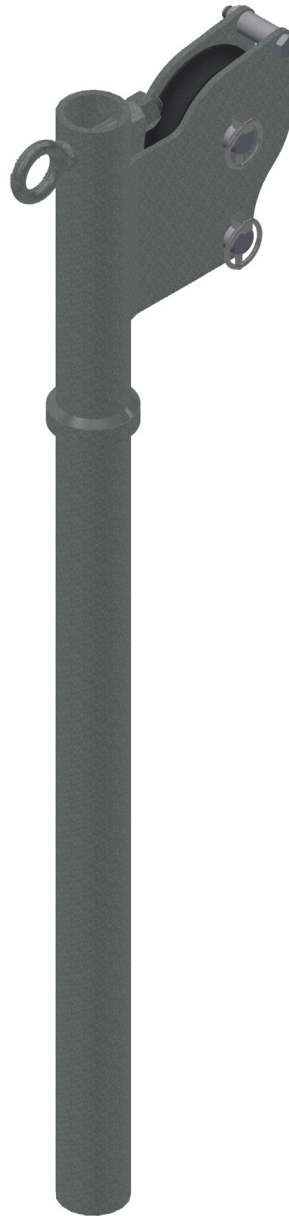




Read this Owner's Manual thoroughly before operating the equipment. Keep it with the equipment at all times. Replacements are available from Thern, Inc., PO Box 347, Winona, MN 55987, 507-454-2996. [www.thern.com](http://www.thern.com)

**IMPORTANT:** Please record product information on page 2. This information is required when calling the factory for service.

**ORIGINAL TEXT**



# Owner's Manual

For  
3CP-RH Antenna Pipe Rooster Head

## Two-Year Limited Warranty

**Please record the following:**

Date Purchased: \_\_\_\_\_

Model No.: \_\_\_\_\_

Serial No.: \_\_\_\_\_

**This information is required when calling the factory for service.**

Thern, Inc. warrants its products against defects in material or workmanship for two years from the date of purchase by the original using buyer, or if this date cannot be established, the date the product was sold by Thern, Inc. to the dealer. To make a claim under this warranty, contact the factory for an RGA number. The product must be returned, prepaid, directly to Thern, Inc., 5712 Industrial Park Road, Winona, Minnesota 55987. The following information must accompany the product: the RGA number, the date of purchase, the description of the claimed defect, and a complete explanation of the circumstances involved. If the product is found to be defective, it will be repaired or replaced free of charge, and Thern, Inc. will reimburse the shipping cost within the contiguous USA.

This warranty does not cover any damage due to accident, misuse, abuse, or negligence. Any alteration, repair or modification of the product outside the Thern, Inc. factory shall void this warranty. This warranty does not cover any costs for removal of our product, downtime, or any other incidental or consequential costs or damages resulting from the claimed defects. This warranty does not cover brake discs, wire rope or other wear components, as their life is subject to use conditions which vary between applications.

FACTORY AUTHORIZED REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY TO THE CONSUMER. THERN, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**Note: Thern, Inc. reserves the right to change the design or discontinue the production of any product without prior notice.**

## About This Manual

The Occupational Safety and Health Act of 1970 states that it is the employer's responsibility to provide a workplace free of hazard. To this end, all equipment should be installed, operated, and maintained in compliance with applicable trade, industrial, federal, state, and local regulations. It is the equipment owner's responsibility to obtain copies of these regulations and to determine the suitability of the equipment to its intended use.

This Owner's Manual, and warning labels attached to the equipment, are to serve as guidelines for hazard-free installation, operation, and maintenance. They should not be understood to prepare you for every possible situation.

The information contained in this manual is applicable only to the Thern 3CP-RH Antenna Pipe Rooster Head. Do not use this manual as a source of information for any other equipment.

**The following symbols are used for emphasis throughout this manual:**

**▲WARNING**

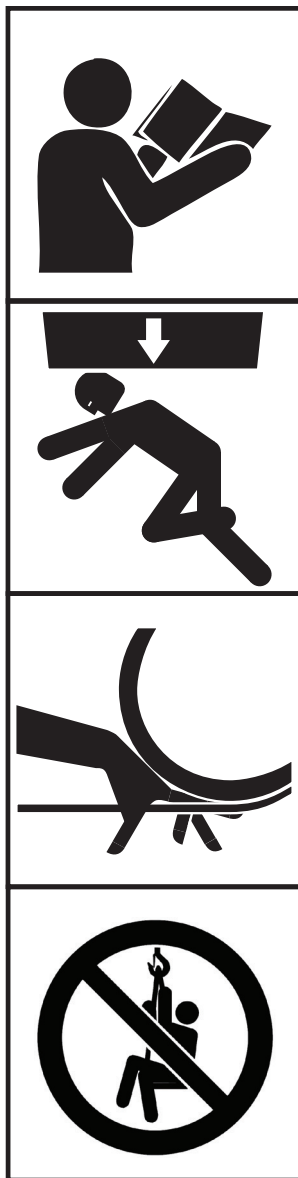
Failure to follow 'WARNING!' instructions may result in equipment damage, property damage, and/or serious personal injury.

**▲CAUTION**

Failure to follow 'CAUTION!' instructions may result in equipment damage, property damage, and/or minor personal injury.

**Important!**

Failure to follow 'important!' instructions may result in poor performance of the equipment.



## Suggestions for Safe Operation

### **⚠WARNING**

#### **DO the following:**

Read and comply with the guidelines set forth in this Owner's Manual. Keep this manual, and all labels attached to the product, readable and with the equipment at all times. Contact Thern, Inc. for replacements.

Inspect the equipment before each use. Remove equipment from use and have it repaired or replaced if there are signs of damage or overloading.

Keep hands away from sheaves, rope, and other moving parts.

Keep all unnecessary personnel away from equipment while in operation.

Keep out of the path of the load, and out of the path of a broken rope that might snap back and cause injury.

Make sure the load path is clear of obstructions. Use a secondary tag line to help control the lifted load.

Make sure that a qualified person has reviewed the entire operation, equipment, rigging, support pipe, etc. for compatibility as well as sufficient strength and safety factors.

### **⚠WARNING**

#### **DO NOT do the following:**

Do not exceed the load rating of any component in the system. Rooster Head load rating varies with lift type and lift angle! Always refer to load chart.

Do not lift people, or things over people. Do not walk or work under a load or in the line of force of any load.

Do not use damaged or malfunctioning equipment.

Do not use the equipment for anything other than its intended function.

Do not modify the equipment in any way.

Do not divert your attention from the operation. Stay alert to the possibility of accidents and try to prevent them from happening.

Do not jerk or swing the load. Avoid shock loads by starting and stopping the load smoothly. Shock loads overload the equipment and may cause damage.

Do not leave a suspended load unattended. Place the load on the ground if it must be left unattended.

Do not use the equipment alone. Have sufficient personnel available and keep communication open.

Do not run the load or rope endings into the Rooster Head sheave.

Do not use with incompatible support pipes or with insufficient safety factor.

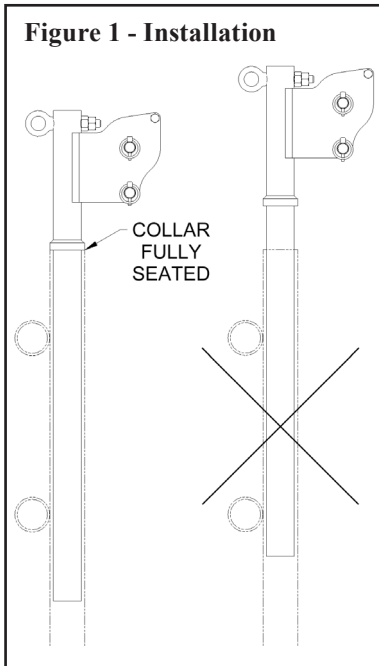
Do not use the Rooster Head as a fall arrest anchorage.

## 1.1 Installing the Rooster Head

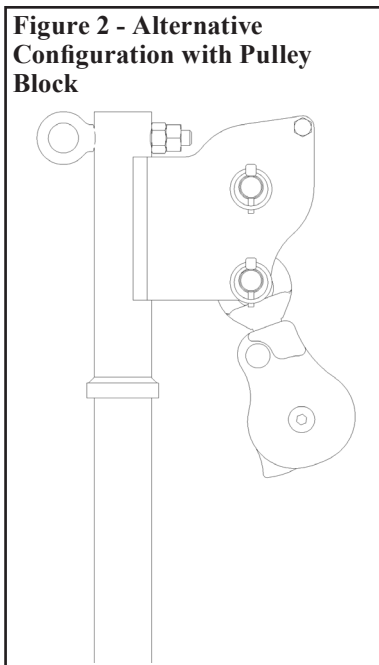
### **⚠WARNING**

Inspect the equipment before each use. Remove equipment from use and have it repaired or replaced if there are signs of damage or overloading.

Make sure that a qualified person has reviewed the entire operation, equipment, rigging, support pipe, etc. for compatibility as well as sufficient strength and safety factors.

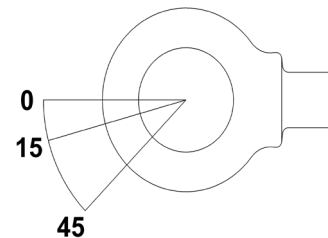


- 1.1.1 INSTALL ROOSTER HEAD in supporting 2-inch antenna pipe or gin pole by inserting until the collar is fully seated. **See Figure 1.**
- 1.1.2 INSTALL THE ROPE By passing rope end between the side plates and over the sheave. If necessary, the sheave can be removed and then replaced to install the rope. **Recommended for use with 1/2" - 5/8" double braid or kernmantle ropes.**
- 1.1.3 ALTERNATE CONFIGURATIONS are possible by using the second supplied clevis pin for either two-part line or pulley block. **See Figure 2.**
- 1.1.4 REACTION LOADS can be partly transferred to the supporting structure by connecting a tie-back device (such as an adjustable lever hoist) to the eye bolt on the rooster head. Eye bolt capacity is reduced when loaded at an angle from the bolt axis. Do not exceed the load rating of the Rooster Head.

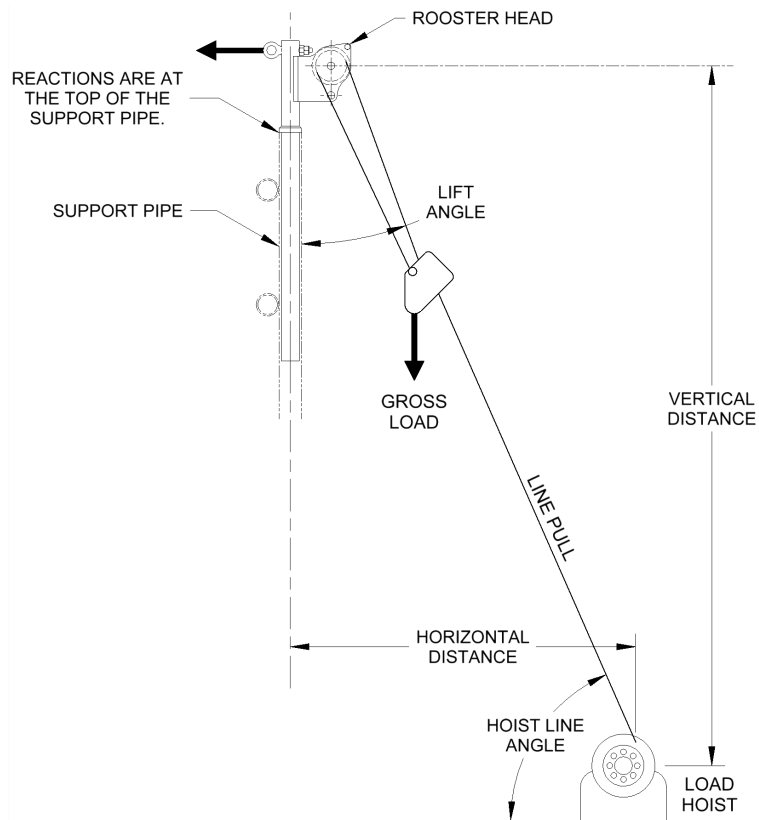


### Eye Bolt Capacity:

up to 5 degrees	2100 lbs
6 to 15 degrees	1155 lbs
16 to 45 degrees	525 lbs



## 1.2a Load Ratings and Reactions



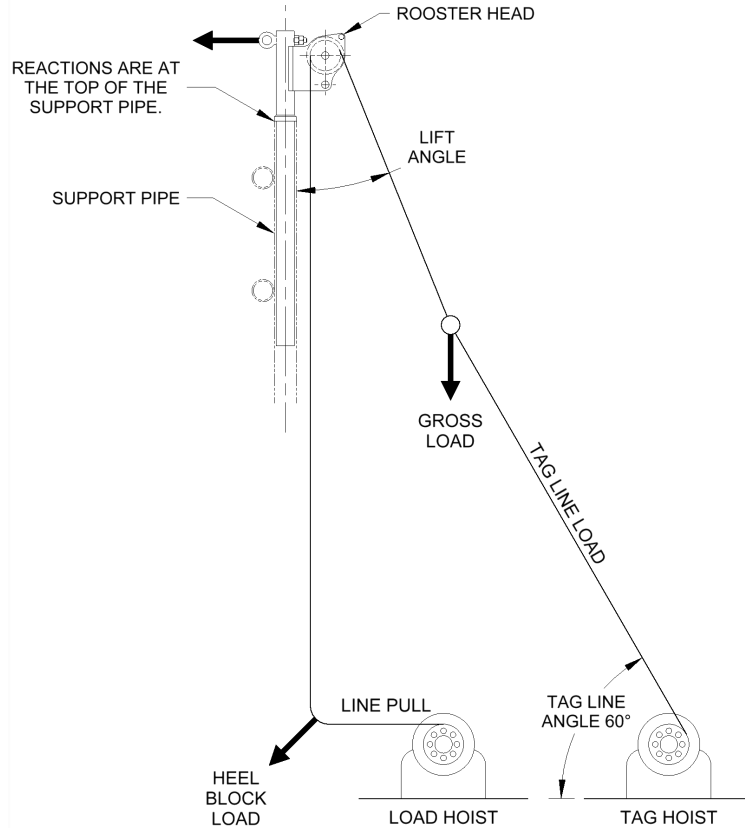
Rooster Head with Trolley Tag							
Max Lift Angle (deg)	Hoist Line Angle (deg)	Horizontal Vertical (%)	MAX Gross Load (lbs)	Line Pull (lbs)	Support Pipe Loads		
					Vertical (lbs)	Horizontal (lbs)	Moment (ft-lbs)
0	90	0.0%	500	500	1000	0	355
5	85	8.7%	440	442	880	77	357
10	80	17.6%	395	401	790	137	360
15	75	26.8%	360	373	720	186	364
20	70	36.4%	330	351	660	226	366
25	65	46.6%	305	337	610	258	367
30	60	57.7%	285	329	570	285	368
35	55	70.0%	270	330	540	310	372
40	50	83.9%	255	333	510	328	372

\* Max Lift Angle occurs when the load is near the ground.  
 \* Lift Angle decreases as the load gets closer to the rooster head.

### Important Notes :

- Gross Load is the total weight of a lifted load, overhaul ball, load line, tag line, and all associated rigging. Multiply the given reaction loads by the actual Gross Load and then divide by the MAX Gross Load to determine the actual reaction loads.
- Certain loads and lift angles shown in the load chart may require the involvement of a Qualified Engineer. Refer to ANSI/ASSP-A10.48 for requirements and construction plan classifications.

## 1.2b Load Ratings and Reactions



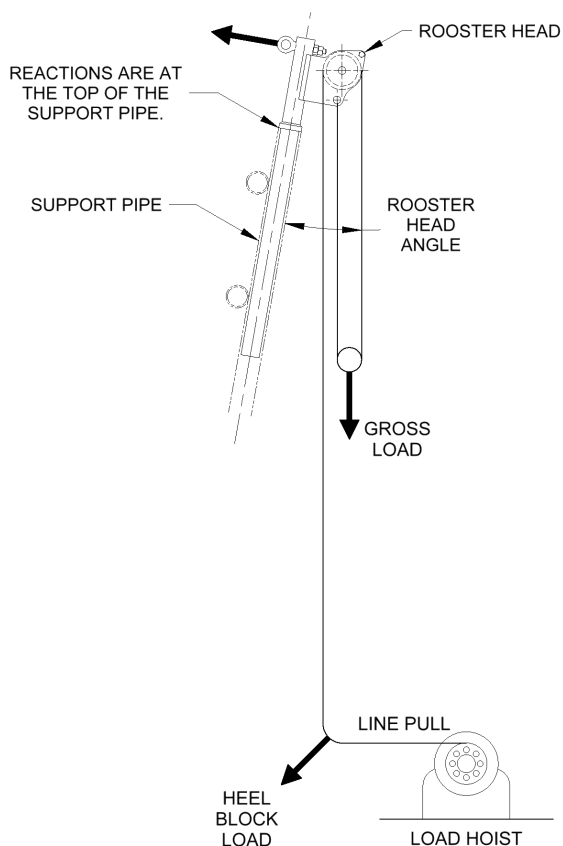
Rooster Head with Straight Tag								
Max Lift Angle (deg)	Tag Line Angle (deg)	MAX Gross Load (lbs)	Line Pull (lbs)	Tag Line Load (lbs)	Heel Block Load (lbs)	Support Pipe Loads		
			Vertical (lbs)	Horizontal (lbs)	Moment (ft-lbs)			
0.0	60	500	500	0	707	1000	0	355
2.5	60	450	487	43	689	974	21	358
5.0	60	400	473	82	669	945	41	359
7.5	60	350	457	119	647	911	60	358
10.0	60	305	446	115	631	885	77	359
12.5	60	260	432	187	611	854	94	357
15.0	60	220	425	220	601	836	110	360
17.5	60	180	416	250	588	812	125	361
20.0	60	140	403	276	570	782	138	358

\* Loads are based on a maximum Tag Line Angle of 60 degrees.  
 \* Use a rigging calculator to determines loads for other conditions.

### Important Notes :

- Gross Load is the total weight of a lifted load, overhaul ball, load line, tag line, and all associated rigging. Multiply the given reaction loads by the actual Gross Load and then divide by the MAX Gross Load to determine the actual reaction loads.
- Certain loads, lift angles, and/or tag angles shown in the load chart may require the involvement of a Qualified Engineer. Refer to ANSI/ASSP-A10.48 for requirements and construction plan classifications.

## 1.2c Load Ratings and Reactions



Rooster Head with Two-Part Line (No Tag)						
Rooster Head Angle (deg)	MAX Gross Load (lbs)	Line Pull (lbs)	Heel Block Load (lbs)	Support Pipe Loads		
				Axial (lbs)	Shear (lbs)	Moment (ft-lbs)
0.0	665	333	470	998	0	354
2.5	630	315	445	944	41	355
5.0	600	300	424	897	78	357
7.5	575	288	407	855	113	359
10.0	550	275	389	812	143	359
12.5	530	265	375	776	172	361
15.0	510	255	361	739	198	360

\* Loads are based on a maximum Tag Line Angle of 60 degrees.  
 \* Use a rigging calculator to determines loads for other conditions.

### Important Notes :

- a) Gross Load is the total weight of a lifted load, overhaul ball, load line, tag line, and all associated rigging. Multiply the given reaction loads by the actual Gross Load and then divide by the MAX Gross Load to determine the actual reaction loads.
- b) Certain loads and lift angles shown in the load chart may require the involvement of a Qualified Engineer. Refer to ANSI/ASSP-A10.48 for requirements and construction plan classifications.

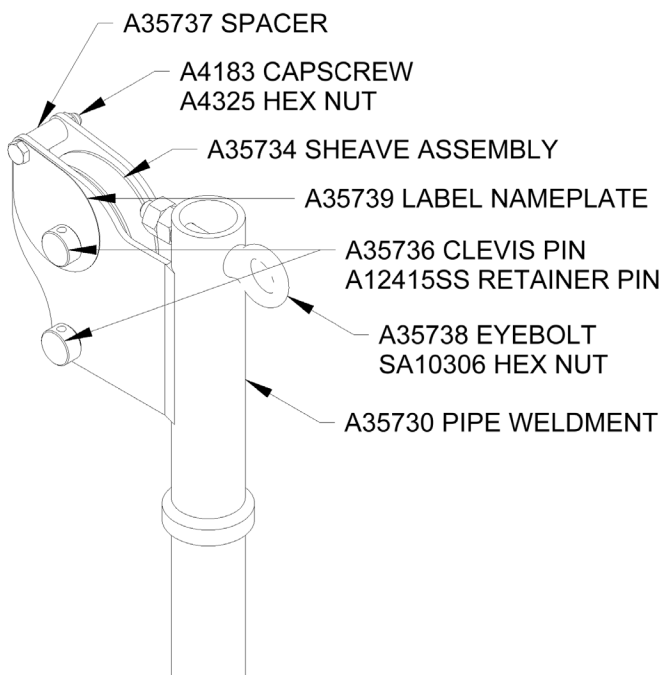
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## 1.3 Specifications

Safety Factor minimum	4.0
Impact Factor	1.3
Support Pipe Size (nominal)	2 inch
Sheave Diameter	4 inch
Synthetic Load Line	<u>1/2"</u> <u>5/8"</u>
D:d Ratio	7.5    6.2
Sheave Bearing	steel roller
Designed in accordance with	ANSI/TIA-322 and ANSI/ASSP-A10.48

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## 1.4 Component Parts



# Thern

## Winches & Cranes

**Thern, Incorporated**  
5712 Industrial Park Road  
Winona, MN 55987

PH: 507-454-2996  
FAX: 507-454-5282

EMAIL: [info@thern.com](mailto:info@thern.com)  
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