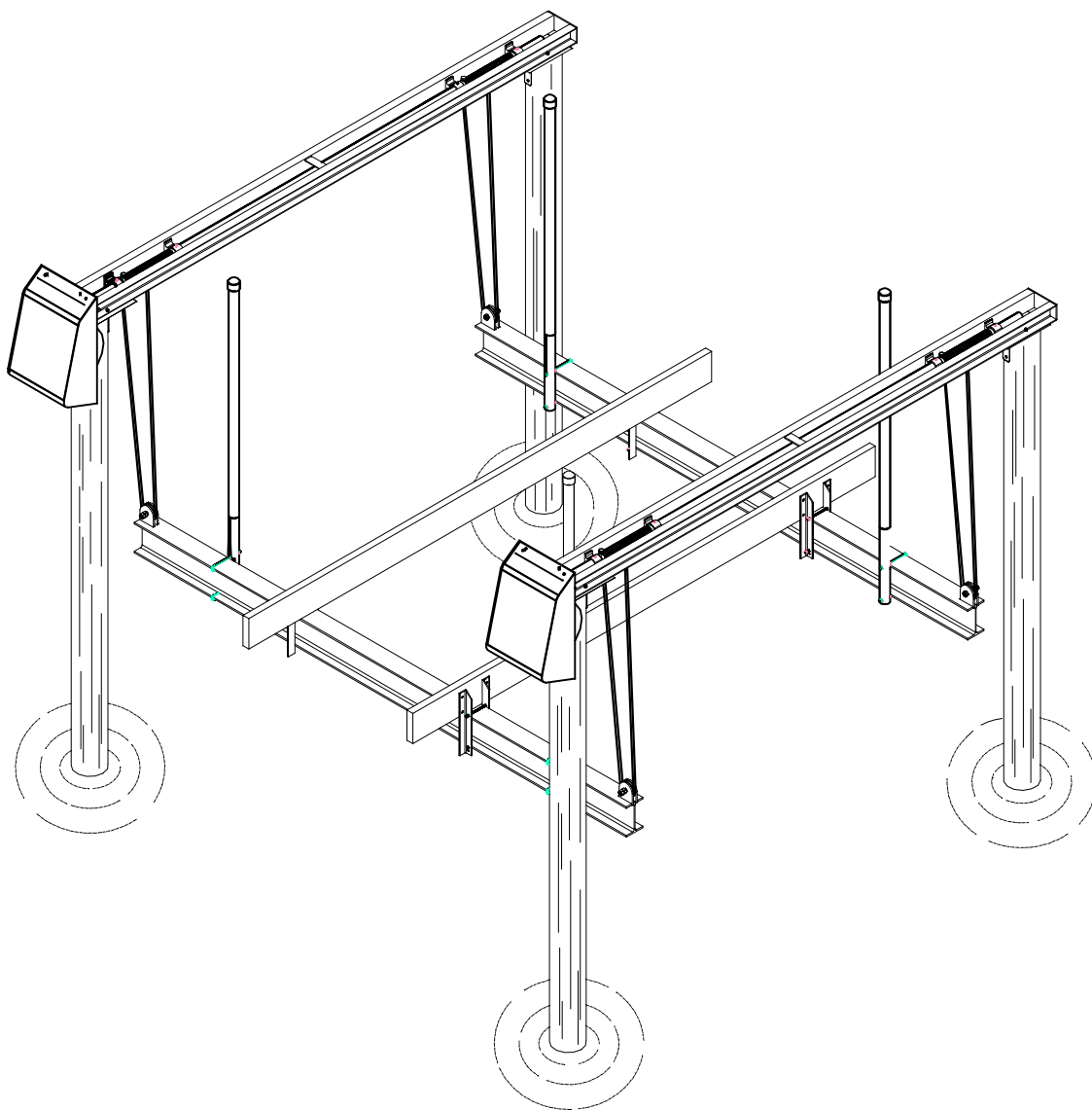




# *INSTALLATION*

# *INSTRUCTIONS*



# PERSONAL SAFETY PRECAUTIONS



Your boat lift is a heavy duty piece of equipment. It is important that you and others that may have occasion to operate this unit understand that it deserves respect, and that good judgment is required in its operation. Before allowing others to operate the unit be certain that they understand the proper procedures. Do not allow children to operate the lift.



This product is for lifting unoccupied boats. Do not ride in your boat or on the lift during operation. Always attend the controls when operating the lift, and watch carefully to have others stand clear. Keep hands, feet, and clothing away from all moving parts.



Be careful not to exceed the rated capacity of the lift. To determine the total weight of your equipment to be lifted, study the boat manufacturer's literature to determine its weight. Be sure to add enough extra weight to compensate for your added accessories, including water and fuel. (Gasoline weighs about 6 lbs. per gallon and water weighs about 8 lbs. per gallon.)



If you plan to leave your lifted boat unattended for several weeks, it is important that you remove the drain plug in the boat to prevent its filling with rain water. Accumulated rain, snow or other water in your boat can rapidly become heavy enough to exceed the capacity of our lift, causing personal injury or damage to the boat and lift.



Since your lift is electricity operated, additional care must be taken. It must be wired by a licensed electrician, and it must be installed with an approved ground fault interruption device. If you observe severed or damaged wiring, it must be repaired immediately. Electrical devices used in and around a water environment, such as this lift, while safe if properly installed and maintained, must be treated with great respect to prevent accidental electrocution.



While operating your lift, routinely look at all cables for fraying, damaged ends, or loose strands. A damaged cable must be replaced immediately. Make sure that all pulleys are turning properly. Routinely look over cables to make sure that they are winding properly and for signs of extreme wear and unusual corrosion, also look for exposed or damaged electrical wires. If found have any of the above repaired immediately.



Do not work on your boat or lift while the boat is hoisted. If working on your lift, keep your hands, feet, and clothing away from all moving parts. Exercise great care if chains or gearing are exposed. Never work underneath a raised lift, and do not walk or stand on a raised lift. Always disconnect electrical power when working on any part of the lift.

# INITIAL SETUP

**NOTE:**

Initial set up of the lift and proper positioning of the boat on the lift is crucial for safe, long-term operation of the lift. Positioning of bunks, guide and boat on the lift should be set by a qualified installer and checked by the owner.

## A. Bunk Positioning

1. The bunks should be positioned equal distance from the center of the front and back lower cradle beams. This will result in the boat being centered (port to starboard) on the lower cradle.
2. The bunks should be set near/under the main support stringers of the hull. Typically these stringers coincide with chines under the boat. Initial separation of the bunks used by many installers is 24 to 30 inches.
3. Do not position the bunks directly under the chine. The chock should be set just inside or just outside the boat chine.
4. Do not position bunks under the through-hull-fittings. Damage to the boat can result if the bunks contact through-hull-fittings.

## B. Guide Positioning

1. The guide poles should be centered on the lower cradle which will result in the boat being properly centered (port to starboard).
2. Guide poles spacing on the lower cradle be set to the beam of the boat. Guide should be SNUG along the sides of the boat to ensure proper positioning of the boat on the cradle and bunks.

## C. Boat Positioning

1. SLOWLY position the boat using PVC guide poles over the cradle. The CENTER OF GRAVITY of the boat should be halfway between the fore and aft lower cradle beams. This position of the boat on the cradle will depend on the type and weight of the boat being lifted.
2. The PVC guide poles will help guide the boat fore and aft into the proper lift position. Take a visual bearing of the location of a guide in relationship to a cleat or marking on the boat. Use this marking for future reference and always return to this center of gravity location when lifting the boat.

**NOTE:** After the boat has been positioned on the lift and the power is OFF, physically feeling the tension on the front and rear cables is an easy way to determine if the boat needs to move forward or backward on the lift. With proper positioning, the cables should feel the same. As a general rule, never leave the stern of the hanging aft more than 4 ft. behind the rear lower beam.

# ELECTRICAL CONNECTIONS

**NOTE:**

Electrical hook-up must be done by a licensed electrician. All wiring must be done according to the National Electric Code and local codes. Wiring that does not meet these standards voids the equipment warranty.

Connect power supply of proper voltage to the motors. The motors and control boxes can be wired for either 110V or 220V single-phase service. HURRICANE BOAT LIFTS recommends, when ever size possible, the lift should be wired using 220V single-phase service. Proper wire size and correct voltage is critical for proper, safe operation of the lift. Wire sizing information can be found in the National Electrical Code used by most licensed electricians. Wire sizing is determined by the voltage being brought to the panel, the distance from your power panel, and the amperage required by the panel and by your lift motors to operate. See TABLE 1. Motors and control boxes have a connection diagram on the nameplate or inside cover. Refer to these diagrams and TABLE © and # for proper connections.

A GROUND FAULT INTERRUPT (GFI) protector must be used with each lift to provide protection against GF electrical shocks in the water. The GFI device will "trip" if an imbalance has occurred. Once the GFI has "tripped," you will need to push the reset button manually. If the imbalance condition has cleared, power will then be restored to the motors on your boat lift.

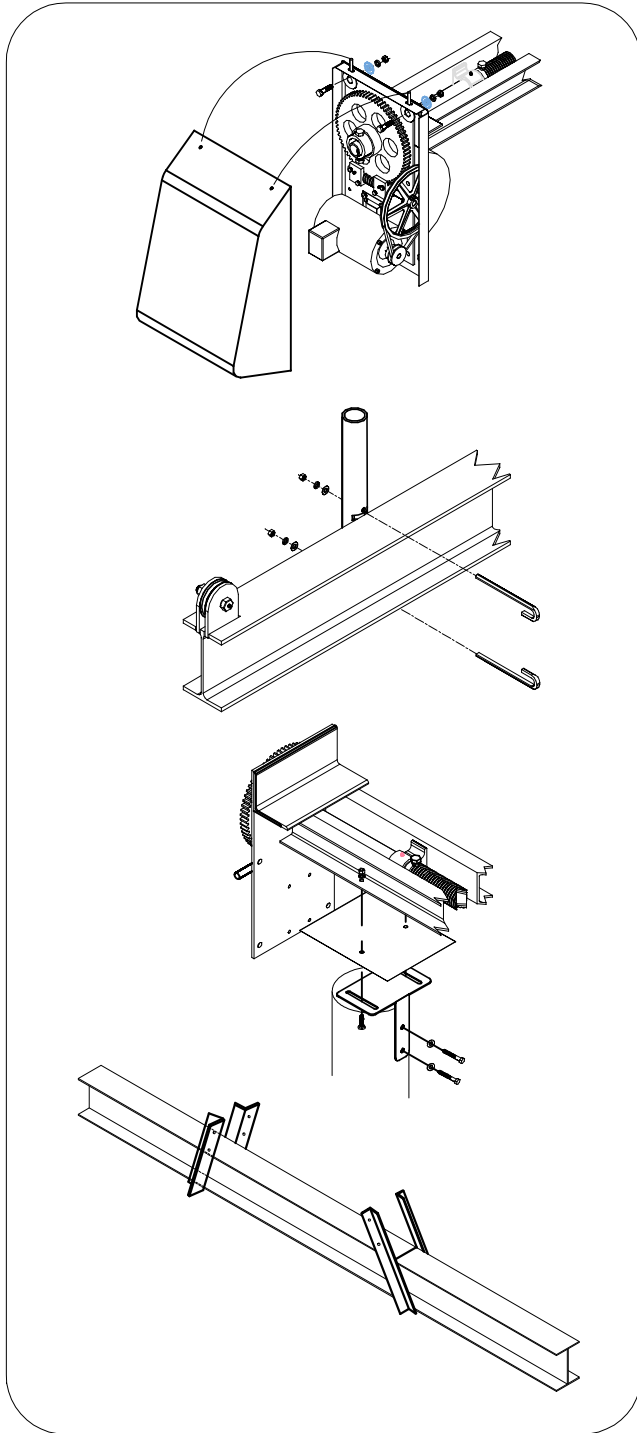
**NOTE:** HURRICANE cannot stress too strongly the importance of correct electrical connections. Improper wire sizing can cause the lift to malfunction and may even damage the control box or motors. The following wire sizes are recommended by the National Electric Code.

TABLE 1: Wire Size for 110 and 220 Volt Single Phase Circuits

Distance:	100 ft.	100 ft.	200 ft.	200 ft.	300 ft.	300 ft.	500 ft.	500 ft.
Voltage:	110 V	220 V	110 V	220 V	110 V	220 V	110 V	220 V
Motor Hp.	Wire Size	Wire Size	Wire Size	Wire Size	Wire Size	Wire Size	Wire Size	Wire Size
1 1/2	# 04	# 10		# 08		# 06		# 04
1	# 08	# 10	# 06	# 08	# 04	# 06		# 04
3/4	# 10	# 12	# 06	# 10	# 04	# 08	# 02	# 06
1/2	# 10	# 12	# 08	# 10	# 06	# 08	# 04	# 06
1/3	# 12	# 14	# 10	# 12	# 06	# 10	# 04	# 08
1/4	# 14	# 14	# 10	# 12	# 08	# 10	# 06	# 08

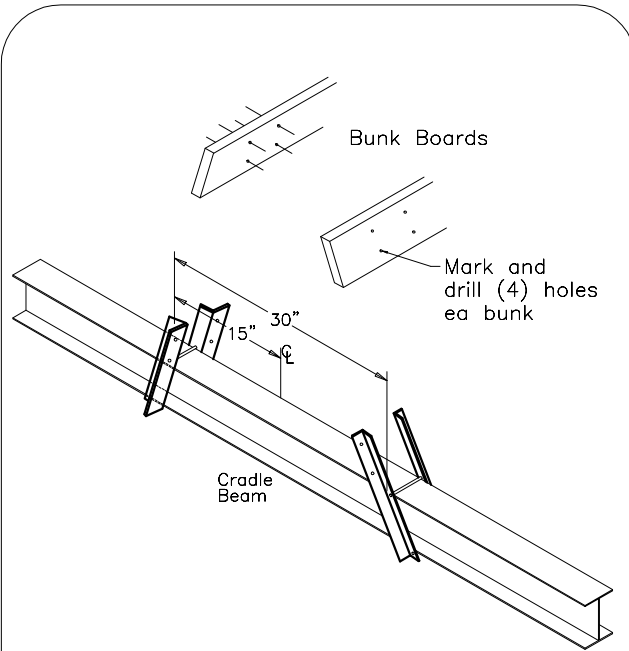
\* Distance = Motor to Fuse of Meter box in Feet

## TOOLS NEEDED FOR INSTALLATION

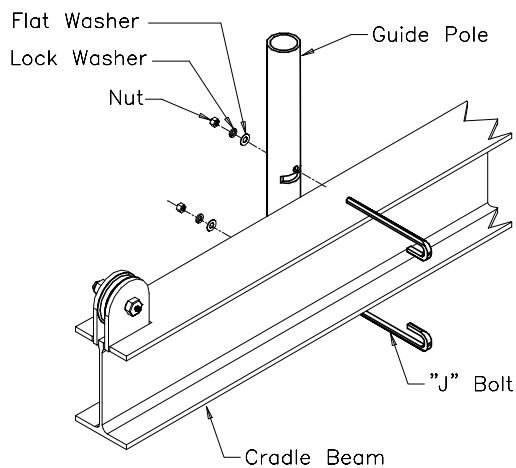


- SMALL CHAIN SAW
- 8"–12" PHILLIPS SCREWDRIVER
- 8"–12" STRAIGHT SCREWDRIVER
- 10" AND 2' LEVELS
- (2) 9/16" AND (2) 1/2" OPEN END BOX WRENCHES
- 7/16" AND 3/4" OPEN END BOX WRENCHES
- 1/2", 9/16" AND 3/4" DEEP WELL SOCKETS
- 1/2" DRIVE RATCHET
- PVC PIPE CUTTER (ELEC. PVC TO 1")
- ELECTRICIAN'S PLIERS
- CLAW HAMMER
- CABLE CUTTERS
- BOLT CUTTERS
- 3/8" BATTERY OPERATED DRILL
- 1/4" AND 3/8" DRILL BITS
- 36' INDUSTRIAL EXTENSION
- (2) LADDERS – 18' SECTIONS
- 2–2"x8"x16' SCAFFOLD BOARDS
- 4–1"x6"x16' SCAFFOLD BOARDS
- WATER LEVEL (OPTIONAL)

## BUNK AND GUIDE-POLE INSTALLATION



INSTALLING AND POSITIONING THE BUNK BOARDS  
FIGURE



GUIDE POST ASSEMBLY  
FIGURE

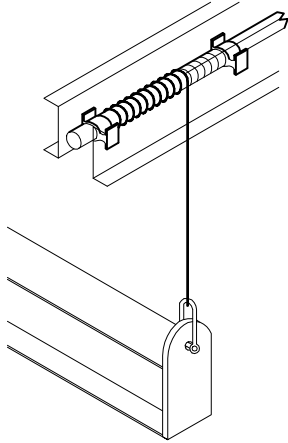
### BUNK BOARD MOUNTING ASSEMBLY

- The bunk brackets are pre-installed onto the cradle beams. Typical separation for bunks is 24"–30" centered on cradles.
- Place the bunk boards flush to the INSIDE face of the bunk bracket. The bunk board MUST set firmly on beam. Extend bunks out from cradle with bunk centered on lift.
- Mark and drill (8) 3/8" dia. holes for mounting the bunk boards to bunk brackets.
- NOTE; The bunk brackets may be repositioned by loosening the nuts at the bracket and sliding along the cradle beam.
- Be sure to tighten all connections

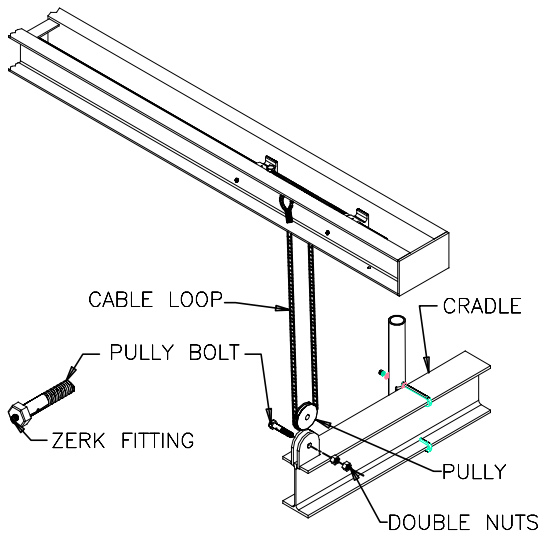
### GUIDE-POLE ASSEMBLY

- Fit guide pole brackets to beam of boat.
- The guide poles can be repositioned by loosening the "J" bolts and sliding the poles along the cradle beam. (After the final adjustments have been made and the boat is on the lift, the bolts should be tightened)

## CABLE INSTALLATION



1 PART CABLE SYSTEM



2 PART CABLE SYSTEM

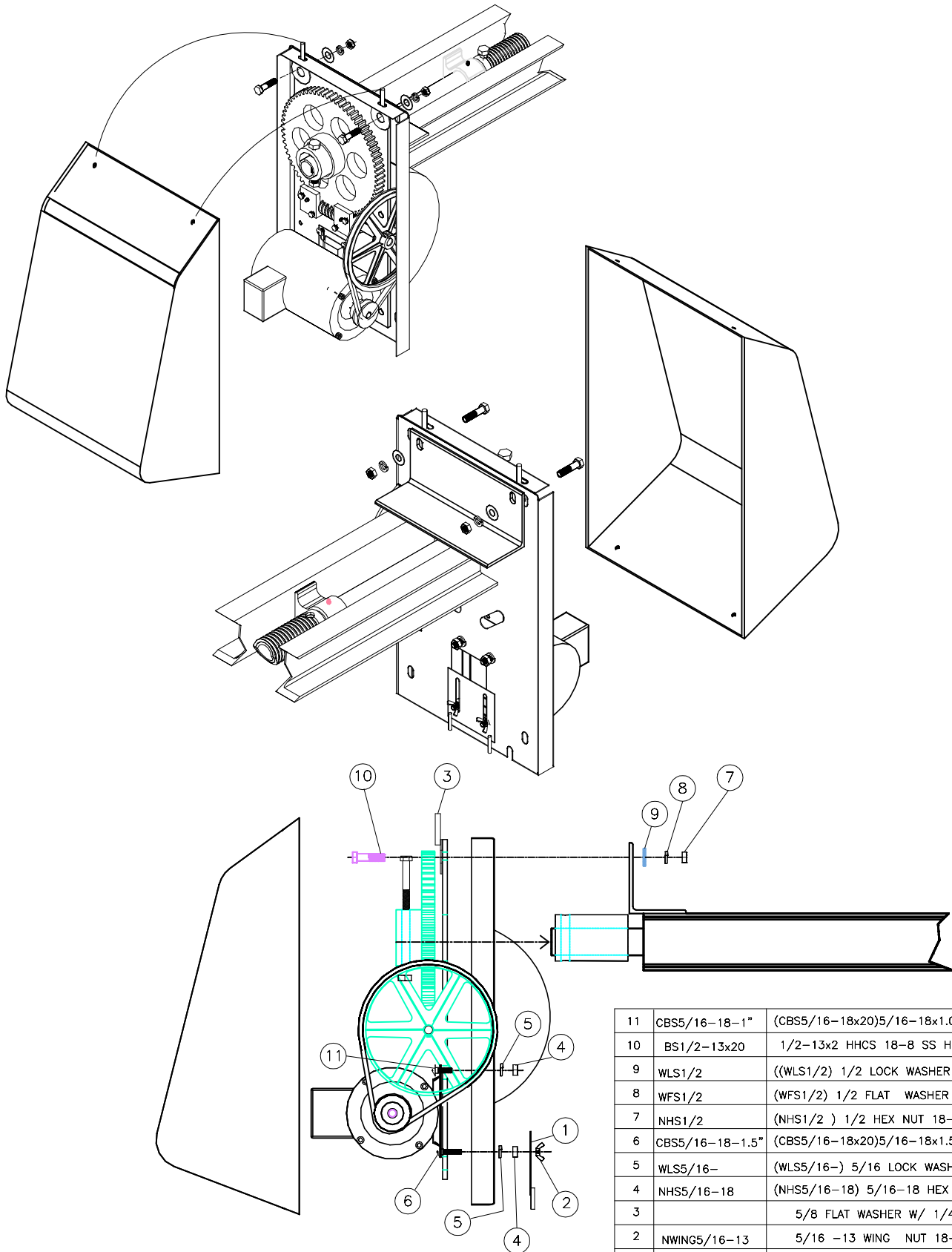
### 1 PART SYSTEM

- Feed loose end of cable through shackle.

### 2 PART SYSTEM

- Cable Are Factory Wound With Approximate 5' Loop Tied back on Upper Beam
- Remove Pulley Bolt On Lower Cradle And Side Pulley Out
- Loop Cable Around Pulley Then Replace Pulley and Pulley Bolt and Tighten Double Nuts
- Using Tube Of Grease And Fill Zerk Fitting on Front of Gear Bolt

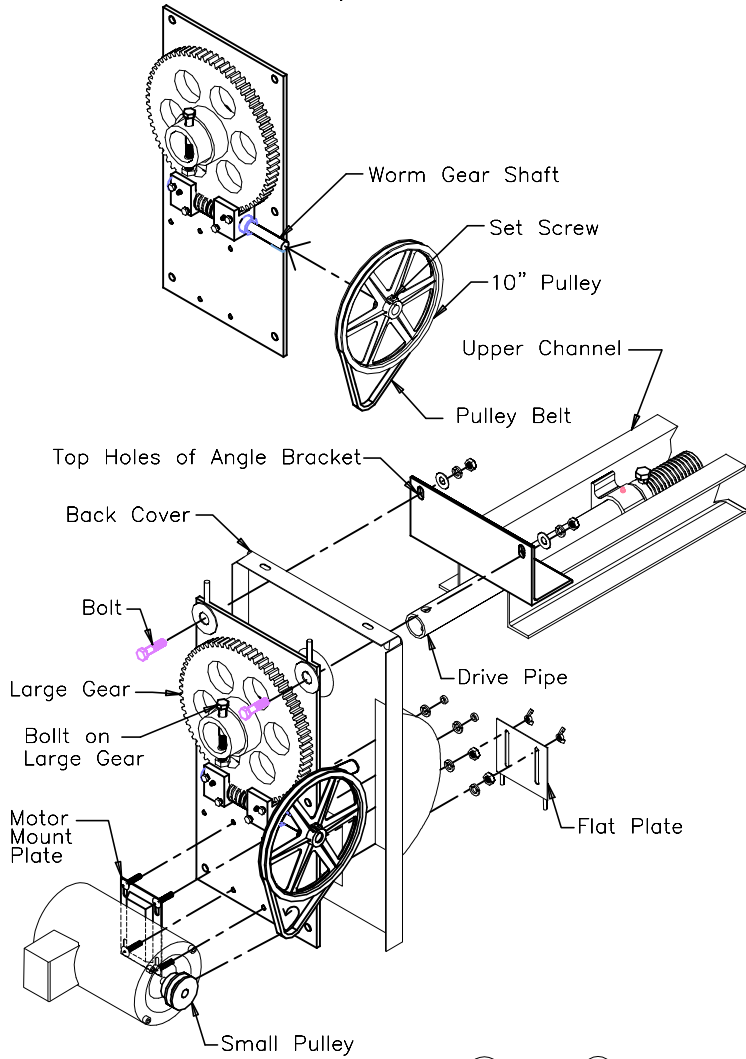
# GEAR, MOTOR AND COVER INSTALLATION



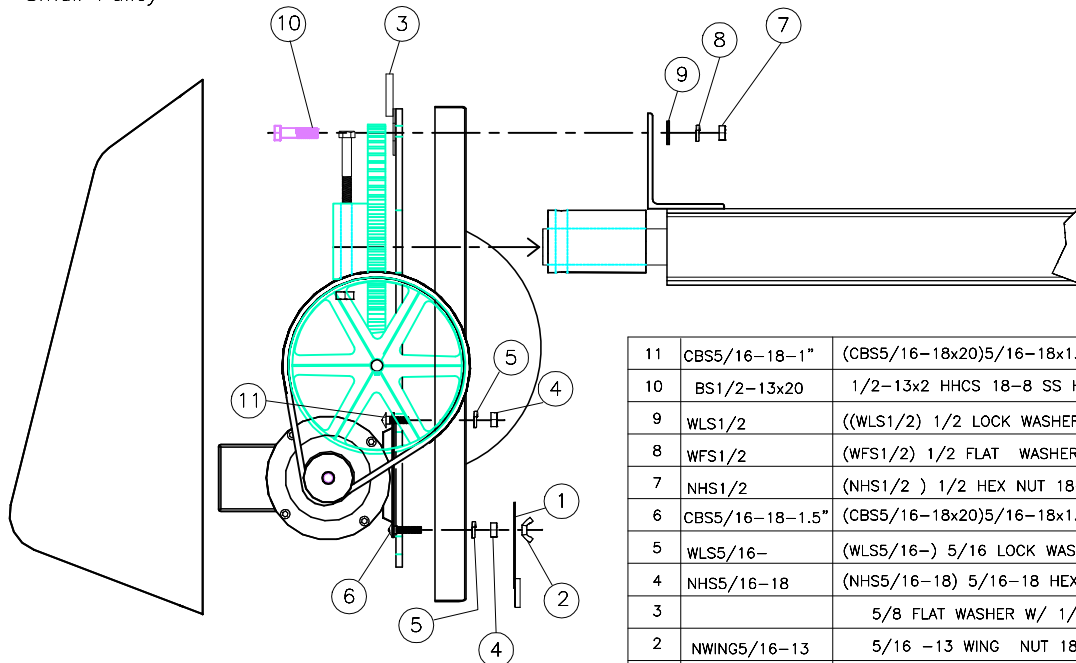
11	CBS5/16-18-1"	(CBS5/16-18x20)5/16-18x1.0 CAR BOLT	4
10	BS1/2-13x20	1/2-13x2 HHCS 18-8 SS HEX BOLT	4
9	WLS1/2	((WLS1/2) 1/2 LOCK WASHER	4
8	WFS1/2	(WFS1/2) 1/2 FLAT WASHER 18-8	4
7	NHS1/2	(NHS1/2 ) 1/2 HEX NUT 18-8	4
6	CBS5/16-18-1.5"	(CBS5/16-18x20)5/16-18x1.5 CAR BOLT	4
5	WLS5/16-	(WLS5/16-) 5/16 LOCK WASHER 18-8	4
4	NHS5/16-18	(NHS5/16-18) 5/16-18 HEX NUT 18-8	4
3		5/8 FLAT WASHER W/ 1/4" PIN	4
2	NWING5/16-13	5/16 -13 WING NUT 18-8 SS	4
1		FLAT PLATES	2
ITEM	PART NO.	DESCRIPTION	QTY



# GEAR, MOTOR AND COVER INSTALLATION



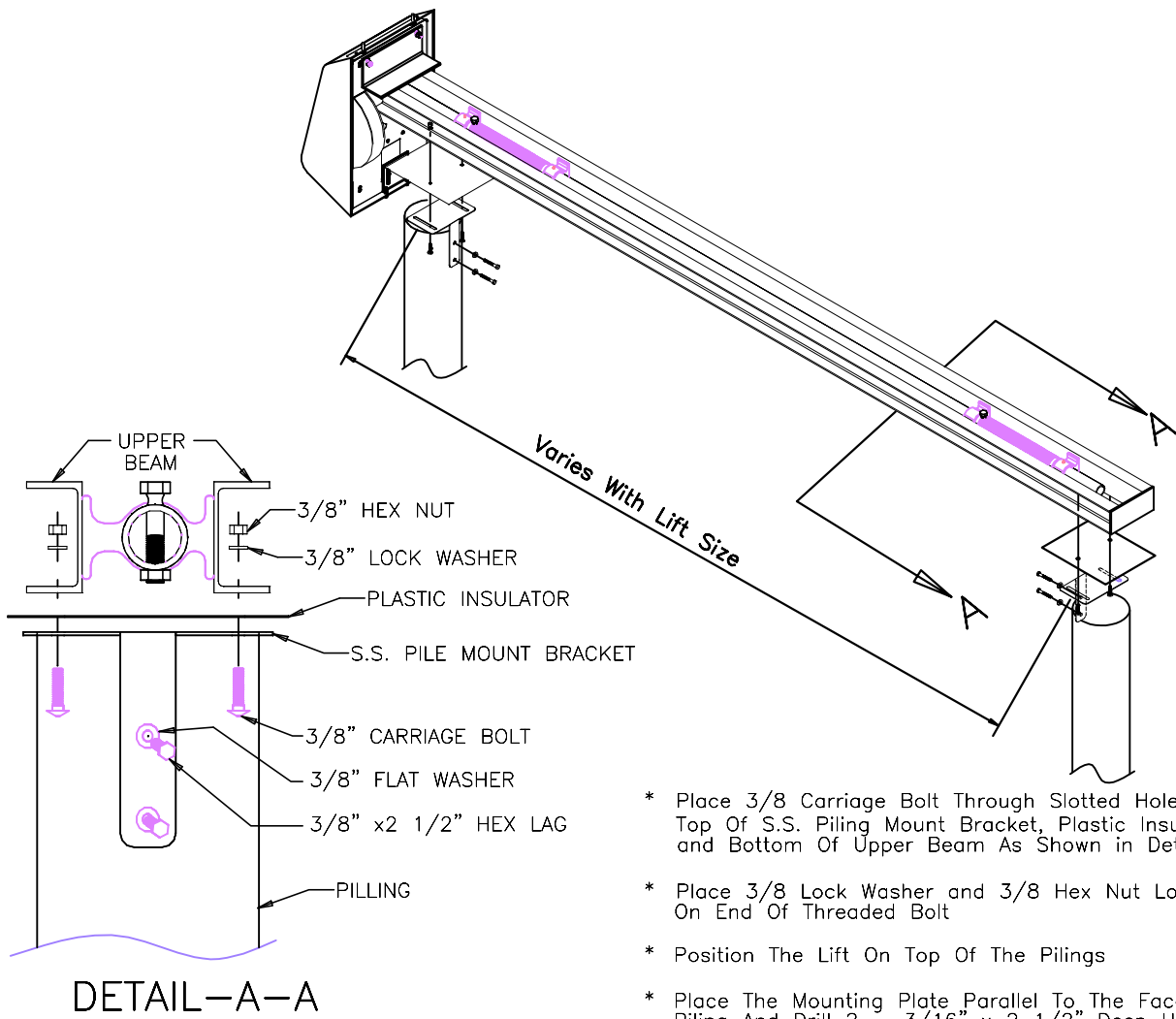
- \* Slide 10" Pulley Wheel On Worm Gear Shaft And Tighten Set Screw.
  - \* Place Pulley Belt Over 10" Pulley
  - \* Place Back Cover Over Drive Pipe Line Top Holes Of Back Cover With Top Holes of Angle Bracket On Upper Beams
  - \* Remove Bolt From Front of Large Gear And Place on Drive Pipe Then Replace Bolt Through Large Gear and Drive Pipe
  - \* Using Bolts Through Flat Washer W/pin Gear Plate, Back Cover Install to Upper Beam See Parts Figure For Detail
  - \* Install Motor By Placing Small Pulley Inside Pulley Belt As You Place Bolts Through Motor Mount Plate, Gear Plate, And Back Cover. See Parts Figure
  - \* To Tighten Belt Side Motor Down in Slotted Holes Then Tighten Bolts
- NOTE: Belt Should Tighten Until You Can Turn Belt 1/2 Turn.
- \* Install Flat Plates Outside Back Cover on Lower Motor Mount Bolts Using Fly Nut. See Parts Figure



PARTS FIGURE

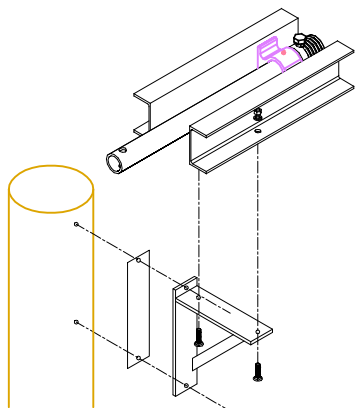
11	CBS5/16-18-1"	(CBS5/16-18x20)5/16-18x1.0 CAR BOLT	4
10	BS1/2-13x20	1/2-13x2 HHCS 18-8 SS HEX BOLT	4
9	WLS1/2	((WLS1/2) 1/2 LOCK WASHER	4
8	WFS1/2	(WFS1/2) 1/2 FLAT WASHER 18-8	4
7	NHS1/2	(NHS1/2 ) 1/2 HEX NUT 18-8	4
6	CBS5/16-18-1.5"	(CBS5/16-18x20)5/16-18x1.5 CAR BOLT	4
5	WLS5/16-	(WLS5/16-) 5/16 LOCK WASHER 18-8	4
4	NHS5/16-18	(NHS5/16-18) 5/16-18 HEX NUT 18-8	4
3		5/8 FLAT WASHER W/ 1/4" PIN	4
2	NWING5/16-13	5/16 -13 WING NUT 18-8 SS	4
1		FLAT PLATES	2
ITEM	PART NO.	DESCRIPTION	QTY

## PILLING MOUNT BRACKET INSTALLATION



- \* Place 3/8 Carriage Bolt Through Slotted Holes On Top Of S.S. Piling Mount Bracket, Plastic Insulator and Bottom Of Upper Beam As Shown in Detail A-A
- \* Place 3/8 Lock Washer and 3/8 Hex Nut Loosely On End Of Threaded Bolt
- \* Position The Lift On Top Of The Piling
- \* Place The Mounting Plate Parallel To The Face Of The Piling And Drill 2- 3/16" x 2 1/2" Deep Holes At Each Piling To Correspond To The Holes In The Mounting Plate
- \* Tighten Lag Into Piling
- \* Tighten 3/8 Nut On 3/8 Carriage Bolt

## OPTIONAL BOAT HOUSE BRACKET



- \* Locate The Bracket on The Piling And Mark Location Of The Mounting Holes With A Pencil or Nail
- \* Drill (2) 5/8" Diameter Holes Through The Piling.
- \* Place Hex Head Bolt 1/2" x Width of Piling Through 1/2" Flat Washer, Bracket, Plastic Insulator and Piling
- \* Place 1/2" Lock Washer and 1/2 Hex Nut At End Of Bolt And Loosely Tighten The Mounting Bracket in Place.
- \* Level Mounting Bracket With A Spiral Level And Tighten Bracket In Place
- \* Place Upper Beam In Place on Top Of Bracket
- \* Drill Mounting Holes And Insert Mounting Bolts With Flat Washer As Supplied With Bracket
- \* Place Lock Washer And Nut And Tighten Upper Beams To Mounting Bracket