

# OWNER'S MANUAL MODEL NO. HK-315



## CAUTION

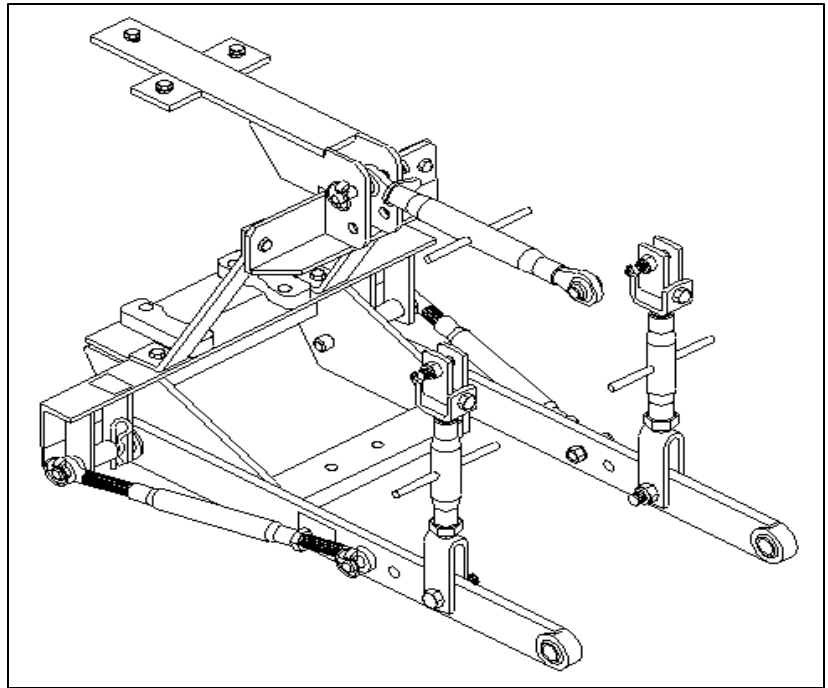
For Operation  
Read Rules And  
Instructions Carefully

## STATEMENT OF POLICY

It is the policy of **Worksaver, Inc.** to improve its products where it is possible and practical to do so. **Worksaver, Inc.** reserves the right to make changes or improvements in design and construction at any time without incurring the obligation to make these changes on previously manufactured units.

**Packing  
Assembly & Mounting  
Operating Instructions**

**Maintenance  
Repair Parts**



## 3 PT. HITCH ADAPTER KIT

**HK-315**

**For A.C. Models**

**D-17 Series I, II, III Tractors**



## CAUTION

**THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE THOROUGHLY UNDERSTOOD  
BEFORE ATTEMPTING TO BEGIN ASSEMBLING THIS MACHINE.**

1. Select an area for assembly that is clean and free of any debris, which might cause persons working on the assembly to trip.
2. Do not lift heavy parts or assemblies. Use crane, jack, tackle, fork trucks or other mechanical devices.
3. Preview the assembly instructions in your operator's manual before proceeding further.
4. If the assembly instructions call for parts or assemblies to be blocked up, use only blocking material that is in good condition and is capable of handling the weight of the assembly to be blocked. Also insure that the blocking material is on a clean, dry surface.
5. Never put hands, or any other part of body under blocked up assemblies if at all possible.
6. After completing assembly, thoroughly inspect the machine to be sure that all nuts, bolts, hydraulic fittings or any other fastened assemblies have been thoroughly tightened.
7. Before operating the machine, thoroughly read the operation section of your operator's manual.
8. Before operation, read the maintenance section of your operator's manual to be sure that any parts requiring lubrication such as gearboxes are full to avoid any possible damage.
9. **Before operating equipment. If you have any questions regarding the proper assembly or operation, contact your Worksaver dealer or representative.**

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# To the Owner/Operator/Dealer

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached, to minimize the chance of accidents.

**BEFORE YOU START!! Read the safety messages on the implement and shown in your manual. Observe the rules of safety and common sense!**

## Instructions

The Model HK-315 hitch adapter kit is designed for the Allis Chalmers Model D-17 tractors, Series I, II, and III.

This kit uses the existing hydraulic lift on the tractor to raise and lower the 3-pt. Hitch.


### PACKING

The adapter kit is shipped in knocked down condition so as to command the lowest freight rates. Shipment consists of **1 cartons and 1 frame assembly**.

### TRACTOR PREPARATION

Before installing the adapter kit, it is necessary to remove the existing swinging drawbar assembly.

Check the threaded holes that go into the tractor housing and make sure the threads are in good condition and that the holes are clean.

 **CAUTION!** If an air hose is used to blow any loose rust or dirt from the holes, be sure safety glasses are used to prevent particles from entering an eye.

Be sure tires and rims are in good condition. Inflate tires to the proper recommended air pressure.

Check the tractor's hydraulic system. Refer to your tractor operator's manual or dealer for any adjustments necessary to put the hydraulic system in good working order. (I&T shop manuals will list most specifications and adjustment instructions – available from most farm equipment dealers.)

Check the shield over the PTO stub shaft. Make sure it is in good condition and bolted securely to the tractor. Purchase a new shield if old shield is damaged or missing. (You may have to use a tractor salvage yard for replacement parts on older tractors.)

It is recommended that a ROPS (Roll-Over Protection Structure) be installed on all tractors. Contact your local dealer for a ROPS for your tractor.

### ASSEMBLY

In order to mount this kit, it will first be necessary to remove the swinging drawbar and mounting brackets from your tractor. Using the 3/4" x 2-1/2" hex head bolts, attach the main frame of the kit to the tractor using the same holes as the tractor drawbar assembly. Tighten these bolts securely.

Open the snap couplers on your tractor, and place the

lift arm-leveling assemblies into the snap couplers, and then snap them back down.

On both the outer left-hand and the right-hand ends of the hitch main frame, start the ends of the pull pins (Ref. #4) through the outer pull bracket ears. Position the pull pin so that the end with **NO** hole goes to the inside.

As soon as the end of the pull pin passes through the first outer pull bracket ear, slide the pull pin spacer (ref #5) on the pin so that it is located between the first and second pull bracket ears. Slide the pull pin in further until the end is just entering the second pull bracket ear.

Then place the forward end of the lift arm between the large side plate on the main hitch frame and the second pull bracket. Slide the pull pin in further so that it goes through the ball end of the lift arm and enters the hole in the large side plate.

Rotate the pull pin so that the holes in the pin are horizontal. Slide the spacer tube and adjust the pull pin so that a large (5/16") hairpin clip can be inserted through the center hole of the pull pin. This locks the pull pin in place on each side.

Raise the lift arms, sliding them between the clevis ends of the lift arm leveling assemblies, and pin them in place.

Install the stabilizer stub pins (Ref #15) in the forward holes of each lift arm. Have the large (7/8") diameter of the stub pin to the outside of the lift arm and the threaded nut to the inside. **Do not use a lock washer under the nut.** Place a screwdriver or small bar through the linchpin hole and tighten the nut on the stub pin.

Place one end of the stabilizer bars (Ref #28) over the ends of the pull pins on the outer ends of the frame and secure with linchpins.

The stabilizer bars have threaded ends and can be adjusted to the correct length by turning the center barrel. Adjust the stabilizer bars, then slide the other end over the stabilizer stub pins in the lift arms. Secure in place with linchpins.

**NOTE:** When connection the hitch to an implement, it will be necessary to remove the lift arm end of the stabilizer bar from the lift arm. This allows the lift arm to swing out and be installed on the pull pin of the implement.

After the lift arms are connected to the implement,

## Instructions (Continued from page 1)

the stabilizer bars need to be reconnected and adjusted so that the implement is centered behind the tractor.

In order to mount the top link bracket, it is necessary to remove the seat. Place the top link bracket where the seat was, and then place the seat on top of the top link bracket, directly above its original position. Fasten them securely with the ½" x 1-1/2" hex head bolts and ½" lock washers provided. Next, bolt the top link braces in place using the ½" x 1-1/2" hex bolts, lock washers, and nuts provided.

**(NOTE:** The top link braces are formed with a different angle at each end – be sure to match them to the proper surfaces.) Tighten these bolts securely.

Place one of the ball ends of the top link between the top link bracket ears and pin it in place with the top link pin and spring ring linchpin provided.

This hitch kit is designed to utilize the swinging drawbar of your tractor. Disassemble it and re-install it on the hitch kit in the same way that it was installed on your tractor.

## OPERATION

Two (2) holes are provided on the lift arms to connect to the lower ends of the leveling assemblies.

The forward holes will provide the greatest lifting range for the ball ends of the lift arms. The rear holes will allow heavier loads to be handled by the hitch.

The adjustable screw type leveling assemblies will provide additional adjustment in the lifting height of the hitch. **NOTE: BE SURE THAT AT LEAST 1-1/4" OF THREAD ON EACH END IS ENGAGED INTO THE THREADED BARREL OF THE LEVELING ASSEMBLIES.**


The adjustable screw type top link can also be shortened or lengthened to adapt different implements and can be used to obtain various degrees of pitch on the implements you are using. The top link bracket is designed with 2 hole locations for even more pitch variations.


The 2-way ball sockets on the end of the lift arms will allow you to connect to either Category I or Category II implements. If the drawbar or implement you mount has Category I (7/8" dia.) pins, then make sure the balls are turned so that the 7/8" dia. holes are used.

**IMPORTANT:** If the larger 1-1/8" dia. holes are used with the smaller 7/8" dia. pins, the ball holes will wear rapidly in an uneven pattern and make the entire ball socket eventually unusable.

The stabilizer bars should be used whenever possible, as they not only prevent side sway, but also provide rigidity and stability to the unit – plus added strength. The stabilizer bars have threaded stubs so their length can be adjusted so the spread on the lift arms can be increased or decreased to accommodate the different width of Category I and Category II tools.

This kit is designed to lift up to 1600 lbs., but, of course, lifting capacity is dependent on the pressure and condition of the tractors hydraulic system. You will also find that the closer the load is kept to the tractor, the more you will be able to lift.

 **CAUTION!** Be sure your tractor is in good condition and properly equipped with counterweights. Read all the safety precautions and make sure all tractor operators are familiar with the safety rules of tractor operation.

 **CAUTION!** When using a 3-pt. Hitch rear blade in a reverse position (bulldozing), use extra care. **DO NOT RAM BLADE** into dirt or packed snow piles! Tractor lift arms and the blade are not built to take high impact loads in this position. **RAMMING** backwards can also dislodge operator from seat and/or tractor controls, resulting in possible serious injury or death.

Always ease the tractor into the load. It may be necessary to reposition and take less "bite" on the material to move it safely.

Watch for and avoid hidden obstructions, i.e., buried pipes, rocks, concrete piers, uneven concrete slabs, stumps, etc., when operation. This is especially of concern when removing snow.

## MAINTENANCE

Check all bolts and nuts to be sure they are tight.

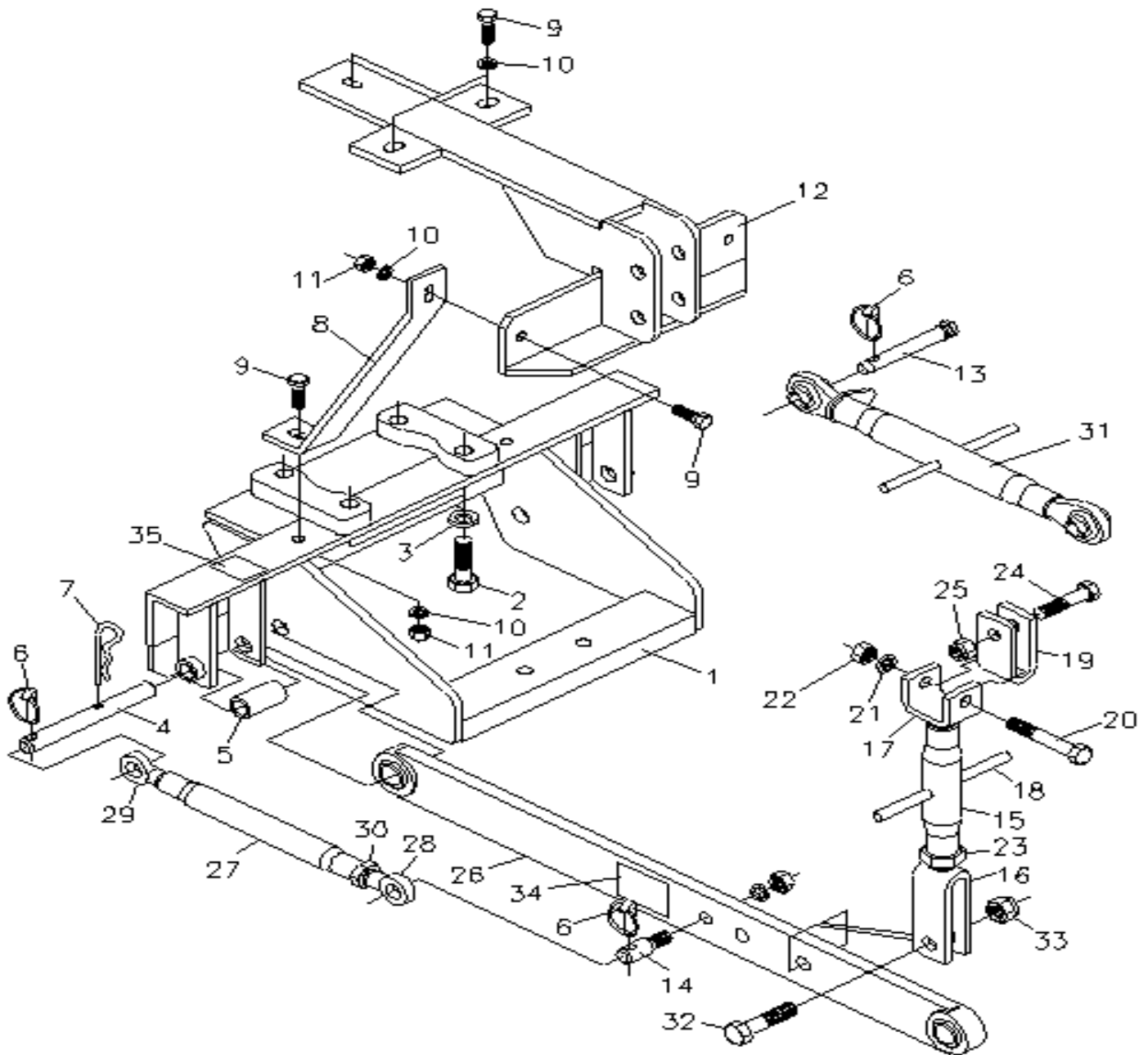
Periodically oil the following:

- Top link (upper 3<sup>rd</sup> link) threads
- Cylinder pins
- Ball sockets
- Leveling assembly threads
- Stabilizer bar threads

✓ **Keep children away from danger all day, every day.**

✓ **Equip tractors with rollover protection (ROPS) and keep all machinery guards in place.**

## EXPLODED PARTS VIEW OF FOR HK-315



# Obey All Safety Warnings

# REPAIR PARTS FOR HK-315 3-PT. Hitch Adapter Kit

REF NO.	PART NO.	DESCRIPTION	NO. REQ.
1	865303	Main Frame Weldment	1
2	2503021	Bolt 3/4"-10NC x 2 1/2" Hex Head	4
3	2502001	Washer 3/4" Springlock	4
4	865338	Pin, Pull 7/8" Dia. x 7 3/4" Lg.	2
5	865339	Spacer, Pull Pin	2
6	590006	Linch Pin 7/16" (AK-14)	5
7	590014	Hairclip Pin 5/16" (AK-36)	2
8	862408	Brace, Toplink	2
9	2503004	Bolt 1/2"-13NC x 1 1/2" Hex Head	7
10	2502002	Washer 1/2" Springlock	7
11	2500003	Nut 1/2"-13NC Full Hex	4
12	862681	Toplink Bracket Weldment	1
13	590002	Toplink Pin Cat. I (AK-9)	1
14	590069	Stabilizer Stub Pin (AK-378) w/Washer & Nut	2
	861410	Adjustable Lift Arm Leveling Assembly (Parts 15-25)	2
15	590278	Barrel 1 1/8"-7NC x 8 1/4" Lg.	2
16	861136	Lower Lift Bracket RH	2
17	861411	Upper Lift Bracket LH	2
18	590145	Knock-In Handle	2
19	861129	Clevis, Lift Arm	2
20	2503066	Bolt 5/8"-11NC x 4" Hex Head	2
21	2502007	Washer 5/8" Springlock	2
22	2500013	Nut 5/8"-11NC Full Hex	2
23	2500024	Nut 1 1/8"-7NC Jam Hex	2
24	2503067	Bolt 5/8"-11NC x 2 3/4" Hex Head Gr. 5	2
25	2500041	Nut 5/8"-11NC Nylock Hex	2
26	865014	Lift Arm Weldment 34"	2
	590317	Stabilizer Assembly (Parts 27-30)	2
27	590406	Barrel 7/8"-14NF	2
28	590407	Stabilizer End RH	2
29	590318	Stabilizer End LH	2
30	2500018	Nut 7/8"-14NF Jam Hex	2
31	590299	Top Link, Cat. I (AK-513F)	1
32	2503135	Bolt 3/4"-10NC x 3" Hex Head Gr. 5	2
33	2500037	Nut 3/4"-10NC Nylock Hex	2
34	101039	Safety Sign-Caution (Stay Clear of Arms)	2
35	101082	Safety Sign-Warning (Pull from Drawbar)	1





## SAFETY PRECAUTIONS

MOST ACCIDENTS OCCUR BECAUSE OF NEGLIGENCE OR CARELESSNESS, AVOID NEEDLESS ACCIDENTS BY FOLLOWING ALL OF THE SAFETY PRECAUTIONS LISTED BELOW.

- Machinery should be operated only by those who are responsible and are authorized to do so.
- Stop the engine, lower all equipment, lock the brakes, and remove the ignition key before dismounting from the tractor.
- Never stand between tractor and implement while tractor is being backed to hitch.
- Loose fitting clothing should not be worn, to avoid catching on various parts.
- Detach implement in area where children normally do not play.
- When performing adjustments or maintenance on an implement, first lower it to the ground or block it securely at a workable height.
- Only a qualified operator should be permitted on tractor when in operation; no riders allowed.
- Make certain everyone is in the clear before starting tractor or raising or lowering equipment.
- Operate the tractor and implement only while seated in the driver's seat.
- Reduce speed when transporting mounted implement to avoid bouncing and momentary loss of steering control.
- A heavy load can cause instability of the tractor. Use extreme care during road travel. Slow down on turns and watch out for bumps. Tractor may need front counter-weights to counter-balance the weight of the implement.
- Reduce speed on hillsides or curves so there is no danger of tipping.
- Avoid driving too close to the edge of ditches or creeks.
- Do not transport implement on public toads without reflectors and slow moving vehicle emblem in daylight and with approved warning lights at night and other periods of poor visibility.
- Due to the width of some implements, use extra caution on highways, farm roads, and when approaching gates.
- Always be sure the implement is in the proper position for transport.
- Keep alert and watch the front as well as the rear when working with the implement.

## OWNER'S MANUAL

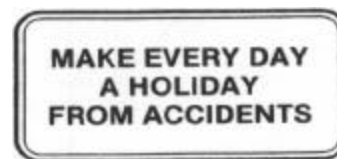
MODEL NO.  
HK-315

WHEN ORDERING  
REPAIR PARTS, ALWAYS  
GIVE THE FOLLOWING  
INFORMATION:

1. PART NUMBER
2. PART DESCRIPTION
3. MODEL NUMBER
4. NAME OF ITEM

MARCH 2001

Please work, play, and live each day with care and concern for your safety and that of your family and fellow citizens.



### 3 PT. HITCH ADAPTER KIT HK-315 – For A.C. Models D-17 Series I, II, III Tractors

#### WORKSAVER LIMITED WARRANTY

**Worksaver** warrants its implements, parts and accessories to be free from defects in materials and workmanship for a period of six (6) months from the date of purchase. Upon written approval, **Worksaver** will repair or exchange without charge any part, which upon examination by **Worksaver** or its authorized agent, shall disclose to be defective.

This does not apply to (1) parts that have worn out in normal use, (2) parts broken because of improper assembly or operation by the customer, (3) parts accidentally damaged, (4) failure of parts traceable to improper care, (5) parts failing through use of implement for purposes other than those for which it was designed.

The obligations assumed by **Worksaver** and the limitations expressed herein are in lieu of all other warranties expressed or implied.

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