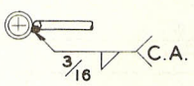
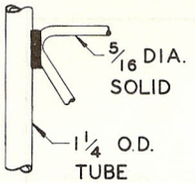
C-630625 REVISED 4-20-67

TOWER SPECIFICATIONS

DISTANCE BETWEEN SIDE RAILS (CENTER TO CENTER)	11 1/4"
OVERALL LENGTH OF SECTION	10'-0"
WEIGHT PER SECTION	40 LBS.
SIDE RAIL DIAMETER AND GAUGE	1 1/4" O.D. 16 GA.
CROSS SECTIONAL AREA - ONE LEG	.2420 SQ. IN.
GROSS ALLOWABLE VERTICAL LOAD ON THE BOTTOM TOWER SECTION	18,960 LBS.
MAXIMUM ALLOWABLE AXIAL COMPRESSION OF THE CROSS SECTION OF ONE SIDE RAIL	6,320 LBS.
MEASURED TENSILE STRENGTH OF ONE SIDE RAIL	16,120 LBS.
MEASURED TENSILE STRENGTH OF ONE BOLTED LEG JOINT	13,280 LBS.
MAXIMUM ALLOWABLE TENSION IN EACH BOLTED LEG JOINT	5,310 LBS.
SAFE MOMENT OF RESTRAINT	5,130 FT.-LBS.
L - UNBRACED LENGTH OF SIDE RAIL (DISTANCE BETWEEN CROSSPIECES)	15 3/4"
R - RADIUS OF GYRATION OF SIDE RAIL	.420"
L/R FOR MAIN LEG MEMBER	37.5
WIND LOAD PER LINEAL FOOT OF TOWER AT THE HORIZONTAL WIND PRESSURES (PER SQUARE FOOT OF FLAT SURFACE) LISTED BELOW:	
30 LBS	7.62
40 LBS	10.16
50 LBS	12.70

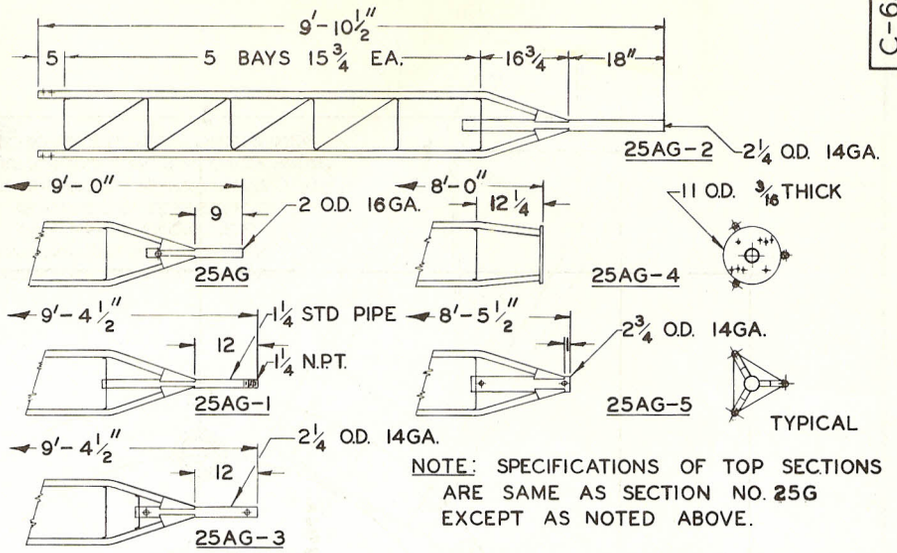


PLAN



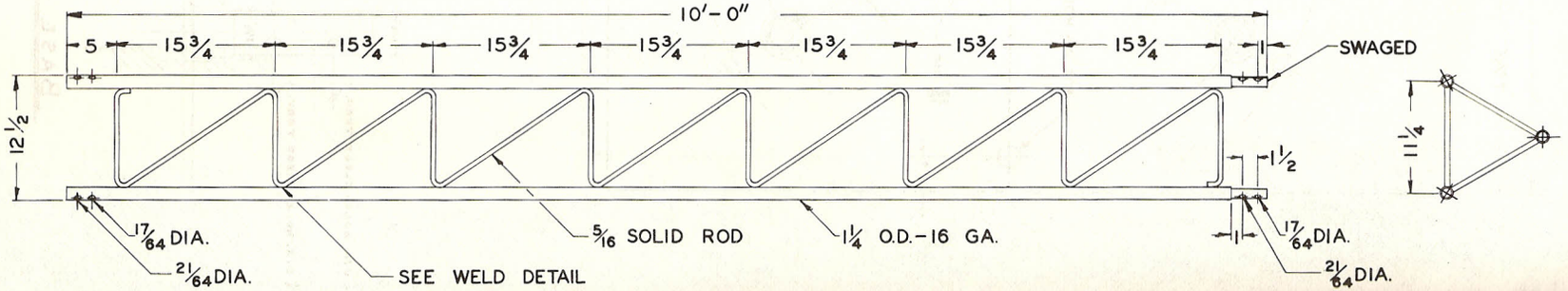
ELEVATION

WELD DETAIL



NOTE: SPECIFICATIONS OF TOP SECTIONS ARE SAME AS SECTION NO. 25G EXCEPT AS NOTED ABOVE.

STANDARD TOP SECTIONS



NO. 25G SECTION

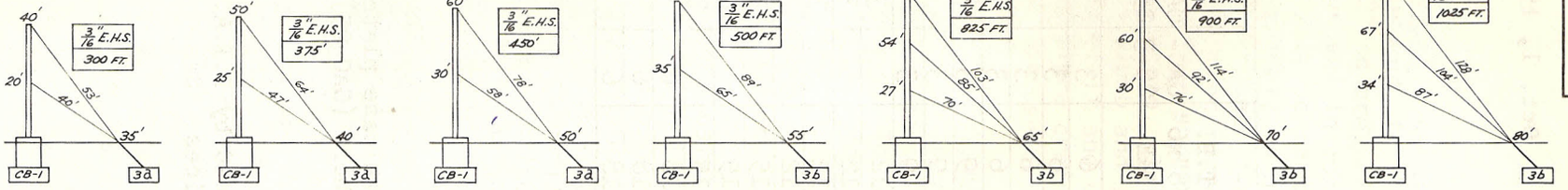
3 - 1/4" DIA. X 1 1/2" LG., NF BOLTS
3 - 5/16" DIA. X 1 1/2" LG., NF BOLTS

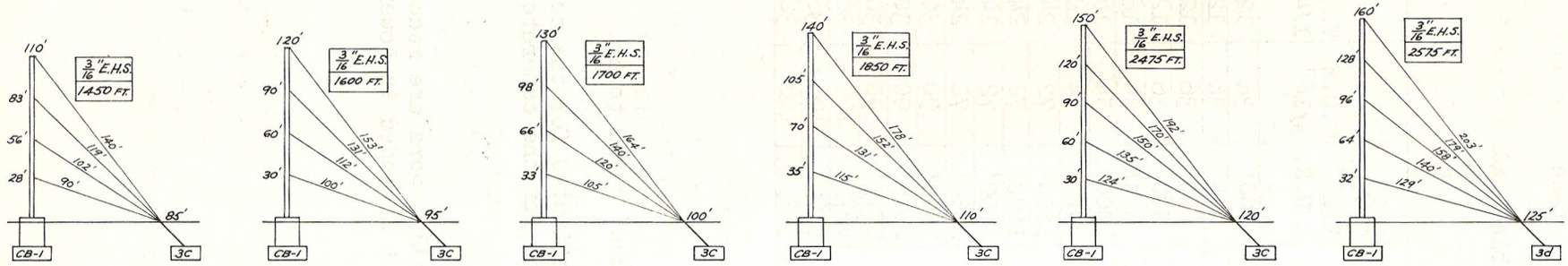
NOTE: ALL DIMENSIONS IN INCHES EXCEPT AS NOTED

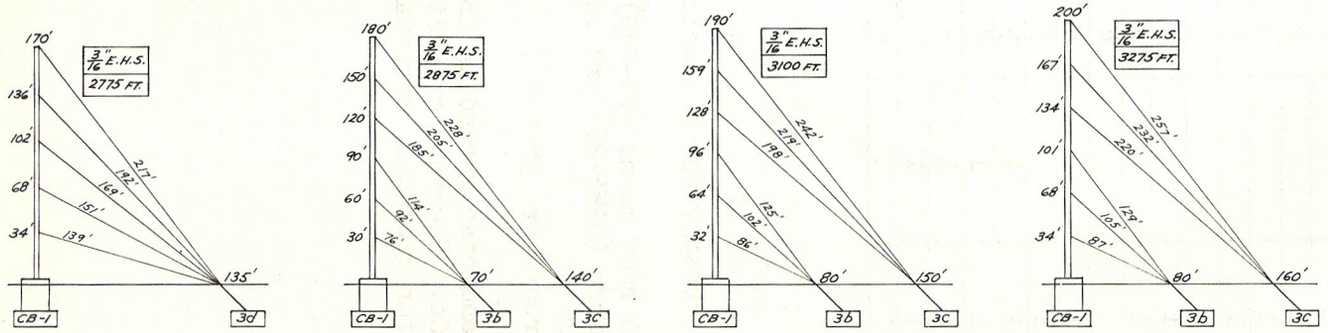
REVISED 4-20-67

DRAWN	CUSTOMER	TITLE
CHECKED		MODEL 25 TOWER SECTION
APPROVED		
DATE 6-25-63	ROHN MANUFACTURING PEORIA, ILLINOIS	DRAWING NO. C-630625-R4
SCALE NONE		

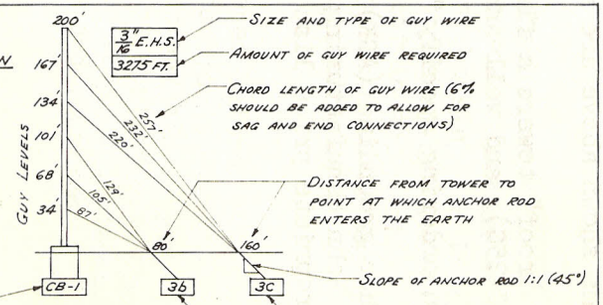
C-640603-R1

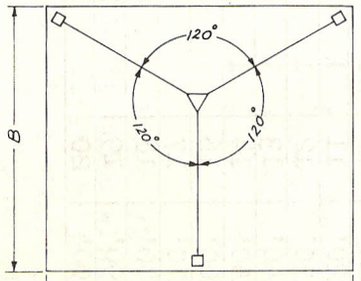






EXPLANATION OF CHART





FOR SPACE REQUIREMENT REFER TO DWG. No. C-640531

NOTES:

1) ALL GUY DIMENSIONS ASSUME LEVEL GROUND.
2) ALLOWABLE LOAD AT APEX OF TALLEST TOWER IS 180 LBS. LATERAL THRUST. (EQUIVALENT AREA IS 6 SQ. FT.) DESIGN ASSUMES USE OF ONE $\frac{7}{8}$" LINE AND ONE $\frac{1}{2}$" LINE.
3) GUYS SHOULD BE TENSIONED TO APPROXIMATELY 10% OF THEIR ULTIMATE STRENGTH.
4) ALL TOWERS ARE DESIGNED ACCORDING TO E.I.A. SPECIFICATIONS.

NO	DESCRIPTION	DATE	BY
1	H.S. GUY WIRE TO E.H.S. GUY WIRE	8-21-71	A.E.D.

REVISIONS

DRAWN AED		TITLE
CHECKED ck	WIND LOAD = 30 PSF (86.6 MPH)	GUYING DETAILS FOR MODEL 25 TOWER
APPROVED [illegible]	ROHN MANUFACTURING PEORIA, ILLINOIS	DRAWING NO.
DATE 6-23-64		C-640603-R1
SCALE NONE		

ILLINOIS B/P 1000-H

August 1, 1975

Unarco-Rohn
Installation Information
Bracketed #25 and #45 Towers, Non-Guyed

BASE: The size of the concrete base for a 50' #25 tower, with a house bracket 12' aboveground, is 3' deep by 18" square. The base for a bracketed 50' #45 tower is 3' deep by 2' square. For cases of loose soil, etc., the base must be larger. Spread about 2" of gravel in bottom of hole prior to setting base assembly. The base assembly should be attached to the first 10' section prior to setting into gravel. After setting base assembly on gravel, fill another 3" with gravel around legs of base. This allows the tower base legs to extend the required amount below the base of the concrete, thus allowing for drainage of moisture into the gravel. The base assembly and first 10' section should be leveled, plumbed, and temporarily guyed or braced while pouring the concrete. This will insure a plumb tower after installation. Check tower to assure it is plumb and level after pouring concrete. Do not pull base up into the concrete to level it and do not drive it hard into ground as this plugs leg holes and prevents moisture drainage. Crown the top of the concrete slightly to prevent water accumulation. Do not use drive rods as a base for tower when set in concrete.

HEIGHT OF TOWER & BRACKET USES: House brackets must be used and should be mounted at least 12' aboveground to be effective. The #45 tower should not extend more than 45' above a house bracket and a #25 tower should not extend more than 33' above a house bracket. To secure the house bracket, use lag screws no smaller than 3/8" x 2". A special effort should be made to locate the house bracket such that the lag screws go through the siding into a stud. Brackets fastened to the siding only will not hold in a high wind. Tighten the house bracket U-bolts only enough to prevent looseness. Do not dent or flatten the tower upright members by excessively tightening U-bolts.

BOLTS: Installers are urged to use a 10" lining-up punch that tapers from about 1/2" to 5/32" diameter over a 6-1/2" length. If bolts cannot be pushed through the holes with the heel of a hand while rocking the tower, do not hammer them through. Carefully drive the punch into the hole just enough to slightly enlarge it. The leg bolt hole should be just large enough to admit the bolt. Never drill out the holes. Be sure to tighten all leg bolts until they partially flatten the sleeves, causing the sleeves to actually grip the legs inside. Always replace stripped bolts. Upon completing an installation, there should be no vertical movement between tower sections at the joints when the tower is deliberately swayed from side to side.

MISCELLANEOUS: Installation is greatly hastened and simplified by the use of an erection fixture. Do not use it to lift more than the weight of one tower section at a time. If the antenna is to be fixed and a set screw used in the mast housing, or if a rotator is to be mounted on a short length of mast above the tower top section, install a TB-50 tower bushing at bottom of the mast housing to center the mast in the mast housing. These bushings are "peened" in place. If the rotator is to be mounted inside the top section of tower, do not install a TB-50 tower bushing at bottom of mast housing.

CAUTION ... Be sure hinge bolts on hinged type accessories are loosened before attempting to hinge tower over. All hinged type bases are recommended to be used to raise tower only without antenna. When raising and lowering tower on any hinge type base or hinge section, the loads applied for hinging the tower must be applied equally on both sides of tower in order to reduce the possibility of twist on tower and hinges at the base. Special care must be taken to avoid the use of raising and lowering methods which may cause damage to tower or hinges.

All information is based upon average antennas, with not more than 2 square feet of area in a 20 psf (70 mph) wind load and a safety factor, with antenna installed at tower apex.

THESE ARE FACTORY TESTED INSTRUCTIONS. PLEASE FOLLOW CAREFULLY.

PARTS LIST P-205
(Replaces P-106)

Oct. 1, 1971

PARTS LIST #25G GUYED TOWER

30 lbs./sq. ft. Wind Load

6 sq. ft. of Allowable Load

Tower Height	25G	25AG-2	BPC-25G with 3/4"x12" PP	APL-25G and SAB-25G-2	GA25G		G.W. 3/16" E.H.S.	C.C.M. 3/16"	Th. 1/4"	T.B. 3/8"x6" E&E	GAC-25-3	GAC-25-5
40'	3	1	1		2		300'	36	12	6	3	
50'	4	1	1		2		375'	36	12	6	3	
60'	5	1	1		2		450'	36	12	6	3	
70'	6	1	1		2		500'	36	12	6	3	
80'	7	1	1		3		825'	54	18	9	3	
90'	8	1	1		3		900'	54	18	9	3	
100'	9	1	1		3		1100'	54	18	9	3	
110'	10	1	1		4		1500'	72	24	12		3
120'	11	1	1		4		1600'	72	24	12		3
130'	12	1	1		4		1700'	72	24	12		3
140'	13	1	1		4		1850'	72	24	12		3
150'	14	1	1		5		2500'	90	30	15		3
160'	16		1	1	5		2575'	90	30	15		3
170'	17		1	1	5		2775'	90	30	15		3
180'	18		1	1	6		2875'	108	36	18	6	
190'	19		1	1	6		3100'	108	36	18	6	
200'	20		1	1	6		3275'	108	36	18	6	

Items shown above are necessary for a complete "ground" guyed tower.

For "roof" towers a flat roof mount (FR-25G) is substituted for the concrete base plate (BPC-25G), and wall anchors (GAWP-25) are substituted for the concrete anchors (GAC-25).

When ordering specify "roof" or "ground".

Anchor grounding (AGK) and base grounding (BGK) of all towers are recommended by E.I.A. and Rohn Manufacturing Co. However, grounding is not included in tower prices. See appropriate price list for grounding material.