

Bracket Analysis Report for Kiowa 115kV Substation Project

Bid Number: 19-15677

Customer: Intermountain Rural Electric Association

Structure: 001 H-FRAME DEADEND STRUCTURE - 50FT

Model: 001-19-15677-50ft.pol

Engineer: RS

Date: 1/1/0001 12:00:00 AM



8653 E. Hwy 67 ~ Alvarado, TX 76009 ~ 866.254.3707

For Office Use Only

Arm ~ CA1

Label	Sides	Orientation	Tip OD (in)	Butt OD (in)	Thickness (in)	Length (ft)	Weight (lbs)	Yield (ksi)	Attach Label	Azimuth (deg)
CA1	8	Flat-Flat	9.00	9.00	0.1875	35.00	666.0	65	LP:CA1	0

(8) 1" Dia x 3" Long - A325 Bolts

Diameter (in)	Total Qty	Center Space	Grade	Usage
1	8	4.5	A325	30.85%

Bracket ~ YK12-LG

Thickness (in)	Opening (in)	Height (in)	Usage	Shear Rupture	Bearing
0.75	12.125	18	57.55%	25.83%	11.47%

Stiffeners

Qty	Thickness (in)	Width (in)
0	0	0.00

Controlling Load Case (absolute value of reactions at pole face)

Description	Joint Label	Axial, Ft (kips)	Shear, Fv (kips)	Shear, FL (kips)	Moment, Mv (ft-kips)	Torsion, Mt (ft-kips)	Moment, ML (ft-kips)	Governing Element
DISTRICT : HEAVY (STRENGTH LOAD)	CA1:O	6.59	1.55	7.65	11.19	0.10	42.11	Bolt & Bracket

Arm ~ CA2

Label	Sides	Orientation	Tip OD (in)	Butt OD (in)	Thickness (in)	Length (ft)	Weight (lbs)	Yield (ksi)	Attach Label	Azimuth (deg)
CA2	8	Flat-Flat	10.00	10.00	0.2500	35.00	986.6	65	LP:CA2	0

(8) 1" Dia x 3" Long - A325 Bolts

Diameter (in)	Total Qty	Center Space	Grade	Usage
1	8	6	A325	56.44%

Bracket ~ YK13-LG

Thickness (in)	Opening (in)	Height (in)	Usage	Shear Rupture	Bearing
0.75	13.125	21	79.64%	47.26%	20.99%

Stiffeners

Qty	Thickness (in)	Width (in)
0	0	0.00

Controlling Load Case (absolute value of reactions at pole face)

Description	Joint Label	Axial, Ft (kips)	Shear, Fv (kips)	Shear, FL (kips)	Moment, Mv (ft-kips)	Torsion, Mt (ft-kips)	Moment, ML (ft-kips)	Governing Element
DISTRICT : HEAVY (STRENGTH LOAD)	CA2:O	3.25	13.14	0.29	94.78	9.70	2.02	Bolt & Bracket