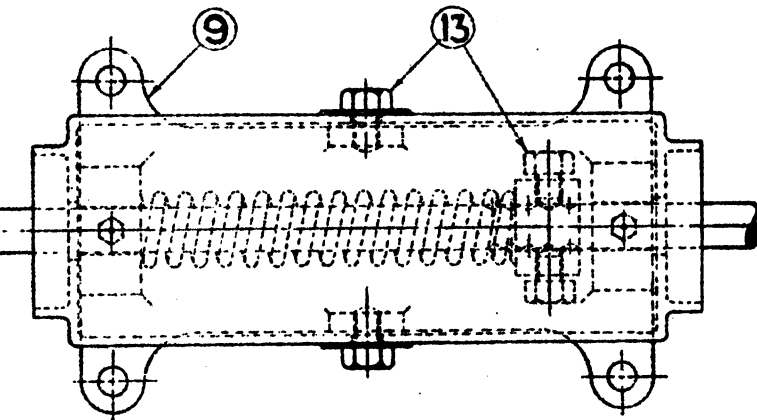
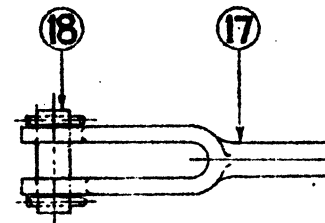
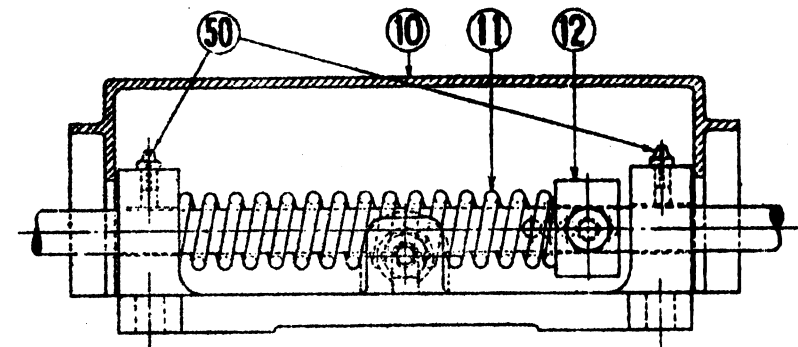
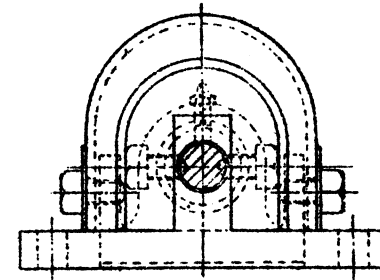
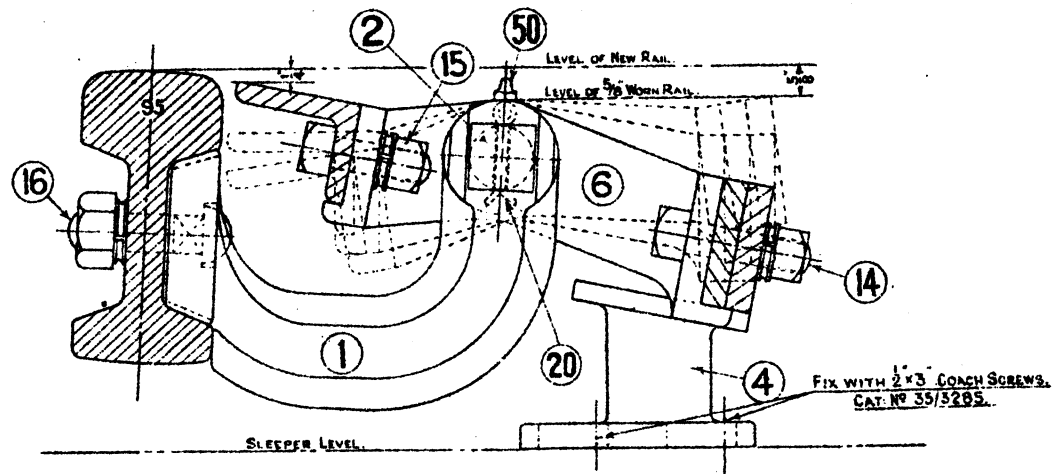
IN ACCORDANCE WITH R.E.C. STANDARD DRAWING N° 8.167.

AMENDED 16-3-42-DETAIL 1/3 B.A. HOLES ADDED
AND LETTERING REMOVED
AND DETAILS 7/9 ADDED.

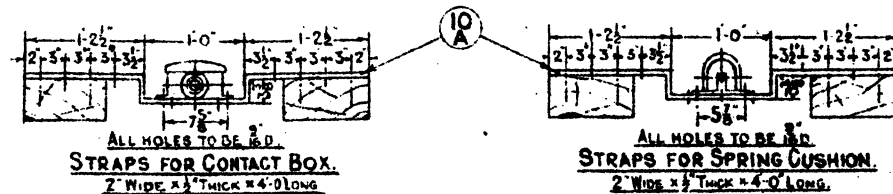
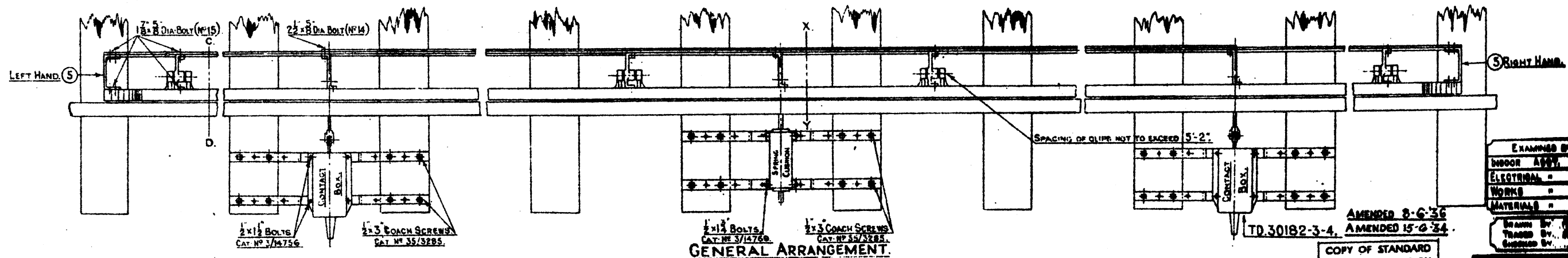
STORES CAT. N°	DETAIL	MATERIAL	NUMBER REQUIRED	REMARKS	APPROX. WEIGHT	BSI SPECIFICATION
1	CASE	CAST IRON	1			321 GRADE A
2	INDICATOR PLATE	-	1			
3	BACK PLATE FOR CASE	MILD STEEL PLATE	1			15
4	ROD FOR INDICATOR PLATE	WROUGHT IRON	1			51 GRADE B
5	ROD GUARD	IRON PIPE	1			35/4024
6	SCREW C 3/4\"	BRASS	2			

COPY OF STANDARD
DRAWING SIGNED BY
THE SIGNAL &
TELEGRAPH ENGINEER
CHIEF BRANCH

SIGNAL & TELEGRAPH
ENGINEERS OFFICE,
DERBY LMS 48
PLAN N° M.D. 33128
PLAN DATE 31.11.33
DATE ISSUED



CAT. NO	NO	DESCRIPTION.	MATERIAL	NO REQ	REMARKS.	APPROX WT	SPECIFICATION	NO	DESCRIPTION.	MATERIAL	NO REQ	REMARKS.	APPROX WT	SPECIFICATION	CAT. NO
66/26900	1	RAIL CLIP	CAST IRON	11	FOR 50' BAR.		B.S. 1321 ^{1/2"}	11	SPRING. FOR ABOVE (8)	STEEL.	1				66/27330
66/29130	2	PIN FOR ROCKER	MILD STEEL ^{SAME AS NO. 1}	"	" " "		" 3/2"	12	COLLAR. "	WROTHEN	1			B.S. 51 ^{1/2"}	66/27340
66/27125	3	CONNECTION PIECE.	MAL. C.I.	3			" 310.	13	SETSCREWS. "	BRIGHTMS	4	2 LONG. 1 DIA.		" 32 ^{1/2"}	66/27350
66/27233	4	BAR REST.	CAST IRON	3	FOR 50' BAR.		" 32 ^{1/2"}	14	BOLTS & SPRING WASHERS	BLACKMS	2	" " " 50-NO.		" 15 ^{1/2"}	66/27360
66/27341	5	END STRETCHER ^{RIGHT HAND}	MILD STEEL ^{100% ELEM.}	1			" 15.	15	BOLTS.	"	1	" " " 50-NO.		DO. ^{1/2"}	66/27370
66/27245	6	ROCKER OR STRETCHER	MAL. C.I. ^{SAME AS NO. 1}	1	FOR 50' BAR.		" 310.	16	BOLTS.	"	2	" " " 50-NO.		DO. ^{1/2"}	66/27380
66/26700	7	BAR. 21/2" ^{1/2"} ANGLE	MILD STEEL	1	WITH RAMPS AS DETAILED		" 15.	17	JAW.	WROTHEN	1	NO 19, MD. 3320.		B.S. 51 ^{1/2"}	66/27390
66/26995	8	SPRING CUSHION ^(CROSS TYPE)	"	1			" 15.	18	PIN FOR CONNECTING JAW	WROTHEN	1	NO 19, MD.		" 32 ^{1/2"}	66/27400
66/26730	9	B.A.E. FOR ABOVE (8)	CAST IRON	1			" 32 ^{1/2"}	19	CUSHION SLIDE ROD.	WROTHEN	1	WELDED TO NO 17.		" 51 ^{1/2"}	66/27410
66/26935	10	COVER. "	"	1			DO.	20	GREASE NIPPLE.	MILD STEEL	1	MD. 33115. ITEM 50.		B.S. 132 ^{1/2"}	66/27420
66/27416	10A	FIXING STRAPS.	MILD STEEL ^{100% ELEM.}	6			" 15.	20	PINS, COTTER, SPLIT.	BRIGHT S.	3	CAT. NO 29/2910. (2")		29/2910	66/27430
								21	GREASE NIPPLE	MILD STEEL	1				



L.M.S.
DEPRESSION BAR.
SHEET 1.2 SHEETS.

3-4. AMENDED 8-6-36
AMENDED 15-6-34

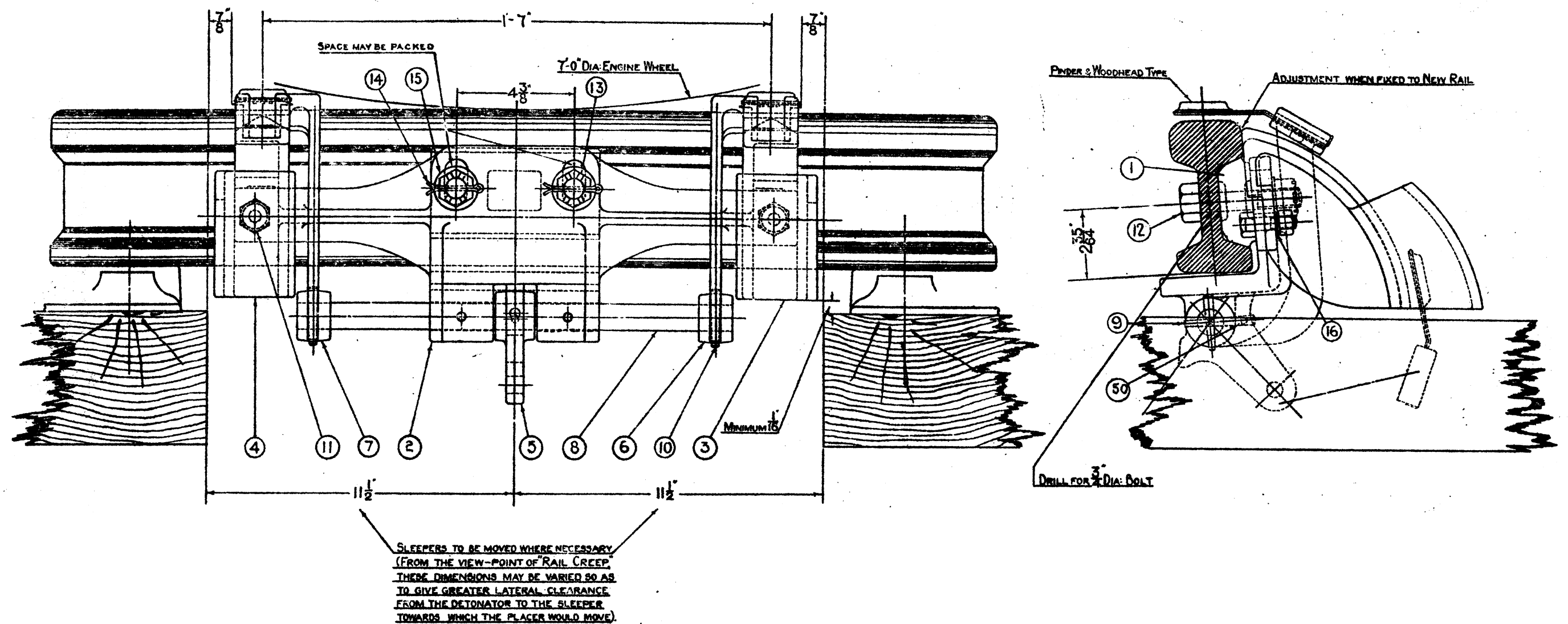
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CHIEF DRAUGHTSMAN.

EXAMINED BY	
INDOOR APPR.	DATE
ELECTRICAL "	
WORKS "	
MATERIALS "	

DESIGNED BY	
TRACED BY	
CHECKED BY	

LICENSED AND REGISTERED ELECTRICAL
 SIGNAL AND TELEGRAPH
 ENGINEERS OFFICE
 DERBY, LMS. 40.

PLAN NO. MD 3510
 PLAN DATE. 3-2-33
 DATE ISSUED.



CAT. #	#	DETAIL	MATERIAL	#REQ	REMARKS	APP. WITH	B.S.I SPECIFICATION
66/36634	1	PACKING PIECE	CAST IRON	1	FOR B.S. RAIL		321 GRADE A
66/35988	2	RAIL CLIP	" "	1			Do
66/36846	3	SHIELD - RIGHT HAND	" "	1			Do
66/36848	4	" - LEFT "	" "	1			Do
66/35960	5	DRIVING ARM	" "	1			Do
66/36189	6	HOLDER - RIGHT HAND	MALL: CAST IRON	1			310
66/36191	7	" - LEFT "	" " "	1			310
66/36903	8	SPINDLE	B.D. MILD STEEL	1			32 GRADE 2
29/3924	9	PEG PIN - SOLID	STEEL - BRIGHT	1	3/4 DIA THICK END X 2 1/2" LONG		
29/3921	10	" " " "	" " "	2	3/8 " " " X 2 " "		
3/45665	11	HEX. HEAD BOLT & NUT	STEEL	2			
3/15783	12	" " BOLT	"	2			
3/61538	13	CASTLE NUT	"	2			
29/3424	14	SPLIT PIN	"	2			
3/75246	15	WASHER	"	2			
3/77787	16	SPRING WASHER	"	2			
39/40638	50	GREASE NIPPLE	MILD STEEL	2	DR ^G M.D. 33115		

COMPLETE DETONATOR PLACER CAT. N° 66/36638.

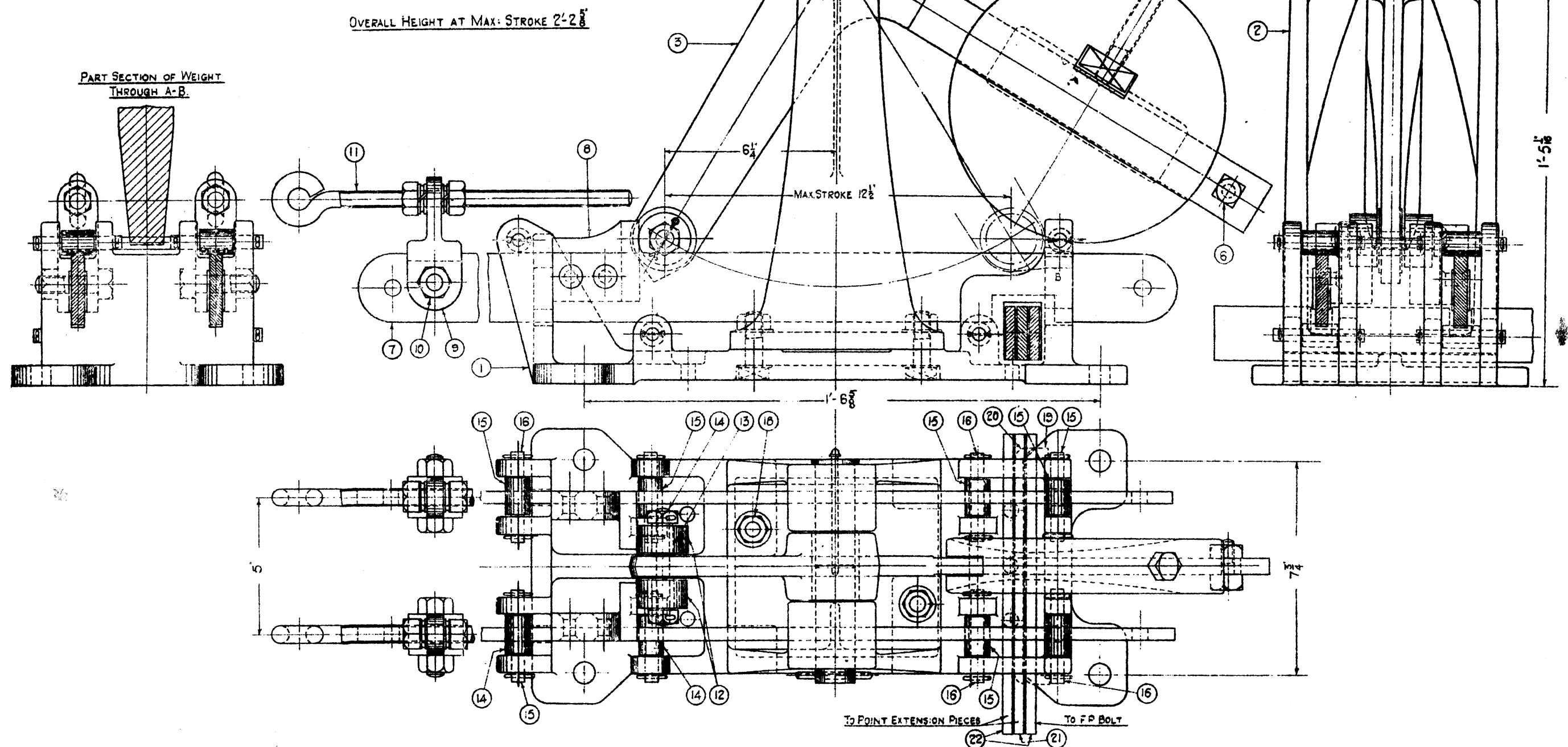
L.M.S.
DETONATOR PLACER.
GENERAL ARRANGEMENT.

EXAMINED BY	
INDOOR ASST.	COLE
ELECTRICAL -	YS
MATERIALS -	JOHN

DRAWN BY	TRACED BY
CHECKED BY	

COPY OF STANDARD DRAWING SIGNED BY THE SIGNAL & TELEGRAPH ENGINEER	
ONLY DRAWING ROOM	

LONDON AND NORTH-EASTERN RAILWAY CO. SIGNAL & TELEGRAPH ENGINEERS OFFICE EUSTON, L.M.S.I.	
PLAN NO.	M.D. 35023
PLAN DATE	8-9-36
DATE ISSUED	



No.	STORES CAT. No.	DESCRIPTION	MATERIAL	No. REQ.	REMARKS	APPROX. WEIGHT	BSI SPECIFICATION
1	66/6222	BODY	CAST IRON	1			321 GRADE A
2	6830	PEDESTAL	"	1			"
3	6480	CRANK	MILD STEEL	1			15
4	16572	WEIGHT - 10"	CAST IRON	1	TO MD 3315, DETAIL 11	30 LBS	
5	3/47374	" FIXING BOLT	MILD STEEL	1	REPLACES DET 12 MD 3315		15
6	50324	" STOP BOLT	"	1	COMPLETE WITH NUT		15
7	66/7213 L.H.	SLIDE	"	1	IRH 1/16"		15
8	7214 R.H.	SLIDE STOP	"	1	IRH 1/16"		15
9	6035	CONNECTOR ARM	"	2			15
10	3/45663	CONNECTOR ARM BOLT	"	2	COMPLETE WITH NUT		15
11	55296	ADJUSTING EYE BOLT	"	2	COMPLETE WITH NUTS & SPRING WASHERS		15
12	66/7033	CRANK ROLLER	"	2			32 GRADE 2

No.	STORES CAT. No.	DESCRIPTION	MATERIAL	No. REQ.	REMARKS	APPROX. WEIGHT	BSI SPECIFICATION
13	66/6290	CRANK ROLLER BUSH	MILD STEEL	2			32 GRADE 2
14	29058	CRANK ROLLER PIN	MS BR DRAWN	1	COMP WITH NUTS & PINS		"
15	7030	SLIDE ROLLER	MILD STEEL	8			"
16	28090	" PIN	MS BR DRAWN	8	COMPLETE WITH SPL PINS		"
17	26663	CRANK PIN	MILD STEEL	1	COMP WITH GRNIPPLE & PIN		"
18	3/48843	PEDESTAL BOLT	"	2	COMP WITH NUT & WASHER		15
19	66/6890	PACKING PIECE 3/8" THICK	CAST IRON		SUPPLIED ONLY WHEN SPECIALLY ORDERED		321 GRADE A
20	6891	"	"				"
21	66/6715	DETECTOR BLADE (MIDDLE)	MILD STEEL	1			15
22	66/6715	" (OUTSIDE)	"	2			15
50	39/40628	GREASE NIPPLE	"	1	TO MD 3315		
	66/6578	DETECTOR COMPLETE					

FOR DETAILS 1 TO 6 SEE DRG NO MD 34079 SHEET 1
 " " 7 TO 22 " " " " " " 2

L.M.S. WEIGHTED SIGNAL DETECTOR

COPY OF STANDARD
 DRAWING SIGNED BY
 THE SIGNAL &
 TELEGRAPH ENGINEER
 CHIEF BRANCH

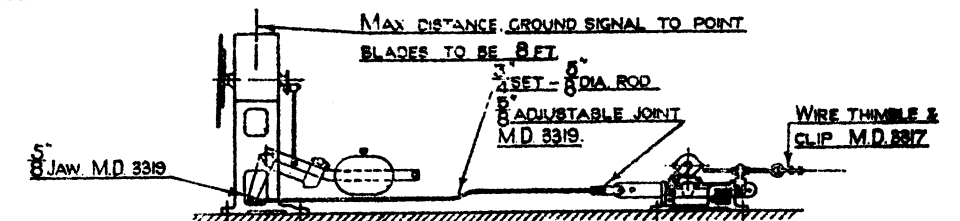
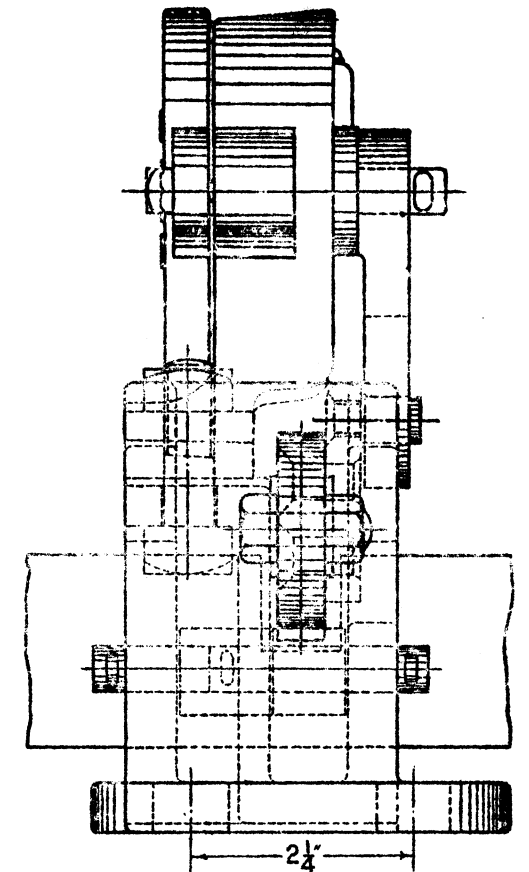
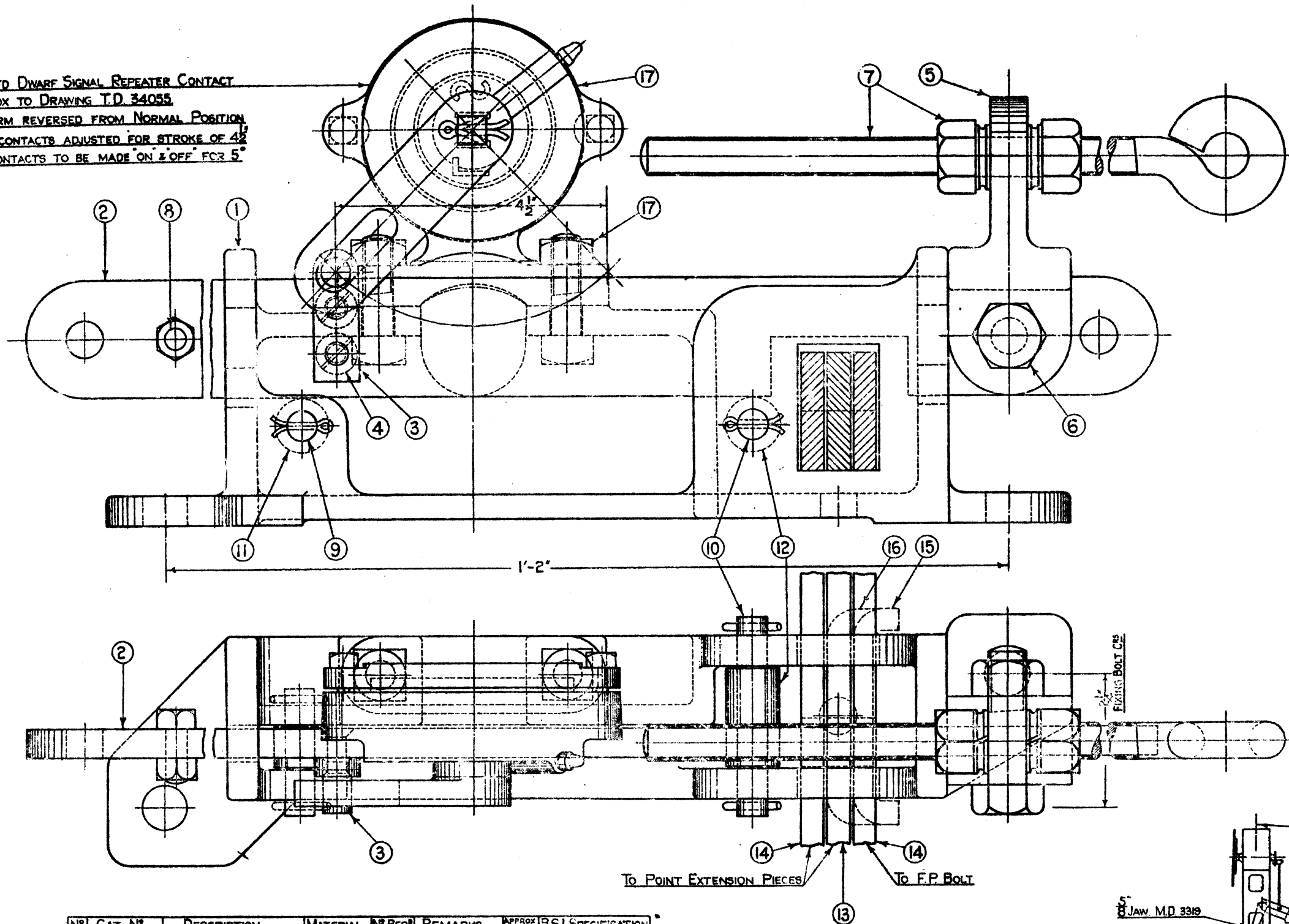
EXAMINED BY
 INDOOR ASST. *[Signature]*
 ELECTRICAL *[Signature]*
 MATERIALS *[Signature]*

DRAWN BY *[Signature]*
 TRACED BY *[Signature]*
 CHECKED BY *[Signature]*

LONDON SIGNALS AND TELEGRAPH ENGINEER'S OFFICE
 EUSTON L.M.S.I.

PLAN NO. MD 34078
 PLAN DATE 14-10-36
 DATE ISSUED

STD DWARF SIGNAL REPEATER CONTACT
BOX TO DRAWING T.D. 34055
ARM REVERSED FROM NORMAL POSITION
& CONTACTS ADJUSTED FOR STROKE OF 42
CONTACTS TO BE MADE ON & OFF FOR 5"



Nº	CAT. Nº	DESCRIPTION	MATERIAL	Nº REQ	REMARKS	APPROX WEIGHT	B.S.I. SPECIFICATION
1	66/6220	BODY	CAST IRON	1			321 GRADE A
2	7208	SLIDE	MILD STEEL	1			15
3	6270	BRACKET & STUD	"	1			15
4	3/4583	" BOLT	"	2			15
5	66/6085	CONNECTOR ARM	"	1	SEE M.D.34079 DET 3		15
6	3/45663	" BOLT	"	1	" M.D.34079 - 10		15
7	53286	ADJUSTING EYE BOLT	"	1	" M.D.34079 - 11		15
8	45449	SLIDE STOP BOLT	"	1	COMPLETE WITH NUT		15
9	66/28989	SLIDE ROLLER PIN	M.S. BRIGHT DR	1	" - 28 PINS		32 GRADE 2
10	28991	"	"	1	"		32 - 2
11	7029	"	"	1	"		32 - 2
12	7031	"	"	1	"		32 - 2
13	66/8-6171-5	DETECTOR BLADE (MIDDLE)	MILD STEEL	1	SEE M.D.34079 DET 21		15
14	66/8-6171-5	" (OUTSIDE)	"	2	" M.D.34079 - 22		15
15	6882	PACKING PIECE 3/8" THICK	CAST IRON		SUPPLIED ONLY WHEN SPECIALLY ORDERED		321 GRADE A
16	6886	" 1 1/8" "	"		"		321 - A
17	62/3452	DWARF SIGNAL REPEATER CONBOX	"		15 1/2" x 10 1/2" x 10 1/2" COMPLETE WITH 28 PINS		
	66/6580	DETECTOR COMPLETE					

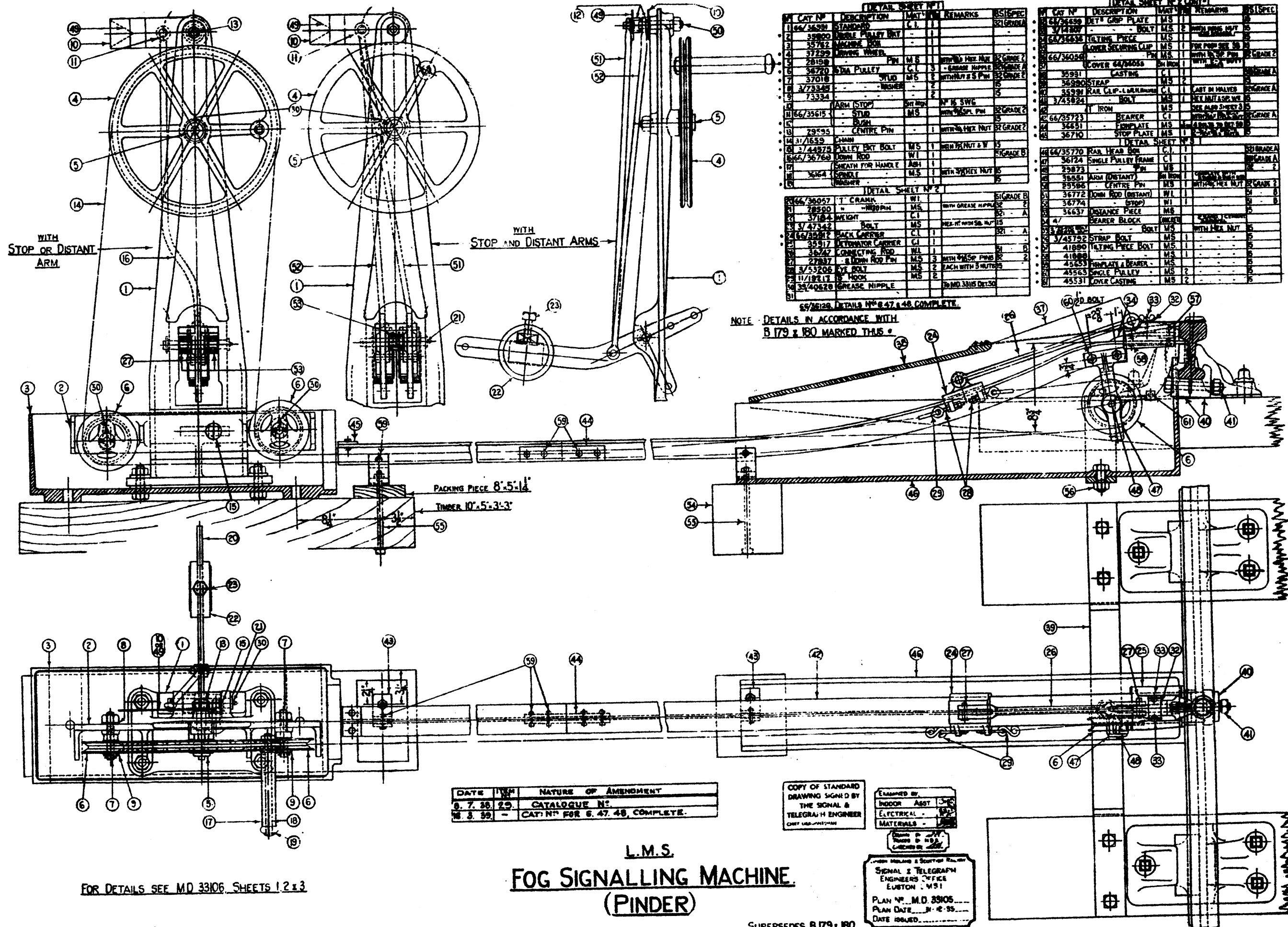
FOR DETAILS SEE DRAWING M.D. 34089 & M.D. 34079 (SHEET 2)

THIS MAY BE USED AS A STANDARD DETECTOR WHEN THE REPEATER & DETAILS 3.4 & 8. WILL NOT BE REQUIRED. ALSO THE SLIDE, DETAIL 2 WILL BE REPLACED BY DETAIL 18. SEE M.D. 35022.

L.M.S.

GROUND SIGNAL DETECTOR WITH REPEATER

EXAMINED BY	
INDOOR ASST.	10/2
ELECTRICAL	10/3
MATERIALS	10/4
DRAWN BY TRACED BY CHECKED BY	
LONDON MIDLAND & SCOTCH RAILWAY	
SIGNAL & TELEGRAPH ENGINEERS' OFFICE EUSTON, L.M.S.I.	
PLAN Nº M.D. 34072	
PLAN DATE 16-10-35	
DATE ISSUED	



CAT. NO.	DESCRIPTION	MAT.	REMARKS	QTY	SPEC.
1/66/3590	STANDARD	C.I.		1	32 GRADE
2/66/3590	DOUBLE PULLEY BOLT	C.I.		1	
3/66/3590	WASHER	MS		1	
4/66/3590	DRIVING WHEEL	MS		1	32 GRADE
5/66/3590	WASHER	MS		1	
6/66/3590	WASHER	MS		1	32 GRADE
7/66/3590	WASHER	MS		1	32 GRADE
8/66/3590	WASHER	MS		1	32 GRADE
9/66/3590	WASHER	MS		1	32 GRADE
10/66/3590	WASHER	MS		1	32 GRADE
11/66/3590	WASHER	MS		1	32 GRADE
12/66/3590	WASHER	MS		1	32 GRADE
13/66/3590	WASHER	MS		1	32 GRADE
14/66/3590	WASHER	MS		1	32 GRADE
15/66/3590	WASHER	MS		1	32 GRADE
16/66/3590	WASHER	MS		1	32 GRADE
17/66/3590	WASHER	MS		1	32 GRADE
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19/66/3590	WASHER	MS		1	32 GRADE
20/66/3590	WASHER	MS		1	32 GRADE
21/66/3590	WASHER	MS		1	32 GRADE
22/66/3590	WASHER	MS		1	32 GRADE
23/66/3590	WASHER	MS		1	32 GRADE
24/66/3590	WASHER	MS		1	32 GRADE
25/66/3590	WASHER	MS		1	32 GRADE
26/66/3590	WASHER	MS		1	32 GRADE
27/66/3590	WASHER	MS		1	32 GRADE
28/66/3590	WASHER	MS		1	32 GRADE
29/66/3590	WASHER	MS		1	32 GRADE
30/66/3590	WASHER	MS		1	32 GRADE
31/66/3590	WASHER	MS		1	32 GRADE
32/66/3590	WASHER	MS		1	32 GRADE
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40/66/3590	WASHER	MS		1	32 GRADE
41/66/3590	WASHER	MS		1	32 GRADE
42/66/3590	WASHER	MS		1	32 GRADE
43/66/3590	WASHER	MS		1	32 GRADE
44/66/3590	WASHER	MS		1	32 GRADE
45/66/3590	WASHER	MS		1	32 GRADE
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57/66/3590	WASHER	MS		1	32 GRADE
58/66/3590	WASHER	MS		1	32 GRADE
59/66/3590	WASHER	MS		1	32 GRADE
60/66/3590	WASHER	MS		1	32 GRADE

DATE	BY	NATURE OF AMENDMENT
8. 7. 38.	29.	CATALOGUE NO.
18. 3. 39.	-	CAT. NO. FOR 6. 47. 48. COMPLETE.

COPY OF STANDARD DRAWING SIGNED BY THE SIGNAL & TELEGRAPH ENGINEER

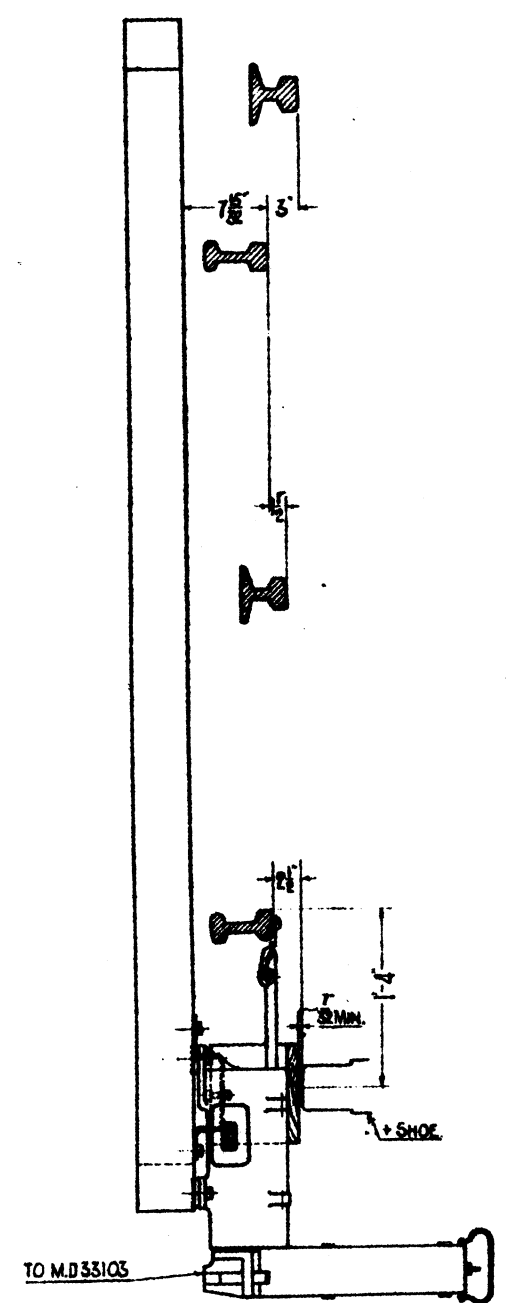
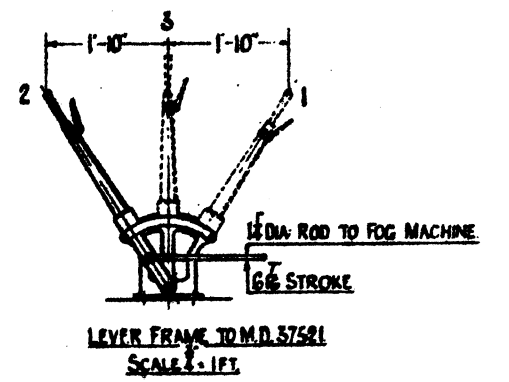
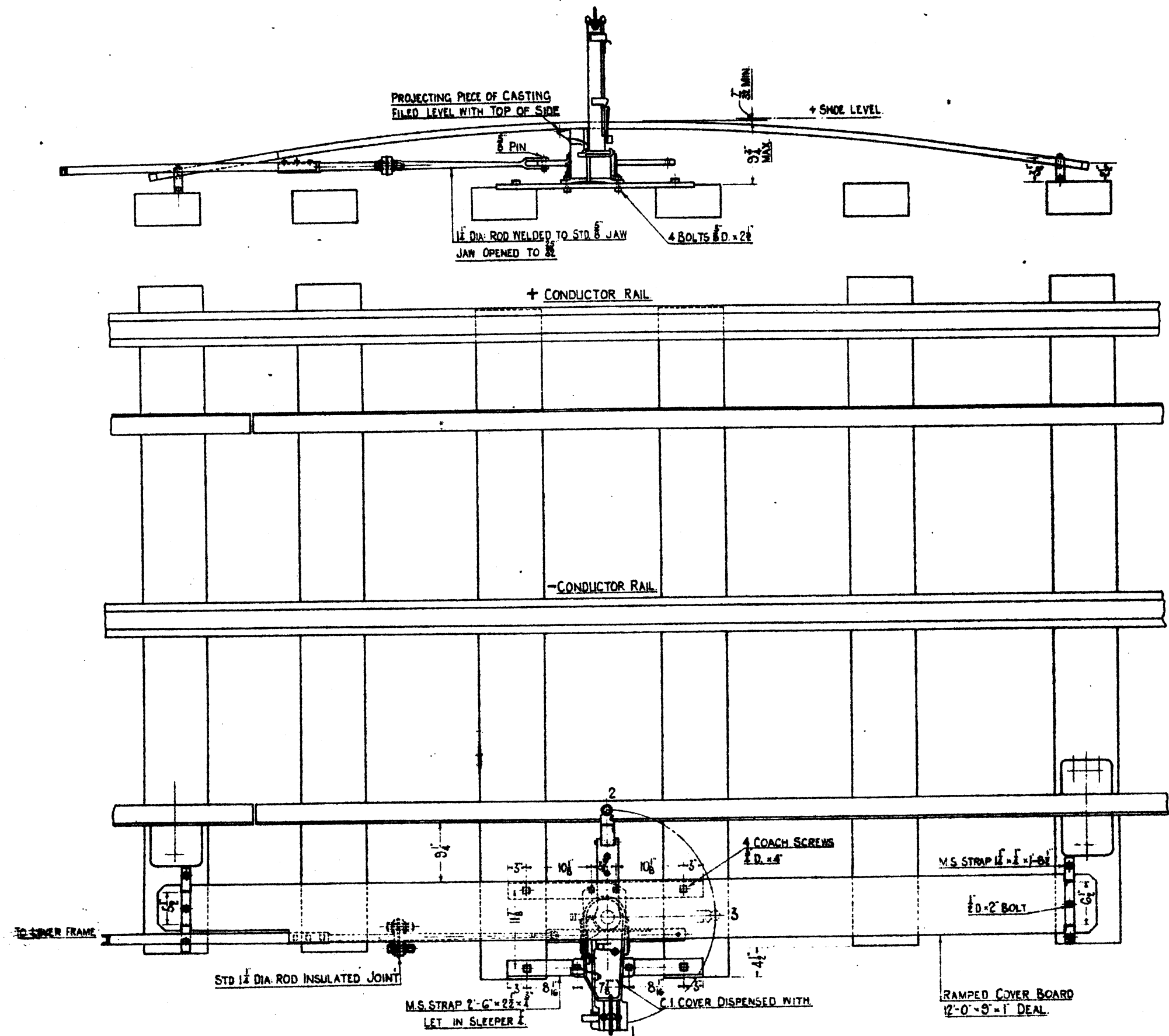
EXAMINED BY:
 INSPECTOR ASST. CHIEF
 ELECTRICAL
 MATERIALS

PLAN NO. M.D. 33105
 PLAN DATE 11. 12. 35
 DATE ISSUED

L.M.S.
FOG SIGNALLING MACHINE
 (PINDER)

FOR DETAILS SEE M.D. 33106 SHEETS 1, 2 & 3

SUPERSEDES B.179 & 180



L.M.S.
CLAYTON'S FOG SIGNALLING MACHINE ON ELECTRIFIED LINES.

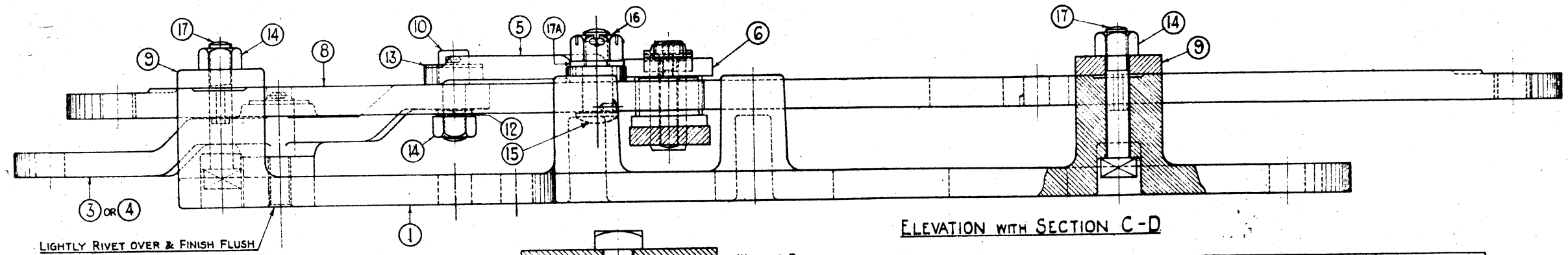
FOR APPLICATION TO ORDINARY
LINES SEE M.D. 37520.

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TELEGRAPH ENGINEER
CHIEF DRAUGHTSMAN

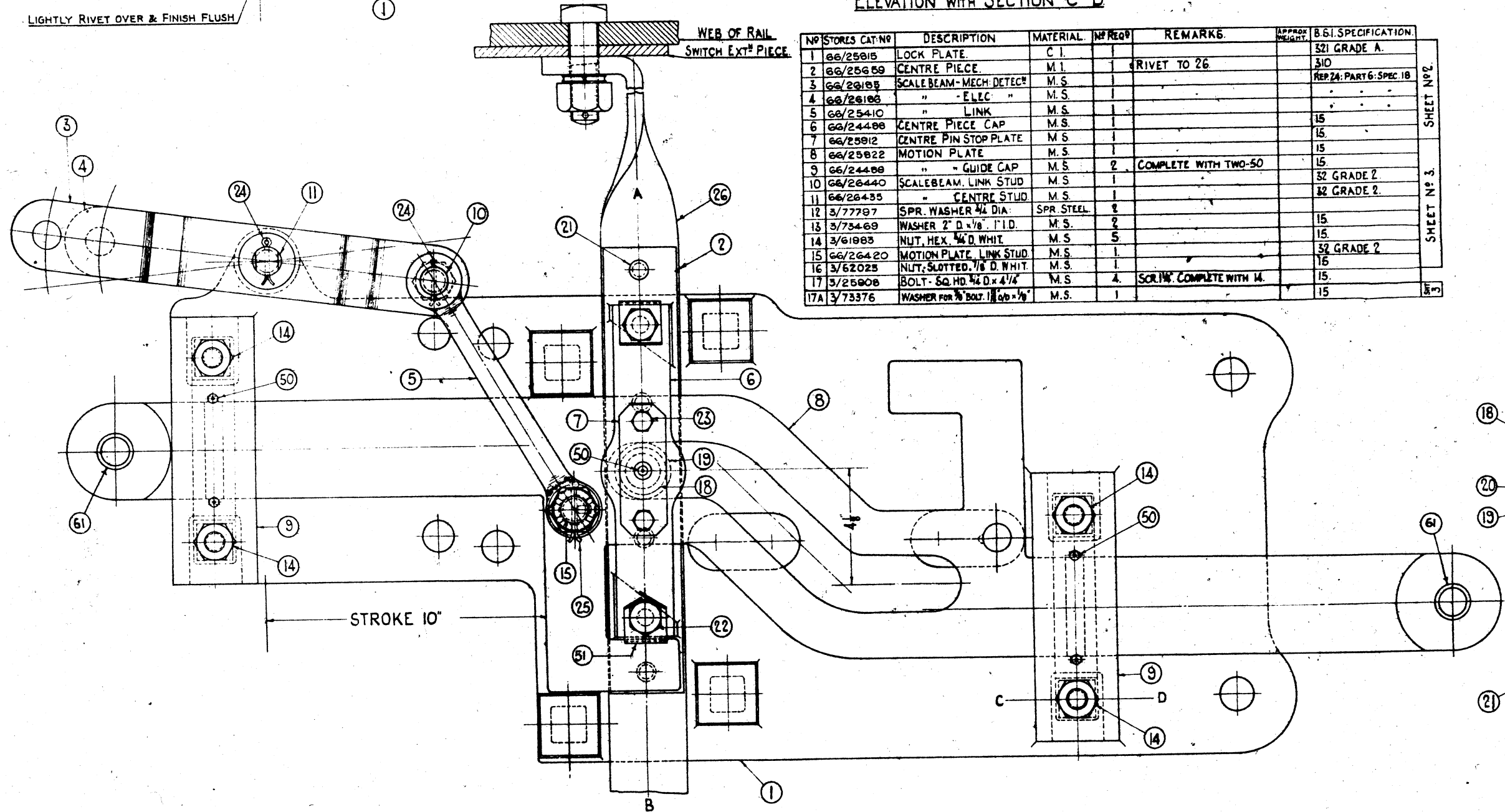
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CHECKED BY: [Signature]

EXAMINED BY:
INDOOR ASST. [Signature]
ELECTRICAL [Signature]
MATERIALS [Signature]

LONDON & NORTH EASTERN RAILWAY CO.
SIGNAL AND TELEGRAPH
ENGINEER'S OFFICE
EUSTON L.M.S.I.
PLAN NO. M.D. 37437
PLAN DATE 30-11-37
DATE ISSUED

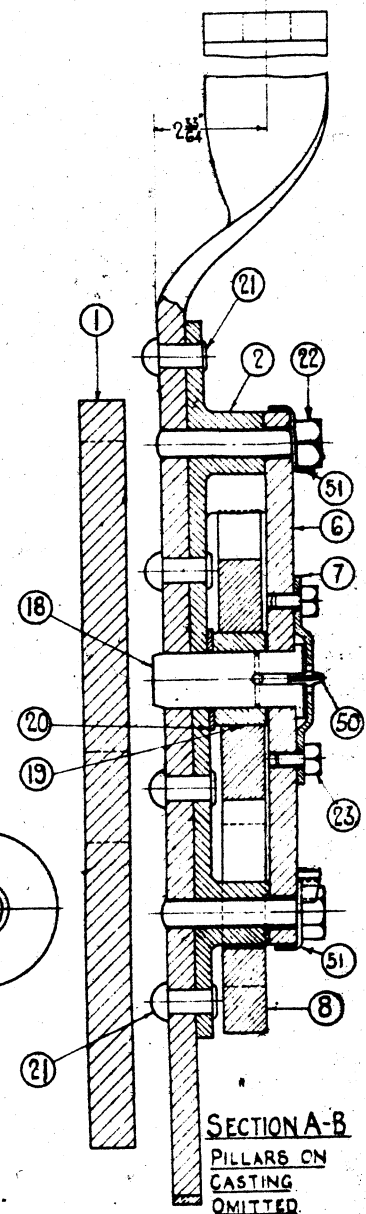


ELEVATION WITH SECTION C-D



NO	STORES CAT. NO	DESCRIPTION	MATERIAL	NO REQ	REMARKS	APPROX WEIGHT	B.S.I. SPECIFICATION
1	66/25815	LOCK PLATE	C.I.	1			321 GRADE A.
2	66/25659	CENTRE PIECE	M.I.	1	RIVET TO 26		310
3	66/29185	SCALE BEAM-MECH. DETECT	M.S.	1			REP 24: PART 6: SPEC 18
4	66/26108	" - ELEC "	M.S.	1			
5	66/25410	" LINK "	M.S.	1			15
6	66/24488	CENTRE PIECE CAP	M.S.	1			15
7	66/25812	CENTRE PIN STOP PLATE	M.S.	1			15
8	66/25822	MOTION PLATE	M.S.	1			15
9	66/24488	" GUIDE CAP	M.S.	2	COMPLETE WITH TWO-50		15
10	66/26440	SCALE BEAM LINK STUD	M.S.	1			32 GRADE 2
11	66/26435	" CENTRE STUD	M.S.	1			32 GRADE 2
12	3/77797	SPR. WASHER 1/4 DIA	SPR. STEEL	2			15
13	3/73469	WASHER 2" D x 1/8" I.D.	M.S.	2			15
14	3/61983	NUT, HEX. 1/4 D. WHIT.	M.S.	5			15
15	66/26420	MOTION PLATE LINK STUD	M.S.	1			32 GRADE 2
16	3/62025	NUT, SLOTTED, 1/8 D. WHIT.	M.S.	1			15
17	3/25908	BOLT - SQ. HD. 1/4 D x 1/4	M.S.	4	SCREWS COMPLETE WITH 14.		15
17A	3/73376	WASHER FOR 1/8 BOLT. 1 1/4 D x 1/4	M.S.	1			15

NO	STORES CAT. NO	DESCRIPTION	MATERIAL	NO REQ	REMARKS	APPROX WEIGHT	B.S.I. SPECIFICATION
18	66/28600	CENTRE PIN	M.S.	1	COMPLETE WITH 50.		32 GRADE 2
19	66/26140	ROLLER	M.S.	1	HARDENED		32 GRADE 2
20	3/73660	WASHER 2" D x 1/8" I.D.	M.S.	1			15
21	30/6072	RIVET-SNAP HEAD 1/4 x 1 1/2		4			15
22	3/15274	BOLT - 1/8 D WHIT. S. SCREWS	M.S.	4			15
23	3/14467	BOLT - 3/8 D WHIT. S. SCREWS	M.S.	2			15
24	29/2908	SPLIT PIN 3/16 D x 1 3/4	M.S.	2			
25	29/2911	SPLIT PIN 3/16 D x 2 1/4	M.S.	1			
26		STRETCHER BAR			SEE M.D. 38370		
50	39/40628	GREASE NIPPLE		5	TO M.D. 33115		
51	66/26538	LOCK WASHER	XXXXX TYP. PLATE	2			
61	66/21265	SPLIT BUSH	HARDENED STL	2	TO M.D. 33189		



SECTION A-B
PILLARS ON
CASTING
OMITTED

EXAMINED BY
INDOOR ASST. *LMC*
ELECTRICAL - *LMC*
MATERIALS - *LMC*

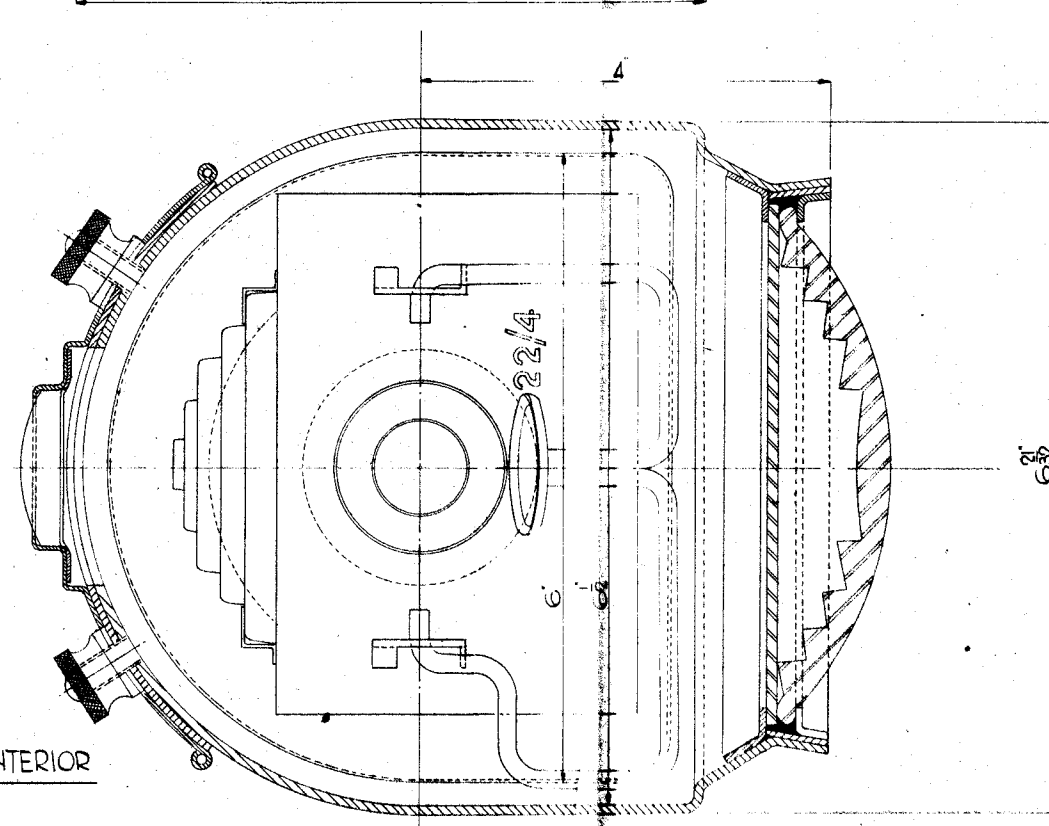
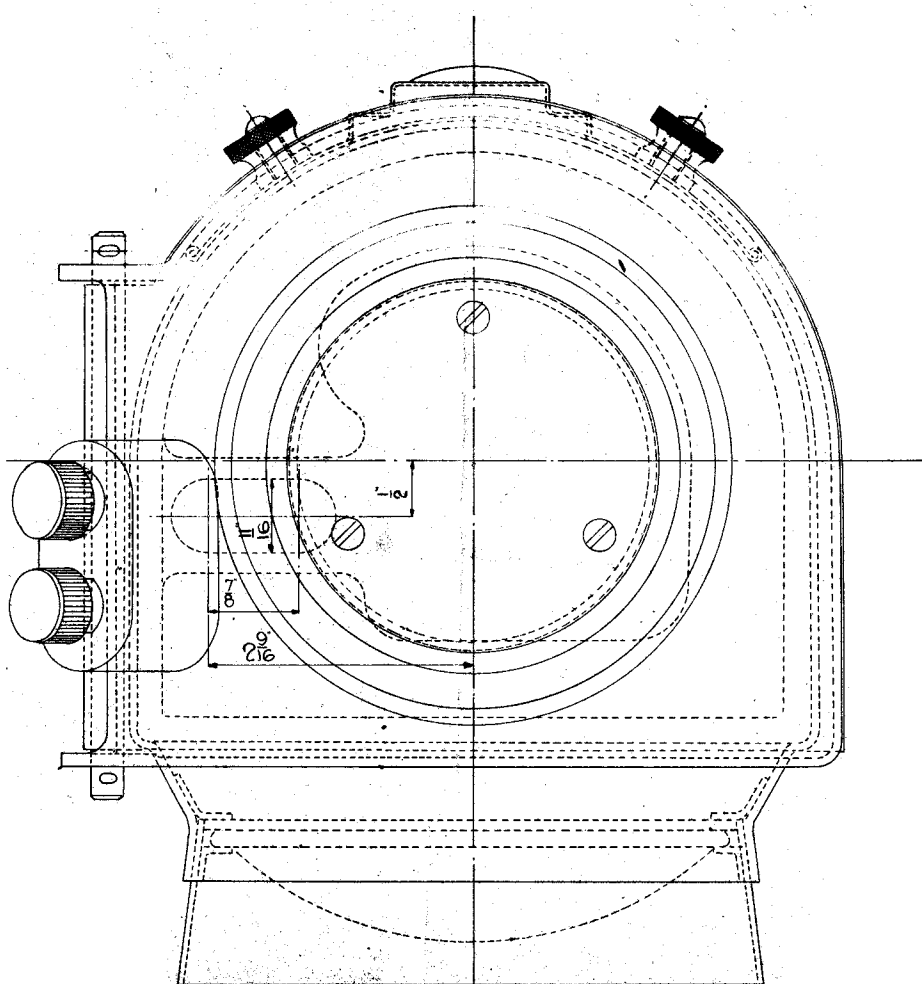
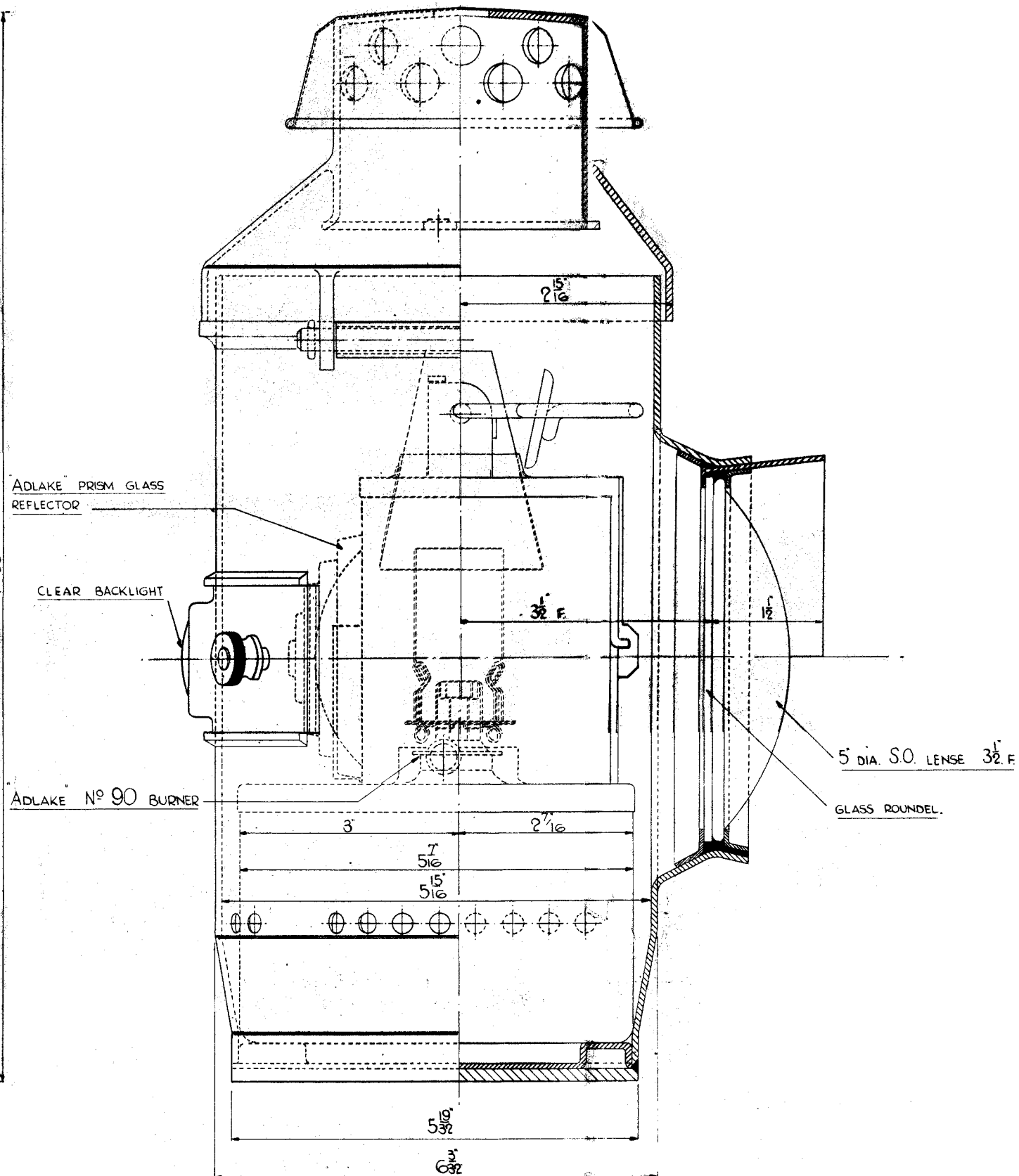
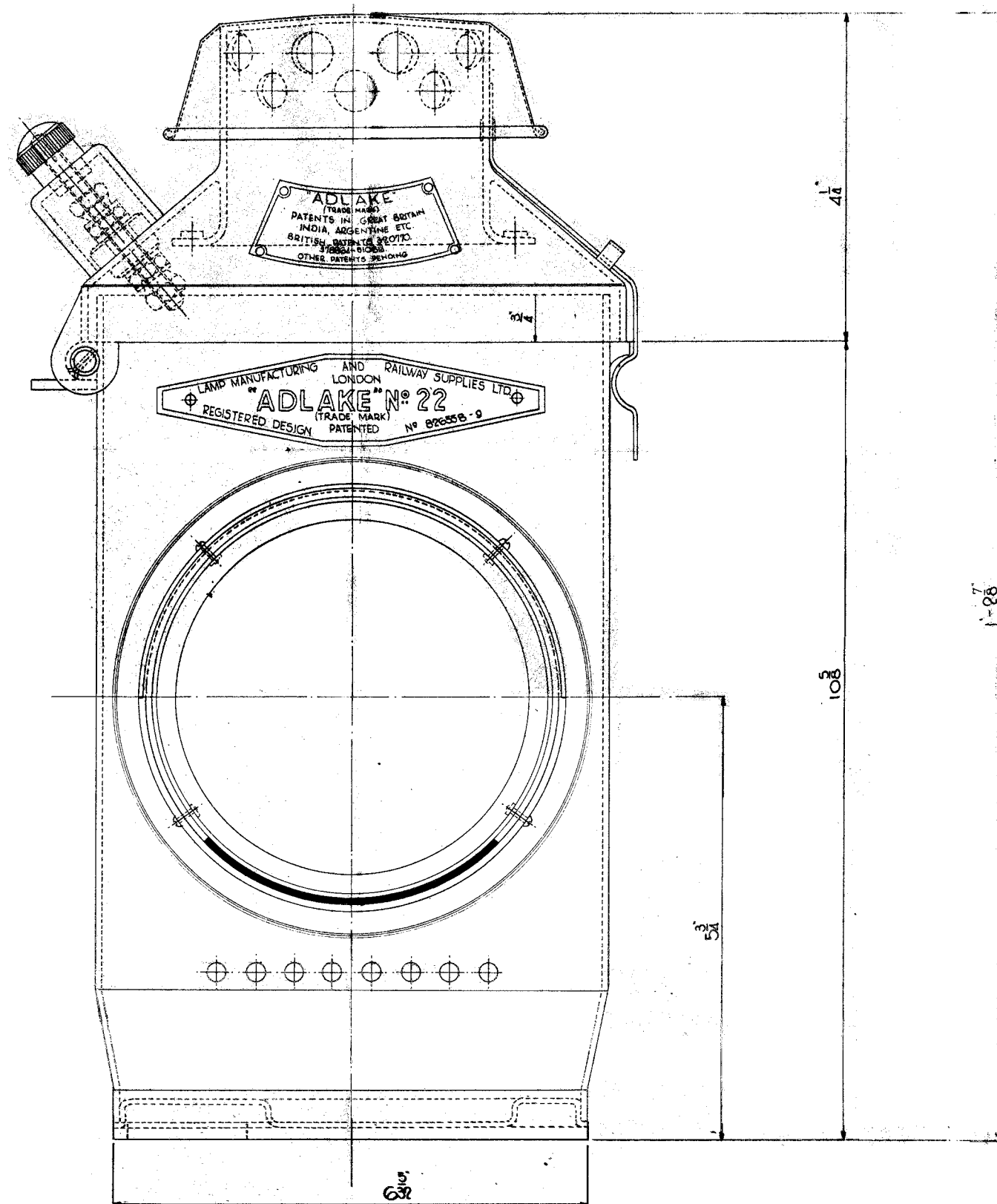
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TRACED BY *LMC*
CHECKED BY *LMC*

LONDON MIDLAND & SCOTCH RAILWAY CO.
SIGNAL AND TELEGRAPH
ENGINEERS' OFFICE
EUSTON L.M.S.I.
PLAN NO. M.D. 37205
PLAN DATE 17-4-38
DATE ISSUED

SUPERSEDES M.D. 31138

L.M.S.
ECONOMICAL FACING POINT LOCK.

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THIS DRAWING SUPERSEDES ALL OTHERS BEFORE FEBRUARY 1944

LAMP MANUFACTURING & RAILWAY SUPPLIES LTD.

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