



## **Instruction Manual**



## **ATV Plow Tube System**

## Manual Conventions

This manual uses the following symbols to help differentiate between different kinds of information. The safety symbol is used with a key word to alert you to potential hazards in operating and owning a plow.

Follow all safety messages to avoid or reduce the risk of serious injury or death.

### DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

### WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

To help you make informed decisions regarding safety, we have included instructions and information on labels. This information is provided with the intent to help avoid potential hazards that may harm you or others. It is, in no way, possible for us to inform you of every hazard you may come across with this product.

### CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

### CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

# Safety Rules

## WARNING

- Read this manual thoroughly before operating your plow. Failure to follow instructions could result in serious injury or death.
- Do not exceed 5 mph, even with blade raised.
- Make sure that all nuts and bolts are tightened per installation instructions.
- Never operate this KFI product with missing or damaged parts.
- Drive slowly over bumpy and rough terrain, driving fast could cause damage to winch (if applicable) or plow.
- Never raise the plow above point of contact as it could cause damage to machine or winch (if applicable).
- Always perform regular inspections and maintenance on plow tubes and hardware before use.
- Operate with extreme caution on slopes, steep grades, and rough terrain.
- Be aware of any possible hidden objects under the snow.
- Do not ram the blade into the pile.

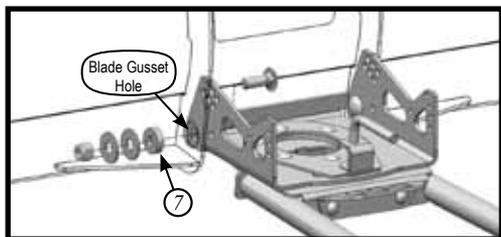
## CAUTION

- Take care when installing PLOW SPRINGS as they will be under tension.
- Use care when lifting components into place.

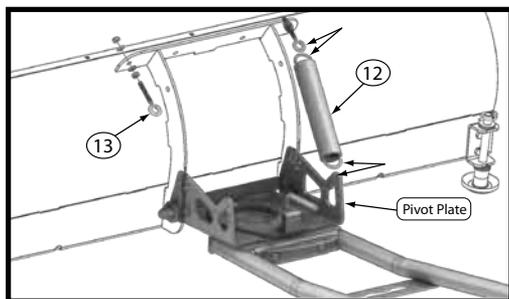
## DANGER

Never stand or ride on the plow.

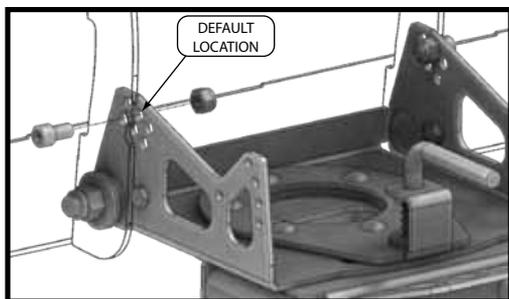
# Installation Instructions



*“Figure 1” Pivot Bolt Assembly*



*“Figure 2” Spring Assembly*



*“Figure 3” Pitch Adjustment Bolt  
(Spring not shown for clarity.)*

1. To secure the blade to the tube system, place the washer bearing (Item 7) into the hole in the blade gusset with the countersink facing the carriage bolt. Secure the tube system and the blade together with the 1-3/4” carriage bolt, 2 washers and lock nut, as shown in Figure 1. Repeat on other side.

2. Insert the plow springs (Item 12) into the smaller rear holes in the pivot plate, as shown in Figure 2. Place the eyebolts (Item 13) onto the end of the plow springs and secure the eyebolts onto the plow blade gusset, as shown in Figure 2. Leave spring tension loose as you will decide tension in Step 5.

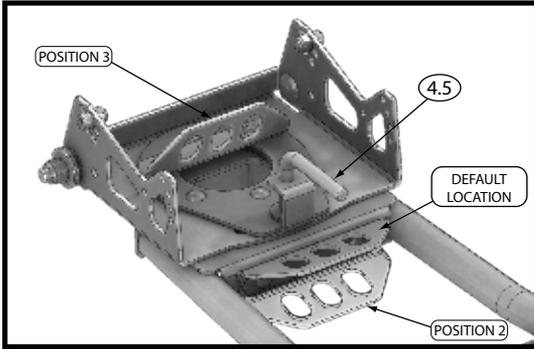
3. Assemble on machine and decide desired pitch of blade. Each hole is 5 degrees of blade pitch adjustment.

*Note: Figure 3 shows the default position.*

4. With springs installed pitch blade under tension and install 3/4” hex socket head cap screw with 3/8” Allen wrench or pliers, and 7/16” lock nut into desired pitch position hole.

5. Tighten nuts down on eye bolt until desired spring tension is reached.

*Note: For each 1/4” that the nut is tightened it will add 12 lbs of spring tension.*



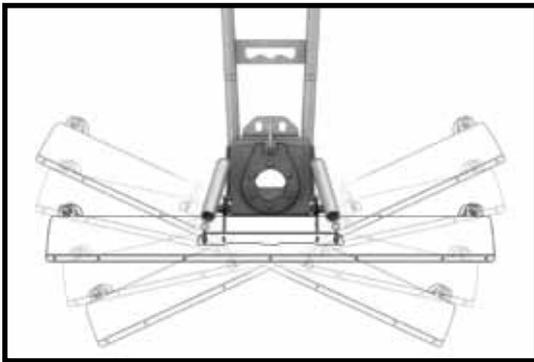
*“Figure 4” Lift Hook Attachment Positions*

6. The tube system has 3 positions of adjustment for the Lift Hook Bracket.

**Position 1** is the default position that your tube system will come pre-assembled.

**Position 2** uses the same bolt holes, but in this case the bracket is flipped over allowing more clearance between winch and bracket.

**Position 3** is used for machines where the cable is at a severe angle. Such as upper mounted winches.



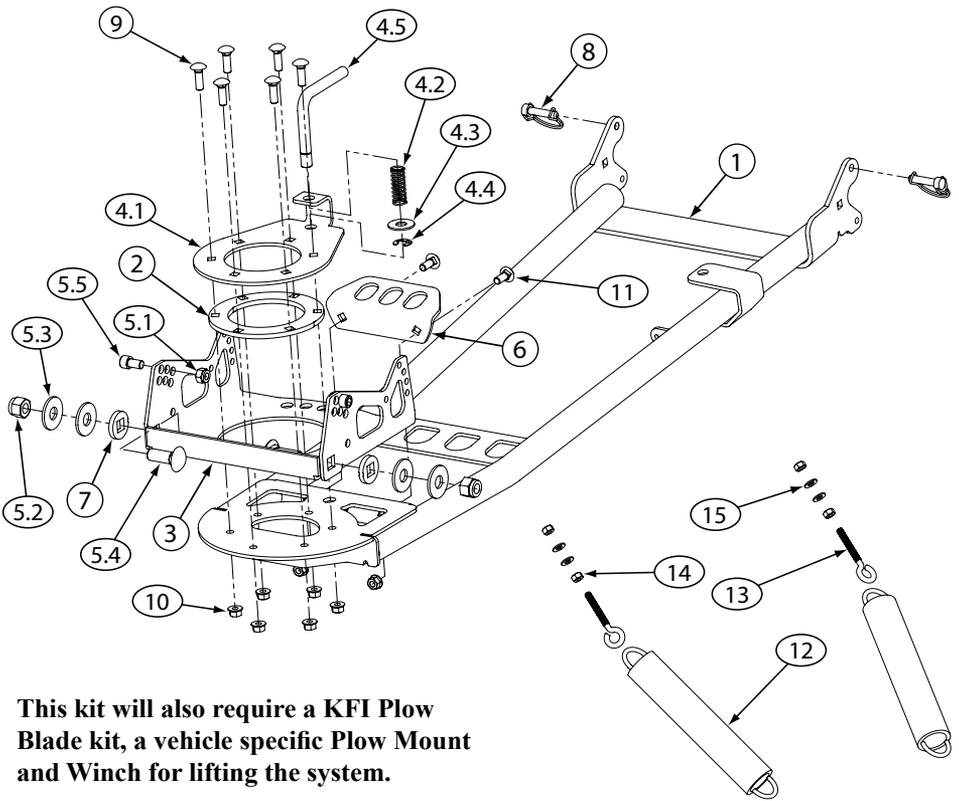
*“Figure 5” Blade Rotation Angle*

7. The tube system has five positions of rotation for your blade (Figure 5). Each adjustment is at 12.5 degree increments. In order to make each adjustment you will need to pull on the Pull Pin (Figure 4, Item 4.5) and rotate your blade left or right until you reach the desired angle.



*“Figure 6” Tube System Attachment*

8. To attach the tube system to any of our mounts, position the tube system with blade installed under your ATV. Raise tube attach points to the mount and line up the holes on mount plate with the holes in the tube system. Insert Safety Pin (Item 8) through holes and secure on other side with clips as shown in Figure 6.



This kit will also require a KFI Plow Blade kit, a vehicle specific Plow Mount and Winch for lifting the system.

## Part # - 105000

### Parts List

ITEM	PART#	DESCRIPTION	QTY.	ITEM	PART#	DESCRIPTION	QTY.
1	105019	LIFT ARM WELDMENT	1	6	105138	LIFT HOOK BRACKET	1
2	105018	LIFT PIVOT SPACER	1	7	105214	WASHER BEARING	2
3	105016	LIFT PIVOT PLATE	1	8	P800250	SAFETY PIN	2
4	105139	LIFT LOCK LATCH ASSEMBLY	1	9	CB-ZP-0375-16-1_25	3/8"-16 X 1 1/4" CARRIAGE BOLT	6
4.1	105025	LIFT LOCK PLATE	1	10	HNFL-ZP-0375-16	3/8"-16 HEX FLANGE LOCK NUT	8
4.2	P800267	COMPRESSION SPRING	1	11	CB-ZP-0375-16	3/8"-16 X 1" CARRIAGE BOLT	2
4.3	FW-USS-ZP-0500	1/2" FLAT WASHER, USS	1	12	P800304	PLOW SPRINGS	2
4.4	P800268	EXTERNAL RETAINING RING	1	13	P800249	5/16"-18 X 9/16" X 3 3/8" EYEBOLT	2
4.5	105026	PULL PIN	1	14	HN-ZP-0313-18	5/16"-18 HEX NUT	4
5	HK-100	TUBE HARDWARE KIT	1	15	FW-SAE-ZP-0313	5/16" FLAT WASHER, SAE	4
5.1	HNNL-ZP-0437-14	7/16"-14 NYLOCK NUT	2				
5.2	HNNL-ZP-0625-11	5/8"-11 NYLOCK NUT	2				
5.3	FW-USS-ZP-0625	5/8" USS FLAT WASHER Z	4				
5.4	CB-ZP-0625-11-1_50	5/8"-11 X 1 1/2" CARRIAGE BOLT	2				
5.5	SK-0437-14-0_750	7/16"-14 X 3/4" HEX S.H.C. SCREW	2				



## 2 Year Limited Warranty

Kappers Fabricating, Inc. (KFI) warrants to the original purchaser that the product is free from defects in materials and workmanship for a period of two (2) years from the original date of purchase. We will repair or replace, at our discretion, parts found to be defective due to materials or workmanship. This warranty is subject to the following limitations and exclusions:

**Commercial Use:** The warranty period for any product used for commercial or rental is limited to ninety (90) days from the date of original purchase.

**Limitations:** This warranty applies only to products which have been properly assembled, adjusted, and operated in accordance with the instructions contained within this manual. This warranty does not apply to any product of Kappers Fabricating, Inc. that has been subject to alteration, misuse, abuse, improper assembly or installation, or shipping damage.

**Exclusions:** Excluded from this warranty are normal wear, normal adjustments, and normal maintenance.

THIS WARRANTY DOES NOT APPLY TO ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE SAME TIME PERIODS STATED HEREIN FOR ALL EXPRESSED WARRANTIES.

THE WARRANTY SET FORTH ABOVE IS THE ONLY WARRANTY. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow the exclusion of implied warranties or the exclusion or limitation of liability for incidental or consequential damages, or 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. You may also have other rights that vary from state to state.

In the event you have a claim under this warranty, contact KFI's Technical Service and KFI will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, KFI will, at its option, authorize evaluation, repair or replacement of the defective part or component at a KFI Service Center. KFI will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.