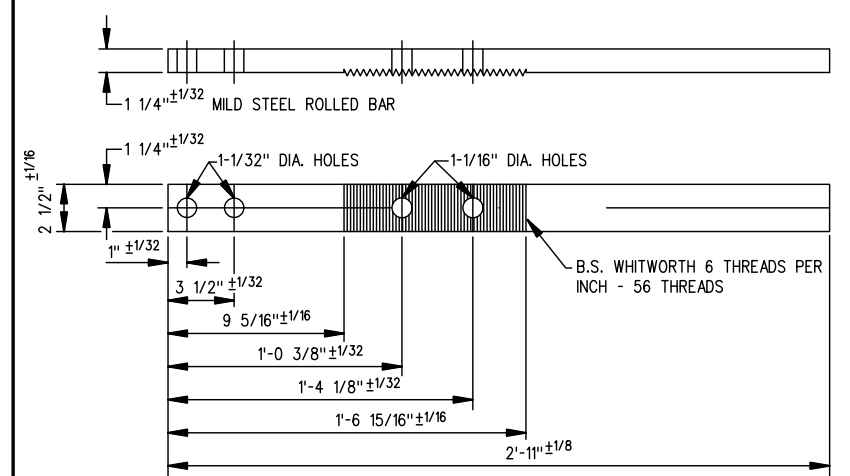
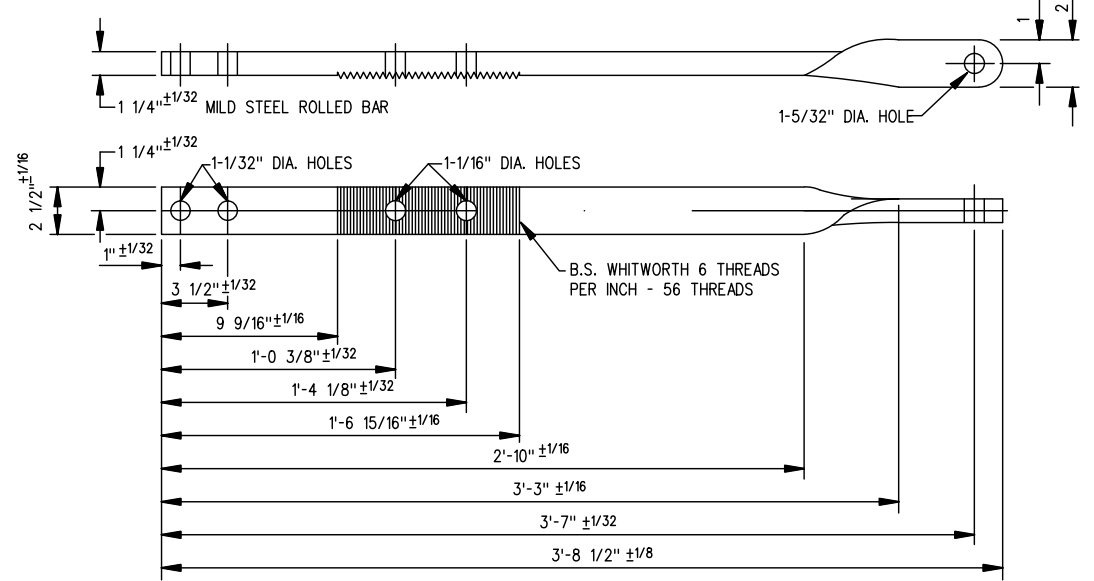


ITEM NO.	DESCRIPTION	MARK NO.	STANDARD PLAN	QUANTITY FOR ROD 344					
				A	B	C	D	E	F
1	BAR ROD 1 1/4" THICK X 2 1/2" WIDE X 3'-8 1/2" LONG	---	---	1	1	-	-	-	-
2	BAR ROD 1 1/4" THICK X 2 1/2" WIDE X 2'-11" LONG	---	---	1	1	2	-	2	-
3	BAR ROD 1 1/4" THICK X 2 1/2" WIDE X 2'-11" LONG	---	---	-	-	-	2	-	2
4	SPLICE PLATE	---	---	1	1	1	1	1	1
5	STEEL CHANNEL	---	---	1	1	1	1	1	1
6	FIBRE STRIP ANGLE	353C	GTS-0353C	2	2	2	2	2	2
7	FIBRE CHANNEL	353B	GTS-0353B	1	1	1	1	1	1
8	FIBRE BUSHING	---	GTS-0353F	4	4	4	4	4	4
9	3/4"-10 UNC SQ. HD. BOLT X 4 1/4" LONG C/W HEX NUT	---	GTS-1304/4	4	4	4	4	4	4
10	SPRING WASHER FOR 3/4" DIA. BOLT	---	GTS-1301	4	4	4	4	4	4
11	3/16" COTTER PIN X 1-1/4" LONG	---	---	4	4	4	4	4	4
12	PAD 7/16" THICK X 1 1/4" WIDE X 9" LONG	---	---	4	-	-	-	4	4

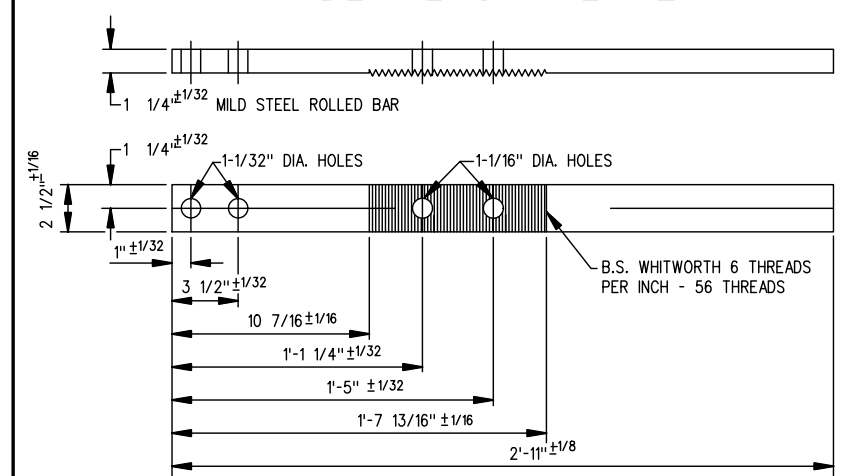
- NOTES:
- ITEM 4 ALSO USED AND DETAILED ON INSULATED ROD DRAWING NO. GTS-0341 A/D
 - ALL HOLES SHALL BE DRILLED.
 - THE USE OF ACETYLENE TORCH OR OTHER BURNING METHOD FOR THE CUTTING OR MAKING OF HOLES IN THE MANUFACTURE OF SWITCH RODS IS ABSOLUTELY PROHIBITED.
 - WHEN REFERRING TO SWITCH RODS, DRAWING NUMBER MUST BE STATED AS GTS-0344 A, B, C, D, ETC. TO INDICATE SPECIFIC ROD REQUIRED.



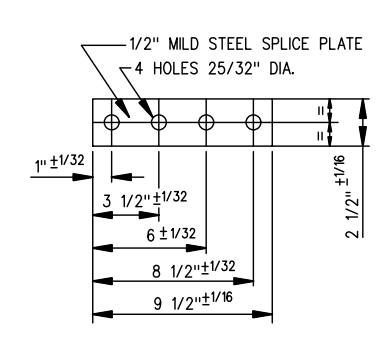
DETAIL OF ITEM 2



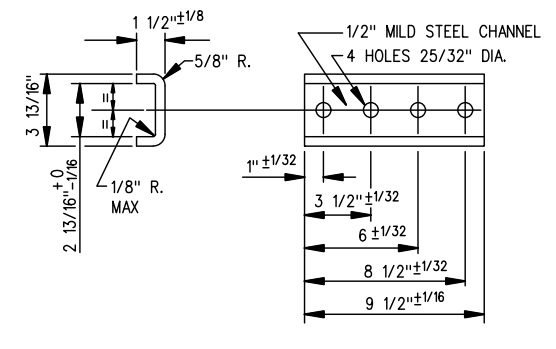
DETAIL OF ITEM 1



DETAIL OF ITEM 3



DETAIL OF ITEM 4



DETAIL OF ITEM 5

MATERIAL:

BAR STOCK TO CONFORM TO THE LATEST REVISION OF A.S.T.M. SPECIFICATIONS A36.

CHEMICAL REQUIREMENT:

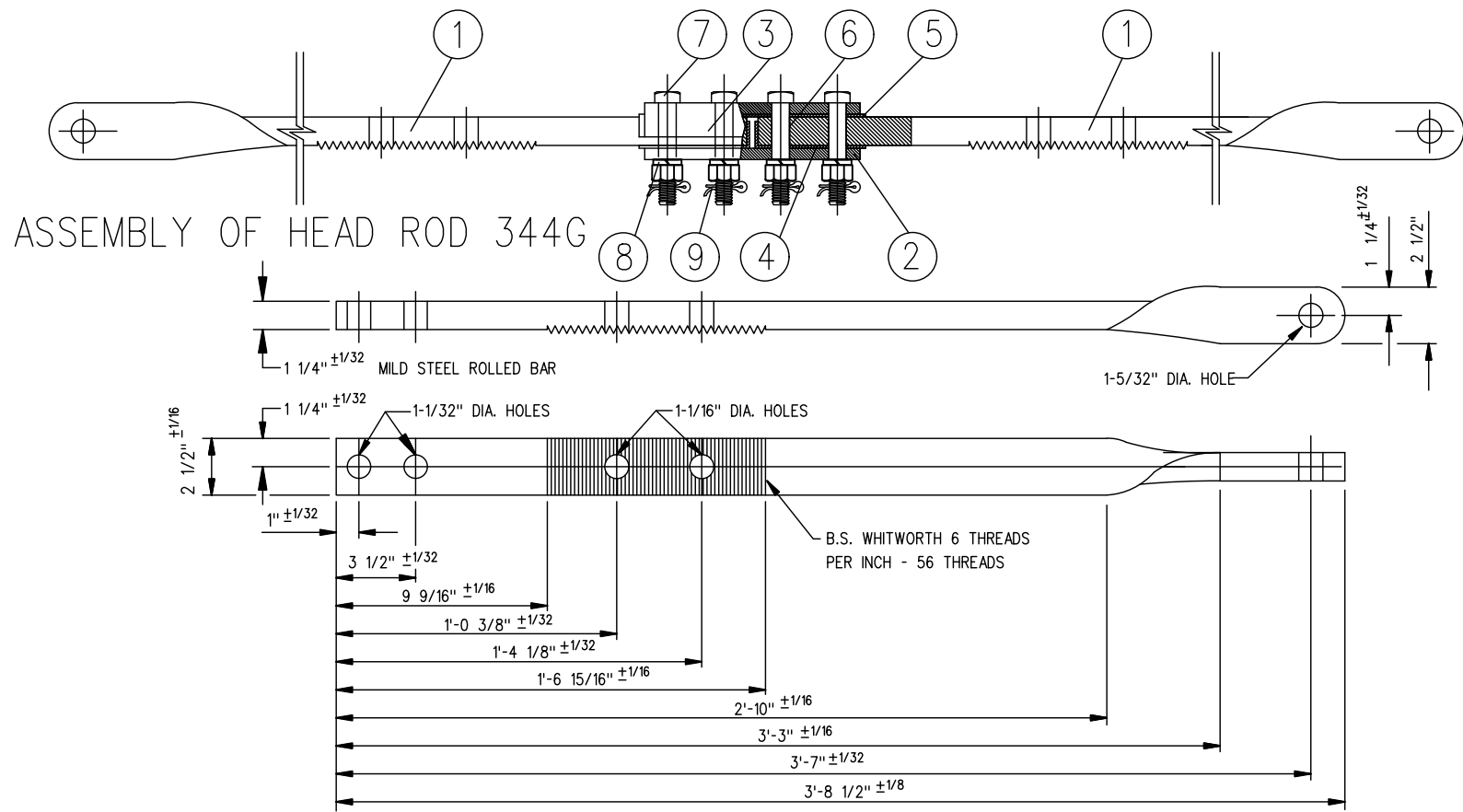
	MIN.	MAX.
CARBON		0.27%
MANGANESE	0.60%	0.90%
PHOSPHORUS		0.04%
SULPHUR		0.05%
SILICON		0.40%

ALL METAL PARTS IN CONTACT WITH INSULATION SHALL HAVE SHARP EDGES & BURRS OR OTHER FOREIGN MATTER REMOVED BEFORE ASSEMBLING.

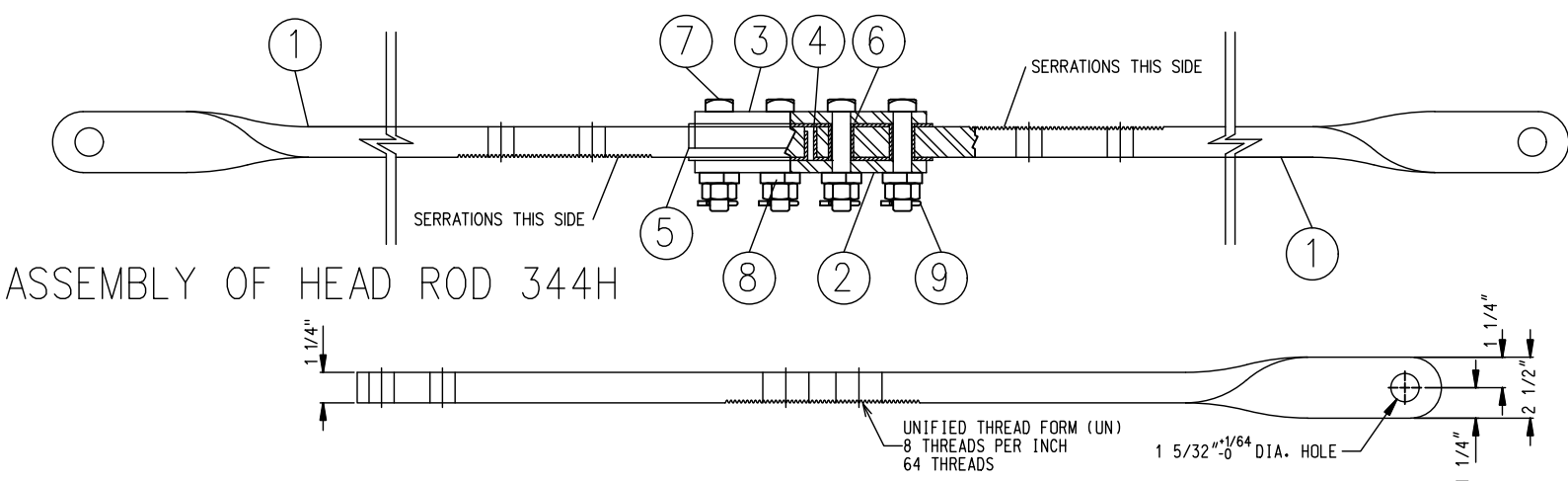
DIELECTRIC REQUIREMENTS: DIELECTRIC TESTS SHALL BE MADE WITH THE INSULATION DRY. ASSEMBLED INSULATED TRACK FITTINGS SHALL WITHSTAND FOR NOT LESS THAN SIXTY SECONDS AN INSULATED TEST OF 3000 VOLTS AC. WITHOUT FLASH OVER OR PUNCTURE BETWEEN ALL METALLIC PARTS & OTHER METALLIC PARTS INSULATED THEREFROM.

METRIC CONVERSION: 1 inch=25.4mm, 1 foot=304.8mm

1	18/07/27	ADDED IMPERIAL TO METRIC CONVERSION NOTE	
No.	Date	Revision	By Approved
Standard/		INSULATED VERTICAL SWITCH RODS 100, 115, 132 & 136 LB. RAIL	
Drawn	MG	Checked	GGG
Approved		VP Engineering & Asset Management	
Date		SEPT 15/2017	Plan Number GTS-0344 Rev 1
REFERENCE: TS-0344G_R2		Sheet 1 OF 3	

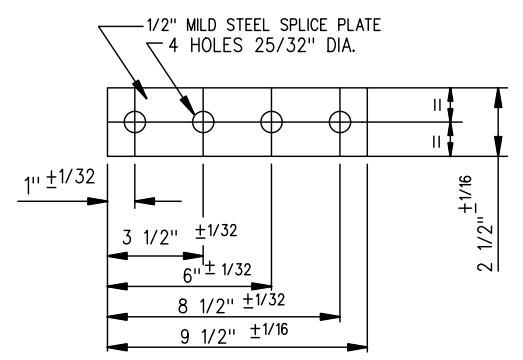


DETAIL OF ITEM 1 - FOR ROD 344G (FOR MJS CLIP)

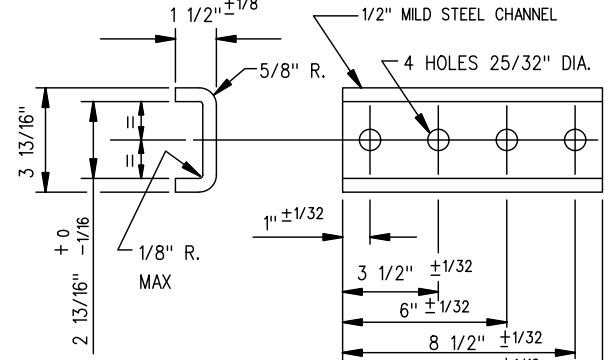


DETAIL OF ITEM 1 - FOR ROD 344H (FOR ROCKER CLIP)

BILL OF MATERIAL		MARK NO.	STANDARD PLAN	QUANTITY FOR ROD 344	
ITEM NO.	DESCRIPTION			G	H
1	BAR ROD 1 1/4" THICK X 2 1/2" WIDE X 3'-8 1/2" LONG	—	—	2	2
2	SPLICE PLATE	—	—	1	1
3	STEEL CHANNEL	—	—	1	1
4	FIBRE STRIP ANGLE	—	—	1	1
5	FIBRE CHANNEL	353C	GTS-0353C	2	2
6	FIBRE BUSHING	353B	GTS-0353B	1	1
7	3/4"-10 UNC SQ. HD. BOLT X 4 1/4" LONG C/W HEX NUT	—	GTS-0353F	4	4
8	SPRING WASHER FOR 3/4" DIA. BOLT	—	GTS-1301	4	4
9	3/16" COTTER PIN X 1-1/4" LONG	—	—	4	4



DETAIL OF ITEM 2
NOTES:



DETAIL OF ITEM 3

- ITEM 3 ALSO USED AND DETAILED ON INSULATED ROD DRAWING NO. GTS-0341 A/D
- ALL HOLES SHALL BE DRILLED.
- THE USE OF ACETYLENE TORCH OR OTHER BURNING METHOD FOR THE CUTTING OR MAKING OF HOLES IN THE MANUFACTURE OF SWITCH RODS IS ABSOLUTELY PROHIBITED.
- WHEN REFERRING TO SWITCH RODS, DRAWING NUMBER MUST BE STATED AS GTS-0344G TO INDICATE SPECIFIC ROD REQUIRED.

MATERIAL:

BAR STOCK TO CONFORM TO THE LATEST REVISION OF A.S.T.M. SPECIFICATIONS A36

CHEMICAL REQUIREMENT:	MIN.	MAX.
CARBON		0.27%
MANGANESE	0.60%	0.90%
PHOSPHORUS		0.04%
SULPHUR		0.05%
SILICON		0.40%

ALL METAL PARTS IN CONTACT WITH INSULATION SHALL HAVE SHARP EDGE & BURRS OR OTHER FOREIGN MATTER REMOVED BEFORE ASSEMBLING.
DIELECTRIC REQUIREMENTS: DIELECTRIC TESTS SHALL BE MADE WITH THE INSULATION DRY. ASSEMBLED INSULATED TRACK FITTINGS SHALL WITHSTAND FOR NOT LESS THAN SIXTY SECONDS AN INSULATED TEST OF 3000 VOLTS AC. WITHOUT FLASH OVER OR PUNCTURE BETWEEN ALL METALLIC PARTS & OTHER METALLIC PARTS INSULATED THEREFROM.

METRIC CONVERSION: 1 inch=25.4mm, 1 foot=304.8mm

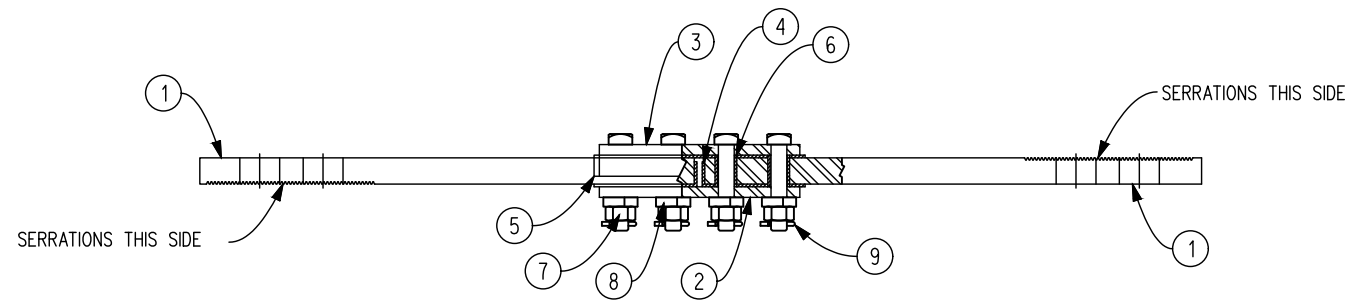
1	18/07/27	ADDED IMPERIAL TO METRIC CONVERSION NOTE	
No.	Date	Revision	By Approved

Standard/ **INSULATED VERTICAL SWITCH RODS 136 LB. RAIL**

Drawn MG Checked GGS Approved *WLL* VP Engineering & Asset Management



Date SEPT 15/2017 Plan Number GTS-0344 Rev 1



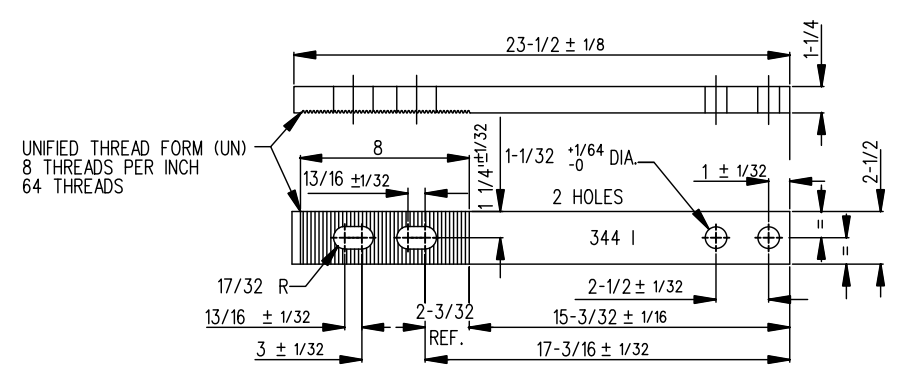
ASSEMBLY OF HEAD RODS GTS-0344I
GTS-0344J

BILL OF MATERIAL

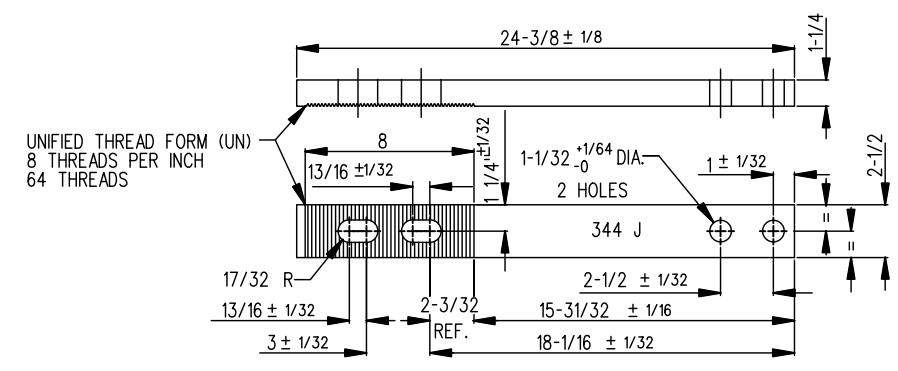
ITEM NO.	DESCRIPTION	MARK NO.	STANDARD PLAN	QUANTITY FOR ROD 344	
				I	J
1	BAR ROD 1-1/4" THICK X 2-1/2" WIDE X 23-1/2" LONG	---	---	2	-
1	BAR ROD 1-1/4" THICK X 2-1/2" WIDE X 24-3/8" LONG	---	---	-	2
2	SPLICE PLATE	---	---	1	1
3	STEEL CHANNEL	---	---	1	1
4	FIBRE STRIP ANGLE	353C	GTS-0353C	2	2
5	FIBRE CHANNEL	353B	GTS-0353B	1	1
6	FIBRE BUSHING	---	GTS-0353F	4	4
7	3/4"-10 UNC SQ. HD. BOLT X 4-1/4" LONG C/W HEX NUT	---	GTS-1304/4	4	4
8	SPRING WASHER FOR 3/4" DIA. BOLT	---	GTS-1301	4	4
9	3/16" COTTER PIN X 1-1/4" LONG	---	---	4	4

NOTES:

- ITEM 3 ALSO USED AND DETAILED ON INSULATED ROD DRAWING NO. GTS-0341 A/D
- ALL HOLES SHALL BE DRILLED.
- THE USE OF ACETYLENE TORCH OR OTHER BURNING METHOD FOR THE CUTTING OR MAKING OF HOLES IN THE MANUFACTURE OF SWITCH RODS IS ABSOLUTELY PROHIBITED.
- WHEN REFERRING TO SWITCH RODS, DRAWING NUMBER MUST BE STATED AS GTS-0344 A, B, C, D, ETC. TO INDICATE SPECIFIC ROD REQUIRED.



DETAIL OF ITEM 1 FOR HEAD ROD 344 I



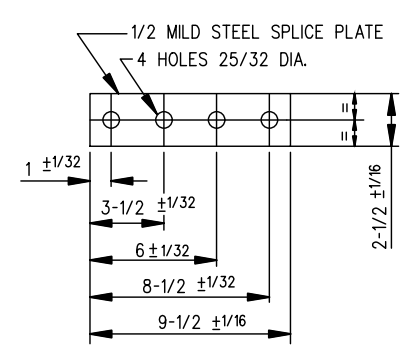
DETAIL OF ITEM 1 FOR HEAD ROD 344 J

MATERIAL:

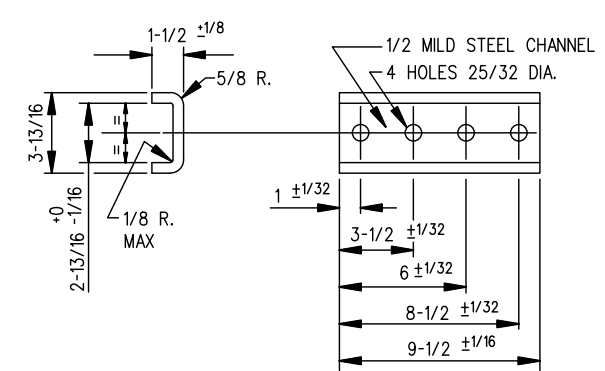
BAR STOCK TO CONFORM TO THE LATEST REVISION OF A.S.T.M. SPECIFICATIONS A-36 FOR COMMERCIAL QUALITY HOT ROLLED BAR STEEL CHEMICAL REQUIREMENT.

	CHEMICAL REQUIREMENT:	
	MIN.	MAX.
CARBON		0.27%
MANGANESE	0.60%	0.90%
PHOSPHORUS		0.04%
SULPHUR		0.05%
SILICON		0.40%

MATTER REMOVED BEFORE ASSEMBLING.
DIELECTRIC REQUIREMENTS: DIELECTRIC TESTS SHALL BE MADE WITH THE INSULATION DRY. ASSEMBLED OF 3000 VOLTS AC. WITHOUT FLASH OVER OR PUNCTURE BETWEEN ALL METALLIC PARTS & OTHER METALLIC PARTS INSULATED THEREFROM.



DETAIL OF ITEM 2



DETAIL OF ITEM 3

METRIC CONVERSION: 1 inch=25.4mm, 1 foot=304.8mm

1	18/07/27	ADDED IMPERIAL TO METRIC CONVERSION NOTE	
No.	Date	Revision	By Approved

Standard / **INSULATED VERTICAL SWITCH RODS**

Drawn MG Checked GGS Approved *WLL*
VP Engineering & Asset Management



Date SEPT 15/2017 Plan Number GTS-0344 Rev 1