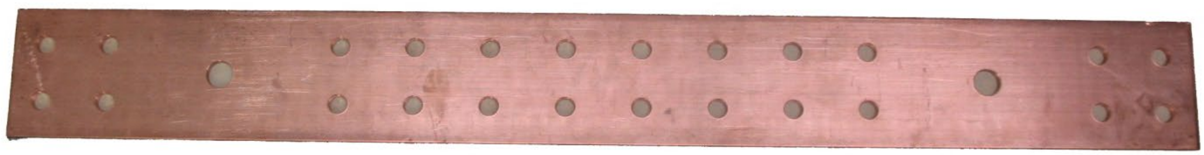
Bus Bar, Drilled Copper, for Underground Vaults



1. Scope

This standard covers the requirements for drilled rectangular copper bar.

Stock No.	Size (in)
679762	28 x 4
679757	36 x 4
679760	48 x 4
679763	51 x 6
679764	62-1/2 x 6

2. Application

Rectangular copper bar is used to construct secondary bus and ground bus in underground Network vaults.

3. Industry Standards

Copper bus bar shall meet the applicable requirements of the following industry standard:

ASTM B187/B187M-11; Standard Specification for Copper, Bus Bar, Rod, and Shapes and General Purpose Rod, Bar, and Shapes, 2011 Edition

4. Requirements

4.1 General

Drilled bus bars shall be free of burrs, slivers, sharp edges, or other imperfections.

Table 4.1. Bus Bar Requirements

Attribute	Requirement	ASTM B187 Reference
Copper UNS No.	C11000	Table 1
Shape	Rectangular	Section 3.2.1
Corners	Commercially square	Section 13.7.2
Temper	H02 Temper (formerly H04)	Section 8 and Appendix, Note 5
Thickness (in)	1/4	

4.2 Detailed

Bus Bars shall be drilled and dimensioned as shown in Table 4.2 and Figures 4.2a – 4.2e.

Table 4.2. Copper Bus Bar, Dimensions and Types

Stock No.	Figure	Width (in)	Length (in)	Bus Bar Type
679762	4.2a	4	28	Light density
679757	4.2b	4	36	Light density
679760	4.2c	4	48	Heavy density
679763	4.2d	6	51	Spot network
679764	4.2e	6	62-1/2	Spot network

4.3 Tolerances

Attribute	Requirement	ASTM B187 Reference
Spacing between holes (in)	+/-0.020	–
Width tolerance (in)	+/-0.008	Table 6
Length tolerance (in)	+1/8, -0	Table 8
Thickness (in)	+/-0.004	Table 4

Some applications of these parts require two pieces to be overlapped for increased current capacity. Hole location is therefore very important. All holes in any two pieces must align well enough to allow free insertion of 1/2 in x 13 in bolts in all holes.

Figure 4.2a. 28-in Light Density Bus Bar, Stock No. 679762

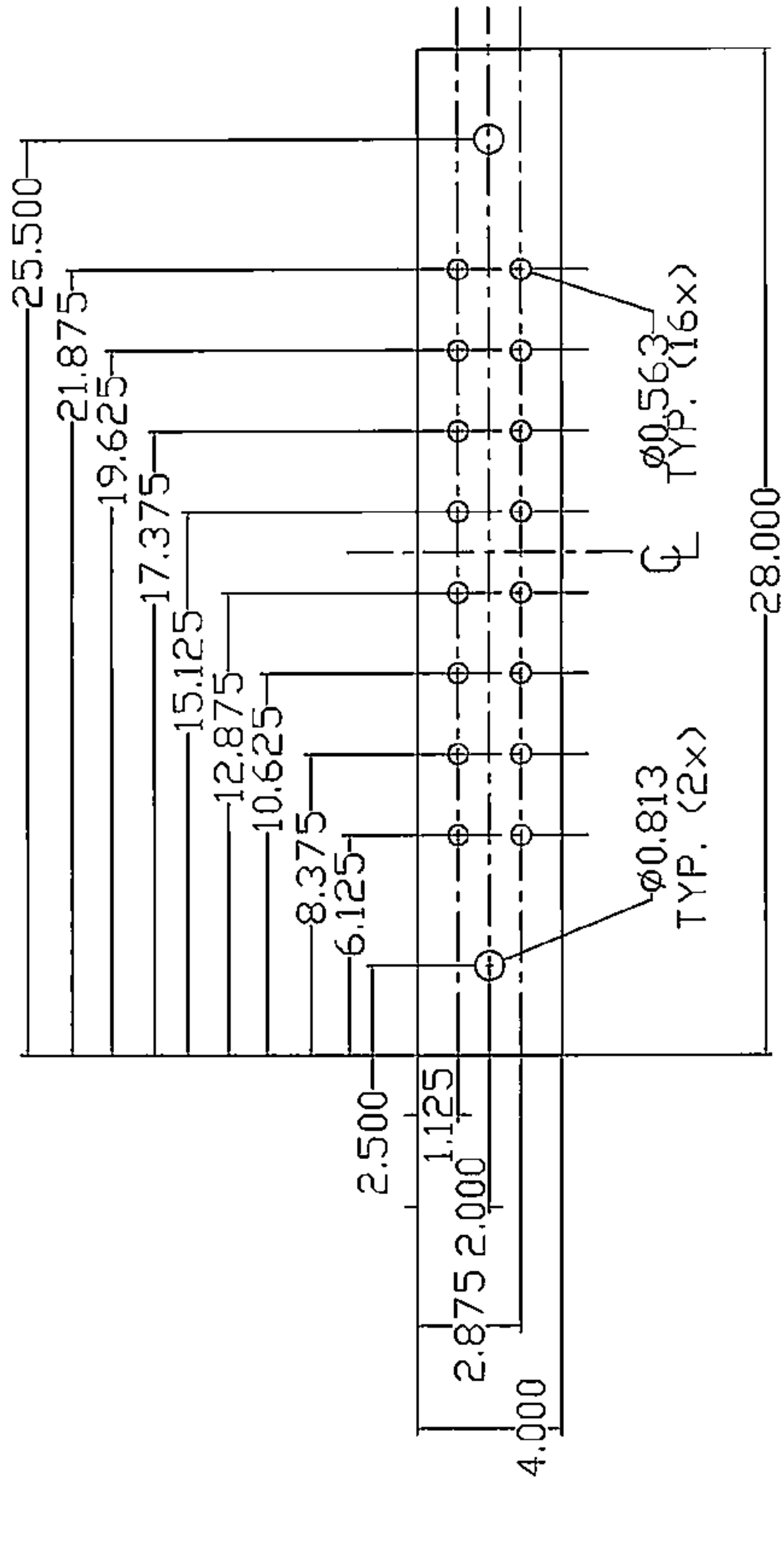


Figure 4.2b. 36-in Light Density Bus Bar, Stock No. 679757

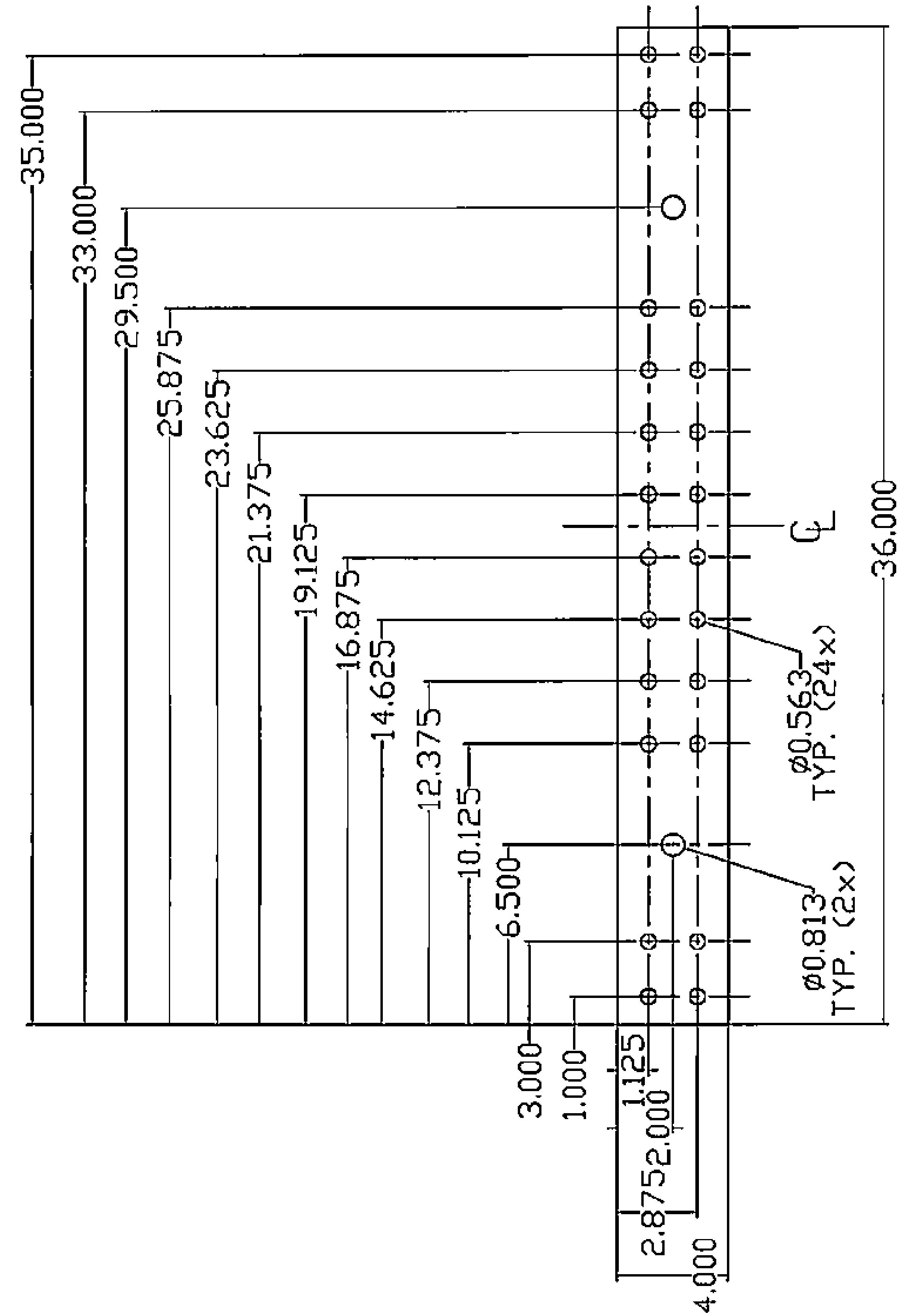


Figure 4.2c. 48-in Heavy Density Bus Bar, Stock No. 679760

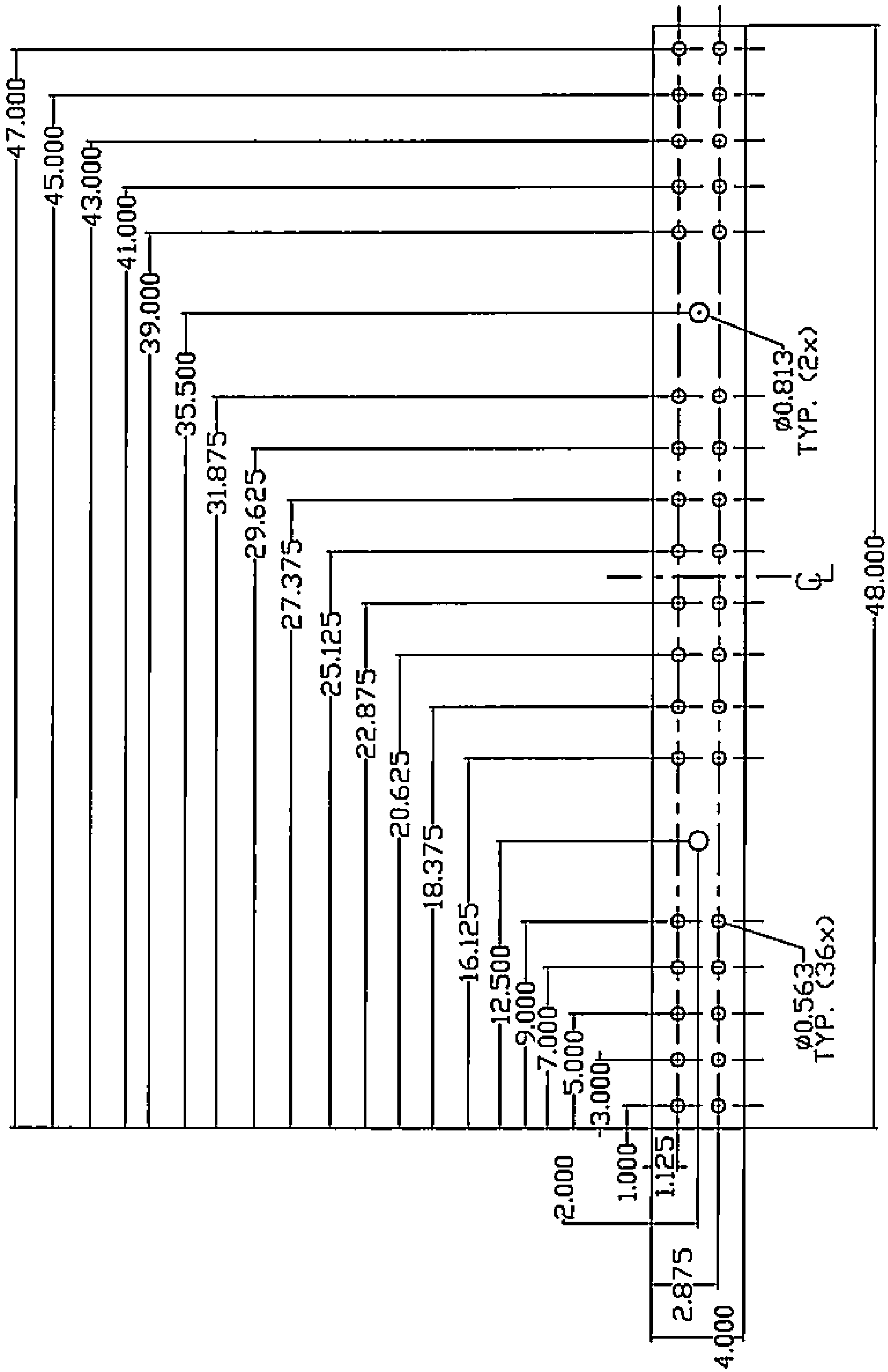


Figure 4.2d. 51-in Spot Network Bus Bar, Stock No. 679763

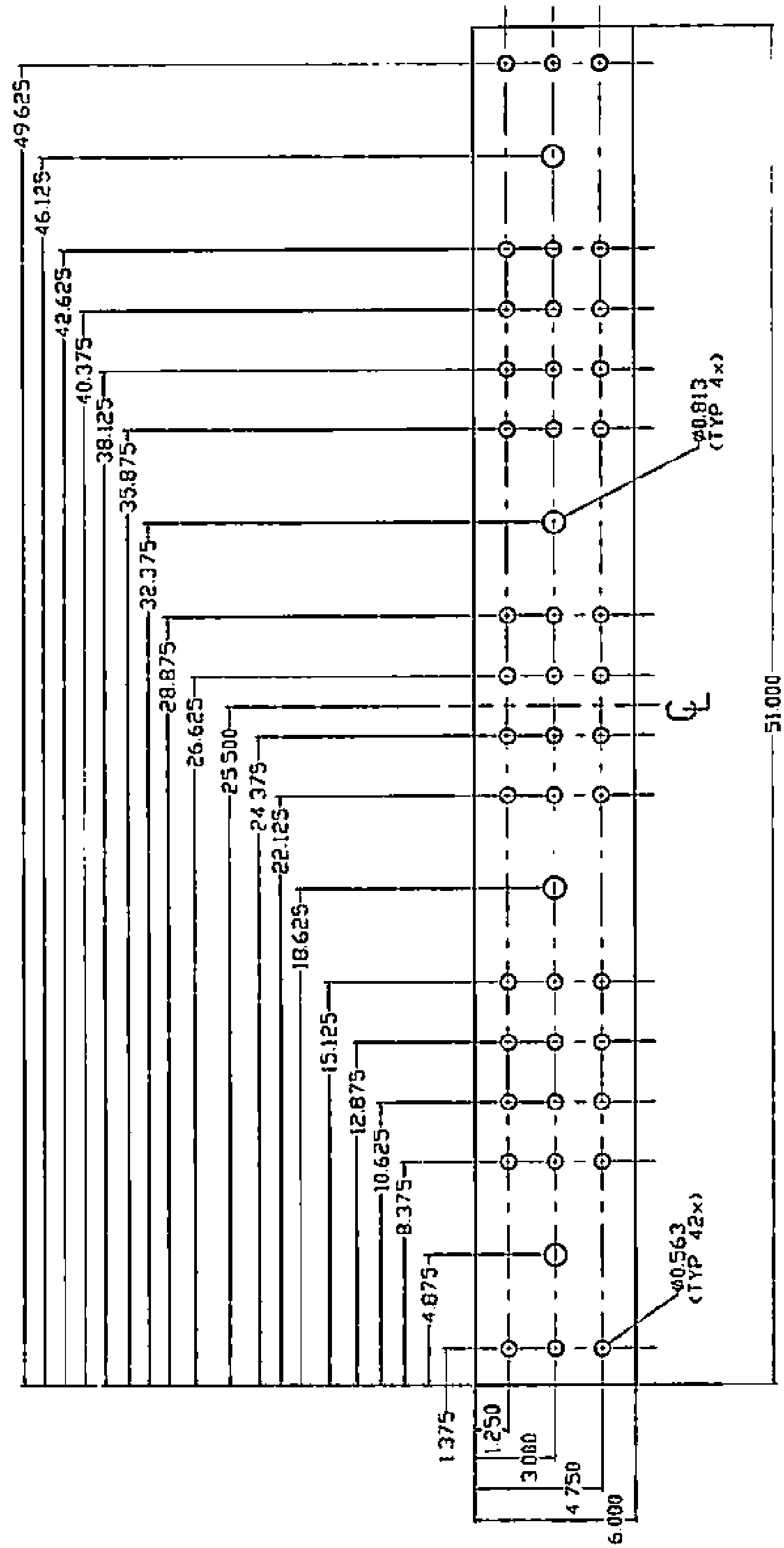
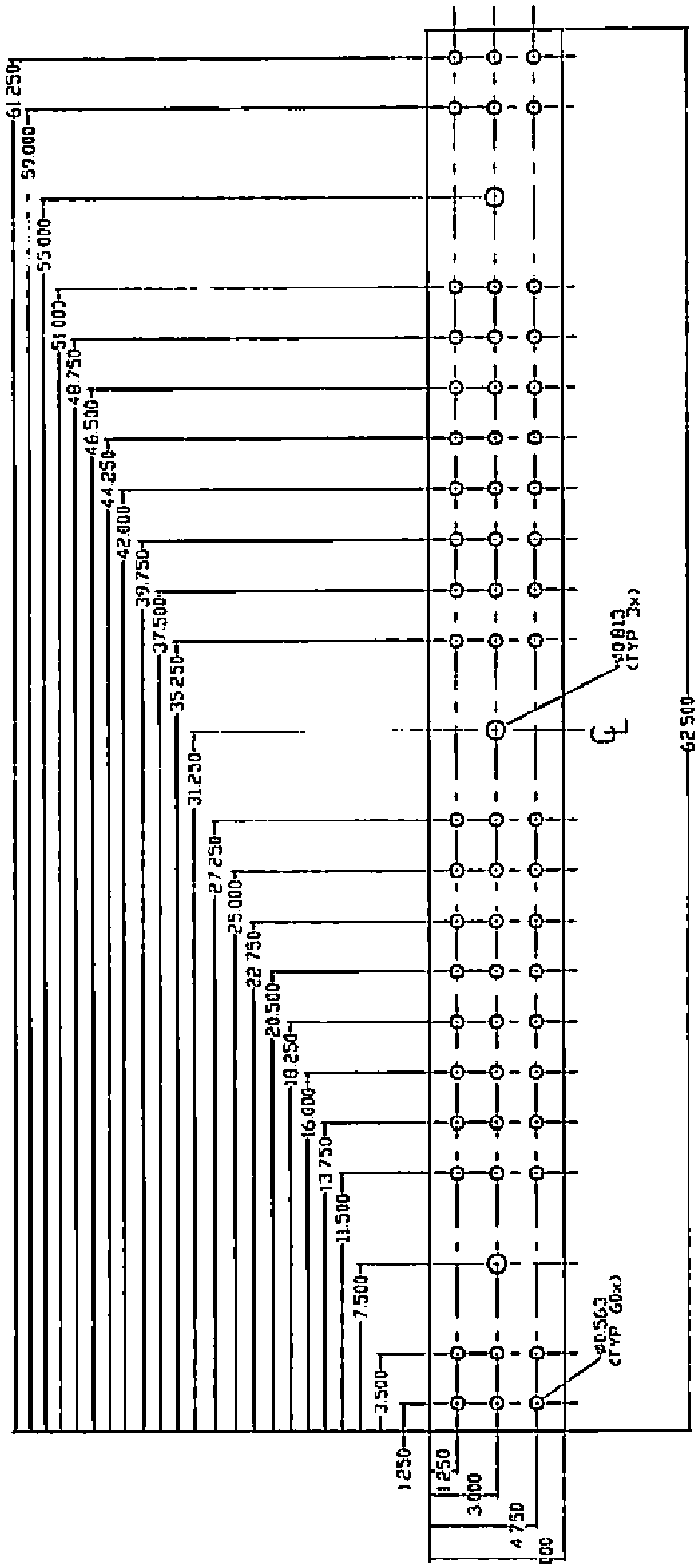


Figure 4.2e. 62.5-in Spot Network Bus Bar, Stock No. 679764



5. Packaging

Completed bars shall be cleaned of all cutting oil and individually wrapped in chemically neutral paper to prevent oxidation and damage in handling.

Completed bars shall be protected and secured to pallets in a manner that prevents damage during shipping, handling, and storage. Banding straps shall be carefully attached in a way that prevents damage to the completed bars.

6. Issuance

Stock Unit: EA

7. Approved Manufacturers

			Manufacturer	
Stock No.	**Width (in)**	**Length (in)**	**ThyssenKrupp**	**Harger**
679762	4	28	XCUREC05548	HDTGB14428SCL
679757	4	36	XCUREC05547	HDTGB14436SCL
679760	4	48	XCUREC05550	HDTGB14448SCL
679763	6	51	CUREC01229	HDTGB14651SCL
679764	6	62-1/2	XCUREC05549	HDTGB14662.5SCL

8. Sources

SCL Construction Standard NCB-30; “Grounding Network System, Wet Vault, Non-Transformer One or Two 48-Inch Bus Bars”

SCL Construction Standard U4-5/NCB-50; “Installation of Secondary Bus Bar”

ThyssenKrupp Materials Catalog; tkmna.com

www.harger.com