

05.01 CONDUCTOR SAG AND TENSION

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REVISED	BY	CK'D	APPR.	

DEC	DEM	DEP	DEF
	X		
05.00-00A			

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3				
2				
1	1/15/16	KATIGBAK	BURLISON	ADCOCK
0	10/21/15	KATIGBAK	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

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DEC	DEM	DEP	DEF
	X		
05.00-00B			

**NESC MEDIUM LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - 556 AAC DAHLIA**  
**► (NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	1604	5	7	10	11	12	16	19
40° F	1342	6	8	11	13	15	19	23
50° F	1128	7	10	14	16	18	22	28
60° F	962	8	12	16	18	21	26	33
70° F	837	9	13	18	21	24	30	37
80° F	743	11	15	21	24	27	34	42
90° F	670	12	17	23	26	30	38	47
95° F	640	12	18	24	27	31	40	49

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	1785	18	21	25	30	34	39	45	51
40° F	1601	20	24	28	33	38	44	50	56
50° F	1447	22	26	31	37	42	49	55	62
60° F	1319	24	29	34	40	46	53	61	69
70° F	1212	26	31	37	44	51	58	66	75
80° F	1123	28	34	40	47	55	63	71	80
90° F	1048	30	36	43	50	58	67	76	86
95° F	1015	31	37	44	52	60	69	79	89

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN							
		360	380	400	420	440	460	480	500
30° F	2626	39	43	48	53	58	63	69	74
40° F	2403	42	47	52	57	63	69	75	81
50° F	2202	46	51	57	63	69	75	82	89
60° F	2025	50	56	62	68	75	82	89	97
70° F	1870	54	60	67	74	81	88	96	105
80° F	1735	58	65	72	79	87	95	104	113
90° F	1619	63	70	77	85	94	102	111	121
95° F	1566	65	72	80	88	97	106	115	125

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



3				
2				
1	5/21/15	ROBESON	BURLISON	ADCOCK
0	1/13/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
 INITIAL CONDUCTOR SAG  
 AND TENSION - 556 AAC DAHLIA

DEC	DEM	DEP	DEF
X	X	X	
05.01-22A			

**NESC MEDIUM LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - 556 AAC DAHLIA**

➤ (NC, SC, OH, KY)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (MLT-2500 LBS.)						
		100	120	140	150	160	180	200
15° F, 1/4" ICE, 4 PSF WIND	2209	8	12	16	18	20	26	32
15° F, NO ICE, NO WIND	1575	5	7	10	11	13	16	20
32° F, 1/4" ICE, NO WIND	1516	9	12	17	19	22	28	34
32° F	1119	7	10	14	16	18	23	28
40° F	974	8	12	16	18	21	26	32
50° F	839	9	13	18	21	24	30	37
60° F	740	11	15	21	24	27	34	42
60° F, 6 PSF WIND	915	11	16	22	25	28	36	44
70° F	666	12	17	23	26	30	38	47
80° F	609	13	18	25	29	33	42	51
90° F	563	14	20	27	31	36	45	56
120° F	468	17	24	33	38	43	54	67
185° F	360	22	31	43	49	56	70	87
HORIZONTAL SWING	915	7	10	14	16	18	23	28

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (MLT-2999 LBS.)							
		200	220	240	260	280	300	320	340
15° F, 1/4" ICE, 4 PSF WIND	2617	27	33	39	46	53	61	69	78
15° F, NO ICE, NO WIND	1529	20	25	29	35	40	46	52	59
32° F, 1/4" ICE, NO WIND	1884	28	33	40	47	54	62	71	80
32° F	1288	24	29	35	41	48	55	62	70
40° F	1201	26	32	37	44	51	59	67	75
50° F	1110	28	34	41	48	55	63	72	81
60° F	1035	30	37	44	51	59	68	77	87
60° F, 6 PSF WIND	1289	31	38	45	53	62	71	80	91
70° F	971	32	39	46	54	63	72	82	93
80° F	917	34	41	49	58	67	77	87	99
90° F	871	36	43	52	61	70	81	92	104
120° F	762	41	50	59	69	80	92	105	119
185° F	618	51	61	73	86	99	114	130	146
HORIZONTAL SWING	1289	20	24	29	34	39	45	51	58

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN (MLT-4000 LBS.)							
		360	380	400	420	440	460	480	500
15° F, 1/4" ICE, 4 PSF WIND	3431	67	74	82	91	100	109	118	129
15° F, NO ICE, NO WIND	2055	49	55	61	67	74	80	88	95
32° F, 1/4" ICE, NO WIND	2542	66	74	82	90	99	108	118	128
32° F	1175	57	64	70	78	85	93	101	110
40° F	1669	61	68	75	83	91	99	108	117
50° F	1555	65	73	80	89	97	106	116	126
60° F	1458	69	77	86	95	104	113	124	134
60° F, 6 PSF WIND	1797	73	81	90	99	109	119	130	141
70° F	1375	74	82	91	100	110	120	131	142
80° F	1302	78	87	96	106	116	127	138	150
90° F	1239	82	91	101	111	122	134	145	158
120° F	1090	93	104	115	127	139	152	165	180
185° F	886	114	127	141	156	171	187	203	221
HORIZONTAL SWING	1797	46	51	57	63	69	76	83	90



➤ NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
**FINAL CONDUCTOR SAG  
 AND TENSION - 556 AAC DAHLIA**

DEC	DEM	DEP	DEF
X	X	X	

**05.01-22B**

3				
2				
1	5/21/15	ROBESON	BURLISON	ADCOCK
0	1/14/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC MEDIUM LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - #2 AAAC AMES  
(NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	512	2	3	4	5	6	7	8
40° F	459	2	3	5	6	6	8	9
50° F	407	3	4	5	6	7	9	11
60° F	357	3	4	6	7	8	10	12
70° F	310	3	5	7	8	9	11	14
80° F	266	4	6	8	10	10	13	16
90° F	226	5	7	9	11	12	15	19

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	743	6	7	8	10	12	13	15	17
40° F	688	6	8	9	11	12	14	16	18
50° F	634	7	8	10	12	13	15	17	20
60° F	581	8	9	11	13	15	17	19	22
70° F	529	8	10	12	14	16	19	21	24
80° F	480	9	11	13	15	18	21	23	26
90° F	432	10	12	15	17	20	23	26	29

CONDUCTOR TEMPERATURE	TENSION LBS	450 FOOT RULING SPAN								
		360	380	400	420	440	450	460	480	500
30° F	438	32	36	40	44	48	51	53	58	63
40° F	403	35	39	44	48	53	55	58	63	68
50° F	370	38	43	47	52	57	60	63	68	74
60° F	341	42	46	51	57	62	65	68	74	80
70° F	316	45	50	56	61	67	70	73	80	87
80° F	293	48	54	60	66	72	76	79	86	93
90° F	273	52	58	64	71	78	81	85	92	100

**NOTES:**

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



3				
2	8/10/15	ROBESON	BURLISON	ADCOCK
1	5/21/15	ROBESON	BURLISON	ADCOCK
0	1/7/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
INITIAL CONDUCTOR SAG  
AND TENSION - #2 AAAC AMES**

DEC	DEM	DEP	DEF
X	X	X	

**05.01-24A**

**NEC MEDIUM LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - #2 AAAC AMES  
(NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (MLT-800 LBS.)						
		100	120	140	150	160	180	200
15° F, 1/4" ICE, 4 PSF WIND	788	11	16	21	27	28	35	43
15° F, NO ICE, NO WIND	527	2	3	4	4	5	7	8
32° F, 1/4" ICE, NO WIND	516	7	10	14	16	18	23	29
32° F	412	3	4	5	6	7	8	10
40° F	360	3	4	6	7	8	10	12
50° F	299	4	5	7	8	9	12	14
60° F	243	4	6	9	10	11	14	18
60° F, 6 PSF WIND	336	8	11	15	17	20	25	31
70° F	196	6	8	10	11	14	18	22
80° F	160	9	10	13	15	17	22	27
90° F	134	8	12	16	18	21	26	32
120° F	92	12	17	23	26	30	38	47
185° F	60	18	26	35	40	46	58	72
HORIZONTAL SWING	347	7	10	14	15	18	23	28

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (MLT-1163 LBS.)							
		200	220	240	260	280	300	320	340
15° F, 1/4" ICE, 4 PSF WIND	1127	30	37	44	51	59	68	78	88
15° F, NO ICE, NO WIND	684	6	8	9	11	12	14	16	18
32° F, 1/4" ICE, NO WIND	745	20	24	29	34	39	45	51	58
32° F	573	8	9	11	13	15	17	19	22
40° F	522	8	10	12	14	16	19	21	24
50° F	461	9	11	14	16	18	21	24	27
60° F	403	11	13	15	18	21	24	27	31
60° F, 6 PSF WIND	536	19	24	28	33	38	44	50	56
70° F	351	12	15	18	21	24	28	32	36
80° F	305	14	17	20	24	28	32	36	41
90° F	265	16	20	23	28	32	37	42	47
100° F	233	19	22	27	31	36	42	47	53
120° F	187	23	28	33	39	45	52	59	67
185° F	119	36	44	52	61	71	82	93	105
HORIZONTAL SWING	536	18	21	25	30	35	40	45	51

CONDUCTOR TEMPERATURE	TENSION LBS	450 FOOT RULING SPAN (MLT-1226 LBS.)								
		360	380	400	420	440	450	460	480	500
15° F, 1/4" ICE, 4 PSF WIND	1124	90	101	111	123	135	141	147	161	174
15° F, NO ICE, NO WIND	382	37	41	45	50	55	57	60	65	71
32° F, 1/4" ICE, NO WIND	694	70	77	86	95	104	109	114	124	134
32° F	325	43	48	53	59	64	67	70	77	83
40° F	303	46	51	57	63	69	72	75	82	89
50° F	279	50	56	62	68	75	78	82	89	97
60° F	259	54	60	67	74	81	85	88	96	104
60° F, 6 PSF WIND	488	69	77	85	94	103	108	113	123	133
70° F	242	58	65	72	79	87	91	95	103	112
80° F	227	62	69	76	84	92	97	101	110	119
90° F	214	65	73	81	89	98	102	107	116	126
100° F	203	69	77	85	94	103	108	113	123	133
120° F	184	76	85	94	103	113	119	124	135	147
185° F	146	96	107	118	131	143	150	157	171	185
HORIZONTAL SWING	489	63	70	78	86	94	99	103	112	121



3				
2	8/10/15	ROBESON	BURLISON	ADCOCK
1	5/21/15	ROBESON	BURLISON	ADCOCK
0	1/7/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

NEC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
FINAL CONDUCTOR SAG  
AND TENSION - #2 AAAC AMES

DEC	DEM	DEP	DEF
X	X	X	
05.01-24B			

**NESC MEDIUM LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - 1/0 AAAC AZUZA**  
**► (NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	627	3	4	5	6	7	9	11
40° F	548	3	5	6	7	8	10	13
50° F	474	4	5	7	8	9	12	15
60° F	406	4	6	8	10	11	14	17
70° F	345	5	7	10	11	13	16	20
80° F	392	6	9	12	13	15	19	24
90° F	249	7	10	14	16	18	22	28
95° F	231	7	11	15	17	19	24	30

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	951	7	9	11	12	14	17	19	21
40° F	868	8	10	12	14	16	18	21	23
50° F	788	9	11	13	15	17	20	23	25
60° F	711	10	12	14	17	19	22	25	28
70° F	639	11	13	16	18	21	25	28	31
80° F	571	12	15	18	21	24	27	31	35
90° F	510	14	17	20	23	27	31	35	39
95° F	482	14	17	21	24	28	33	37	42

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN							
		360	380	400	420	440	460	480	500
30° F	766	29	33	36	40	44	48	52	57
40° F	699	32	36	40	44	48	53	57	62
50° F	638	35	39	44	48	53	58	63	68
60° F	582	39	43	48	53	58	63	69	75
70° F	532	42	47	52	58	63	69	75	82
80° F	488	46	51	57	63	69	75	82	89
90° F	449	50	56	62	68	75	82	89	97
95° F	432	52	58	65	71	78	85	93	101

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



3				
2				
1	5/21/15	ROBESON	BURLISON	ADCOCK
0	1/7/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
 INITIAL CONDUCTOR SAG  
 AND TENSION - 1/0 AAAC AZUZA

DEC	DEM	DEP	DEF
X	X	X	
05.01-26A			

NEC MEDIUM LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - 1/0 AAAC AZUZA

➤ (NC, SC, OH, KY)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (MLT - 1000 LBS.)						
		100	120	140	150	160	180	200
15° F, 1/4" ICE, 4 PSF WIND	1000	10	14	19	21	24	31	38
15° F, NO ICE, NO WIND	688	3	4	5	6	7	8	10
32° F, 1/4" ICE, NO WIND	662	7	10	14	16	18	23	29
32° F	514	3	5	7	8	9	11	13
40° F	439	4	6	8	9	10	13	16
50° F	356	5	7	10	11	12	16	19
60° F	288	6	9	12	13	15	19	24
60° F, 6 PSF WIND	413	8	12	16	19	21	27	33
70° F	237	7	10	14	16	19	24	29
80° F	201	9	12	17	19	22	28	34
90° F	175	10	14	19	22	25	32	39
120° F	130	13	19	26	30	34	43	53
185° F	90	19	28	38	43	49	62	77
HORIZONTAL SWING	413	7	10	14	16	18	23	29

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (MLT - 1483 LBS.)							
		200	220	240	260	280	300	320	340
15° F, 1/4" ICE, 4 PSF WIND	1432	27	32	38	45	52	60	68	77
15° F, NO ICE, NO WIND	909	8	9	11	13	15	17	20	22
32° F, 1/4" ICE, NO WIND	975	20	24	28	33	38	44	50	56
32° F	741	9	11	13	16	18	21	24	27
40° F	666	10	13	15	18	21	24	27	30
50° F	581	12	15	17	20	24	27	31	35
60° F	505	14	17	20	23	27	31	35	40
60° F, 6 PSF, WIND	682	20	24	29	34	40	46	52	58
70° F	440	16	19	23	27	31	36	40	46
80° F	387	18	22	26	30	35	41	46	52
90° F	343	20	25	29	34	40	46	52	59
120° F	258	27	33	39	46	53	61	69	78
185° F	177	39	48	57	66	77	88	101	114
HORIZONTAL SWING	682	18	21	25	30	34	39	45	51

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN (MLT - 1571 LBS.)							
		360	380	400	420	440	460	480	500
15° F, 1/4" ICE, 4 PSF WIND	1561	79	88	98	108	119	130	141	153
15° F, NO ICE, NO WIND	728	31	35	38	42	46	51	55	60
32° F, 1/4" ICE, NO WIND	991	62	69	77	85	93	102	111	120
32° F	603	37	41	46	50	55	61	66	71
40° F	554	41	45	50	55	61	66	72	79
50° F	500	45	50	56	61	67	74	80	87
60° F	454	50	55	61	68	74	81	88	96
60° F, 6 PSF, WIND	703	64	71	79	87	95	104	113	123
70° F	416	54	61	67	74	81	89	97	105
80° F	383	59	66	73	80	88	96	105	114
90° F	356	63	71	78	86	95	103	113	122
120° F	296	76	85	94	104	114	124	135	147
185° F	225	100	112	124	137	150	164	179	194
HORIZONTAL SWING	703	55	61	68	75	82	90	98	106

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



3				
2				
1	5/21/15	ROBESON	BURLISON	ADCOCK
0	1/7/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

➤ NEC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
FINAL CONDUCTOR SAG  
AND TENSION - 1/0 AAAC AZUZA

DEC	DEM	DEP	DEF
X	X	X	

05.01-26B



**NESC MEDIUM LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - 4/0 AAAC ALLIANCE**  
**► (NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	1248	3	4	5	6	7	9	11
40° F	1092	3	5	6	7	8	10	13
50° F	944	4	5	7	8	9	12	15
60° F	807	4	6	8	10	11	14	17
70° F	685	5	7	10	11	13	16	20
80° F	581	6	9	12	13	15	19	24
90° F	495	7	10	14	16	18	23	28
95° F	459	8	11	15	17	19	24	30

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	1650	8	10	12	14	17	19	22	24
40° F	1493	9	11	13	16	18	21	24	27
50° F	1343	10	13	15	17	20	23	26	30
60° F	1204	12	14	17	20	23	26	30	33
70° F	1075	13	16	19	22	25	29	33	38
80° F	959	15	18	21	25	28	33	37	42
90° F	858	16	20	23	27	32	37	42	47
95° F	812	17	21	25	29	34	39	44	50

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN							
		360	380	400	420	440	460	480	500
30° F	1595	28	32	35	38	42	46	50	55
40° F	1457	31	35	38	42	46	51	55	60
50° F	1329	34	38	42	46	51	55	60	65
60° F	1212	37	41	46	51	56	61	66	72
70° F	1107	41	45	50	55	61	66	72	79
80° F	1014	45	50	55	61	67	73	79	86
90° F	932	48	54	60	66	72	79	86	93
95° F	895	50	56	62	69	75	82	90	97

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



3				
2				
1	5/21/15	ROBESON	BURLISON	ADCOCK
0	1/7/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
 INITIAL CONDUCTOR SAG  
 AND TENSION - 4/0 AAAC ALLIANCE

DEC	DEM	DEP	DEF
	X	X	
05.01-28A			

NESS MEDIUM LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - 4/0 AAAC ALLIANCE

➤ (NC, SC, OH, KY)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (MLT - 1740 LBS.)						
		100	120	140	150	160	180	200
15° F, 1/4" ICE, 4 PSF WIND	1700	7	10	14	16	18	23	28
15° F, NO ICE, NO WIND	1380	2	3	4	5	6	7	8
32° F, 1/4" ICE, NO WIND	1212	6	9	12	13	15	19	24
32° F	1031	3	5	7	8	9	11	13
40° F	880	4	6	8	9	10	13	16
50° F	713	5	7	9	11	12	16	19
60° F	577	6	9	12	13	15	19	24
60° F, 6 PSF WIND	728	7	11	15	17	19	24	30
70° F	475	7	10	14	16	19	24	29
80° F	402	9	12	17	19	22	28	34
90° F	350	10	14	19	22	25	32	39
120° F	259	13	19	26	30	34	43	53
185° F	180	19	28	38	43	49	62	77
HORIZONTAL SWING	728	5	9	12	13	15	0	0

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (MLT-2362 LBS.)							
		200	220	240	260	280	300	320	340
15° F, 1/4" ICE, 4 PSF WIND	2235	21	26	31	36	42	48	55	62
15° F, NO ICE, NO WIND	1613	9	10	12	15	17	19	22	25
32° F, 1/4" ICE, NO WIND	1624	18	22	26	30	35	40	46	52
32° F	1294	11	13	15	18	21	24	27	31
40° F	1158	12	14	17	20	23	27	31	34
50° F	1006	14	17	20	23	27	31	35	40
60° F	876	16	19	23	27	31	35	40	60
60° F, 6 PSF WIND	1104	20	24	28	33	39	44	51	57
70° F	771	18	22	26	31	35	41	46	52
80° F	685	20	25	29	34	40	46	52	59
90° F	616	23	27	33	38	44	51	58	65
120° F	478	29	35	42	49	57	66	75	84
185° F	340	41	50	59	69	80	92	105	119
HORIZONTAL SWING	1104	15	19	22	26	30	34	39	44

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN (MLT-2579 LBS.)							
		360	380	400	420	440	460	480	500
15° F, 1/4" ICE, 4 PSF WIND	2473	63	70	78	86	94	103	112	122
15° F, NO ICE, NO WIND	1512	30	33	37	41	45	49	53	58
32° F, 1/4" ICE, NO WIND	1752	54	60	66	73	80	88	95	103
32° F	1253	36	40	44	49	53	58	63	69
40° F	1149	39	44	48	53	59	64	70	76
50° F	1035	44	49	54	59	65	71	78	84
60° F	935	48	53	59	65	71	78	85	92
60° F, 6 PSF WIND	1238	57	64	71	78	85	93	102	110
70° F	856	53	59	65	72	79	86	94	102
80° F	787	57	64	71	78	86	94	102	111
90° F	730	62	69	76	84	92	101	110	119
120° F	603	75	83	92	102	112	122	133	144
185° F	455	99	111	123	135	148	162	176	191
HORIZONTAL SWING	1239	44	49	55	60	66	72	79	85



➤ NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
FINAL CONDUCTOR SAG  
AND TENSION - 4/0 AAAC ALLIANCE

DEC	DEM	DEP	DEF
	X	X	

05.01-28B

3				
2				
1	5/21/15	ROBESON	BURLISON	ADCOCK
0	1/7/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

NESC HEAVY LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - #1/0 AAAC AZUSA

► (IN)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	442	3	4	5	6	7	8	10
40° F	377	5	7	9	11	12	15	18
50° F	319	5	8	11	13	14	18	22
60° F	271	6	9	12	14	16	21	25
70° F	232	7	11	15	17	19	24	30
80° F	202	9	12	17	18	22	28	34
90° F	178	10	14	19	22	25	31	39
95° F	168	10	15	20	23	26	33	41

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	499	14	17	20	23	27	31	35	40
40° F	445	16	19	22	26	30	35	40	45
50° F	399	17	21	25	29	34	39	44	50
60° F	359	19	23	28	33	38	43	49	56
70° F	325	21	26	31	36	42	48	54	61
80° F	297	23	28	33	39	46	52	59	67
90° F	273	25	31	36	43	49	57	65	73
95° F	263	26	32	38	44	51	59	67	76

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN							
		360	380	400	420	440	460	480	500
30° F	503	44	50	55	60	66	73	79	86
40° F	462	48	54	60	66	72	79	86	93
50° F	427	52	58	65	71	78	86	93	101
60° F	396	57	63	70	77	84	92	100	109
70° F	369	61	68	75	83	91	99	108	117
80° F	346	65	72	80	88	97	106	115	125
90° F	325	69	77	85	94	103	112	122	133
95° F	316	71	79	87	96	106	115	126	136

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/12/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC HEAVY LOADING ZONE (IN)  
INITIAL CONDUCTOR SAG  
AND TENSION - #1/0 AAAC AZUSA

DEC	DEM	DEP	DEF
	X		
05.01-40A			

NESC HEAVY LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - #1/0 AAAC AZUSA

➤ (IN)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (MLT-1212 LBS.)						
		100	120	140	150	160	180	200
0° F, 1/2" ICE, 4 PSF WIND	1211	14	20	27	31	35	45	55
0° F, NO ICE, NO WIND	542	3	5	6	7	8	10	13
32° F, 1/2" ICE, NO WIND	772	13	19	26	29	33	42	52
32° F	281	6	9	12	14	16	20	25
40° F	241	7	10	14	16	18	23	29
50° F	204	8	12	17	18	22	27	34
60° F	177	10	14	19	22	25	32	39
60° F, 6 PSF WIND	303	11	16	22	25	29	37	46
70° F	157	11	16	22	25	28	36	44
80° F	142	12	17	24	27	31	39	49
90° F	130	13	19	26	30	34	43	53
120° F	107	16	23	32	36	41	52	65
185° F	81	21	31	42	48	55	69	85
HORIZONTAL SWING	303	10	14	13	22	25	32	40

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (MLT-1672 LBS.)							
		200	220	240	260	280	300	320	340
0° F, 1/2" ICE, 4 PSF WIND	1670	40	49	58	68	79	91	103	116
0° F, NO ICE, NO WIND	518	13	16	19	23	26	30	34	38
32° F, 1/2" ICE, NO WIND	1098	37	45	53	62	72	83	94	106
32° F	341	20	24	29	34	40	45	52	58
40° F	313	22	27	32	37	43	50	56	64
50° F	284	24	29	35	41	48	55	62	70
60° F	260	27	32	38	45	52	60	68	77
60° F, 6 PSF WIND	450	31	37	44	52	60	69	78	89
70° F	241	29	35	41	48	56	64	73	83
80° F	225	31	37	44	52	60	69	79	89
90° F	211	33	39	47	55	64	73	84	94
120° F	181	38	46	55	64	75	86	98	110
185° F	143	48	58	69	81	94	108	123	139
HORIZONTAL SWING	450	27	32	38	45	52	60	68	77

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN (MLT-1996 LBS.)							
		360	380	400	420	440	460	480	500
0° F, 1/2" ICE, 4 PSF WIND	1992	109	122	135	149	163	179	194	211
0° F, NO ICE, NO WIND	478	47	52	58	64	70	76	83	90
32° F, 1/2" ICE, NO WIND	1316	100	111	123	136	149	163	177	192
32° F	364	61	69	76	84	92	100	109	119
40° F	344	65	72	80	89	97	106	116	126
50° F	322	69	77	86	95	104	113	123	134
60° F	304	74	82	91	100	110	120	131	142
60° F, 6 PSF WIND	537	83	93	103	113	124	136	148	161
70° F	288	78	87	96	106	116	127	138	150
80° F	274	82	91	101	111	122	134	145	158
90° F	261	86	95	106	117	128	140	152	165
120° F	232	97	108	119	131	144	158	172	186
185° F	191	117	131	145	160	175	192	209	227
HORIZONTAL SWING	537	72	81	89	98	107	118	128	139



➤ NESC HEAVY LOADING ZONE (IN)  
FINAL CONDUCTOR SAG  
AND TENSION - #1/0 AAAC AZUSA

DEC	DEM	DEP	DEF
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	X		
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05.01-40B

3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/12/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

NESC HEAVY LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - #4/0 AAAC ALLIANCE  
 ► (IN)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	803	4	6	8	10	11	14	17
40° F	682	5	7	10	12	13	16	20
50° F	578	6	9	12	14	15	19	24
60° F	493	7	10	14	16	18	23	28
70° F	426	8	12	16	18	21	26	32
80° F	373	9	13	18	21	24	30	37
90° F	333	10	15	20	24	27	34	41
95° F	316	11	16	21	25	28	35	44

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	896	15	19	22	26	30	35	39	45
40° F	802	17	21	25	29	34	39	44	50
50° F	722	19	23	28	32	37	43	49	55
60° F	654	21	26	30	36	41	48	54	61
70° F	597	23	28	33	39	45	52	59	67
80° F	549	25	30	36	42	49	57	64	73
90° F	509	27	33	39	46	53	61	69	78
95° F	491	28	34	40	47	55	63	72	81

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN							
		360	380	400	420	440	460	480	500
30° F	896	50	56	62	68	75	82	89	96
40° F	828	54	60	67	73	81	88	96	104
50° F	770	58	65	72	79	87	95	103	112
60° F	719	62	69	77	85	93	102	111	120
70° F	675	66	74	82	90	99	108	118	128
80° F	637	70	78	87	96	105	115	125	136
90° F	603	74	83	92	101	111	121	132	143
95° F	588	76	85	94	104	114	124	135	147

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/12/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC HEAVY LOADING ZONE (IN)  
 INITIAL CONDUCTOR SAG  
 AND TENSION - #4/0 AAAC ALLIANCE

DEC	DEM	DEP	DEF
	X		
05.01-42A			

NESSC HEAVY LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - #4/0 AAAC ALLIANCE

➤ (IN)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (MLT-1862 LBS.)						
		100	120	140	150	160	180	200
0° F, 1/2" ICE, 4 PSF WIND	1861	11	15	21	24	28	35	43
0° F, NO ICE, NO WIND	1085	3	5	6	7	8	10	13
32° F, 1/2" ICE, NO WIND	1200	11	16	22	25	29	36	45
32° F	563	6	9	12	14	16	20	25
40° F	482	7	10	14	16	18	23	29
50° F	407	8	12	17	18	22	27	34
60° F	354	10	14	19	22	25	32	39
60° F, 6 PSF WIND	506	11	16	21	24	28	38	43
70° F	314	11	16	22	25	28	36	44
80° F	284	12	17	24	27	31	39	49
90° F	261	13	19	26	30	34	43	53
120° F	214	16	23	32	36	41	52	65
185° F	162	21	31	42	48	55	69	85
HORIZONTAL SWING	506	9	12	16	19	22	29	33

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (MLT-2457 LBS.)							
		200	220	240	260	280	300	320	340
0° F, 1/2" ICE, 4 PSF WIND	2454	33	39	47	55	64	73	83	94
0° F, NO ICE, NO WIND	1037	13	16	19	23	26	30	34	38
32° F, 1/2" ICE, NO WIND	1671	32	39	46	54	63	72	82	93
32° F	683	20	24	29	34	40	45	52	58
40° F	626	22	27	32	37	43	50	56	64
50° F	568	24	29	35	41	48	55	62	70
60° F	521	27	32	38	45	52	60	68	77
60° F, 6 PSF WIND	750	29	35	42	49	57	65	74	84
70° F	482	29	35	41	48	56	64	73	83
80° F	450	31	37	44	52	60	69	79	89
90° F	423	33	39	47	55	64	73	84	94
120° F	362	38	46	55	64	75	86	98	110
185° F	287	48	58	69	81	94	108	123	139
HORIZONTAL SWING	750	22	27	33	38	44	50	57	65

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN (MLT-2850 LBS.)							
		360	380	400	420	440	460	480	500
0° F, 1/2" ICE, 4 PSF WIND	2846	91	101	112	124	136	149	162	176
0° F, NO ICE, NO WIND	952	47	52	58	64	70	77	84	91
32° F, 1/2" ICE, NO WIND	1964	88	98	109	120	132	144	157	170
32° F	725	62	69	76	84	92	101	110	119
40° F	685	65	73	81	89	98	107	116	126
50° F	642	70	78	86	95	104	114	124	134
60° F	606	74	82	91	101	110	121	131	143
60° F, 6 PSF WIND	887	80	89	98	109	119	130	142	154
70° F	574	78	87	96	106	117	127	139	150
80° F	546	82	91	101	112	122	134	146	158
90° F	521	86	96	106	117	128	140	153	166
120° F	463	97	108	119	132	145	158	172	187
185° F	381	118	131	145	160	172	192	209	227
HORIZONTAL SWING	887	62	69	76	84	92	101	110	119



➤ NESC HEAVY LOADING ZONE (IN)  
FINAL CONDUCTOR SAG  
AND TENSION - #4/0 AAAC ALLIANCE

DEC	DEM	DEP	DEF
	X		

05.01-42B

3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/12/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

NESC HEAVY LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - 556 AAC DAHLIA

► (IN)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	874	9	13	18	20	23	29	36
40° F	771	10	15	20	23	26	33	41
50° F	692	11	16	22	25	29	37	45
60° F	631	12	18	24	28	32	40	50
70° F	582	13	19	26	30	34	44	54
80° F	542	14	21	28	32	37	47	58
90° F	508	15	22	30	35	39	50	62
95° F	494	16	23	31	36	41	51	63

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	999	31	38	45	53	61	70	80	91
40° F	942	33	40	48	56	65	75	85	96
50° F	893	35	42	50	59	69	79	90	101
60° F	851	37	44	53	62	72	83	94	106
70° F	813	38	47	55	65	75	87	99	111
80° F	780	40	49	58	68	79	90	103	116
90° F	750	42	50	60	71	82	94	107	121
95° F	736	42	51	61	72	83	96	109	123

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN							
		360	380	400	420	440	460	480	500
30° F	1468	69	77	85	94	103	113	123	133
40° F	1387	73	81	90	99	109	119	130	141
50° F	1315	77	86	95	105	115	126	137	149
60° F	1252	81	90	100	110	121	132	144	156
70° F	1197	85	94	105	115	127	138	151	163
80° F	1147	88	98	109	120	132	144	157	171
90° F	1102	92	102	114	125	137	150	164	177
95° F	1082	94	104	116	128	140	153	167	181

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/8/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC HEAVY LOADING ZONE (IN)  
INITIAL CONDUCTOR SAG  
AND TENSION - 556 AAC DAHLIA

DEC	DEM	DEP	DEF
	X		
05.01-44A			

NESC HEAVY LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - 556 AAC DAHLIA

➤ (IN)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (MLT-2500 LBS.)						
		100	120	140	150	160	180	200
0° F, 1/2" ICE, 4 PSF WIND	2469	11	16	21	25	28	35	44
0° F, NO ICE, NO WIND	1211	6	9	13	15	17	21	26
32° F, 1/2" ICE, NO WIND	1598	13	18	25	29	33	42	51
32° F	742	11	15	21	24	27	34	42
40° F	681	11	17	23	26	29	37	46
50° F	620	13	18	25	28	32	41	50
60° F	572	14	20	27	31	35	44	55
60° F, 6 PSF WIND	723	14	20	27	32	36	45	56
70° F	533	15	21	29	33	38	48	59
80° F	501	16	22	31	35	40	51	62
90° F	473	17	24	32	37	42	54	66
120° F	461	17	24	33	38	43	55	68
185° F	411	19	27	37	43	49	62	76
HORIZONTAL SWING	723	9	13	17	20	23	29	36

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (MLT-2999 LBS.)							
		200	220	240	260	280	300	320	340
0° F, 1/2" ICE, 4 PSF WIND	2896	37	45	54	63	73	84	95	108
0° F, NO ICE, NO WIND	1062	29	36	42	50	58	66	75	85
32° F, 1/2" ICE, NO WIND	2048	40	48	58	68	78	90	102	116
32° F	879	36	43	51	60	70	80	91	103
40° F	845	37	45	53	63	73	83	95	107
50° F	807	39	47	56	65	76	87	99	112
60° F	774	40	49	58	68	79	91	103	117
60° F, 6 PSF WIND	984	41	50	59	70	81	93	105	119
70° F	744	42	51	61	71	82	95	108	122
80° F	718	44	53	63	74	85	98	112	126
90° F	694	45	55	65	76	88	102	116	130
120° F	633	49	60	71	84	97	111	127	143
185° F	542	58	70	83	98	113	130	148	167
HORIZONTAL SWING	984	26	32	37	44	51	59	67	76

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN (MLT-4000 LBS.)							
		360	380	400	420	440	460	480	500
0° F, 1/2" ICE, 4 PSF WIND	3827	91	102	113	124	137	149	163	176
0° F, NO ICE, NO WIND	1451	70	78	86	95	104	114	124	135
32° F, 1/2" ICE, NO WIND	2776	96	107	118	130	143	156	170	185
32° F	1223	83	92	102	113	124	135	147	160
40° F	1179	86	96	106	117	128	140	153	166
50° F	1130	90	100	111	122	134	146	160	173
60° F	1086	93	104	115	127	139	152	166	180
60° F, 6 PSF WIND	1373	96	106	118	130	143	156	170	184
70° F	1047	97	108	120	132	145	158	172	187
80° F	1011	100	112	124	136	150	164	178	194
90° F	979	104	115	128	141	155	169	184	200
120° F	896	113	126	140	154	169	185	201	218
185° F	770	132	147	163	179	197	215	234	254
HORIZONTAL SWING	1373	61	67	75	83	91	99	108	117



➤ NESC HEAVY LOADING ZONE (IN)  
FINAL CONDUCTOR SAG  
AND TENSION - 556 AAC DAHLIA

DEC	DEM	DEP	DEF
-----	-----	-----	-----

X			
---	--	--	--

05.01-44B

3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/12/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	



**SINGLE, TWO AND THREE-PHASE  
SLACK SPAN POLE CLASS AND SAG REQUIRMENTS**

MAXIMUM SPAN LENGTH (FT)	CONDUCTORS	MINIMUM POLE CLASS REQUIRED			INITIAL STRINGING SAGS (INCHES)
		40 FOOT	45 FOOT	50 FOOT	
25	ALL SIZES 556 AND SMALLER	5	4	3	12
50	#2 PRI - #2 NEU AND SMALLER	5	4	3	
	#1/0 PRI - #1/0 NEU #4/0 PRI - #1/0 NEU	5	4	3	24
	336 PRI - #1/0 NEU	4	4	3	
	477 PRI - #1/0 NEU 556 PRI - 336 NEU	4	3	3	36
75	#2 PRI - #2 NEU AND SMALLER	5	4	3	24
	#1/0 PRI - #1/0 NEU	5	4	3	
	#4/0 PRI - #1/0 NEU	4	3	3	
	336 PRI - #1/0 NEU	3	2	2	
	477 - 556	NOT PERMITTED			36
100	#2 PRI - #2 NEU AND SMALLER	5	4	3	
	#1/0 PRI - #1/0 NEU	4	4	3	
	#4/0 - 556	NOT PERMITTED			

**NOTES:**

1. THE POLES IN THESE TABLES ARE DESIGNED TO BE SELF-SUPPORTING STRUCTURES AT THE END OF A SINGLE SPAN. IF THE TAKE-OFF POLE CANNOT BE SUPPORTED WITH DOWN GUYS AND ANCHORS, IT MUST BE EVALUATED AS A SELF-SUPPORTING STRUCTURE. IF ADDITIONAL LOAD IS ADDED TO THE POLES IN THESE TABLES, THE POLES MUST BE RE-EVALUATED FOR STRENGTH REQUIREMENTS TO PREVENT POLE DEFLECTION OVER TIME.
2. SAGS ARE AT 60° F. SAGS WILL NOT VARY MORE THAN 2 INCHES BETWEEN 30° F AND 90° F.
3. POLE CLASSES DESIGNED FOR NO MORE THAT 1.5% DEFLECTION AT 60° F.
4. SOME POLE CLASSES LISTED MAY EXCEED THE CLASS POLE REQUIRED FOR STRENGTH BECAUSE A LOWER CLASS POLE IS NOT A STOCK ITEM.
5. DO NOT USE AUTOMATIC SPLICES IN SLACK SPANS.



3				
2				
1				
0	10/14/14	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

**SLACK SPAN SAG TABLE  
NESC MEDIUM LOADING ZONE**

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-12</b>			

**NESC MEDIUM LOADING ZONE INITIAL SAG AND TENSION CHARTS FOR #1/0 AAAC**  
**➤ (NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
30° F	470	92	99	107	111	115	124
40° F	442	98	106	114	118	122	131
50° F	418	103	112	120	125	129	139
60° F	397	109	118	127	131	136	146
70° F	378	114	123	133	138	143	153
80° F	362	119	129	139	144	150	161
90° F	347	124	135	145	150	156	167
95° F	340	127	137	148	153	159	171

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
30° F	516	120	129	137	142	146	155
40° F	491	126	135	144	149	153	162
50° F	469	132	141	151	156	160	170
60° F	449	138	148	157	162	167	178
70° F	431	144	154	164	168	174	185
80° F	415	150	160	171	176	181	193
90° F	399	156	166	177	182	188	200
95° F	392	158	169	180	186	192	203

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
30° F	487	174	184	194	199	205	216	227
40° F	469	180	191	202	207	213	224	236
50° F	453	187	198	209	214	220	232	244
60° F	438	193	204	216	222	228	240	252
70° F	424	199	211	223	229	235	248	260
80° F	412	206	217	230	236	242	255	269
90° F	400	212	224	236	242	249	263	276
95° F	394	215	227	240	246	253	266	280

NOTES:

- SEE DWG. 03.15-02 FOR LONG SPAN POLE FRAMING CONSTRUCTION.



3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/8/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

➤ NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
**INITIAL SAG AND TENSION CHARTS FOR #1/0 AAAC**  
**LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-20A</b>			

NESC MEDIUM LOADING ZONE FINAL SAG AND TENSION CHARTS FOR #1/0 AAAC

➤ (NC, SC, OH, KY)

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
15° F, 1/4" ICE, 4 PSF WIND	1644	145	157	169	176	182	195
15° F	522	83	89	96	100	104	111
32° F, 1/4" ICE, NO WIND	971	122	132	143	148	153	165
32° F	466	93	100	108	112	116	125
40° F	444	97	105	113	118	122	131
50° F	420	103	111	120	124	129	138
60° F	399	108	117	126	131	136	146
60° F, 6 PSF WIND	694	124	134	145	150	156	167
70° F	380	114	123	133	138	143	153
80° F	363	119	129	139	144	149	160
90° F	348	124	134	145	150	156	167
120° F	311	139	150	162	168	174	187
185° F	259	167	180	195	202	209	225
HORIZONTAL SWING	694	107	116	126	130	135	145

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
15° F, 1/4" ICE, 4 PSF WIND	1724	199	213	227	234	241	256
15° F	485	128	137	146	150	155	164
32° F, 1/4" ICE, NO WIND	994	172	184	196	202	208	221
32° F	447	139	148	158	163	162	178
40° F	432	144	154	164	169	174	185
50° F	414	150	160	171	176	181	193
60° F	399	156	166	177	183	189	200
60° F, 6 PSF WIND	714	174	186	198	204	210	223
70° F	384	162	173	184	190	196	208
80° F	371	167	179	191	197	203	215
90° F	359	173	185	197	203	209	222
120° F	329	189	202	215	222	229	243
185° F	282	221	236	251	259	267	284
HORIZONTAL SWING	714	151	161	171	177	182	193

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
15° F, 1/4" ICE, 4 PSF WIND	1789	261	277	292	300	308	325	342
15° F	462	183	194	205	210	216	227	239
32° F, 1/4" ICE, NO WIND	1012	230	244	257	264	271	286	301
32° F	435	195	206	217	223	229	242	254
40° F	423	200	211	223	229	236	248	261
50° F	410	206	218	230	237	243	256	269
60° F	398	213	225	238	244	251	264	278
60° F, 6 PSF WIND	729	232	245	259	266	274	288	303
70° F	387	219	231	244	251	258	272	286
80° F	376	225	238	251	258	265	279	294
90° F	367	231	244	258	265	272	287	301
120° F	341	248	262	277	285	292	308	324
185° F	300	282	299	315	324	333	350	369
HORIZONTAL SWING	729	201	212	224	230	237	249	262

NOTES:

- SEE DWG. 03.15-02 FOR LONG SPAN POLE FRAMING CONSTRUCTION.



➤ NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
FINAL SAG AND TENSION CHARTS FOR #1/0 AAAC  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS

DEC	DEM	DEP	DEF
X	X	X	

05.02-20B

3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/29/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC MEDIUM LOADING ZONE INITIAL SAG AND TENSION CHARTS FOR #4/0 AAAC  
 ► (NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
30° F	1786	77	83	89	92	96	103
40° F	1678	82	88	95	98	102	110
50° F	1581	87	94	101	105	109	117
60° F	1494	92	99	107	111	115	123
70° F	1416	97	105	113	117	121	130
80° F	1346	102	110	119	124	128	137
90° F	1284	107	115	124	129	134	144
95° F	1255	109	118	127	132	137	147

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
30° F	1642	120	128	137	141	145	154
40° F	1568	126	134	143	148	152	162
50° F	1500	132	140	150	155	159	169
60° F	1438	137	146	156	161	166	176
70° F	1382	143	152	162	167	173	183
80° F	1330	148	158	169	174	179	190
90° F	1283	154	164	175	180	186	197
95° F	1261	156	167	178	183	189	201

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
30° F	1537	175	185	195	200	206	217	228
40° F	1485	181	191	202	207	213	225	236
50° F	1436	187	198	209	214	220	232	244
60° F	1391	193	204	216	221	227	240	252
70° F	1350	199	210	222	228	234	247	260
80° F	1312	205	217	229	235	241	254	267
90° F	1276	210	223	235	241	248	261	275
95° F	1259	213	226	238	244	251	265	279

NOTES:

1. SEE DWG. 03.15-02 FOR LONG SPAN POLE FRAMING CONSTRUCTION.
2. LONG SPAN SAGS FOR #1/0 AAAC HAVE BEEN DEVELOPED TO SAG WITH THE #4/0 AS THE NEUTRAL WHEN #4/0 IS USED AS THE PRIMARY PHASE CONDUCTOR.



3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/8/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
 INITIAL SAG AND TENSION CHARTS FOR #4/0 AAAC  
 LONG SPAN CONSTRUCTION 500-800 FOOT SPANS

DEC	DEM	DEP	DEF
X	X	X	
05.02-22A			

**NESC MEDIUM LOADING ZONE FINAL SAG AND TENSION CHARTS FOR #4/0 AAAC**

➤ (NC, SC, OH, KY)

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
15° F, 1/4" ICE, 4 PSF WIND	2409	124	135	145	151	156	167
15° F	1043	83	89	96	100	104	111
32° F, 1/4" ICE, NO WIND	1601	113	122	132	137	142	152
32° F	932	93	100	108	112	116	125
40° F	888	97	105	113	118	122	131
50° F	840	103	111	120	124	129	138
60° F	797	108	117	126	131	136	146
60° F, 6 PSF WIND	1154	118	128	138	143	148	159
70° F	759	114	123	133	138	143	153
80° F	726	119	129	139	144	149	160
90° F	696	124	134	145	150	156	167
120° F	623	139	150	162	168	174	187
185° F	517	167	180	195	202	209	225
HORIZONTAL SWING	1369	91	99	107	111	115	123

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
15° F, 1/4" ICE, 4 PSF WIND	2472	175	186	199	205	211	224
15° F	971	128	137	146	150	155	164
32° F, 1/4" ICE, NO WIND	1616	161	172	184	189	195	207
32° F	895	139	148	158	163	168	178
40° F	864	144	154	164	169	174	185
50° F	829	150	160	171	176	181	193
60° F	797	156	166	177	183	189	200
60° F, 6 PSF WIND	1177	167	178	190	196	202	214
70° F	768	162	173	184	190	196	208
80° F	742	167	179	191	197	203	215
90° F	718	173	185	197	203	209	222
120° F	657	189	202	215	222	229	243
185° F	564	221	236	251	259	267	284
HORIZONTAL SWING	1177	129	138	147	152	156	166

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
15° F, 1/4" ICE, 4 PSF WIND	2520	233	247	261	268	275	290	305
15° F	924	183	194	205	210	216	227	239
32° F, 1/4" ICE, NO WIND	1626	218	231	244	251	258	271	285
32° F	870	195	206	217	223	229	242	254
40° F	847	200	211	223	229	236	248	261
50° F	820	206	218	230	237	243	256	269
60° F	796	213	225	238	244	251	264	278
60° F, 6 PSF WIND	1192	224	237	251	258	265	279	293
70° F	774	219	231	244	251	258	272	286
80° F	753	225	238	251	258	265	279	294
90° F	733	231	244	258	265	272	287	301
120° F	683	248	262	277	285	292	308	324
185° F	600	282	299	315	324	333	350	369
HORIZONTAL SWING	1192	173	184	194	200	205	216	227

**NOTES:**

- SEE DWG. 03.15-02 FOR LONG SPAN POLE FRAMING CONSTRUCTION.
- LONG SPAN SAGS FOR #1/0 AAAC HAVE BEEN DEVELOPED TO SAG WITH THE #4/0 AS THE NEUTRAL WHEN #4/0 IS USED AS THE PRIMARY PHASE CONDUCTOR.



➤ **NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
FINAL SAG AND TENSION CHARTS FOR #4/0 AAAC  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-22B</b>			

3				
2				
1	5/22/15	ROBESON	BURLISON	ADCOCK
0	1/29/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC MEDIUM LOADING ZONE INITIAL SAG AND TENSION CHARTS FOR 336.4 ACSR  
 ► (NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
30° F	988	139	150	162	168	174	187
40° F	959	143	155	167	173	179	192
50° F	932	147	159	172	178	184	198
60° F	907	151	163	176	183	190	203
70° F	883	155	168	181	188	195	209
80° F	861	159	172	186	192	200	214
90° F	841	163	176	190	197	204	219
95° F	832	165	178	192	199	207	222

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
30° F	946	209	223	237	245	252	268
40° F	927	213	227	242	250	258	274
50° F	909	217	232	247	255	263	279
60° F	891	221	236	252	260	268	285
70° F	875	226	241	257	265	273	290
80° F	859	230	245	261	270	278	295
90° F	844	234	250	266	274	283	300
95° F	837	236	252	268	277	285	303

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
30° F	921	292	309	326	335	344	363	381
40° F	907	296	314	331	340	349	368	387
50° F	894	301	318	336	345	355	374	393
60° F	881	305	323	341	350	360	379	399
70° F	869	309	327	346	355	365	384	404
80° F	857	314	332	351	360	370	390	410
90° F	846	318	336	355	365	375	395	415
95° F	840	320	338	358	367	377	397	418

NOTES:

1. SEE DWG. 03.15-02 FOR LONG SPAN POLE FRAMING CONSTRUCTION.
2. LONG SPAN SAGS FOR #1/0 AAAC AND #4/0 AAAC HAVE BEEN DEVELOPED TO SAG WITH THE 336.4 ACSR AS THE NEUTRAL WHEN 336.4 ACSR IS USED AS THE PRIMARY PHASE CONDUCTOR.



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2				
1	5/26/15	ROBESON	BURLISON	ADCOCK
0	1/8/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
 INITIAL SAG AND TENSION CHARTS FOR 336.4 ACSR  
 LONG SPAN CONSTRUCTION 500-800 FOOT SPANS

DEC	DEM	DEP	DEF
X	X	X	
05.02-24A			

**NEC MEDIUM LOADING ZONE FINAL SAG AND TENSION CHARTS FOR 336.4 ACSR  
 (NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
15° F, 1/4" ICE, 4 PSF WIND	3125	116	125	135	140	145	155
15° F	1615	85	92	99	103	106	114
32° F, 1/4" ICE, NO WIND	2246	109	118	128	132	137	147
32° F	1459	94	101	109	114	118	126
40° F	1397	98	106	114	119	123	132
50° F	1327	103	112	120	125	129	139
60° F	1265	108	117	126	131	136	146
60° F, 6 PSF WIND	1633	115	124	134	139	144	155
70° F	1210	113	122	132	137	142	152
80° F	1160	118	128	138	143	148	159
90° F	1115	123	133	143	149	154	165
120° F	1004	136	148	159	165	171	184
185° F	841	163	176	190	197	204	219
HORIZONTAL SWING	1965	79	85	92	95	98	106

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
15° F, 1/4" ICE, 4 PSF WIND	3176	164	175	187	193	199	211
15° F	1514	130	139	148	153	158	167
32° F, 1/4" ICE, NO WIND	2251	157	168	179	185	190	202
32° F	1407	140	150	160	165	170	180
40° F	1362	145	155	165	170	175	186
50° F	1311	150	161	171	177	182	193
60° F	1265	156	166	177	183	189	200
60° F, 6 PSF WIND	1655	163	174	186	192	198	210
70° F	1223	161	172	184	189	195	201
80° F	1184	167	178	190	196	202	214
90° F	1148	172	183	195	202	208	221
120° F	1057	187	199	212	219	226	240
185° F	912	216	231	246	254	262	278
HORIZONTAL SWING	1655	111	119	127	131	135	144

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
15° F, 1/4" ICE, 4 PSF WIND	3203	222	234	248	254	261	275	290
15° F	1447	185	196	207	213	219	230	242
32° F, 1/4" ICE, NO WIND	2253	214	226	239	246	252	266	280
32° F	1370	196	207	219	225	231	243	256
40° F	1337	201	212	224	231	237	249	262
50° F	1299	207	219	231	237	244	257	270
60° F	1263	213	225	238	244	251	264	278
60° F, 6 PSF WIND	1670	220	233	246	253	260	274	288
70° F	1230	218	231	244	251	257	271	285
80° F	1200	224	237	250	257	264	278	292
90° F	1171	229	243	256	263	270	285	300
120° F	1095	245	260	274	282	289	305	321
185° F	969	277	293	310	318	327	345	362
HORIZONTAL SWING	1670	150	159	168	173	178	187	197

**NOTES:**

- SEE DWG. 03.15-02 FOR LONG SPAN POLE FRAMING CONSTRUCTION.
- LONG SPAN SAGS FOR #1/0 AAAC AND #4/0 AAAC HAVE BEEN DEVELOPED TO SAG WITH THE 336.4 ACSR AS THE NEUTRAL WHEN 336.4 ACSR IS USED AS THE PRIMARY PHASE CONDUCTOR.



**NEC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
 FINAL SAG AND TENSION CHARTS FOR 336.4 ACSR  
 LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	

**05.02-24B**

3				
2				
1	5/26/15	ROBESON	BURLISON	ADCOCK
0	1/29/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC MEDIUM LOADING ZONE INITIAL SAG AND TENSION CHARTS FOR 477 ACSR**  
**► (NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
30° F	2939	84	90	98	102	105	113
40° F	2801	88	95	102	106	110	118
50° F	2675	92	99	107	111	115	124
60° F	2560	96	104	112	116	120	129
70° F	2454	100	108	117	121	126	135
80° F	2357	104	113	122	127	131	140
90° F	2269	108	117	126	131	136	146

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
30° F	2754	128	137	146	150	155	165
40° F	2657	133	142	152	157	161	171
50° F	2567	138	147	157	162	167	177
60° F	2484	142	152	162	167	172	183
70° F	2407	147	157	167	173	178	189
80° F	2335	152	162	172	178	183	193
90° F	2268	156	167	178	184	189	200

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
30° F	2631	183	194	205	210	216	227	239
40° F	2561	188	199	210	216	222	234	246
50° F	2495	193	204	216	222	228	240	252
60° F	2433	198	210	221	227	233	246	259
70° F	2374	203	215	227	233	239	252	265
80° F	2319	208	220	232	238	245	258	271
90° F	2267	213	225	238	244	251	264	278

**NOTES:**

- SEE DWG. 03.15-02 FOR LONG SPAN POLE FRAMING CONSTRUCTION.
- LONG SPAN SAGS FOR #1/0 AAAC, #4/0 AAAC AND #336.4 ACSR HAVE BEEN DEVELOPED TO SAG AS THE NEUTRAL WITH THE 477 ACSR USED AS THE PRIMARY PHASE CONDUCTOR.



3				
2				
1	5/26/15	ROBESON	BURLISON	ADCOCK
0	1/8/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

► NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
 INITIAL SAG AND TENSION CHARTS FOR 477 ACSR  
 LONG SPAN CONSTRUCTION 500-800 FOOT SPANS

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-26A</b>			



**NESC MEDIUM LOADING ZONE FINAL SAG AND TENSION CHARTS FOR 477 ACSR**

➤ (NC, SC, OH, KY)

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
15° F, 1/4" ICE, 4 PSF WIND	4500	108	117	126	131	136	146
15° F	2797	88	95	102	106	110	118
32° F, 1/4" ICE, NO WIND	3515	107	115	124	129	134	144
32° F	2571	96	103	111	116	120	129
40° F	2477	99	107	116	120	124	134
50° F	2369	104	112	121	126	130	140
60° F	2272	108	117	126	131	136	146
60° F, 6 PSF WIND	2624	112	121	131	135	140	151
70° F	2185	112	122	131	136	141	151
80° F	2105	117	126	136	141	146	157
90° F	2032	121	131	141	146	152	163
120° F	1848	133	144	155	161	167	179
185° F	1666	148	160	172	179	185	199
HORIZONTAL SWING	2624	61	66	72	74	77	83

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
15° F, 1/4" ICE, 4 PSF WIND	4500	156	167	178	183	189	200
15° F	2649	134	143	152	157	162	172
32° F, 1/4" ICE, NO WIND	3502	154	165	175	181	187	198
32° F	2490	142	152	162	167	172	183
40° F	2422	146	156	166	172	177	188
50° F	2343	151	161	172	177	183	194
60° F	2271	156	166	177	183	189	200
60° F, 6 PSF WIND	2644	160	171	182	188	194	206
70° F	2204	161	171	183	188	194	206
80° F	2142	165	176	188	194	200	212
90° F	2084	170	181	193	199	206	218
120° F	1934	183	195	208	215	222	235
185° F	1765	201	214	228	235	243	258
HORIZONTAL SWING	2644	88	94	100	103	106	113

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
15° F, 1/4" ICE, 4 PSF WIND	4500	212	225	237	244	250	264	278
15° F	2550	189	200	211	217	223	235	247
32° F, 1/4" ICE, NO WIND	3492	211	223	235	242	248	261	275
32° F	2435	198	209	221	227	233	246	258
40° F	2385	202	214	226	232	238	251	264
50° F	2325	207	219	232	238	244	257	271
60° F	2269	212	225	237	244	250	264	277
60° F, 6 PSF WIND	2657	217	229	242	249	256	269	283
70° F	2217	217	230	243	250	256	270	284
80° F	2168	222	235	248	255	262	276	290
90° F	2121	227	240	254	261	268	282	297
120° F	1997	241	255	270	277	285	300	315
185° F	1844	261	277	292	300	308	325	342
HORIZONTAL SWING	2657	119	125	133	136	140	147	155

**NOTES:**

- SEE DWG. 03.15-02 FOR LONG SPAN POLE FRAMING CONSTRUCTION.
- LONG SPAN SAGS FOR #1/0 AAAC, #4/0 AAAC AND #336.4 ACSR HAVE BEEN DEVELOPED TO SAG AS THE NEUTRAL WITH THE 477 ACSR USED AS THE PRIMARY PHASE CONDUCTOR.



➤ NESC MEDIUM LOADING ZONE (NC, SC, OH, KY)  
FINAL SAG AND TENSION CHARTS FOR 477 ACSR  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-26B</b>			

3				
2				
1	5/26/15	ROBESON	BURLISON	ADCOCK
0	1/29/15	ROBESON	GUINN	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE INITIAL SAG AND TENSION CHARTS FOR #1/0 AAAC  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
30° F	340	127	137	148	154	159	171
40° F	328	132	142	154	159	165	177
50° F	317	136	147	159	165	171	183
60° F	307	141	152	164	170	177	189
70° F	297	145	157	169	176	182	195
80° F	289	149	162	174	181	187	201
90° F	281	154	166	179	186	193	207
95° F	277	156	168	182	188	195	210

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
30° F	318	195	208	222	229	236	251
40° F	311	200	214	228	235	242	257
50° F	304	205	219	233	240	248	263
60° F	298	209	224	238	246	254	269
70° F	290	214	229	244	251	259	275
80° F	284	219	233	249	257	265	281
90° F	279	223	238	254	262	270	287
95° F	276	225	241	256	264	273	289

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
30° F	305	277	293	310	318	327	344	362
40° F	300	282	299	315	324	333	350	369
50° F	295	287	304	321	330	338	357	375
60° F	290	292	309	326	335	344	362	381
70° F	285	297	314	331	341	350	368	388
80° F	281	301	319	337	346	355	374	394
90° F	277	306	324	342	351	361	380	400
95° F	275	308	326	344	354	369	383	403



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1				
0	5/26/15	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)  
INITIAL SAG AND TENSION CHARTS FOR #1/0 AAAC  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	

**05.02-40A**

**NESC HEAVY LOADING ZONE FINAL SAG AND TENSION CHARTS FOR #1/0 AAAC  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
0° F, 1/2" ICE, 4 PSF WIND	2091	201	217	234	243	252	271
0° F, NO ICE, NO WIND	323	134	145	156	162	168	180
32° F, 1/2" ICE, NO WIND	1343	188	204	220	228	236	253
32° F	291	149	161	173	180	186	200
40° F	284	152	165	177	184	191	205
50° F	276	156	169	182	189	196	211
60° F	269	161	174	187	194	202	216
60° F, 6 PSF WIND	508	170	184	198	206	213	229
70° F	262	165	178	192	199	207	222
80° F	256	169	183	197	204	212	227
90° F	250	173	187	202	209	217	233
120° F	234	184	199	215	223	231	248
185° F	208	207	224	242	251	260	279
HORIZONTAL SWING	508	147	159	171	178	184	198

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
0° F, 1/2" ICE, 4 PSF WIND	2181	278	296	316	326	326	357
0° F, NO ICE, NO WIND	305	204	218	232	239	247	262
32° F, 1/2" ICE, NO WIND	1388	262	280	299	308	318	337
32° F	284	219	234	249	257	265	281
40° F	279	223	238	253	261	270	286
50° F	274	227	243	259	267	275	292
60° F	268	232	247	264	272	280	298
60° F, 6 PSF WIND	515	241	258	275	283	292	310
70° F	264	236	252	269	277	286	303
80° F	259	240	257	273	282	291	309
90° F	254	244	261	278	287	296	314
120° F	242	257	274	292	301	311	330
185° F	221	282	301	321	331	341	362
HORIZONTAL SWING	496	209	223	238	245	253	268

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
0° F, 1/2" ICE, 4 PSF WIND	2250	366	388	410	421	432	455	479
0° F, NO ICE, NO WIND	294	287	304	321	330	339	357	376
32° F, 1/2" ICE, NO WIND	1421	349	369	390	401	412	434	456
32° F	280	303	320	339	348	357	376	396
40° F	276	307	324	343	352	362	381	401
50° F	272	311	329	348	357	367	387	407
60° F	268	316	334	353	363	372	392	413
60° F, 6 PSF WIND	519	326	345	365	374	385	405	426
70° F	264	320	339	358	368	378	398	419
80° F	261	325	344	363	373	383	403	424
90° F	257	329	348	368	378	388	409	430
120° F	248	342	362	382	393	403	425	447
185° F	230	369	390	412	423	435	458	482
HORIZONTAL SWING	519	282	299	316	324	333	351	369



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1				
0	5/26/15	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)  
FINAL SAG AND TENSION CHARTS FOR #1/0 AAAC  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-40B</b>			

**NESC HEAVY LOADING ZONE INITIAL SAG AND TENSION CHARTS FOR #4/0 AAAC  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
30° F	641	135	146	157	163	169	181
40° F	620	139	151	162	168	175	187
50° F	601	144	155	168	174	180	193
60° F	583	148	160	173	179	186	199
70° F	567	152	165	178	184	191	205
80° F	552	156	169	182	189	196	211
90° F	538	161	174	187	194	201	216
95° F	531	163	176	190	197	204	219

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
30° F	609	204	218	232	240	247	262
40° F	595	209	223	238	245	253	268
50° F	582	213	228	243	251	258	274
60° F	570	218	233	248	256	264	280
70° F	559	223	238	253	261	269	286
80° F	548	227	242	258	266	275	292
90° F	538	231	247	263	271	280	297
95° F	533	233	249	266	274	282	300

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
30° F	589	287	304	321	330	339	357	375
40° F	580	292	309	327	335	344	363	382
50° F	570	297	314	332	341	350	369	388
60° F	562	302	319	337	346	356	375	394
70° F	553	306	324	342	352	361	380	400
80° F	545	311	329	347	357	366	386	406
90° F	537	315	333	352	362	372	392	412
95° F	534	324	336	355	364	374	394	415



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0	5/26/15	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)  
INITIAL SAG AND TENSION CHARTS FOR #4/0 AAAC  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-42A</b>			

**NESC HEAVY LOADING ZONE FINAL SAG AND TENSION CHARTS FOR #4/0 AAAC  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
0° F, 1/2" ICE, 4 PSF WIND	2812	178	192	207	215	223	239
0° F, NO ICE, NO WIND	645	134	145	156	162	168	180
32° F, 1/2" ICE, NO WIND	1915	175	189	204	211	219	235
32° F	581	149	161	173	180	186	200
40° F	568	152	165	177	184	191	205
50° F	552	156	169	182	189	196	211
60° F	537	161	174	187	194	202	216
60° F, 6 PSF WIND	821	166	180	194	201	208	224
70° F	524	165	178	192	199	207	222
80° F	511	169	183	197	204	212	227
90° F	500	173	187	202	209	217	233
120° F	469	184	199	215	223	231	248
185° F	417	207	224	242	251	260	279
HORIZONTAL SWING	821	129	139	150	156	161	173

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
0° F, 1/2" ICE, 4 PSF WIND	2873	251	268	285	294	304	322
0° F, NO ICE, NO WIND	610	204	218	232	239	247	262
32° F, 1/2" ICE, NO WIND	1951	247	264	281	290	299	317
32° F	568	219	234	249	257	265	281
40° F	558	223	238	253	261	270	286
50° F	547	227	243	259	267	275	292
60° F	537	232	247	264	272	280	298
60° F, 6 PSF WIND	828	237	254	270	279	287	305
70° F	527	236	252	269	277	286	303
80° F	518	240	257	273	282	291	309
90° F	509	244	261	278	287	296	314
120° F	484	257	274	292	301	311	330
185° F	442	282	301	321	331	341	362
HORIZONTAL SWING	828	184	197	209	216	222	236

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
0° F, 1/2" ICE, 4 PSF WIND	2916	337	356	376	386	397	418	440
0° F, NO ICE, NO WIND	589	287	304	321	330	339	357	376
32° F, 1/2" ICE, NO WIND	1975	332	352	371	381	392	413	434
32° F	559	303	320	339	348	357	376	396
40° F	552	307	324	343	352	362	381	401
50° F	544	311	329	348	357	367	387	407
60° F	536	316	334	353	363	372	392	413
60° F, 6 PSF WIND	832	322	341	360	370	380	400	421
70° F	529	320	339	358	368	378	398	419
80° F	522	325	344	363	373	383	403	424
90° F	515	329	348	368	378	388	409	430
120° F	495	342	362	382	393	403	425	447
185° F	460	369	390	412	423	435	458	482
HORIZONTAL SWING	832	249	264	279	287	294	310	326



3				
2				
1				
0	5/26/15	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)  
FINAL SAG AND TENSION CHARTS FOR #4/0 AAAC  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	

**05.02-42B**

**NESC HEAVY LOADING ZONE INITIAL SAG AND TENSION CHARTS FOR 336 ACSR  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
30° F	988	139	150	162	168	174	187
40° F	959	143	155	167	173	179	192
50° F	932	147	159	172	178	184	198
60° F	907	151	163	176	183	190	203
70° F	883	155	168	181	188	195	209
80° F	861	159	172	186	192	200	214
90° F	841	163	176	190	197	204	219
95° F	832	165	178	192	199	207	222

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
30° F	946	209	223	237	245	252	268
40° F	927	213	227	242	250	258	274
50° F	909	217	232	247	255	263	279
60° F	891	221	236	252	260	268	285
70° F	875	226	241	257	265	273	290
80° F	859	230	245	261	270	278	295
90° F	844	234	250	266	274	283	300
95° F	837	236	252	268	277	285	303

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
30° F	921	292	309	326	335	344	363	381
40° F	907	296	314	331	340	349	368	387
50° F	894	301	318	336	345	355	374	393
60° F	881	305	323	341	350	360	379	399
70° F	869	309	327	346	355	365	384	404
80° F	857	314	332	351	360	370	390	410
90° F	846	318	336	355	365	375	395	415
95° F	840	320	338	358	367	377	397	418



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0	5/26/15	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)  
INITIAL SAG AND TENSION CHARTS FOR 336 ACSR  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-44A</b>			

**NESC HEAVY LOADING ZONE FINAL SAG AND TENSION CHARTS FOR 336 ACSR  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
0° F, 1/2" ICE, 4 PSF WIND	3427	168	182	196	204	211	226
0° F, NO ICE, NO WIND	1008	136	147	159	165	171	183
32° F, 1/2" ICE, NO WIND	2446	169	183	197	205	212	228
32° F	916	150	162	174	181	188	201
40° F	897	153	165	178	185	192	206
50° F	874	157	170	183	190	197	211
60° F	853	161	174	187	194	202	216
60° F, 6 PSF WIND	1143	164	178	192	199	206	221
70° F	833	165	178	192	199	206	221
80° F	815	168	182	196	204	211	226
90° F	797	172	186	201	208	216	231
120° F	751	183	198	213	221	229	246
185° F	672	204	221	238	247	256	275
HORIZONTAL SWING	1143	112	122	131	136	141	151

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
0° F, 1/2" ICE, 4 PSF WIND	3461	240	256	273	282	291	308
0° F, NO ICE, NO WIND	952	206	220	235	242	249	265
32° F, 1/2" ICE, NO WIND	2474	241	257	274	283	291	309
32° F	897	220	235	250	258	266	283
40° F	883	223	239	254	262	270	287
50° F	867	228	243	259	267	275	292
60° F	852	232	247	264	272	280	298
60° F, 6 PSF WIND	1149	235	251	268	276	285	303
70° F	838	236	252	268	277	285	303
80° F	824	240	256	273	281	290	308
90° F	811	244	260	277	286	295	313
120° F	774	255	272	290	299	309	328
185° F	710	278	297	317	327	337	358
HORIZONTAL SWING	1149	161	172	183	189	195	207

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
0° F, 1/2" ICE, 4 PSF WIND	3483	325	344	363	373	383	403	424
0° F, NO ICE, NO WIND	928	290	307	324	333	342	360	379
32° F, 1/2" ICE, NO WIND	2492	325	344	364	374	384	404	425
32° F	884	304	322	340	349	358	377	397
40° F	874	307	325	344	353	362	382	402
50° F	863	312	330	348	358	367	387	407
60° F	851	316	334	353	363	372	392	413
60° F, 6 PSF WIND	1152	320	338	357	367	377	397	418
70° F	840	320	339	358	367	377	397	418
80° F	829	324	343	362	372	382	403	424
90° F	819	328	347	367	377	387	408	429
120° F	790	340	360	380	391	401	423	445
185° F	737	365	386	408	419	430	453	477
HORIZONTAL SWING	1152	219	231	244	251	258	271	286



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0	5/26/15	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)  
FINAL SAG AND TENSION CHARTS FOR 336 ACSR  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	

**05.02-44B**

**NESC HEAVY LOADING ZONE INITIAL SAG AND TENSION CHARTS FOR 477 ACSR  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
30° F	1704	144	156	168	175	181	194
40° F	1664	148	160	172	179	185	199
50° F	1627	151	163	176	183	190	208
60° F	1592	154	167	180	187	194	208
70° F	1558	158	171	184	191	198	212
80° F	1527	161	174	188	195	202	217
90° F	1497	164	178	192	199	206	221
95° F	1483	166	179	193	201	208	223

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
30° F	1650	215	229	244	252	260	276
40° F	1623	218	233	248	256	264	280
50° F	1598	222	237	252	260	268	285
60° F	1573	225	240	256	264	273	289
70° F	1549	229	244	260	268	277	294
80° F	1526	232	248	264	272	281	298
90° F	1504	235	251	268	276	285	303
95° F	1494	237	253	270	278	287	305

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
30° F	1617	298	316	333	342	352	370	390
40° F	1597	302	319	337	347	356	375	395
50° F	1578	306	323	342	351	360	380	399
60° F	1560	309	327	346	355	365	384	404
70° F	1542	313	331	350	359	369	388	409
80° F	1525	316	335	354	363	373	393	413
90° F	1508	320	338	357	367	377	397	418
95° F	1500	322	340	359	369	379	399	420



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0	5/26/15	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)  
INITIAL SAG AND TENSION CHARTS FOR 477 ACSR  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	
<b>05.02-46A</b>			



**NESC HEAVY LOADING ZONE FINAL SAG AND TENSION CHARTS FOR 477 ACSR  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)**

CONDUCTOR TEMPERATURE	TENSION LBS	550 FOOT RULING SPAN					
		500	520	540	550	560	580
0° F, 1/2" ICE, 4 PSF WIND	4500	161	174	187	195	202	216
0° F, NO ICE, NO WIND	1767	139	150	162	168	174	187
32° F, 1/2" ICE, NO WIND	3423	164	178	192	199	206	221
32° F	1630	151	163	176	183	189	203
40° F	1600	154	166	179	186	193	207
50° F	1564	157	170	183	190	197	212
60° F	1531	161	174	187	194	202	216
60° F, 6 PSF WIND	1807	163	176	190	197	204	219
70° F	1499	164	177	191	198	206	221
80° F	1470	167	181	195	202	210	225
90° F	1442	171	185	199	206	214	230
120° F	1368	180	194	210	218	226	242
185° F	1288	191	207	223	231	240	257
HORIZONTAL SWING	1807	89	96	104	108	112	120

CONDUCTOR TEMPERATURE	TENSION LBS	650 FOOT RULING SPAN					
		600	620	640	650	660	680
0° F, 1/2" ICE, 4 PSF WIND	4500	232	247	264	272	280	298
0° F, NO ICE, NO WIND	1692	209	224	238	246	253	269
32° F, 1/2" ICE, NO WIND	3440	236	252	268	277	285	303
32° F	1599	221	236	252	260	268	285
40° F	1578	224	240	255	263	272	288
50° F	1553	228	244	260	268	276	293
60° F	1529	232	247	264	272	280	298
60° F, 6 PSF WIND	1811	234	250	266	274	283	300
70° F	1506	235	251	268	276	285	302
80° F	1484	239	255	272	280	289	307
90° F	1463	242	259	276	284	293	311
120° F	1404	252	269	287	296	305	324
185° F	1339	265	283	301	311	320	340
HORIZONTAL SWING	1811	128	137	146	150	155	164

CONDUCTOR TEMPERATURE	TENSION LBS	750 FOOT RULING SPAN						
		700	720	740	750	760	780	800
0° F, 1/2" ICE, 4 PSF WIND	4500	316	334	353	363	373	392	413
0° F, NO ICE, NO WIND	1646	293	310	327	336	345	364	383
32° F, 1/2" ICE, NO WIND	3449	320	339	358	368	377	398	418
32° F	1580	305	323	341	351	360	379	399
40° F	1564	308	326	345	354	364	383	403
50° F	1545	312	330	349	358	368	388	408
60° F	1527	316	334	353	363	372	392	413
60° F, 6 PSF WIND	1813	318	337	356	365	375	395	416
70° F	1510	319	338	357	367	377	397	418
80° F	1493	323	342	361	371	381	401	422
90° F	1476	327	346	365	375	385	406	427
120° F	1430	337	357	377	387	398	419	441
185° F	1376	351	371	392	403	414	436	458
HORIZONTAL SWING	1813	174	185	195	200	205	216	228



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2				
1				
0	5/26/15	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE  
(REQUIRED IN, ALTERNATE NC, SC, OH, KY)  
FINAL SAG AND TENSION CHARTS FOR 477 ACSR  
LONG SPAN CONSTRUCTION 500-800 FOOT SPANS**

DEC	DEM	DEP	DEF
X	X	X	

**05.02-46B**

**NESC HEAVY LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - #4/0 AAAC ALLIANCE  
(IN)**

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	803	4	6	8	10	11	14	17
40° F	682	5	7	10	12	13	16	20
50° F	578	6	9	12	14	15	19	24
60° F	493	7	10	14	16	18	23	28
70° F	426	8	12	16	18	21	26	32
80° F	373	9	13	18	21	24	30	37
90° F	333	10	15	20	24	27	34	41
95° F	316	11	16	21	25	28	35	44

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	711	19	23	28	33	38	44	50	56
40° F	645	21	26	31	36	42	48	55	62
50° F	589	23	28	34	40	46	53	60	68
60° F	543	25	31	37	43	50	57	65	74
70° F	504	27	33	39	46	54	62	70	79
80° F	471	29	36	42	50	58	66	75	85
90° F	442	31	38	45	53	61	70	80	90
95° F	429	32	39	46	54	63	72	82	93

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN							
		360	380	400	420	440	460	480	500
30° F	896	50	56	62	68	75	82	89	96
40° F	828	54	60	67	73	81	88	96	104
50° F	770	58	65	72	79	87	95	103	112
60° F	719	62	69	77	85	93	102	111	120
70° F	675	66	74	82	90	99	108	118	128
80° F	637	70	78	87	96	105	115	125	136
90° F	603	74	83	92	101	111	121	132	143
95° F	588	76	85	94	104	114	124	135	147

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



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1	4/15/16	ROBESON	BURLISON	ADCOCK
0	1/15/16	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE (IN)  
INITIAL CONDUCTOR SAG  
AND TENSION - #4/0 AAAC ALLIANCE**

DEC	DEM	DEP	DEF
	X		
<b>05.02-134A</b>			

**NESC HEAVY LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - #4/0 AAAC ALLIANCE  
(IN)**

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (HLT-1862 LBS.)						
		100	120	140	150	160	180	200
0° F, 1/2" ICE, 4 PSF WIND	1861	11	15	21	24	28	35	43
0° F, NO ICE, NO WIND	1085	3	5	6	7	8	10	13
32° F, 1/2" ICE, NO WIND	1200	11	16	22	25	29	36	45
32° F	563	6	9	12	14	16	20	25
40° F	482	7	10	14	16	18	23	29
50° F	407	8	12	17	18	22	27	34
60° F	354	10	14	19	22	25	32	39
60° F, 6 PSF WIND	506	11	16	21	24	28	38	43
70° F	314	11	16	22	25	28	36	44
80° F	284	12	17	24	27	31	39	49
90° F	261	13	19	26	30	34	43	53
120° F	214	16	23	32	36	41	52	65
185° F	162	21	31	42	48	55	69	85
HORIZONTAL SWING	506	9	12	16	19	22	29	33

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (HLT-2282 LBS.)							
		200	220	240	260	280	300	320	340
0° F, 1/2" ICE, 4 PSF WIND	2280	35	42	51	59	69	79	90	101
0° F, NO ICE, NO WIND	793	17	21	25	29	34	39	45	50
32° F, 1/2" ICE, NO WIND	1533	35	42	50	59	68	79	89	101
32° F	559	25	30	36	42	48	56	63	71
40° F	522	26	32	38	45	52	59	68	76
50° F	483	29	35	41	48	56	64	73	83
60° F	451	31	37	44	52	60	69	78	88
60° F, 6 PSF WIND	667	33	40	47	55	64	74	84	95
70° F	424	33	39	47	55	64	73	83	94
80° F	401	34	42	50	58	68	78	88	100
90° F	380	36	44	52	61	71	82	93	105
104° F	357	39	47	56	65	76	87	99	112
120° F	334	41	50	60	70	81	93	106	120
185° F	271	51	62	73	86	100	115	133	147
HORIZONTAL SWING	667	26	31	36	43	50	57	65	74

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN (HLT-2850 LBS.)							
		360	380	400	420	440	460	480	500
0° F, 1/2" ICE, 4 PSF WIND	2846	91	101	112	124	136	149	162	176
0° F, NO ICE, NO WIND	952	47	52	58	64	70	77	84	91
32° F, 1/2" ICE, NO WIND	1964	88	98	109	120	132	144	157	170
32° F	725	62	69	76	84	92	101	110	119
40° F	685	65	73	81	89	98	107	116	126
50° F	642	70	78	86	95	104	114	124	134
60° F	606	74	82	91	101	110	121	131	143
60° F, 6 PSF WIND	887	80	89	98	109	119	130	142	154
70° F	574	78	87	96	106	117	127	139	150
80° F	546	82	91	101	112	122	134	146	158
90° F	521	86	96	106	117	128	140	153	166
120° F	463	97	108	119	132	145	158	172	187
185° F	381	118	131	145	160	172	192	209	227
HORIZONTAL SWING	887	62	69	76	84	92	101	110	119



3				
2				
1	4/15/16	ROBESON	BURLISON	ADCOCK
0	1/15/16	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**NESC HEAVY LOADING ZONE (IN)  
FINAL CONDUCTOR SAG  
AND TENSION - #4/0 AAAC ALLIANCE**

DEC	DEM	DEP	DEF
	X		
<b>05.02-134B</b>			

NESC HEAVY LOADING ZONE INITIAL CONDUCTOR SAG AND TENSION - 556 AAC DAHLIA  
(IN)

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN						
		100	120	140	150	160	180	200
30° F	874	9	13	18	20	23	29	36
40° F	771	10	15	20	23	26	33	41
50° F	692	11	16	22	25	29	37	45
60° F	631	12	18	24	28	32	40	50
70° F	582	13	19	26	30	34	44	54
80° F	542	14	21	28	32	37	47	58
90° F	508	15	22	30	35	39	50	62
95° F	494	16	23	31	36	41	51	63

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN							
		200	220	240	260	280	300	320	340
30° F	999	31	38	45	53	61	70	80	91
40° F	942	33	40	48	56	65	75	85	96
50° F	893	35	42	50	59	69	79	90	101
60° F	851	37	44	53	62	72	83	94	106
70° F	813	38	47	55	65	75	87	99	111
80° F	780	40	49	58	68	79	90	103	116
90° F	750	42	50	60	71	82	94	107	121
95° F	736	42	51	61	72	83	96	109	123

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN							
		360	380	400	420	440	460	480	500
30° F	1468	69	77	85	94	103	113	123	133
40° F	1387	73	81	90	99	109	119	130	141
50° F	1315	77	86	95	105	115	126	137	149
60° F	1252	81	90	100	110	121	132	144	156
70° F	1197	85	94	105	115	127	138	151	163
80° F	1147	88	98	109	120	132	144	157	171
90° F	1102	92	102	114	125	137	150	164	177
95° F	1082	94	104	116	128	140	153	167	181

NOTES:

1. ALL SAG VALUES LISTED ON CHART ARE IN INCHES; TENSION IS IN POUNDS.



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0	1/15/16	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

NESC HEAVY LOADING ZONE (IN)  
INITIAL CONDUCTOR SAG  
AND TENSION - 556 AAC DAHLIA

DEC	DEM	DEP	DEF
	X		
05.02-150A			

**NESC HEAVY LOADING ZONE FINAL CONDUCTOR SAG AND TENSION - 556 AAC DAHLIA  
(IN)**

CONDUCTOR TEMPERATURE	TENSION LBS	150 FOOT RULING SPAN (HLT-2500 LBS.)						
		100	120	140	150	160	180	200
0° F, 1/2" ICE, 4 PSF WIND	2469	11	16	21	25	28	35	44
0° F, NO ICE, NO WIND	1211	6	9	13	15	17	21	26
32° F, 1/2" ICE, NO WIND	1598	13	18	25	29	33	42	51
32° F	742	11	15	21	24	27	34	42
40° F	681	11	17	23	26	29	37	46
50° F	620	13	18	25	28	32	41	50
60° F	572	14	20	27	31	35	44	55
60° F, 6 PSF WIND	723	14	20	27	32	36	45	56
70° F	533	15	21	29	33	38	48	59
80° F	501	16	22	31	35	40	51	62
90° F	473	17	24	32	37	42	54	66
120° F	461	17	24	33	38	43	55	68
185° F	411	19	27	37	43	49	62	76
HORIZONTAL SWING	723	9	13	17	20	23	29	36

CONDUCTOR TEMPERATURE	TENSION LBS	280 FOOT RULING SPAN (HLT-2999 LBS.)							
		200	220	240	260	280	300	320	340
0° F, 1/2" ICE, 4 PSF WIND	2896	37	45	54	63	73	84	95	108
0° F, NO ICE, NO WIND	1062	29	36	42	50	58	66	75	85
32° F, 1/2" ICE, NO WIND	2048	40	48	58	68	78	90	102	116
32° F	879	36	43	51	60	70	80	91	103
40° F	845	37	45	53	63	73	83	95	107
50° F	807	39	47	56	65	76	87	99	112
60° F	774	40	49	58	68	79	91	103	117
60° F, 6 PSF WIND	984	41	50	59	70	81	93	105	119
70° F	744	42	51	61	71	82	95	108	122
80° F	718	44	53	63	74	85	98	112	126
90° F	694	45	55	65	76	88	102	116	130
120° F	633	49	60	71	84	97	111	127	143
185° F	542	58	70	83	98	113	130	148	167
HORIZONTAL SWING	984	26	32	37	44	51	59	67	76

CONDUCTOR TEMPERATURE	TENSION LBS	400 FOOT RULING SPAN (HLT-4000 LBS.)							
		360	380	400	420	440	460	480	500
0° F, 1/2" ICE, 4 PSF WIND	3827	91	102	113	124	137	149	163	176
0° F, NO ICE, NO WIND	1451	70	78	86	95	104	114	124	135
32° F, 1/2" ICE, NO WIND	2776	96	107	118	130	143	156	170	185
32° F	1223	83	92	102	113	124	135	147	160
40° F	1179	86	96	106	117	128	140	153	166
50° F	1130	90	100	111	122	134	146	160	173
60° F	1086	93	104	115	127	139	152	166	180
60° F, 6 PSF WIND	1373	96	106	118	130	143	156	170	184
70° F	1047	97	108	120	132	145	158	172	187
80° F	1011	100	112	124	136	150	164	178	194
90° F	979	104	115	128	141	155	169	184	200
120° F	896	113	126	140	154	169	185	201	218
185° F	770	132	147	163	179	197	215	234	254
HORIZONTAL SWING	1373	61	67	75	83	91	99	108	117



3				
2				
1	4/18/16	ROBESON	BURLISON	ADCOCK
0	1/15/16	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

NESC HEAVY LOADING ZONE (IN)  
FINAL CONDUCTOR SAG  
AND TENSION - 556 AAC DAHLIA

DEC	DEM	DEP	DEF
	X		
05.02-150B			

**#2 TRIPLEX FULL NEUTRAL (SHRIMP)  
SECONDARY AND SERVICE SAG AND TENSION DATA  
MEDIUM LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	943	1	2	4	6	9	12	15	20	24	29	35
15°	866	1	2	4	7	9	13	17	21	26	32	38
30°	792	1	3	5	7	10	14	18	23	29	35	41
40°	744	1	3	5	8	11	15	20	25	31	37	44
60°	653	1	3	6	9	13	17	22	28	35	42	50
80°	571	2	4	6	10	14	20	26	32	40	48	58
100°	499	2	4	7	11	16	22	29	37	46	55	66
120°	439	2	5	8	13	19	25	33	42	52	63	75

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	784	1	3	5	7	10	14	19	24	29	35	42
15°	700	1	3	5	8	12	16	21	26	33	39	47
30°	623	1	3	6	9	13	18	23	30	37	44	53
40°	576	2	4	6	10	14	19	25	32	40	48	57
60°	493	2	4	7	12	17	23	30	37	46	56	67
80°	427	2	5	9	13	19	26	34	43	53	65	77
100°	347	2	5	10	15	22	30	39	49	61	74	88
120°	333	3	6	11	17	25	33	44	55	68	83	98

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	1164	3	7	12	19	27	36	47	60	74	90	107
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NESSC CABLE LOADING LIMIT: 15°, 25% OF FINAL, NO ICE, NO WIND (700 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING										
		50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
		0°	114	8	12	16	20	26	32	39	46	54
15°	108	8	12	17	22	27	34	41	49	57	66	76
30°	103	9	13	17	23	29	35	43	51	60	70	80
40°	100	9	13	18	23	30	37	44	53	62	72	82
60°	94	10	14	19	25	31	39	47	56	65	76	87
80°	90	10	15	20	26	33	42	49	59	69	80	92
100°	85	11	15	21	27	35	43	52	62	72	84	96
120°	82	11	16	22	29	36	45	54	64	75	88	101

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	350	10	14	19	25	32	40	48	57	67	78	89
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MAXIMUM LOADING AT 15°, 1/4" ICE, 4 LBS. WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS.;  
THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER  
CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED  
AGAINST THE INCREASED TENSION.



3				
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1				
0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#2 TRIPLEX WITH #2 NEUTRAL  
NESSC MEDIUM LOADING ZONE

DEC	DEM	DEP	DEF
X	X	X	

**05.04-02**

**#1/0 TRIPLEX WITH #1/0 NEUTRAL (GAMMARUS)  
SECONDARY AND SERVICE SAG AND TENSION DATA  
MEDIUM LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1443	1	2	4	6	9	12	16	21	25	31	37
15°	1322	1	2	4	7	10	14	18	22	28	33	40
30°	1206	1	3	5	8	11	15	19	25	30	37	44
40°	1131	1	3	5	8	12	16	21	26	32	39	47
60°	991	1	3	6	9	13	18	24	30	37	45	53
80°	867	2	4	7	11	15	21	27	34	42	51	61
100°	760	2	4	8	12	17	24	31	39	48	58	69
120°	671	2	5	9	14	20	27	35	44	55	66	79

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1199	1	3	5	8	11	15	20	25	30	37	44
15°	1070	1	3	5	9	12	17	22	28	34	41	49
30°	952	2	3	6	10	14	19	25	31	38	47	55
40°	880	2	4	7	10	15	20	27	34	42	50	60
60°	756	2	4	8	12	17	24	31	39	48	59	70
80°	657	2	5	9	14	20	27	36	45	56	67	80
100°	580	3	6	10	16	23	31	40	51	63	76	91
120°	519	3	6	11	18	25	35	45	57	71	85	102

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	1610	3	6	11	17	24	33	42	54	66	80	96
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NESSC CABLE LOADING LIMIT: 15°, 25% OF FINAL, NO ICE, NO WIND (1070 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING										
		50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
		0°	130	11	16	22	29	36	45	54	65	76
15°	126	12	17	23	30	38	46	56	67	78	91	105
30°	123	12	17	23	30	39	48	58	69	81	94	108
40°	121	12	17	24	31	39	49	59	70	82	95	110
60°	117	13	18	25	32	41	50	61	72	85	99	113
80°	113	13	19	25	33	42	52	63	75	88	102	117
100°	110	13	19	26	34	43	53	65	77	91	105	121
120°	107	14	20	27	35	45	55	67	79	93	108	124

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	350	12	18	24	31	40	49	59	71	83	96	111
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MAXIMUM LOADING AT 15°, 1/4" ICE, 4 LBS. WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS.;  
THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER  
CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED  
AGAINST THE INCREASED TENSION.



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0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#1/0 TRIPLEX WITH #1/0 NEUTRAL (GAMMARUS)

NESSC MEDIUM LOADING ZONE

DEC	DEM	DEP	DEF
X	X	X	
<b>05.04-04</b>			

**#4/0 TRIPLEX WITH #1/0 NEUTRAL  
SECONDARY AND SERVICE SAG AND TENSION DATA  
MEDIUM LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1402	2	4	7	10	15	20	26	33	41	50	59
15°	1301	2	4	7	11	16	22	28	36	44	53	64
30°	1207	2	4	8	12	17	23	30	39	48	58	68
40°	1148	2	5	8	13	18	25	32	41	50	61	72
60°	1039	2	5	9	14	20	27	35	45	55	67	80
80°	944	2	5	10	15	22	30	39	49	61	74	88
100°	863	3	6	11	17	24	33	43	54	67	81	96
120°	792	3	7	12	18	26	35	46	59	72	88	104

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1164	2	4	8	12	18	24	32	40	49	60	71
15°	1069	2	5	9	13	19	26	34	43	54	65	77
30°	985	2	5	9	15	21	29	37	47	58	70	84
40°	935	2	6	10	15	22	30	39	50	61	74	88
60°	847	3	6	11	17	24	33	43	55	68	82	98
80°	774	3	7	12	19	27	36	47	60	74	90	107
100°	712	3	7	13	20	29	39	52	65	81	98	116
120°	661	3	8	14	22	31	43	56	70	87	105	125

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	1690	3	7	13	20	29	40	52	66	81	98	117
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NESSC CABLE LOADING LIMIT: 15°, 25% OF FINAL, NO ICE, NO WIND (1070 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING								
		50'	60'	70'	80'	90'	100'	110'	120'	
		0°	152	15	22	30	39	49	60	73
15°	150	15	22	30	39	50	61	74	89	
30°	147	16	22	31	40	51	63	76	90	
40°	146	16	23	31	40	51	63	76	91	
60°	143	16	23	32	41	52	64	78	93	
80°	140	16	24	32	42	53	66	80	95	
100°	138	17	24	33	43	54	67	81	97	
120°	135	17	25	33	44	55	68	83	99	

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	350	16	23	31	40	51	63	77	91
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MAXIMUM LOADING AT 15°, 1/4" ICE, 4 LBS. WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS.; THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST AT 4 FEET OR LESS ABOVE SOLID SUPPORT (ROOF). IF GREATER CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED AGAINST THE INCREASED TENSION.



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0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#4/0 TRIPLEX WITH #1/0 NEUTRAL  
NESSC MEDIUM LOADING ZONE

DEC	DEM	DEP	DEF
X	X	X	
<b>05.04-06</b>			



**#1/0 QUADRUPLIX WITH #1/0 NEUTRAL  
SECONDARY AND SERVICE SAG AND TENSION DATA  
MEDIUM LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1424	1	3	5	9	12	17	22	28	34	41	49
15°	1314	1	3	6	9	13	18	24	30	37	45	53
30°	1210	2	4	6	10	14	20	26	33	40	49	58
40°	1145	2	4	7	11	15	21	27	34	43	51	61
60°	1024	2	4	8	12	17	23	30	39	48	58	68
80°	917	2	5	8	13	19	26	34	43	53	64	76
100°	825	2	5	9	15	21	29	38	48	59	71	85
120°	748	3	6	10	16	23	32	42	53	65	79	94

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1178	2	4	7	10	15	20	26	33	41	50	59
15°	1070	2	4	7	11	16	22	29	37	46	55	66
30°	973	2	5	8	13	18	25	32	41	50	61	72
40°	914	2	5	9	13	19	26	34	43	53	64	77
60°	813	2	5	10	15	22	29	38	48	60	72	86
80°	731	3	6	11	17	24	33	43	54	67	81	96
100°	663	3	7	12	18	26	36	47	59	73	89	106
120°	608	3	7	13	20	29	39	51	65	80	97	115

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	1641	3	7	12	19	27	36	47	60	74	90	107
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NESSC CABLE LOADING LIMIT: 15°, 25% OF FINAL, NO ICE, NO WIND (1070 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING							
		50'	60'	70'	80'	90'	100'	110'	120'
		0°	148	13	19	26	34	43	53
15°	145	13	19	26	34	44	54	65	78
30°	142	14	20	27	35	45	55	67	79
40°	140	14	20	27	36	45	56	67	80
60°	136	14	21	28	37	46	57	69	83
80°	133	15	21	29	38	48	59	71	85
100°	130	15	22	29	38	49	60	73	87
120°	127	15	22	30	39	50	61	74	89

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	350	14	20	27	36	45	56	68	81
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MAXIMUM LOADING AT 15°, 1/4" ICE, 4 LBS. WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS.; THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED AGAINST THE INCREASED TENSION.



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1				
0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#1/0 QUADRUPLIX WITH #1/0 NEUTRAL  
NESSC MEDIUM LOADING ZONE

DEC	DEM	DEP	DEF
X	X	X	
<b>05.04-08</b>			

**#4/0 QUADRUPLIX WITH #1/0 NEUTRAL  
SECONDARY AND SERVICE SAG AND TENSION DATA  
MEDIUM LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1329	2	5	10	15	22	30	39	49	61	73	87
15°	1254	3	6	10	16	23	32	41	52	64	78	93
30°	1184	3	6	11	17	25	33	44	55	68	82	98
40°	1141	3	6	11	18	25	35	45	57	71	86	102
60°	1062	3	7	12	19	27	37	49	62	76	92	109
80°	993	3	7	13	20	29	40	52	66	81	98	117
100°	932	3	8	14	22	31	42	55	70	87	105	125
120°	878	4	8	15	23	33	45	59	74	92	111	132

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1133	3	6	11	18	26	35	46	58	71	86	103
15°	1069	3	7	12	19	27	37	48	61	76	91	109
30°	1011	3	7	13	20	29	39	51	65	80	97	115
40°	976	3	7	13	21	30	41	53	67	83	100	119
60°	913	4	8	14	22	32	43	57	72	88	107	127
80°	858	4	8	15	23	34	46	60	76	94	114	136
100°	811	4	9	16	25	36	49	64	81	100	121	143
120°	769	4	9	17	26	38	51	67	85	105	127	151

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	1692	4	9	16	24	35	48	62	79	97	118	140
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NESSC CABLE LOADING LIMIT: 15°, 25% OF FINAL, NO ICE, NO WIND (1070 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING								
		50'	60'	70'	80'	90'	100'	110'	120'	
		0°	175	18	27	36	47	60	74	90
15°	173	19	27	37	48	60	75	91	108	
30°	172	19	27	37	48	61	76	92	109	
40°	170	19	27	37	49	62	76	92	110	
60°	168	19	28	38	49	63	77	94	112	
80°	166	20	28	38	50	63	78	95	113	
100°	163	20	29	39	51	64	79	96	115	
120°	161	20	29	39	51	65	81	98	116	

**FINAL SAG AND TENSION - MEDIUM LOADING ZONE WITH ICE AND WIND**

15°, 1/4" ICE, 4 LBS WIND	350	19	27	37	49	62	76	92	110
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MAXIMUM LOADING AT 15°, 1/4" ICE, 4 LBS. WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS.; THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED AGAINST THE INCREASED TENSION.



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2				
1				
0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#4/0 QUADRUPLIX WITH #1/0 NEUTRAL  
NESSC MEDIUM LOADING ZONE

DEC	DEM	DEP	DEF
X	X	X	

**05.04-10**

**#2 TRIPLEX FULL NEUTRAL (SHRIMP)  
SECONDARY AND SERVICE SAG AND TENSION DATA  
HEAVY LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	646	1	3	6	9	13	17	23	29	35	43	51
15°	584	2	4	6	10	14	19	25	32	39	47	56
30°	528	2	4	7	11	16	21	28	35	43	52	62
40°	494	2	4	7	12	17	23	30	37	46	56	66
60°	435	2	5	8	13	19	26	34	42	52	63	76
80°	386	2	5	9	15	21	29	38	48	59	72	85
100°	346	3	6	11	16	24	32	42	53	66	80	95
120°	314	3	7	12	18	26	36	46	59	73	88	105

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	517	2	4	7	11	16	22	28	36	44	53	64
15°	462	2	4	8	12	18	24	32	40	49	60	71
30°	415	2	5	9	14	20	27	35	44	55	66	79
40°	389	2	5	9	15	21	29	38	47	59	71	84
60°	345	3	6	11	17	24	32	42	54	66	80	95
80°	310	3	7	12	18	26	36	47	59	73	89	106
100°	283	3	7	13	20	29	39	52	65	81	97	116
120°	261	3	8	14	21	31	43	56	71	87	106	126
FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND												
0°, 1/2" ICE, 4 LBS WIND	1397	4	9	16	25	37	50	65	82	102	123	147

NESSC CABLE LOADING LIMIT: 0°, 1/2" ICE, 4 LBS WIND (1400 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING								
		50'	60'	70'	80'	90'	100'	110'	120'	
		0°	59	15	22	30	39	50	61	74
15°	59	16	22	31	40	51	63	76	90	
30°	58	16	23	31	41	51	64	77	92	
40°	57	16	23	31	41	52	64	78	93	
60°	56	16	24	32	42	53	66	79	95	
80°	55	17	24	33	43	54	67	81	96	
100°	54	17	24	33	44	55	68	82	98	
120°	53	17	25	34	44	56	69	84	100	
FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND										
0°, 1/2" ICE, 4 LBS WIND	348	16	24	32	42	53	66	79	95	

MAXIMUM LOADING AT 0°, 1/2" ICE, 4 LBS WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS; THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED AGAINST THE INCREASED TENSION.



3				
2				
1				
0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#2 TRIPLEX FULL NEUTRAL (SHRIMP)  
NESSC HEAVY LOADING ZONE

DEC	DEM	DEP	DEF
	X		
05.04-12			

**#1/0 TRIPLEX FULL NEUTRAL (GAMMARUS)  
SECONDARY AND SERVICE SAG AND TENSION DATA  
HEAVY LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1283	1	3	5	7	10	14	18	23	28	34	41
15°	1169	1	3	5	8	11	15	20	25	31	38	45
30°	1060	1	3	6	9	12	17	22	28	34	42	50
40°	992	1	3	6	9	13	18	24	30	37	45	53
60°	868	2	4	7	11	15	21	27	34	42	51	61
80°	761	2	4	8	12	17	24	31	39	48	58	69
100°	671	2	5	9	14	20	27	35	44	55	66	79
120°	598	2	6	10	15	22	30	39	50	61	74	88

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1070	1	3	5	9	12	17	22	28	34	41	49
15°	952	2	3	6	10	14	19	25	31	38	47	55
30°	847	2	4	7	11	16	21	28	35	43	52	62
40°	785	2	4	7	12	17	23	30	38	47	56	67
60°	680	2	5	9	13	19	26	34	44	54	65	77
80°	597	2	6	10	15	22	30	39	50	61	74	88
100°	533	3	6	11	17	25	34	44	56	69	83	99
120°	482	3	7	12	19	27	37	49	62	76	92	109
FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND												
0°, 1/2" ICE, 4 LBS WIND	2031	3	7	13	21	30	41	53	67	83	101	120

NESC CABLE LOADING LIMIT: 0°, 25% OF FINAL, NO ICE, 4 LBS WIND (1070 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING								
		50'	60'	70'	80'	90'	100'	110'	120'	
0°	77	19	27	37	49	62	76	92	110	
15°	76	19	28	38	49	62	77	93	111	
30°	75	19	28	38	50	63	78	94	113	
40°	75	20	28	38	50	64	79	95	113	
60°	74	20	29	39	51	64	80	96	115	
80°	73	20	29	39	52	65	81	98	116	
100°	72	20	29	40	52	66	82	99	118	
120°	71	21	30	40	53	67	83	100	120	
FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND										
0°, 1/2" ICE, 4 LBS WIND	347	20	28	38	50	63	78	95	113	

MAXIMUM LOADING AT 0°, 1/2" ICE, 4 LBS WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS; THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED AGAINST THE INCREASED TENSION.



3				
2				
1				
0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#1/0 TRIPLEX FULL NEUTRAL (GAMMARUS)

NESC HEAVY LOADING ZONE

DEC	DEM	DEP	DEF
	X		
05.04-14			

**#4/0 TRIPLEX 1/0 NEUTRAL  
SECONDARY AND SERVICE SAG AND TENSION DATA  
HEAVY LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1192	2	4	8	12	17	24	31	39	48	58	69
15°	1105	2	5	8	13	19	25	33	42	52	63	75
30°	1027	2	5	9	14	20	27	36	45	56	68	81
40°	978	2	5	9	15	21	29	38	48	59	71	85
60°	892	3	6	10	16	23	32	41	52	64	78	93
80°	817	3	6	11	18	26	36	47	59	73	89	105
100°	754	3	7	12	19	27	37	49	62	76	92	110
120°	700	3	7	13	21	30	40	53	66	82	99	118

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1003	2	5	9	14	21	28	37	46	57	69	82
15°	927	2	6	10	15	22	30	40	50	62	75	89
30°	861	3	6	11	17	24	33	43	54	67	81	96
40°	821	3	6	11	17	25	34	45	57	70	85	101
60°	752	3	7	12	19	27	37	49	62	76	92	110
80°	694	3	7	13	21	30	41	53	67	83	100	119
100°	646	4	8	14	22	32	44	57	72	89	108	128
120°	605	4	9	15	24	34	46	61	77	95	115	137

**FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND**

0°, 1/2" ICE, 4 LBS WIND	2099	4	9	16	25	36	49	63	80	99	120	143
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NESSC CABLE LOADING LIMIT: 0°, 1/2" ICE, 4 LBS WIND (2140 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING							
		50'	60'	70'	80'	90'	100'	110'	120'
0°	97	24	34	47	61	77	96	116	138
15°	96	24	35	47	61	78	96	117	139
30°	95	24	35	47	62	78	97	118	140
40°	95	24	35	48	62	79	97	118	141
60°	94	24	35	48	63	80	98	119	142
80°	93	25	36	48	63	80	99	120	143
100°	93	25	36	49	64	81	100	121	145
120°	92	25	36	49	64	82	101	122	146

**FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND**

0°, 1/2" ICE, 4 LBS WIND	345	24	35	47	62	79	97	118	141
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MAXIMUM LOADING AT 0°, 1/2" ICE, 4 LBS WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS; THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED AGAINST THE INCREASED TENSION.



3				
2				
1	6/15/15	ROBESON	BURLISON	ADCOCK
0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#4/0 TRIPLEX 1/0 NEUTRAL  
NESSC HEAVY LOADING ZONE

DEC	DEM	DEP	DEF
	X		
<b>05.04-16</b>			

**# 1/0 QUADRUPLEX FULL NEUTRAL (SHETLAND)  
SECONDARY AND SERVICE SAG AND TENSION DATA  
HEAVY LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1286	2	3	6	9	14	19	24	31	38	46	54
15°	1184	2	4	7	10	15	20	26	33	41	50	59
30°	1089	2	4	7	11	16	22	29	36	45	54	64
40°	1029	2	4	8	12	17	23	30	38	47	57	68
60°	922	2	5	8	13	19	26	34	43	53	64	76
80°	830	2	5	9	15	21	29	38	48	59	71	85
100°	752	3	6	10	16	23	32	41	52	65	78	93
120°	686	3	6	11	18	26	35	45	58	71	86	102

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1070	2	4	7	11	16	22	29	37	46	55	66
15°	973	2	5	8	13	18	25	32	41	50	61	72
30°	887	2	5	9	14	20	27	35	44	55	66	79
40°	837	2	5	9	15	21	29	37	47	58	70	84
60°	750	3	6	10	16	23	32	42	53	65	79	94
80°	679	3	6	11	18	26	35	46	58	72	87	103
100°	621	3	7	13	20	28	38	50	64	78	95	113
120°	573	3	8	14	21	31	42	54	69	85	103	122

**FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND**

0°, 1/2" ICE, 4 LBS WIND	2078	4	8	14	23	32	44	58	73	90	109	130
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NESSC CABLE LOADING LIMIT: 0°, 0" ICE, 0 LBS WIND, 25% RPS FINAL

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING								
		50'	60'	70'	80'	90'	100'	110'	120'	
		0°	92	21	31	42	54	69	85	103
15°	91	21	31	42	55	70	86	104	124	
30°	90	22	31	42	55	70	87	105	125	
40°	90	22	31	43	56	71	87	106	126	
60°	89	22	32	43	56	71	88	107	128	
80°	88	22	32	44	57	72	89	108	129	
100°	87	22	32	44	58	73	90	109	130	
120°	86	23	33	45	58	74	91	111	132	

**FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND**

0°, 1/2" ICE, 4 LBS WIND	346	22	31	43	56	70	87	106	126
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MAXIMUM LOADING AT 0°, 1/2" ICE, 4 LBS WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS; THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED AGAINST THE INCREASED TENSION.



3				
2				
1	6/15/15	ROBESON	BURLISON	ADCOCK
0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

# 1/0 QUADRUPLEX FULL NEUTRAL (SHETLAND)

NESSC HEAVY LOADING ZONE

DEC	DEM	DEP	DEF
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X

05.04-18

**#4/0 QUADRUPLEX 1/0 NEUTRAL  
SECONDARY AND SERVICE SAG AND TENSION DATA  
HEAVY LOADING ZONE**

**SECONDARY - POLE TO POLE**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		INITIAL STRINGING SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	1135	3	6	11	18	26	35	45	58	71	86	102
15°	1076	3	7	12	19	27	37	48	61	75	91	108
30°	1022	3	7	13	20	28	39	51	64	79	96	114
40°	988	3	7	13	20	29	40	52	66	82	99	118
60°	928	3	8	14	22	31	43	56	70	87	105	125
80°	875	4	8	15	23	33	45	59	75	92	112	133
100°	828	4	9	16	24	35	48	62	79	98	118	141
120°	786	4	9	16	26	37	50	66	83	103	124	148

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	200 FOOT RULING SPAN SAG IS IN INCHES AT GIVEN SPAN LENGTHS										
		FINAL SAGS - POLE TO POLE										
		50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'
0°	991	3	7	13	20	29	40	52	66	81	99	117
15°	941	3	8	14	21	31	42	55	69	86	104	124
30°	897	4	8	14	22	32	44	58	73	90	109	130
40°	869	4	8	15	23	33	45	59	75	93	112	134
60°	821	4	9	16	25	35	48	63	80	98	119	142
80°	778	4	9	17	26	37	51	66	84	104	126	150
100°	740	4	10	17	27	39	53	70	88	109	132	157
120°	707	5	10	18	29	41	56	73	93	114	138	165
FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND												
0°, 1/2" ICE, 4 LBS WIND	2088	5	10	18	29	41	56	74	93	115	139	166

NESSC CABLE LOADING LIMIT: 0°, 1/2" ICE, 4 LBS WIND (2140 LBS)

**SERVICE - POLE TO BUILDING**

CONDUCTOR TEMPERATURE IN °F	TENSION (LBS)	INITIAL SAG AND TENSION SERVICE DROP DISTANCE (FT) POLE TO BUILDING								
		50'	60'	70'	80'	90'	100'	110'	120'	
		0°	117	28	40	54	71	90	112	136
15°	116	28	40	55	72	91	112	136	163	
30°	116	28	40	55	72	91	113	137	163	
40°	115	28	40	55	72	92	113	137	164	
60°	114	28	41	56	73	92	114	138	165	
80°	114	28	41	56	73	93	115	139	166	
100°	113	29	41	56	74	93	116	140	167	
120°	112	29	42	57	74	94	116	141	158	
FINAL SAG AND TENSION - HEAVY LOADING ZONE WITH ICE AND WIND										
0°, 1/2" ICE, 4 LBS WIND	343	28	40	55	72	91	113	137	164	

MAXIMUM LOADING AT 0°, 1/2" ICE, 4 LBS WIND. MAXIMUM LOAD IS LIMITED TO 350 LBS; THE RECOMMENDED MAXIMUM TENSION ON A 2 INCH SERVICE MAST. IF GREATER CABLE TENSION, LESS SAG IS REQUIRED, THE SERVICE MAST MUST BE BRACED AGAINST THE INCREASED TENSION.



3				
2				
1				
0	3/31/15	ROBESON	WHITE	ADCOCK
REVISED	BY	CK'D	APPR.	

#4/0 QUADRUPLEX 1/0 NEUTRAL  
NESSC HEAVY LOADING ZONE

DEC	DEM	DEP	DEF
	X		
05.04-20			

**SINGLE, TWO AND THREE-PHASE  
SLACK SPAN POLE CLASS AND SAG REQUIREMENTS**

MAXIMUM SPAN LENGTH (FT)	CONDUCTORS	MINIMUM POLE CLASS REQUIRED				INITIAL STRINGING SAGS (INCHES)
		40 FOOT	45 FOOT	50 FOOT	55 FOOT	
25	336 AND SMALLER	5	4	3	3	12
	795 PRI - #1/0 NEU	4	3	3	3	
50	#1/0 PRI - #1/0 NEU AND SMALLER	5	4	3	3	24
	336 PRI - #1/0 NEU	4	4	3	3	
	795 PRI - #1/0 NEU	4	3	2	2	
75	#1/0 PRI - #1/0 NEU AND SMALLER	4	4	3	3	36
	336 PRI - #1/0 NEU	3	3	2	2	
	795	NOT PERMITTED				
100	#1/0 PRI - #1/0 NEU AND SMALLER	4	4	3	2	36
	336 - 795	NOT PERMITTED				

NOTES:

1. THE POLES IN THESE TABLES ARE DESIGNED TO BE SELF-SUPPORTING STRUCTURES AT THE END OF A SINGLE SPAN. IF THE TAKE-OFF POLE CANNOT BE SUPPORTED WITH DOWN GUYS AND ANCHORS, IT MUST BE EVALUATED AS A SELF-SUPPORTING STRUCTURE. IF ADDITIONAL LOAD IS ADDED TO THE POLES IN THESE TABLES, THE POLES MUST BE RE-EVALUATED FOR STRENGTH REQUIREMENTS TO PREVENT POLE DEFLECTION OVER TIME.
2. SAGS ARE AT 60° F. SAGS WILL NOT VARY MORE THAN 2 INCHES BETWEEN 30° F AND 90° F.
3. POLE CLASSES DESIGNED FOR NO MORE THAT 1.5% DEFLECTION AT 60° F.
4. SOME POLE CLASSES LISTED MAY EXCEED THE CLASS POLE REQUIRED FOR STRENGTH BECAUSE A LOWER CLASS POLE IS NOT A STOCK ITEM.
5. DO NOT USE AUTOMATIC SPLICES IN SLACK SPANS.



3				
2				
1				
0	12/29/15	ROBESON	-	-
REVISED	BY	CK'D	APPR.	

**SLACK SPAN SAG TABLE  
NESC LIGHT LOADING ZONE**

DEC	DEM	DEP	DEF
			X
<b>05.06-100</b>			



**SINGLE, TWO AND THREE-PHASE  
SLACK SPAN POLE CLASS AND SAG REQUIRMENTS**

MAXIMUM SPAN LENGTH (FT)	CONDUCTORS	MINIMUM POLE CLASS REQUIRED			INITIAL STRINGING SAGS (INCHES)
		40 FOOT	45 FOOT	50 FOOT	
25	ALL SIZES 556 AND SMALLER	5	4	3	12
50	#2 PRI - #2 NEU AND SMALLER	5	4	3	
	#1/0 PRI - #1/0 NEU #4/0 PRI - #1/0 NEU	5	4	3	24
	336 PRI - #1/0 NEU	4	4	3	36
	477 PRI - #1/0 NEU 556 PRI - 336 NEU	4	3	3	
75	#2 PRI - #2 NEU AND SMALLER	5	4	3	24
	#1/0 PRI - #1/0 NEU	5	4	3	36
	#4/0 PRI - #1/0 NEU	4	3	3	
	336 PRI - #1/0 NEU	3	2	2	
	477 - 556	NOT PERMITTED			
#2 PRI - #2 NEU AND SMALLER	5	4	3		
100	#1/0 PRI - #1/0 NEU	4	4	3	36
	#4/0 - 556	NOT PERMITTED			

**NOTES:**

1. THE POLES IN THESE TABLES ARE DESIGNED TO BE SELF-SUPPORTING STRUCTURES AT THE END OF A SINGLE SPAN. IF THE TAKE-OFF POLE CANNOT BE SUPPORTED WITH DOWN GUYS AND ANCHORS, IT MUST BE EVALUATED AS A SELF-SUPPORTING STRUCTURE. IF ADDITIONAL LOAD IS ADDED TO THE POLES IN THESE TABLES, THE POLES MUST BE RE-EVALUATED FOR STRENGTH REQUIREMENTS TO PREVENT POLE DEFLECTION OVER TIME.
2. SAGS ARE AT 60° F. SAGS WILL NOT VARY MORE THAN 2 INCHES BETWEEN 30° F AND 90° F.
3. POLE CLASSES DESIGNED FOR NO MORE THAT 1.5% DEFLECTION AT 60° F.
4. SOME POLE CLASSES LISTED MAY EXCEED THE CLASS POLE REQUIRED FOR STRENGTH BECAUSE A LOWER CLASS POLE IS NOT A STOCK ITEM.
5. DO NOT USE AUTOMATIC SPLICES IN SLACK SPANS.



3				
2				
1				
0	12/29/15	ROBESON	-	-
REVISED	BY	CK'D	APPR.	

**SLACK SPAN SAG TABLE  
NESC MEDIUM LOADING ZONE**

DEC	DEM	DEP	DEF
X	X	X	
<b>05.06-104</b>			

**SINGLE, TWO AND THREE-PHASE  
SLACK SPAN POLE CLASS AND SAG REQUIREMENTS**

MAXIMUM SPAN LENGTH (FT)	CONDUCTORS	MINIMUM POLE CLASS REQUIRED			INITIAL STRINGING SAGS (INCHES)
		40 FOOT	45 FOOT	50 FOOT	
25	556 AND SMALLER	5	4	3	12
50	#2 PRI - #2 NEU AND SMALLER	5	4	3	
	#1/0 PRI - #1/0 NEU	5	4	3	24
	336 PRI - #1/0 NEU	4	4	3	
	477 PRI - #1/0 NEU 556 PRI - 336 NEU	4	3	3	
75	#1/0 PRI - #1/0 NEU AND SMALLER	5	4	3	36
	336 PRI - #1/0 NEU	3	2	2	
	477 - 556	NOT PERMITTED			
100	#2 PRI - #2 NEU AND SMALLER	4	4	3	
	#1/0 PRI - #1/0 NEU	3	3	2	
	336 - 556	NOT PERMITTED			

**NOTES:**

1. THE POLES IN THESE TABLES ARE DESIGNED TO BE SELF-SUPPORTING STRUCTURES AT THE END OF A SINGLE SPAN. IF THE TAKE-OFF POLE CANNOT BE SUPPORTED WITH DOWN GUYS AND ANCHORS, IT MUST BE EVALUATED AS A SELF-SUPPORTING STRUCTURE. IF ADDITIONAL LOAD IS ADDED TO THE POLES IN THESE TABLES, THE POLES MUST BE RE-EVALUATED FOR STRENGTH REQUIREMENTS TO PREVENT POLE DEFECTION OVER TIME.
2. SAGS ARE AT 60° F. SAGS WILL NOT VARY MORE THAN 2 INCHES BETWEEN 30° F AND 90° F.
3. POLE CLASSES DESIGNED FOR NO MORE THAT 1.5% DEFLECTION AT 60° F.
4. SOME POLE CLASSES LISTED MAY EXCEED THE CLASS POLE REQUIRED FOR STRENGTH BECAUSE A LOWER CLASS POLE IS NOT A STOCK ITEM.
5. DO NOT USE AUTOMATIC SPLICES IN SLACK SPANS.



3				
2				
1				
0	1/15/16	ROBESON	BURLISON	ADCOCK
REVISED	BY	CK'D	APPR.	

**SLACK SPAN SAG TABLE  
NESC HEAVY LOADING ZONE**

DEC	DEM	DEP	DEF
	X		
<b>05.06-108</b>			