VENTERA ENERGY CORP. RSSV-130G
120 FT SSV OVERALL HT 130 FT
GENERIC
ROHN ID#: SV-100093
FILE NO.: 100093

NO.	DESCRIPTION	DRAWING NO.	REV.
1	ERECTION PROFILE - 120 FT. SSV OVERALL HEIGHT 130 FT.	100093-01-A1	0
2	ANCHOR BOLT LAYOUT - 1"Ø ANCHOR BOLTS (P/N: 18F1264H1)	18F1264H1	0
3	FOUNDATION - MAT WITH RAISED PIERS REV G CLAY	100093-01-F1	0
4	FOUNDATION - PIER AND PAD REV G CLAY	100093-01-F2 1-3	0
5	SECTION ASSEMBLY - DETAILS FOR SSV 10N406 (HINGED BASE)	10N406	0
6	SECTION ASSEMBLY - DETAILS FOR SSV 9N182	A830385	1
7	SECTION ASSEMBLY - DETAILS FOR SSV 8N111	A800209	2
8	SECTION ASSEMBLY - DETAILS FOR SSV 7N29	A780168	2
9	SECTION ASSEMBLY - DETAILS FOR SSV 6N69	A790310	3
10	SECTION ASSEMBLY - DETAILS FOR SSV VG861A	VG861A	5
11	GROUNDING - TIA-222-G STANDARD - SS TWRS (GALV)	B070997	0
12	LEG - STEP BOLT INSTALLATION DETAIL	B651264	5
13	- BOLT ASSEMBLY INSTALLATION	A790135	6
14	BASE PLATE - HINGE ASSEMBLY PROFILE	DWG-0127	0

FILE NO.
100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP

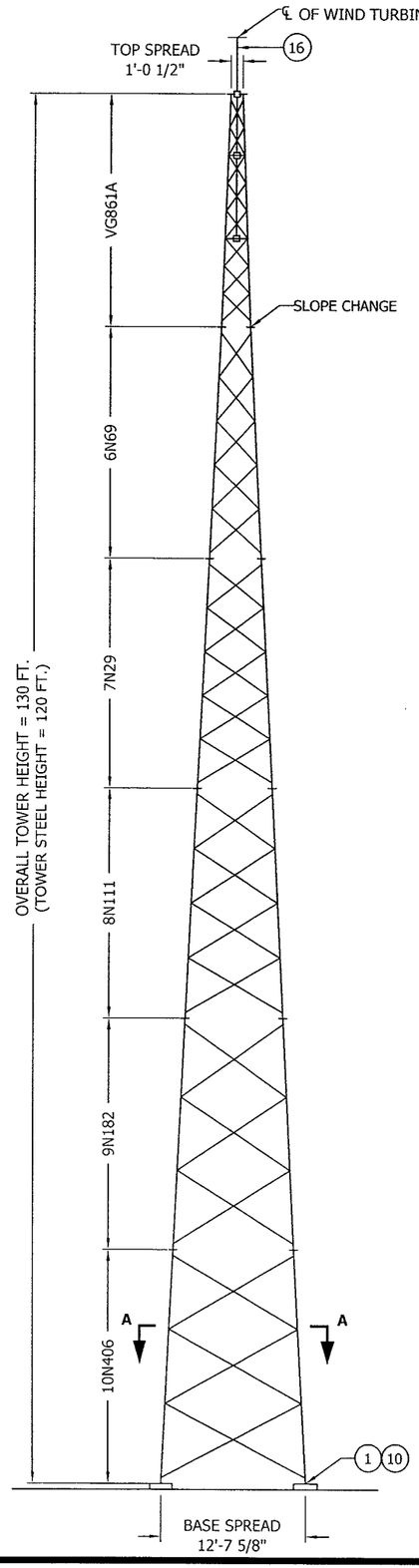
DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
ERECTION INDEX
120 FT SSV OVERALL HT 130 FT
GENERIC

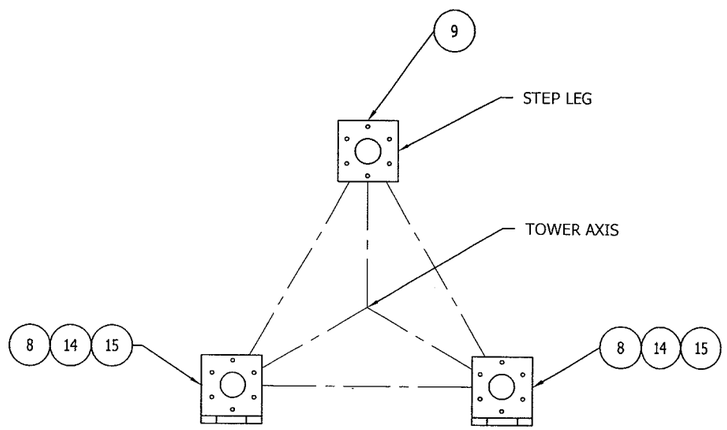
DWN:	CHK'D:	DATE: Jun/15/2010
ENG'R:		

DRAWING NO:	REV:
SV-100093-XE00-01	0

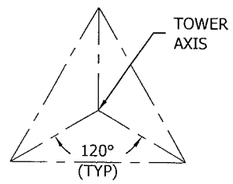


TOWER DESIGN LOADING		
DESIGN WIND LOAD PER ANSI/TIA/EIA-222-G: BASIC WIND SPEED (NO ICE) = 125 MPH BASIC WIND SPEED (ICE) = 60 MPH DESIGN ICE THICKNESS = 1.25 IN. STRUCTURE CLASS = II EXPOSURE CATEGORY = C TOPOGRAPHIC CATEGORY = 1 EARTHQUAKE SPECTRAL RESPONSE ACCELERATION, Ss < 1.000 THIS TOWER IS DESIGNED TO SUPPORT THE FOLLOWING LOADS:		
ELEVATION (FT)	**ANTENNA TYPE**	**LINE SIZE (NOM)**
TOP	VENTERA 10KW TURBINE ALLOWABLE THRUST = 1,000 LBS	(2) 1" CONDUIT

TOWER DESIGN IS BASED ON STATIC LOADING CONDITIONS ONLY. HARMONICS AND/OR DYNAMICS HAVE NOT BEEN CONSIDERED.



SECTION A-A



TOWER CONFIGURATION
N.T.S.

MAXIMUM FACTORED REACTIONS			
COMPRESSION	=	106.5	KIPS
TENSION	=	91.1	KIPS
TOTAL SHEAR	=	18.2	KIPS
O.T.M.	=	1128.7	FT-KIPS

ANCHOR MATERIAL				
ITEM	**QTY**	**PART NO.**	**DESCRIPTION**	**DWG. NO.**
1	1	18F1264H1	ANCHOR BOLT STR ASSY 18-1X48	18F1264H1
100093LAB - TOWER ACCESSORIES				
ITEM	**QTY**	**PART NO.**	**DESCRIPTION**	**DWG. NO.**
2	1	10N406	SECTION ASSY 10N 20' 3.5EH BASE	10N406
3	1	9N182	SECTION ASSY 9N 20' 3.5EH	A830385
4	1	8N111	SECTION ASSY 8N 20' 3EH	A800209
5	1	7N29	SECTION ASSY 7N 20' 2.5EH	A780168
6	1	6N69	SECTION ASSY 6N 20' 2.5STD	A790310
7	1	VG861A	SECTION ASSY VG1S 2.5STD S9	VG861A
8	2	VH069	HINGE BASE PLATE FOR 1" ANCHOR	N/A
9	1	VH070	HINGE BASE PLATE FOR 1" ANCHOR	N/A
10	3	BGK8GGX	KIT BASE GRD SSV 1"AB GALV.	B070997
11	1	ACWS	SIGN ANTI-CLIMB WARNING ASSY	N/A
12	1	B651264	STEPBOLT DETAIL	B651264
13	1	A790135	DRAWING BOLT ASSY	A790135
14	4	1CTLFG/2H	LOCK NUT 1 A563 DH HDG	N/A
15	2	290033	THREADED ROD 1(-8)X14.00 LG	N/A
16	1	KH8083	MOUNT TUBE 5.56ODX.258WX19.06'	N/A
17	1	ROHN-TAG	STANDARD ROHN TAG	N/A
18	1	710004	CARTON, NO. 80	N/A
19	1	DWG-0127	TOWER HINGE ASSEMBLY	DWG-0127

1. ROHN PRODUCTS, LLC TOWER DESIGNS CONFORM TO ANSI/TIA/EIA-222-G UNLESS OTHERWISE SPECIFIED UNDER TOWER DESIGN LOADING.
2. TURBINE AND LINES LISTED IN TOWER DESIGN LOADING TABLE ARE PROVIDED BY OTHERS UNLESS OTHERWISE SPECIFIED.
3. THE DESIGN LOADING CRITERIA INDICATED HAS BEEN PROVIDED TO ROHN. THE DESIGN LOADING CRITERIA HAS BEEN ASSUMED TO BE BASED ON SITE-SPECIFIC DATA IN ACCORDANCE WITH ANSI/TIA/EIA-222-G AND MUST BE VERIFIED BY OTHERS PRIOR TO INSTALLATION.
4. SEE INDIVIDUAL SECTION ASSEMBLY DRAWINGS FOR PART NUMBERS AND SECTION ASSEMBLY DETAILS.
5. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY FOR ALL TOWER SECTIONS.
6. REFER TO THE LATEST REVISIONS OF THE DRAWINGS SHOWN IN THE BILL OF MATERIALS.
7. PAL NUTS ARE PROVIDED FOR ALL TOWER AND ANCHOR BOLTS (SEE DWG. A790135).
8. THE LEG PART NUMBER IS STAMPED AT THE BOTTOM OF EACH LEG OF EACH SECTION.
9. DESIGN ASSUMES LEVEL GRADE AT TOWER SITE.
10. WORK SHALL BE IN ACCORDANCE WITH ANSI/TIA/EIA-222-G, "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES".
11. TOLERANCE ON TOWER STEEL HEIGHT IS EQUAL TO PLUS 1% OR MINUS 1/2%.
12. PURCHASER SHALL VERIFY THE INSTALLATION IS IN CONFORMANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR OBSTRUCTION MARKING AND LIGHTING.
13. TOWER MEMBER DESIGN DOES NOT INCLUDE STRESSES DUE TO ERECTION SINCE ERECTION EQUIPMENT AND CONDITIONS ARE UNKNOWN. DESIGN ASSUMES COMPETENT AND QUALIFIED PERSONNEL WILL ERECT THE TOWER.
14. DESIGN ASSUMES THAT, AS A MINIMUM, MAINTENANCE AND INSPECTION WILL BE PERFORMED OVER THE LIFE OF THE STRUCTURE IN ACCORDANCE WITH ANSI/TIA/EIA-222-G. THE INSPECTION INTERVAL FOR WIND TURBINE SUPPORT STRUCTURES SHALL NOT EXCEED 6 MONTHS.
15. NUMBERS SHOWN IN BALLOONS DENOTE ITEM NUMBERS IN BILL OF MATERIAL.
16. WIND TURBINE & ATTACHMENT HARDWARE TO BE SUPPLIED BY OTHERS.
17. FOUNDATIONS SHALL BE DESIGNED TO SUPPORT THE CONDITIONS EXISTING AT THE SITE.
18. TOWER ORIENTATION TO BE DETERMINED BY OTHERS.
19. THE DESIGN OF THE REFERENCED STRUCTURE HAS BEEN BASED ON EQUIVALENT STATIC LOADING CONDITIONS PROVIDED BY THE TURBINE MANUFACTURER. THE TURBINE MANUFACTURER MUST APPROVE THE DESIGN FOR PROPER PERFORMANCE WITH THE INTENDED TURBINE CONSIDERING AS A MINIMUM, FATIGUE, HARMONICS AND DYNAMIC LOADING. ROHN DOES NOT ACCEPT RESPONSIBILITY AND PROVIDES NO WARRANTY FOR FATIGUE, HARMONICS, OR DYNAMIC LOADING RELATED ISSUES.

FILE NO.
100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
ERECTION PROFILE
120 FT. SSV OVERALL HEIGHT 130 FT.
GENERIC

DWN:	CHK'D:	DATE:
LGC	KTL	Jun/02/2010

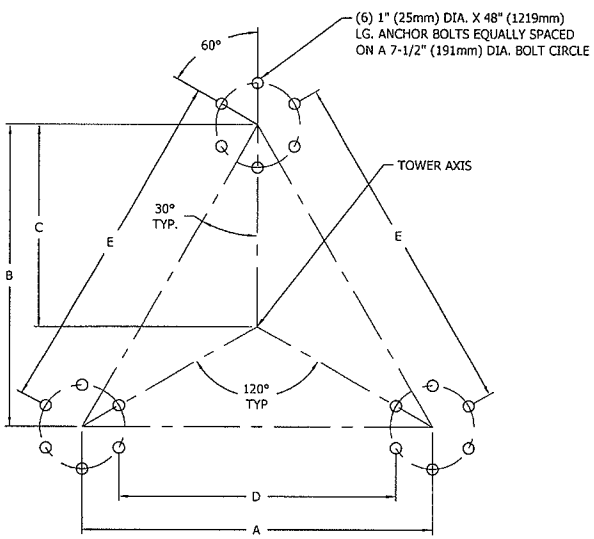
ENG'R: HA

DRAWING NO: 100093-01-A1

REV: 0

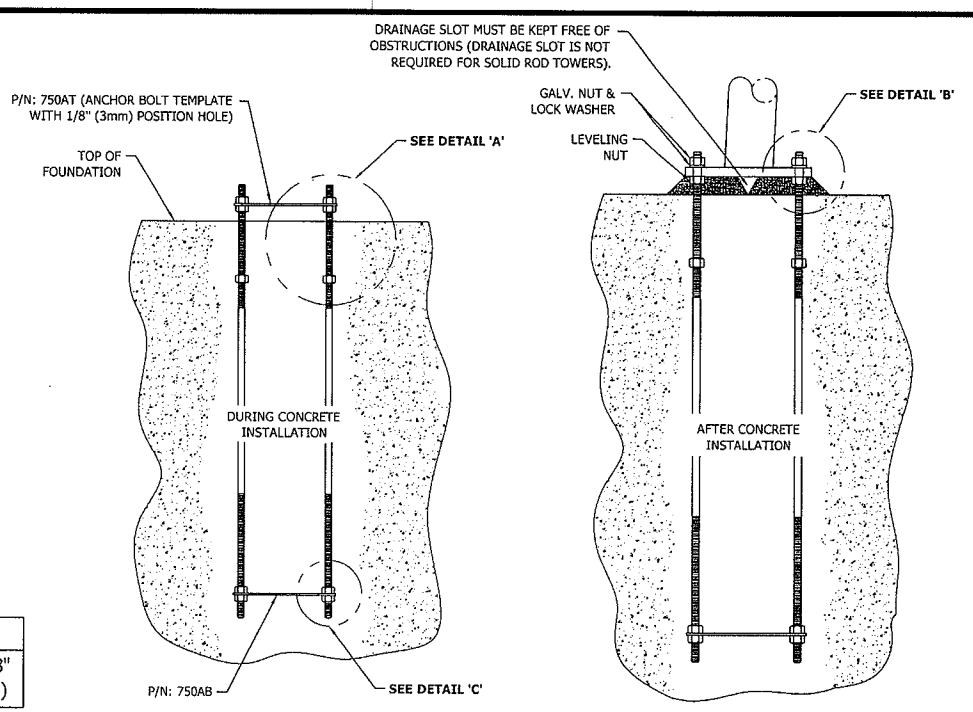
Jun/15/2010 10:28:21 AM

\Erection\



PLAN VIEW
N.T.S.

A	B	C	D	E
12'-7 5/8" (3.851M)	10'-11 5/16" (3.335M)	7'-3 9/16" (2.224M)	12'-1 1/8" (3.686M)	12'-7 5/8" (3.851M)



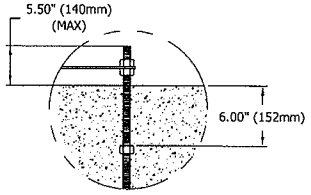
ELEVATION VIEWS

ANCHOR BOLT INSTALLATION TOLERANCES

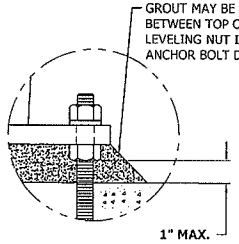
1. FACE SPREAD DIMENSION CENTER-TO-CENTER OF ANCHOR BOLT CIRCLES - PLUS OR MINUS 1/16" (2mm) OR 1/16"(2mm) PER 20 FT. (6m) OF FACE SPREAD.
2. MAXIMUM DIFFERENCE BETWEEN ANY TWO FOUNDATION ELEVATIONS - 1/2" (13mm).
3. CONCRETE DIMENSIONS - PLUS OR MINUS 1" (25mm).
4. DEPTH OF FOUNDATION - PLUS 3" (76mm) OR MINUS 0".
5. DRILLED FOUNDATIONS OUT OF PLUMB - 1.0 DEGREE.
6. REINFORCING STEEL PLACEMENT - PER A.C.I. 301.
7. PROJECTION OF EMBEDMENTS - PLUS OR MINUS 1/8" (3mm).
8. VERTICAL EMBEDMENTS OUT OF PLUMB -1/2 DEGREE.
9. MAXIMUM DISTANCE FROM CENTERLINE OF ANCHOR BOLTS TO CENTERLINE OF FOUNDATION - 1/24 OF PIER DIAMETER UP TO A MAXIMUM OF 2" (50mm).
10. ANCHOR BOLT SPACING - 1/16" (2mm).
11. ANCHOR BOLT CIRCLE ORIENTATION - 1/4 DEGREE.
12. ANCHOR BOLT CIRCLE DIAMETER - PLUS OR MINUS 1/16" (2mm).

!!! WARNING !!!

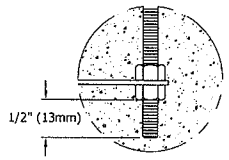
- ENSURE DIMENSION 'D & E' IS CORRECT ON ALL FACES PRIOR TO PLACING CONCRETE.
- AFTER ANCHOR BOLTS ARE INSTALLED AND CONCRETE HAS TAKEN ITS INITIAL SET, ANCHOR BOLTS MUST NOT BE MOVED, BENT OR REALIGNED IN ANY MANNER. A NUT LOCKING DEVICE MUST BE INSTALLED ON ALL ANCHOR BOLTS.



DETAIL 'A'



DETAIL 'B'



DETAIL 'C'

NOTES

1. ALL ANCHOR BOLTS MUST MEET OR EXCEED REQUIREMENTS OF A.S.T.M. F1554-S2, S5 GRADE 105.
2. GROUT TO BE 5000 PSI MIN. ULTIMATE STRENGTH/7 DAY NON-SHRINKING AND NON-METALLIC.
3. SPECIAL CARE MUST BE TAKEN WHEN LIFTING ANCHOR BOLT CLUSTER, IN ORDER TO PREVENT ANCHOR BOLT TEMPLATE DISTORTION.
4. ANCHOR BOLT ASSEMBLY MUST BE ADEQUATELY SUPPORTED AND RESTRAINED TO PREVENT MOVEMENT OF THE CLUSTER DURING CONCRETE INSTALLATION.
5. IT IS THE RESPONSIBILITY OF THE FOUNDATION CONTRACTOR TO VERIFY THAT THE CORRECT ANCHOR BOLT TEMPLATE AND FOUNDATION SHOWN ON RESPECTIVE SITE DRAWINGS ARE BEING USED.
6. IT IS THE RESPONSIBILITY OF THE FOUNDATION DESIGN ENGINEER TO INSURE THAT THE ANCHORAGES PROVIDED ARE COMPATIBLE WITH THE PROPOSED FOUNDATION DESIGNS AND THAT THE CAPACITIES OF THE ANCHORAGES ARE NOT LIMITED BY THE STRENGTH OF THE FOUNDATIONS.

FILE NO. 100093

REVISIONS			
REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

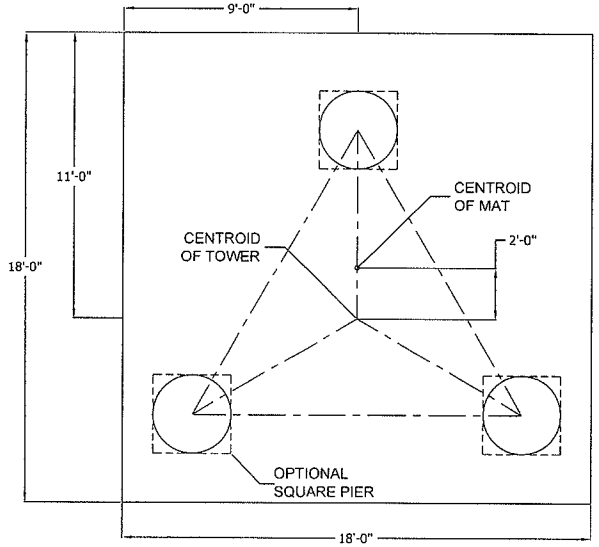
VENTERA ENERGY CORP. RSSV-130G
ANCHOR BOLT LAYOUT
1"Ø ANCHOR BOLTS (P/N: 18F1264H1)
GENERIC

DWN:	CHK'D:	DATE:
LGC	KTL	Jun/07/2010

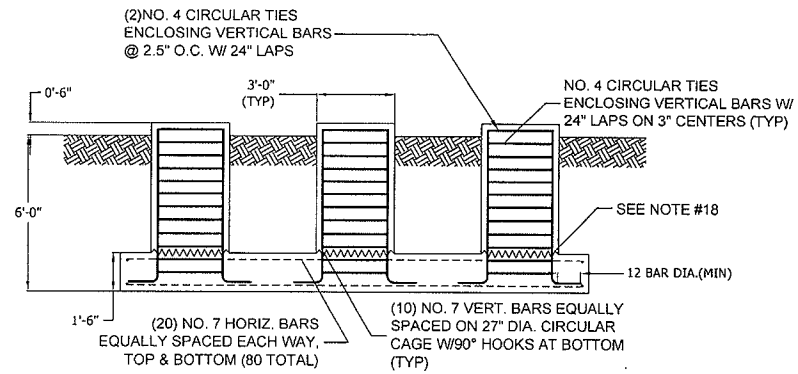
ENG'R: HA

DRAWING NO: 18F1264H1 REV: 0

Jun/15/2010 9:59:06 AM
\\Layout\



PLAN VIEW



ELEVATION VIEW

REACTIONS

Maximum O.T.M =	4,128.71 FT-K
Total Tower Wt =	8.33 KIPS
Total Shear =	18.17 KIPS
Max. Shear/Leg =	10.78 KIPS
Max. Ten./Leg =	91.08 KIPS
Max. Comp./Leg =	106.48 KIPS

CONCRETE VOLUME (cu.yds)

	ROUND	SQUARE
PIER	3.9	5.0
PAD	18.0	18.0
TOTAL	21.9	23.0

GENERAL NOTES

1. A GEOTECHNICAL REPORT HAS NOT BEEN PROVIDED TO ROHN FOR FOUNDATION DESIGN. PURCHASER HAS REQUESTED FOUNDATION DESIGN TO BE BASED ON PRESUMPTIVE CLAY SOIL DESIGN PARAMETERS. IT IS THE RESPONSIBILITY OF THE PURCHASER TO VERIFY THAT PRESUMPTIVE SOIL DESIGN PARAMETERS ARE APPROPRIATE BASED UPON ACTUAL SOIL CONDITIONS. FOUNDATION DESIGN MODIFICATIONS MAY BE REQUIRED IN THE EVENT THE FOLLOWING DESIGN PARAMETERS ARE NOT APPLICABLE FOR THE SUBSURFACE CONDITIONS ENCOUNTERED.
   A) ULTIMATE SOIL BEARING PRESSURE AT 6 FT DEPTH = 5,000 PSF.
   B) GROUND WATER TABLE IS AT OR BELOW FOUNDATION DEPTH.
   C) MAXIMUM FROST PENETRATION DEPTH LESS THAN FOUNDATION DEPTH.
2. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES, SAFETY REGULATIONS AND UNLESS OTHERWISE NOTED, THE LATEST REVISION OF ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.
3. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE STATE REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
4. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR RESISTANCE TO LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. AS A MINIMUM, CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI IN 28 DAYS.
5. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.
6. REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60 UNLESS OTHERWISE NOTED. SPLICES IN REINFORCEMENT SHALL NOT BE ALLOWED UNLESS OTHERWISE INDICATED.
7. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
8. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE 3 INCHES (76 MM) UNLESS OTHERWISE NOTED. APPROVED SPACERS SHALL BE USED TO INSURE A 3 INCH (76 MM) MINIMUM COVER ON REINFORCEMENT.
9. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES (76MM) NOR BE LESS THAN 2 INCHES (51MM).
10. FOUNDATION DESIGN ASSUMES STRUCTURAL BACKFILL TO BE COMPACTED IN 8 INCH (200 MM) MAXIMUM LAYERS TO 95% OF MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698. ADDITIONALLY, STRUCTURAL BACKFILL MUST HAVE A MINIMUM COMPACTED UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT (16 KN/M3).
11. FOUNDATION DESIGN ASSUMES LEVEL GRADE AT STRUCTURE SITE.
12. FOUNDATION INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED INSTALLATION PRACTICES.
13. FOUNDATION DESIGN ASSUMES FIELD INSPECTIONS WILL BE PERFORMED TO VERIFY THAT CONSTRUCTION MATERIALS, INSTALLATION METHODS AND ASSUMED DESIGN PARAMETERS ARE ACCEPTABLE BASED ON CONDITIONS EXISTING AT THE SITE.
14. FOR FOUNDATION AND ANCHOR TOLERANCES SEE DRAWING A810214.
15. LOOSE MATERIAL SHALL BE REMOVED FROM BOTTOM OF EXCAVATION PRIOR TO CONCRETE PLACEMENT. SIDES OF EXCAVATION SHALL BE ROUGH AND FREE OF LOOSE CUTTINGS.
16. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS, INFILTRATION OF WATER OR SOIL AND OTHER OCCURRENCES WHICH MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.
17. CONCRETE PREFERABLY SHALL BE PLACED AGAINST UNDISTURBED SOIL. WHEN FORMS ARE NECESSARY, THEY SHALL BE REMOVED PRIOR TO PLACING STRUCTURAL BACKFILL.
18. CONSTRUCTION JOINTS, IF REQUIRED AT THE BASE OF THE PIERS, MUST BE INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF 1/4 INCH (6 MM). FOUNDATION DESIGN ASSUMES NO OTHER CONSTRUCTION JOINTS.
19. TOP OF FOUNDATION OUTSIDE LIMITS OF ANCHOR BOLTS SHALL BE SLOPED TO DRAIN WITH A FLOATED FINISH. AREA INSIDE LIMITS OF ANCHOR BOLTS SHALL BE LEVEL WITH A SCRATCHED FINISH.
20. EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" X 3/4" (19MM X 19MM) MINIMUM.

NOTE: SEE STRUCTURE ASSEMBLY DRAWING FOR FOUNDATION LAYOUT AND ANCHORAGE EMBEDMENT DRAWING NUMBER.

FILE NO.
100093

REVISIONS

REV	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE

MODEL RSSV-130G

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
FOUNDATION
MAT WITH RAISED PIERS REV G CLAY
GENERIC

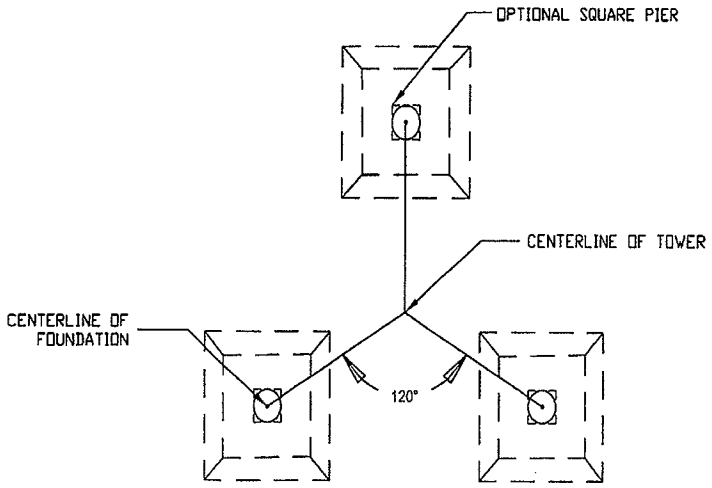
DWN:	CHK'D:	DATE:
DWG	HA	May/17/2010

ENG'R: HA

DRAWING NO: 100093-01-F1

REV: 0

NOTE: SEE TOWER ASSEMBLY DRAWING FOR FOUNDATION LAYOUT AND ANCHORAGE EMBEDMENT DRAWING NUMBER.



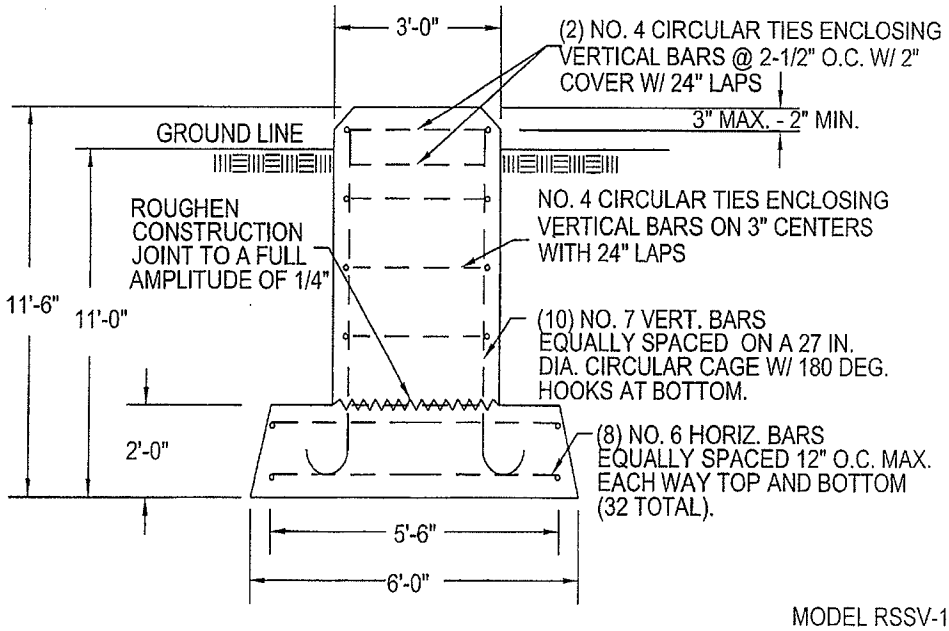
CONCRETE VOLUME

(1) FOUNDATION	4.9 CU. YDS
(3) FOUNDATIONS	14.7 CU. YDS

REACTIONS/LEG

DOWNLOAD =	106.5 KIPS
UPLIFT =	91.1 KIPS
SHEAR =	10.8 KIPS

PLAN VIEW



MODEL RSSV-130G

ELEVATION VIEW

No. ▲ Revision Description	▲ Date	▲ Rev By	▲ Ckd By	▲ Appd By

ROHN PRODUCTS, LLC PEORIA, IL, USA

Scale: NONE	By	Date
Drawn:	DWG	05/12/10
Checked:	HA	5/13/10
App. Eng.:	HA	5/13/10
Parent File:		

PIER AND PAD FOUNDATION DETAILS
PER
ANSI/TIA-222-G PRESUMPTIVE SOIL - CLAY

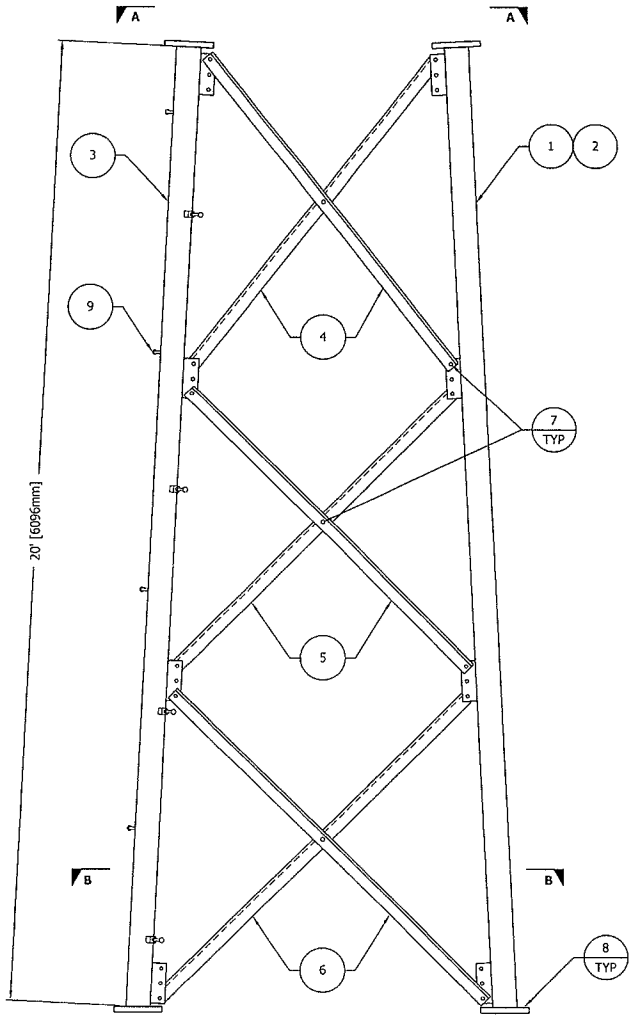
ENG. FILE:	DWG. NO.: 100093-01-F2	REV.
100093	SHEET 1 OF 3	

Foundation General Notes

1. A geotechnical report has not been provided to ROHN for foundation design. Purchaser has requested foundation design to be based on presumptive soil design parameters. It is the responsibility of the purchaser to verify that presumptive soil design parameters are appropriate based upon actual soil conditions. Foundation design modifications may be required in the event the following design parameters are not applicable for the subsurface conditions encountered.
    A. Uplift angle with vertical = 30.0 degrees.
    B. Ultimate net bearing pressure at 11 foot depth = 5.0 ksf.
    C. Ground water table at or below depth of foundation.
2. Work shall be in accordance with local codes, safety regulations and unless otherwise noted, the latest revision of ACI 318, "Building Code Requirements for Reinforced Concrete". Procedures for the protection of excavations, existing construction and utilities shall be established prior to foundation installation.
3. Concrete materials shall conform to the appropriate state requirements for exposed structural concrete.
4. Proportions of concrete materials shall be suitable for installation method utilized and shall result in durable concrete for resistance to local anticipated aggressive actions. The durability requirements of ACI 318 Chapter 4 shall be satisfied based on the conditions expected at the site. As a minimum, concrete shall develop a minimum compressive strength of 4000 psi (27.6 MPa) in 28 days.
5. Maximum size of aggregate shall not exceed size suitable for the installation method utilized or 1/3 clear distance behind or between reinforcing. Maximum size may be increased to 2/3 clear distance provided workability and methods of consolidation such as vibrating will prevent honeycombs or voids.
6. Reinforcement shall be deformed and conform to the requirements of ASTM A615 grade 60 unless otherwise noted. Splices in reinforcement shall not be allowed unless otherwise indicated.
7. Welding is prohibited on reinforcing steel and embedments.
8. Minimum concrete cover for reinforcement shall be 3 inches (76 mm) unless otherwise noted. Approved spacers shall be used to insure a 3 inch (76 mm) minimum cover on reinforcement.
9. Concrete cover from top of foundation to ends of vertical reinforcement shall not exceed 3 inches (76mm) nor be less than 2 inches (51mm).
10. Foundation design assumes structural backfill to be compacted in 8 inch (200 mm) maximum layers to 95% of maximum dry density at optimum moisture content in accordance with ASTM D698. Additionally, structural backfill must have a minimum compacted unit weight of 100 lb./cu.ft. (15.7 kn/m3)..
11. Foundation installation shall be supervised by personnel knowledgeable and experienced with the proposed foundation type. Construction shall be in accordance with generally accepted installation practices.
12. Foundation design assumes field inspections will be performed to verify that construction materials, installation methods and assumed design parameters are acceptable based on

conditions existing at the site.

13. For foundation and anchor tolerances see structure assembly drawing.
14. Loose material shall be removed from bottom of excavation prior to concrete placement. Sides of excavation shall be rough and free of loose cuttings.
15. Concrete shall be placed in a manner that will prevent segregation of concrete materials, infiltration of water or soil and other occurrences which may decrease the strength or durability of the foundation.
16. Concrete preferably shall be placed against undisturbed soil. When forms are necessary, they shall be removed prior to placing structural backfill.
17. Construction joints, if required in piers, must be at least 12 inches (305 mm) below bottom of embedments and must be intentionally roughened to a full amplitude of 1/4 inch (6 mm). Foundation design assumes no other construction joints.
18. Top of foundation outside limits of anchor bolts shall be sloped to drain with a floated finish. Area inside limits of anchor bolts shall be level with a scratched finish.
19. Exposed edges of concrete shall be chamfered 3/4" x 3/4" (19mm x 19mm) minimum.

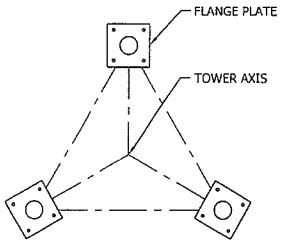


ELEVATION VIEW

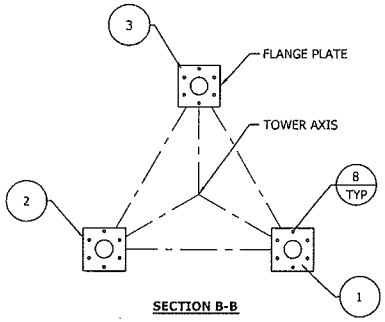
BILL OF MATERIALS				
ITEM	PART NO.	QTY	DESCRIPTION	
1	VL6142	1	LEG SSV 9-11N 3.5EH 20' 7-10	[PIPE 89mm EH]
2	VL6143	1	LEG SSV 9-11N 3.5EH 20' 7-10	[PIPE 89mm EH]
3	VL6144S	1	LEG SSV 9-11N 3.5EH 20' 7-10	[PIPE 89mm EH]
4	TN101	6	BRACE DS SS10T L2.5X.19X12.29'	[L 64x64x5]
5	TN102	6	BRACE DS SS10T L2.5X.19X12.86'	[L 64X64X5]
6	TN103	6	BRACE DS SS10T L2.5X.19X13.35'	[L 64X64X5]
7	210017GA	45	BOLT ASSY 1/2 X 1-1/4 HSB A325	[M13x32]
8	210063GA	18	BOLT ASSY 7/8 X 3-1/2 HSB A325	[M22x89]
9	5/8STEP	16	BOLT ASSY STEP 5/8X7 W/DBN	[M16x178]

GENERAL NOTES:

1. LEG PART NUMBER IS STAMPED AT THE BOTTOM OF EACH LEG AND MUST BE LOCATED AT THE BOTTOM OF THE SECTION FOR PROPER ASSEMBLY.
2. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
3. THIS SECTION IS A BASE SECTION. SEE THE TOWER ASSEMBLY FOR ANCHOR BOLTS. PAL NUTS ARE SUPPLIED FOR THE ANCHOR BOLTS.
4. DRAWING IS N.T.S. AND IS FOR ASSEMBLY PURPOSES ONLY.
5. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.



VIEW A-A



SECTION B-B

FLANGE	OFFSET	BEVEL	FLANGE PLATE (P/N)	SPREAD
TOP	N/A	N/A	7" X 7" X 1" (P/N: R-7F)	10'-7 5/8" [3242m]
BOTTOM	N/A	3 1/3° STD	10" X 10" X 1" (SPEC)	12'-7 5/8" [3851mm]

FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

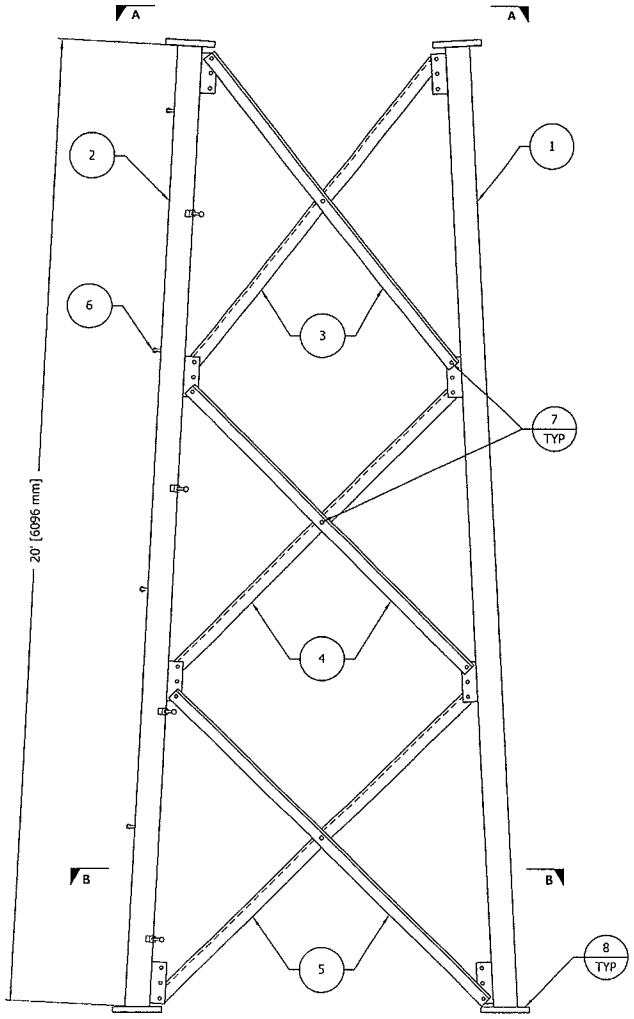
VENTERA ENERGY CORP. RSSV-130G
SECTION ASSEMBLY
DETAILS FOR SSV 10N406 (HINGED BASE)
GENERIC

DWN:	CHK'D:	DATE:
LGC	KTL	May/27/2010

ENG'R: HA

DRAWING NO: 10N406 REV: 0

Jun/15/2010 9:57:38 AM
\Project\



ELEVATION VIEW

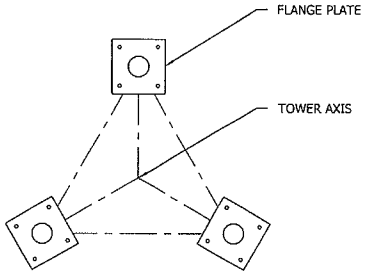
FLANGE	OFFSET	BEVEL	FLANGE PLATE (P/N)	SPREAD
TOP	N/A	N/A	7" X 7" X 1" (P/N: R-7F)	8'-7 5/8" [2632mm]
BOTTOM	N/A	N/A	7" X 7" X 1" (P/N: R-7F)	10'-7 5/8" [3242mm]

BILL OF MATERIAL

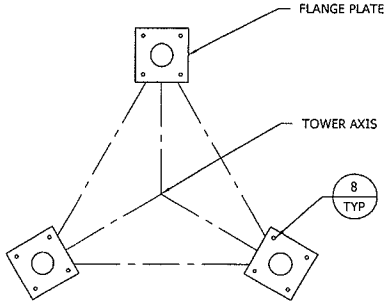
ITEM	PART NO.	QTY	DESCRIPTION	
1	VL89	2	LEG SSV 9-11N 3.5EH 20' 7 7 S9	[PIPE 89mm EH]
2	VL89S	1	LEG SSV 9-11N 3.5EH 20' 7 7 S9	[PIPE 89mm EH]
3	VB379	6	BRACE DS SS9T L2.5X.19X10.63'	[L 64x64x5]
4	VB380	6	BRACE DS SS9T L2.5X.19X11.17'	[L 64x64x5]
5	VB381	6	BRACE DS SS9T L2.5X.19X11.61'	[L 64x64x5]
6	5/8STEP	16	BOLT ASSY STEP 5/8X7 W/DBN	[M16x178]
7	210017GA	45	BOLT ASSY 1/2 X 1-1/4 HSB A325	[M13x32]
8	210063GA	12	BOLT ASSY 7/8 X 3-1/2 HSB A325	[M22x89]

GENERAL NOTES:

1. LEG PART NUMBER IS STAMPED AT THE BOTTOM OF EACH LEG AND MUST BE LOCATED AT THE BOTTOM OF THE SECTION FOR PROPER ASSEMBLY.
2. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
3. FLANGE BOLTS ARE FOR FLANGE PLATES AT THE BOTTOM OF THE SECTION.
4. DRAWING IS N.T.S. AND IS FOR ASSEMBLY PURPOSES ONLY.
5. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.



VIEW A-A



SECTION B-B

FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REDRAWN IN AUTOCAD FORMAT DATE: Apr/09/2010	CHW	KTL	HA

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
SECTION ASSEMBLY
DETAILS FOR SSV 9N182
GENERIC

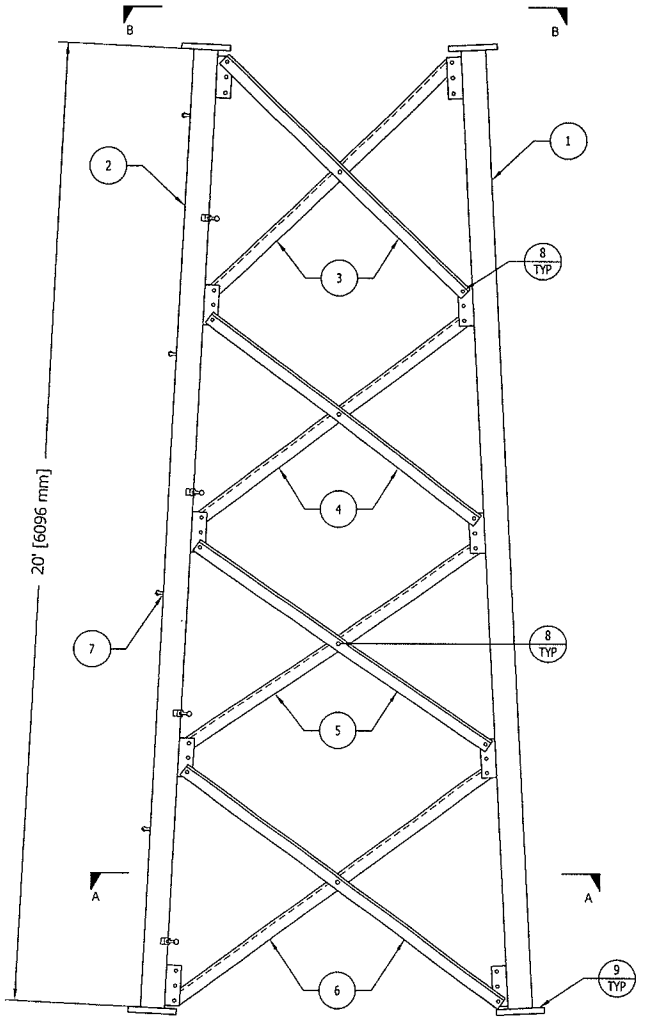
DWN:	CHK'D:	DATE:
B_F	KTL	Nov/22/1983

ENG'R: T.S

DRAWING NO: A830385 REV: 1

Apr/29/2010 11:57:17 AM

Vectorial

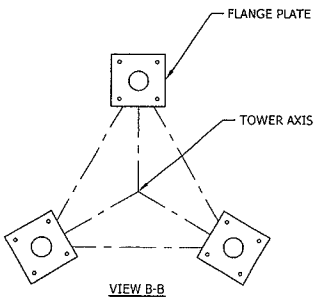


ELEVATION VIEW

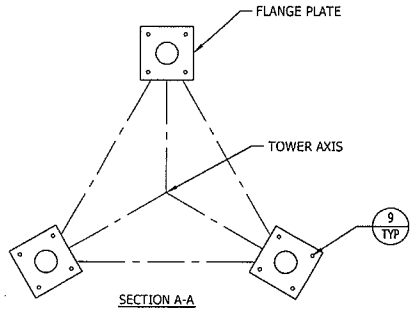
ITEM	QTY	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL651	LEG SSV 8N 3EH 20'6 7OFF S9	[PIPE 76mm EH]
2	1	VL651S	LEG SSV 8N 3EH 20' 6 7OFF S9	[PIPE 76mm EH]
3	6	VB142	BRACE DS SS8T L1.75X.13X7.95'	[L 44x44x3]
4	6	VB143	BRACE DS SS8T L1.75X.13X8.36'	[L 44x44x3]
5	6	VB144	BRACE DS SS8T L1.75X.13X8.79'	[L 44x44x3]
6	6	VB145	BRACE DS SS8T L1.75X.13X9.10'	[L 44x44x3]
7	16	5/8STEP	BOLT ASSY STEP 5/8X7 W/DBN	[M16x178]
8	60	210017GA	BOLT ASSY 1/2 X 1-1/4 HSB A325	[M13x32]
9	12	210063GA	BOLT ASSY 7/8 X 3-1/2 HSB A325	[M22x89]

GENERAL NOTES:

1. LEG PART NUMBER IS STAMPED AT THE BOTTOM OF EACH LEG AND MUST BE LOCATED AT THE BOTTOM OF THE SECTION FOR PROPER ASSEMBLY.
2. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
3. FLANGE BOLTS ARE FOR FLANGE PLATES AT THE BOTTOM OF THE SECTION.
4. DRAWING IS N.T.S. AND IS FOR ASSEMBLY PURPOSES ONLY.
5. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.



VIEW B-B



SECTION A-A

FLANGE	OFFSET	BEVEL	FLANGE PLATE (P/N)	SPREAD
TOP	N/A	N/A	6" X 6" X 3/4" (P/N: R-6C)	6'-7 1/4" [2013mm]
BOTTOM	1/4" [6mm] STD	N/A	7" X 7" X 1" (P/N: R-7A)	8'-7 5/8" [2632mm]

FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REDRAWN NEW AUTOCAD FORMAT. DATE: Mar/29/2008	KB2	KTL	HA
2	UPDATED TO NEW STANDARDS DATE: Apr/12/2010	CHW	KTL	HA

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
SECTION ASSEMBLY
DETAILS FOR SSV 8N111
GENERIC

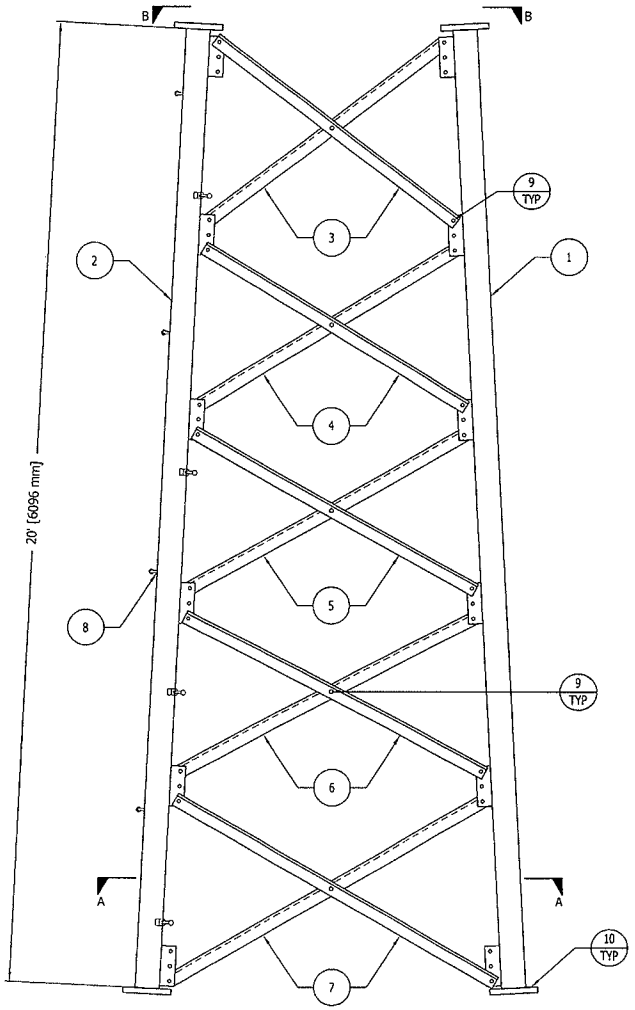
DWN:	CHK'D:	DATE:
AJG	JHD	Jun/04/1980

ENG'R: OH

DRAWING NO: A800209 REV: 2

Apr/13/2010 1:34:42 PM

\\Revision\

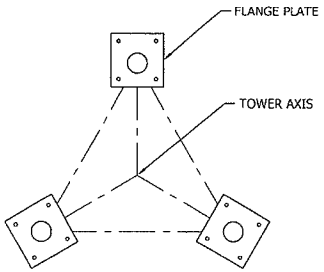


ELEVATION VIEW

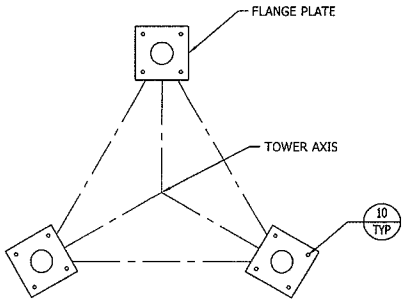
ITEM	QTY	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL133	LEG SSV 6-7N 2.5EH 20' 5 6OF	[PIPE 76mm EH]
2	1	VL133S	LEG SSV 6-7N 2.5EH 20' 5 6OF	[PIPE 76mm EH]
3	6	N71	BRACE DS SS7T L1.5X.13X5.71'	[L 38x38x3]
4	6	N72	BRACE DS SS7T L1.5X.13X6.03'	[L 38x38x3]
5	6	N73	BRACE DS SS7T L1.5X.13X6.35'	[L 38x38x3]
6	6	N74	BRACE DS SS7T L1.5X.13X6.69'	[L 38x38x3]
7	6	N75	BRACE DS SS7T L1.5X.13X6.92'	[L 38x38x3]
8	16	5/8STEP	BOLT ASSY STEP 5/8X7 W/DBN	[M16x178]
9	75	210017GA	BOLT ASSY 1/2 X 1-1/4 HSB A325	[M13x32]
10	12	210050GA	BOLT ASSY 3/4 X 2-3/4 HSB A325	[M19x70]

GENERAL NOTES:

1. LEG PART NUMBER IS STAMPED AT THE BOTTOM OF EACH LEG AND MUST BE LOCATED AT THE BOTTOM OF THE SECTION FOR PROPER ASSEMBLY.
2. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
3. FLANGE BOLTS ARE FOR FLANGE PLATES AT THE BOTTOM OF THE SECTION.
4. DRAWING IS N.T.S. AND IS FOR ASSEMBLY PURPOSES ONLY.
5. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.



VIEW B-B



SECTION A-A

FLANGE	OFFSET	BEVEL	FLANGE PLATE (P/N)	SPREAD
TOP	N/A	N/A	5" X 5" X 3/4" (P/N: R-5C)	4'-6 3/4" [1391mm]
BOTTOM	1/4" [6mm] STD	N/A	6" X 6" X 3/4" (P/N: R-6A)	6'-7 1/4" [2013mm]

FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
2	UPDATED TO NEW STANDARDS DATE: Apr/13/2010	CHW	KTL	HA

DWG REFERENCE

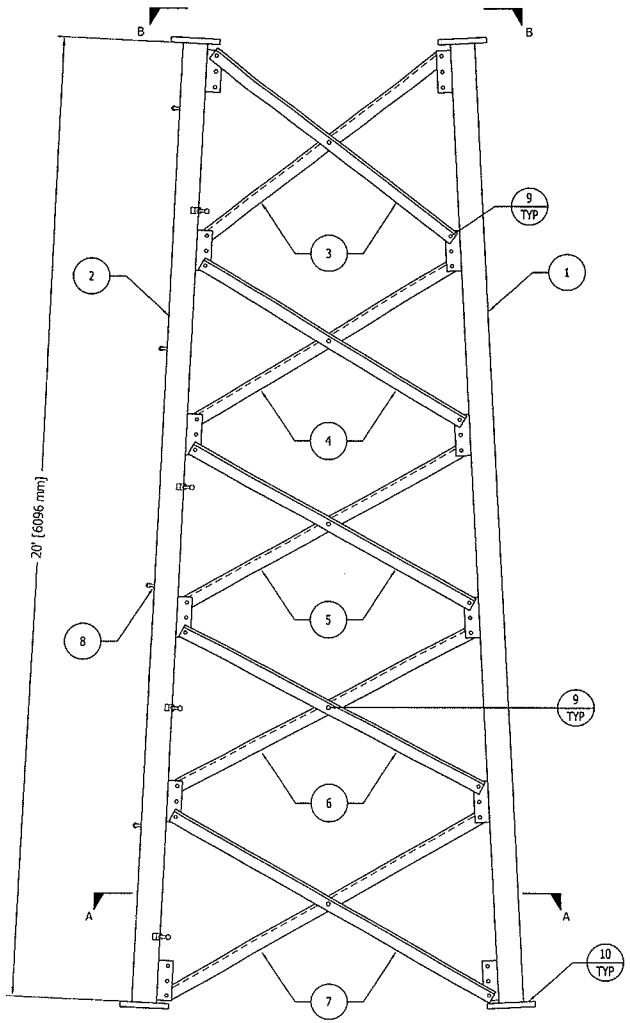
ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
SECTION ASSEMBLY
DETAILS FOR SSV 7N29
GENERIC

DWN:	CHK'D:	DATE:
AED	OH	Sep/11/1978

ENG'R: T.S

DRAWING NO: A780168 REV: 2

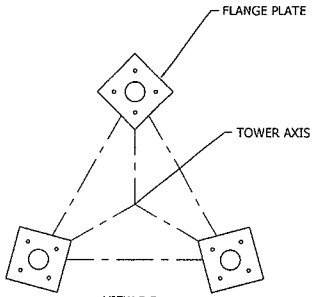


ELEVATION VIEW

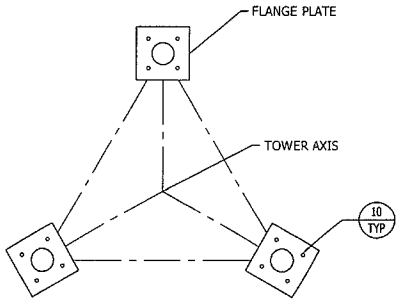
ITEM	QTY	PART NO.	DESCRIPTION	DWG. NO.
1	2	VL649	LEG SSV 6-7N 2.5STD 20' 5-5	[PIPE 64mmSTD]
2	1	VL649S	LEG SSV 6-7N 2.5STD 20' 5-5	[PIPE 64mmSTD]
3	6	N61	BRACE DS SS6T L1.5X.13X4.39'	[L 38x38x3]
4	6	N62	BRACE DS SS6T L1.5X.13X4.61'	[L 38x38x3]
5	6	N63	BRACE DS SS6T L1.5X.13X4.86'	[L 38x38x3]
6	6	N64	BRACE DS SS6T L1.5X.13X5.14'	[L 38x38x3]
7	6	N65	BRACE DS SS6T L1.5X.13X5.28'	[L 38x38x3]
8	16	5/8STEP	BOLT ASSY STEP 5/8X7 W/DBN	[M16x178]
9	75	210017GA	BOLT ASSY 1/2 X 1-1/4 HSB A325	[M13x32]
10	12	210033GA	BOLT ASSY 5/8 X 2-1/2 HSB A325	[M16x64]

GENERAL NOTES:

1. LEG PART NUMBER IS STAMPED AT THE BOTTOM OF EACH LEG AND MUST BE LOCATED AT THE BOTTOM OF THE SECTION FOR PROPER ASSEMBLY.
2. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
3. FLANGE BOLTS ARE FOR FLANGE PLATES AT THE BOTTOM OF THE SECTION.
4. DRAWING IS N.T.S. AND IS FOR ASSEMBLY PURPOSES ONLY.
5. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.



VIEW B-B



SECTION A-A

FLANGE	OFFSET	BEVEL	FLANGE PLATE (P/N)	SPREAD
TOP	N/A	3 1/3° REV	5" X 5" X 3/4" (P/N: R-5C)	2'-6 1/2" [775mm]
BOTTOM	N/A	N/A	5" X 5" X 3/4" (P/N: R-5C)	4'-6 3/4" [1391mm]

FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	REDRAWN TO NEW AUTOCAD FORMAT. DATE: Oct/18/2005	KB3	JDM	H.A
2	REVISED VIEW 'B-B' DATE: Oct/07/2008	LGC	JDM	HA
3	UPDATED TO NEW STANDARDS DATE: Apr/12/2010	CHW	KTL	H.A

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
SECTION ASSEMBLY
DETAILS FOR SSV 6N69
GENERIC

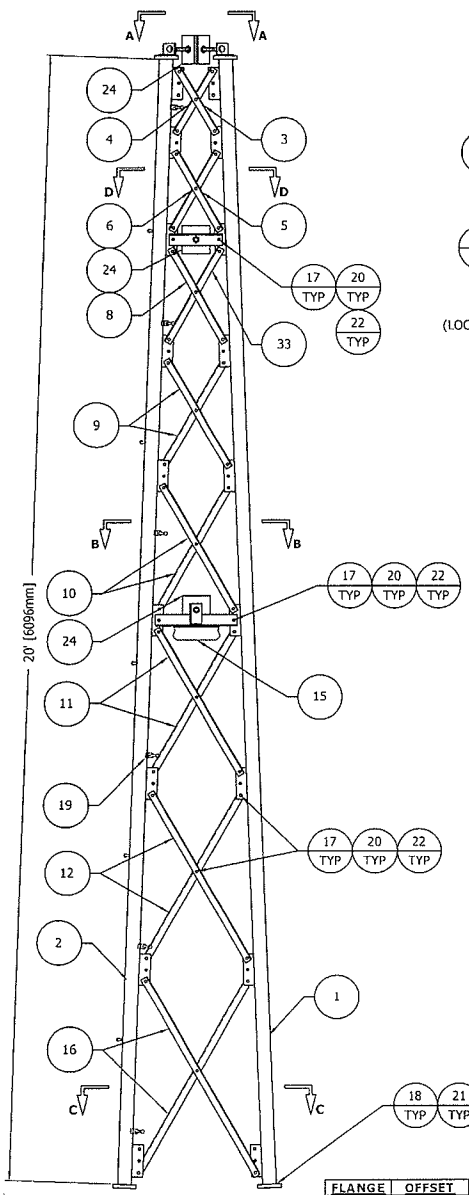
DWN:	CHK'D:	DATE:
AED	KTL	Dec/21/1979

ENG'R: TWS

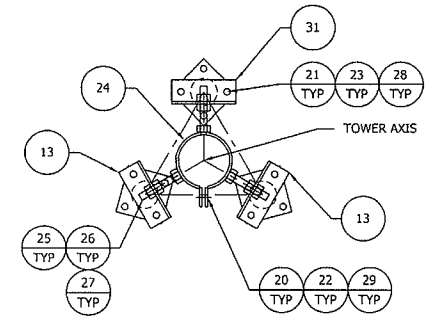
DRAWING NO: A790310 REV: 3

Apr/13/2010 1:32:25 PM

\Erection\



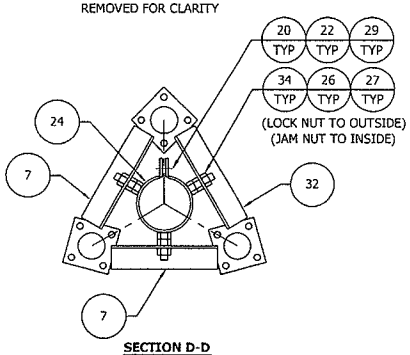
ELEVATION VIEW



(LOCK NUT TO OUTSIDE)

VIEW A-A

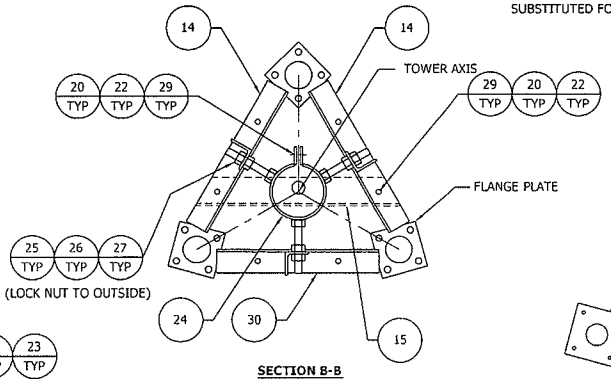
BRACES AND BRACE CLIPS REMOVED FOR CLARITY



(LOCK NUT TO OUTSIDE)
(JAM NUT TO INSIDE)

SECTION D-D

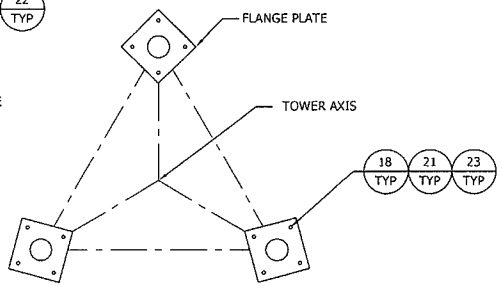
(BRACE CLIPS REMOVED FOR CLARITY)



(LOCK NUT TO OUTSIDE)

SECTION B-B

(BRACE CLIPS REMOVED FOR CLARITY)



SECTION C-C

FLANGE	OFFSET	BEVEL	FLANGE PLATE (P/N)	SPREAD
TOP	N/A	2 1/2°REV	5"x5"x3/4" (R-SC)	1'- 0 1/2" [318mm]
BOTTOM	N/A	2 1/2°STD	5"x5"x3/4" (R-SC)	2'- 6 1/2" [775mm]

ITEM	PART NO.	QTY.	DESCRIPTION	
1	R-VG52	2	LEG WGT VG1S 2.5STD 20' 5-5 S9	[PIPE 64mm STD]
2	R-VG52S	1	LEG WGT VG1S 2.5STD 20' 5-5 S9	[PIPE 64mm STD]
3	R-VG62	3	BRACE D VG1S L1.5X.19X1.339'	[L 38x38x5]
4	R-VG868	3	BRACE D VG1S L1.5X.19X1.341'	[L 38x38x5]
5	R-VG63	3	BRACE D VG1S L1.5X.19X1.615'	[L 38x38x5]
6	R-VG869	3	BRACE D VG1S L1.5X.19X1.617'	[L 38x38x5]
7	R-VG866	2	ANGLE SUPP L2.5X.25X11.25" HDG	[L 64x64x6]
8	R-VG64	3	BRACE D VG1S L1.5X.19X1.896'	[L 38x38x5]
9	R-VG54	6	BRACE D VG1S L1.5X.19X2.193'	[L 38x38x5]
10	R-VG55	6	BRACE D VG1S L1.5X.19X2.594'	[L 38x38x5]
11	R-VG56	6	BRACE D VG1S L1.5X.19X2.969'	[L 38x38x5]
12	R-VG57	6	BRACE D VG1S L1.5X.19X3.46'	[L 38x38x5]
13	R-VG867	2	ANGLE SUPP L2.5X.25X6.81" HDG	[L 64x64x6]
14	R-VG864	2	ANGLE SUPP L2.5X.25X1.448' HDG	[L 64x64x6]
15	R-VG865	1	ANGLE SUPP L3X.25X1.75' HDG	[L 76x76x6]
16	R-VG58	6	BRACE D VG1S L1.5X.19X4.01'	[L 38x38x5]
17	R-210017G	132	BOLT 1/2 X 1-1/4 HSB A325 HDG	[M12x32]
18	R-210033G	12	BOLT 5/8x2-1/2 HSB A325 HDG	[M16x64]
19	R-5/8STEP	16	BOLT ASSY STEP 5/8X7 W/DBN	[M16x170]
20	110143	143	HEX NUT 1/2 (13 UNC) 2H GAL	[M12]
21	110146	18	HEX NUT 5/8 (11 UNC) 2H GALV	[M16]
22	110160	143	Nut 1/2 (Jam - Pal) HDG	[M12]
23	110161	18	Nut 5/8 (Jam - Pal) HDG	[M16]
24	R-KH8082	3	PIPE SUPP 6.0ODX.19WX6.0"	[PIPE 152]
25	R-230020	6	NUT HVY HEX 3/4 DH TO HDG	[M19]
26	R-75CTLFG/2H	9	LOCK NUT 3/4 A563 HDG	[M19]
27	R-290035	9	THREADED ROD 3/4(-10)X6.0"	[M19x152]
28	R-210032G	6	BOLT 5/8x2-1/4 HSB A325 HDG	[M16x57]
29	R-210018G	11	BOLT 1/2 X 1-1/2 HSB A325 HDG	[M12x38]
30	R-VG864S	1	ANGLE SUPP L2.5X.25X1.448' HDG	[L 64x64x6]
31	R-VG867S	1	ANGLE SUPP L2.5X.25X6.81" HDG	[L 64x64x6]
32	R-VG866S	1	ANGLE SUPP L2.5X.25X11.25" HDG	[L 64x64x6]
33	R-VG889	3	BRACE D VG1S L1.5X.19X1.90'	[L 38x38x5]
34	R-230082	3	NUT HVY HEX JAM 3/4"	[M19]

GENERAL NOTES:

1. LEG PART NUMBER IS STAMPED AT THE BOTTOM OF EACH LEG AND MUST BE LOCATED AT THE BOTTOM OF THE SECTION FOR PROPER ASSEMBLY.
2. STEP BOLTS ARE PROVIDED ON ONE LEG ONLY.
3. FLANGE BOLTS ARE FOR FLANGE PLATES AT THE BOTTOM OF THE SECTION.
4. DRAWING IS N.T.S. AND IS FOR ASSEMBLY PURPOSES ONLY.
5. NOMINAL METRIC EQUIVALENTS ARE GIVEN FOR REFERENCE ONLY AND SHALL NOT BE SUBSTITUTED FOR THE DESCRIBED SIZES UNLESS OTHERWISE APPROVED BY ROHN PRODUCTS.

FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	ADDED SECTION D-D; REVISED BOM DATE: Sep/09/2009	M.F	JDM	HA
2	ADDED D BRACE P/N: VB2186 DATE: Sep/24/2009	M.F	JDM	HA
3	ADDED ITEM 34 TO B.O.M; UPDATED B.O.M. DATE: Jan/25/2010	M.F	JDM	HA
4	REVISED B.O.M. DATE: Jan/25/2010	M.F	JDM	HA
5	ADDED NOTE TO VIEW A-A DATE: Feb/12/2010	M.F	JDM	HA

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
SECTION ASSEMBLY
DETAILS FOR SSV VG861A
GENERIC

DWN:	CHK'D:	DATE:
M.F	JDM	May/26/2009

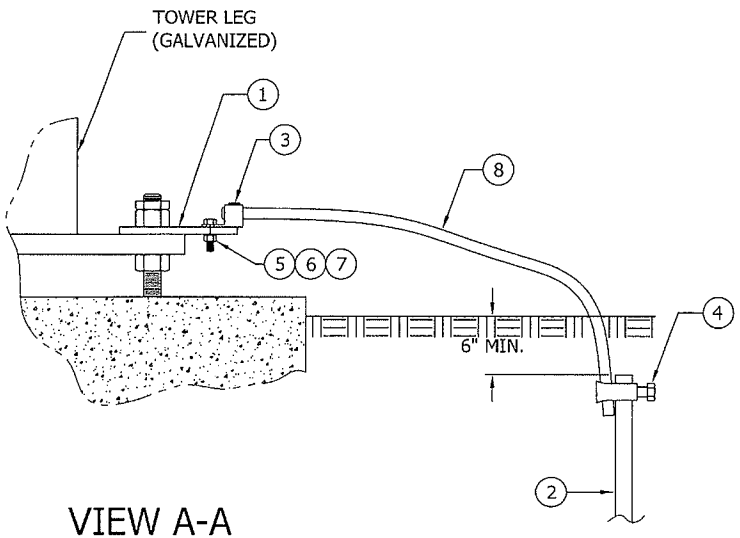
ENG'R: HA

DRAWING NO: VG861A

REV: 5

Feb/16/2010 2:01:58 PM

\\Section\



VIEW A-A

ITEM	QTY	PART NO.	ITEM DESCRIPTION
1	1	SEE CHART	GROUND LUG
2	2	6260	ROD GROUND 5/8" X 10' COP CLAD
3	1	ADR25-21	LUG, GALVAN 6 - 250 ALCU
4	2	340016	CLAMP NO.8034 WB 3/4
5	1	220021	SCREW 1/4 X 1 HHMS SIL BRONZE
6	1	240006	NUT 1/4 HEX SILICONE BRONZE
7	2	250004	WASHER 1/4 FLAT SILICON
8	2	150400-30	7/16 6X25 EIP IWRC RRL GALV x 30'

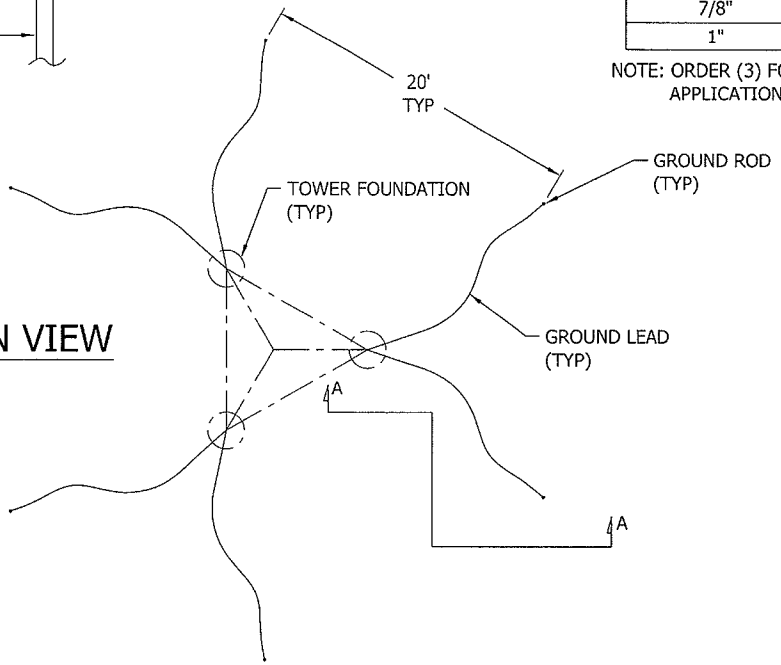
(B.O.M. SHOWN IS FOR ONE LEG ONLY)

ORDERING INFO	
ANCHOR ROD SIZE	ASSY. P/N
1/2"	R-BGK4GGX
5/8"	R-BGK5GGX
3/4"	R-BGK6GGX
7/8"	R-BGK7GGX
1"	R-BGK8GGX

NOTE: ORDER (3) FOR TYPICAL REV. G APPLICATIONS

ANCHOR BOLT SIZE	GROUND PLATE
1/2"	GL4
5/8"	GL5
3/4"	GL6
7/8"	GL7
1"	GL8

PLAN VIEW



FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE

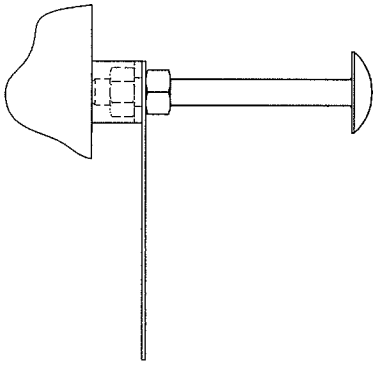
ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
GROUNDING
TIA-222-G STANDARD - SS TWRS (GALV)
GENERIC

DWN:	CHK'D:	DATE:
J.K	JDM	Dec/27/2007

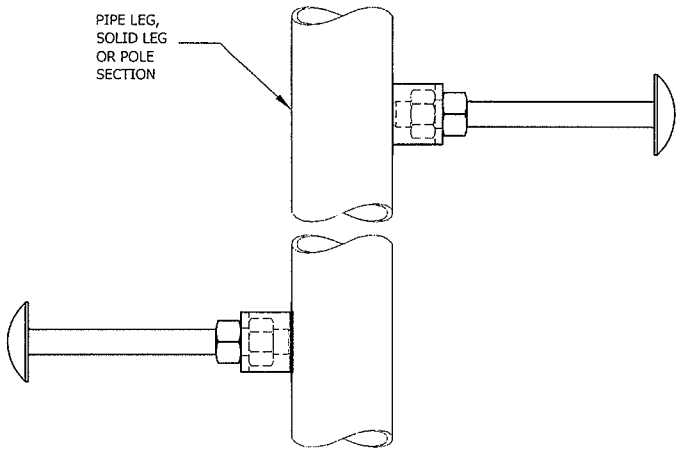
ENG'R: DWG

DRAWING NO: B070997 REV: 0



STEP BOLTS TO BE CLIMBED BY A COMPETENT CLIMBER ONLY. 100% FALL PROTECTION IS REQUIRED AT ALL TIMES. CLIMBING STEP BOLTS IS DANGEROUS AND CAN CAUSE SERIOUS INJURY OR DEATH. PERFORM AN INSPECTION PRIOR TO CLIMBING TO IDENTIFY POTENTIAL CLIMBING HAZARDS.

STEP BOLTS SPACING AT SECTION JOINTS MAY NOT BE CONSISTENT WITH THE SPACING THROUGHOUT THE STRUCTURE. FLANGE PLATES AT SECTION JOINTS, GUYS, ATTACHMENTS TO LEGS, ETC. MAY BE AN OBSTRUCTION TO CONTINUOUS CLIMBING.



STEP BOLT CLIMBING WARNING SIGN

(INSTALL WARNING SIGN IN BOTTOM 5' OF STRUCTURE)

NOTE

1. STEP BOLTS MUST BE TURNED UNTIL THE FRONT EDGE OF THE BOLT TOUCHES THE SIDE OF THE STRUCTURE.
2. STEP BOLTS ARE SUPPLIED FOR CONSTRUCTION PURPOSES AND ARE NOT INTENDED FOR USE BY UNQUALIFIED PERSONNEL.
3. DEVIATION FROM PERFECT ALIGNMENT IS ACCEPTABLE. SOME SPACING INCONSISTENCY MAY EXIST AT SPLICE LOCATIONS.
4. IF STEP BOLTS ARE BELIEVED TO PRESENT SAFETY PROBLEMS TO PERSONNEL, DO NOT INSTALL THE STEP BOLTS.

FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	DATE: Aug/21/2005			
2	DATE: Aug/21/2005			
3	UPDATED DATE: Aug/22/2005	JDM	HA	HA
4	ADDED WARNING SIGN DATE: Mar/15/2006	JDM	JWS	H.A
5	REVISED GENERAL NOTES DATE: Feb/28/2007	JDM	M.F	H.A

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
LEG
STEP BOLT INSTALLATION DETAIL
GENERIC

DWN:	CHK'D:	DATE:
OH	TWS	Apr/16/1974

ENG'R: CW

DRAWING NO: B651264 REV: 5

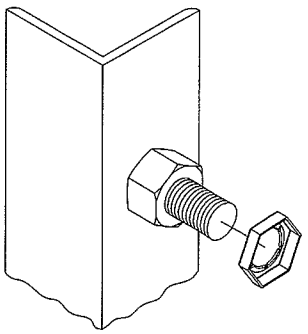
ASSEMBLY BOLT INSTALLATION

1. ALL STRUCTURE ASSEMBLY BOLTS ARE TO BE INSERTED OUT AND/OR UP, (EX. WITH NUTS AND PAL NUTS ON OUTSIDE OF TOWER FACE AND/OR ON TOP FLANGE PLATES) UNLESS PROHIBITED BY LACK OF CLEARANCE.
2. ALL ASSEMBLY AND ANCHOR BOLTS ARE TO BE TIGHTENED IN ACCORDANCE WITH ANSI/TIA/EIA-222-F 1996 SECTION 1.1.3.2 - (WHERE HIGH STRENGTH BOLTS ARE USED FOR BEARING-TYPE CONNECTIONS, AS A MINIMUM, THE BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE NOVEMBER 13, 1985, AISC, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS").
3. FLAT WASHERS ARE TO BE INSTALLED WITH BOLTS OVER SLOTTED HOLES.

CAUTION: DO NOT OVER TORQUE !! GALVANIZING ON BOLTS, NUTS AND STEEL PARTS MAY ACT AS A LUBRICANT, THUS OVER TIGHTENING MAY OCCUR AND MAY CAUSE BOLT TO CRACK AND SNAP OFF.

PAL NUT INSTALLATION

1. PAL NUTS ARE TO BE INSTALLED AFTER NUTS ARE TIGHT AND WITH EDGE LIP OUT (SEE PICTURE). PAL NUTS ARE NOT REQUIRED WHEN SELF-LOCKING NUTS OR LOCK WASHERS ARE PROVIDED.



FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP
1	DATE: Aug/21/2005			
2	DATE: Aug/21/2005			
3	DATE: Aug/21/2005			
4	DATE: Aug/21/2005			
5	DATE: Aug/21/2005			
6	UPDATED DATE: Aug/22/2005	JDM	HA	HA

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

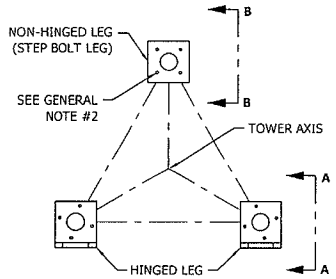
VENTERA ENERGY CORP. RSSV-130G

BOLT ASSEMBLY INSTALLATION GENERIC

DWN:	CHK'D:	DATE:
OH		Jul/05/1979

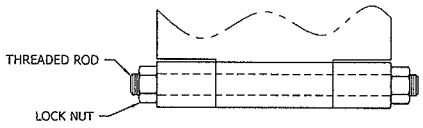
ENG'R: TWS

DRAWING NO: A790135 REV: 6

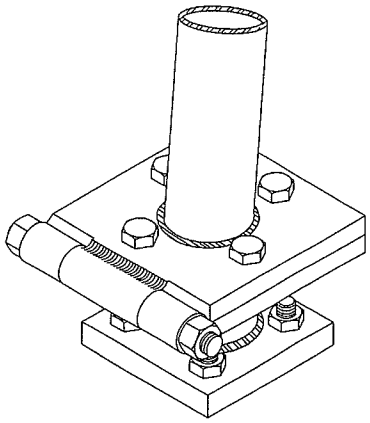


PLAN VIEW OF TOWER BASE

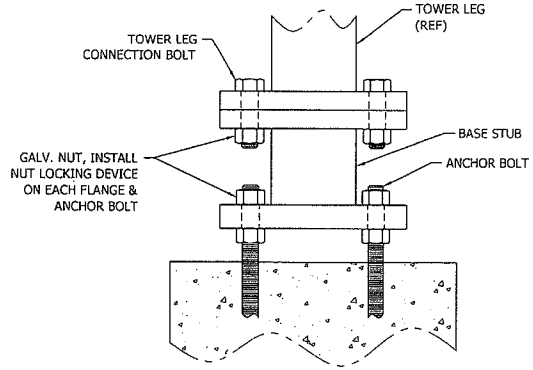
NOTE:
THE ANCHOR BOLT LAYOUT (NUMBER OF ANCHOR BOLTS, BOLT CIRCLE, ORIENTATION, ETC.) FOR A HINGED BASE KIT MAY BE DIFFERENT THAN THE ANCHOR BOLT LAYOUT FOR THE STRUCTURE WITHOUT A HINGED BASE. VERIFY ALL DIMENSIONS PRIOR TO CASTING ANCHOR BOLTS INTO A FOUNDATION.



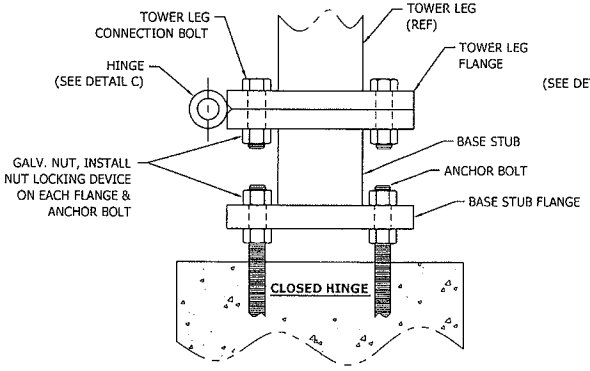
DETAIL C
HINGE

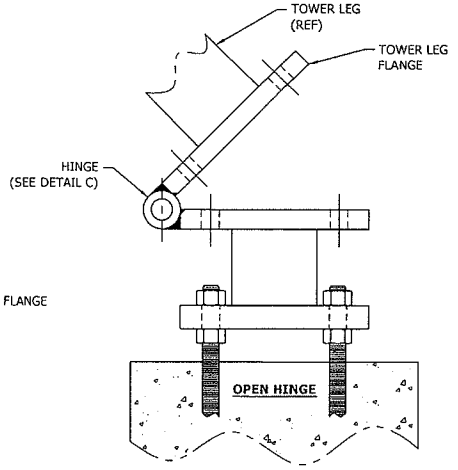


PICTORIAL VIEW



VIEW B-B
NON-HINGED LEG





VIEW A-A
HINGED LEG

GENERAL NOTES

1. HINGED BASE KITS ARE AVAILABLE AS AN OPTION FOR ROHN MODEL SSV LATTICED SELF-SUPPORTING TOWERS. THEY ARE INTENDED FOR USE BY EXPERIENCED CONTRACTORS ONLY.
2. DRAWING IS N.T.S. AND IS FOR GENERAL INFORMATION PURPOSES ONLY. NUMBER OF FLANGE AND ANCHOR BOLTS VARY BASED ON TOWER TYPE. REFER TO ANCHOR BOLT LAYOUT PROVIDED FOR A SPECIFIC TOWER FOR PROPER ANCHOR BOLT INFORMATION.
3. THE MEANS AND METHODS OF RAISING AND LOWERING A TOWER MUST BE ESTABLISHED IN A CONTRACTOR'S RIGGING PLAN. ALL FORCES SHALL BE CONSIDERED FOR RIGGING, INCLUDING BUT NOT LIMITED TO THE ANTICIPATED WIND LOADING, THE WEIGHT OF THE TURBINE AND THE WEIGHT OF THE STRUCTURE AND ALL APPURTENANCES. RIGGING ATTACHMENTS SHALL NOT RESULT IN PERMANENT DEFORMATION OF ANY COMPONENT.
4. ALL BASE FLANGE BOLTS MUST BE INSTALLED WHENEVER THE TOWER IS IN A SELF-SUPPORTED CONDITION. HINGE PINS MUST BE PROPERLY INSTALLED AND THE TOWER PROPERLY SUPPORTED IN ACCORDANCE WITH THE RIGGING PLAN PRIOR TO REMOVING ANY FLANGE BOLTS IN PREPARATION OF LOWERING THE TOWER.
5. FLANGE BOLTS ARE A325 GALVANIZED BOLTS WHICH SHOULD NOT BE REUSED AFTER THEY HAVE BEEN TIGHTENED. ALL FLANGE BOLTS MUST BE REPLACED WITH A325 BOLTS OF THE SAME SIZE AND LENGTH AND INSTALLED PRIOR TO REMOVING THE TEMPORARY SUPPORT OF THE STRUCTURE. NUT LOCKING DEVICES MUST BE INSTALLED ON ALL FLANGE AND ANCHOR BOLTS.

WARNING: RAISING AND LOWERING A TOWER CAN BE A DANGEROUS OPERATION IF NOT PERFORMED IN ACCORDANCE WITH A RIGGING PLAN PREPARED BY AN EXPERIENCED CONTRACTOR. TOWERS MUST BE RAISED OR LOWERED BY EXPERIENCED CONTRACTORS ONLY.

FILE NO. 100093

REVISIONS

REV.	DESCRIPTION	DWN	CHK	APP

DWG REFERENCE

ROHN PRODUCTS LLC
PO BOX 5999
PEORIA, IL 61601-5999
TOLL FREE 800-727-ROHN

VENTERA ENERGY CORP. RSSV-130G
BASE PLATE
HINGE ASSEMBLY PROFILE
GENERIC

DWN:	CHK'D:	DATE:
M.F	JDM	Jun/11/2010

ENG'R: HA

DRAWING NO: DWG-0127 REV: 0