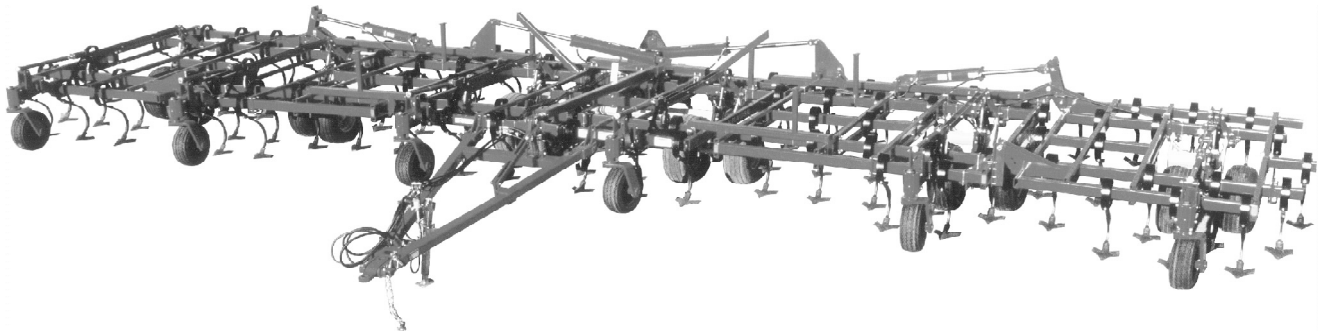


5630-1

OWNER'S MANUAL

5 6 3 0



HIGH RESIDUE FLEX-WING FIELD CULTIVATOR

5630 SERIES

Congratulations

You have just purchased a quality designed and manufactured Krause tillage tool. Advanced features have been designed into the implement for modern farming operations. As with any investment, a return is expected, and the return received from this investment will be in the form of maximum tillage performance during many years of dependable service.

In order to maintain quality performance of the new Krause implement, it is important that all of the information in the manual be reviewed and studied carefully before operation. The contents provide operating instructions, maintenance instructions, and information on how to make adjustments.

SAFETY ALERT SYMBOL



MODEL NUMBER _____ SERIAL NUMBER _____

PURCHASE RECORD - - DATE _____

A note to our customers, parts managers and dealers:

This manual has been prepared to assist you in the proper use, daily care, and operation of your new Krause equipment. It contains specific information on the many built-in features of your equipment, the accessories and options that are available, general specifications, and instructions for making minor adjustments.

Read this manual carefully before operating your Krause equipment, and keep it in a convenient location for later reference.

In order to ensure that you have the most current owner's manual available for your implement, we have added a revision code to each manual. Please note the information listed below and specify when placing service calls or ordering parts.

Manual for Model: 5630

This manual covers models beginning with Serial No. 1217 On

Owner's Manual #: 5630-1A

Parts Manual #: 5630-2A

Rev.:

ISSUED TO:

ISSUED BY:

Owner's Name

Krause Dealer

Mailing Address

City

City

State

State

Date of Purchase

Warranty Policy

(Krause Serial Numbered Wholegoods purchased subsequent to 7/1/99)

Note: All warranty work must be accomplished by a Krause Corporation Authorized Service Center rated to perform maintenance on Krause Corporation Products.

A. KRAUSE CORPORATION ("KRAUSE") LIMITED WARRANTY.

- (1) Subject to the limitations and conditions hereinafter set forth, Krause warrants, at the time of delivery by Krause to be free from (i) defects in materials or workmanship, and (ii) defects in design that in the view of the state of the art as of the date of manufacture should have been foreseen provided, however, that the defect must be discovered and reported to Krause within the periods specified as follows. For a period of one year all new serial numbered production agricultural units covered by this warranty; for a period of thirty-six (36) months the tongue weldment, center frame weldment, wing frame weldments, disc harrow gang bearings and K-Tine field cultivator shanks.
 - (2) Krause does not warrant disc blades, shanks, hydraulic cylinders, accessories and other parts not manufactured by it, but supplied with or as a part of its products. Krause will, however, obtain and pass on any adjustments provided by the manufacturers of such parts under these manufacturer's warranties. Tires supplied on Krause products, will be warranted by the tire manufacturer's retail outlets.
 - (3) The entire extent of Krause's liability shall be limited to that of either reimbursing Buyer for its costs of purchasing a rebuilt, over-hauled or repaired part from either Krause or a proper Krause Authorized Service Center or, at Krause's election, reimbursing buyer for its costs of having the part repaired at a proper Krause Authorized Service Center. If Krause elects not to repair the part and if neither a rebuilt, over-hauled or repaired part is, in Krause's opinion, timely available then Krause will reimburse buyer for its costs of purchasing a new part from either Krause or a proper Krause Authorized Service Center. The labor necessary to remove from the product such part or parts and to install in the product such part or parts, as well as any repair made as the result of improper installations by Krause, shall be covered by this warranty, provided the work is performed at a proper Krause Authorized Service Center.★ If return of the defective part is required, it must be returned shipping prepaid to Krause. Krause's limited warranty will apply to any part repaired or replaced by a proper Krause Authorized Service Center pursuant to Krause's Limited Warranty: however, the applicable warranty for such part repaired or replaced shall be limited to the unexpired portion of Krause's Limited Warranty described in paragraph (1) or (2) above, as applicable. In other words, the warranty period of the part repaired or replaced does not start over from the date of reinstallation.
- ★[Krause Corporation will repair or replace, free of charge, any part of the product found to be defective, within the specified warranty periods, after an inspection of the part has deemed it to be defective. Inspection must be performed by an authorized agent of Krause Corporation, or returned to the Krause factory for inspection and disposition. Warranty labor will be considered during the first year of warranty only. Krause Corporation will establish and publish an hourly flat rate for shop labor and reimbursement during the first year of the warranty period. Krause Corporation does not allow credit for the cost of travel time, mileage or hauling as a warranty allowance. During the remaining second and third year, when applicable, Krause will repair or replace the defective part, without consideration of labor charges.]
- (4) Routine services (such as inspections, field settings, adjustments, etc.) and replacement of items which deteriorate from expected normal wear and tear or exposure (such as paint, tires, hoses, blades, sweeps, etc.) are not covered by this Limited Warranty. Such routine services and replacements required during the course of operation are not considered to be the result of any defect in the product.

B. LIMITATIONS APPLICABLE TO KRAUSE'S LIMITED WARRANTY.

- (1) Krause will be relieved of all obligations and liability under this warranty if:
 - (i) The alleged defect in the part is due to misuse or neglect on the part of someone other than Krause;
or
 - (ii) Krause's identification mark or name or serial number has been removed from the part in question;
or
 - (iii) The product and/or equipment have not been maintained, operated or stored either in accordance with applicable manuals, communications or other written instructions of Krause or any manufacturer of the part involved, or in accordance with applicable regulations and advisory circulars unless buyer shows that such maintenance, operation or storage was not a contributory cause of the defect; or
 - (iv) The part in question has been modified or altered after delivery other than by the manufacturer or in accordance with a modification or alternation scheme approved in writing by the manufacturer; or
 - (v) The product is used for purposes other than conventional owner/operator usage. Usage not considered conventional owner/operator includes, but is not limited to, operation conditions that consist of rocks or other obstructions.
- (2) For the purpose of this Warranty, no part of the product or equipment will be regarded as breaching the limited warranty merely because, subsequent to its delivery, some modification or alteration becomes necessary for product improvements or in order to meet a change in the requirements of any applicable regulation.
- (3) TO THE EXTENT ALLOWED BY APPLICABLE LAW, BUYER WAIVES AS TO KRAUSE ALL OTHER WARRANTIES, WHETHER OF MERCHANTABILITY, FITNESS OR OTHERWISE, THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACT HEREOF.
- (4) TO THE EXTENT ALLOWED BY APPLICABLE LAW, THE OBLIGATIONS OF KRAUSE SET FORTH HEREIN SHALL BE THE EXCLUSIVE REMEDIES FOR ANY BREACH OF WARRANTY HEREUNDER, AND, TO THE SAME EXTENT, KRAUSE SHALL NOT BE LIABLE FOR ANY GENERAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY DAMAGES FOR DIMINUTION OF MARKET VALUE, LOSS OF USE OR LOSS OF PROFITS, OR ANY DAMAGES TO THE PRODUCT CLAIMED BY BUYER OR ANY OTHER PERSON OR ENTITY UPON THE THEORIES OF NEGLIGENCE OR STRICT LIABILITY IN TORT.
- (5) ANY ACTION BY BUYER FOR BREACH OF THIS WARRANTY BY EITHER KRAUSE OR SELLER MUST BE COMMENCED WITHIN (1) YEAR AFTER THE CAUSE OF ACTION ACCRUES.

Establishing Customer Warranty

Dealer's Obligation

1. It is the responsibility of the dealer to complete a **Delivery Report and Warranty Registration** form. The form should contain the model, serial number, delivery date, along with the complete dealer and customer address. This form must be signed by the dealer and customer upon physical delivery of the product to the customer. The dealer must complete the **pre-delivery check list** provided on the Delivery Report and Warranty Registration form.
2. Dealer will review the **Predelivery Check List** located in the front of the operation manual with the customer and / or operator. This should be signed by the dealer at time of delivery to the retail customer.
3. The dealer will review the **Customer Review Sheet** located at the front of the operation manual with the customer and / or operator. This should be signed by the dealer representative and the customer.
4. An authorized Krause dealer will submit **warranty claims** on behalf of the customer. All claims must be handled through the dealer. They will then be given to the Krause District Manager for inspection and approval. Warranty requests must be filed within 60 days from completion of the repair for consideration.
5. It is the dealer's responsibility to **service** the warranty on products sold through said dealership.

This warranty gives you specific rights, and you may also have other rights which vary from state to state.

Establishing Customer Warranty

Customer's Obligation

1. The customer is responsible for reading the operation manual supplied with each serial numbered unit. The manual describes the safe and correct operating procedures of the specific product. The operation manual will also instruct the user on recommended lubrication and maintenance of the product.
2. The customer will advise the dealer of the anticipated start date of the product so a dealer representative can be on hand to make necessary field adjustments.
3. The owner is also responsible for inspecting the product during and after use. If a part has failed or is in need of repair, it should be replaced. When continued use of the product would result in excessive wear of other components, the part should be replaced before operation is continued. Continued use of the product may void warranty on other parts damaged from this condition. The user must make the machine available to the dealer for a warranty repair.
4. It is the customer's responsibility to deliver his machine to an authorized Krause dealer for completion of a warranty repair. If the dealer agrees to make a service trip to the customer's residence, it is an agreement between the dealer and the customer. Krause will not allow warranty credit for the cost of travel, mileage, or hauling.
5. Warranty labor consideration will only be given during the first year of warranty. Any labor charge for the 2nd or 3rd year on the limited warranty will be at the customer's expense.

This warranty gives you specific rights, and you may also have other rights which vary from state to state.

5630 SERIES FLEX-WING FIELD CULTIVATOR DEALER PREDELIVERY CHECK SHEET

TO BE CHECKED BY DEALER

CUSTOMER _____ DATE _____

ADDRESS _____

DEALER _____

ADDRESS _____

MODEL _____ SERIAL NUMBER _____

DEALER CHECK:

1. ___ Check to see that all rocker shaft bolts are tight and pins are in place.
2. ___ Check to see that hydraulic cylinders are full of oil (air bled out of cylinders). Clevis pins with cotter pins should be in place. Hydraulic system requires 28 Quarts for Models 5630-28 & 5630-32. Model 5630-36 requires 44 Quarts and Models 5630-40, 5630-44 and 5630-48 require 58 Quarts.
3. ___ Examine hydraulic hoses to see that they are protected from damage.
4. ___ Make sure walking beams and hubs have been assembled correctly. Check to see that bearings have been adjusted and greased.
5. ___ Check lug bolts holding wheels to the hub to see that they are torqued to 120 Ft. Lbs. for 6-Bolt Hubs, 145 Ft. Lbs. for 8-Bolt Hubs.
6. ___ The correct size tires should be on the implement. Tires on center rocker on Models 5630-28 and 5630-32 and wing rockers on all models are 11L x 15, 8-Ply with 44 PSI pressure. Tires on center rocker on Models 5630-36, 5630-40, 5630-44 & 5630-48 are 12.5L x 16, 14-Ply with 56 PSI pressure.
7. ___ Check to see that pins attaching hitch to frame and clevis weldment to hitch are in place and tightened.
8. ___ Jack should be operational for support of tongue when implement is not attached to a tractor.
9. ___ Wings are attached with special pins and secured with lock nuts.
10. ___ Wing and road lock valves were correctly installed and operate satisfactorily.
11. ___ Restrictors are installed in wing lift cylinder rod end ports.
12. ___ All decals are in place per page P59 of this owner's manual.
13. ___ Safety Chain is in place.
14. ___ Customer review sheet is filled out and signed.
15. ___ Review lighting requirements. Light kits are standard.
16. ___ Check to see that the Owner's Manual is in the storage canister on the implement.
17. ___ Make sure that the SMV Sign is clean and in place.

DELIVERED BY _____

DATE _____

5630 SERIES TANDEM DISC HARROW CUSTOMER REVIEW SHEET

CUSTOMER _____ DATE _____

ADDRESS _____

DEALER _____

ADDRESS _____

MODEL _____ SERIAL NUMBER _____

1. ___ Owner's manual provided.
2. ___ Warranty card filled out and mailed.
3. ___ Review safety warnings and cautions as listed in this owner's manual.
4. ___ Review recommended maximum road speed, width, and height for implement.
5. ___ Review field operational speeds, horsepower, depth and rock conditions.
6. ___ Demonstrate the proper use of road lock and wing lock valves.
7. ___ Explain the hydraulic control depth control system.
8. ___ Review limitations of additional weight and transport speed when adding attachments.
9. ___ Explain the importance of maintaining the implement through lubrication, checking that bolts are kept tight, and replacement of worn or broken parts.
10. ___ Recommend that the safety chain be used with the implement.
11. ___ Check wheel lug bolts frequently until they become set.
12. ___ Review lighting requirements for your area.

DEALER _____ DATE _____

CUSTOMER _____ DATE _____

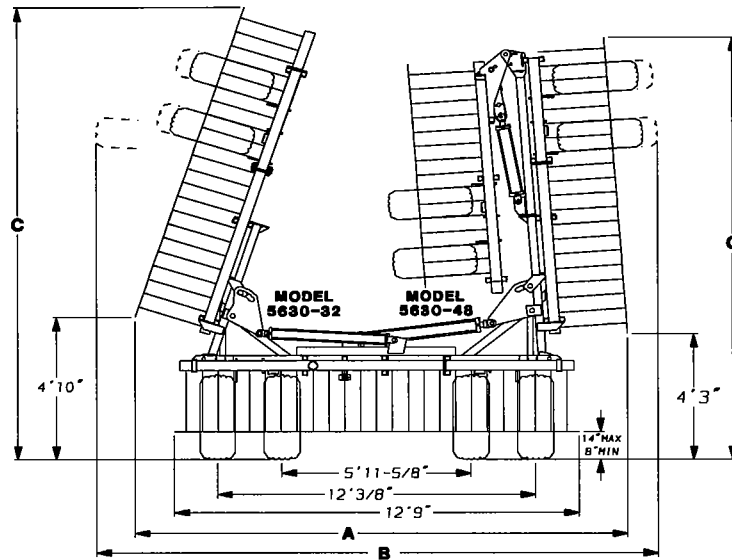
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5630 SPECIFICATIONS


NOTE: Width & Height may vary with finishing attachment.




Rev.10/03
M5630-13

MODEL	SPACING	QTY. OF SHANKS	CUT WIDTH	NUMBER OF SECTIONS	HYD. FOLD EXTENSION	"A" TRANSPORT WIDTH SHANKS	"B" TRANSPORT MAX. WIDTH WING TIRES	"C" TRANSPORT HEIGHT
5630-21	6"	41	20' 6"	3	NO	13' 3"	14' 7"	10' 0"
	6"	43	21' 6"	3	NO	13' 3"	14' 7"	10' 1"
	6"	45	22' 6"	3	NO	13' 3"	14' 7"	10' 7"
	6"	47	23' 6"	3	NO	13' 3"	14' 7"	11' 0"
	6"	49	24' 6"	3	NO	13' 3"	14' 7"	11' 6"
5630-26	6"	51	25' 6"	3	NO	13' 3"	13' 3"	12' 4"
	6"	53	26' 6"	3	NO	13' 3"	13' 3"	12' 10"
5630-28	6"	55	27' 6"	3	NO	15' 3"	15' 3"	12' 4"
	6"	57	28' 6"	3	NO	15' 3"	15' 3"	12' 10"
	6"	59	29' 6"	3	NO	15' 3"	15' 3"	13' 3"
	6"	61	30' 6"	3	NO	15' 3"	15' 3"	13' 9"
	8"	41	27' 4"	3	NO	15' 3"	15' 3"	12' 4"
	8"	43	28' 8"	3	NO	15' 3"	15' 3"	12' 10"
5630-32	6"	63	31' 6"	3	NO	15' 3"	15' 3"	14' 3"
	6"	65	32' 6"	3	NO	15' 3"	15' 3"	14' 9"
	6"	67	33' 6"	3	NO	15' 3"	15' 3"	15' 2"
	6"	69	34' 6"	3	NO	15' 3"	15' 3"	15' 8"
	8"	47	31' 4"	3	NO	15' 3"	15' 3"	14' 3"
	8"	49	32' 8"	3	NO	15' 3"	15' 3"	14' 9"
	8"	51	34' 0"	3	NO	15' 3"	15' 3"	15' 0"
	8"	53	35' 4"	3	NO	15' 3"	15' 3"	15' 6"
5630-36	6"	73	36' 6"	3	YES	15' 9"	17' 0"	14' 3"
	6"	75	37' 6"	3	YES	15' 9"	17' 0"	14' 3"
	6"	77	38' 6"	3	YES	15' 9"	17' 0"	14' 3"
	6"	79	39' 6"	3	YES	15' 9"	17' 0"	14' 3"
	8"	55	36' 4"	3	YES	15' 9"	17' 0"	14' 3"
	8"	57	38' 0"	3	YES	15' 9"	17' 0"	14' 3"
5630-40	6"	79	39' 6"	5	NO	15' 9"	17' 10"	12' 8"
	6"	81	40' 6"	5	NO	15' 9"	17' 10"	12' 8"
	6"	83	41' 6"	5	NO	15' 9"	17' 10"	12' 8"
	6"	85	42' 6"	5	NO	15' 9"	17' 10"	12' 8"
	8"	59	39' 4"	5	NO	15' 9"	17' 10"	12' 8"
	8"	61	40' 8"	5	NO	15' 9"	17' 10"	12' 8"
	8"	63	42' 0"	5	NO	15' 9"	17' 10"	12' 8"
5630-44	6"	87	43' 6"	5	NO	15' 9"	17' 6"	14' 8"
	6"	89	44' 6"	5	NO	15' 9"	17' 6"	14' 8"
	6"	91	45' 6"	5	NO	15' 9"	17' 6"	14' 8"
	6"	93	46' 6"	5	NO	15' 9"	17' 6"	14' 8"
	8"	65	43' 4"	5	NO	15' 9"	17' 6"	14' 8"
	8"	67	44' 8"	5	NO	15' 9"	17' 6"	14' 8"
	8"	69	46' 0"	5	NO	15' 9"	17' 6"	14' 8"
5630-48	6"	95	47' 6"	5	NO	15' 9"	17' 6"	14' 8"
	6"	97	48' 6"	5	NO	15' 9"	17' 6"	14' 8"
	6"	99	49' 6"	5	NO	15' 9"	17' 6"	14' 8"
	6"	101	50' 6"	5	NO	15' 9"	17' 6"	14' 8"
	8"	71	47' 4"	5	NO	15' 9"	17' 6"	14' 8"
	8"	73	48' 8"	5	NO	15' 9"	17' 6"	14' 8"
8"	75	50' 0"	5	NO	15' 9"	17' 6"	14' 8"	

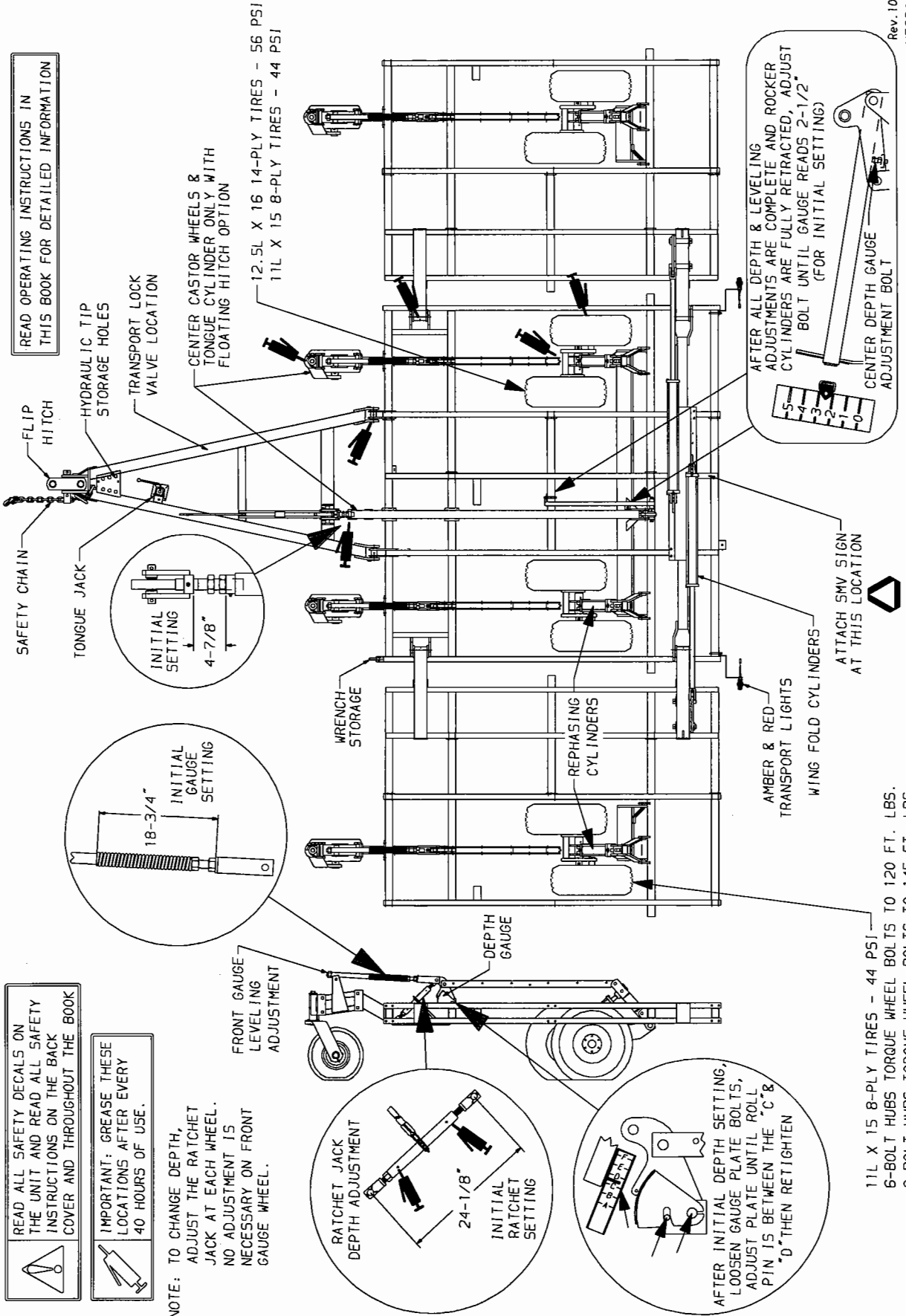
G E N E R A L I N F O R M A T I O N

 READ ALL SAFETY DECALS ON THE UNIT AND READ ALL SAFETY INSTRUCTIONS ON THE BACK COVER AND THROUGHOUT THE BOOK

 IMPORTANT: GREASE THESE LOCATIONS AFTER EVERY 40 HOURS OF USE.

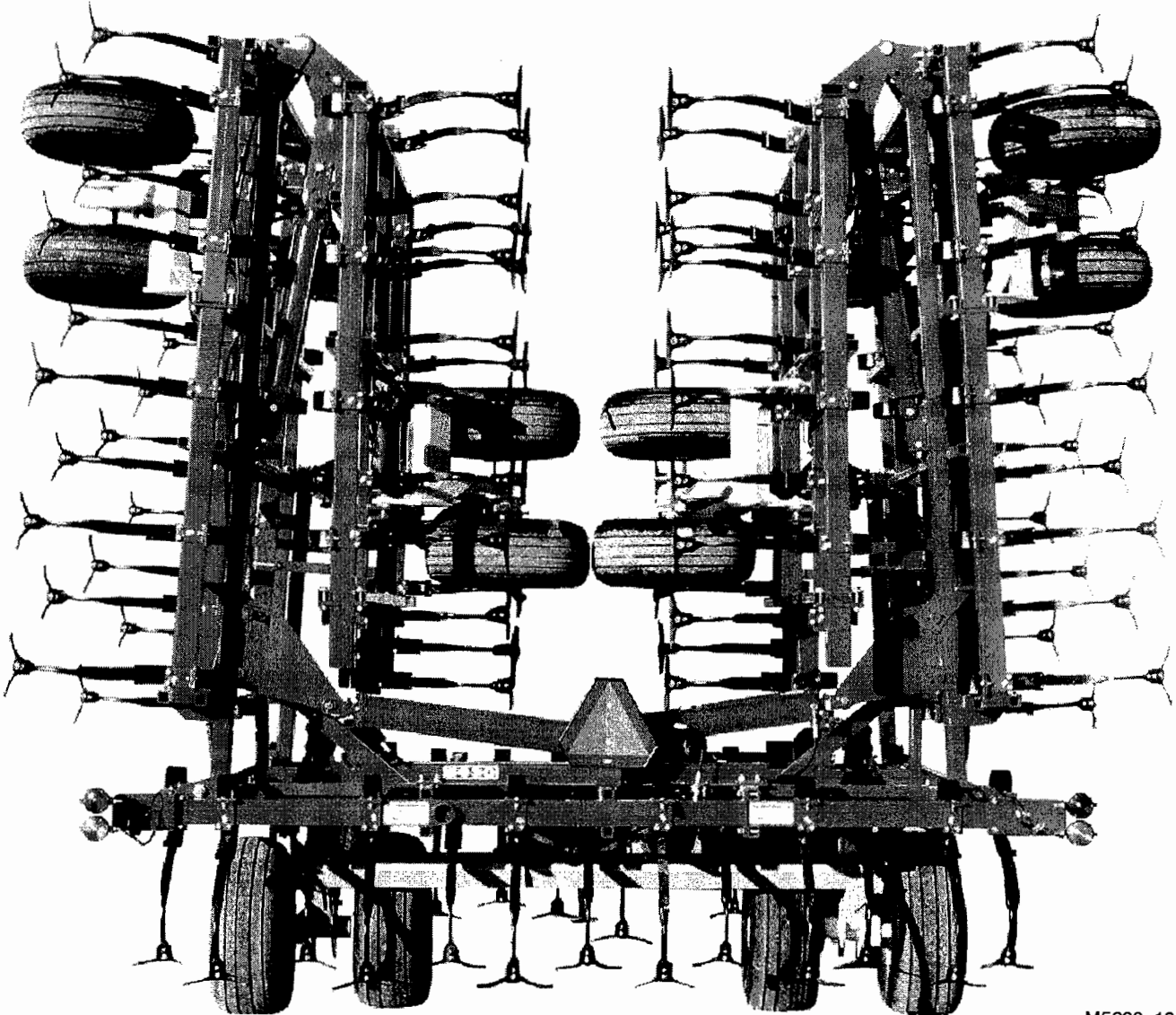
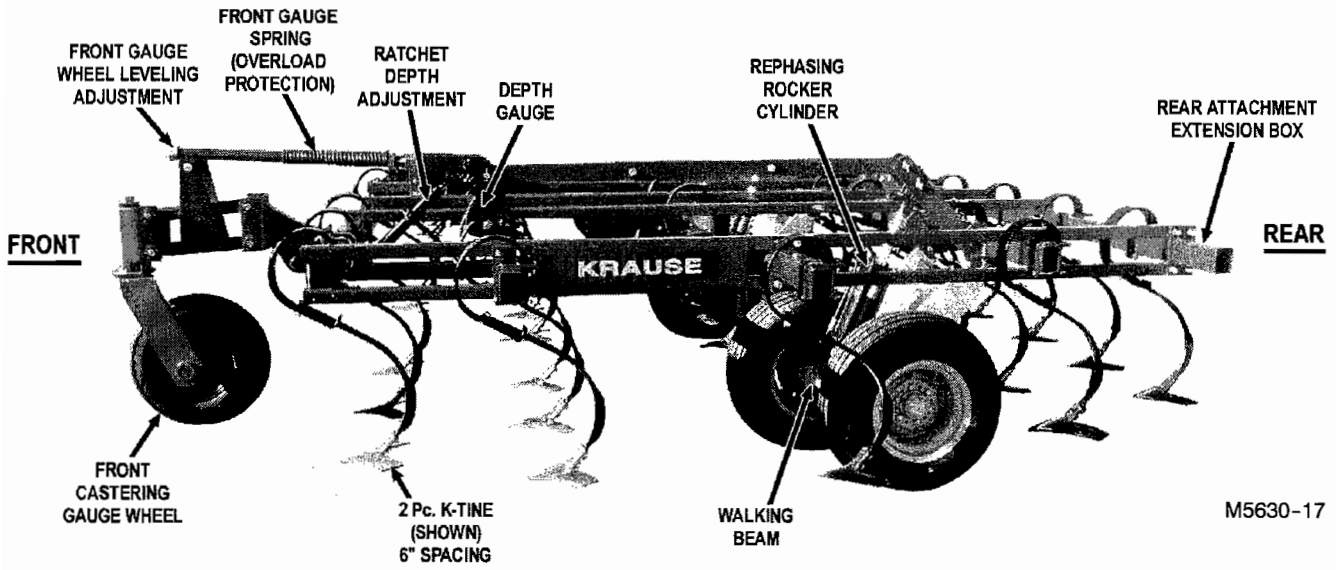
NOTE: TO CHANGE DEPTH, ADJUST THE RATCHET JACK AT EACH WHEEL. NO ADJUSTMENT IS NECESSARY ON FRONT GAUGE WHEEL.

READ OPERATING INSTRUCTIONS IN THIS BOOK FOR DETAILED INFORMATION



11L X 15 8-PLY TIRES - 44 PSI
 6-BOLT HUBS TORQUE WHEEL BOLTS TO 120 FT. LBS.
 8-BOLT HUBS TORQUE WHEEL BOLTS TO 145 FT. LBS.

5630 SERIES FIELD CULTIVATOR



MODEL 5630-48 SHOWN

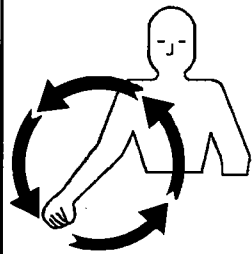
OPERATING SECTION

SAFETY ALERT SYMBOL

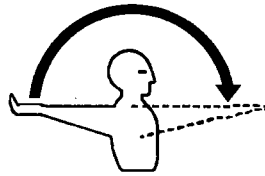


BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY.
THIS SYMBOL IDENTIFIES IMPORTANT SAFETY MESSAGES.
CAREFULLY READ THE MESSAGE THAT FOLLOWS.

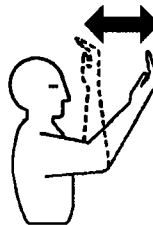
TEN MOST COMMON HAND SIGNALS USED IN THE FIELD



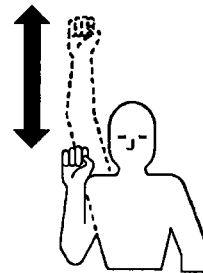
**START
THE
ENGINE**



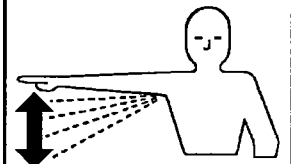
**MOVE OUT
OR
TAKE OFF**



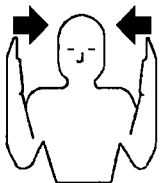
**MOVE
TOWARD
ME**



**SPEED
IT UP**



**SLOW IT
DOWN**



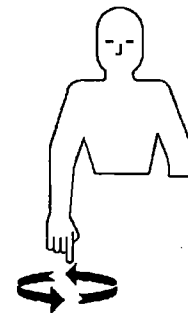
**THIS FAR
TO GO**



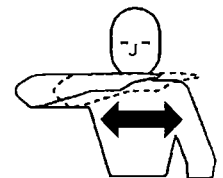
STOP



**RAISE
THE
EQUIPMENT**



**LOWER
THE
EQUIPMENT**



**STOP
THE
ENGINE**

SAFETY DECALS

CAUTION

READ AND UNDERSTAND YOUR OPERATOR'S MANUAL! OBSERVE ALL CAUTION, WARNING, & OR DANGER INSTRUCTIONS AND OTHER SAFETY PRACTICES.

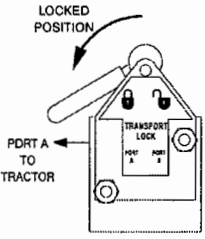
1. To service machine: Park on level surface and lower wings. Set parking brake and/or place in park, shut off engine and remove key. Never work under raised equipment without adequate supports. If supports are not available, completely lower unit to the ground. Block wheels if detached from tractor.
2. Do not allow riders on implement or tractor.
3. Make certain that everyone is clear before activating any controls that may cause movement of implement, hydraulics, or any components.
4. Operate with increased caution on slopes and near ditches where there is a possibility that the tractor could overturn.
5. Before transporting, engage all transport locks and safety chain. The towing vehicle must weigh more than the implement.
6. Before transporting, check tractor and implement lights, clean reflectors and make certain SMV emblem is clearly visible.
7. Maximum transport speed is 15 MPH on best road surface.
8. Store with wings down, and implement on ground or blocks.
9. Regularly inspect bolts and pins in hitch, wheel hubs, cylinders and transport locks.

FAILURE TO OBSERVE SAFETY INSTRUCTIONS AND SAFETY PRACTICES CAN CAUSE PROPERTY DAMAGE, SERIOUS BODILY INJURY, & OR DEATH.

74-117

WARNING

To avoid injury or death due to accidental lowering of implement, move lever to LOCKED position before transporting.




205-0308 74-393

WARNING

Escaping fluid under pressure can penetrate the skin causing serious injury or death. Relieve pressure before disconnecting hydraulic lines, tighten all connections before applying pressure, and inspect all lines before each use. See "Safety" section in operation manual for additional information.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.




205-8735 74-276

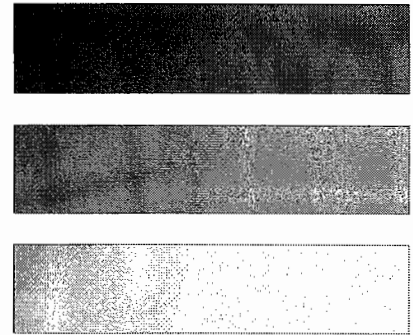
WARNING

CONTACT WITH A POWER LINE OR OTHER OBSTRUCTION CAN CAUSE DAMAGE, SERIOUS BODILY INJURY OR DEATH.

Be aware of implement transport width and height. Rear attachments will add to transport height, and transport width on some implements. See Operation Manual.



205-8734 74-121



WARNING

AIR TRAPPED INSIDE HYDRAULIC CYLINDERS CAN ALLOW IMPLEMENT OR WINGS TO FALL AND CAUSE SERIOUS BODILY INJURY OR DEATH.

Purge air from hydraulic system by following detailed steps in the Operation Manual.

205-0923 74-113

CAUTION

ADDITION OF REAR ATTACHMENTS WILL ADD 8 TO 14 INCHES TO TRANSPORT HEIGHT AND UP TO 24 INCHES IN TRANSPORT WIDTH ON SOME IMPLEMENTS. FOR YOUR SAFETY, MEASURE OVERALL WIDTH AND HEIGHT OF IMPLEMENT AFTER INSTALLING REAR ATTACHMENTS.

74-145

WARNING

FAILURE OF HYDRAULIC COMPONENTS OR ACCIDENTAL OPERATION OF HYDRAULIC CONTROLS CAN ALLOW IMPLEMENT OR WINGS TO FALL AND CAUSE SERIOUS BODILY INJURY OR DEATH!

1. Install all maintenance locks when working on or under implement. See operation manual.
2. Keep everyone clear when raising or lowering implement. Check for adequate overhead and side to side clearance before raising or lowering wings. Make certain all hydraulic systems are full of oil and free of air before raising or lowering wings or implement. Check operation manual for detailed instructions.



205-8731 74-102

WARNING

UNIT MAY BE TAIL-HEAVY

The tongue may raise rapidly when unhitching from the tractor if the rear jack is not set in support position. A rear jack stand is required when heavy attachments are added to the back frame beam. Failure to heed this warning may result in serious bodily injury or death.

205-0309 74-158

See page P59 in this manual for proper location on implement.

OPERATING INSTRUCTIONS



Do not allow anyone to operate this implement who has not been trained in its safe operation. Read all safety decals on the implement, and review the safety first suggestions on the back cover of this manual to refresh your memory. Watch for the safety symbol and read the information. This is for your own protection. If you do not understand any safety decal or instructions in this manual, contact your dealer for assistance.

ABOUT YOUR FIELD CULTIVATOR

This field cultivator has been designed for secondary tillage and is flexible enough to follow the contours of most field conditions. The wings can float down 8° and up 16°. A floating hitch option allows this cultivator to gauge its depth by the front gauge wheels rather than the tractor drawbar. This option makes the cultivator flexible from front-to-rear as well as side-to-side. 2-Piece K-Tine shanks are excellent for weed control, seed bed preparation, and chemical incorporation. The Krause 190# Spring Shank Assembly works well in rocky conditions and has the point load needed to maintain a consistent depth.

This field cultivator works best at speeds of 5 to 7-1/2 M.P.H., however, rocky conditions may require a slower field speed. Horsepower requirements generally will be 5 to 6 drawbar horsepower per foot of cut. The maximum working depth is 5”.

KRAUSE offers 3-Row 16” Tine Harrows and 3-Row Spike Harrows on all 5630 Cultivator models. The smaller 5630 Models can be equipped with 4-Row Tines, 5-Row Tines, 3-Row Tine & Reel or 3-Row Spike & Reel attachments. Caution should be used in adding any other rear attachment that would add more than 40 pounds per foot of cut.



Caution: Adding of excess additional weight could cause frame or axle failures resulting in loss of control during transport.

PREPARING THE FIELD CULTIVATOR FOR OPERATION

1. The wings should be down and implement lowered to the ground. All hydraulic cylinders should be pinned and full of oil.



Caution: Lower the implement to the ground before making the following inspections. With the implement lowered, enter the framework by stepping over, do not crawl under the framework. If the implement is not lowered, any hydraulic failure could cause the implement to drop suddenly, causing personal injury.

2. Check for loose bolts and tighten if needed. Check again for loose bolts after the first half day of operation.
3. Check the shank locations with the Placement Drawings at the back of this manual for the model being used to be sure that the unit has been set up properly.
4. Check tire pressure. Inflate 11L x 15, 8-Ply tires to 44 PSI; and 12.5L x 16, 14-Ply tires to 56 PSI. Also check the wheel lug bolts to see if they are properly torqued to 120 Ft. Lbs. for 6-bolt hubs, and to 145 Ft. Lbs. for 8-bolt hubs, and that the wheel hub bearings do not have excessive end play.
5. Make sure that all grease zerks locations have been sufficiently greased. Grease zerks will be found on hinges, wheel hubs, walking beams, depth ratchet jacks, and floating hitch castor pivot.

6. Check and adjust tightness of wheel bearings before operation, after the first week and periodically thereafter. (See Service Section of this book)

PREPARING THE TRACTOR

Read your tractor owner's manual. It will describe safe methods of operation. Make sure your tractor has proper added ballast, and that its hydraulic system is full of oil and working properly. Check tractor brakes and warning lights, make sure they are in working order.

HYDRAULIC SYSTEM

Inspect the hydraulic system for tell-tale leaks and loose fittings. Tighten if needed. Loose tape fragments may cause cylinder valve or O-Ring leaks that can cause drifting or poor cylinder operation. Make sure a restrictor is installed in the wing lift cylinder rod end port. If not previously filled, your hydraulic system requirements will range from 28 Quarts on Model 5630-28 to 58 Quarts on Model 5630-48.

When working with rephasing rocker cylinders, be sure all of the cylinders are mounted in proper sequence. Hoses must be attached in the proper order, and all air bled from the hoses and cylinders. See page O12 under REPHASING CYLINDER SYSTEM. If, after some time, one cylinder of the series should start to close for no apparent reason, oil is probably leaking past the O-Rings and an O-Ring kit, available from Krause, should be installed.

REPAIR OF HYDRAULIC CYLINDERS SHOULD BE MADE BY AN AUTHORIZED KRAUSE DEALER ONLY.

A HYDRAULIC HOSE AND CYLINDER SCHEMATIC CAN BE FOUND FOR EACH MODEL IN THIS SERIES ON PAGES P40 THROUGH P47 OF THE PARTS SECTION.

HYDRAULIC SAFETY (Please read carefully)

If the implement hydraulic system has never been used, stored over a period of time or disassembled for any reason, unpin the rod ends of the cylinders and support the cylinders so the rod ends will clear frame members when fully extended. Back the tractor to the front of the implement and connect the hydraulic hoses. Check the tractor hydraulic reservoir and make sure it is full of the manufacturer's recommended oil. If you are sure the implement hydraulic hose connections are tight, begin filling the system by extending and retracting the cylinders. Hold the control lever open and pause at the end of each stroke to bleed the air from the system. Continue the cycles until the cylinders respond with immediate solid actuation. When you are sure the systems are free of air, pin the rod ends of the cylinders to the implement cylinder lugs.



Warning: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

AVOID HEATING NEAR PRESSURIZED HYDRAULIC HOSES

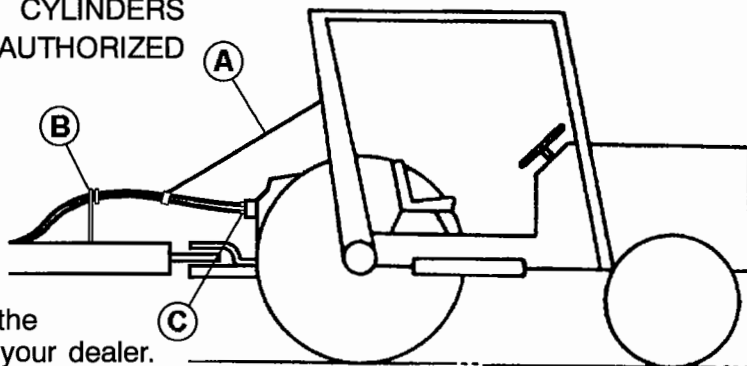
Flammable spray can be generated by heating near pressurized hydraulic hoses, resulting in severe burns to yourself and bystanders. Do not heat by welding, or using a torch near hoses. Hose can be accidentally cut when heat goes beyond the immediate flame area.

THE FOLLOWING WARNINGS PERTAIN TO THE MORE COMMON ABUSES OF HYDRAULIC HOSE:

1. **INSPECT** the hose assembly before each use.
2. **REPLACE** the hose assembly immediately if:
 - a) The jacket of the hose appears abnormal
 - b) You have reason to believe it may be abnormal
 - c) There is any fluid leakage.
 - d) The couplings are damaged.
 - e) The hose is damaged or kinked.
 - f) The reinforcement is visible through the jacket.
5. **DO NOT EXCEED** the maximum recommended working pressure of hose.
6. **DO NOT KINK** the hose assembly.
7. **DO NOT BEND** the hose assembly beyond its minimum bend radius of 3.25
8. **DO NOT EXPOSE** to temperatures in excess of 225° Fahrenheit
9. **DO NOT USE AS A STRENGTH MEMBER** for pulling or lifting equipment.

IMPORTANT: REPAIR OF HYDRAULIC CYLINDERS SHOULD BE MADE BY AN AUTHORIZED KRAUSE DEALER.

Prevent damage to trail hoses by supporting them from the tractor with an elastic strap "A". Avoid having excess hose between the implement support "B" and the tractor connection "C". Either reposition the hose farther back on the implement or request a shorter hose from your dealer.



Inspect the hydraulic system for tell-tale leaks and loose fittings. Tighten if needed. When assembling our hydraulic system, if JIC and O-Ring fittings and hoses are to be used, the use of a tape or liquid sealer is not necessary. **MAKE SURE** a retractor (FITTING WILL BE TAGGED) is installed in the rod end port of each wing lift cylinder.

⚠ Caution: Air in hydraulic system could allow field cultivator or wings to drop suddenly.

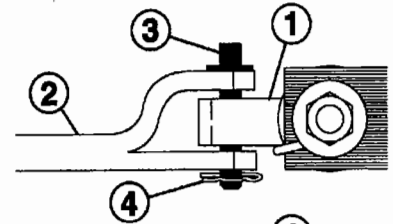
HITCHING & UNHITCHING

⚠ Danger: Do not allow any person to stand between the tractor and implement while backing into position. Sudden loss of control could cause serious injury or death to a person caught between the tractor and implement. Tell your helper to wait until you give him the signal that the tractor is in park or neutral and the hand brake is set and engine is shut off.

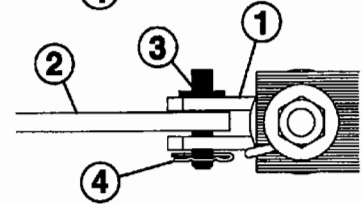
Hitching To The Tractor

- a) The field cultivator should be supported by the tongue jack.
- b) Unpin the tractor drawbar so it can be moved from side to side.
- c) Back the tractor to the field cultivator.

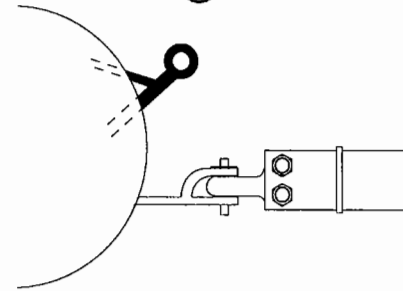
- d) Attach clevis [1] to tractor drawbar [2] with clevis pin [3] that fits the hole size in the tractor drawbar. Make sure pin is locked or bolted in place [4] to prevent loss.



- e) Fasten safety chain and/or lights. (See "Transporting")
- f) Place tongue jack in storage position.
- g) Connect hydraulic hoses to tractor.
- h) Raise the cultivator and close the transport lock valve.



IMPORTANT: BEFORE MOVING THE IMPLEMENT, BE SURE THAT THE LOWER ARMS OF THE THREE POINT HITCH HAVE BEEN RAISED TO THE TOP AND SECURED TO PREVENT DAMAGE TO THE CLEVIS AND TONGUE WHEN MAKING TURNS.



Unhitching From The Tractor

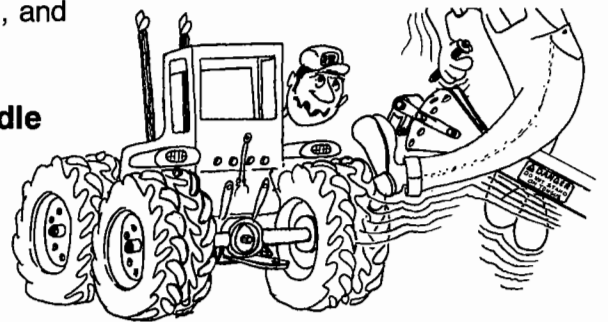
If the implement is not to be used for the remainder of the day, select a good parking place that will permit the lowering of the wings. The implement should be parked in the storage position with the wings down and the transport lock valve closed. If the implement is to remain parked for storage over a long period of time, be sure to read the storage suggestions on page O15.

- a) To unhitch the tractor from the implement, place the tractor in park or neutral and set the hand brake. If you are not parking on level ground block the implement tires to prevent damage to the jack.
- b) Have all personnel stand clear and lower the wings.
- c) Close transport lock valve, turn off tractor power, relieve any hydraulic pressure that might be in the system by moving the tractor control lever(s) back and forth.
- d) Lower the tongue jack, raise the tongue height until the clevis pin can be removed.

NOTE: If rear attachments have been added, and the implement is tail heavy, move the jack from the tongue position to the back frame mount position. If the unit is balanced, use two jacks. (Order part number 4956-56-0 Jack Assembly)

- e) Disconnect the hydraulic hose, safety chain, and lights, and then move the tractor away.

⚠ Caution: Do not stand on or straddle implement tongue when unhitching. If any rear attachments have been added to the unit, it may affect the balance of the field cultivator, causing the tongue to come up suddenly when unhitching.



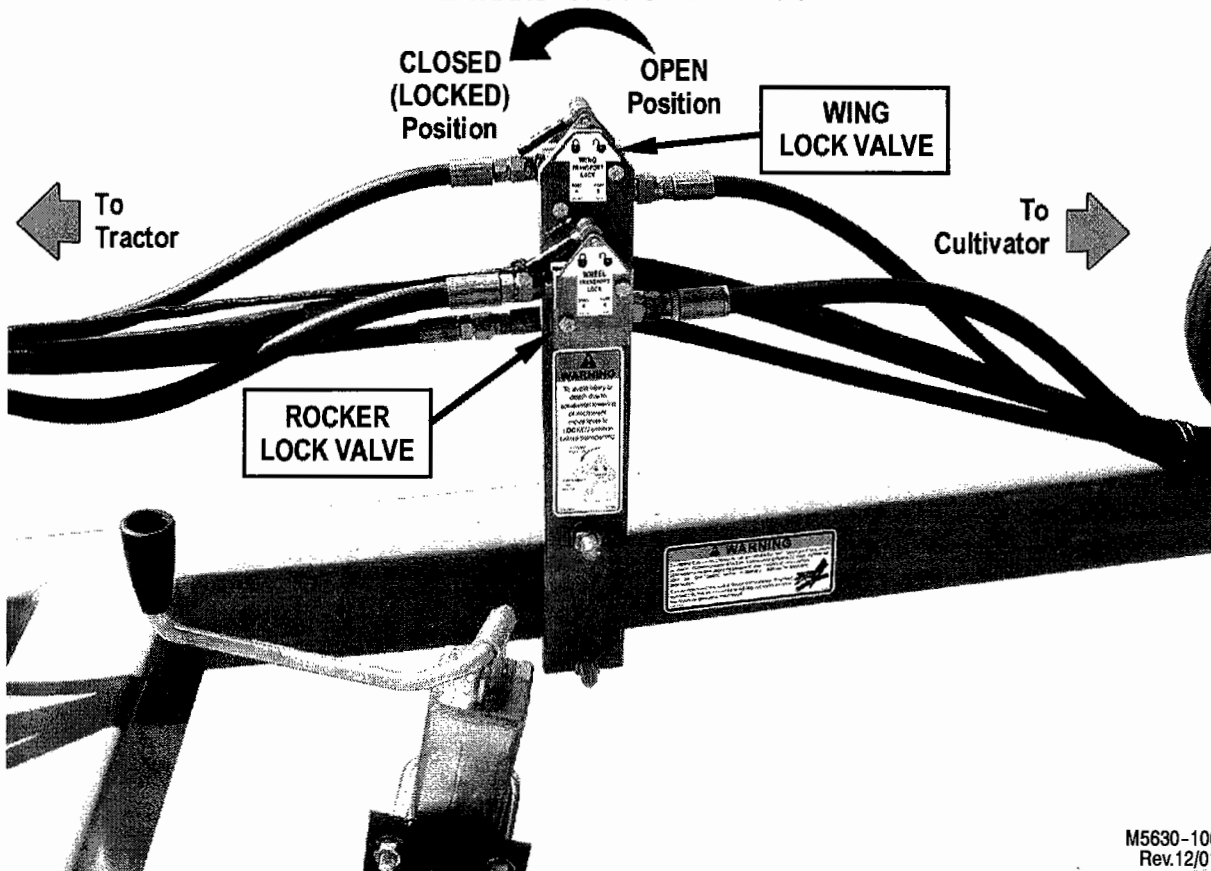
TRANSPORTING

⚠ Warning: Always close both transport locks when transporting to prevent unit from falling due to hydraulic failure, or accidental activation of the operator's control. Lowering of the tool during transporting could result in loss of control or implement and / or tractor. The tractor drawbar must always be pinned for transport.

Transport Lock Valves

The road locks are hydraulic valves. Turning the handle to release the poppet (handle toward the tractor) will close the valve. Turning the handle to engage the poppet (handle towards the cultivator) will open the road lock for field use.

**MOVE VALVE HANDLE TO CLOSED (LOCKED) POSITION
BEFORE TRANSPORTING IMPLEMENT**



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Raising The Wings

The implement should be in the raised position with the transport lock valve closed. If the system is full of oil, you are ready to also raise the wings. The wings will be secured in the raised position with the transport lock valve.

⚠ Warning: Always stand clear of wings when they are in raised position. A hydraulic failure or activation of hydraulic controls by someone could result in serious injury to anyone under the wings.

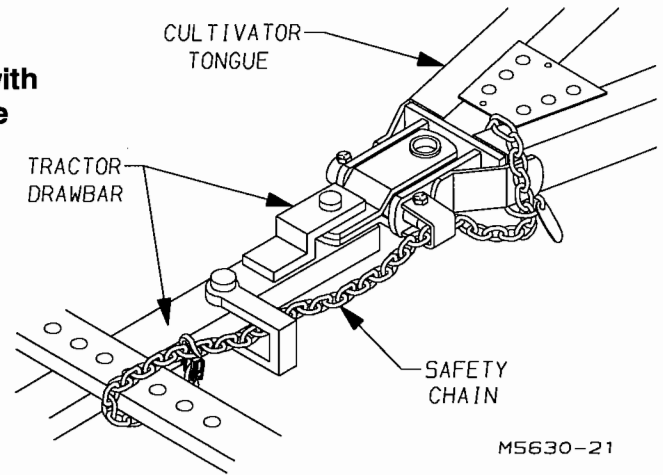
Lowering The Wings

Open the wing lock valve to unlock both wings then lower the wings with all persons standing at a safe distance away from the implement.

Transport Safety

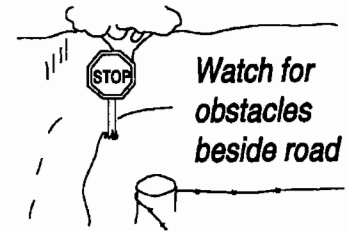
Warning: Always use a safety chain with tensile strength equal to the gross weight of the unit, plus any attachments, when transporting.

NOTE: A safety chain, SMV emblem, and a light kit were furnished as standard equipment with your implement. Make sure they are in place, clean and in working order.



Insert the ASAE Slow Moving Vehicle (SMV) emblem into the bracket provided. The emblem is to be mounted point up in a plane perpendicular to the direction of travel ± 10 degrees. It shall be placed centrally at the rear of the vehicle, unobscured, and 2' to 6' (0.61 to 1.8m) above the ground, measured from the lower edge of the emblem. The SMV emblem should be wiped clean before entering the road or highways.

Comply with state and local laws pertaining to lighting and road widths. Turn on flashing lights whenever traveling on a highway except where it is prohibited by law. Transport during daylight hours only. Watch your clearance. Be aware of obstacles along the side of the roadway that might be caught by the field cultivator when passing by. Pull over to the side of the road to permit safe clearance for oncoming traffic. Keep the red and yellow reflectors clean and visible. Replace the reflectors if they become faded or damaged. Watch for pedestrians on the side of the road that need to be warned of your presence.



Danger: Always check conditions of transport lock valve, tires, wheels, hubs, safety chain, hitch bolts, and clevis pin before transporting the implement.

Check specification page and be aware of the transport height and width of your model of field cultivator.

Caution: Do not exceed 15 m.p.h. in transport on best surface. Exceeding this speed can result in failure in wheel hubs or spindles and loss of control of implement and / or tractor. Do not tow this implement if its weight exceeds 1-1/2 times the weight of the towing unit. Pin tractor drawbar to prevent side sway during transport.

FIELD ADJUSTMENTS

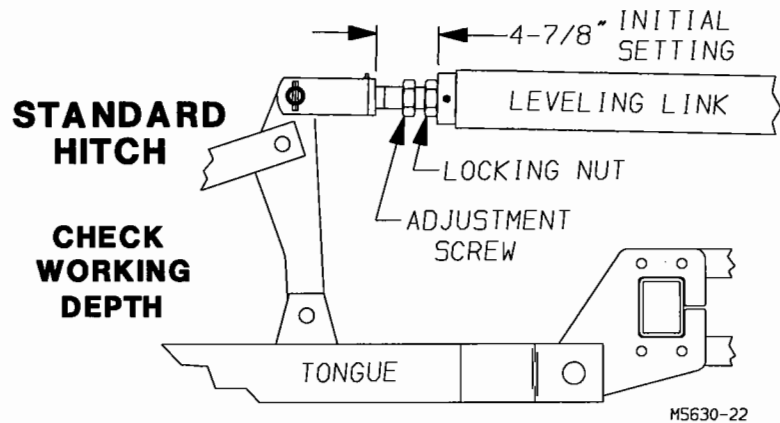
To operate your cultivator most efficiently, it must be level. Check all of the initial adjustment settings before operation. Lower the implement and fully retract the rocker cylinders. Pull the cultivator a short distance and stop with the unit still in the ground. Carefully dig out sweeps on the front rank and rear rank at each wheel location. Measure depths at each location and fine tune the cultivator using the following directions:

CENTER SECTION FRONT-TO-REAR LEVELING

NOTE: Using the tractor hydraulics, lower the cultivator until the link pressure is relieved before adjusting the leveling screw.

Standard Self Leveling Hitch

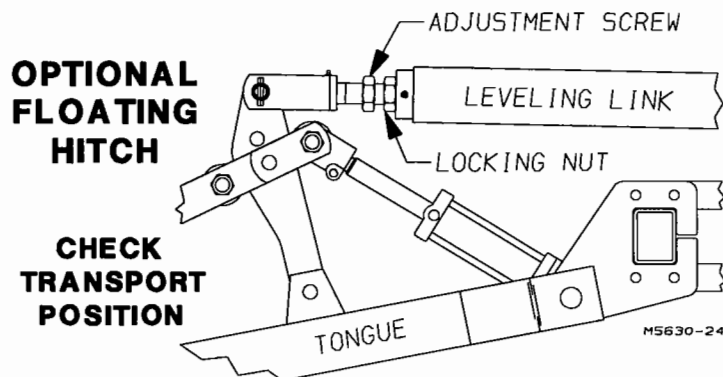
- **Shorten** the center leveling link adjustment screw to **lower the front**.
- **Lengthen** the adjustment screw to **raise the front**.
- Pull the cultivator a short distance and recheck center section sweep depths.
- Readjust as needed.
- Tighten the locking nut when adjustment is completed.



Optional Floating Hitch

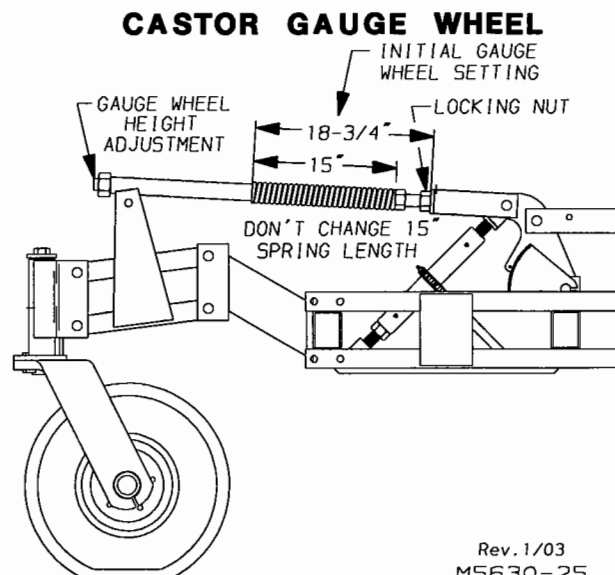
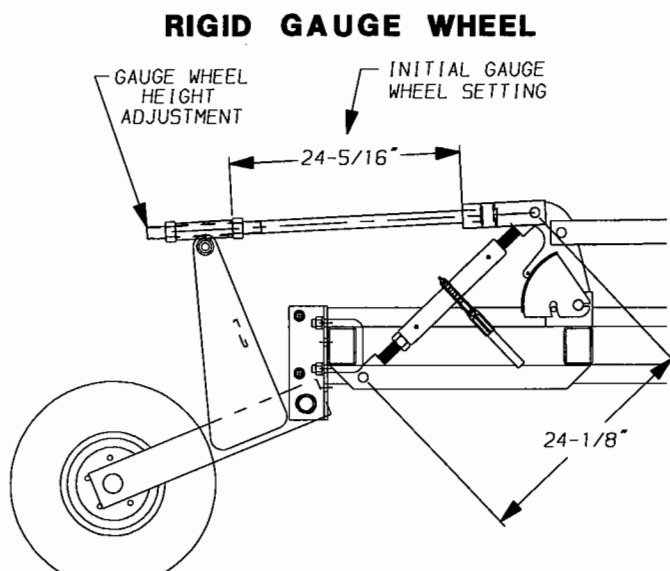
The center leveling link controls front-to-rear leveling in the raised transport position only.

- Adjust leveling link screw as needed for transport.
- At field depth the front-to-rear leveling is controlled by the front gauge wheels.



WING FRONT-TO-REAR LEVELING (also Floating Hitch Center Section)

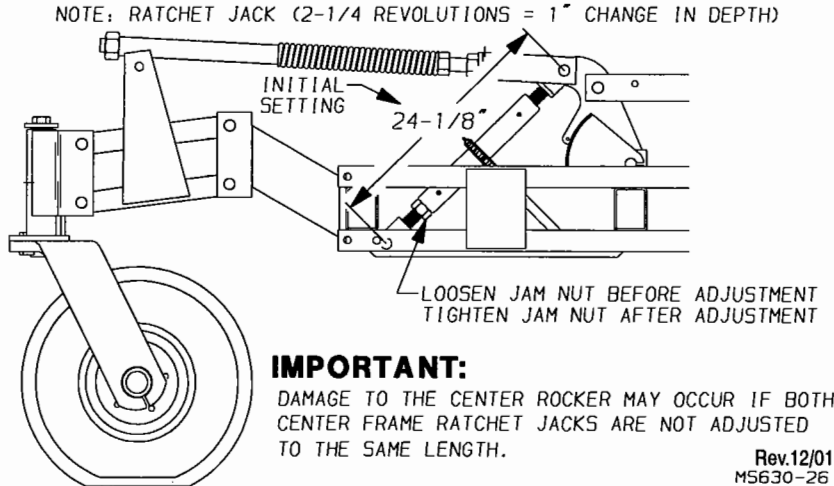
- **Lengthen** the front gauge wheel adjustment screw to **raise the front of the cultivator**.
- **Shorten** the front gauge wheel adjustment screw to **lower the front of the cultivator**.
- Pull the cultivator a short distance, recheck front and rear sweep depths at the wheel locations, readjust as necessary, and tighten the locking nut when adjustment is complete.



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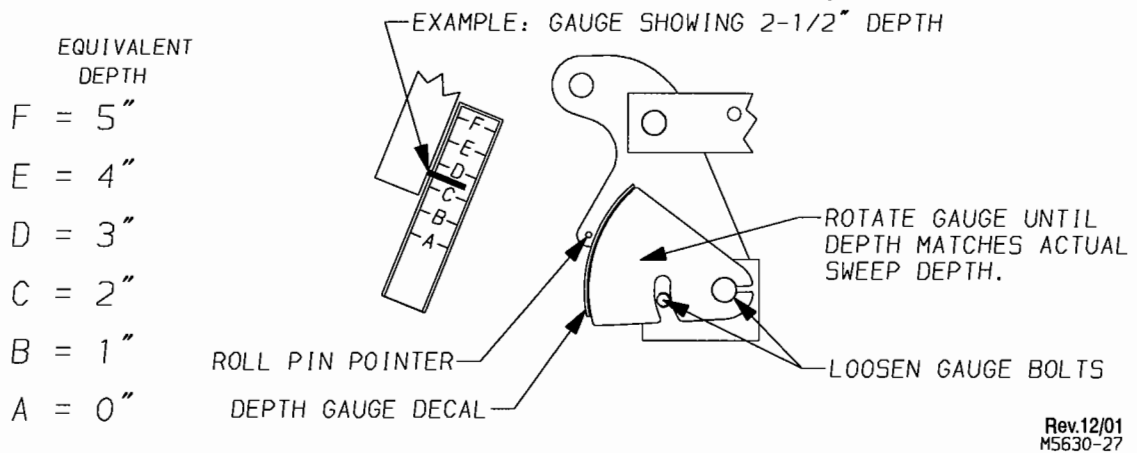
LEVELING THE CULTIVATOR FROM SIDE-TO-SIDE

- Set all ratchet jacks to the initial 24-1/8" dimension as shown.
- Lower the unit and fully retract the rocker cylinders. Pull the cultivator a short distance and stop with the cultivator in the ground.
- Measure the center section sweep depth and compare it to the wing sweep depths measured at the wheel locations.
- Adjust the wing ratchets as needed to match the center section sweep depth.



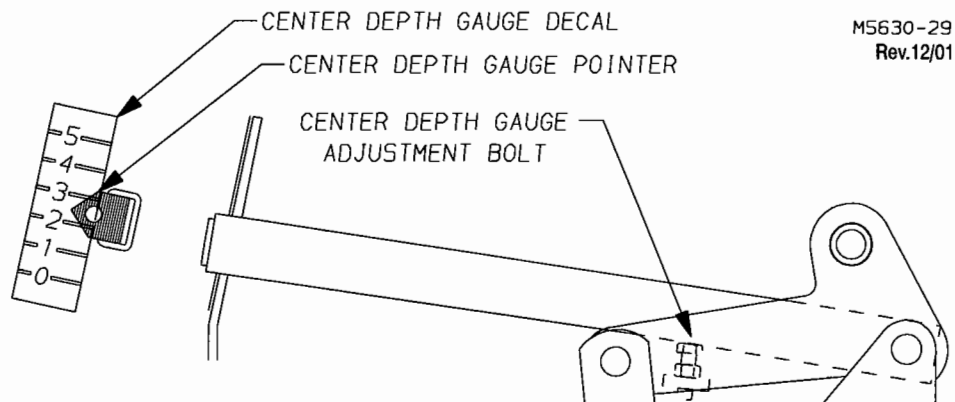
SETTING THE RATCHET JACK DEPTH GAUGES

- After all sections are level and operating at a consistent depth, loosen both of the depth gauge bolts and rotate the gauge until it coincides with the sweep depth. Repeat this at all ratchet locations.



SETTING THE LARGE CENTER DEPTH GAUGE

- Pull the cultivator a short distance with the rocker cylinders fully retracted. Stop with the unit still in the ground. Adjust the center gauge bolt until the gauge matches the sweep depth.



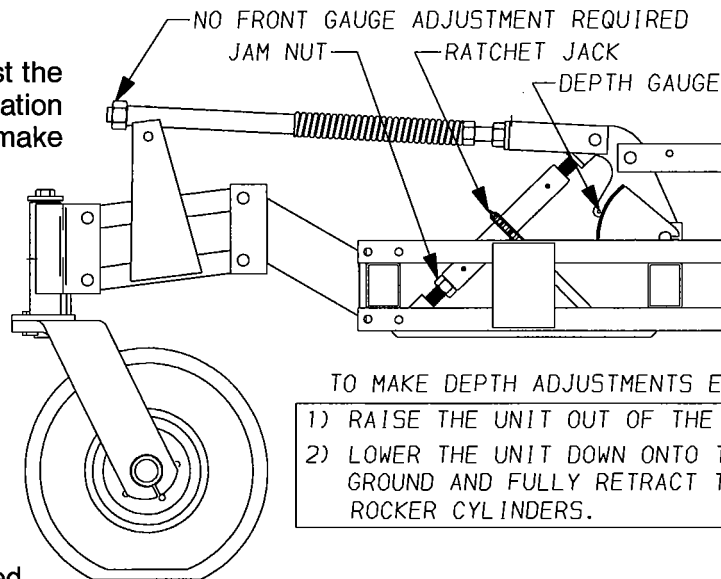
CHANGING SWEEP DEPTH

- Loosen the jam nut and adjust the ratchet jack at each wheel location using the depth gauge to make adjustments consistent.

NOTE: (A) is shallow
(F) is deep

Each mark on the decal equals 1" change in depth.

2-1/4" Ratchet revolutions equal 1" change in depth.



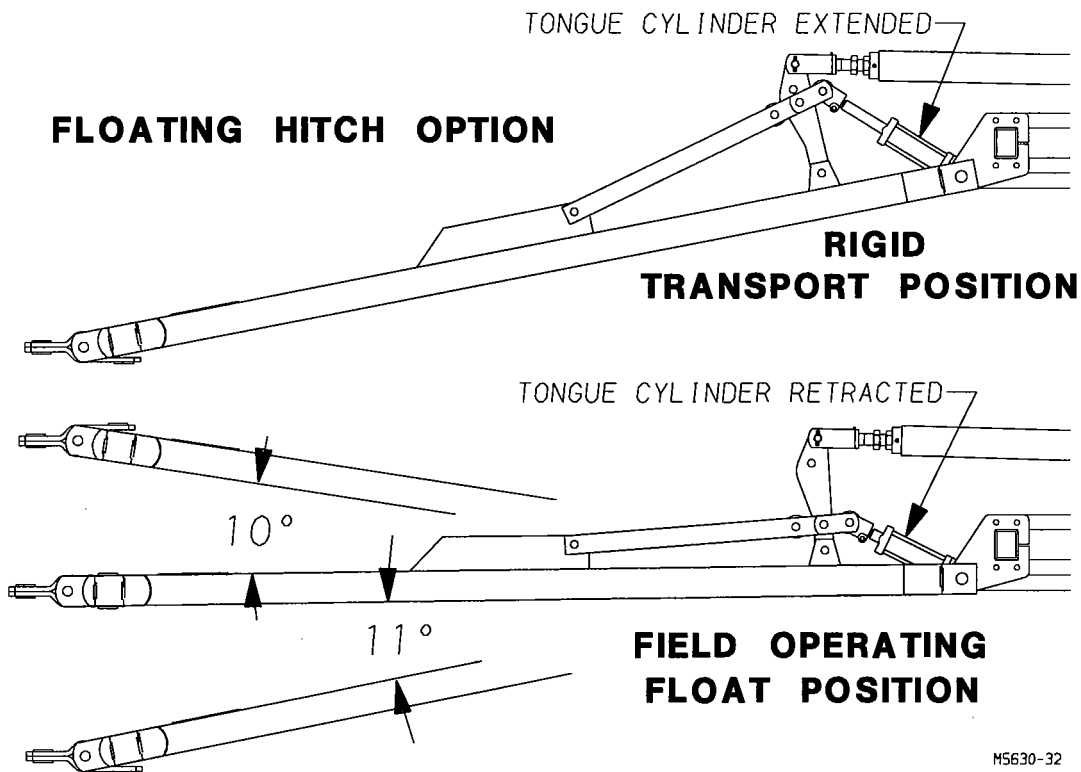
M5630-30

FLOATING HITCH OPTION

This option allows the cultivator depth to be gauged by the front caster wheels rather than the tractor drawbar. The hitch is released to flex allowing the cultivator to follow the ground contour. This is important in fields that have hills, low spots, terraces, etc. The Krause floating hitch is unique because the hitch locks into self-leveling mode when the cultivator is raised to the transport position. The front caster wheels are not on the ground in transport avoiding wobble problems normally associated with casters. Other advantages include: minimal caster linkage wear because the links do not move when the cultivator is raised, and the ability to have heavier rear attachments.

The optional floating hitch consists of (2) front castering gauge wheels on the center section, a 3 x 5 tongue cylinder, a sequence valve, and some hydraulic plumbing.

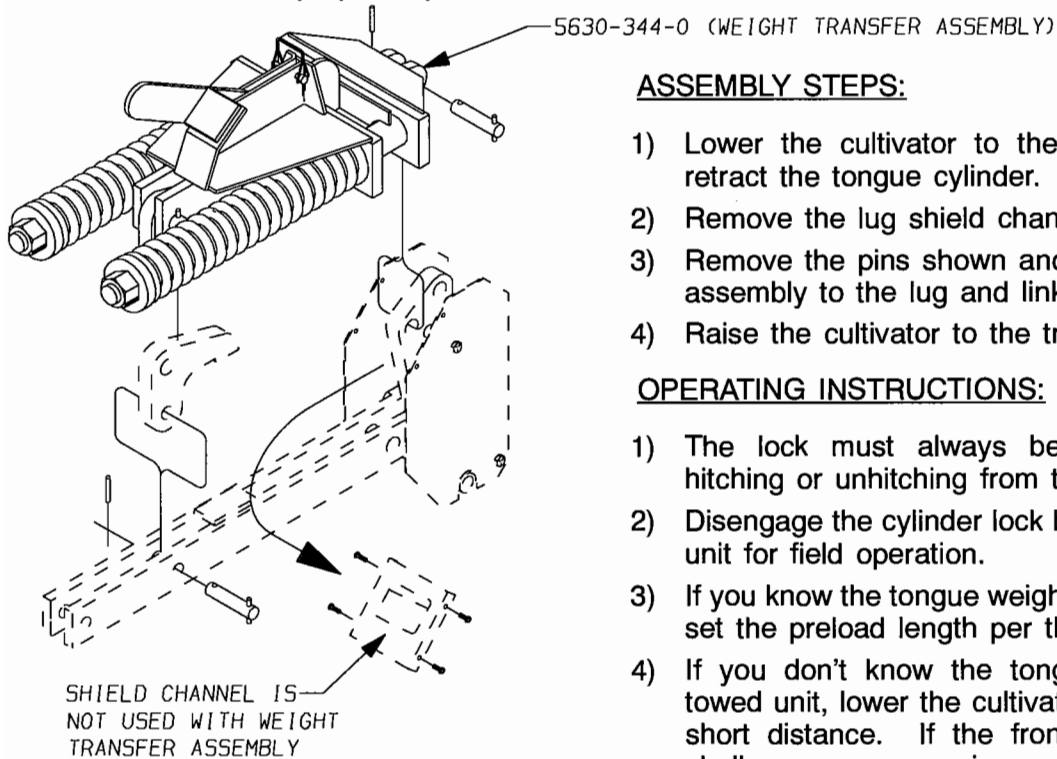
In field operation, **make sure the tongue cylinder fully retracts each time the cultivator is lowered.** No damage will occur if the cylinder is not fully retracted; however, the hitch will not be in the float mode.



M5630-32

WEIGHT TRANSFER SPRING

The weight transfer spring is only required on Floating Hitch Cultivators when towing an implement that has a tongue weight over 200 lbs. This accessory will transfer the implement tongue weight to the tractor drawbar. Without the weight transfer spring, the front sweeps would not maintain the proper depth.



ASSEMBLY STEPS:

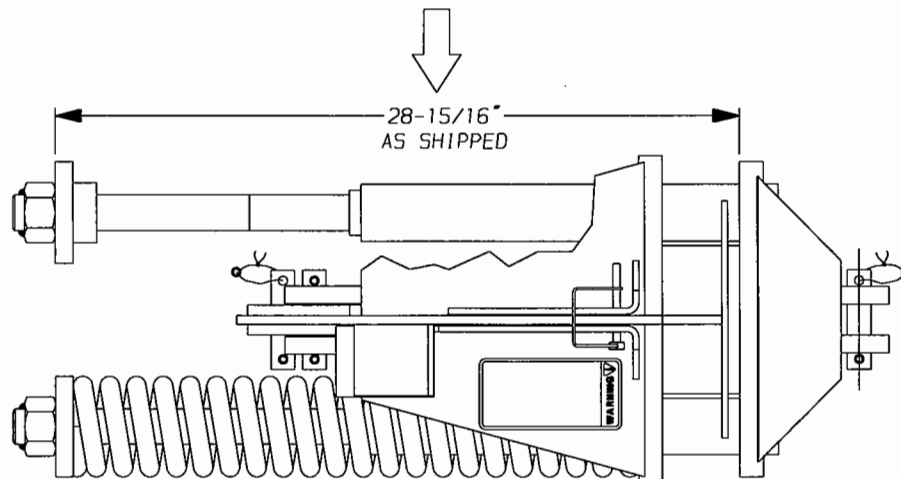
- 1) Lower the cultivator to the ground and fully retract the tongue cylinder.
- 2) Remove the lug shield channel.
- 3) Remove the pins shown and attach the spring assembly to the lug and link.
- 4) Raise the cultivator to the transport position.

OPERATING INSTRUCTIONS:

- 1) The lock must always be engaged before hitching or unhitching from the tractor.
- 2) Disengage the cylinder lock before lowering the unit for field operation.
- 3) If you know the tongue weight of the towed unit, set the preload length per the chart below.
- 4) If you don't know the tongue weight of the towed unit, lower the cultivator and pull it for a short distance. If the front sweeps run too shallow or are coming out of the ground, increase the spring pressure by decreasing the preload length. **DO NOT ADJUST THE PRELOAD LENGTH TO LESS THAN 25-11/16"**.

SPRING TENSION ADJUSTMENT

PRELOAD LENGTH	REAR HITCH VERTICAL LOAD
30-9/16"	400#
28-15/16"	800#
27-5/16"	1200#
25-11/16"	1600# MAXIMUM

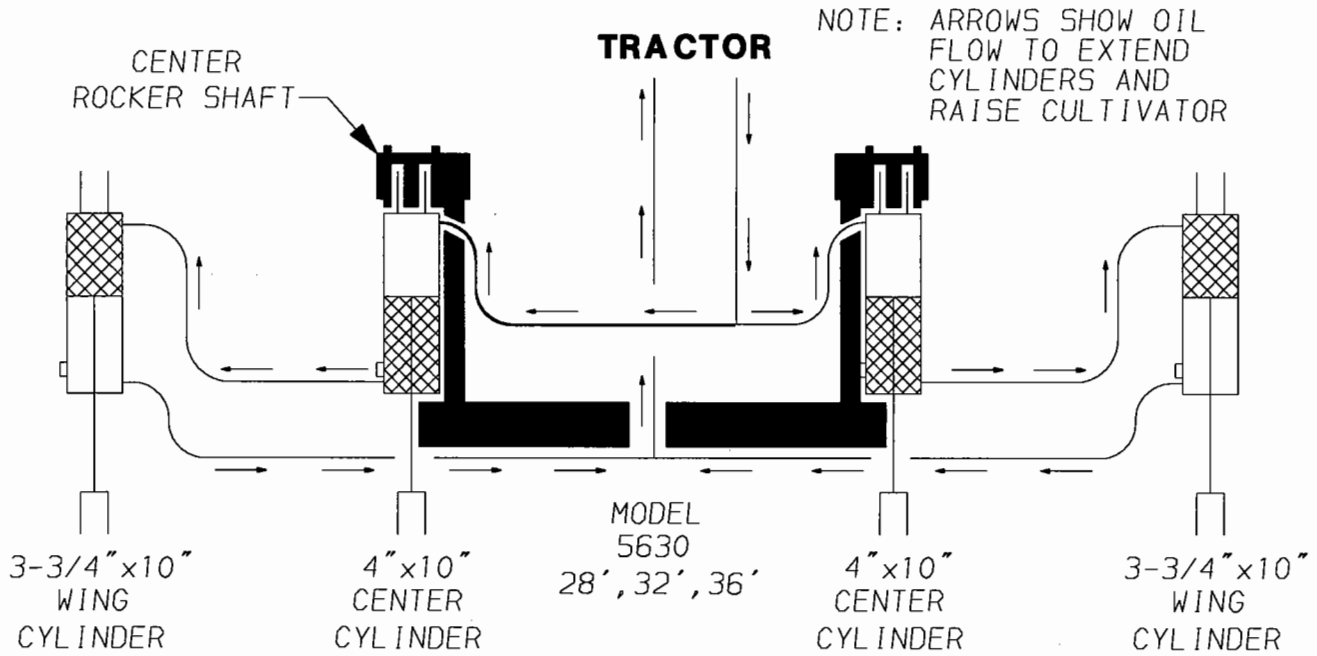


REV. 10/02
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UNDERSTANDING YOUR REPHASING CYLINDER SYSTEM

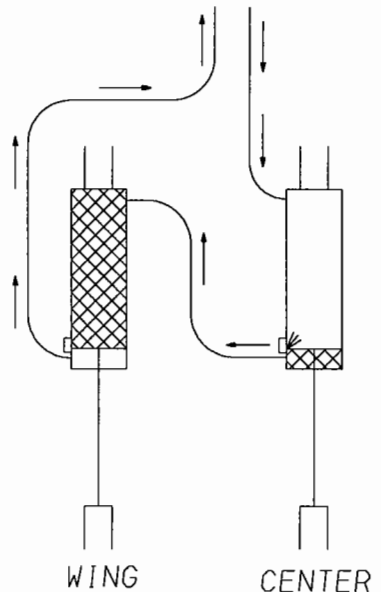
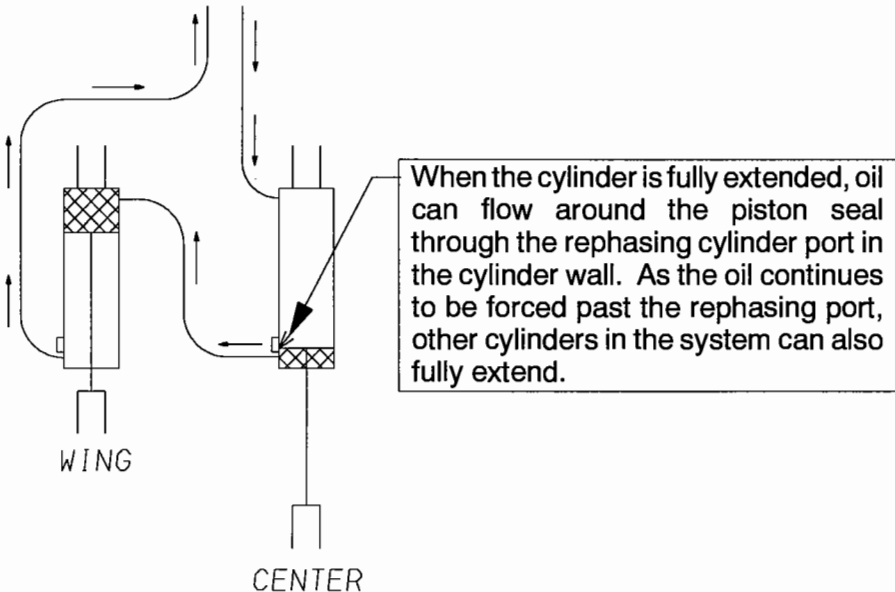
When the cultivator is raised completely out of the ground these specially designed cylinders are rephased for uniform lifting by holding the tractor remote hydraulic control lever in the raised position for 20 to 30 seconds. This allows a small volume of oil to bypass the piston seals. Consequently, all of the cylinders can be fully extended.

REPHASING CYLINDERS WITH DUAL SERIES PLUMBING CONNECTED WITH CENTER ROCKER



WING CYLINDER NOT IN PHASE WITH CENTER CYLINDER

CENTER & WING CYLINDERS ARE BOTH FULLY REPHASED



REPHASING PROCESS

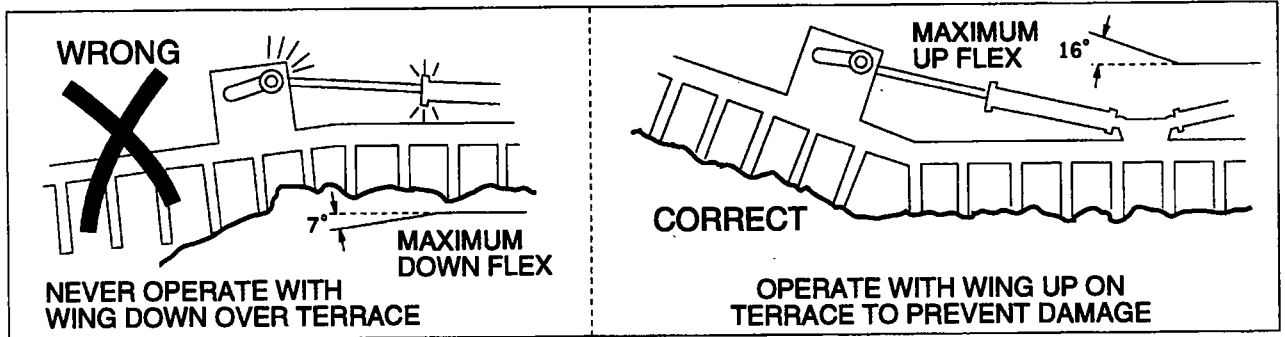
CYLINDERS REPHASED

M5630-31

Flexibility

ALWAYS WORK WITH THE WINGS DOWN: Major damage may occur to shanks and frame members if used with the wings up. For maximum flexibility, make sure the wing hydraulic cylinders are fully extended after the wings are down.

When working terraced ground, place the wing up on the terrace, not down over the terrace, as the wing is limited in its downward movement, but not as much in its upward movement.



Turning In The Field

Short turns at working depth may result in driving the outside shanks deeper in the ground, causing damage to shanks or frame members. If short turns must be executed, raise the field cultivator out of the ground and complete the turn before engaging the tool for further tilling.

When lifting the field cultivator completely out of the ground, hold the tractor hydraulic valve open for a second or two to resynchronize the slave cylinders.

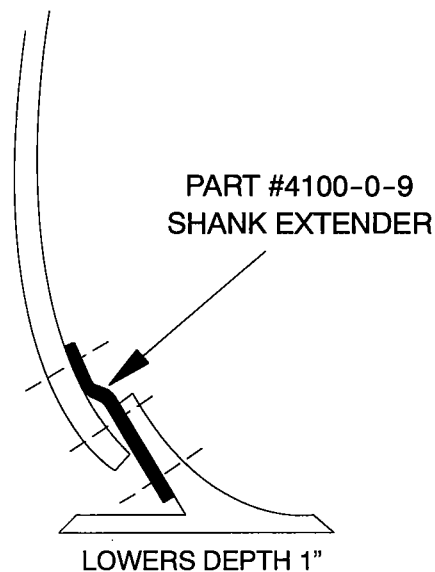
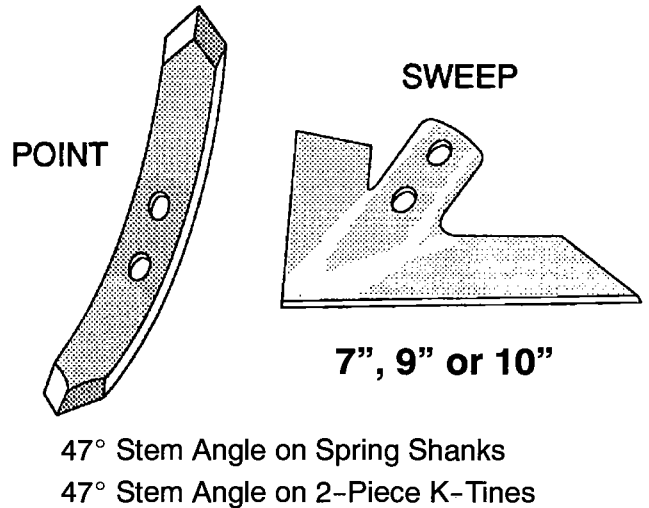
See section "UNDERSTANDING YOUR REPHASING CYLINDER SYSTEM" on page O12.

Field Speed

While high field speed of around 7 M.P.H. may be recommended for weed killing purposes in light soil and shallow depth, a slower speed is recommended for heavy soils and deep work. Slower speed will also add life to field cultivator points and sweeps.

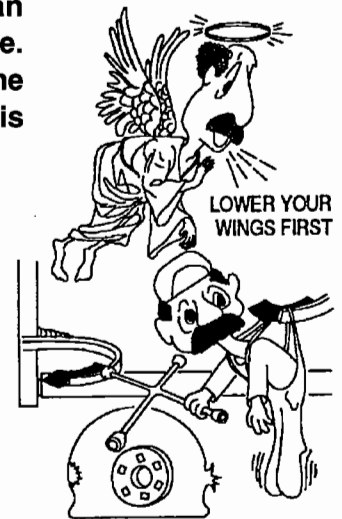
GENERAL INFORMATION

Points are recommended for light soils and when higher ridges are desired. Sweeps are for light draft cultivation and not for deep work.



Shank Extenders (Part number# 4100-0-9) are for use on K-Tines, located in back of the tractor tires, to lower the depth of the shanks by approximately 1". Their use allows sweeps to run deeper and relieve some of the soil compaction caused by the tractor.

⚠ Danger: The wing mounted shanks and points can seriously injure anyone that gets too close. Never under any circumstances should anyone be allowed to walk or work under a wing that is in the raised transport position.



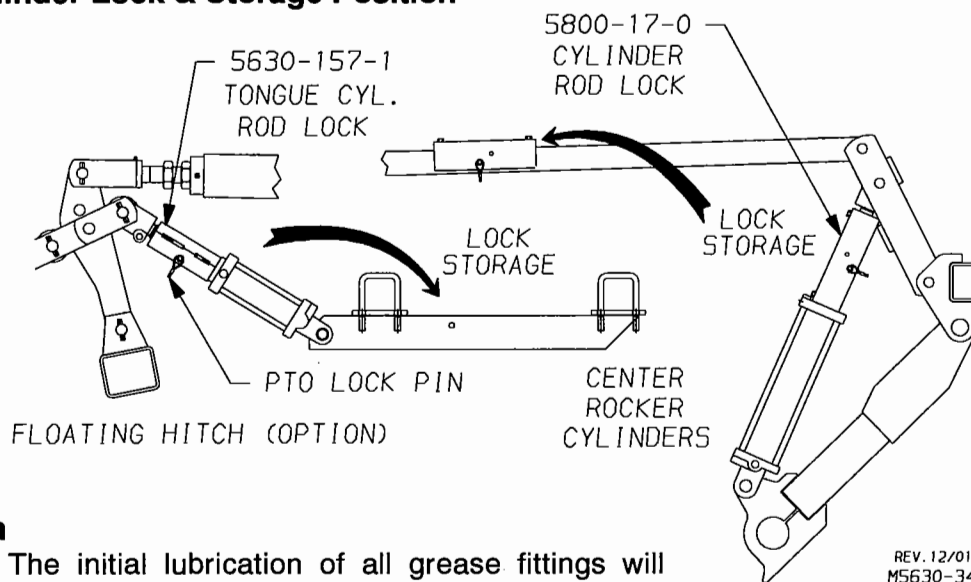
SERVICING

General Maintenance

All nuts should be checked and tightened during and after the first 1/2 day of operation, and periodically thereafter. Keep tires inflated to the recommended pressure, and check the wheel bolts until they are firmly seated. Hydraulic hoses should be checked for wear and pinched areas and replaced if necessary. Check shanks and mountings for breaks and turn or replace points when worn.

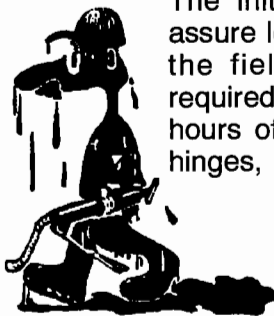
⚠ Warning: Raise the cultivator, make sure that both center cylinder rod locks and tongue cylinder lock are installed, and wings are supported by stands before installing cultivator points or sweeps.

Tongue Cylinder Lock & Storage Position



REV. 12/01
M5630-34

Lubrication



The initial lubrication of all grease fittings will assure long life and satisfactory performance from the field cultivator. Minimum lubrication is required. Use a multi-purpose type grease at all grease zerk locations after each 48 hours of operation. Points of lubrication are: tongue pivots, leveling linkage, wing hinges, walking tandem bearings, wheel hubs, and caster assemblies.

FOR YOUR SAFETY: WHEN LUBRICATING OR ADJUSTING YOUR FIELD CULTIVATOR, WATCH FOR OBSTRUCTIONS AND PROTRUSIONS. LOWER IMPLEMENT WINGS TO THE GROUND AND ENTER FRAMEWORK BY STEPPING OVER. DO NOT WALK ON TIRES.

Wheel Bearings

Grease wheel bearings every 48 hours of use. Check for excessive end play each time bearings are greased. Once a year, clean and repack wheel bearings with EP#2 Grease. Replace seals each time bearings are removed. Replace any worn or damaged parts. After repacking, replace hub with seal and rear bearing already assembled. Use light oil on seal surface and use extreme care when pushing seal over the spindle. Install outer bearings, flat washer, and slotted nut. Tighten nut while turning hub until there is resistance to rotation. Then back off nut from 1 to 2 slots until hub turns freely without end play. Secure nut with clinched cotter pin.

Walking Beam Maintenance

Grease walking beam bearings every 48 hours of use. Check, clean, and repack walking beam bearings each year in a procedure similar to that of wheel bearings.

When reassembling the walking beam, tighten the slotted axle nut in until there is a 25 ft. lb. preload on the bearings. **Do not back the axle nut off.**

Storage

Select a level area, lower the wings and set the field cultivator down on blocks to prevent points from settling into the ground. Coat sweeps and wing lift cylinder rods with rust preventative. Inspect for worn or damaged parts and replace as needed to avoid delays the next season. Check to be sure hydraulic hose couplers are stored on top of the tongue and not left laying on the ground.

Repair Parts

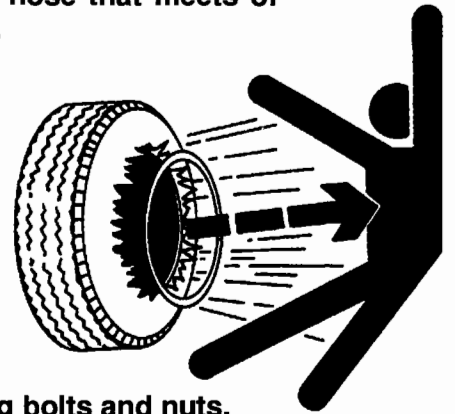
Refer to the Assembly Section of this book when repairing or replacing parts, and follow the same procedure as used when assembling a new unit. Reverse this procedure for disassembly. The Parts Section of this book will show a breakdown of assemblies, location of parts and part numbers.

KRAUSE parts were developed and tested for these units, therefore, it is recommended that KRAUSE replacement parts be used.

⚠ Caution: If replacing hydraulic hose, use only hose that meets or exceeds 3,000 PSI working pressure.

⚠ Caution: Explosive separation of a tire and rim parts can cause serious injury or death.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Inspect tires and wheels daily. Do not operate with low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.



IMPORTANT: REPAIR OF HYDRAULIC CYLINDERS SHOULD BE MADE BY AN AUTHORIZED KRAUSE DEALER ONLY.

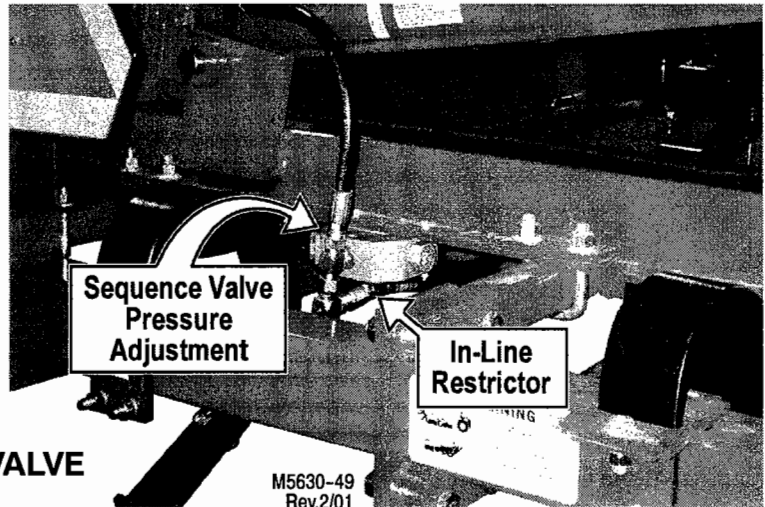
MODELS 5630-36, 5630-40, 5630-44 & 5630-48 WING FOLD SEQUENCE VALVE

These models are full 5-section field cultivators or have hydraulic folding extensions, which require a sequence valve to unfold properly.

IMPORTANT: THE INSIDE WING SHOULD UNFOLD COMPLETELY BEFORE THE OUTER WINGS BEGIN TO UNFOLD. IF IT DOES NOT LET THE INSIDE WING COMPLETELY UNFOLD, CHECK AND/OR CORRECT AS DESCRIBED BELOW.

POSSIBLE CAUSE	REMEDY
1. Sequence Valve is not set properly	a. Fold outer wing only
	b. Increase sequence valve pressure until wing cannot be unfolded.
	c. Decrease valve pressure only enough to allow outer wings to unfold.
2. In-line restrictor is not plumbed correctly	Correct plumbing as shown on page P40.
3. Internal leaks in valve	Replace sequence valve.

Warning: Always stand clear of wings when they are in the raised position. A hydraulic failure or activation of hydraulic controls by someone could result in serious injury to anyone under the wings.

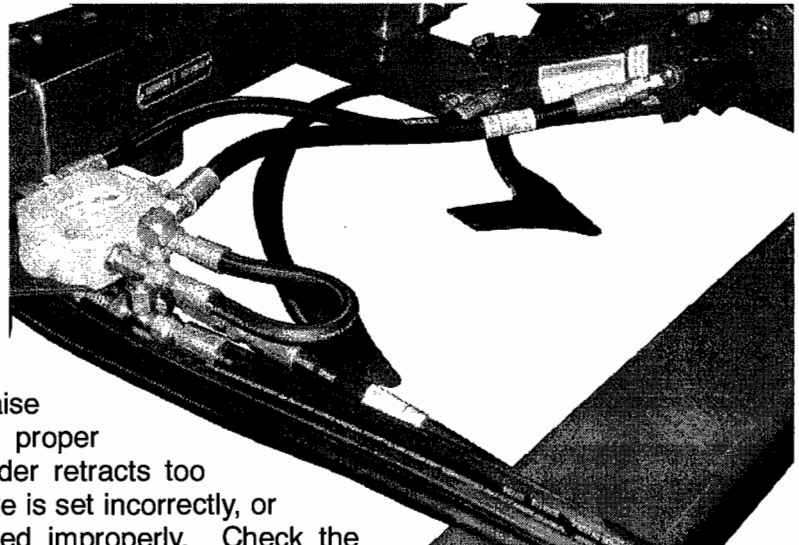


TONGUE CYLINDER SEQUENCE VALVE (FLOATING HITCH OPTION)

When lowering the cultivator, the tongue cylinder should not retract at all until the rocker cylinders have fully retracted. The valve has been factory set at 1500 psi.

Warning: Do not decrease the preset pressure. This could cause the front of the cultivator to fall.

Before initial use of this tool, have helpers stand clear, then raise and lower the unit to check for proper sequencing. If the tongue cylinder retracts too soon, it means the sequence valve is set incorrectly, or the one-way restrictor is plumbed improperly. Check the plumbing, if it is correct, call Krause for sequence valve service instructions.



IMPORTANT: ALWAYS INSTALL THE TONGUE CYLINDER ROD LOCK WHEN WORKING IN OR AROUND THE CULTIVATOR.

SUGGESTED REMEDIES FOR POSSIBLE FIELD PROBLEMS

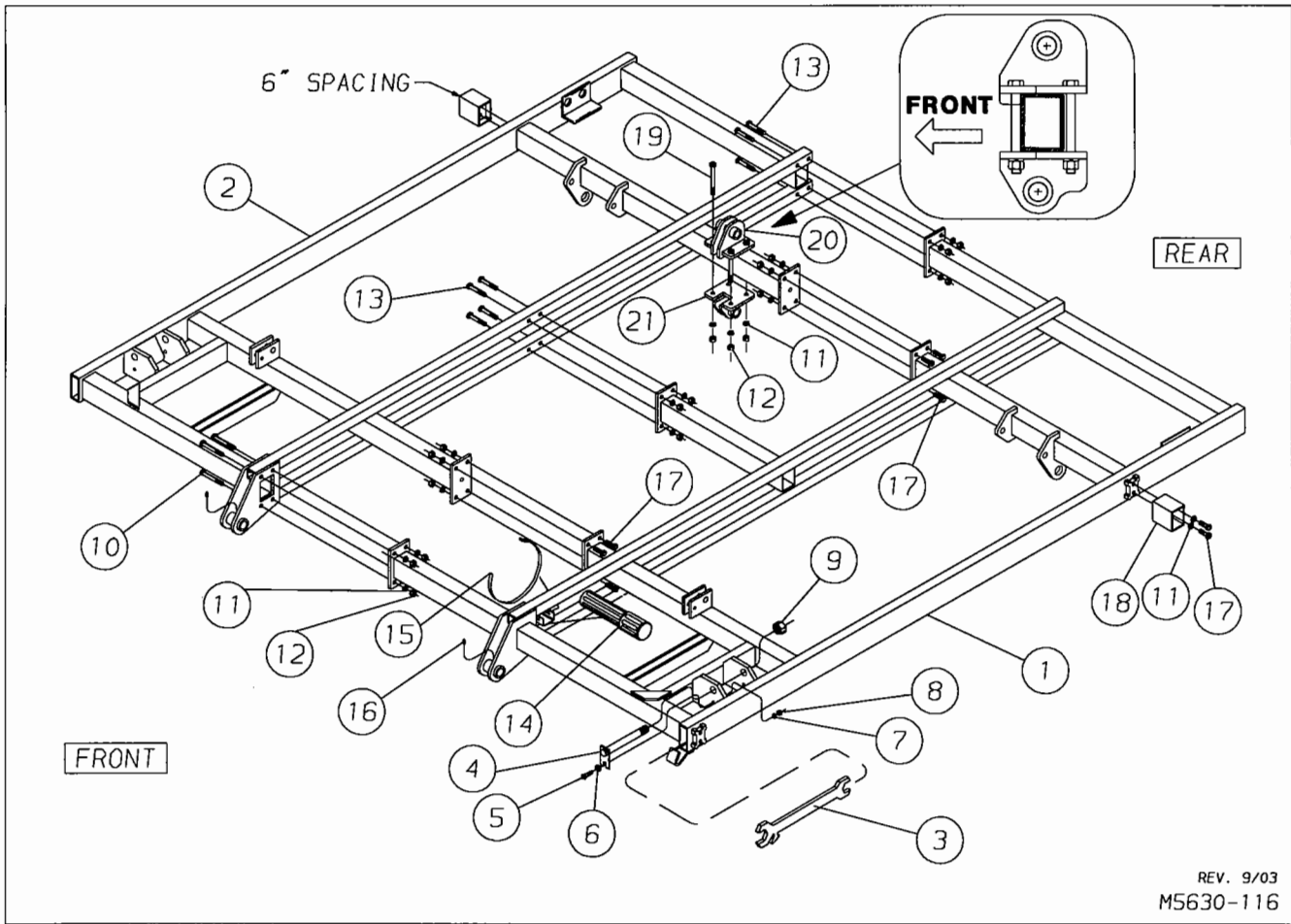
PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
Plugging	Straw is dragging	Work deeper
	Bunched trash	Work shallow the first time
	Field is too wet	Allow field to dry
	Shanks positioned wrong	Recheck shank spacing
Excessive Ridges	Loose point or sweep bolts	Tighten plow bolts or replace if missing
	Improper shank spacing or shanks located wrong	Measure and relocate. If shank is shifting on frame, make sure shank is straight front to back when tightening hex nuts
	Frame not level	Level frame at operating depth as described in operating instructions
	Bent shank	Straighten or replace shank
	Sweeps with old residue will cause soil build-up preventing necessary scouring for even flow	Remove trash and residue. Clean field cultivator after operation. Use rust preventative before storing
Field cultivator will not lower	Road lock	Open road lock valve
	Hose couplers not locked in tractor sockets	Check hydraulic hose connectors
	Oil not flowing through system	Plugged line or cylinder
		Look for restrictor ell in rocker cylinder plumbing. Replace with STD. 90° ell.
Field cultivator does not follow directly behind tractor	Points are different length	Replace or turn
	Bent shanks	Replace or straighten shanks
	Wings out of adjustment	Readjust wing ratchets. See page O9
	Bent rocker shaft	Replace or straighten
	Tire size or air pressure	All tires should be within $\pm 1/2$ " diameter
		All tires should have same air pressure. See Specification page
	Shank locations wrong	Check shank spacing. Correct if needed.
		Check shank locations. Relocate correctly. See placement pages.
Slave cylinder out-of-phase	Raise unit out of ground. Hold control lever open until cylinders are completely extended.	
Center section not level from side to side	Incorrect tire pressure	Check tire pressures. Inflate 11L x 15, 8-Ply tires to 44 PSI
	Bent/ twisted rocker shaft/wheel arm	Replace or straighten
	Bent frame	Replace or straighten

PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
Tractor detent stops hydraulic flow before tongue cylinder is fully retracted	Back pressure against sequence restrictor	Reduce the hydraulic flow on tractor
Wings not level from side to side	Wing too high	To lower wing; adjust wing depth ratchets. See page O9
	Wing too low	To raise wing; adjust wing depth ratchets. See page O9
	Wing lift cylinders not fully extended	Extend cylinder to maximum length; hold open briefly
	Slave cylinders out of phase	Raise unit out of ground, hold control lever open until cylinders are completely extended
Wings will not raise to transport position	Wing lift cylinder restrictors plugged	Remove, check & clear any foreign material that might plug small orifice in restrictor at rod end of cylinders
	Insufficient hydraulic pressure	Check tractor hydraulic system
Wings will not lower	Wings lock	Open wing lock valve
	Hose couplers not locked in tractor disconnect socket	Check hydraulic hose connectors
Wheels have excessive wobble	Loose wheel bolts	Torque wheel bolts to 120 Ft. Lbs. for 6-bolt hubs, 145 Ft. Lbs. for 8-bolt hubs
	Loose spindle nut	Tighten spindle nut, turn back one notch and pin
Wings will not flex down	Wing lift cylinders not fully extended	Extend wing lift cylinders to max. length
Field cultivator will not penetrate	Sweeps have wrong angle	Use 47° stem angle sweep. Point of sweep must be level or slightly lower than wing, if not place a 3127-25-3 shim between sweep and shank.
	Ground is too hard	Wait for moisture
	Dull points	Replace or turn over
	Excessive field speed	Slow to 5 MPH or less
	Cultivator not set deep enough	To increase depth; lower all depth stops See page O9
* IMPORTANT: DO NOT REMOVE SHANKS		
* NOTE: Removing shanks to obtain additional depth will cause the remaining shanks, and frame members on which these shanks are mounted to be overloaded. This could cause bent shanks, broken bolts or clamps, or twisted frame members.		

PARTS SECTION

THE FOLLOWING ILLUSTRATED PARTS SECTION HAS BEEN COMPILED TO REFLECT PART NUMBERS REQUIRED TO ORDER PARTS, AND TO SUPPORT THE ASSEMBLY SECTION FOR DIMENSIONS AND DESCRIPTIONS OF ALL PARTS, BOLTS, PINS, ETC. THE OPERATOR CAN ALSO IDENTIFY PART NAMES TO CLARIFY PROPER OPERATIONAL STEPS.

CENTER FRAME ASSEMBLY



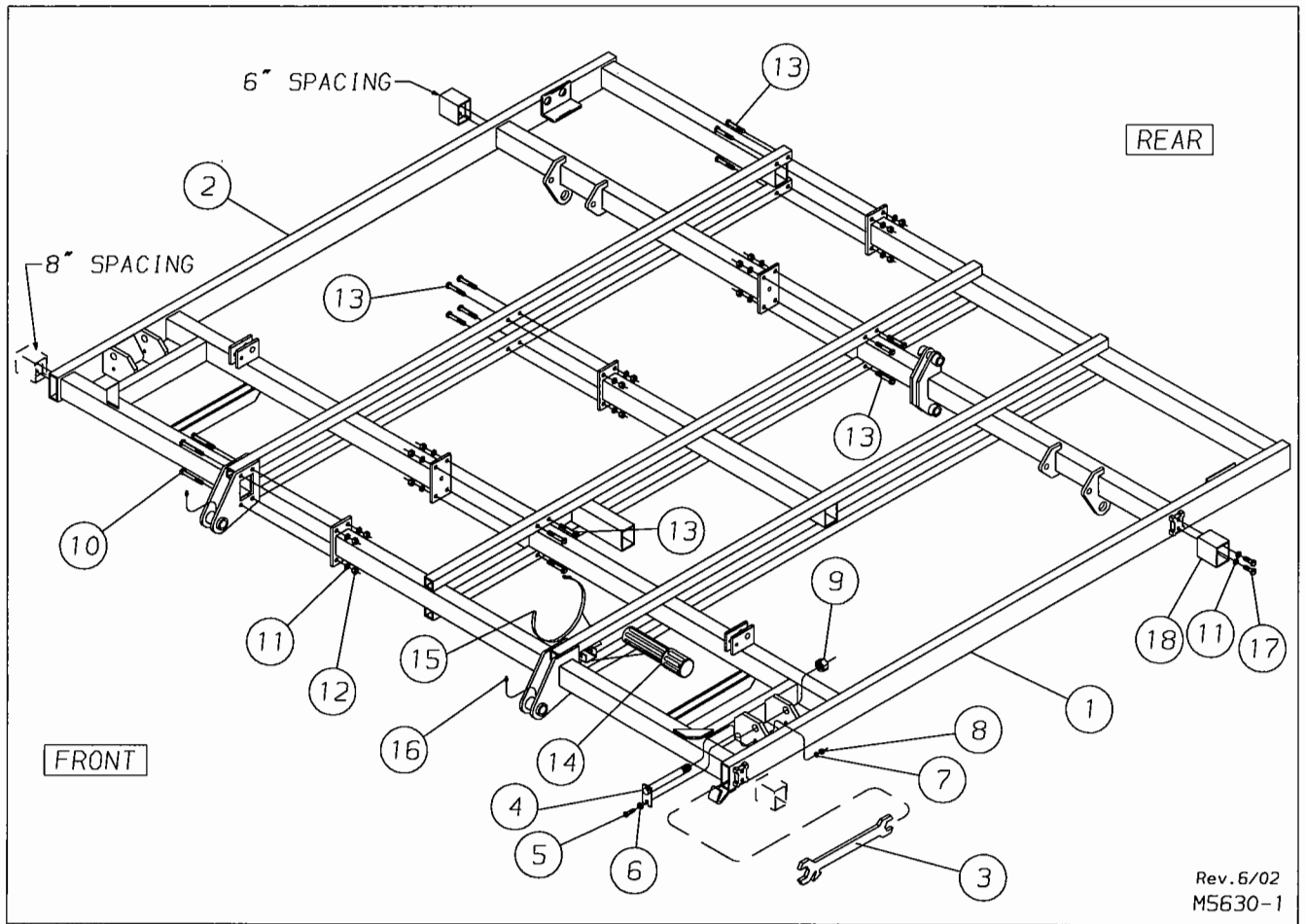
REV. 9/03
M5630-116

FOR MODELS - 5630-21 & 5630-26

10/03

Item	Part Number	Part Description	Qty.
1	5630-151-0	Left Center Frame	1
2	5630-2-0B	Right Center Frame	1
3	5630-0-23	Adjustment Wrench	1
4	5630-35-0	Hinge Pin Weldment	2
5	62-414	1/2NC x 1-3/4" GD5 Cap Screw	2
6	64-108	1/2" STD. Flat Washer	2
7	64-107	1/2" STD. Lock Washer	2
8	63-106	1/2NC Hex Nut	2
9	63-126	1-1/4NC Lock Nut	2
10	62-339	5/8NC x 4-1/2" GD5 Cap Screw	4
11	64-109	5/8" STD. Lock Washer	32
12	63-109	5/8NC Hex Nut	24
13	62-176	5/8NC x 3-1/2" GD5 Cap Screw	8
14	99-192	Owner's Manual Canister	1
15	25-1163	Clamp - Screw Type	1
16	65-101	1/8" STD. Zerk	2
17	62-169	5/8NC x 2" GD5 Cap Screw	16
18	5630-188-0	Stub Extension	4
19	62-393	5/8NC x 6" GD5 Cap Screw	4
20	5630-102-0	Top Pivot Weldment	1
21	5630-103-0	Bottom Pivot Weldment	1

CENTER FRAME ASSEMBLY

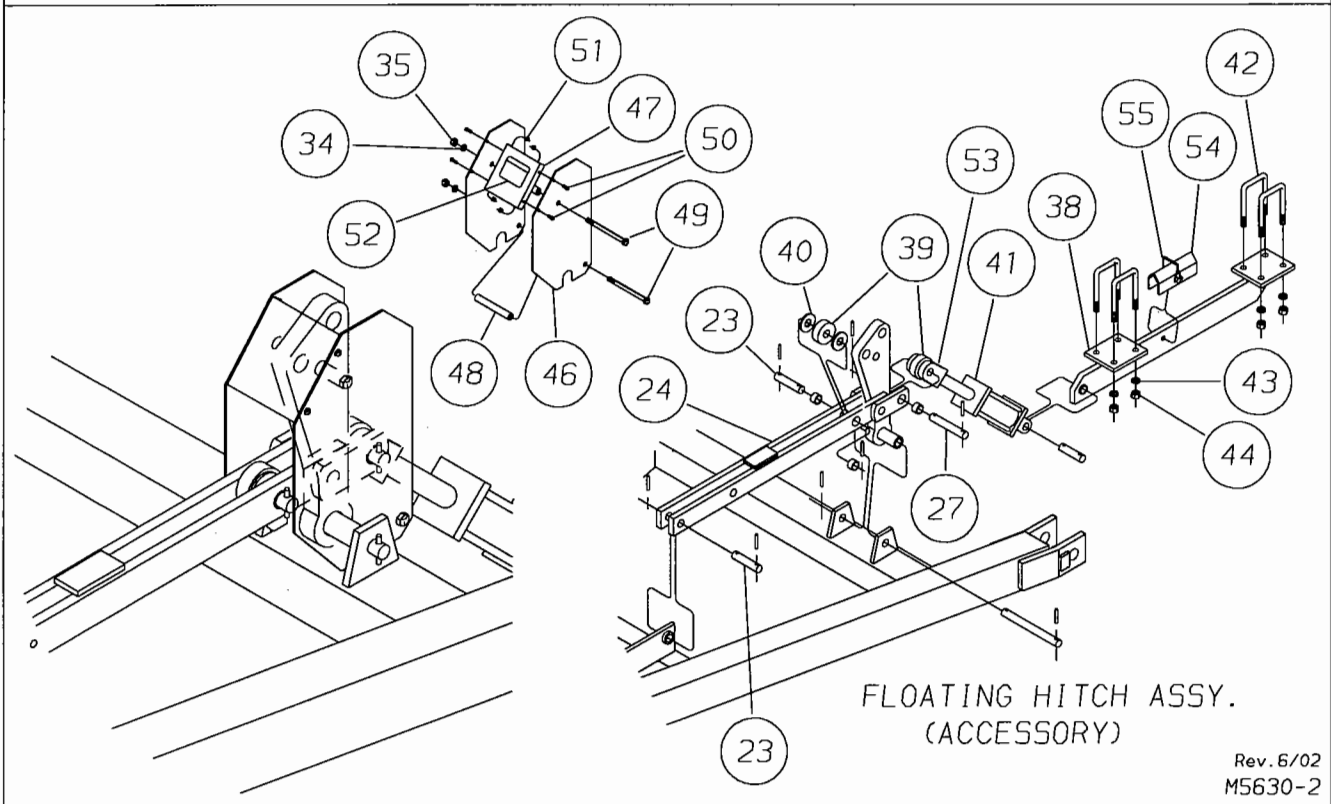
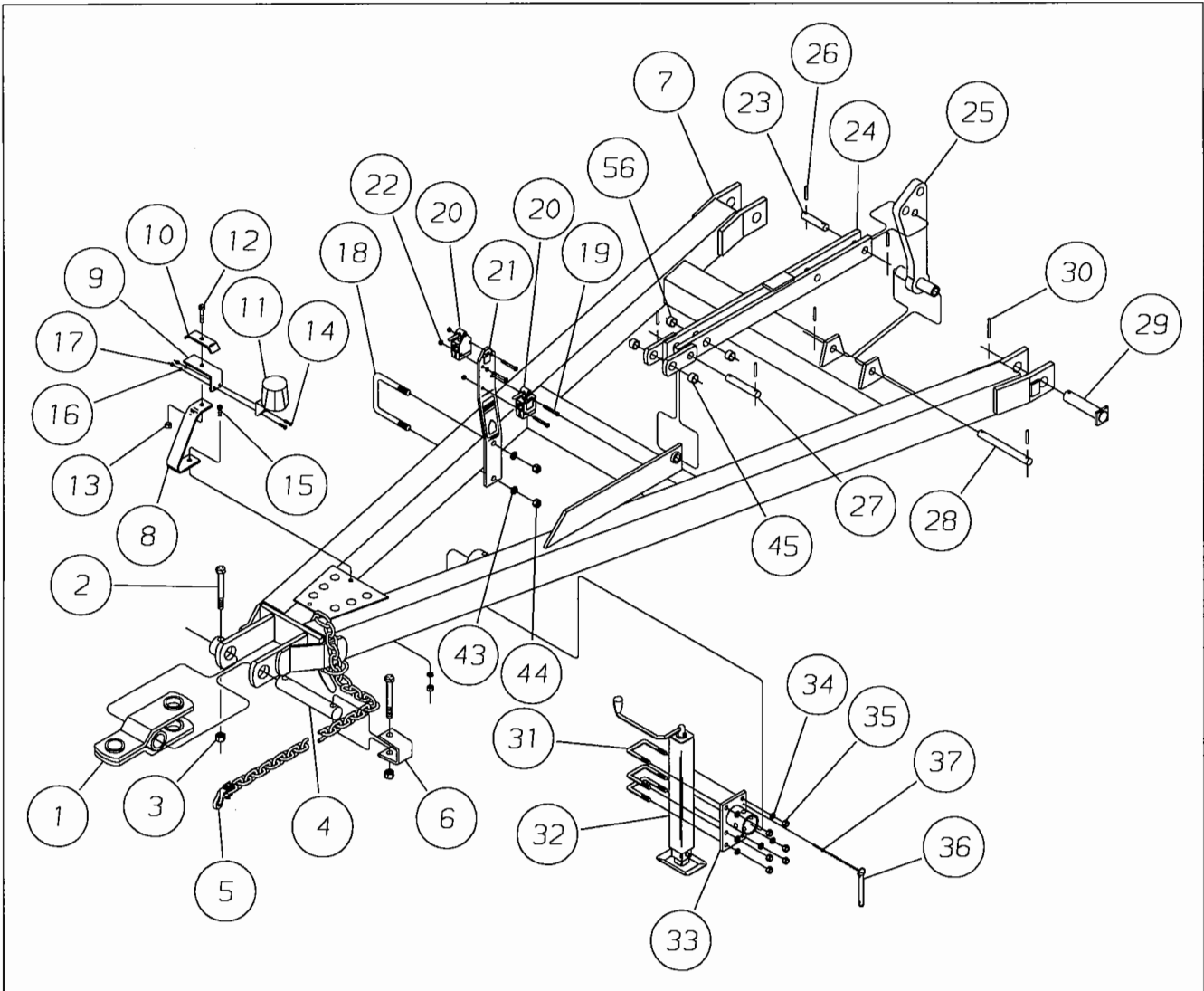


Rev. 6/02
M5630-1

FOR MODELS - 5630-28, 5630-32, 5630-36, 5630-40, 5630-44, 5630-48

10/03

Item	Part Number	Part Description	Qty.
1	5630-1-0B	Left Center Frame	1
2	5630-2-0B	Right Center Frame	1
3	5630-0-23	Adjustment Wrench	1
4	5630-35-0	Hinge Pin Weldment	2
5	62-414	1/2NC x 1-3/4" GD5 Cap Screw	2
6	64-108	1/2" STD. Flat Washer	2
7	64-107	1/2" STD. Lock Washer	2
8	63-106	1/2NC Hex Nut	2
9	63-126	1-1/4NC Lock Nut	2
10	62-339	5/8NC x 4-1/2" GD5 Cap Screw	4
11	64-109	5/8" STD. Lock Washer	28
12	63-109	5/8NC Hex Nut	20
13	62-176	5/8NC x 3-1/2" GD5 Cap Screw	16
14	99-192	Owner's Manual Canister	1
15	25-1163	Clamp - Screw Type	1
16	65-101	1/8" STD. Zerk	2
17	62-169	5/8NC x 2" GD5 Cap Screw	8
18	5630-188-0	Stub Extension	2

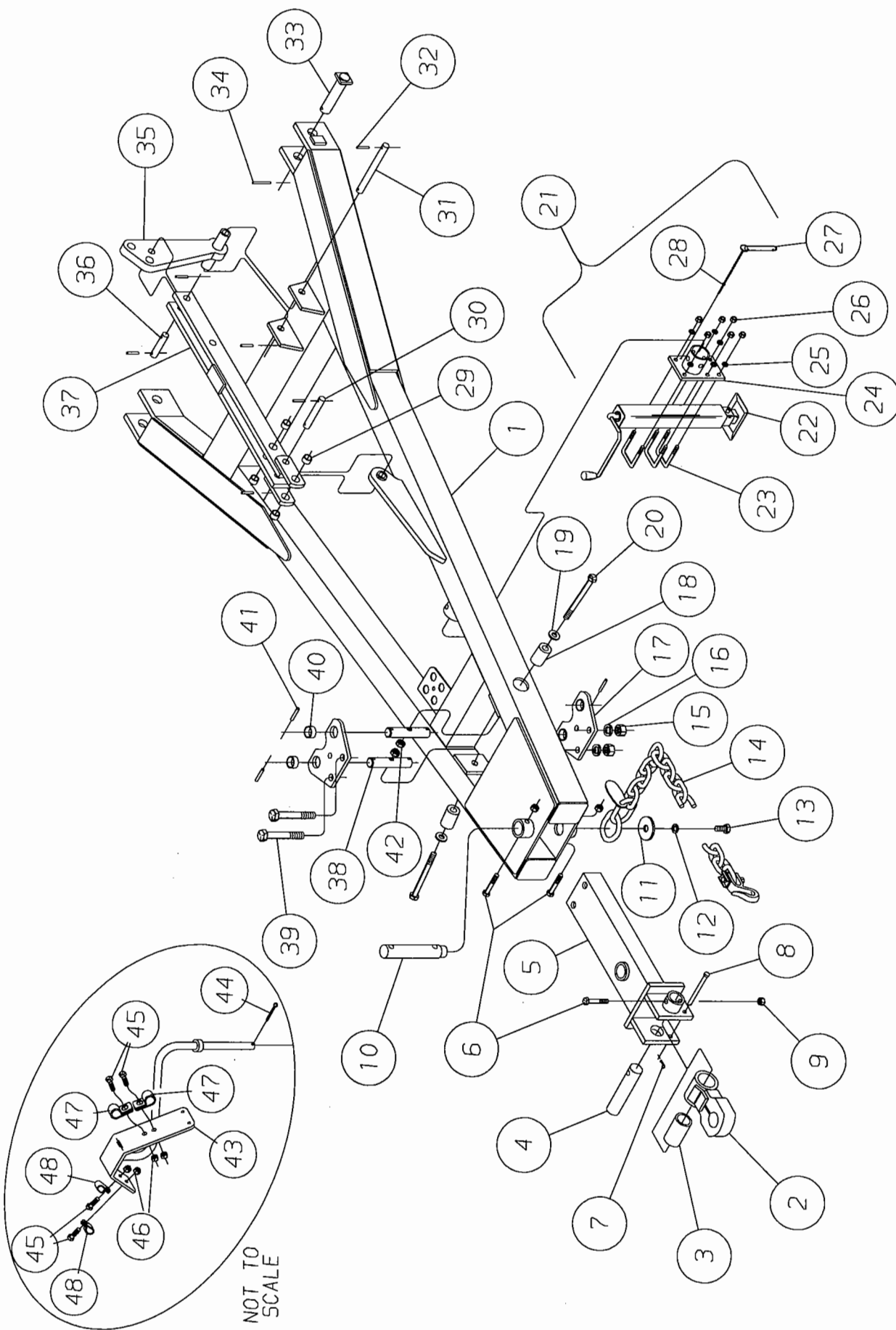


TONGUE & JACK ASSEMBLY

FOR MODELS - ALL 5630 MODELS

10/03

Item	Part Number	Part Description	Qty.
1	5630-75-0	Flip Hitch Weldment (2") Models 5630-28, 32, 36, 40, 44, 48	1
	7300-75-0A	Flip Hitch Weldment (1-1/2") Models 5630-21 & 26	1
2	62-201	3/4NC x 4"GD5 Cap Screw	2
3	63-114	3/4NC Lock Nut	2
4	5630-0-1	Hitch Pin	1
5	72-351	10,000 Lb. Safety Chain - Models 5630-28, 32	1
	72-352	20,000 Lb. Safety Chain - Models 5630-36, 40, 44, 48	1
6	5630-0-2	Chain Clevis	1
7	5630-30-0	Tongue Weldment - Models 5630-28, 32, 36, 40, 44, 48	1
	5630-430-0	Tongue Weldment - Models 5630-21 & 26	1
8	2145-170-3	Hose Stand	1
9	3991-0-1	Hose and Plug Plate	1
10	2426-170-5	Hose Clamp	1
11	79-397	Plug Storage Receptacle	1
12	62-343	1/2NC x 2"GD5 Cap Screw	1
13	63-107	1/2NC Lock Nut	1
14	62-417	1/4NC x 1"GD5 Cap Screw	2
15	62-300	1/2NC x 1"GD5 Cap Screw	1
16	64-100	1/4" STD. Lock Washer	2
17	63-100	1/4NC Hex Nut	2
18	61-127	5/8"DIA. x 5-1/16"W x 5-3/4"L U-Bolt	1
19	62-394	5/16NC x 2-1/2"GD5 Cap Screw	2
20	25-2272	Manual Release Check Valve	2
21	5630-0-8A	Valve Bracket	1
22		5/16NC Lock Nut (included in valve assembly)	2
23	5630-0-4	Pin (1"DIA. x 4-3/16")	1
24	5630-237-0	Tongue Link Weldment	1
25	5630-240-0	Lug Weldment	1
26	60-615	3/8"DIA. x 2" Roll Pin	6
27	5630-0-6	Pin (1"DIA. x 5-5/8")	1
28	5313-0-2821	Marker Pivot Pin	1
29	5630-31-0	Tongue Pin Weldment	2
30	60-618	3/8"DIA. x 3" Roll Pin	2
31	61-172	1/2"DIA. x 2-9/16"W x 3-3/4"L U-Bolt	3
32	73-111	Jack Assembly	1
33	4956-55-0A	Jack Mounting Bracket Weldment	1
34	64-107	1/2" STD. Lock Washer	9
35	63-106	1/2NC Hex Nut	9
36	60-106	Fas-Pin w/ Chain	1
37	60-702	3/16"DIA. x 1-1/2" Cotter Pin	1
38	5630-32-0	Cylinder Lug Weldment	1
39	5630-0-3	Roller	2
40	64-119	1" STD. Flat Washer	2
41	21-173	3 x 5 Cylinder Assembly (No clevis)	1
42	61-235	5/8"DIA. x 3-1/16"W x 5-1/2"L U-Bolt	4
43	64-109	5/8" STD. Lock Washer	10
44	63-109	5/8NC Hex Nut	10
45	53-127	Wear Sleeve 1.25"O.D. x 1.01"ID. x .62"	4
46	5630-0-39	Side Plate	2
47	5630-150-2	Channel	1
48	5630-150-3	Spacer	1
49	62-547	1/2NC x 6-1/2" GD5 Cap Screw	2
50	62-507	1/4NC x 3/4" GD5 Cap Screw	4
51	63-141	1/4NC Hex Flange Serrated Nut	4
52	74-348	Decal - WARNING! Pinch Point	1
53	21-527	Clevis Assembly (Does not include roller)	1
54	5630-157-1	Tongue Cylinder Lock (3 x 5)	1
55	60-103	P.T.O. Lock Pin	1
56	53-103	Wear Sleeve 1.25"O.D. x 1.02"ID x .72"	1



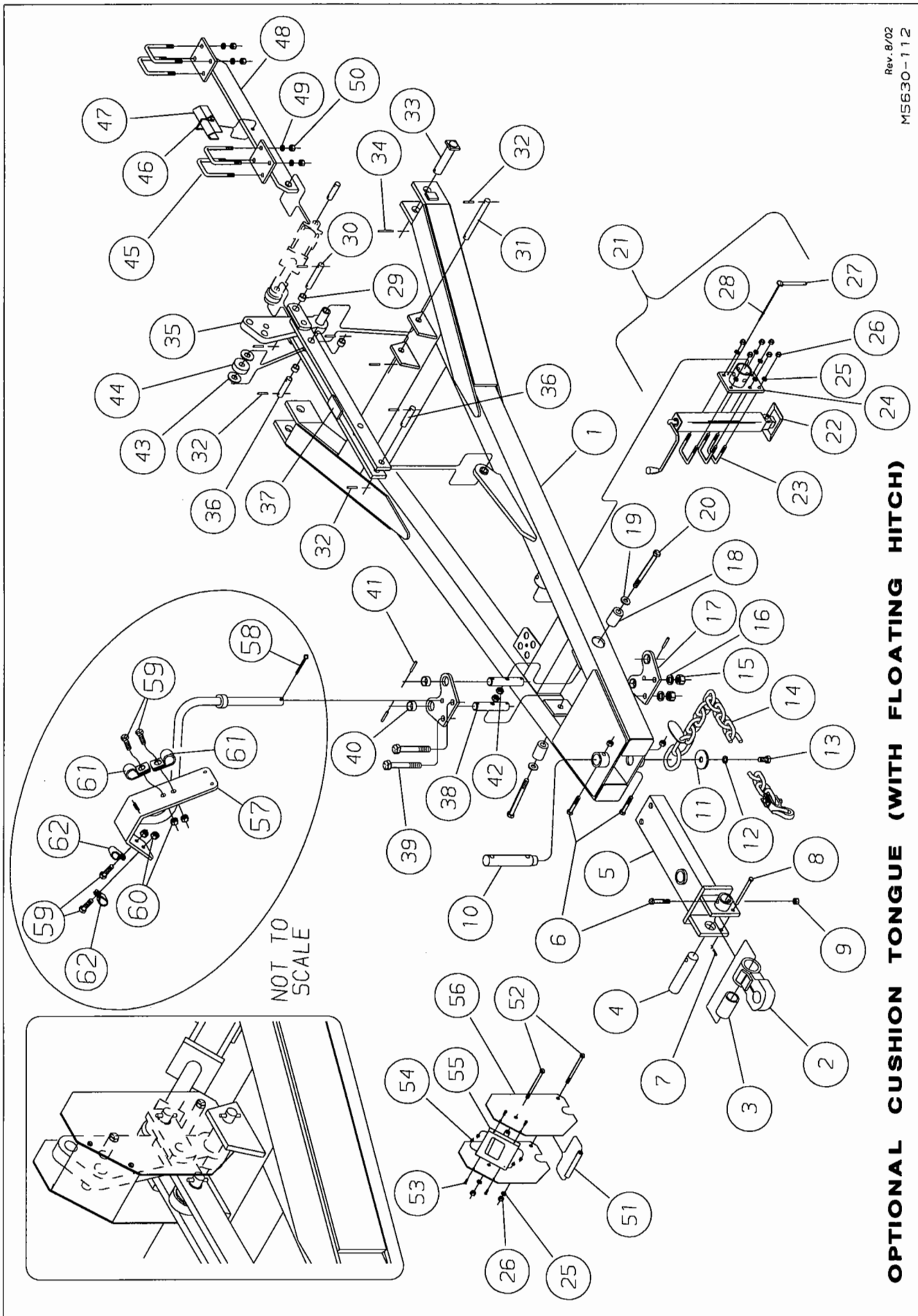
OPTIONAL CUSHION TONGUE (WITH SELF-LEVELING HITCH)

OPTIONAL CUSHION TONGUE (WITH SELF-LEVELING HITCH)

FOR MODELS - 5630-28 thru 5630-48

10/03

Item	Part Number	Part Description	Qty.
1	5630-230-0	Tongue Weldment	1
2	2135-54-0	Crawler Clevis Weldment	1
3	4885-0-6	Hitch Bushing	1
4	4885-0-5	Hitch Pin	1
5	4881-9032-0	Hitch Weldment	1
6	62-176	5/8NC x 3-1/2" GD5 Cap Screw	3
7	60-716	#3 Hair Pin Cotter	1
8	60-214	1/2" DIA. x 6" Clevis Pin	1
9	63-110	5/8NC Lock Nut	3
10	4881-0000-3	Hitch Pin	1
11	64-147	Special Washer - 3-1/2" OD x 13/16" ID x 1/4"	1
12	64-112	3/4" STD. Lock Washer	1
13	62-191	3/4NC x 1-1/2" GD5 Cap Screw	1
14	72-352	Safety Chain - 20,000#	1
15	63-117	1NC Hex Nut	2
16	64-118	1" STD. Lock Washer	2
17	4881-7086-0A	Hitch Shock Mount	2
18	76-231	Urethane Spring - 2" OD x 1" ID x 2-3/4"	2
19	64-215	Special Washer - 2" OD x 13/16" ID x 1/4"	2
20	62-301	3/4NC x 8" GD5 Cap Screw	2
21	4956-56-0	Jack Assembly	1
22	73-111	Jack	1
23	61-172	U-Bolt, 1/2" DIA x 2-9/16"W x 3-3/4"L	3
24	4956-55-0A	Jack Mount Bracket Weldment	1
25	64-107	1/2" STD Lock Washer	6
26	63-106	1/2NC Hex Nut	6
27	60-106	Fas-Pin	1
28	60-702	3/16" DIA. x 1-1/2" Cotter Pin	1
29	53-103	Wear Bushing - 1-1/4" OD x 1" ID x 23/32"	4
30	5630-0-6	1" DIA. x 5-5/8" Pin	1
31	5313-0-2821	Marker Pivot Pin	1
32	60-615	3/8" DIA. x 2" Roll Pin	6
33	5630-31-0	Tongue Pin Weldment	2
34	60-618	3/8" DIA. x 3" Roll Pin	2
35	5630-240-0	Lug Weldment	1
36	5630-0-4	1" DIA. x 4-3/16" Pin	1
37	5630-237-0	Tongue Link Weldment	1
38	4881-0000-5	Pivot Pin	2
39	62-251	1NC x 6-1/2" GD5 Cap Screw	2
40	53-166	Wear Sleeve - 1-3/4" OD x 1-17/32" ID x 3/4"	4
41	60-616	3/8" DIA. x 2-1/4" Roll Pin	4
42	63-113	3/4NC Hex Jam Nut	2
43	4881-5040-0	Hose Stand Weldment	1
44	60-703	3/16" DIA. x 1-3/4" Cotter Pin	1
45	62-436	3/8NC x 1-1/4" GD5 Cap Screw	4
46	63-134	3/8NC Nylon-Top Lock Nut	4
47	25-127	3/4" ID Hose Clamp	2
48	25-1153	5/8" ID Hose Clamp	2



OPTIONAL CUSHION TONGUE (WITH FLOATING HITCH)

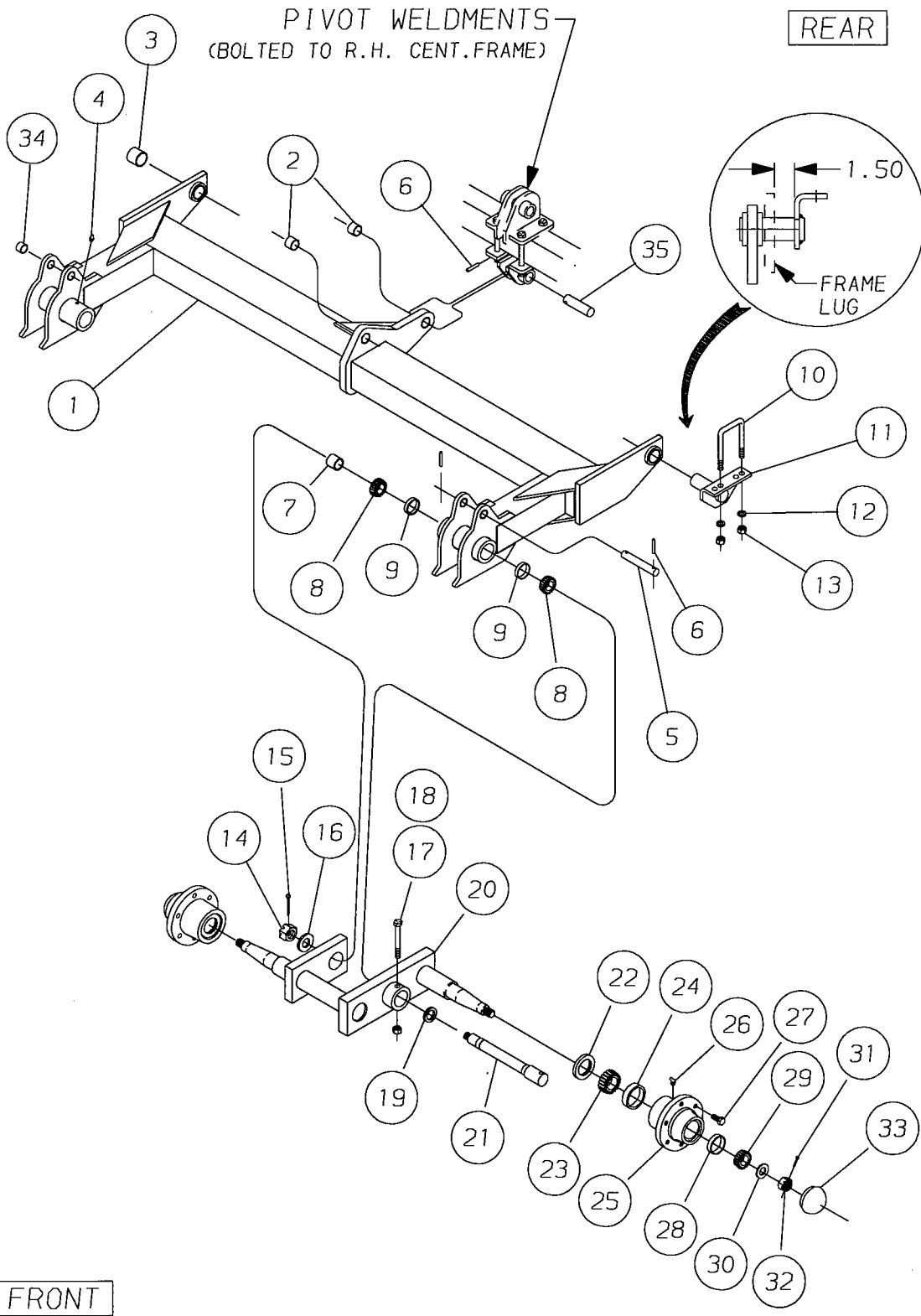
OPTIONAL CUSHION TONGUE (WITH FLOATING HITCH)

FOR MODELS - 5630-28 thru 5630-48

10/03

Item	Part Number	Part Description	Qty.
1	5630-230-0	Tongue Weldment	1
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4	4885-0-5	Hitch Pin	1
5	4881-9032-0	Hitch Weldment	1
6	62-176	5/8NC x 3-1/2" GD5 Cap Screw	3
7	60-716	#3 Hair Pin Cotter	1
8	60-214	1/2" DIA. x 6" Clevis Pin	1
9	63-110	5/8NC Lock Nut	3
10	4881-0000-3	Hitch Pin	1
11	64-147	Special Washer - 3-1/2" OD x 13/16" ID x 1/4"	1
12	64-112	3/4" STD. Lock Washer	1
13	62-191	3/4NC x 1-1/2" GD5 Cap Screw	1
14	72-352	Safety Chain - 20,000#	1
15	63-117	1NC Hex Nut	2
16	64-118	1" STD. Lock Washer	2
17	4881-7086-0A	Hitch Shock Mount	2
18	76-231	Urethane Spring - 2" OD x 1" ID x 2-3/4"	2
19	64-215	Special Washer - 2" OD x 13/16" ID x 1/4"	2
20	62-301	3/4NC x 8" GD5 Cap Screw	2
21	4956-56-0	Jack Assembly	1
22	73-111	Jack	1
23	61-172	U-Bolt, 1/2" DIA x 2-9/16"W x 3-3/4"L	3
24	4956-55-0A	Jack Mount Bracket Weldment	1
25	64-107	1/2" STD Lock Washer	6
26	63-106	1/2NC Hex Nut	6
27	60-106	Fas-Pin	1
28	60-702	3/16" DIA. x 1-1/2" Cotter Pin	1
29	53-103	Wear Bushing - 1-1/4" OD x 1" ID x 23/32"	4
30	5630-0-6	1" DIA. x 5-5/8" Pin	1
31	5313-0-2821	Marker Pivot Pin	1
32	60-615	3/8" DIA. x 2" Roll Pin	6
33	5630-31-0	Tongue Pin Weldment	2
34	60-618	3/8" DIA. x 3" Roll Pin	2
35	5630-240-0	Lug Weldment	1
36	5630-0-4	1" DIA. x 4-3/16" Pin	1
37	5630-237-0	Tongue Link Weldment	1
38	4881-0000-5	Pivot Pin	2
39	62-251	1NC x 6-1/2" GD5 Cap Screw	2
40	53-166	Wear Sleeve - 1-3/4" OD x 1-17/32" ID x 3/4"	4
41	60-616	3/8" DIA. x 2-1/4" Roll Pin	4
42	63-113	3/4NC Hex Jam Nut	2
43	64-119	1" STD. Flat Washer	2
44	5630-0-3	Roller	2
45	61-235	U-Bolt - 5/8" DIA. x 3-1/16"W x 5-1/2" L	4
46	60-103	P.T.O. Lock Pin	1
47	5630-157-1	Cylinder Lock (3 x 5)	1
48	5630-32-0	Cylinder Lug Weldment	1
49	64-109	5/8" STD. Lock Washer	8
50	63-109	5/8NC Hex Nut	8
51	5630-150-3	Spacer	2
52	62-547	1/2NC x 6-1/2" GD5 Cap Screw	2
53	62-507	1/4NC x 3/4" GD5 Cap Screw	4
54	63-141	1/4NC Hex Flange Serrated Nut	4
55	5630-150-2	Channel	1
56	5630-0-39	Side Plate	2
57	4881-5040-0	Hose Stand Weldment	1
58	60-703	3/16" DIA. x 1-3/4" Cotter Pin	1
59	62-436	3/8NC x 1-1/4" GD5 Cap Screw	4
60	63-134	3/8NC Nylon-Top Lock Nut	4
61	25-127	3/4" I.D. Hose Clamp	2
62	25-1153	5/8" I.D. Hose Clamp	2

CENTER ROCKER ASSEMBLY FOR 21' & 26' UNITS



SMALL CENTER ROCKER ASSEMBLY

FOR MODELS - 5630-21 & 26

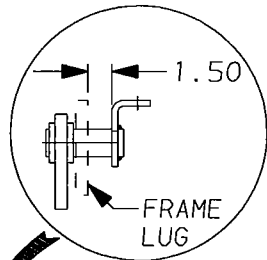
10/03

Item	Part Number	Part Description	Qty.
1	5630-156-0	Small Center Rocker Weldment	1
2	53-101	Wear Sleeve - 1.50 od x 1.28 id x 1.00	2
3	53-146	Wear Sleeve - 2.00 od x 1.75 id x 1.50	2
4	65-100	1/8 x 45° Zerk	2
5	5630-0-6	1"DIA. x 5-5/8" Pin	2
6	60-615	3/8"DIA. x 2" Roll Pin	5
7	4987-29-2	Bushing	2
8	41-121	Cone & Seal Assembly	4
9	41-208	Cup	4
10	61-235	U-Bolt 5/8"DIA. x 3-1/16"W x 5-1/2"L	4
11	5630-34-0	Rocker Pin Weldment	4
12	64-109	5/8" STD. Lock Washer	8
13	63-109	5/8NC Hex Nut	8
14	63-231	1-1/4NF Slotted Hex Nut	2
15	60-710	1/4"DIA. x 2-1/2" Cotter Pin	2
16	64-167	Special Washer	2
17	62-409	5/8NC x 3" GD5 Cap Screw	2
18	63-110	5/8NC Lock Nut	2
19	4218-13-3	Special Washer	2
20	5630-177-0	Walking Beam Weldment	2
21	5630-110-1	Pivot Spindle	2
22	42-137	Seal	4
23	41-115	Cone	4
24	41-213	Cup	4
25	5630-118-0	Repair Hub Assembly - (includes Items 24, 26-28)	4
26	65-100	1/8 x 45° Zerk	8
27	62-289	1/2NF x 1-1/32" Wheel Bolt	24
28	41-215	Cup	4
29	41-117	Cone	4
30	64-117	7/8"SAE Black Flat Washer	4
31	60-725	5/32"DIA. x 1-1/2" Cotter Pin	4
32	63-243	7/8NF Slotted Hex Nut	4
33	52-305	Hub Cap	4
34	53-116	Wear Sleeve - 1.25od x 1.02id x .50	4
35	5630-0-5	1-1/4" DIA. x 4-1/16" Pin	1

SMALL CENTER ROCKER ASSEMBLY

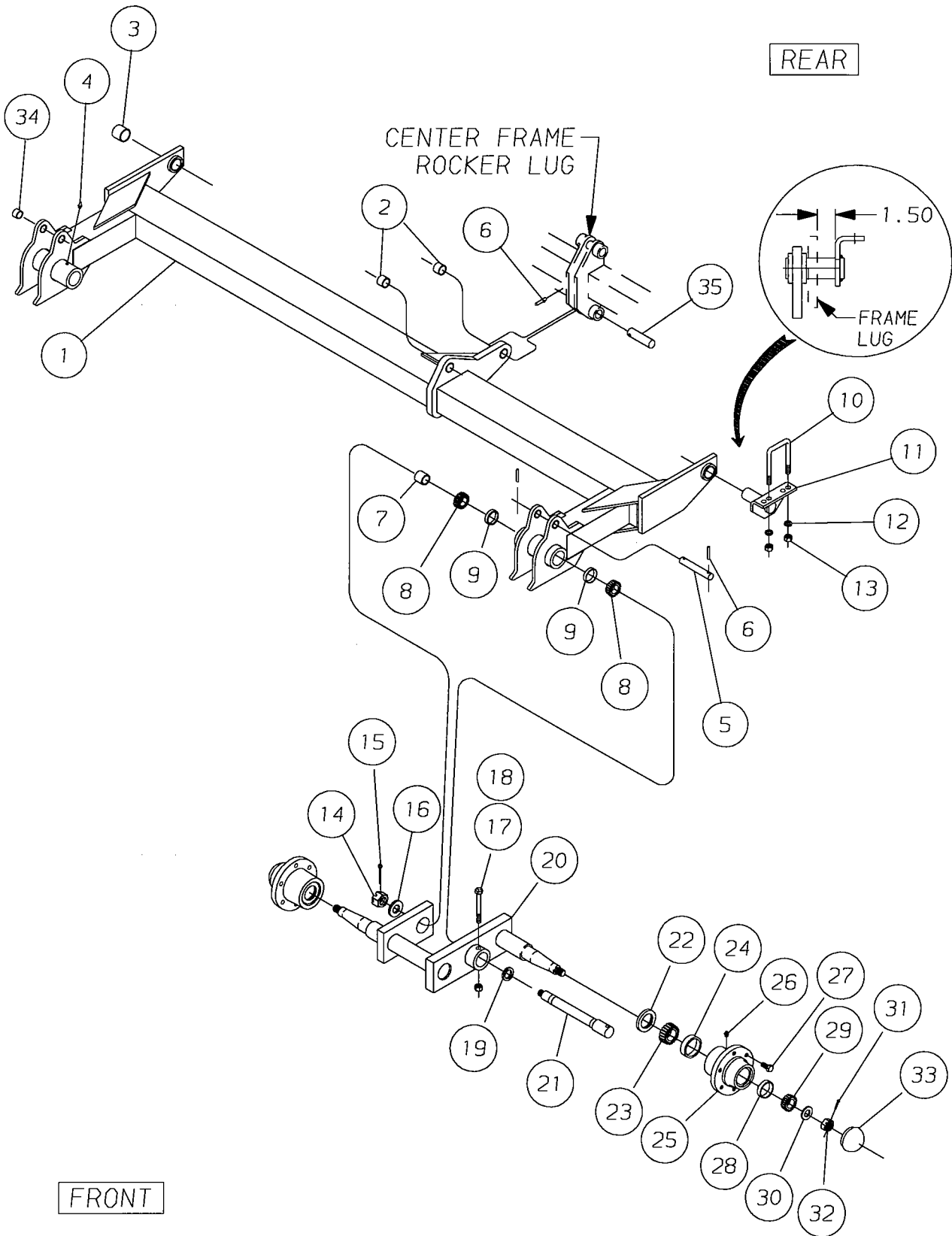
REAR

CENTER FRAME
ROCKER LUG



FRONT

Rev. 10/02
M5630-117



SMALL CENTER ROCKER ASSEMBLY

FOR MODELS - 5630-28 & 5630-32

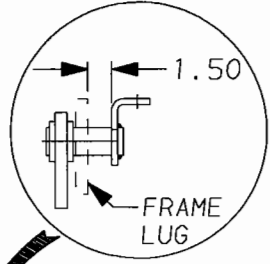
10/03

<i>Item</i>	<i>Part Number</i>	<i>Part Description</i>	<i>Qty.</i>
1	5630-10-0	Small Center Rocker Weldment	1
2	53-101	Wear Sleeve - 1.50 od x 1.28 id x 1.00	2
3	53-146	Wear Sleeve - 2.00 od x 1.75 id x 1.50	2
4	65-100	1/8 x 45° Zerk	2
5	5630-0-6	1"DIA. x 5-5/8" Pin	2
6	60-615	3/8"DIA. x 2" Roll Pin	5
7	4987-29-2	Bushing	2
8	41-121	Cone & Seal Assembly	4
9	41-208	Cup	4
10	61-235	U-Bolt 5/8"DIA. x 3-1/16"W x 5-1/2"L	4
11	5630-34-0	Rocker Pin Weldment	4
12	64-109	5/8" STD. Lock Washer	8
13	63-109	5/8NC Hex Nut	8
14	63-231	1-1/4NF Slotted Hex Nut	2
15	60-710	1/4"DIA. x 2-1/2" Cotter Pin	2
16	64-167	Special Washer	2
17	62-409	5/8NC x 3" GD5 Cap Screw	2
18	63-110	5/8NC Lock Nut	2
19	4218-13-3	Special Washer	2
20	5630-177-0	Walking Beam Weldment	2
21	5630-110-1	Pivot Spindle	2
22	42-137	Seal	4
23	41-115	Cone	4
24	41-213	Cup	4
25	5630-118-0	Repair Hub Assembly - (includes Items 24, 26-28)	4
26	65-100	1/8 x 45° Zerk	8
27	62-289	1/2NF x 1-1/32" Wheel Bolt	24
28	41-215	Cup	4
29	41-117	Cone	4
30	64-117	7/8"SAE Black Flat Washer	4
31	60-725	5/32"DIA. x 1-1/2" Cotter Pin	4
32	63-243	7/8NF Slotted Hex Nut	4
33	52-305	Hub Cap	4
34	53-116	Wear Sleeve - 1.25od x 1.02id x .50	4
35	5630-0-5	1-1/4" DIA. x 4-1/16" Pin	1

LARGE CENTER ROCKER ASSEMBLY

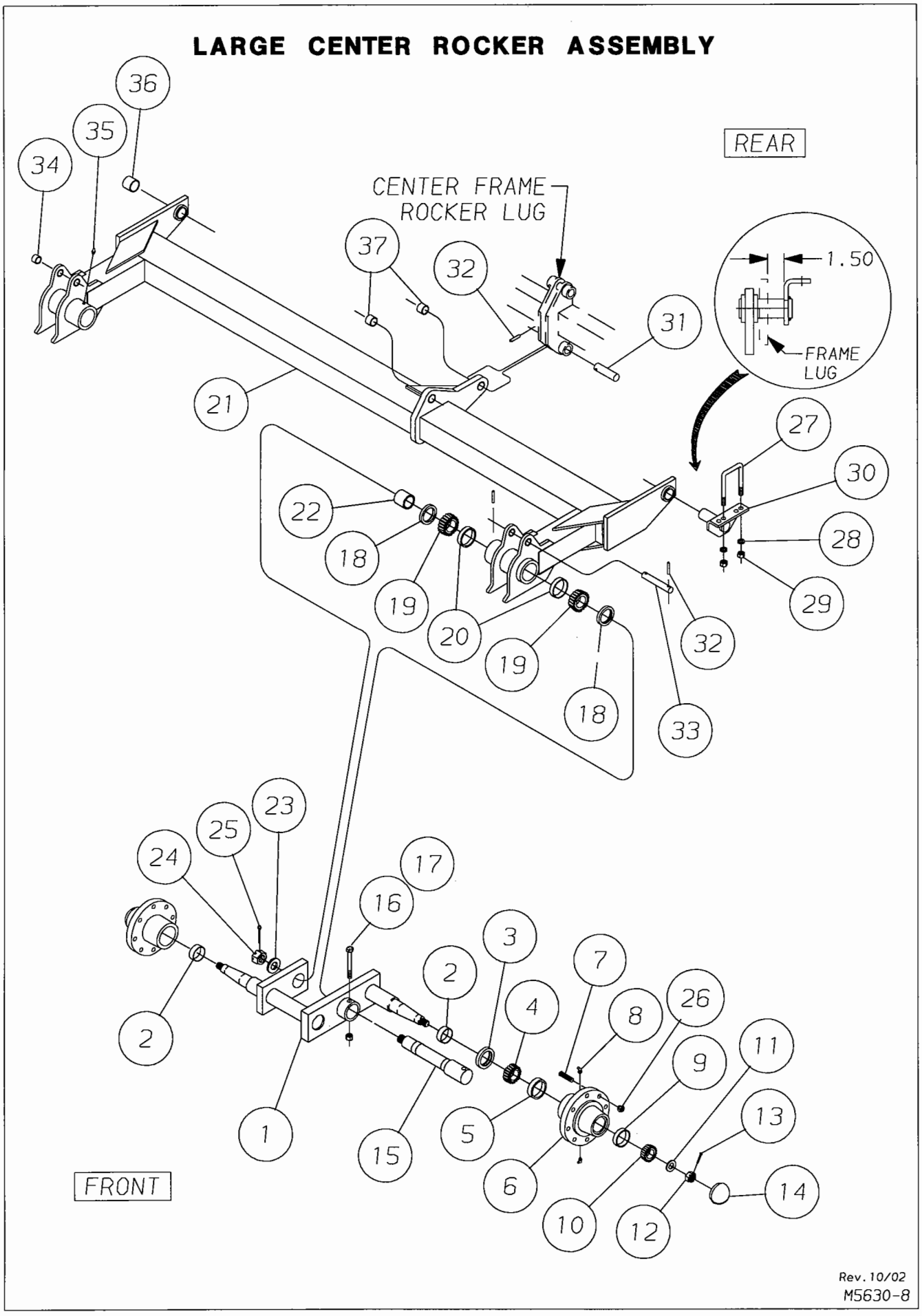
REAR

CENTER FRAME
ROCKER LUG



FRONT

Rev. 10/02
M5630-8



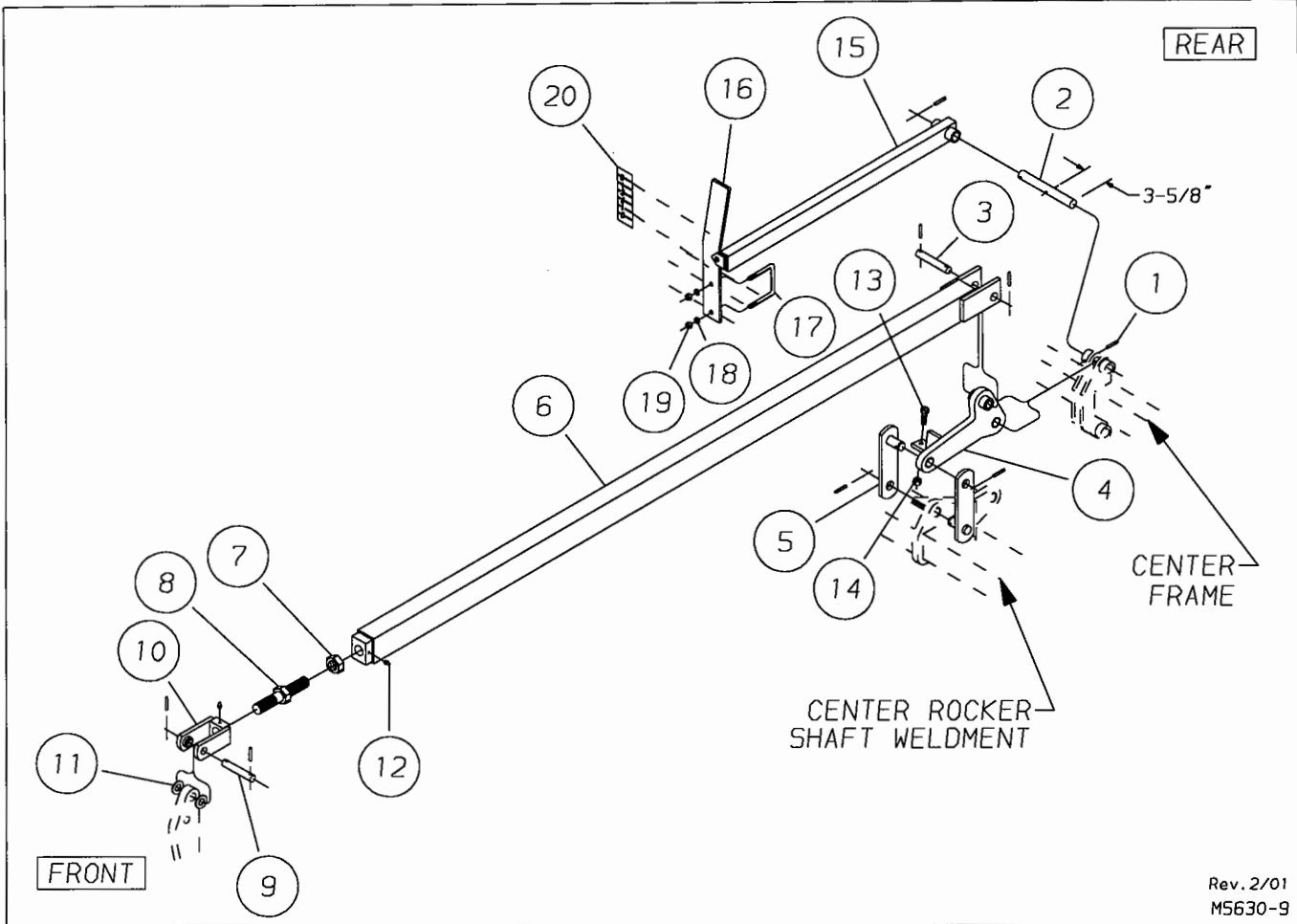
LARGE CENTER ROCKER ASSEMBLY

FOR MODELS - 5630-36, 40, 44 & 48

10/03

<i>Item</i>	<i>Part Number</i>	<i>Part Description</i>	<i>Qty.</i>
1	5630-54-0	Walking Beam Weldment	2
2	53-108	Wear Sleeve 2.50 od x 1.99 id x .75	4
3	42-109	Seal	4
4	41-114	Cone	4
5	41-210	Cup	4
6	2490-96-0	Repair Hub - 8 Bolt (includes items 5,7,8,9,26)	4
7	62-311	Wheel Bolt	32
8	65-122	Zerk	8
9	41-208	Cup	4
10	41-112	Cone	4
11	64-120	1" SAE Flat Washer	4
12	63-204	1NF Slotted Hex Nut	4
13	60-702	3/16"DIA. x 1-1/2" Cotter Pin	4
14	52-302	Hub Cap	4
15	5630-111-1	Pivot Spindle	2
16	62-178	5/8NC x 4" GD5 Cap Screw	2
17	63-110	5/8NC Lock Nut	2
18	42-131	Seal	4
19	41-114	Cone	4
20	41-210	Cup	4
21	5630-11-0	Large Center Rocker Weldment	1
22	2490-90-3	Bushing	2
23	64-167	Special Washer	2
24	63-231	1-1/4NF Slotted Hex Nut	2
25	60-710	1/4" DIA. x 2-1/2" Cotter Pin	2
26	63-208	5/8NF Lug Nut	32
27	61-235	5/8" DIA. U-Bolt	2
28	64-109	5/8" STD. Lock Washer	4
29	63-109	5/8NC Hex Nut	4
30	5630-34-0	Rocker Pin Weldment	2
31	5630-0-5	1-1/4" DIA. x 4-1/16" Pin	1
32	60-615	3/8" DIA. x 2" Roll Pin	1
33	5630-0-6	Pin	2
34	53-116	Wear Sleeve 1.25 od x 1.02 id x .50	4
35	65-101	1/8NPT STD Zerk	2
36	53-146	Wear Sleeve	2
37	53-101	Wear Sleeve	2

CENTER ROCKER LINKAGE ASSEMBLY



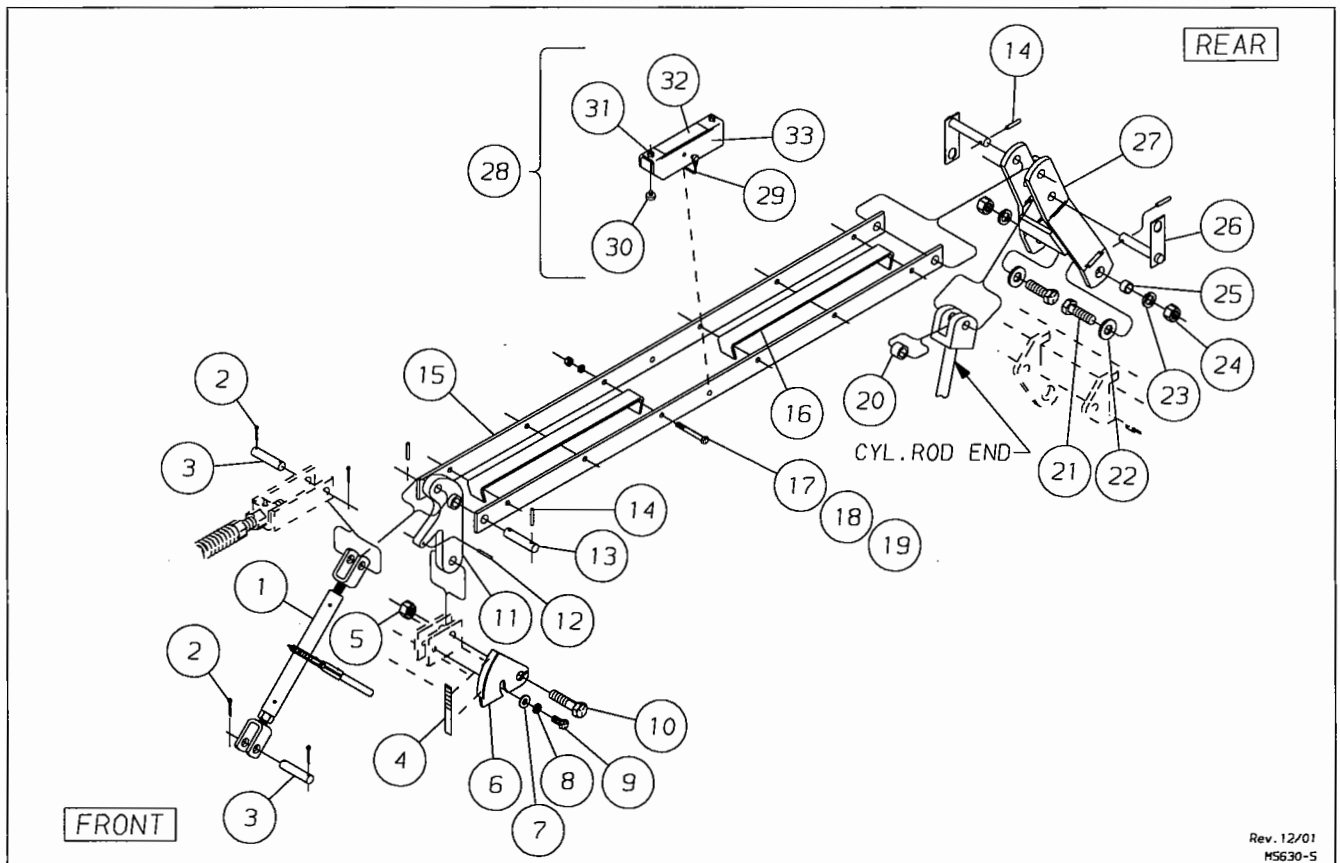
Rev. 2/01
M5630-9

FOR MODELS - ALL 5630 MODELS

8/05

Item	Part Number	Part Description	Qty.
1	60-615	3/8"DIA. x 2" Roll Pin	7
2	5630-0-21	1-1/4"DIA. x 8-13/16" Pin	1
3	5630-0-6	1"DIA. x 5-5/8" Pin	1
4	5630-55-0	Lever Arm Weldment	1
5	5630-29-0	Connector Weldment	2
6	5630-46-0	Leveling Link Weldment	1
7	63-129	1-1/2NC Hex Jam Nut	1
8	5630-39-0	Screw Assembly	1
9	5630-0-7	1"DIA. x 5-1/4" Pin	1
10	2450-43-0	Left Clevis Weldment	1
11	64-155	1"SAE Flat Washer	2
12	65-101	1/8" STD. Zerk	2
13	62-169	5/8NC x 2" GD5 Cap Screw	1
14	63-109	5/8NC Hex Nut	1
15	5630-99-0	Point Arm Weldment	1
16	5630-0-22	Large Depth Gauge	1
17	61-216	1/2"DIA. x 4-1/16"W x 4-1/4"L U-Bolt	1
18	64-107	1/2" STD. Lock Washer	2
19	63-106	1/2NC Hex Nut	2
20	74-530	Decal - Depth Gauge (Large)	1

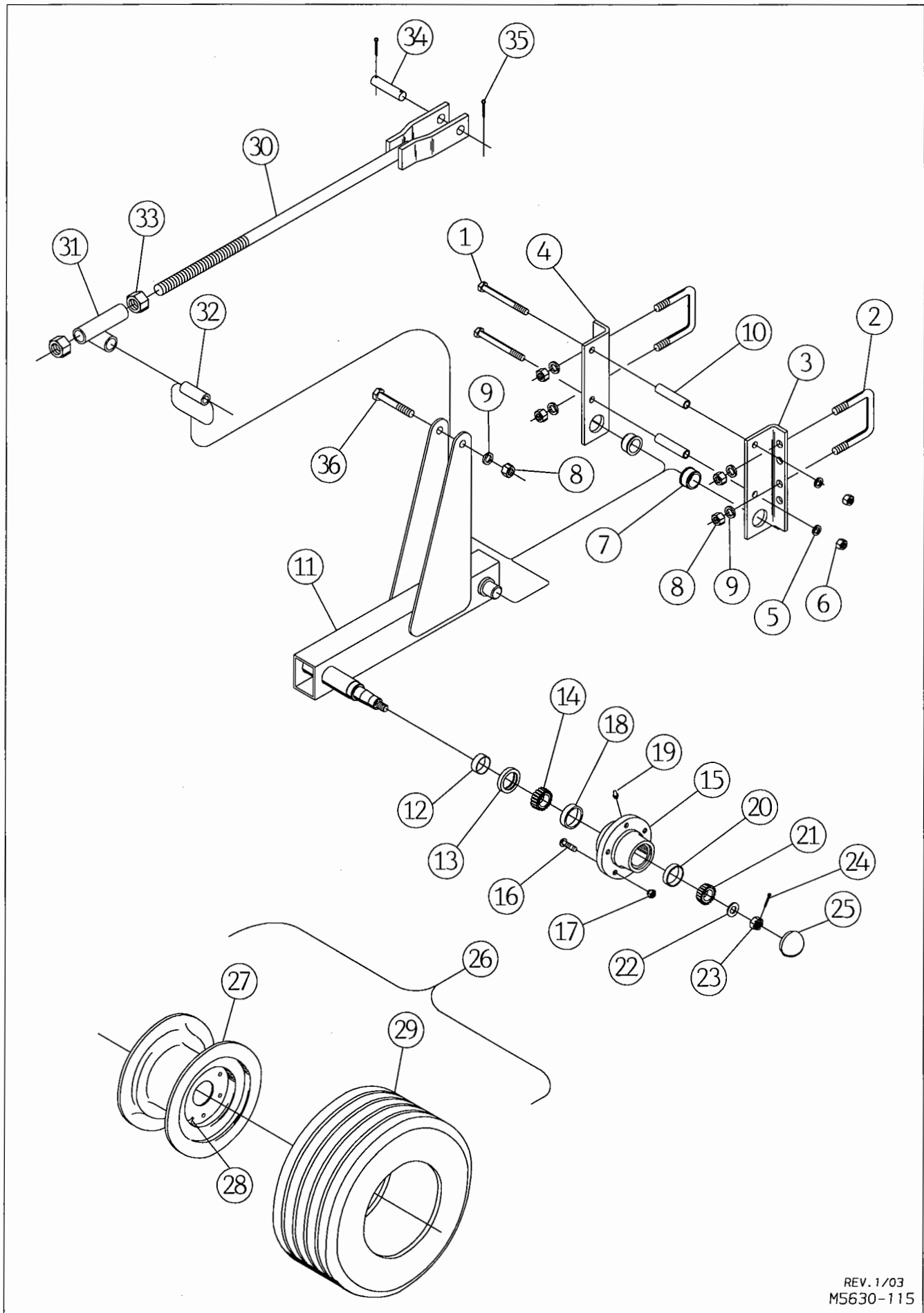
DEPTH ADJUSTMENT ASSEMBLY



Rev. 12/01
MS630-5

FOR MODELS - ALL

Item	Part Number	Part Description	Qty.
1	70-212	Ratchet Jack w/ Acme Threads	1
2	60-702	3/16" DIA. x 1-1/2" Cotter Pin	4
3	4226-0-8	Clevis Pin	2
4	74-529	Decal - Depth Gauge (small)	1
5	63-119	1NC Lock Nut	1
6	5630-53-0	Depth Gauge Weldment	1
7	64-110	5/8" STD. Flat Washer	1
8	64-109	5/8" STD. Lock Washer	1
9	62-166	5/8NC x 1-1/4" GD5 Cap Screw	1
10	62-239	1NC x 3-1/2" Cap Screw	1
11	5630-52-0	Adjustment Lug Weldment	1
12	60-606	1/4" DIA. x 2" Roll Pin	1
13	5630-0-4	1" DIA. x 4-3/16" Pin	1
14	60-615	3/8" DIA. x 2" Roll Pin	4
15	5630-0-10	Depth Strap	2
16	5630-0-9	Depth Strap Spacer	2
17	62-154	1/2NC x 3-1/2" GD5 Cap Screw	6
18	64-107	1/2" STD. Lock Washer	6
19	63-106	1/2NC Hex Nut	6
20	4987-0-22	Spacer	1
21	62-238	1NC x 3" GD5 Cap Screw	2
22	64-119	1" STD. Flat Washer	2
23	64-118	1" STD. Lock Washer	2
24	63-117	1NC Hex Nut	2
25	53-103	1-1/4" O.D. x 1" I.D. x 3/4" Wear Bushing	2
26	5630-89-0	Cylinder Lug Pin Weldment	2
27	5630-51-0	Cylinder Lug Weldment	1
28	5800-17-0	Cylinder Lock Assembly (Includes Items 29-33)	1
29	60-103	P.T.O. Lock Pin	1
30	44-107	Rubber Threaded Bumper	2
31	63-102	3/8NC Hex Nut	2
32	74-387	Decal - Cylinder Lock	1
33	6124-17-1	Road Lock Channel	1



REV. 1/03
M5630-115

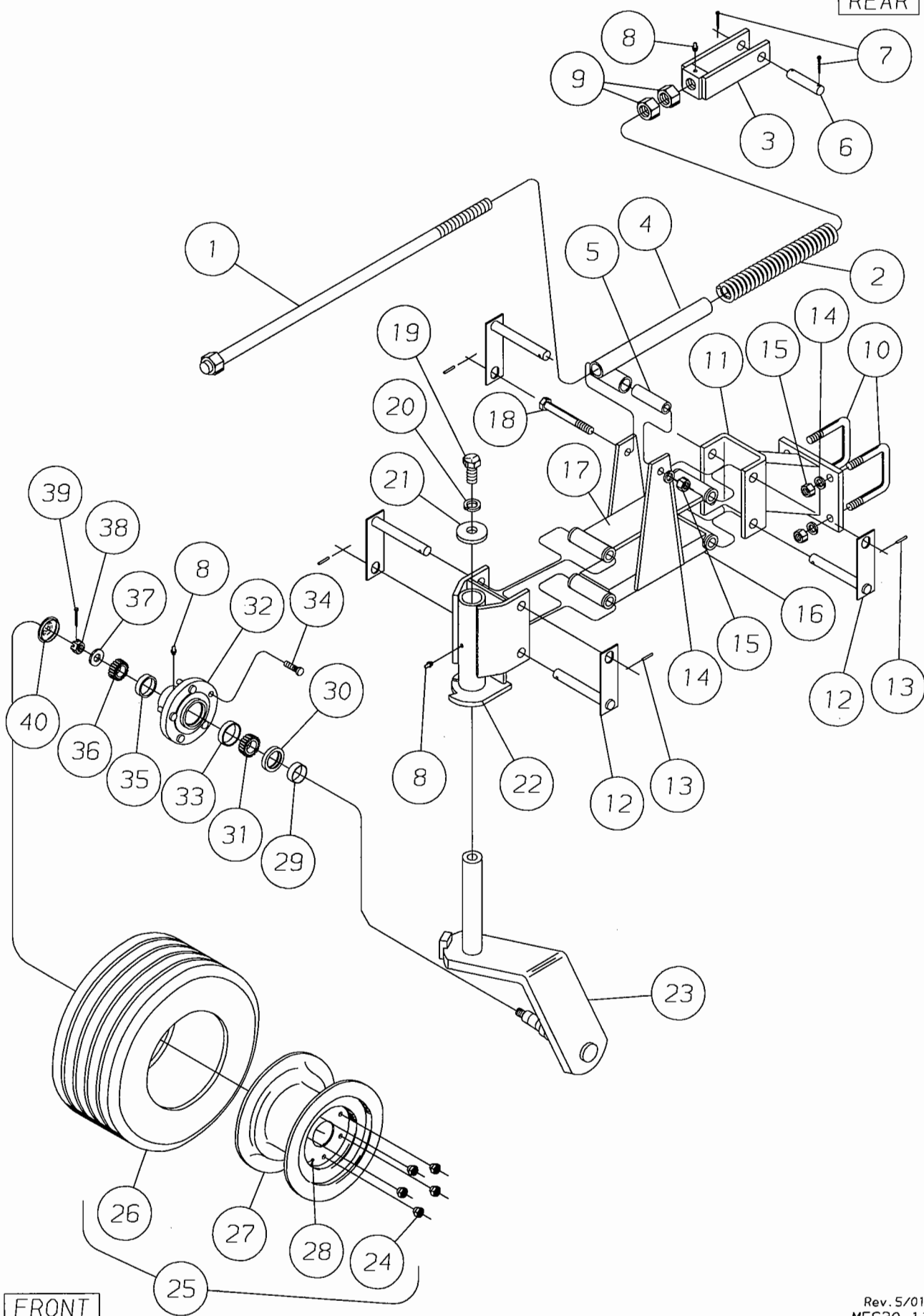
RIGID GAUGE WHEEL ASSEMBLY

FOR MODELS - ALL

1/03

<i>Item</i>	<i>Part Number</i>	<i>Part Description</i>	<i>Qty.</i>
1	62-393	5/8NC x 6" GD5 Cap Screw	2
2	61-149	U-Bolt, 3/4"DIA. x 4-1/16"W x 4-5/8"L	2
3	2190-51-0	Left Side Plate	1
4	2190-52-0	Right Side Plate	1
5	64-109	5/8" STD. Lock Washer	2
6	63-109	5/8NC Hex Nut	2
7	53-166	Wear Sleeve (1.75 od x 1.53 id x .75)	2
8	63-112	3/4NC Hex Nut	5
9	64-112	3/4" STD Lock Washer	5
10	4830-50-1	Spacer Tube	2
11	5630-133-0	Left Arm Weldment (Shown)	1
	5630-134-0	Right Arm Weldment	1
12	53-111	Wear Sleeve (2.00 od x 1.87 id x .62)	1
13	42-115	Seal	1
14	41-112	Cone	1
15	49-108	Hub Assembly	1
16	62-498	1/2NF x 1-7/8" Wheel Bolt	5
17	63-209	1/2NF Lug Nut	5
18	41-208	Cup	1
19	65-101	1/8" STD. Zerk	1
20	41-215	Cup	1
21	41-117	Cone	1
22	64-161	3/4" STD. Black Flat Washer	1
23	63-201	3/4NF Slotted Hex Nut	1
24	60-725	5/32"DIA. x 1-1/2" Cotter Pin	1
25	52-305	Hub Cap	1
26	1000-81066-0	Wheel Assembly	1
27	52-109	Wheel, 10 X 6 (Painted Black)	1
28	51-120	Valve Stem	1
29	51-121	Tire, 20.5 x 8-10 LRE	1
30	5630-147-0	Adjustment Screw Weldment	1
31	5630-146-0	Trunnion Weldment	1
32	4700-66-1	Long Spacer	1
33	63-123	1-1/4NC Hex Nut	2
34	4226-0-8	Clevis Pin	1
35	60-702	3/16" DIA. x 1-1/2" Cotter Pin	2
36	62-203	3/4NC x 4-1/2" GD5 Cap Screw	1

REAR



FRONT

Rev. 5/01
M5630-11

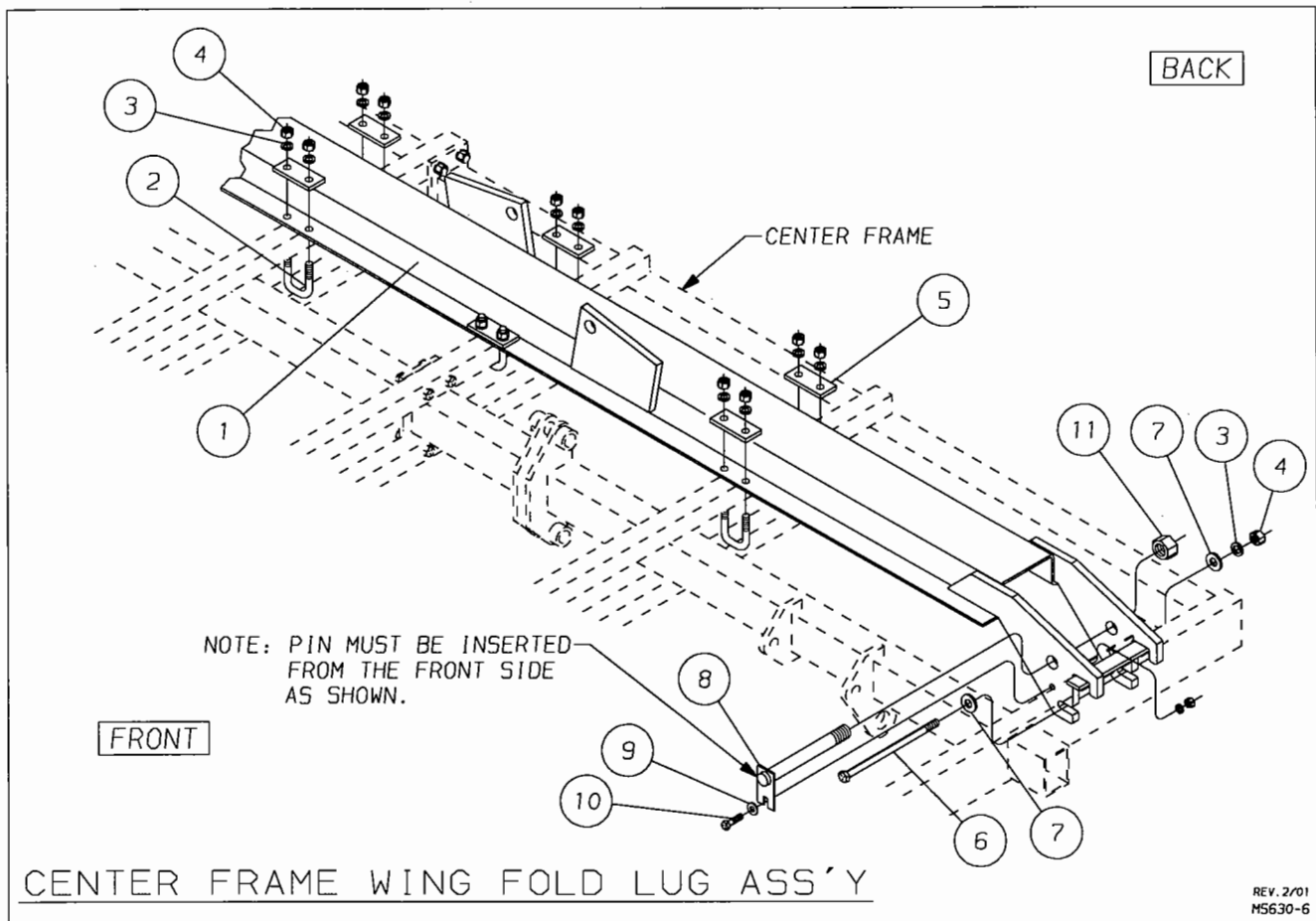
CASTORING GAUGE WHEEL ASSEMBLY

FOR MODELS - ALL

10/05

Item	Part Number	Part Description	Qty.
1	5630-117-0	Adjustment Screw Weldment	1
2	5630-402-1	Spring - Painted	1
3	5630-115-0	Link End Weldment	1
4	5630-116-0	Trunnion Weldment	1
5	5630-0-13	1-1/4" x 4-1/8" Sleeve	1
6	4226-0-8	Clevis Pin	1
7	60-702	3/16"DIA. x 1-1/2" Cotter Pin	2
8	65-101	1/8" STD. Zerk	3
9	63-123	1-1/4NC Hex Nut	2
10	61-149	3/4"DIA. x 4-1/16"W x 4-5/8"L U-Bolt	2
11	5630-108-0	Castor Mount Weldment	1
12	5630-159-0	Link Pin	4
13	60-606	1/4"DIA. x 2" Roll Pin	4
14	64-112	3/4" STD. Lock Washer	5
15	63-112	3/4NC Hex Nut	5
16	5630-105-0	Lower Link Weldment	1
17	5630-107-0A	Upper Link Weldment	1
18	62-210	3/4NC x 6" GD5 Cap Screw	1
19	62-234	1NC x 2" Cap Screw	1
20	64-118	1" STD. Lock Washer	1
21	770-101-3	Flat Washer	1
22	5630-98-0	Castor Pivot Weldment	1
23	5630-97-0A	Castor Weldment	1
24	63-209	1/2NF Lug Nut	5
25	1000-81066-0	Wheel Assembly (Includes ★ Items)	1
26	★ 51-121	20.5 x 8-10 Tire	1
27	★ 52-109	10 x 6 Wheel	1
28	★ 51-120	Valve Stem	1
29	53-111	Wear Bushing (2"O.D. x 1-7/8" I.D. x 5/8")	1
30	42-115	Seal	1
31	41-112	Cone	1
32	4990-114-0	Repair Hub Assembly (Includes ● Items)	1
33	● 41-208	Cup	1
34	● 62-498	1/2NF x 1-7/8" Wheel Bolt	5
35	● 41-215	Cup	1
36	41-117	Cone	1
37	64-161	5/8" STD. Lock Washer	1
38	63-201	3/4NF Slotted Hex Nut	1
39	60-725	5/32"DIA. x 1-1/2" Cotter Pin	1
40	52-305	Hub Cap	1

CENTER FRAME WING FOLD LUG ASSEMBLY

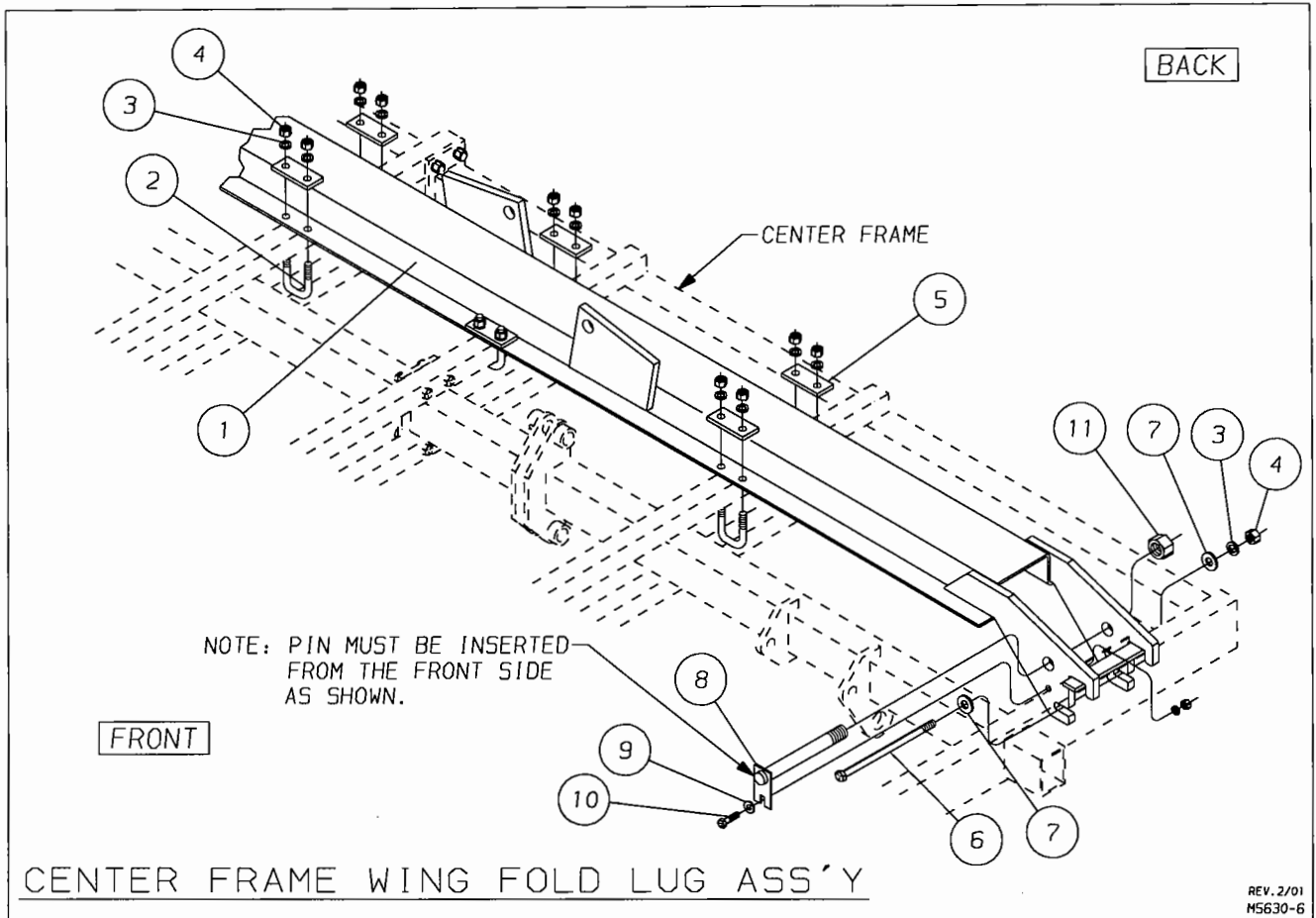


FOR MODELS - 5630-21 & 5630-26

10/03

Item	Part Number	Part Description	Qty.
1	5630-377-0	Fold Lug Weldment	1
2	61-119	5/8" DIA. U-Bolt	4
3	64-109	5/8" STD. Lock Washer	10
4	63-109	5/8NC Hex Nut	10
5	5630-0-11	Bolt Plate	4
6	62-484	5/8NC x 9" GD5 Machine Bolt	2
7	64-110	5/8" STD. Flat Washer	4
8	5630-35-0	Hinge Pin Weldment	2
9	64-108	1/2" STD. Flat Washer	2
10	62-414	1/2NC x 1-3/4" GD5 Cap Screw	2
11	63-126	1-1/4NC Lock Nut	2

CENTER FRAME WING FOLD LUG ASSEMBLY



FOR MODELS - 5630-28 thru 5630-48

10/03

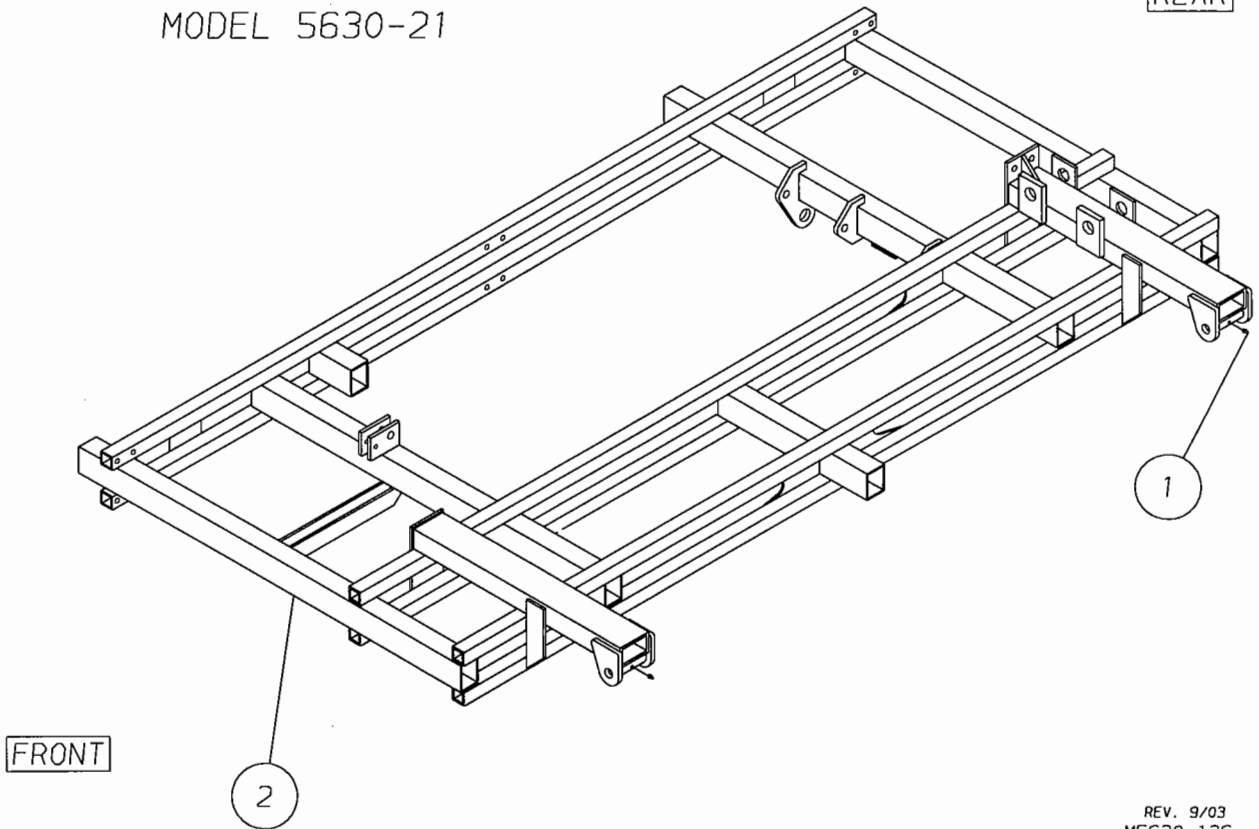
Item	Part Number	Part Description	Qty.
1	5630-77-0A	Fold Lug - used for 4" Cylinder (5630-28 & 32)	1
	5630-78-0A	Fold Lug - used for 5" Cylinder (5630-36 thru 48)	1
2	61-119	5/8" DIA. U-Bolt	6
3	64-109	5/8" STD. Lock Washer	14
4	63-109	5/8NC Hex Nut	14
5	5630-0-11	Bolt Plate	6
6	62-484	5/8NC x 9" GD5 Machine Bolt	2
7	64-110	5/8" STD. Flat Washer	4
8	5630-35-0	Hinge Pin Weldment	2
9	64-108	1/2" STD. Flat Washer	2
10	62-414	1/2NC x 1-3/4" GD5 Cap Screw	2
11	63-126	1-1/4NC Lock Nut	2

INSIDE WING ASSEMBLY

INSIDE WING ASSEMBLY

MODEL 5630-21

REAR



REV. 9/03
M5630-126

FOR MODELS - 5630-21

10/03

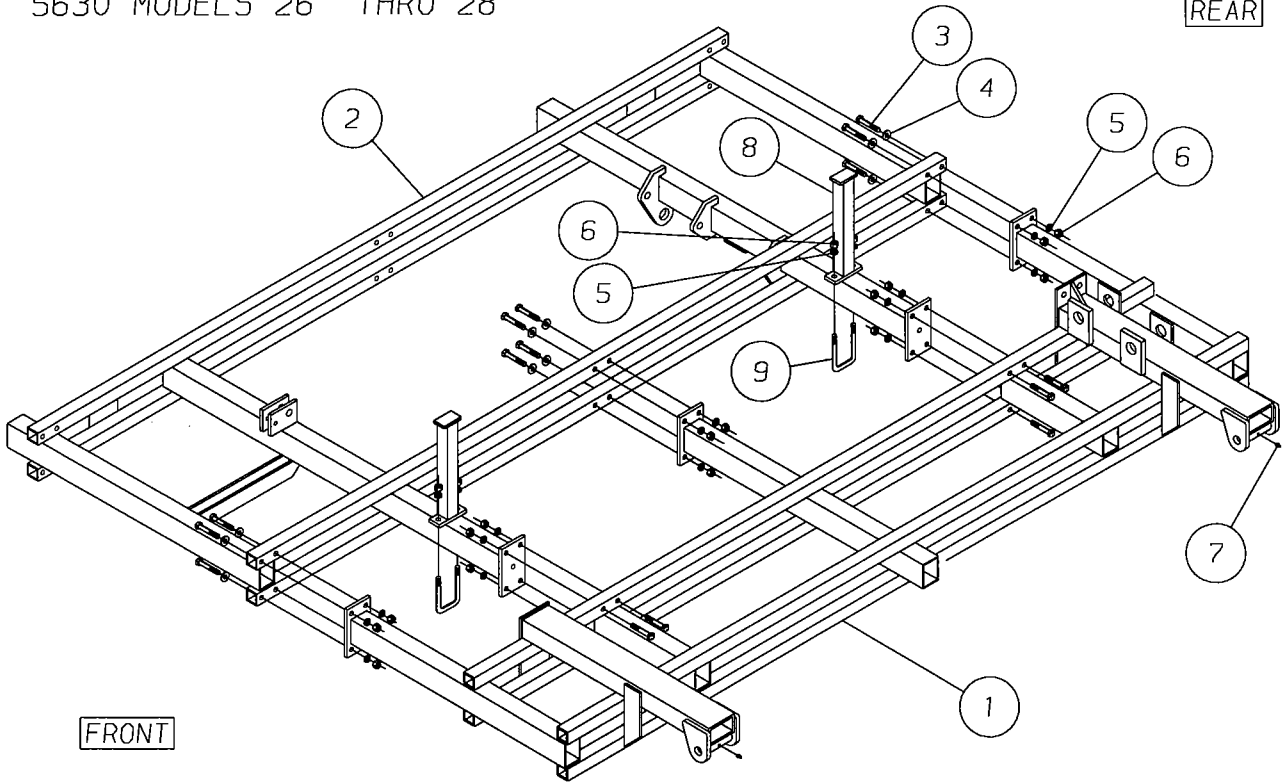
Item	Part Number	Part Description	Qty.
1	65-101	1/8" STD. Zerk	2
2	5630-220-0	Right Wing Wheel Frame (Shown)	1
	5630-219-0	Left Inside Wing Frame	1

INSIDE WING ASSEMBLY

INSIDE WING ASSEMBLY

5630 MODELS 26' THRU 28'

REAR



FRONT

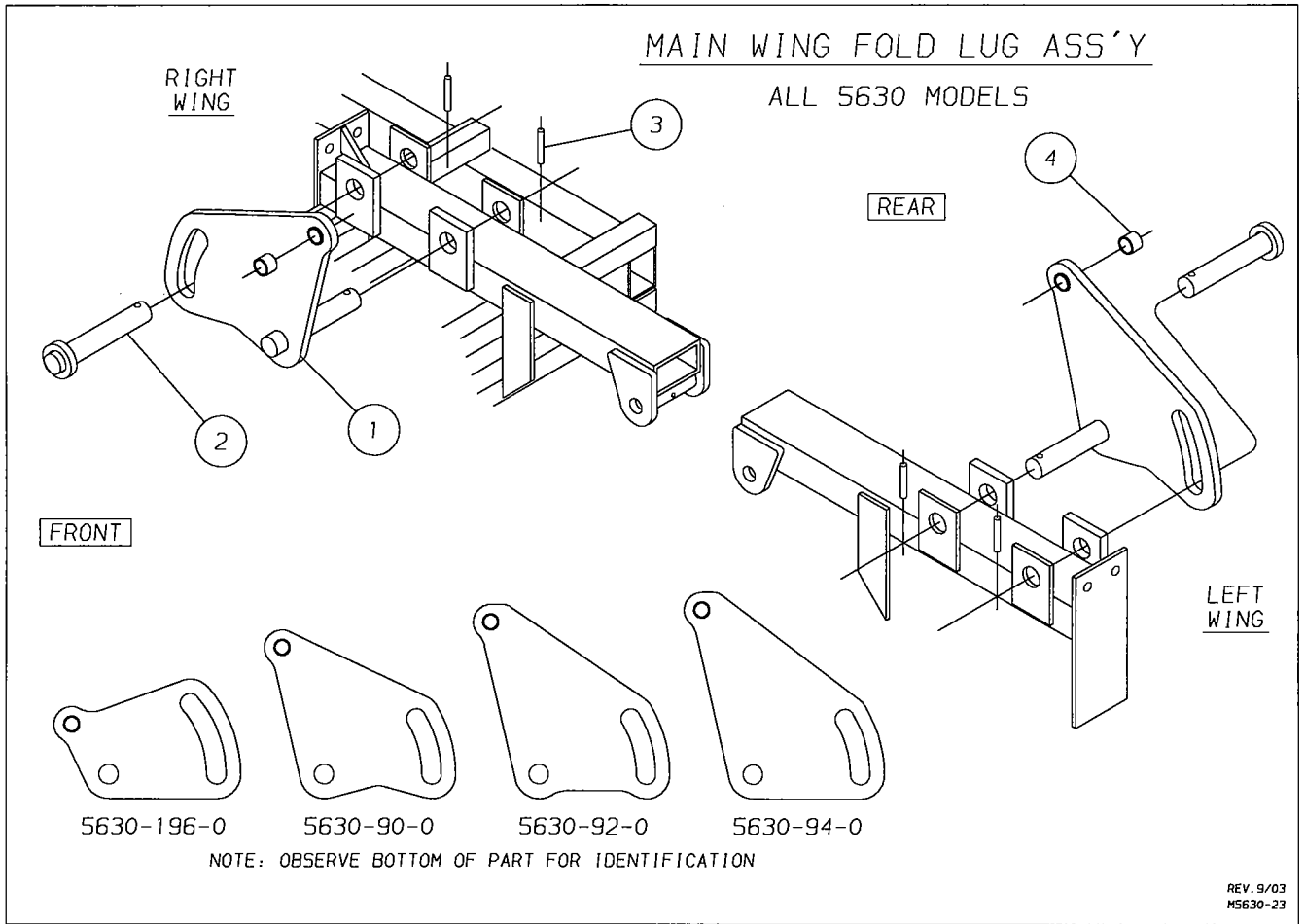
REV. 9/03
M5630-3

FOR MODELS - 5630-26 thru 5630-48

10/03

Item	Part Number	Part Description	Qty.
1	5630-20-0	Right Inside Wing Frame (Shown) - Models 5630-28, 40	1
	5630-19-0	Left Inside Wing Frame - Models 5630-28, 40	1
	5630-24-0	Right Inside Wing Frame - Models 5630-32, 36, 44 & 48	1
	5630-23-0	Left Inside Wing Frame - Models 5630-32, 36, 44 & 48	1
2	5630-22-0	Right Wing Wheel Frame (Shown)	1
	5630-21-0	Left Wing Wheel Frame	1
3	62-176	5/8NC x 3-1/2" GD5 Cap Screw	20
	64-110	5/8" STD. Flat Washer	12
5	64-109	5/8" STD. Lock Washer	22
6	63-109	5/8NC Hex Nut	22
7	65-101	1/8" STD. Zerk	2
8	5630-41-0	180° Fold Stop Weldment (Shown) - Models 5630-36*, 40, 44	1* / 2
	5630-59-0	180° Fold Stop Weldment - Models 5630-48 ONLY	2
9	61-235	5/8"DIA. x 3-1/16"W x 5-1/2"L U-Bolt	2

MAIN WING FOLD LUG ASSEMBLY

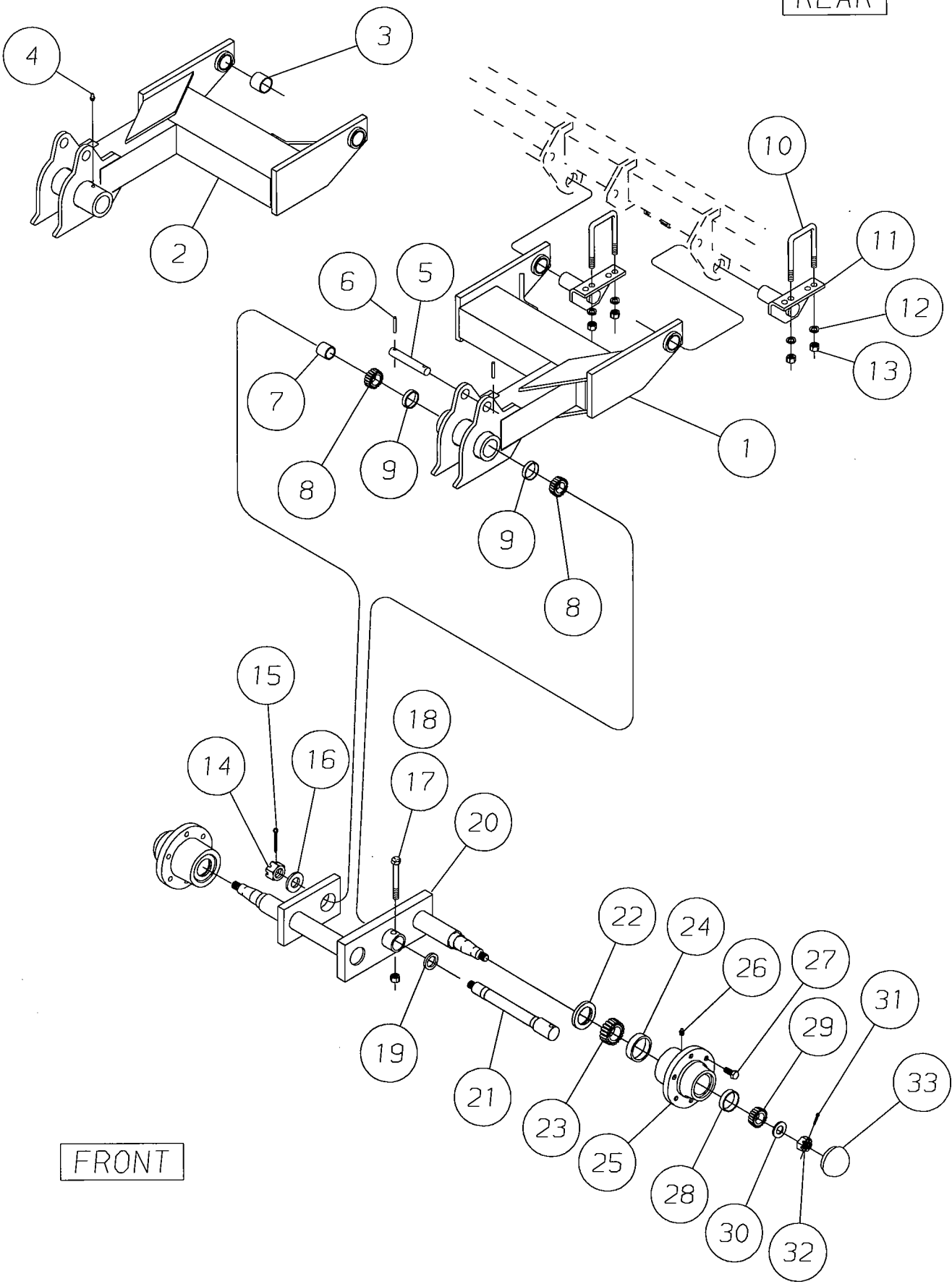


FOR MODELS - ALL

10/03

Item	Part Number	Part Description	Qty.
1	5630-196-0	Wing Fold Lug - For Models 5630-21 & 26	2
	5630-90-0	Wing Fold Lug (18°) - For Models 5630-28 & 32	2
	5630-92-0	Wing Fold Lug (8°) - For Model 5630-36	2
	5630-94-0	Wing Fold Lug (4°) - For Models 5630-40, 44 & 48	2
2	5630-96-0	Wing Fold Pin Weldment	2
3	60-622	1/2" DIA. x 3" Roll Pin	4
4	53-101	Wear Bushing - 1-1/2" O.D. x 1-1/4" I.D. x 1"	2

REAR



FRONT

REV. 1/03
M5630-4

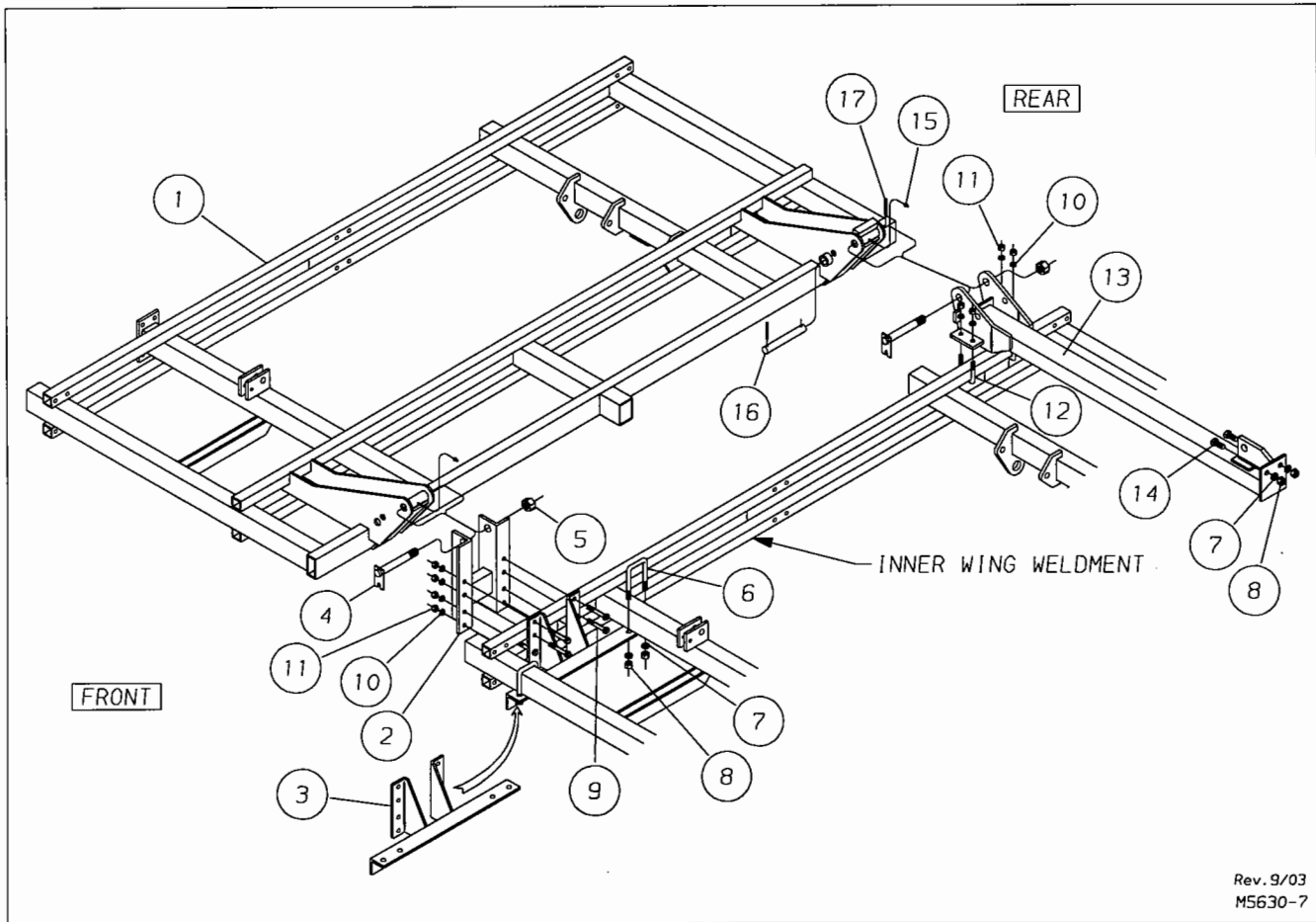
WING ROCKER ASSEMBLY

FOR MODELS - ALL

1/03

<i>Item</i>	<i>Part Number</i>	<i>Part Description</i>	<i>Qty.</i>
1	5630-13-0	Left Wing Rocker Weldment	1
2	5630-14-0	Right Wing Rocker Weldment	1
3	53-146	Wear Bushing 2"O.D. x 1-3/4" I.D. x 1.50"	4
4	65-100	1/8 x 45° Zerk	2
5	5630-0-6	1"DIA. x 5-5/8" Pin	2
6	60-615	3/8" DIA. x 2" Roll Pin	4
7	4987-29-2	Bushing	2
8	41-121	Cone / Seal Assembly	4
9	41-208	Cup	4
10	61-235	5/8"DIA. x 3-1/16"W x 5-1/2"L U-Bolt	4
11	5630-34-0	Rocker Pin Weldment	4
12	64-109	5/8" STD. Lock Washer	8
13	63-109	5/8NC Hex Nut	8
14	63-231	1-1/4NF Slotted Hex Jam Nut	2
15	60-710	1/4" DIA. x 2-1/2" Cotter Pin	2
16	64-167	Special Washer	2
17	62-409	5/8NC x 3" GD5 Cap Screw	2
18	63-110	5/8NC Lock Nut	2
19	4218-13-3	Special Washer	2
20	5630-177-0	Walking Beam Weldment	2
21	5630-110-1	Pivot Spindle	2
22	42-137	Seal	4
23	41-115	Cone	4
24	41-213	Cup	4
25	5630-118-0	Repair Hub Assembly	4
26	65-100	1/8 x 45° Zerk	4
27	62-289	1/2NF x 1-1/32" Wheel Bolt	24
28	41-215	Cup	4
29	41-117	Cone	4
30	64-117	7/8" SAE Black Flat Washer	4
31	60-725	5/32" DIA. x 1-1/2" Cotter Pin	4
32	63-243	7/8NF Slotted Hex Nut	4
33	52-305	Hub Cap	4

OUTSIDE WING & HINGE ASSEMBLY



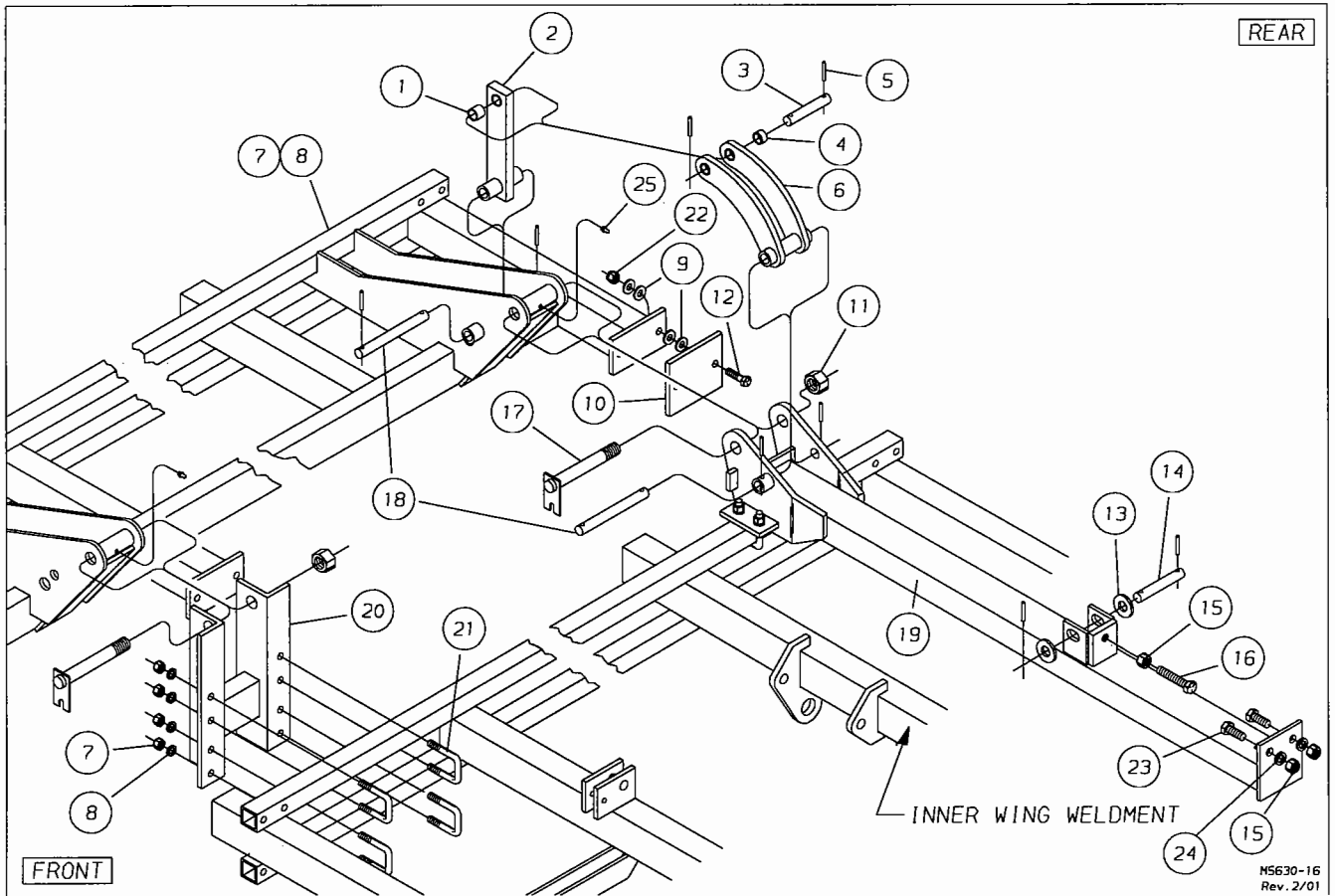
Rev. 9/03
M5630-7

FOR MODELS - 5630-40, 5630-44, 5630-48

10/03

Item	Part Number	Part Description	Qty.
1	5630-26-0	Right Outer Wing Frame Weldment - Models 5630-40, 44	1
	5630-25-0	Left Outer Wing Frame Weldment - Models 5630-40, 44	1
	5630-28-0	Right Outer Wing Frame Weldment - Model 5630-48 ONLY	1
	5630-27-0	Left Outer Wing Frame Weldment - Model 5630-48 ONLY	1
2	5630-43-0	Front Hinge Weldment	1
3	5630-42-0	Front Hinge Brace	1
4	5630-45-0	Outer Wing Hinge Pin	2
5	63-126	1-1/4NC Lock Nut	2
6	61-232	3/4"DIA. x 3-1/16"W x 5-1/2"L U-Bolt	2
7	64-112	3/4" STD. Lock Washer	8
8	63-112	3/4NC Hex Nut	8
9	62-178	5/8NC x 4" GD5 Cap Screw	8
10	64-109	5/8" STD. Lock Washer	12
11	63-109	5/8NC Hex Nut	12
12	61-119	5/8"DIA. x 2-1/16"W x 3-9/16"L U-Bolt	2
13	5630-44-0	Rear Hinge Weldment	1
14	62-421	3/4NC x 2" GD5 Cap Screw	4
15	65-101	1/8" STD. Zerk	2
16	4830-0-2	1-1/4" x 8-7/8" Pin	1
17	60-615	3/8" DIA. x 2" Roll Pin	2

OUTSIDE WING FOLD LINKAGE

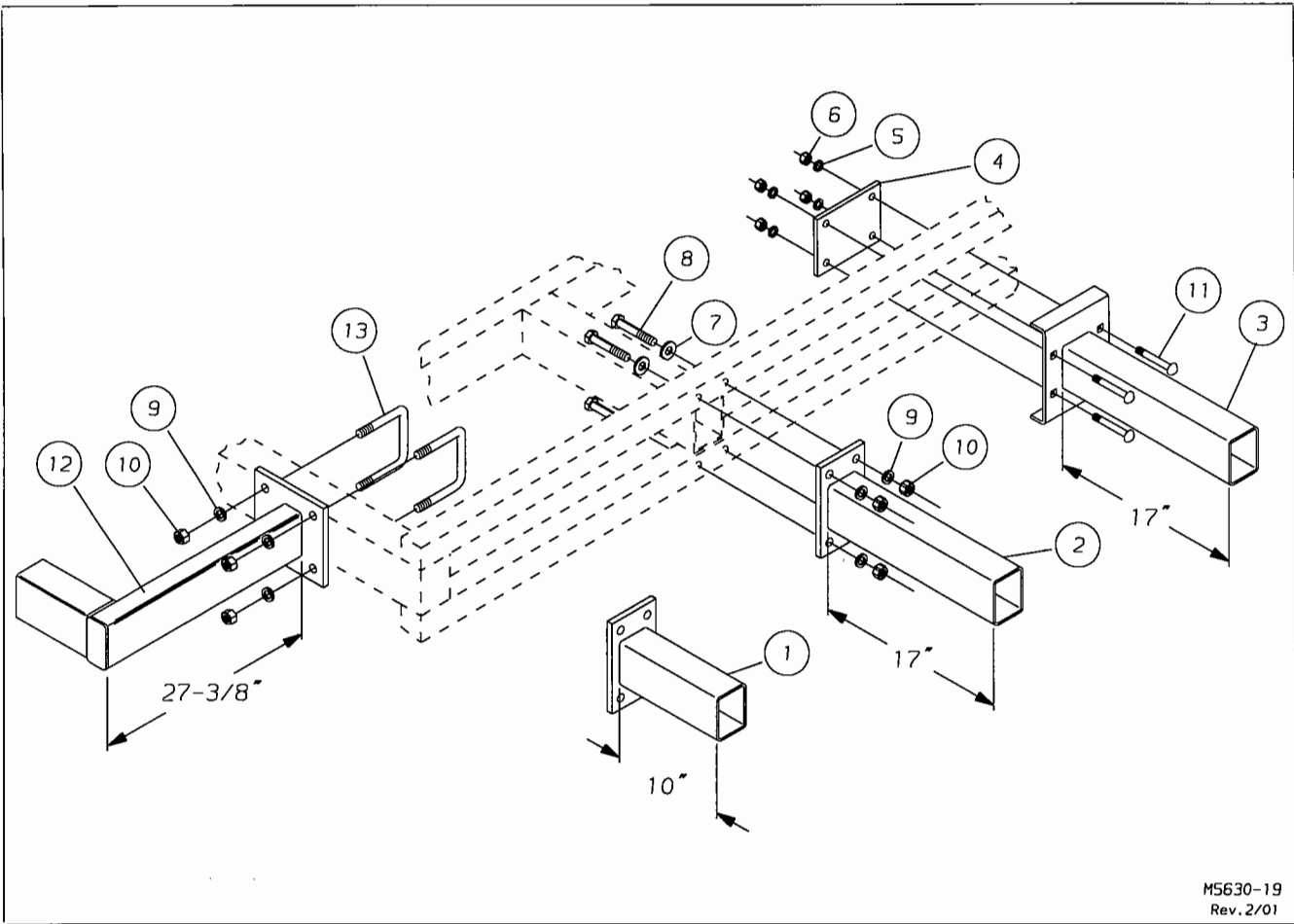


FOR MODELS - 5630-36 ONLY

2/01

Item	Part Number	Part Description	Qty.
1	53-102	1-1/4" O.D. x 1" I.D. x 1" Wear Bushing	2
2	5630-82-0	180° Fold Link Weldment (Includes Item 1 Wear Bushing)	2
3	5630-0-7	1" DIA. x 5-1/4" Pin	2
4	53-127	1-1/4" O.D. x 1" I.D. x 5/8" Wear Bushing	4
5	60-615	3/8" DIA. x 2" Roll Pin	16
6	5630-85-0	Curved Link Weldment (Includes Item 4 Wear Bushing)	2
7	5630-137-0	Left Wing Extension Frame (Opposite)	1
8	5630-138-0	Right Wing Extension Frame (Shown)	1
9	64-110	5/8" STD. Flat Washer	32
10	5630-0-27	Stop Plate	4
11	63-126	1-1/4NC Lock Nut	4
12	62-441	5/8NC x 2-1/2" GD5 Cap Screw	8
13	64-119	1" STD. Flat Washer	4
14	5630-0-6	1" DIA. x 5-5/8" Pin	2
15	63-112	3/4NC Hex Nut	6
16	62-702	3/4NC x 4" Full Thread Bolt	2
17	5630-45-0	Outer Wing Hinge Pin	4
18	5630-0-12	1" DIA. x 8-3/4" Pin	4
19	5630-84-0	Rear Hinge Weldment	2
20	5630-43-0	Front Hinge Weldment	2
21	61-119	5/8" DIA. x 2-1/16" W x 3-9/16" L U-Bolt	8
22	63-152	5/8NC Nylon-Top Lock Nut	4
23	62-421	3/4NC x 2" GD5 Cap Screw	4
24	64-112	3/4" STD. Lock Washer	4
25	65-101	1/8" STD. Zerk	2

SHANK EXTENSIONS



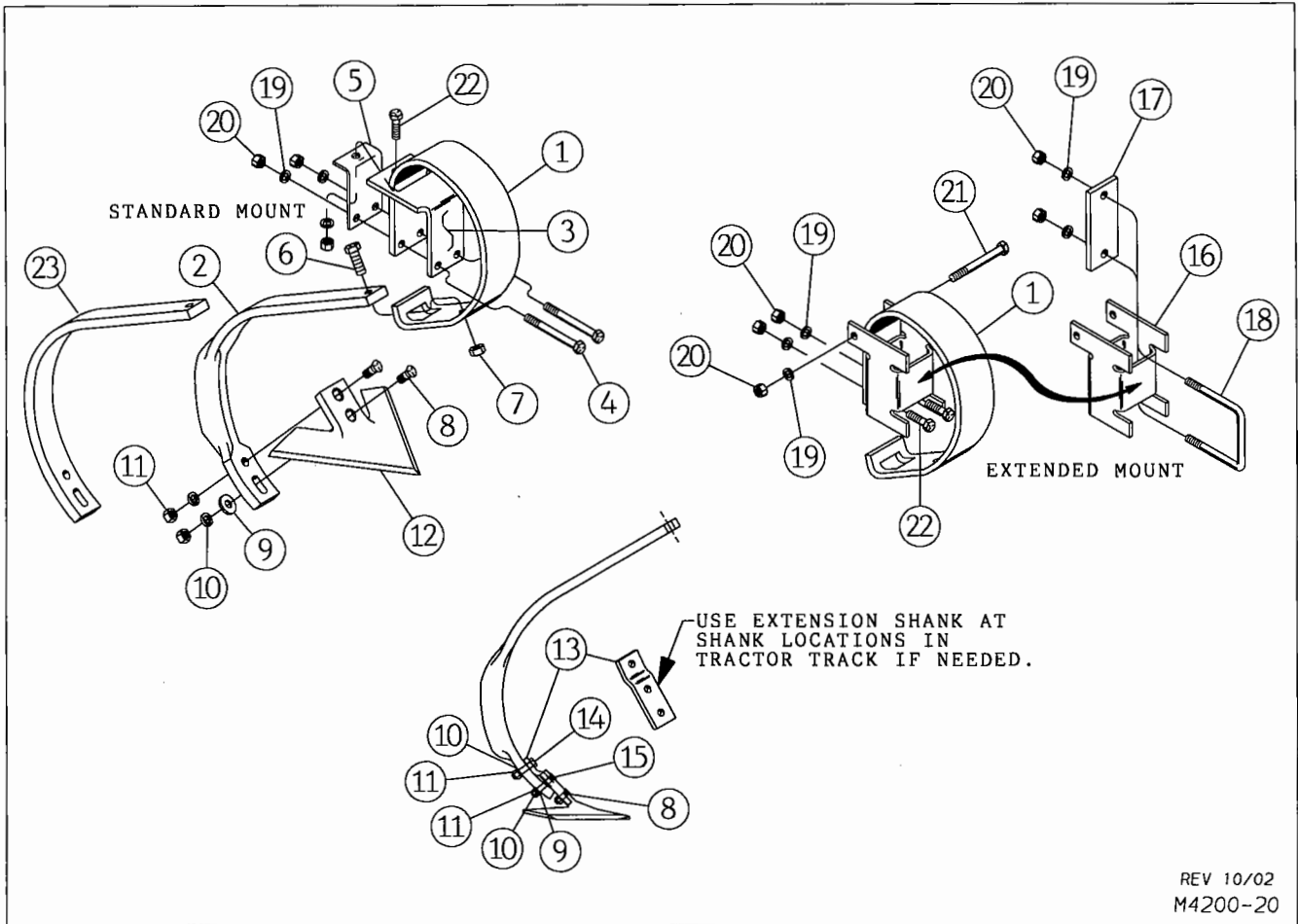
M5630-19
Rev. 2/01

FOR MODELS - ALL 5630 MODELS

2/01

Item	Part Number	Part Description	Qty.
1	5630-210-0	10" Shank Extension Weldment	1
2	5630-217-0	17" Shank Extension Weldment	1
3	5630-15-0	Shank Extension Weldment	1
4	5630-0-25	Bolt Plate	1
5	64-107	1/2" STD. Lock Washer	4
6	63-106	1/2NC Hex Nut	4
7	64-110	5/8" STD. Flat Washer	4
8	62-176	5/8NC x 3-1/2" GD5 Cap Screw	4
9	64-109	5/8" STD. Lock Washer	4
10	63-109	5/8NC Hex Nut	4
11	62-465	1/2NC x 3-1/2" GD5 Carriage Bolt	4
12	5660-23-0	Front Extension Tube	1
13	61-126	5/8" DIA. x 4"W x 4-3/8"L U-Bolt	2

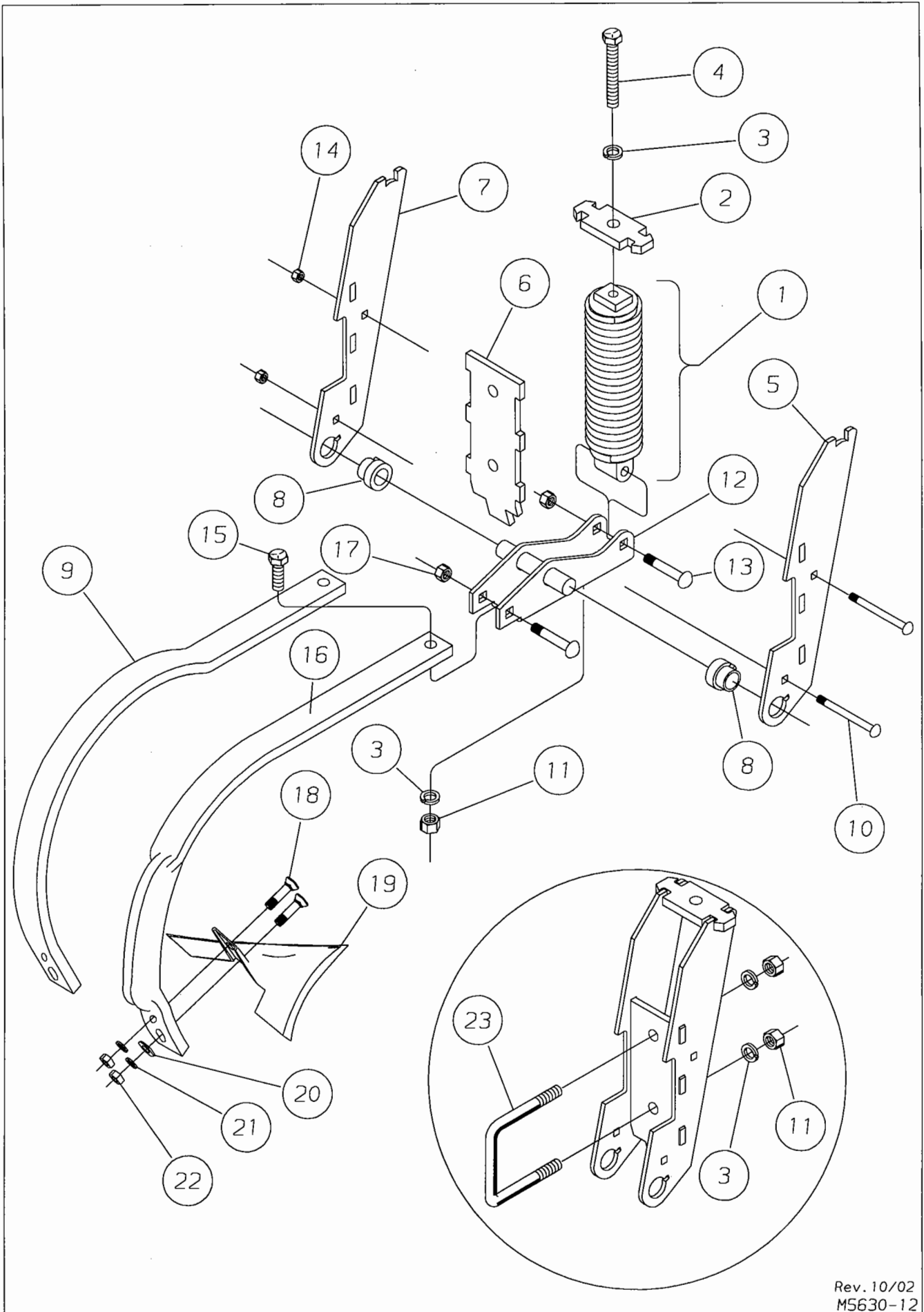
2-PIECE K-TINE SHANK ASSEMBLY



FOR MODELS - ALL

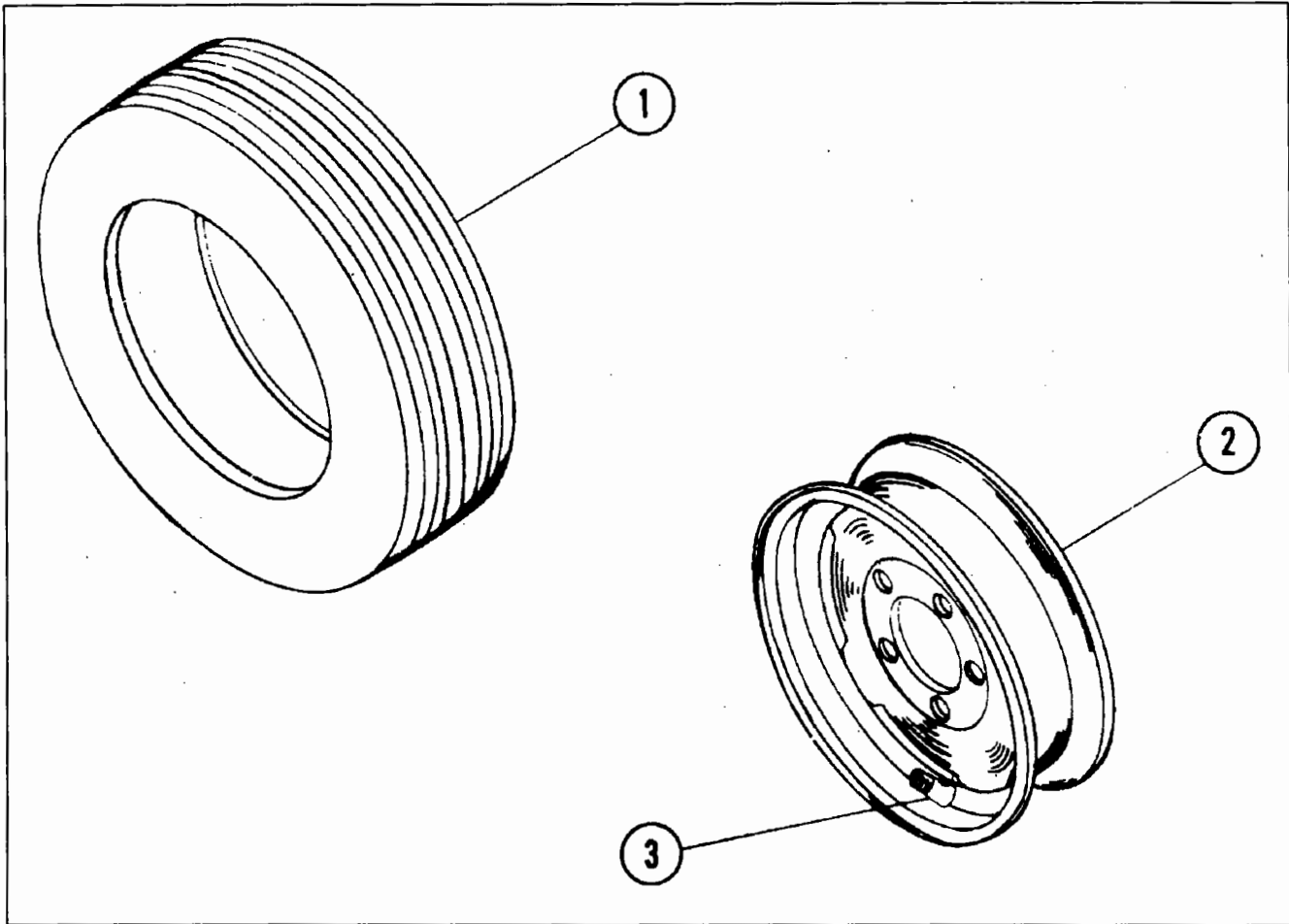
10/03

Item	Part Number	Part Description	Qty.
1	31-179	Shank Mount	
2	31-180	Shank (Edge-On)	
3	6127-0-14A	Shank Mount Clamp	
4	62-458	1/2NC x 5" GD. 5 Cap Screw	
5	6127-0-15	Clamp	
6	62-707	5/8NC x 2" GD. 8 Cap Screw	
7	63-110	5/8NC Self Locking Nut	
8	62-317	7/16NC x 1-1/2" GD. 5 #3 Plow Bolt	
9	64-106	7/16" STD. Flat Washer	
10	64-105	7/16" STD. Lock Washer	
11	63-104	7/16NC Hex Nut	
12	33-190	10" Sweep 47° Stem Angle - 1/4" Thick	
	33-189	9" Sweep 47° Stem Angle - 1/4" Thick	
	33-208	7" Sweep 47° Stem Angle - 1/4" Thick	
13	4100-0-9	Extension Shank	
14	62-407	7/16NC x 1-1/2" GD. 5 Cap Screw	
15	62-132	7/16NC x 2-1/4" GD. 5 #3 Plow Bolt	
16	4226-0-10	Extended Bracket	
17	4226-0-11	Bolt Plate	
18	61-216	1/2" DIA. U-Bolt (4.25" Leg)	
19	64-107	1/2" STD. Lock Washer	
20	63-106	1/2NC Hex Nut	
21	62-351	1/2NC x 4-1/2" GD. 5 Cap Screw	
22	62-569	1/2NC x 1-1/2" GD. 5 Cap Screw	
23	31-204	Cultivator Shank (Flat)	



Rev. 10/02
M5630-12

WHEELS & TIRES

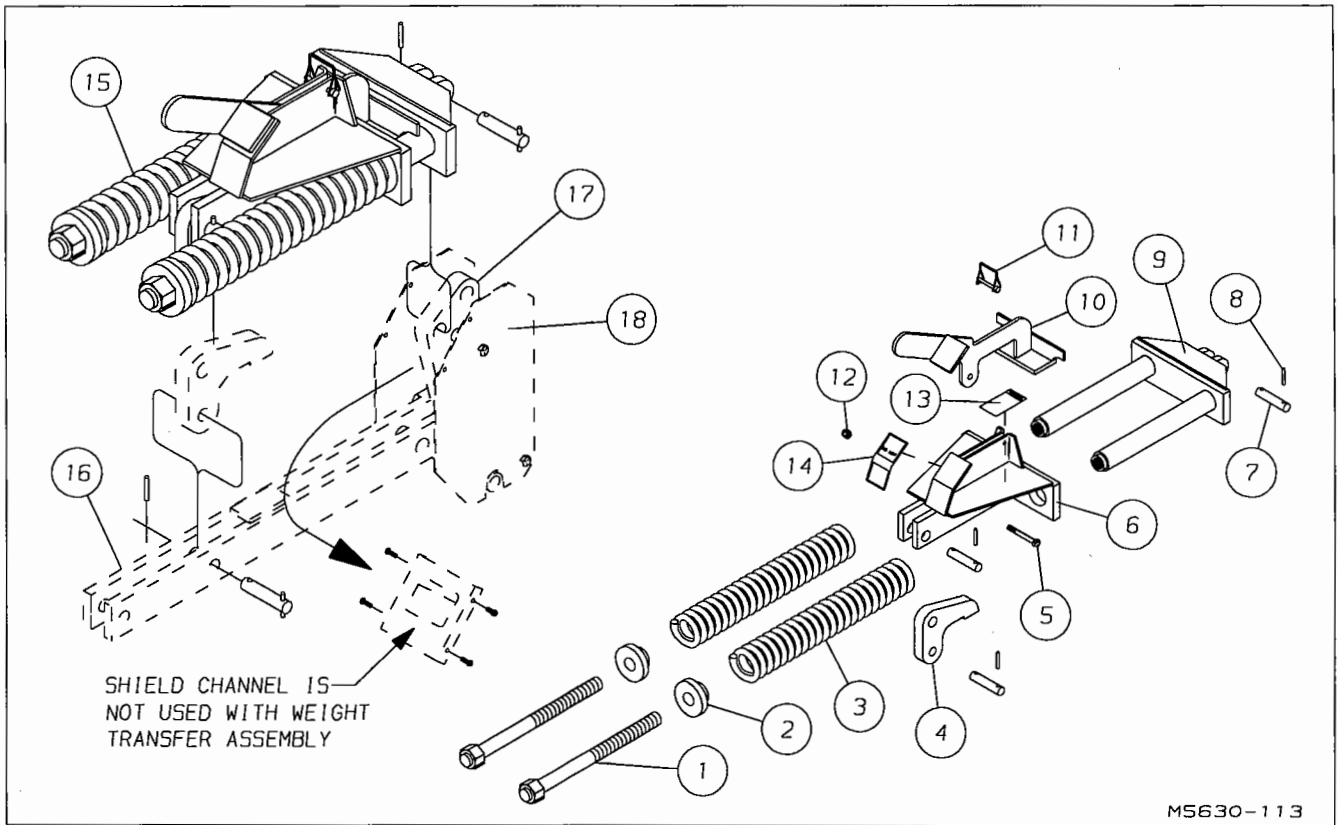


FOR MODELS - ALL

6/04

<i>Item</i>	<i>Part Number</i>	<i>Part Description</i>	<i>Qty.</i>
	1000-11580-0	Wheel Assembly	Specify
1	51-106	11L x 15, 8-Ply Tire	1
2	52-103	15" x 10" 6-Bolt Wheel	1
3	51-107	Valve Stem #415	1
	1000-12640-01	Wheel Assembly	Specify
1	51-122	12.5L x 16, 14-Ply Tire & Tube	1
2	52-112	15" x 10" Wheel (1-1/8" Offset)	1
3	74-109	Caution Decal	1

WEIGHT TRANSFER SPRING ASSEMBLY



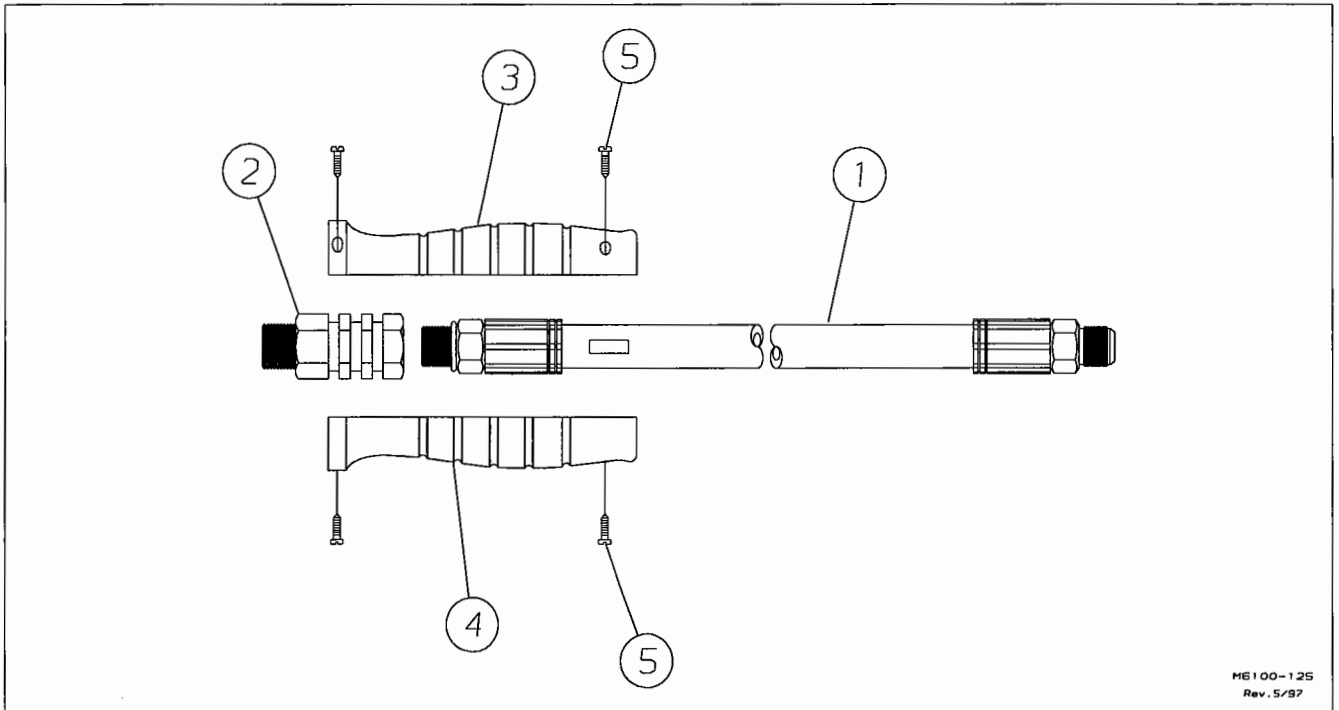
FOR MODELS - ALL

10/02

Item	Part Number	Part Description	Qty.
1	5630-340-0	Adjustment Screw Weldment	2
2	5630-342-0	Spring Cap Weldment	2
3	76-142	Spring	2
4	5630-334-0	Pivot Lug Assembly	2
5	62-154	1/2NC x 3-1/2" GD5 Cap Screw	1
6	5630-335-0	Front Spring Weldment	1
7	5630-0-4	Pin - 1" DIA. x 4-3/16"	3
8	60-615	3/8" DIA. x 2" Roll Pin	6
9	5630-337-0	Rear Spring Weldment	1
10	5630-343-0	Weight Transfer Lock Weldment	1
11	60-103	P.T.O. Lock Pin	1
12	63-107	1/2NC Lock Nut	1
13	74-594	Decal - WARNING! Weight Transfer Spring	1
14	74-595	Decal - Spring Lock	1
15	5630-344-0	Weight Transfer Assembly	
16	● 5630-237-0	Tongue Link Weldment	1
17	● 5630-240-0	Lug Weldment	1
18	● 5630-0-39	Side Plate	2
● These parts required only on 5630's with Serial Numbers 1001 thru 1090			

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HYDRAULIC HOSE WITH PLASTIC GRIP ASSEMBLIES



ME100-125
Rev. 5/97

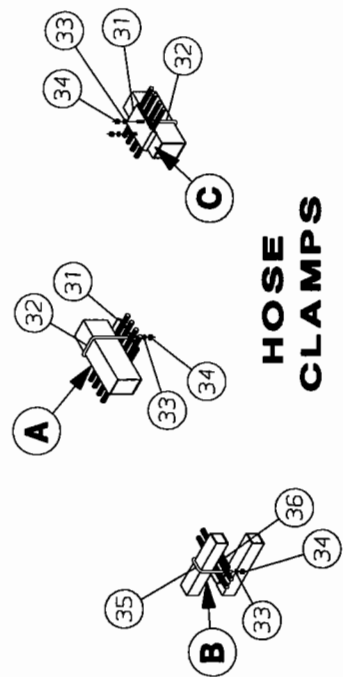
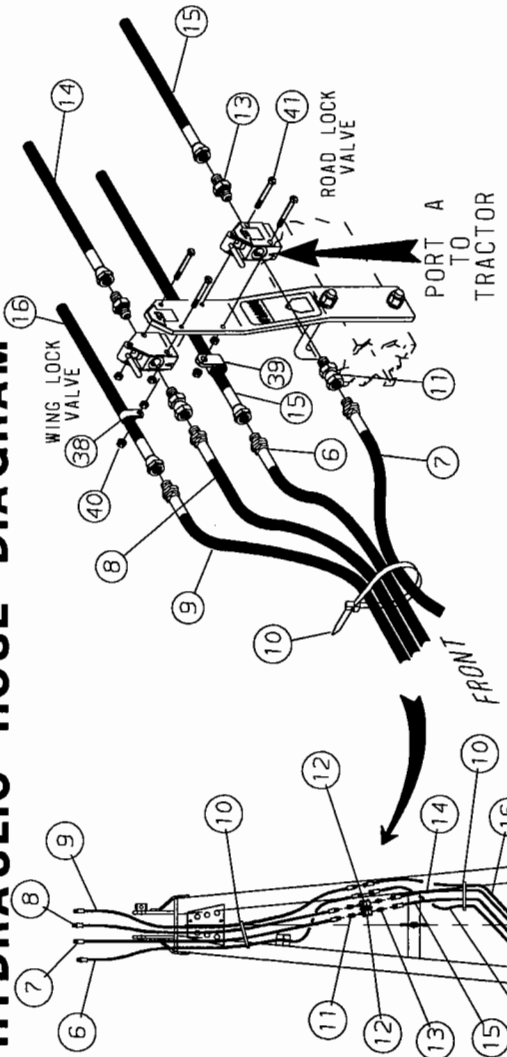
FOR MODELS - ALL

12/01

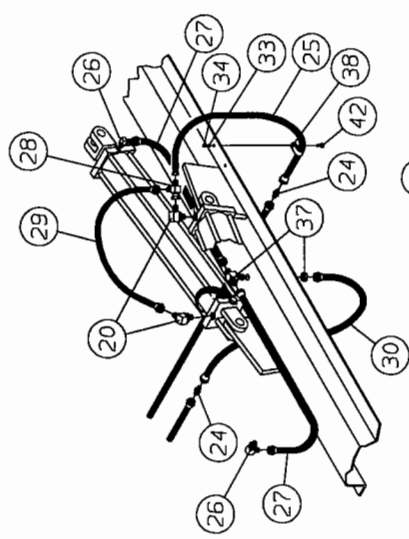
Item	Part Number	Part Description	Qty.
	4990-75-0	1/2" x 95" 100R2 Hose with Red/Red Grip Assembly	1
1	24-330R	1/2" DIA. x 95" JIC/ORB 100R2 Hose	1
2	25-2295	3/4 ORB to 1/2 NPT Hydraulic Fitting	1
3	25-2289	Hose Grip Half - Red	1
4	25-2289	Hose Grip Half - Red	1
5	62-656	Screw	4
	4990-76-0	1/2" x 95" 100R2 Hose with Yellow/Yellow Grip Assembly	1
1	24-330R	1/2" DIA. x 95" JIC/ORB 100R2 Hose	1
2	25-2295	3/4 ORB to 1/2 NPT Hydraulic Fitting	1
3	25-2290	Hose Grip Half - Yellow	1
4	25-2290	Hose Grip Half - Yellow	1
5	62-656	Screw	4
	4990-77-0	3/8" x 95" 100R2 Hose with Red/Black Grip Assembly	1
1	24-2105R	3/8" DIA. x 95" JIC/ORB 100R2 Hose	1
2	25-2295	3/4 ORB to 1/2 NPT Hydraulic Fitting	1
3	25-2289	Hose Grip Half - Red	1
4	25-2291	Hose Grip Half - Black	1
5	62-656	Screw	4
	4990-78-0	3/8" x 95" 100R2 Hose with Yellow/Black Grip Assembly	1
1	24-2105R	3/8" DIA. x 95" JIC/ORB 100R2 Hose	1
2	25-2295	3/4 ORB to 1/2 NPT Hydraulic Fitting	1
3	25-2290	Hose Grip Half - Yellow	1
4	25-2291	Hose Grip Half - Black	1
5	62-656	Screw	4

**MODEL 5630-21
5630-26**

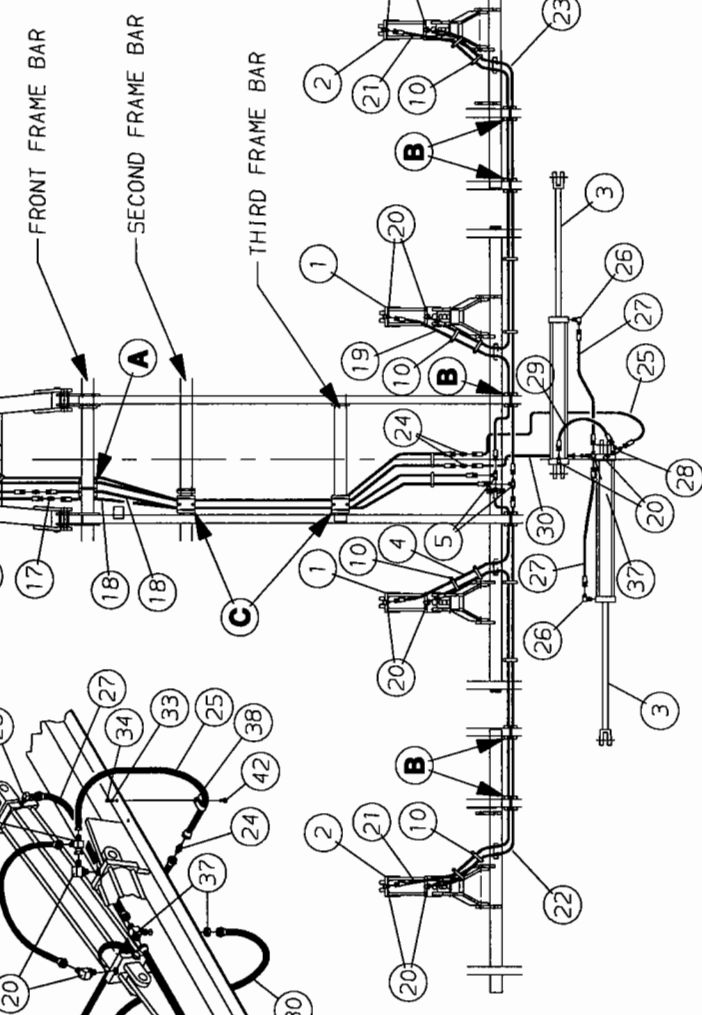
HYDRAULIC HOSE DIAGRAM



**HOSE
CLAMPS**



**WING FOLD
CYLINDER
ASSEMBLY**



HYDRAULICS

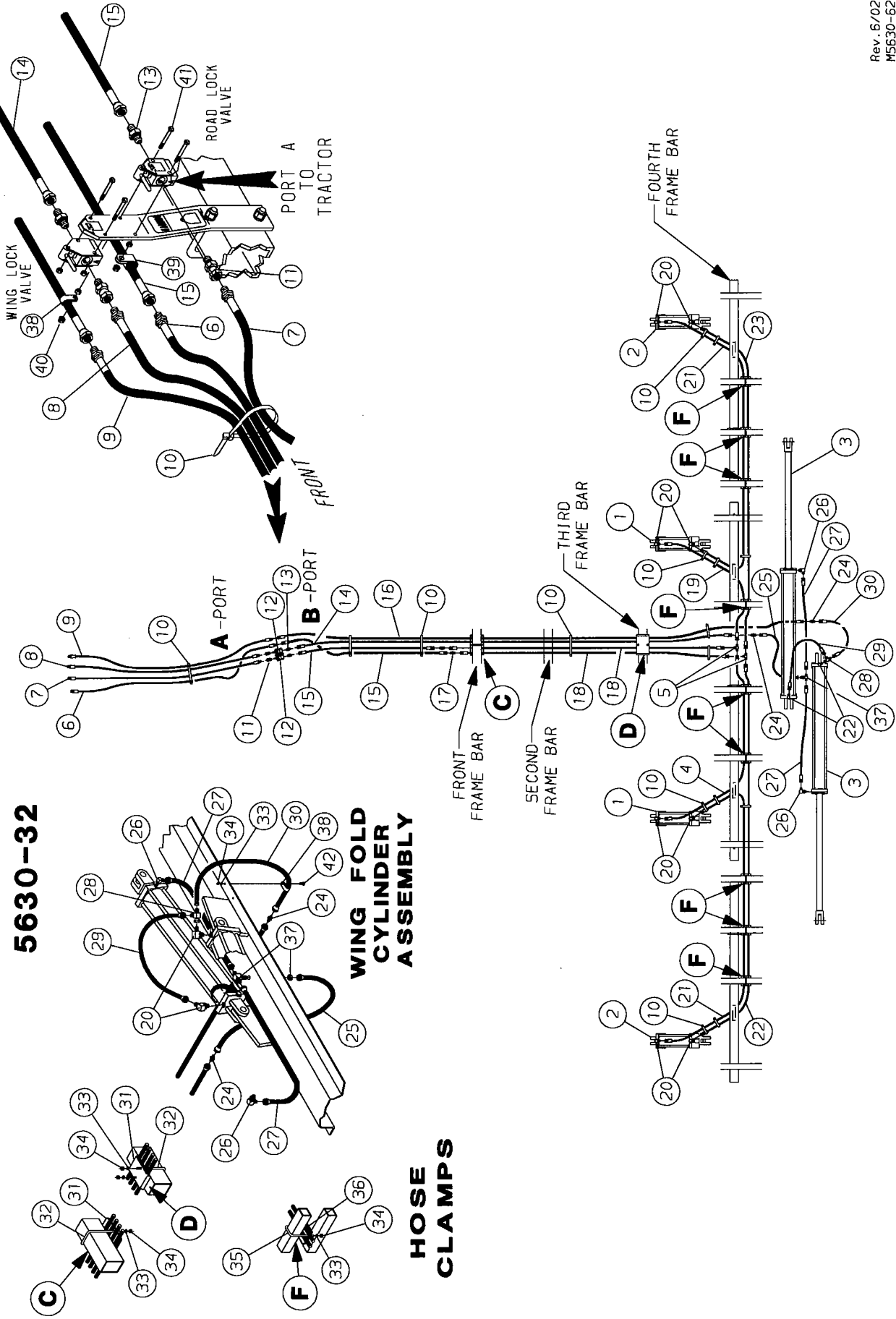
FOR MODELS - 5630-21 & 5630-26

10/03

Item	Part Number	Part Description	Qty.
1	21-1007	4 x 10 Hydraulic Cylinder	2
2	21-1006	3-3/4 x 10 Hydraulic Cylinder	2
3	21-172	4 x 32 Hydraulic Cylinder	2
4	24-207R	3/8 x 58" (JIC) BLK 2W Hose Assembly	1
5	25-303	37° Flare 3/4(M) Tee Hydraulic Fitting	2
6	● 4990-76-0	1/2 x 95" (Yellow/Yellow) Hose & Grip Assembly	1
7	● 4990-75-0	1/2 x 95" (Red/Red) Hose & Grip Assembly	1
8	● 4990-77-0	3/8 x 95" (Red/Black) Hose & Grip Assembly	1
9	● 4990-78-0	3/8 x 95" (Yellow/Black) Hose & Grip Assembly	1
10	25-126	Stay Strap, 34" UV Black	20
11	25-314	3/4(M) O-Ring 3/4(F) JIC Hydraulic Fitting	2
12	25-2272	Manual Release Check Valve	2
13	25-300	3/4(M) O-Ring to 3/4(M) JIC Adapter Hydraulic Fitting	2
14	24-2101R	3/8 x 187" (JIC) BLK 2W Hose Assembly	1
15	24-304R	1/2 x 70" (JIC) BLK 2W Hose Assembly	2
16	24-2101R	3/8 x 187" (JIC) BLK 2W Hose Assembly	1
17	25-304	37° Flare Male Coupler	2
18	24-3033R	1/2 x 117" (JIC) BLK 2W Hose Assembly	2
19	24-213R	3/8 x 86" (JIC) BLK 2W Hose Assembly	1
20	25-301	3/4 (M) O-Ring 3/4(M) JIC 90° Hydraulic Fitting	10
21	★ 24-283R	3/8 x 144" (JIC) BLK 2W Hose Assembly	2
	■ 24-286R	3/8 x 168" (JIC) BLK 2W Hose Assembly	2
22	★ 24-222R	3/8 x 125" (JIC) BLK 2W Hose Assembly	1
	■ 24-228R	3/8 x 149" (JIC) BLK 2W Hose Assembly	1
23	★ 24-265R	3/8 x 135" (JIC) BLK 2W Hose Assembly	1
	■ 24-242R	3/8 x 161" (JIC) BLK 2W Hose Assembly	1
24	◆ 25-304	37° Flare Male Coupler Hydraulic Fitting	2
25	24-201R	3/8x 30" (3/4JIC) BLK 2W Hose Assembly	1
26	4956-75-0	O-Ring 37° Flare 90° Restrictor Fitting w/ Tag	2
27	24-202R	3/8 x 36" (JIC) BLK 2W Hose Assembly	2
28	25-307	37° Flare M/F Tee Hydraulic Fitting	1
29	24-200R	3/8 x 24" (JIC) BLK 2W Hose Assembly	1
30	24-266R	3/8 x 21" (JIC) BLK 2W Hose Assembly	1
31	5630-0-16	4 Hose Clamp (3" Box)	3
32	61-275	U-Bolt, 3/8"D x 3-1/16"W x 5-1/2"L	3
33	64-103	3/8" STD. Lock Washer	19
34	63-102	3/8NC Hex Nut	19
35	61-274	U-Bolt, 3/8"D x 2-1/16"W x 3-1/2"L	6
36	5630-0-19	2 Hose Clamp (2" Box)	6
37	25-326	37° Male Bulkhead Tee	1
38	25-1153	Hose Clamp 5/8" DIA.	2
39	25-127	Hose Clamp 3/4" DIA.	1
40	63-143	5/16NC Hex Flange Serrated Hex Nut	2
41	62-394	5/16NC x 2-1/2" GD5 Cap Screw	4
42	62-436	3/8NC x 1-1/4" GD5 Cap Screw	1
● See page P39 for parts listing			
◆ Not Used with Floating Hitch Option			
★ Used for Model 5630-21			
■ Used for Model 5630-26			

**MODEL 5630-28
5630-32**

HYDRAULIC HOSE DIAGRAM



Rev. 6/02
M5630-62

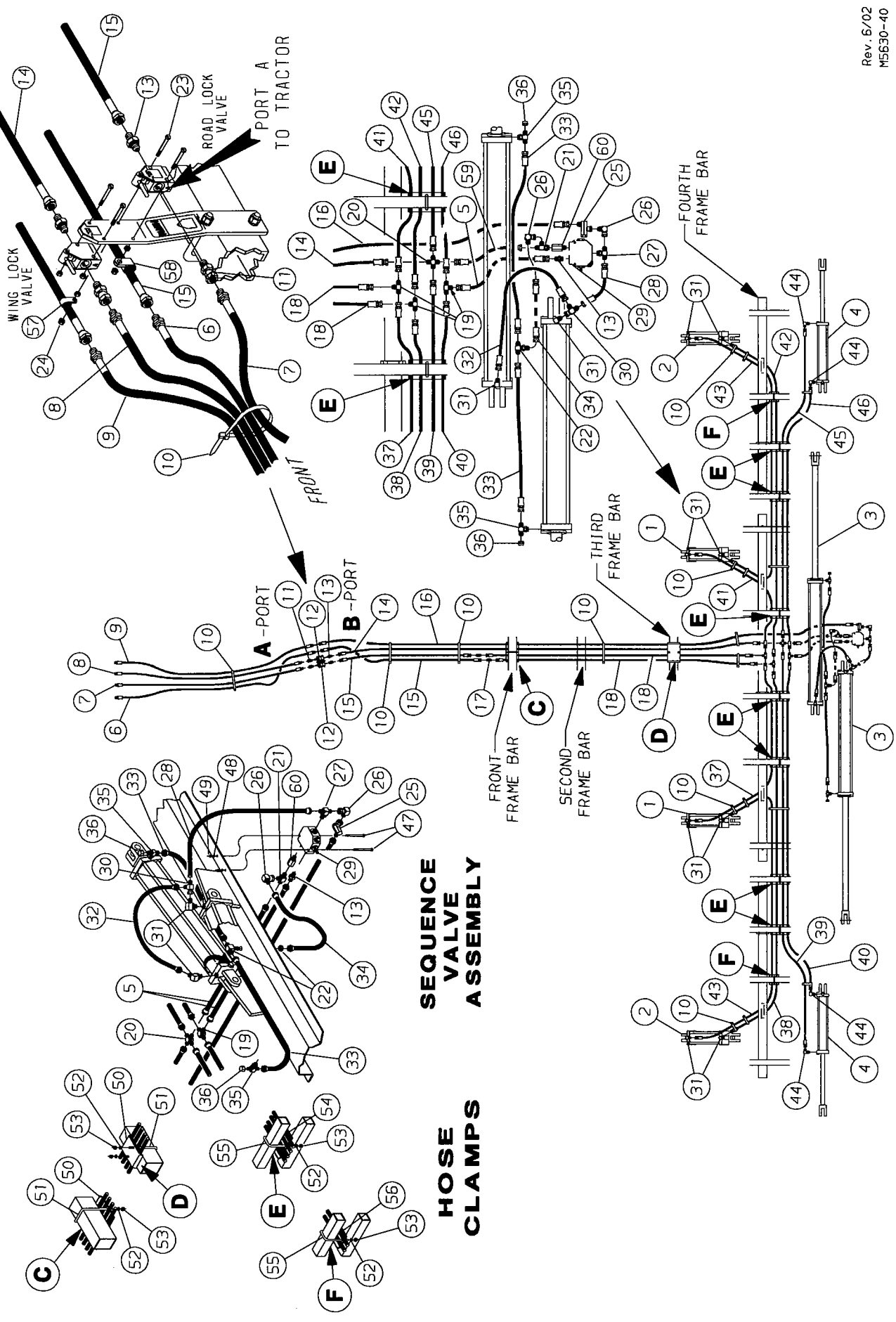
HYDRAULICS

FOR MODELS - 5630-28 & 5630-32

1/03

Item	Part Number	Part Description	Qty.
1	21-1007	4 x 10 Hydraulic Cylinder	2
2	21-1006	3-3/4 x 10 Hydraulic Cylinder	2
3	21-168	4 x 40 Hydraulic Cylinder	2
4	24-217R	3/8 x 92" (JIC) BLK 2W Hose Assembly	1
5	25-303	37° Flare 3/4(M) Tee Hydraulic Fitting	2
6	● 4990-76-0	1/2 x 95" (Yellow/Yellow) Hose & Grip Assembly	1
7	● 4990-75-0	1/2 x 95" (Red/Red) Hose & Grip Assembly	1
8	● 4990-77-0	3/8 x 95" (Red/Black) Hose & Grip Assembly	1
9	● 4990-78-0	3/8 x 95" (Yellow/Black) Hose & Grip Assembly	1
10	25-126	Stay Strap, 34" UV Black	20
11	25-314	O-Ring 37° Female Flare Hydraulic Fitting	2
12	25-2272	Manual Release Check Valve	2
13	25-300	3/4(M) O-Ring to 3/4(M) JIC Adapter Hydraulic Fitting	2
14	24-2101R	3/8 x 187" (JIC) BLK 2W Hose Assembly	1
15	24-304R	1/2 x 70" (JIC) BLK 2W Hose Assembly	2
16	24-259R	3/8 x 202" (JIC) BLK 2W Hose Assembly	1
17	◆ 25-304	37° Flare Male Coupler Hydraulic Fitting	2
18	24-3033R	1/2 x 117" (JIC) BLK 2W Hose Assembly	2
19	24-288R	3/8 x 70" (JIC) BLK 2W Hose Assembly	1
20	25-301	O-Ring 37° Flare 90° Ell Hydraulic Fitting	10
21	★ 24-286R	3/8 x 168" (JIC) BLK 2W Hose Assembly	2
	■ 24-238R	3/8 x 192" (JIC) BLK 2W Hose Assembly	2
22	★ 24-232R	3/8 x 178" (JIC) BLK 2W Hose Assembly	1
	■ 24-259R	3/8 x 202" (JIC) BLK 2W Hose Assembly	1
23	★ 24-241R	3/8 x 154" (JIC) BLK 2W Hose Assembly	1
	■ 24-231R	3/8 x 176" (JIC) BLK 2W Hose Assembly	1
24	25-304	37° Flare Male Coupler	2
25	24-201R	3/8x 30" (3/4JIC) BLK 2W Hose Assembly	1
26	4956-75-0	O-Ring 37° Flare 90° Restrictor Fitting w/ Tag	2
27	24-203R	3/8 x 40" (JIC) BLK 2W Hose Assembly	2
28	25-307	37° Flare M/F Tee Hydraulic Fitting	1
29	24-200R	3/8 x 24" (JIC) BLK 2W Hose Assembly	1
30	24-266R	3/8 x 21" (JIC) BLK 2W Hose Assembly	1
31	5630-0-16	4 Hose Clamp (3" Box)	2
32	61-275	U-Bolt, 3/8"D x 3-1/16"W x 5-1/2"L	2
33	64-103	3/8" STD. Lock Washer	23
34	63-102	3/8NC Hex Nut	23
35	61-274	U-Bolt, 3/8"D x 2-1/16"W x 3-1/2"L	9
36	5630-0-19	2 Hose Clamp (2" Box)	9
37	25-326	37° Male Bulkhead Tee	1
38	25-1153	Hose Clamp 5/8" DIA.	2
39	25-127	Hose Clamp 3/4" DIA.	1
40	63-143	5/16NC Hex Flange Serrated Hex Nut	2
41	62-394	5/16NC x 2-1/2" GD5 Cap Screw	4
42	62-436	3/8NC x 1-1/4" GD5 Cap Screw	1
● See page P39 for parts listing			
◆ Not Used with Floating Hitch Option			
★ Used for Model 5630-28			
■ Used for Model 5630-32			

MODEL 5630-36 HYDRAULIC HOSE DIAGRAM



Rev. 6/02
M5630-40

HYDRAULICS

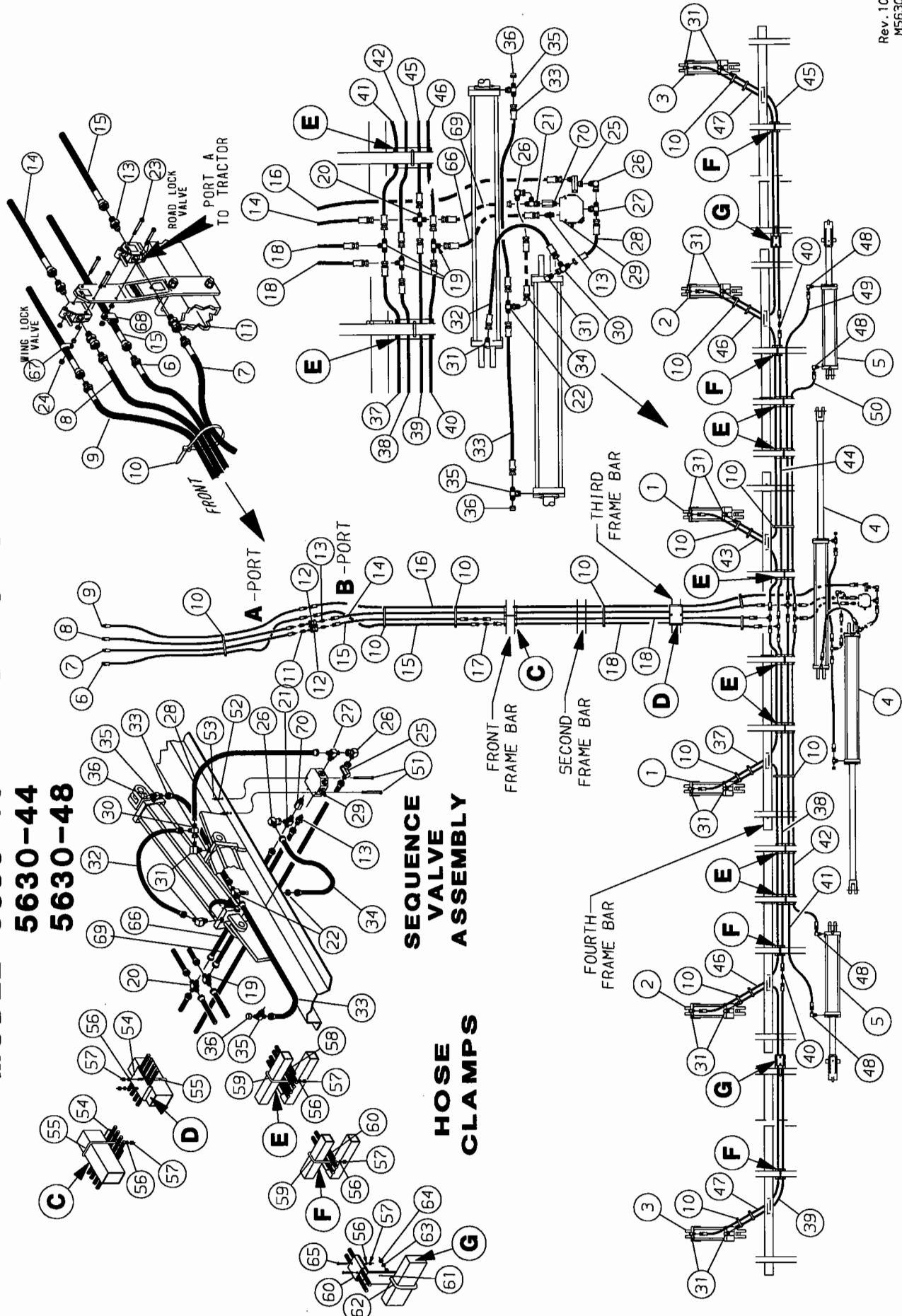
FOR MODELS - 5630-36

1/03

Item	Part Number	Part Description	Qty.	Item	Part Number	Part Description	Qty.
1	21-1007	4" x 10" Cylinder Asm.	2	31	25-301	O-Ring 37° Flare 90° Ell Hydraulic Fitting	10
2	21-1006	3-3/4" x 10" Cylinder Asm.	2	32	24-200R	3/8 x 24"(JIC) BLK 2W Hose Asm.	1
3	21-169	5" x 40" Cylinder Asm.	2	33	24-203R	3/8 x 40"(JIC) BLK 2W Hose Asm.	2
4	21-157	3-1/2" x 18" STD.PS Cylinder	2	34	24-2126R	3/8 x 25"(JIC) BLK 2W Hose Asm.	1
5	24-2138R	3/8 x 8" (3/4JIC) BLK 2W Hose Asm.	1	35	3775-75-0	O-Ring 37° Flare Tee Restrictor Hydraulic Fitting w/Tag	2
6	● 4990-76-0	1/2 x 95"(Yellow/Yellow) Hose Asm.	1	36	25-364	3/4-16 Thread Cap Nut	2
7	● 4990-75-0	1/2 x 95"(Red/Red) Hose Asm.	1	37	24-217R	3/8 x 92"(JIC) BLK 2W Hose Asm.	1
8	● 4990-77-0	3/8 x 95" (Red/Black) Hose Asm.	1	38	24-259R	3/8 x 202"(JIC) BLK 2W Hose Asm.	1
9	● 4990-78-0	3/8 x 95" (Yellow/Black) Hose Asm.	1	39	24-250R	3/8 x 196"(JIC) BLK 2W Hose Asm.	1
10	25-126	Stay Strap, 34" UV Black	26	40	24-230R	3/8 x 172"(JIC) BLK 2W Hose Asm.	1
11	25-314	O-Ring 37° Female Flare Hydraulic Fitting	2	41	24-288R	3/8 x 70"(JIC) BLK 2W Hose Asm.	1
12	25-2272	Manual Release Check Valve	2	42	24-231R	3/8 x 176"(JIC) BLK 2W Hose Asm.	1
13	25-300	3/4(M) O-Ring to 3/4(M) JIC Adapter Hydraulic Fitting	3	43	24-238R	3/8 x 192"(JIC) BLK 2W Hose Asm.	2
14	24-2101R	3/8 x 187"(JIC) BLK 2W Hose Asm.	1	44	4956-75-0	O-Ring 37° Flare 90° Restrictor Hydraulic Fitting w/Tag	4
15	24-304R	1/2 x 70"(JIC) BLK 2W Hose Asm.	2	45	24-242R	3/8 x 161"(JIC) BLK 2W Hose Asm.	1
16	24-259R	3/8 x 202"(JIC) BLK 2W Hose Asm.	1	46	24-278R	3/8 x 138"(JIC) BLK 2W Hose Asm.	1
17	◆ 25-304	37° Flare Male Coupler Hydraulic Fitting	2	47	62-385	1/4NC x 2-1/2" GD5 Cap Screw	2
18	24-3033R	1/2 x 117"(JIC) BLK 2W Hose Asm.	2	48	64-100	1/4" STD. Lock Washer	2
19	25-303	37° Flare 3/4(M) Tee Hydraulic Fitting	3	49	63-100	1/4NC Hex Nut	2
20	25-361	37° Flare 3/4(M) Cross Hydraulic Fitting	1	50	5630-0-16	4 Hose Clamp (3" Box)	2
21	25-302	O-Ring 37° Flare Tee Hydraulic Fitting	1	51	61-275	U-Bolt 3/8"D x 3-1/16"W x 5-1/2"L	2
22	25-326	37° Male Bulkhead Tee Hyd. Fitting	1	52	64-103	3/8" STD. Lock Washer	22
23	62-394	5/16NC x 2-1/2"GD5 Cap Screw	4	53	63-102	3/8NC Hex Nut	22
24	63-143	5/16NC Hex Flange Serrated Nut	2	54	5630-0-18	4 Hose Clamp (2" Box)	7
25	25-324	37° Flare M/F In-Line Restrictor	1	55	61-274	U-Bolt 3/8"D x 2-1/16"W x 3-1/2"L	9
26	25-310	37° JIC M/F 90° Swivel Hyd. Fitting	2	56	5630-0-19	2 Hose Clamp (2 Box)	2
27	25-309	O-Ring 37° Flare Tee Fitting	1	57	25-1153	Hose Clamp 5/8" DIA.	1
28	24-2137R	3/8 x 19"(3/4JIC) BLK 2W Hose	1	58	25-127	Hose Clamp 3/4" DIA.	1
29	25-144	Sequence Valve 3M PSI	1	59	24-2124R	3/8" x 6"(JIC)2W Black Hose Asm.	1
30	25-307	37° Flare M/F Tee Hydraulic Fitting	1	60	25-2512	Check Valve, In-Line	1
● See page P39 for parts listing							
◆ Not used with Floating Hitch Option							

HYDRAULIC HOSE DIAGRAM

MODEL 5630-40
5630-44
5630-48



HYDRAULICS

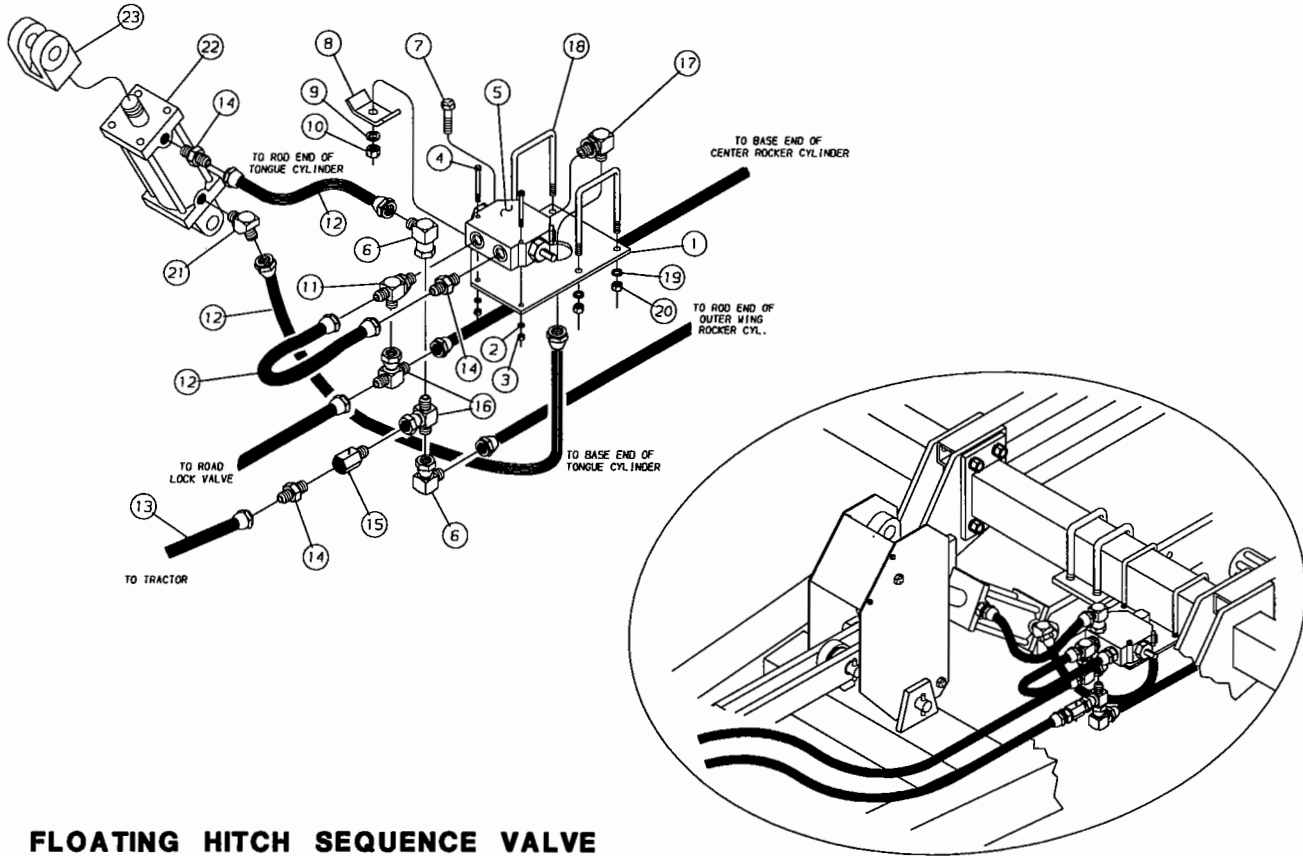
FOR MODELS - 5630-40, 5630-44, 5630-48

1/03

Item	Part Number	Part Description	Qty.	Item	Part Number	Part Description	Qty.	
1	21-1007	4 x 10 Cylinder	2	42	★ 24-224R	3/8 x 130" (JIC) BLK 2W Hose Asm.	1	
2	21-1006	3-3/4 x 10 Cylinder	2		■ 24-241R	3/8 x 154" (JIC) BLK 2W Hose Asm.	1	
3	21-1031	3-1/2 x 10 Cylinder	2		▲ 24-288R	3/8 x 70" (JIC) BLK 2W Hose Asm.	1	
4	21-169	5 x 40 Cylinder	2	43	★ 24-2141R	3/8 x 225" (3/4JIC) BLK 2W Hose	1	
5	5630-79-0	Wing Lift Cylinder (see pg P55)	2		■ 24-283R	3/8 x 144" (JIC) BLK 2W Hose Asm.	1	
6	● 4990-76-0	1/2 x 95" (Yellow/Yellow) Hose Asm.	1	44	▲ 24-2106R	3/8 x 104" (JIC) BLK 2W Hose Asm.	1	
7	● 4990-75-0	1/2 x 95" (Red/Red) Hose Asm.	1		▲ 24-223R	3/8 x 128" (JIC) BLK 2W Hose Asm.	1	
8	● 4990-77-0	3/8 x 95" (Red/Black) Hose Asm.	1	45	★ 24-286R	3/8 x 168" (JIC) BLK 2W Hose Asm.	2	
9	● 4990-78-0	3/8 x 95" (Yellow/Black) Hose Asm.	1		■ 24-238R	3/8 x 192" (JIC) BLK 2W Hose Asm.	2	
10	25-126	Stay Strap, 34" UV Black	26	46	▲ 24-283R	3/8 x 144" (JIC) BLK 2W Hose Asm.	2	
11	25-314	O-Ring 37° Female Flare Fitting	2		▲ 24-286R	3/8 x 168" (JIC) BLK 2W Hose Asm.	2	
12	25-2272	Manual Release Check Valve	2	47	★ 4956-75-0	O-Ring 37° Flare 90° Restrictor Hydraulic Fitting w/Tag	4	
13	25-300	3/4(M) O-Ring to 3/4(M) JIC Adapter Hydraulic Fitting	3	48	★ 24-237R	3/8 x 122" (JIC) BLK 2W Hose Asm.	1	
14	24-2101R	3/8 x 187" (JIC) BLK 2W Hose Asm.	1		■ 24-283R	3/8 x 144" (JIC) BLK 2W Hose Asm.	1	
15	24-304R	1/2 x 70" (JIC) BLK 2W Hose Asm.	2	49	▲ 24-236R	3/8 x 98" (JIC) BLK 2W Hose Asm.	1	
16	24-259R	3/8 x 202" (JIC) BLK 2W Hose Asm.	1		■ 24-237R	3/8 x 122" (JIC) BLK 2W Hose Asm.	1	
17	◆ 25-304	37° Flare (M) Coupler	2	50	▲ 62-385	1/4NC x 2-1/2" GD5 Cap Screw	2	
18	24-3033R	1/2 x 117" (JIC) BLK 2W Hose Asm.	2	51	64-100	1/4" STD. Lock Washer	2	
19	25-303	37° Flare 3/4(M) Tee Hydraulic Fitting	3	52	63-100	1/4NC Hex Nut	2	
20	25-361	37° Flare 3/4(M) Cross Hydraulic Fitting	1	53	5630-0-16	4 Hose Clamp (3" Box)	2	
21	25-302	O-Ring 37° Flare Tee Hydraulic Fitting	1	54	61-275	U-Bolt 3/8"D x 3-1/16"W x 5-1/2L	2	
22	25-326	37° Male Bulkhead Tee Hyd. Fitting	1	55	64-103	3/8" STD. Lock Washer	30	
23	62-394	5/16NC x 2-1/2" GD5 Cap Screw	4	56	63-102	3/8NC Hex Nut	30	
24	63-143	5/16NC Hex Flange Serrated Nut	2	57	58	5630-0-18	4 Hose Clamp (2" Box)	7
25	25-324	37° Flare M/F In-Line Restrictor	1	58	59	61-274	U-Bolt 3/8"D x 2-1/16"W x 3-1/2"L	11
26	25-310	37° M/F JIC 90° Swivel Hyd. Fitting	2	59	60	5630-0-19	2 Hose Clamp (2" Box)	6
27	25-309	O-Ring 37° Flare Tee Hyd. Fitting	1	60	61	5630-0-20	Hinge Hose Bracket	2
28	24-2137R	3/8 x 19(3/4JIC) BLK 2W Hose Asm	1	61	62	61-195	U-Bolt 5/8"D x 4-1/16"W x 3-1/2"L	2
29	25-144	Sequence Valve - 3M PSI	1	62	63	64-109	5/8" STD. Lock Washer	4
30	25-307	37° Flare M/F Tee Hydraulic Fitting	1	63	64	63-109	5/8NC Hex Nut	4
31	25-301	O-Ring 37° Flare 90° Ell Hydraulic Fitting	14	64	65	62-415	3/8NC x 1-3/4" GD5 Cap Screw	4
32	24-200R	3/8 x 24" (JIC) BLK 2W Hose Asm.	1	65	66	24-2138R	3/8 x 8" (3/4JIC) BLK 2W Hose Asm.	1
33	24-203R	3/8 x 40" (JIC) BLK 2W Hose Asm.	2	66	67	25-1153	Hose Clamp - 5/8" DIA.	1
34	24-2126R	3/8 x 25" (JIC) BLK 2W Hose Asm.	1	67	68	25-127	Hose Clamp - 3/4" DIA.	1
35	3775-75-0	O-Ring 37° Flare Tee Restrictor Hydraulic Fitting w/Tag	2	68	69	24-2124R	3/8 x 6" JIC Black 2W Hose Asm.	1
36	25-364	3/4-16 Thread Cap Nut	2	69	70	25-2512	Check Valve, In-Line	1
37	24-217R	3/8 x 92" (JIC) BLK 2W Hose Asm.	1					
38	★ 24-2139R	3/8 x 249" (3/4JIC) BLK 2W Hose	1					
	■ 24-227R	3/8 x 148" (JIC) BLK 2W Hose Asm.	1					
	▲ 24-222R	3/8 x 125" (JIC) BLK 2W Hose Asm.	1					
39	■ 24-222R	3/8 x 125" (JIC) BLK 2W Hose Asm.	1					
	▲ 24-227R	3/8 x 148" (JIC) BLK 2W Hose Asm.	1					
40	■ 25-304	37° Flare Male Coupler Hydraulic Fitting	2					
41	★ 24-2140R	3/8 x 182" (3/4JIC) BLK 2W Hose Asm.	1					
	■ 24-233R	3/8 x 184" (JIC) BLK 2W Hose Asm.	1					
	▲ 24-233R	3/8 x 184" (JIC) BLK 2W Hose Asm.	1					

- See page P39 for parts listing
- ◆ NOT Used w/ Floating Hitch
- ★ Used for Model 5630-40
- Used for Model 5630-44
- ▲ Used for Model 5630-48

FLOATING HITCH SEQUENCE VALVE



**FLOATING HITCH SEQUENCE VALVE
FOR MODELS 5630-21 & 26**

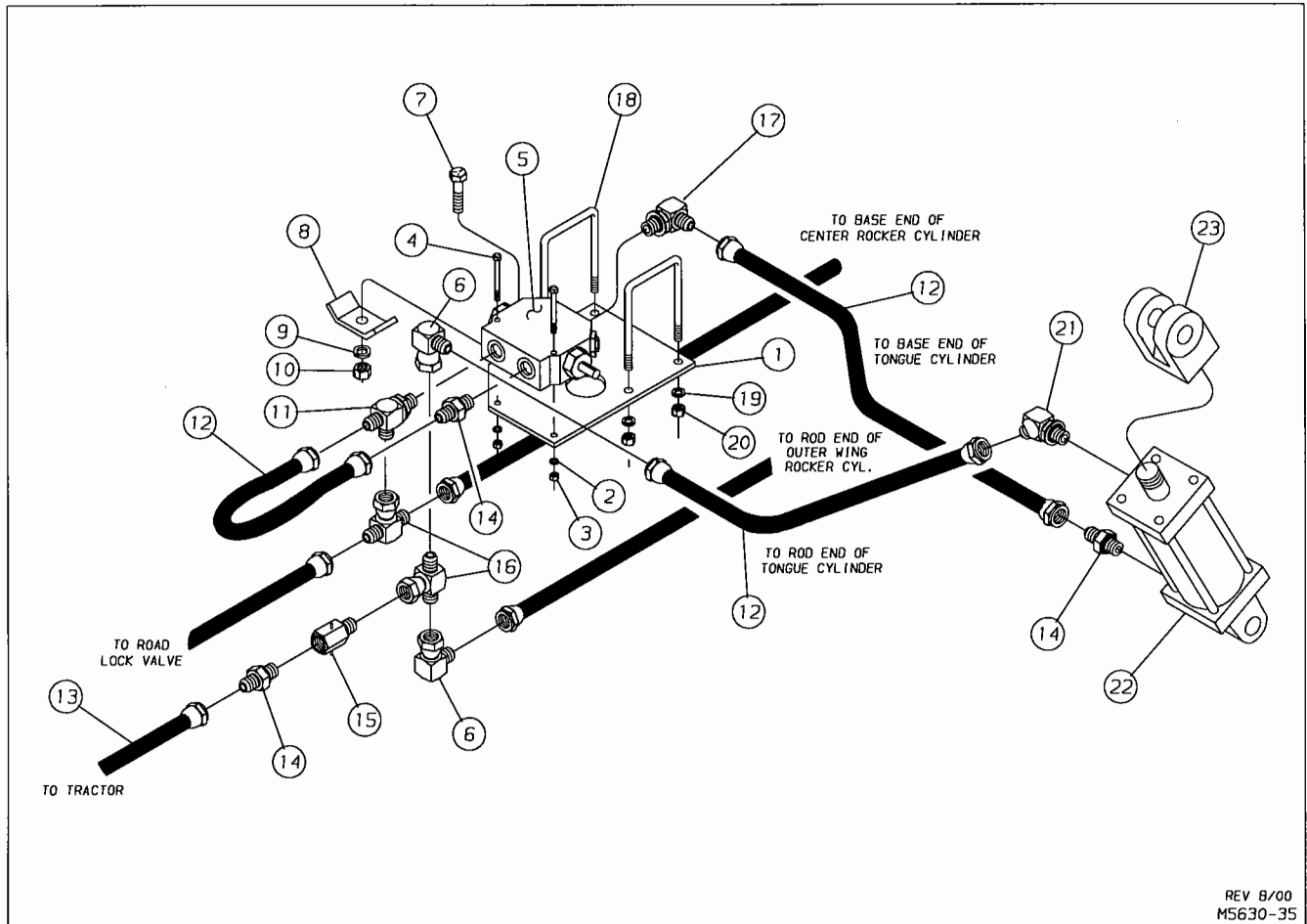
REV. 9/03
M5630-125

FOR MODELS - 5630-21 & 5630-26

10/03

Item	Part Number	Part Description	Qty.
1	5630-0-24	Valve Plate	1
2	64-100	1/4" STD. Lock Washer	2
3	63-100	1/4NC Hex Nut	2
4	62-385	1/4NC x 2-1/2" GD5 Cap Screw	2
5	25-144	3M PSI Sequence Valve	1
6	25-310	3/4(M) JIC to 3/4(F) JIC 90° Swivel Hydraulic Fitting	2
7	62-343	1/2NC x 2" GD5 Cap Screw	1
8	3514-0-2	Hose Clamp, Red	1
9	64-107	1/2" STD. Lock Washer	1
10	63-106	1/2NC Hex Nut	1
11	25-302	O-Ring 37° Flare Tee Hydraulic Fitting	1
12	24-341R	1/2" x 22" JIC Black 2W Hose Assembly	3
13	24-304R	1/2" x 70" JIC Black 2W Hose Assembly	1
14	25-300	3/4(M) O-Ring to 3/4(M) JIC Adapter Hydraulic Fitting	3
15	25-607	3/16" Throttle Valve	1
16	25-373	3/4(JIC) Swivel Nut Branch Tee Hydraulic Fitting	2
17	25-301	O-Ring 37° Flare 90° Ell Hydraulic Fitting	1
18	61-245	3/8" DIA. x 3-1/16" W x 4-3/4" L U-Bolt	2
19	64-103	3/8" STD. Lock Washer	4
20	63-102	3/8NC Hex Nut	4
21	25-312	O-Ring 37° Flare 45° Elbow Hydraulic Fitting	1
22	21-173	3 x 5 Hydraulic Cylinder (No Clevis)	1
23	21-527	Clevis Assembly	1

FLOATING HITCH SEQUENCE VALVE



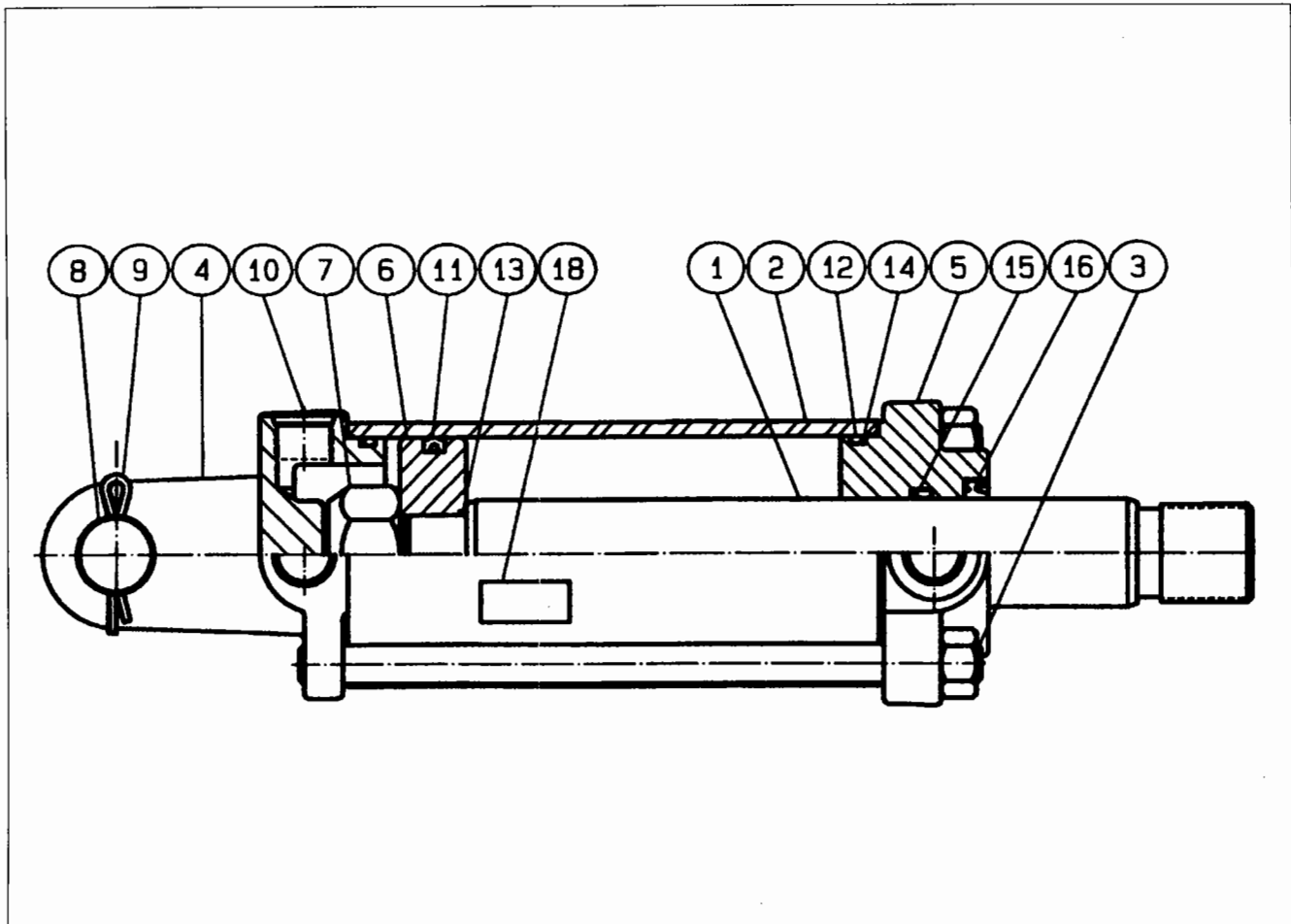
REV 8/00
MS630-35

FOR MODELS - 5630-28 thru 48

8/00

Item	Part Number	Part Description	Qty.
1	5630-0-24	Valve Plate	1
2	64-100	1/4" STD. Lock Washer	2
3	63-100	1/4NC Hex Nut	2
4	62-385	1/4NC x 2-1/2" GD5 Cap Screw	2
5	25-144	3M PSI Sequence Valve	1
6	25-310	3/4(M) JIC to 3/4(F) JIC 90° Swivel Hydraulic Fitting	2
7	62-343	1/2NC x 2" GD5 Cap Screw	1
8	3514-0-2	Hose Clamp, Red	1
9	64-107	1/2" STD. Lock Washer	1
10	63-106	1/2NC Hex Nut	1
11	25-302	O-Ring 37° Flare Tee Hydraulic Fitting	1
12	24-341R	1/2" x 22" JIC Black 2W Hose Assembly	3
13	24-304R	1/2" x 70" JIC Black 2W Hose Assembly	1
14	25-300	3/4(M) O-Ring to 3/4(M) JIC Adapter Hydraulic Fitting	3
15	25-607	3/16" Throttle Valve	1
16	25-373	3/4(JIC) Swivel Nut Branch Tee Hydraulic Fitting	2
17	25-301	O-Ring 37° Flare 90° Ell Hydraulic Fitting	1
18	61-245	3/8" DIA. x 3-1/16" W x 4-3/4" L U-Bolt	2
19	64-103	3/8" STD. Lock Washer	4
20	63-102	3/8NC Hex Nut	4
21	25-312	O-Ring 37° Flare 45° Elbow Hydraulic Fitting	1
22	21-173	3 x 5 Hydraulic Cylinder (No Clevis)	1
23	21-527	Clevis Assembly	1

PRINCE HYDRAULIC CYLINDER

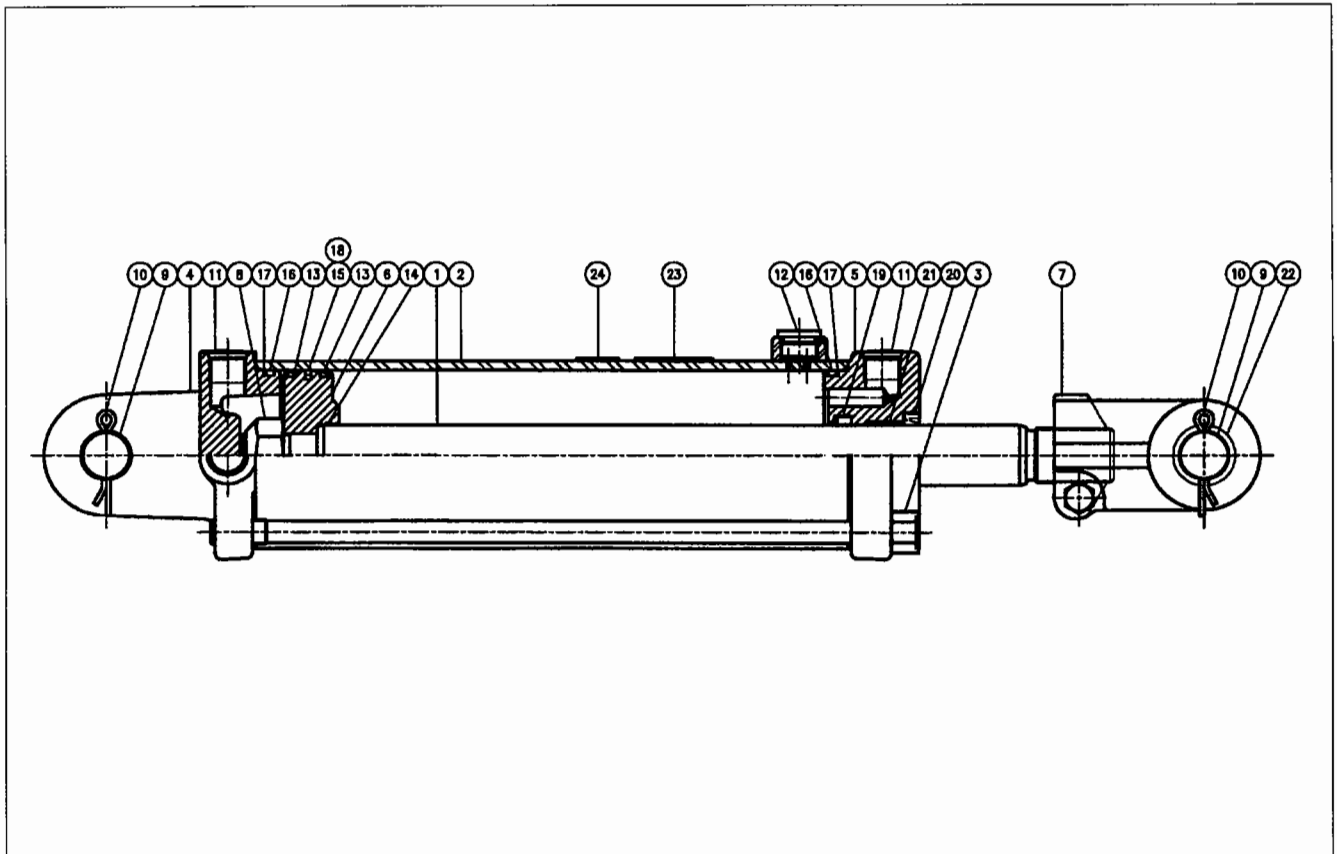


21-173 3" X 5" PRINCE HYDRAULIC CYLINDER ASSEMBLY (No Clevis) 6/04
Retracted - 17" Stroke - 5" Extended - 22" Rod Diameter - 1-3/8"

Item	Part Number	Part Description	Qty.
1	21-932	Piston Rod	1
2	21-448	Tube	1
3	21-449	Tie Rod Assembly	4
4	21-364	Butt	1
5	21-933	Gland	1
6	21-934	Piston	1
7	63-119	Lock Nut	1
8	21-908	Clevis Pin	1
9		3/16" DIA. x 1-3/4" Cotter Pin	2
10	21-404	#8 SAE Plug	3
11	★	Crown Seal	1
12	★	O-Ring	2
13	★	O-Ring	1
14	★	Back-Up Washer	2
15	★	U-Cup	1
16	★	Wiper	1
17			
18	74-113	Cylinder Warning Decal	1
	● 21-937	Seal Kit (★ Items Included in Kit)	

● Not Included in Cylinder Assembly

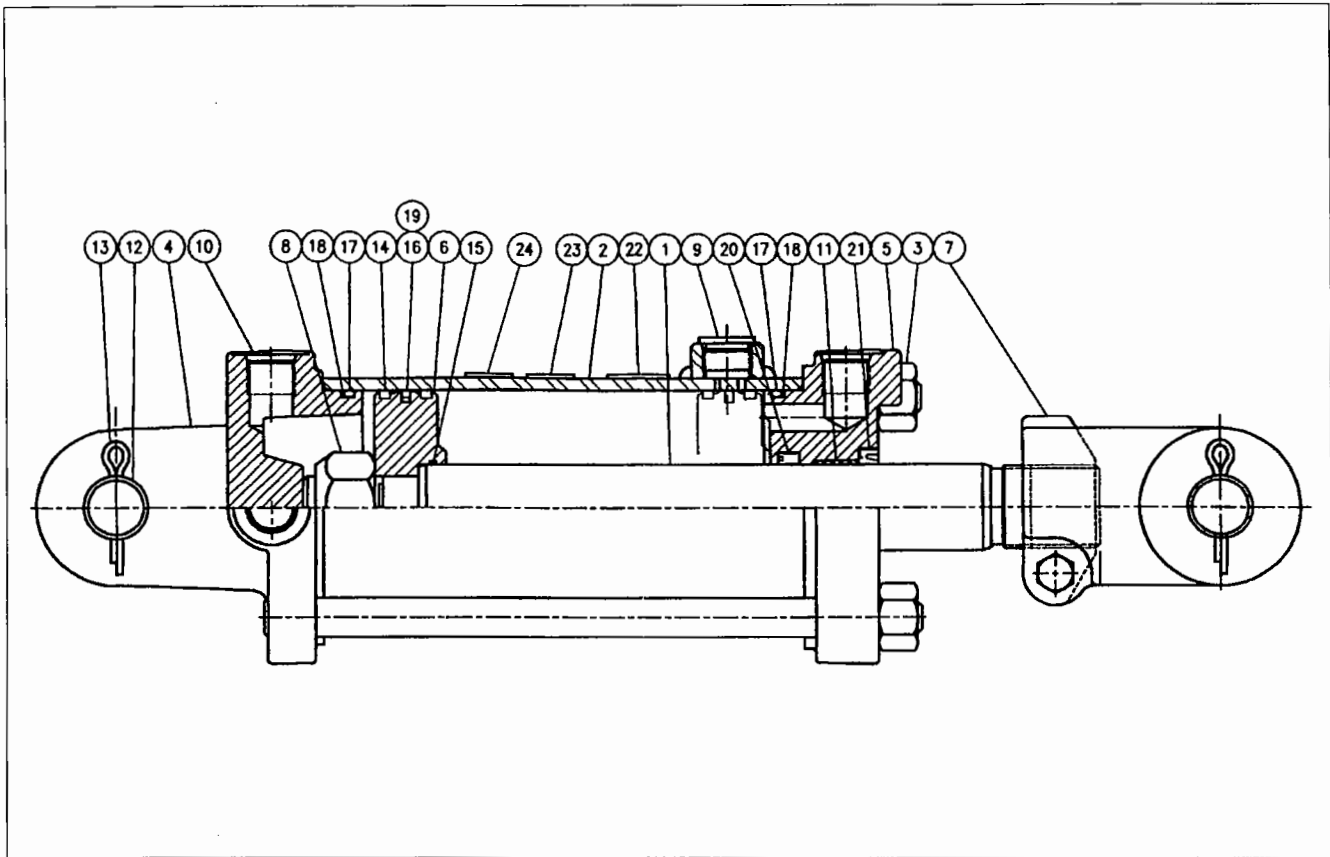
PRINCE HYDRAULIC CYLINDER



21-1031 3-1/2" X 10" PRINCE HYDRAULIC CYLINDER ASSEMBLY (Ret/Series) 6/05
Retracted - 22-1/4" Extended - 32-1/4" Stroke - 10" Rod Diameter - 1-1/4"

Item	Part Number	Part Description	Qty.
1	21-2118	Piston Rod	1
2	21-2130	Tube Assembly	1
3	21-2171	Tie Rod Assembly	4
4	21-421	Butt	1
5	21-2098	Gland Assembly	1
6	21-2099	Piston	1
7	21-2131	Clevis Assembly	1
8	21-463	Lock Nut	1
9	21-376	Clevis Pin	2
10		3/16" DIA. x 1-3/4" Cotter Pin	4
11	21-702	Port Plug	1
12	21-404	Port Plug	3
13	★	Bearing Ring	2
14	★	O-Ring	1
15	★	O-Ring	1
16	★	O-Ring	2
17	★	Back-Up Washer	2
18	★	Teflon Seal	1
19	★	U-Cup	1
20	★	Wiper	1
21	21-2120	Bushing	1
22	21-2167	Bushing	2
23	21-443	Series Caution Decal	1
24	21-2166	Seal Kit Decal	1
25	74-113	Cylinder WARNING Decal	1
	21-2088	Seal Kit (★ Items Included in Kit)	

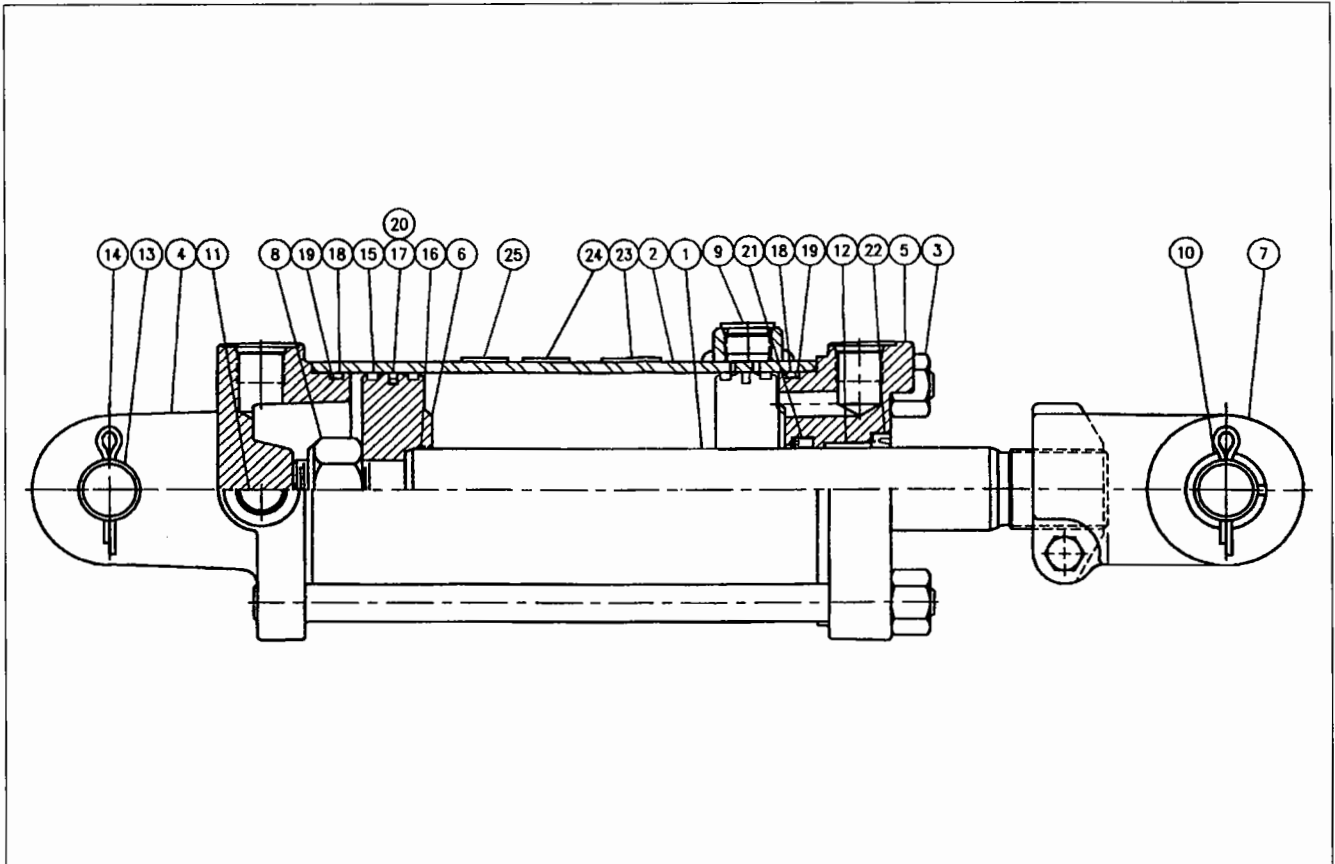
PRINCE HYDRAULIC CYLINDER



21-1006 3-3/4" X 10" PRINCE HYDRAULIC CYLINDER ASSEMBLY (Series) 6/04
Retracted - 22-1/4" Extended - 32-1/4" Stroke - 10" Rod Diameter - 1-3/8"

Item	Part Number	Part Description	Qty.
1	21-2061	Piston Rod	1
2	21-2064	Tube Assembly	1
3	21-381	Tie Rod Assembly	4
4	21-348	Butt	1
5	21-803	Gland	1
6	21-804	Piston	1
7	21-2126	Clevis Assembly	1
8	63-119	Lock Nut	1
9	21-702	Port Plug	1
10	21-404	#8 SAE Plug	3
11	21-807	Bushing	1
12	21-260	Clevis Pin	2
13		3/16" DIA. x 1-3/4" Cotter Pin	4
14	★	Bearing Ring	1
15	★	O-Ring	1
16	★	O-Ring	1
17	★	O-Ring	2
18	★	Back-Up Washer	2
19	★	Teflon Seal	1
20	★	U-Cup	1
21	★	Wiper	1
22	74-515	Seal Kit Decal	1
23	21-443	Series Caution Decal	1
24	74-113	Cylinder Warning Decal	1
25	21-2127	Bushings (Included in Item 7 Clevis Assembly)	2
	21-808	Seal Kit (★ Items Included in Kit)	

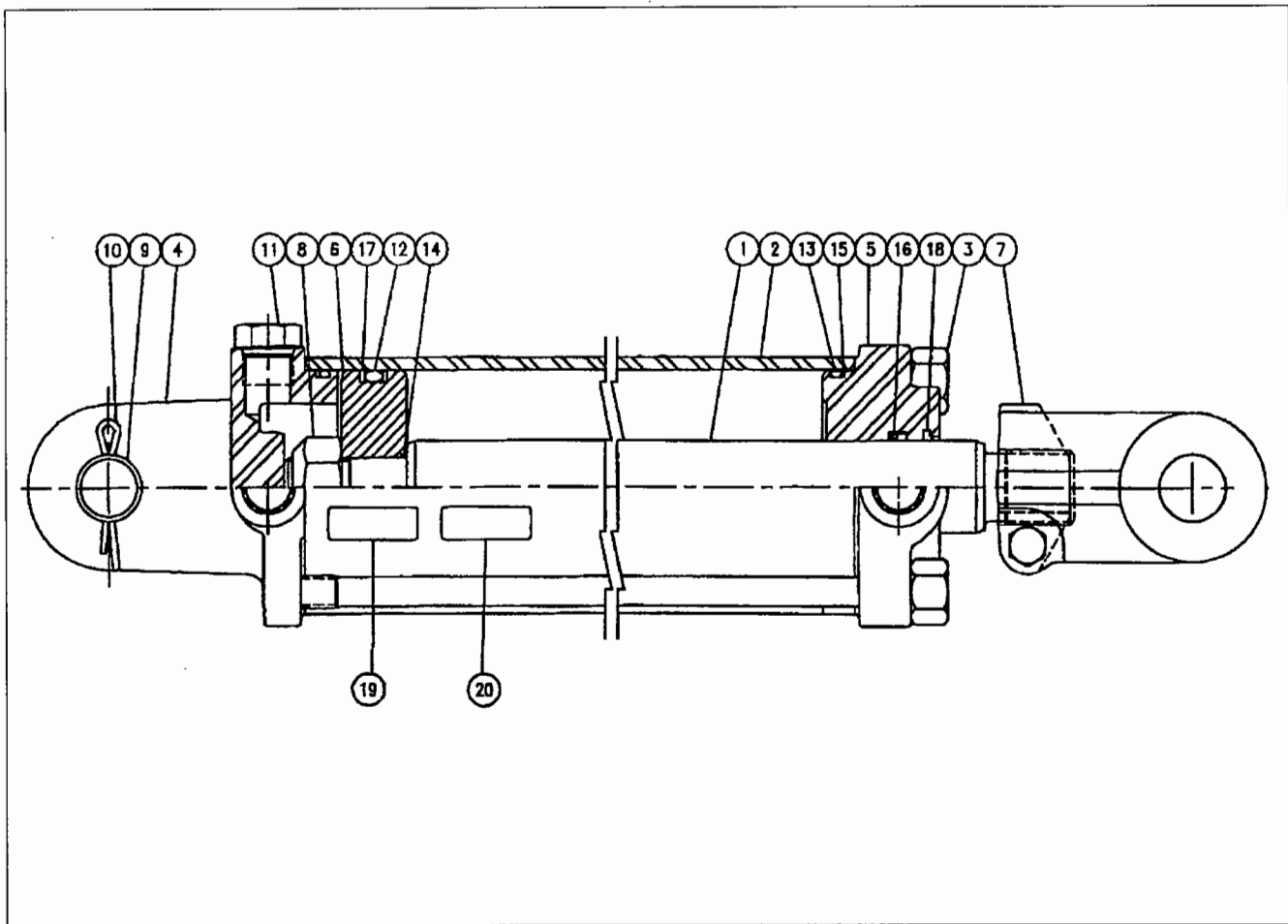
PRINCE HYDRAULIC CYLINDER



21-1007 4" X 10" PRINCE HYDRAULIC CYLINDER ASSEMBLY (Series) 6/04
Retracted - 22-1/4" Extended - 32-1/4" Stroke - 10" Rod Diameter - 1-3/8"

Item	Part Number	Part Description	Qty.
1	21-2061	Piston Rod	1
2	21-2063	Tube Assembly	1
3	21-381	Tie Rod Assembly	4
4	21-337	Butt	1
5	21-810	Gland	1
6	21-811	Piston	1
7	21-2126	Clevis Assembly	1
8	63-119	Lock Nut	1
9	21-702	ORB Plug	1
10	21-2127	Bushing	2
11	21-404	#8 SAE Plug	1
12	21-807	Bushing	1
13	21-260	Clevis Pin	2
14		3/16" DIA. x 1-3/4" Cotter Pin	4
15	★	Bearing Ring	1
16	★	O-Ring	1
17	★	O-Ring	1
18	★	O-Ring	2
19	★	Back-Up Washer	2
20	★	Teflon Seal	1
21	★	U-Cup	1
22	★	Wiper	1
23	74-516	Seal Kit Decal	1
24	21-443	Series Caution Decal	1
25	74-113	Cylinder Warning Decal	1
	21-2059	Seal Kit (★ Items Included in Kit)	

PRINCE HYDRAULIC CYLINDER

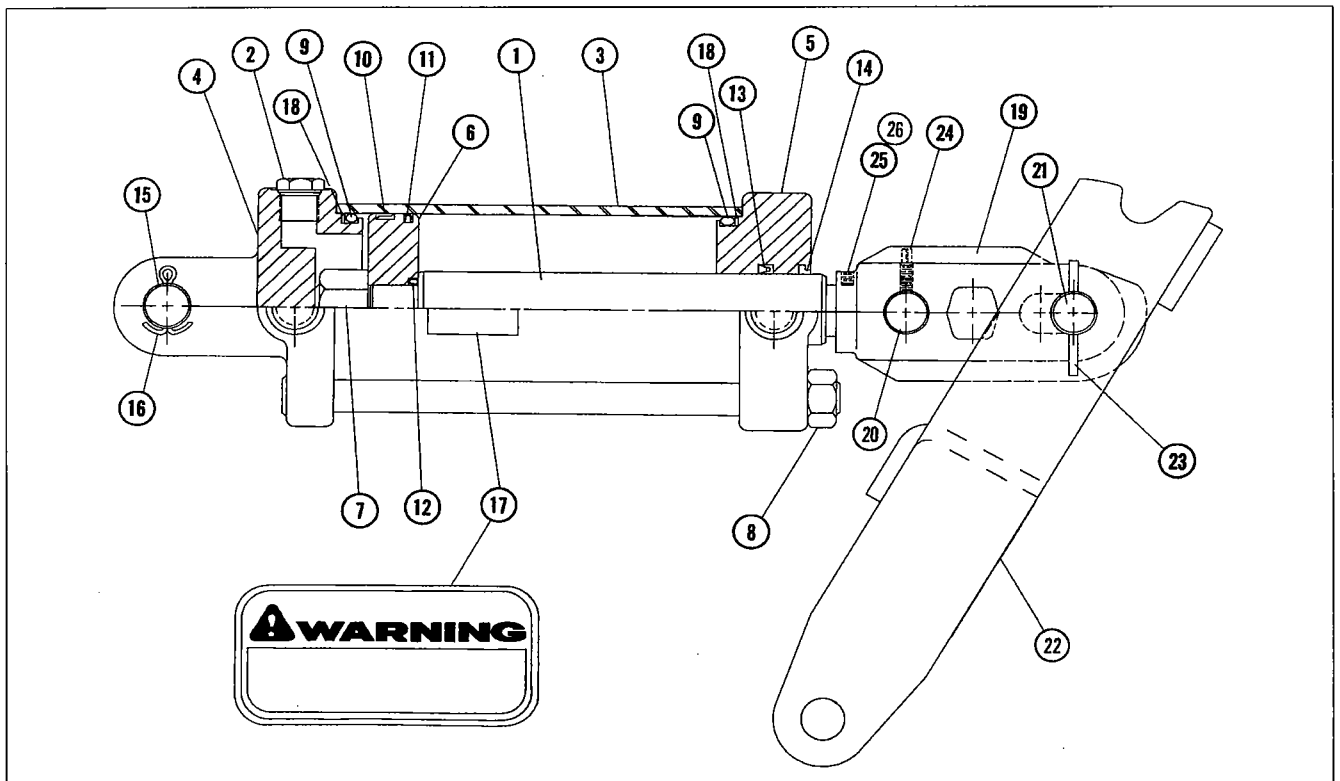


21-157 3-1/2" X 18" PRINCE HYDRAULIC CYLINDER ASSEMBLY (STD.PS) 6/05
Retracted - 28-1/4" Extended - 46-1/4" Stroke - 18" Rod Diameter - 1-3/8"

Item	Part Number	Part Description	Qty.
1	21-724	Piston Rod	1
2	21-725	Tube	1
3	21-726	Tie Rod Assembly	4
4	21-421	Butt	1
5	21-727	Gland	1
6	21-728	Piston	1
7	21-799	Clevis Assembly	1
8	21-463	Lock Nut	1
9	21-260	Clevis Pin	2
10		Cotter Pin	4
11	21-404	#8 SAE Plug	3
12	★	O-Ring	1
13	★	O-Ring	2
14	★	O-Ring	1
15	★	Back-Up Washer	2
16	★	U-Cup	1
17	★	Back-Up Washer	2
18	★	Wiper	1
19	21-732	Decal	
20	74-113	Cylinder Warning Decal (not shown)	1
	● 21-733	Seal Kit (★ Items Included in Kit)	

● Not Included in Cylinder Assembly

PRINCE HYDRAULIC CYLINDER



5630-79-0 4-1/2" X 24" Prince Hydraulic Wing Lift Cylinder Assembly (Models 5630-40 & 5630-44)

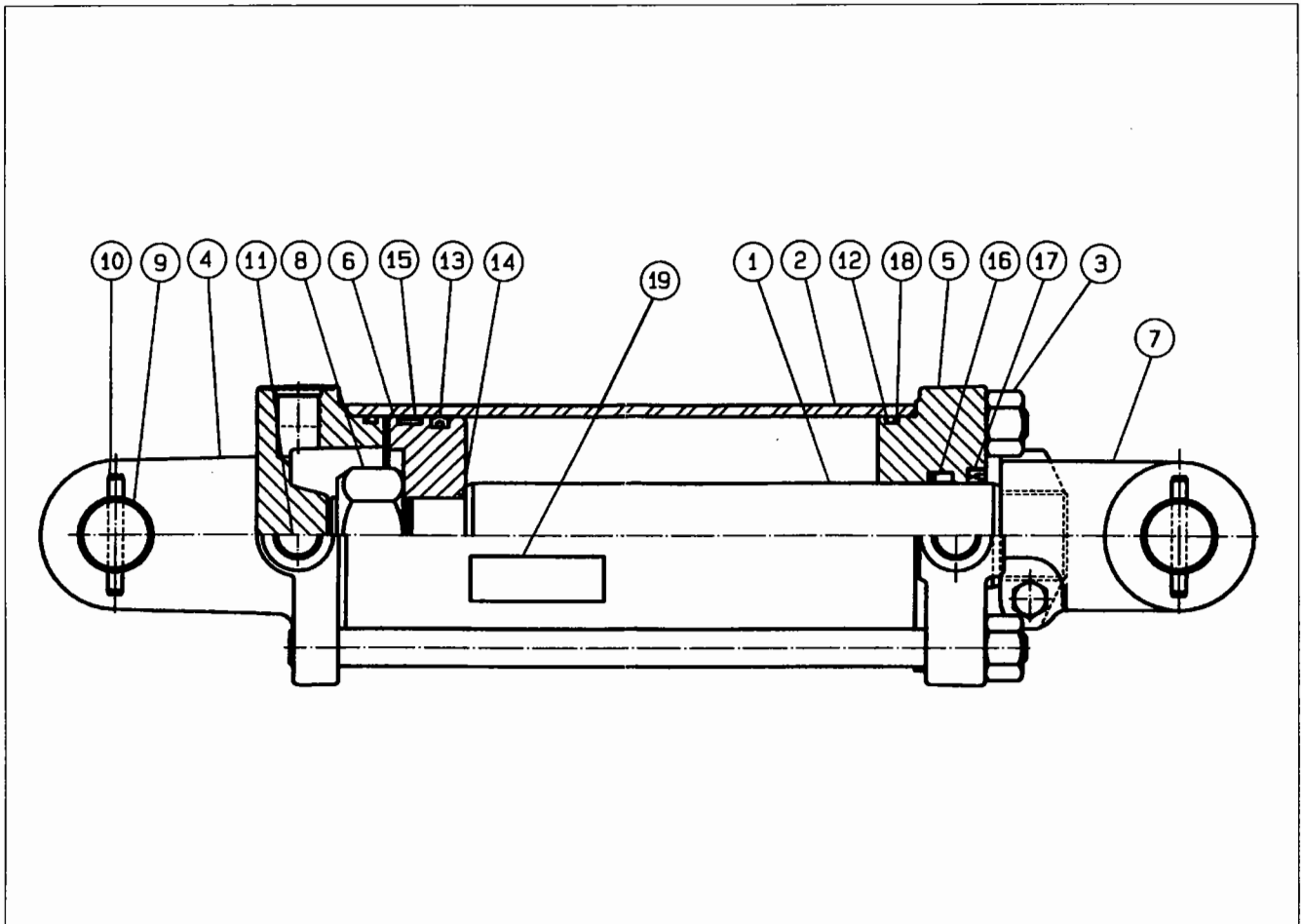
10/02

5630-872-0 4-1/2" X 24" Prince Hydraulic Wing Lift Cylinder Assembly (Models 5630-48 ONLY)

FOR MODELS - 5630-44 & 5630-48

Item	Part Number	Part Description	Qty.
	21-176	4-1/2" x 24" Hydraulic Cylinder Assembly	1
1	21-884	Piston Rod	1
2	21-404	Plug	1
3	21-885	Tube	1
4	21-887	Butt	1
5	21-888	Gland	1
6	21-889	Piston	1
7	21-890	Lock Nut	1
8	21-886	Tie Rod Assembly	4
9	★	O-Ring	2
10	★	Bearing Ring	1
11	★	Crown Seal	1
12	★	O-Ring	1
13	★	U-Cup	1
14	★	Wiper	1
15	21-859	Clevis Pin	1
16		1/4" DIA. x 2" Roll Pin	2
17	74-113	Decal - Cylinder WARNING	1
18	★	Back-Up Washer	2
19	4260-80-1	Rod End	1
20	4260-81-1	1-1/4" DIA. x 5" Pin	1
21	4260-80-3	Pin	1
22	5630-87-0	Lift Arm Weldment (Models 5630-40 & 5630-44)	1
	5630-870-0	Lift Arm Weldment (Model 5630-48 ONLY)	1
23	60-618	3/8" DIA. x 3" Roll Pin	2
24	60-608	1/4" DIA. x 2-1/2" Roll Pin	1
25	62-324	3/8NC x 3/8" Cup Point Set Screw	1
26	21-407	Nylon Bushing	1
	21-892	Seal Kit (★ Items Included in Kit)	

PRINCE HYDRAULIC CYLINDER

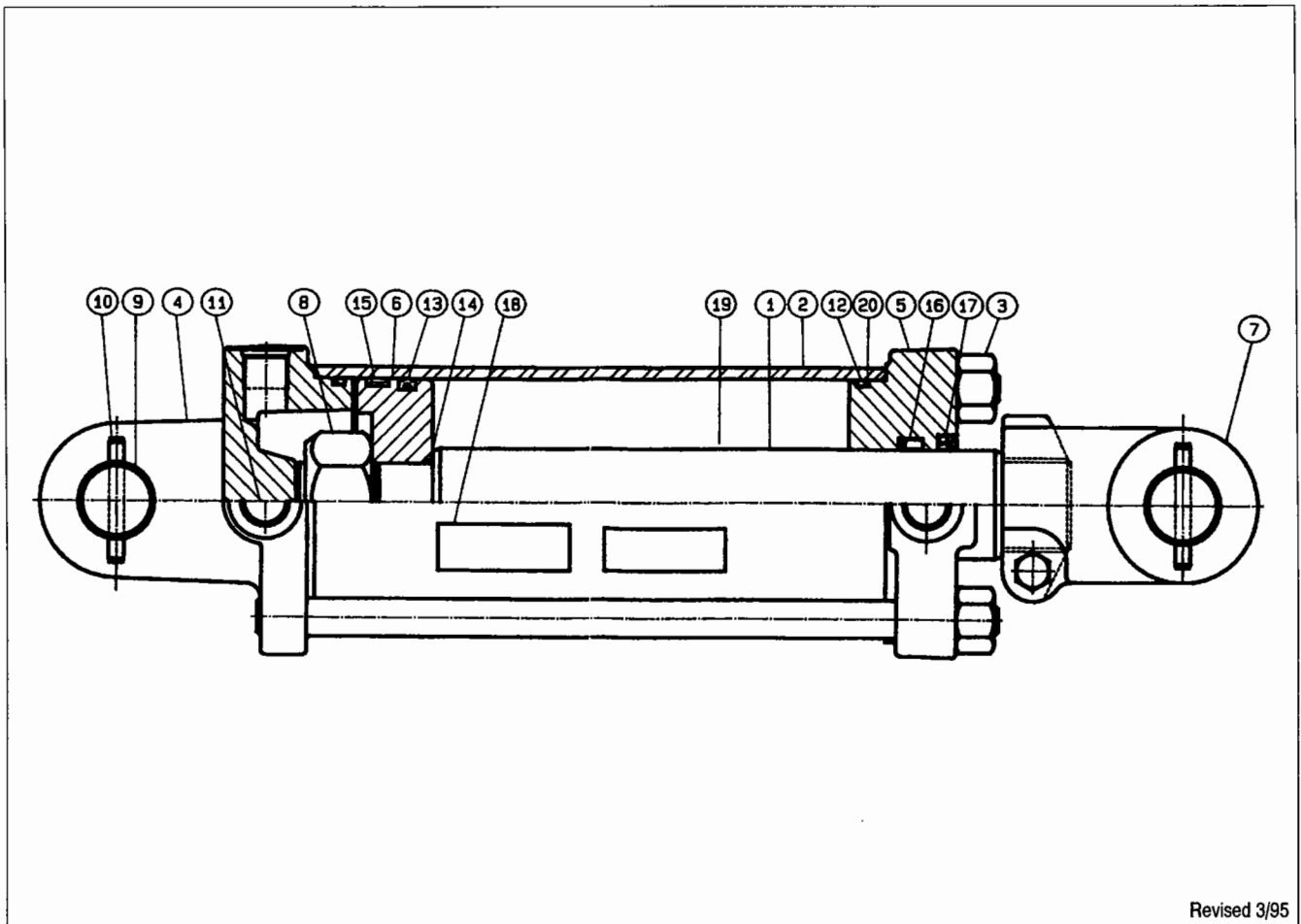


21-172 4" X 32" PRINCE HYDRAULIC CYLINDER ASSEMBLY (STD) 11/99
Retracted - 42-3/4" Stroke - 32" Extended - 74-3/4" Rod Diameter - 1-3/4"

Item	Part Number	Part Description	Qty.
1	21-900	Piston Rod	1
2	21-266	Tube	1
3	21-526	Tie Rod Assembly	4
4	21-738	Butt	1
5	21-878	Gland	1
6	21-879	Piston	1
7	21-507	Clevis Assembly	1
8	21-286	Lock Nut	1
9	21-859	Clevis Pin	2
10		1/4" DIA. x 2" Roll Pin	4
11	21-404	#8 SAE Plug	3
12	★	O-Ring	1
13	★	Crown Seal	1
14	★	O-Ring	1
15	★	Bearing Ring	1
16	★	U-Cup	1
17	★	Wiper	1
18	★	Back-Up Washer	2
19	74-113	Cylinder Warning Decal	1
	● 21-857	Seal Kit (★ Items Included in Kit)	

● Not Included in Cylinder Assembly

PRINCE HYDRAULIC CYLINDER ASSEMBLY

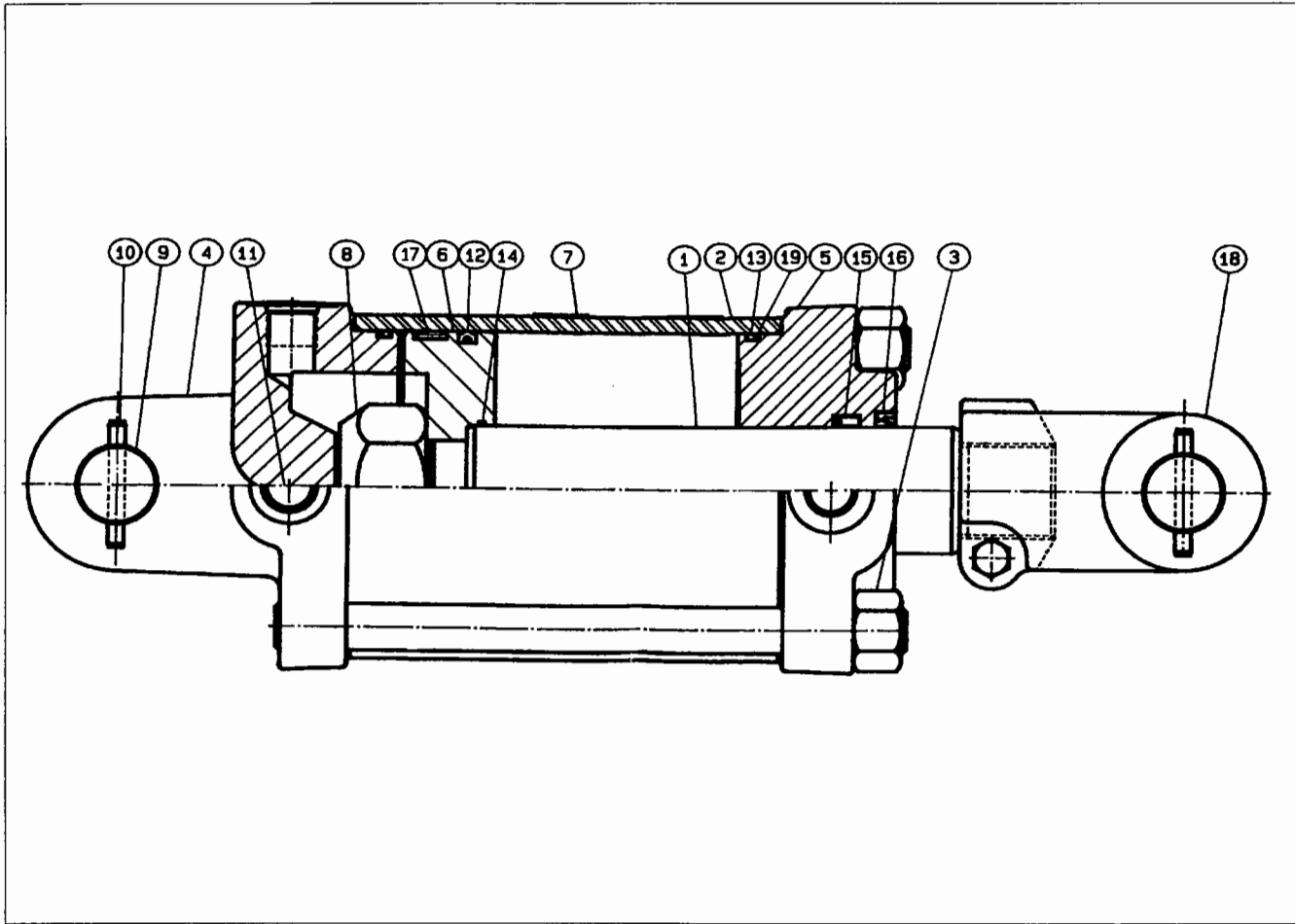


Revised 3/95

21-168 4" X 40" PRINCE HYDRAULIC CYLINDER ASSEMBLY 1/04
Retracted - 50-3/4" Extended - 90-3/4" Stroke - 40" Rod Diameter - 1-3/4"

Item	Part Number	Part Description	Qty.
1	21-877	Piston Rod	1
2	21-371	Tube	1
3	21-440	Tie Rod Assembly	4
4	21-882	Butt	1
5	21-878	Gland	1
6	21-879	Piston	1
7	21-507	Clevis Assembly	1
8	21-286	Lock Nut	1
9	21-872	Clevis Pin	2
10		1/4" DIA. x 2" Roll Pin	4
11	21-404	Port Plug	3
12	★	O-Ring	2
13	★	Crown Seal	1
14	★	O-Ring	1
15	★	Bearing Ring	1
16	★	U-Cup	1
17	★	Wiper	1
18	74-113	Cylinder Warning Decal	1
19	★	Back-Up Washer	2
	● 21-857	Seal Kit (★ Items Included in Kit)	
● Not Included in Cylinder Assembly			

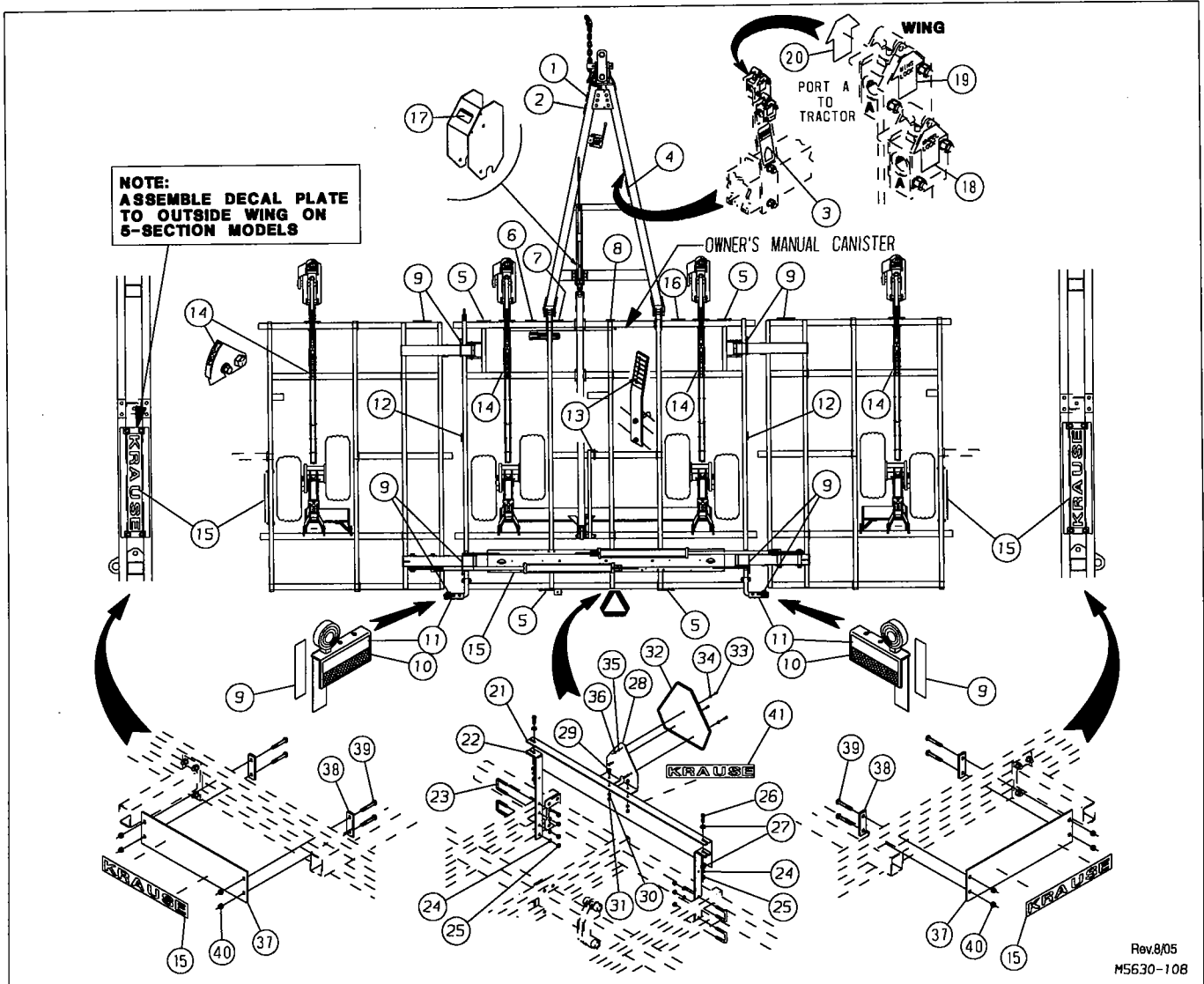
PRINCE HYDRAULIC CYLINDER



21-169 5" X 40" PRINCE HYDRAULIC CYLINDER ASSEMBLY **11/99**
Retracted - 52-3/4" Stroke - 40" Extended - 92-3/4" Rod Diameter - 2"

Item	Part Number	Part Description	Qty.
1	21-866	Piston Rod	1
2	21-277	Tube	1
3	21-867	Tie Rod Assembly	4
4	21-868	Butt	1
5	21-869	Gland	1
6	21-870	Piston	1
7	74-113	Cylinder Warning Decal	1
8	21-871	Lock Nut	1
9	21-872	Clevis Pin	2
10		1/4" DIA. x 2" Roll Pin	4
11	21-404	#8 SAE Plug (not shown)	1
12	★	Crown Seal	2
13	★	O-Ring	2
14	★	O-Ring	1
15	★	U-Cup	1
16	★	Wiper	1
17	★	Bearing Ring	1
18	21-685	Clevis Assembly	1
19	★	Back-Up Washer	2
	● 21-858	Seal Kit (★ Items Included in Kit)	
	●	Not Included in Cylinder Assembly	

DECALS

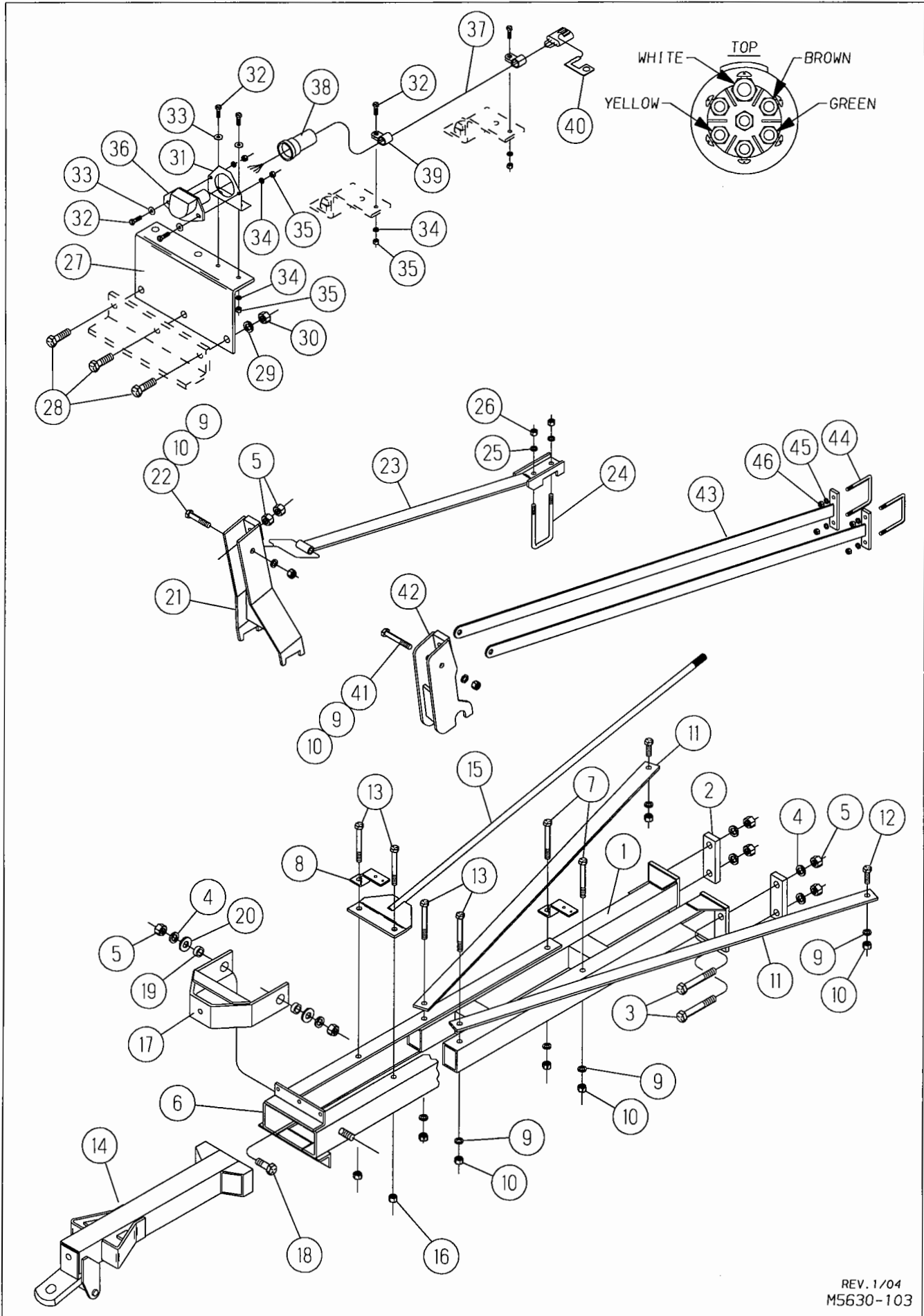


Rev.8/05
M5630-108

FOR MODEL - ALL

10/03

Item	Part Number	Part Description	Qty.	Item	Part Number	Part Description	Qty.
1	74-158	Decal - CAUTION Rear Jack	1	22	5630-0-30	Mounting Bracket	2
2	74-145	Decal - Spike & Tine / Transport	1	23	61-118	1/2" DIA. U-Bolt	4
3	74-393	Decal - WARNING Lock Valve	1	24	64-107	1/2" STD. Lock Washer	10
4	74-276	Decal - WARNING Hydraulic Safety	1	25	63-106	1/2NC Hex Nut	10
5	74-102	Decal - DANGER Stand Clear of Wing	4	26	62-420	1/2NC x 1-1/4" GD5 Cap Screw	2
6	74-117	Decal - Implement Safety	1	27	64-108	1/2" STD. Flat Washer	4
7	74-121	Decal - CAUTION Width / Height	1	28	5630-0-34	SMV Bracket	1
8	74-115	Name Plate	1	29	62-493	3/8NC x 3/4" GD5 Cap Screw	2
9	74-577	Reflector Tape, Yellow	8	30	64-103	3/8" STD. Lock Washer	2
10	74-576	Fluorescent Tape, Orange	2	31	63-102	3/8NC Hex Nut	2
11	74-575	Reflector Tape, Red	2	32	74-487	SMV Sign	1
12	74-606	Decal - Trademark	2	33	62-507	1/4NC x 3/4" GD5 Cap Screw	3
13	74-530	Decal - Depth Gauge (large)	1	34	64-101	1/4" STD. Flat Washer	3
14	74-529	Decal - Depth Gauge (small)	4	35	64-100	1/4" STD. Lock Washer	3
15	74-604	Decal - Krause (3-1/2" x 24")	3	36	63-100	1/4NC Hex Nut	3
16	74-605	Decal - 5630	3	37	5630-0-35	Decal Plate	2
17	74-348	Decal - Pinch Point	1	38	5630-0-36	Bolt Plate	4
18	74-574	Decal - Wheel Transport Lock - Lt.	1	39	62-465	1/2NC x 3-1/2" GD5 Carriage Bolt	8
19	74-572	Decal - Wing Transport Lock - Lt.	1	40	63-108	1/2NC Nylon-Top Lock Nut	8
20	74-571	Decal - Wing Transport Lock - Rt.	1	41	74-602	Decal - KRAUSE (6" x 48")	1
21	5630-0-33	Decal & SMV Mount	1				



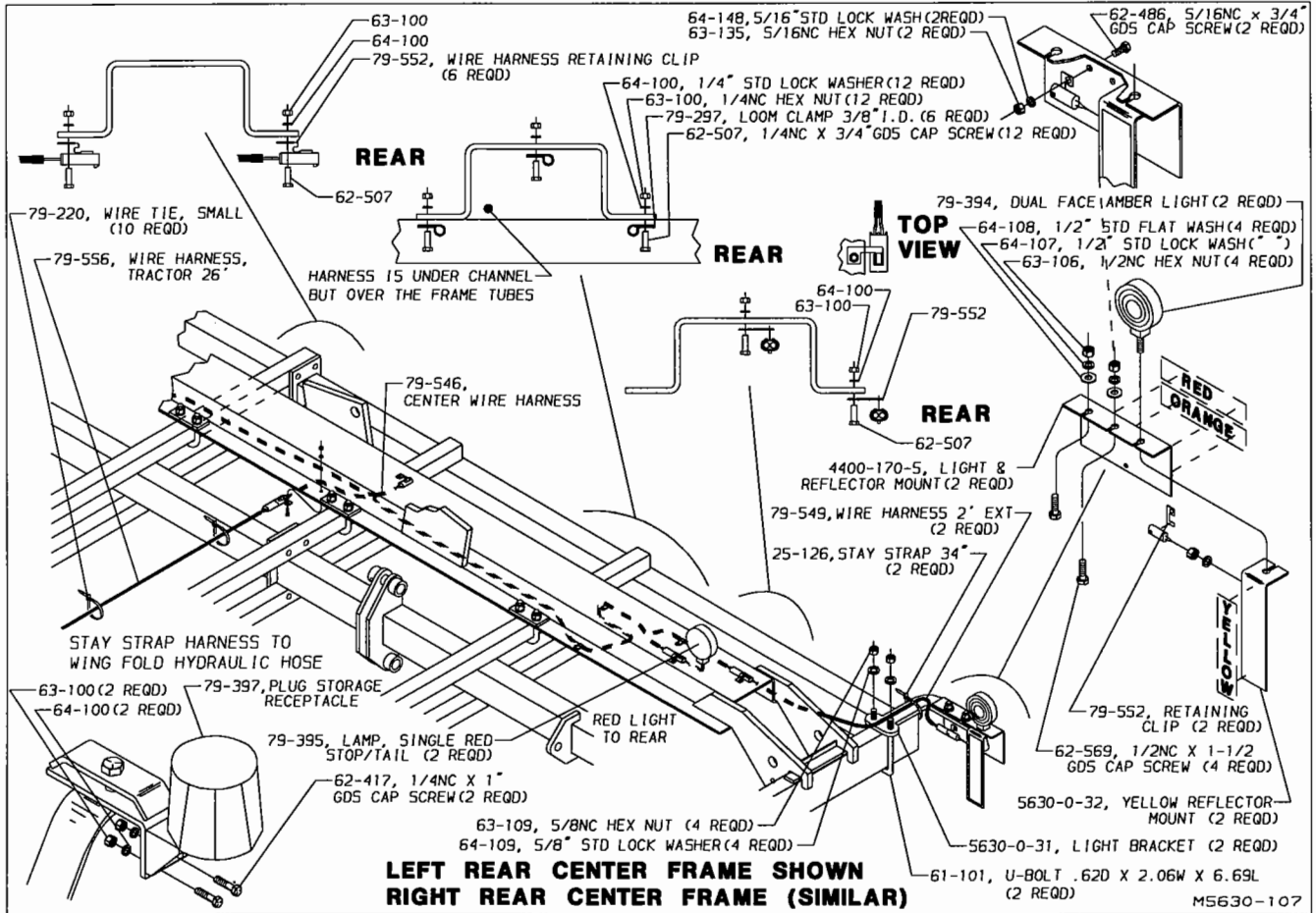
REV. 1/04
M5630-103

TRAIL HITCH ASSEMBLY

FOR MODELS - ALL 5630

1/04

<i>Item</i>	<i>Part Number</i>	<i>Part Description</i>	<i>Qty.</i>
1	5630-341-0	Hitch Frame Weldment	1
2	5630-0-29	Bolt Plate	2
3	62-249	1NC x 6" GD5 Cap Screw	4
4	64-118	1" STD. Lock Washer	6
5	63-117	1NC Hex Nut	8
6	5600-326-0	Channel Guide Weldment	1
7	62-210	3/4NC x 6" GD5 Cap Screw	2
8	5630-0-38	Hitch Hose Clamp	2
9	64-112	3/4" STD. Lock Washer	7
10	63-112	3/4NC Hex Nut	7
11	5630-0-28	Trail Hitch Strap	2
12	62-421	3/4NC x 2" GD5 Cap Screw	2
13	62-213	3/4NC x 6-1/2" GD5 Cap Screw	4
14	5600-327-0A	Sliding Hitch Weldment	1
15	5630-331-0	Truss Rod Weldment	1
16	63-162	3/4NC Nylon- Top Lock Nut	2
17	5600-330-0	Latch Bar Weldment	1
18	62-236	1NC x 2-1/2" GD5 Cap Screw	2
19	742-0-16	Bushing, 1-9/16"O.D. x 13/16" Long	2
20	64-119	1" STD. Flat Washer	2
21	● 5630-332-0	Truss Support Weldment	1
22	● 62-203	3/4NC x 4-1/2" GD5 Cap Screw	1
23	● 5630-333-0	Truss Strap Weldment	1
24	● 61-235	U-Bolt, 5/8"D x3-1/16"W x 5-1/2"L	1
25	● 64-109	5/8" STD. Lock Washer	2
26	● 63-109	5/8NC Hex Nut	2
27	5630-0-37	Rear Receptacle Mount	1
28	62-420	1/2NC x 1-1/4" GD5 Cap Screw	3
29	64-107	1/2" STD. Lock Washer	3
30	63-106	1/2NC Hex Nut	3
31	79-476	Bracket	1
32	62-507	1/4NC x 3/4" GD5 Cap Screw	6
33	64-101	1/4" STD Flat Washer	4
34	64-100	1/4" STD. Lock Washer	6
35	63-100	1/4NC Hex Nut	6
36	79-475	7-Pin Receptacle	1
37	79-401	Rear Receptacle Harness	1
38	79-477	Rubber Boot	1
39	79-297	Loom Clamp, 3/8" I.D.	2
40	79-552	Wire Harness, Retaining Clip	1
41	★ 62-205	3/4NC x 5" GD5 Cap Screw	1
42	★ 5630-345-0	Truss Weldment	1
43	★ 5630-346-0	Strap Weldment	2
44	★ 61-160	1/2" DIA. U-Bolt	2
45	★ 64-107	1/2" STD. Lock Washer	4
46	★ 63-106	1/2NC Hex Nut	4
★ For Models 5630-21 & 5630-26			
● For Models 5630-28 thru 5630-48			



ASSEMBLY SECTION

THE FOLLOWING SECTION ILLUSTRATES A GENERAL METHOD FOR THE ASSEMBLY OF THIS SERIES KRAUSE TILLAGE TOOL. YOU MUST KNOW THE MODEL NUMBER OF THE UNIT BEING ASSEMBLED WHENEVER MAKING REFERENCE TO THIS SECTION. THE FOLLOWING PICTURES AND DRAWINGS WILL SHOW BOLTS, PINS, NUTS AND ETC., WITH THE DESCRIPTIVE SIZE AND LENGTHS IN THE ACCOMPANYING PARAGRAPH AND A PARTS LISTING REFERENCE PAGE NUMBER. IF ANY DIFFICULTY SHOULD BE ENCOUNTERED DURING THE ASSEMBLY, RECHECK THE ILLUSTRATIONS, ASSEMBLY STEPS AND PARTS LIST DRAWINGS.

PROPER BOLT USE

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque vales listed are for general use only. Check tightness of fasteners periodically.

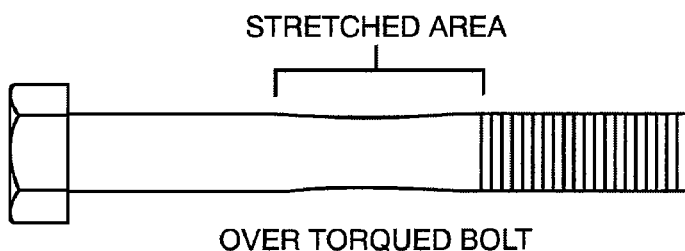
Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

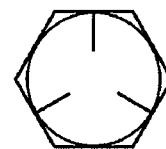
Tighten plastic insert or crimped steel-type lock nuts to approximately 110 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

NOTE: "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication. **Tighten lubricated bolts to approximately 80% of dry bolts.**

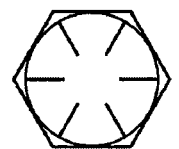
BOLT SIZE	WRENCH SIZE	BLACK OR PLATED BOLTS		
		GRADE 2	GRADE 5	GRADE 8
3/8"	9/16"	20	33	45
7/16"	5/8"	32	52	70
1/2"	3/4"	50	80	105
5/8"	15/16"	100	150	210
3/4"	1-1/8"	160	260	375
7/8"	1-5/16"	175	415	600
1"	1-1/2"	250	625	880
1-1/8"	1-11/16"	375	850	1400
1-1/4"	1-7/8"	530	1100	1765
1-1/2"	2-1/4"	930	1400	2540



SAE
GRADE 2

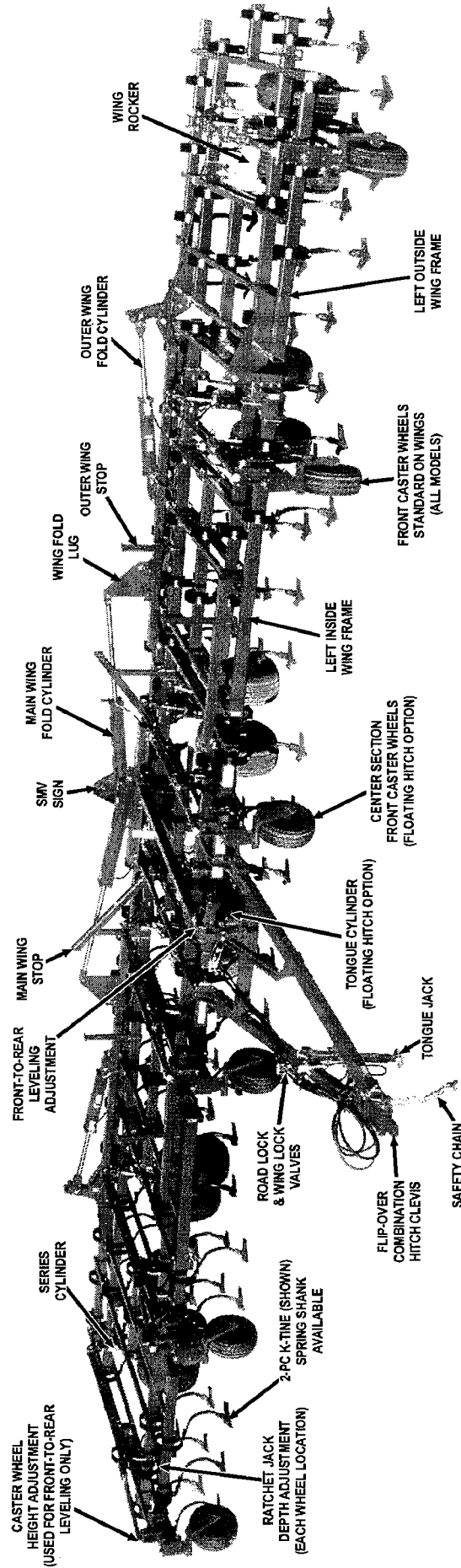


SAE
GRADE 5



SAE
GRADE 8

MODEL 5630-48 SHOWN



ASSEMBLY INSTRUCTIONS

STUDY THE NAMES AND LOCATIONS OF THE PARTS AND FAMILIARIZE YOURSELF WITH THE FIELD CULTIVATOR BEFORE STARTING THE ASSEMBLY. READING THE STEP BY STEP INSTRUCTIONS THAT FOLLOW WILL BE HELPFUL.

SAFETY



READ ALL OF THE SAFETY DECALS ON THE IMPLEMENT AND REVIEW THE SAFETY FIRST SUGGESTIONS ON THE BACK COVER OF THIS MANUAL TO REFRESH YOUR MEMORY. WATCH FOR THE SAFETY SYMBOL AND READ THE INFORMATION. THIS IS FOR YOUR OWN SAFETY.

ASSEMBLY

Select an area for the assembly that will be large enough to accommodate the completed field cultivator. The surface of the work area should be as level as possible. Use the proper hand tools to insure proper bolt tightness. Refer to the page titled "Proper Bolt Use" for the recommended torque values of different sizes of bolts.

PART LOCATIONS

FRONT - the front of the frame can be determined by location of the name plate that has been attached to the front frame member.

RIGHT and **LEFT** sides can be established by standing behind the frame and looking toward the front.

TOP - To be sure the frame is right side up, position the frame with the hitch pivot lugs down.

ASSEMBLY STEPS

Shown here is one method of assembly that can be accomplished with a small crew of assemblers. Each step of assembly is accompanied with a picture or illustration with the part names and bolt sizes listed.

 **Warning: Always attach chains securely. If a chain would break, the recoil action could cause the loose end to whip in any direction and injure any person nearby.**

Proof load rating of chain must equal or exceed 5 times the weight being lifted.

THE HEAVIEST COMPONENT TO BE LIFTED INTO PLACE IS THE CENTER FRAME WHICH WEIGHS 1,390 LBS.

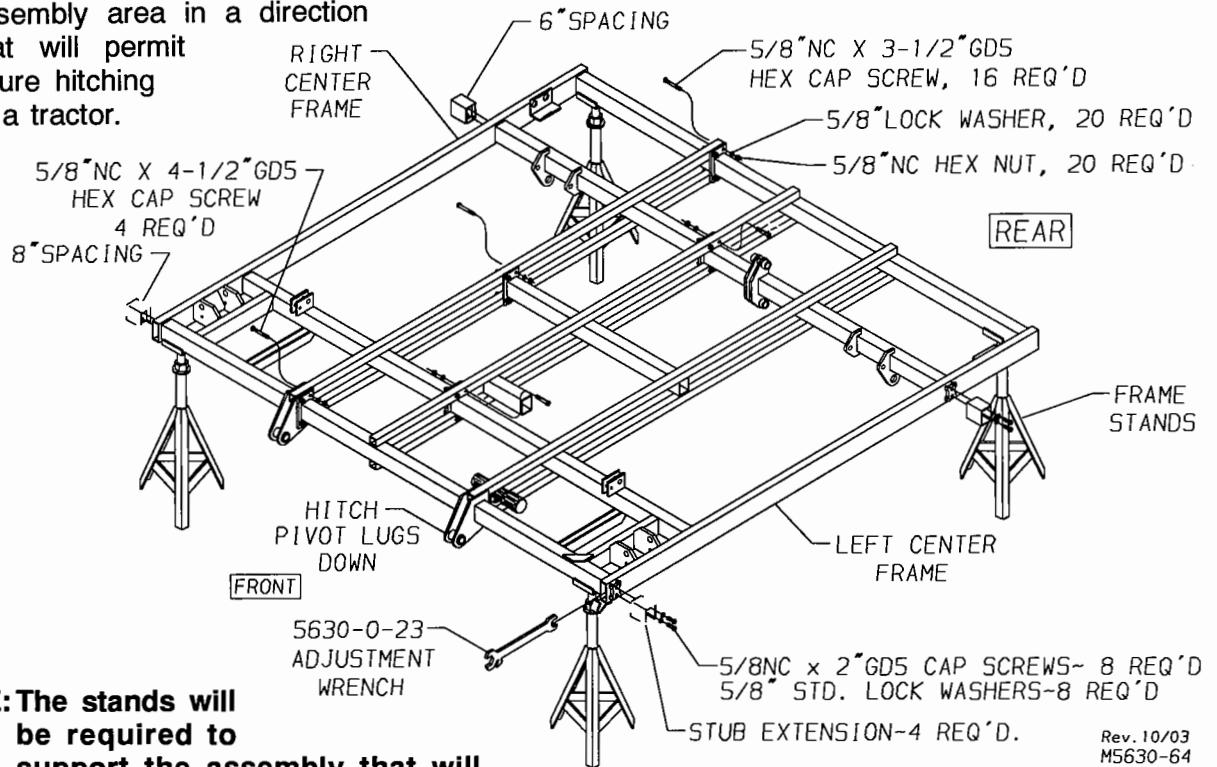
MODEL NUMBERS

Know the model number of the field cultivator being assembled. Use the Model number whenever referring to the assembly, parts pages, or the placement pages. The number is stamped on the NAME PLATE located on the front frame member.



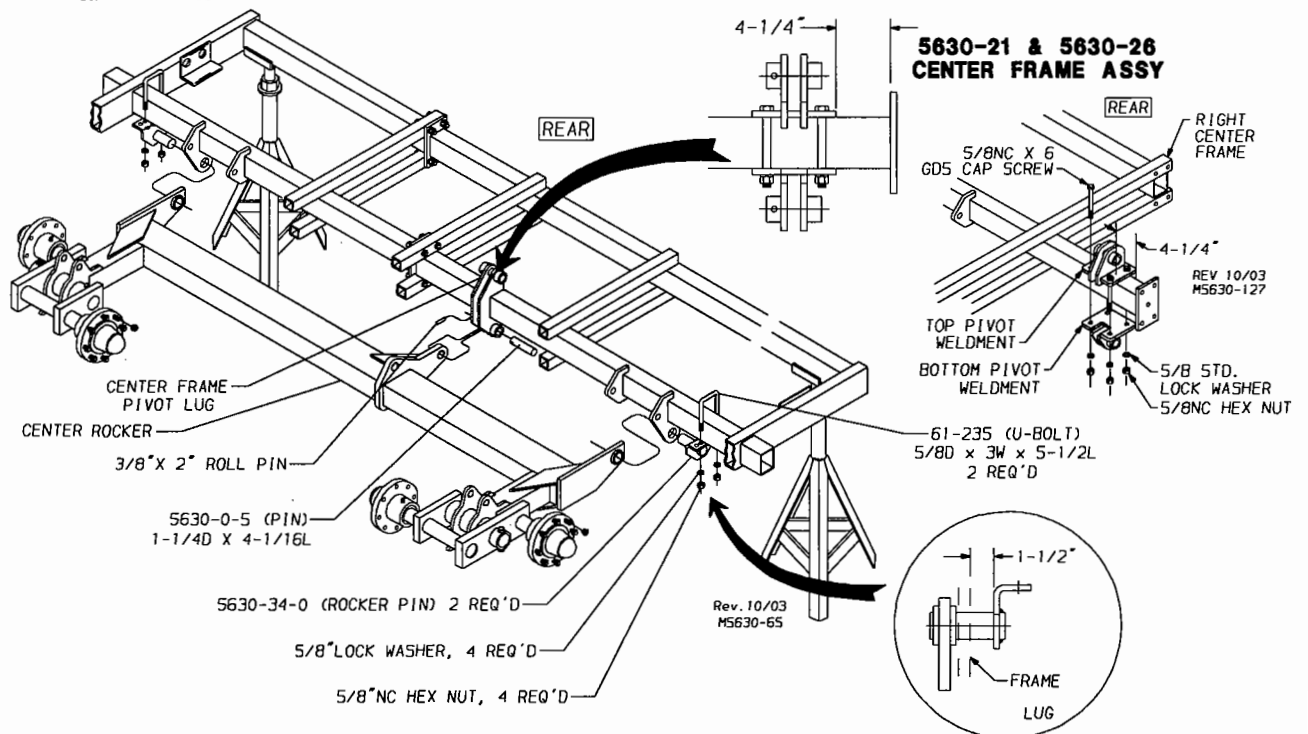
CENTER FRAME & ROCKER ASSEMBLY

1. Bolt the two center frame halves together on the ground before raising them onto the stands.
2. Place the center frame assembly on stands approximately 36" high in the center of the assembly area in a direction that will permit future hitching to a tractor.



NOTE: The stands will be required to support the assembly that will weight approximately 2,500 lbs. before the tool will be self-supported.

3. Insert the 5630-0-23 adjustment wrench into the left front frame tube.



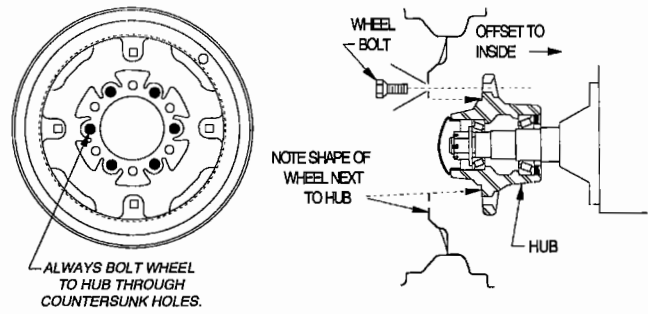
4. Assemble the center rocker to the center frame. Insert the pivot pin weldments until they are 1-1/2" from the frame lug as shown.

5630-21 & 5630-26 UNITS ONLY: The top and bottom pivot weldments are bolted to the right center frame weldment as shown above.

5. Attach the (4) center wheel assemblies to the center walking beams.

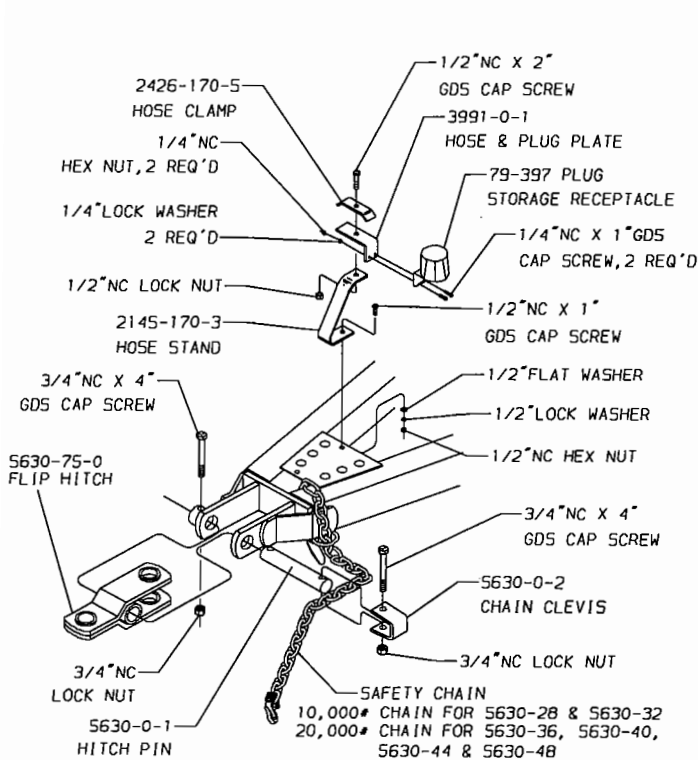
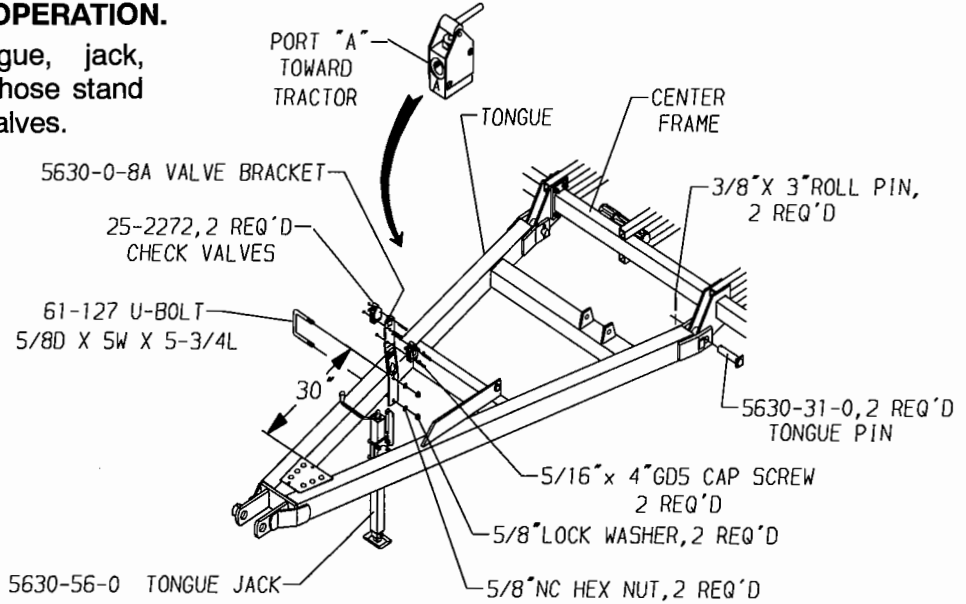
11L x 15, 8-ply tires with 6-bolt wheels go on the center section of models 5630-28 & 5630-32. Torque the wheel bolts to 120 Ft. Lbs.

12.5L x 16, 14-ply tires with 8-bolt wheels go on the center section of models 5630-36, 5630-40, 5630-44 and 5630-48. Torque the wheel bolts to 145 Ft. Lbs.

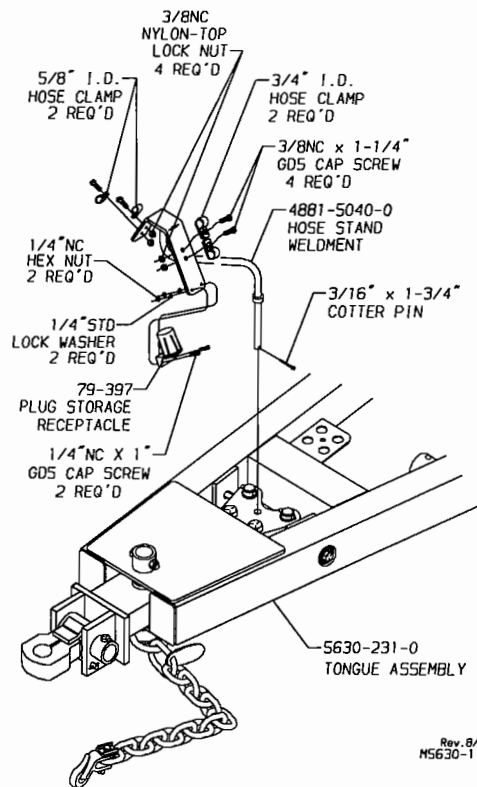


IMPORTANT: CHECK THE HUBS FOR EXCESSIVE END PLAY. IF NECESSARY, ADJUST THE WHEEL HUB AT THIS TIME IN ASSEMBLY. DO NOT ALLOW DIRT AND DUST TO ENTER THE HUBS. DIRT IN THE HUBS MAY RESULT IN BEARING FAILURE DURING OPERATION.

6. Assemble the tongue, jack, clevis, safety chain, hose stand and transport lock valves.



STANDARD TONGUE

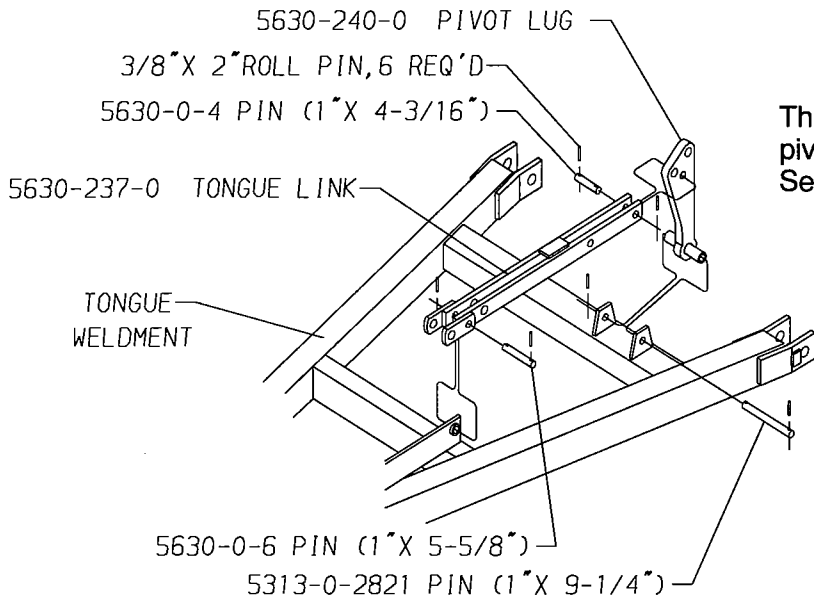


OPTIONAL CUSHION TONGUE

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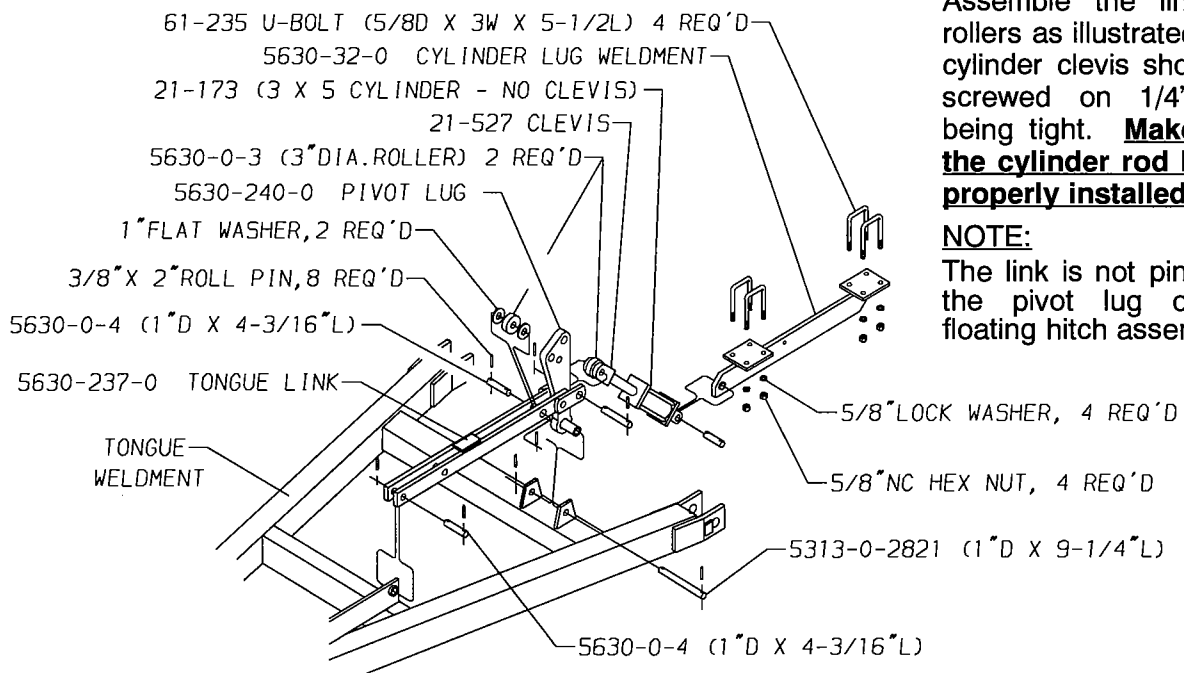
Rev. 8/02
M5630-114

7. (Standard) Self-Leveling Hitch Assembly



The tongue link is pinned through the pivot lug hole as illustrated on the Self-Leveling Hitch.

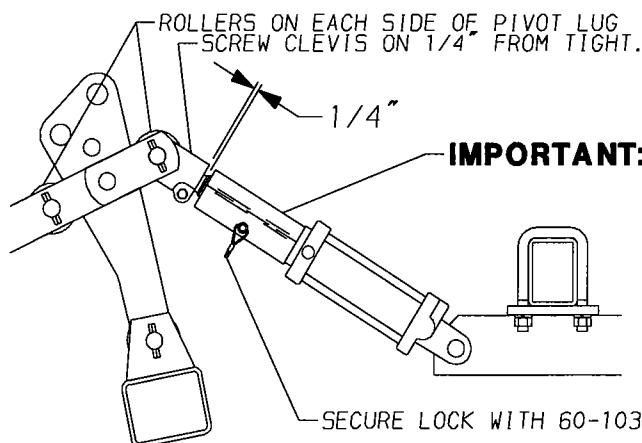
8. (Optional) Floating Hitch Assembly



Assemble the link and rollers as illustrated. The cylinder clevis should be screwed on 1/4" from being tight. **Make sure the cylinder rod lock is properly installed.**

NOTE:

The link is not pinned to the pivot lug on the floating hitch assembly.



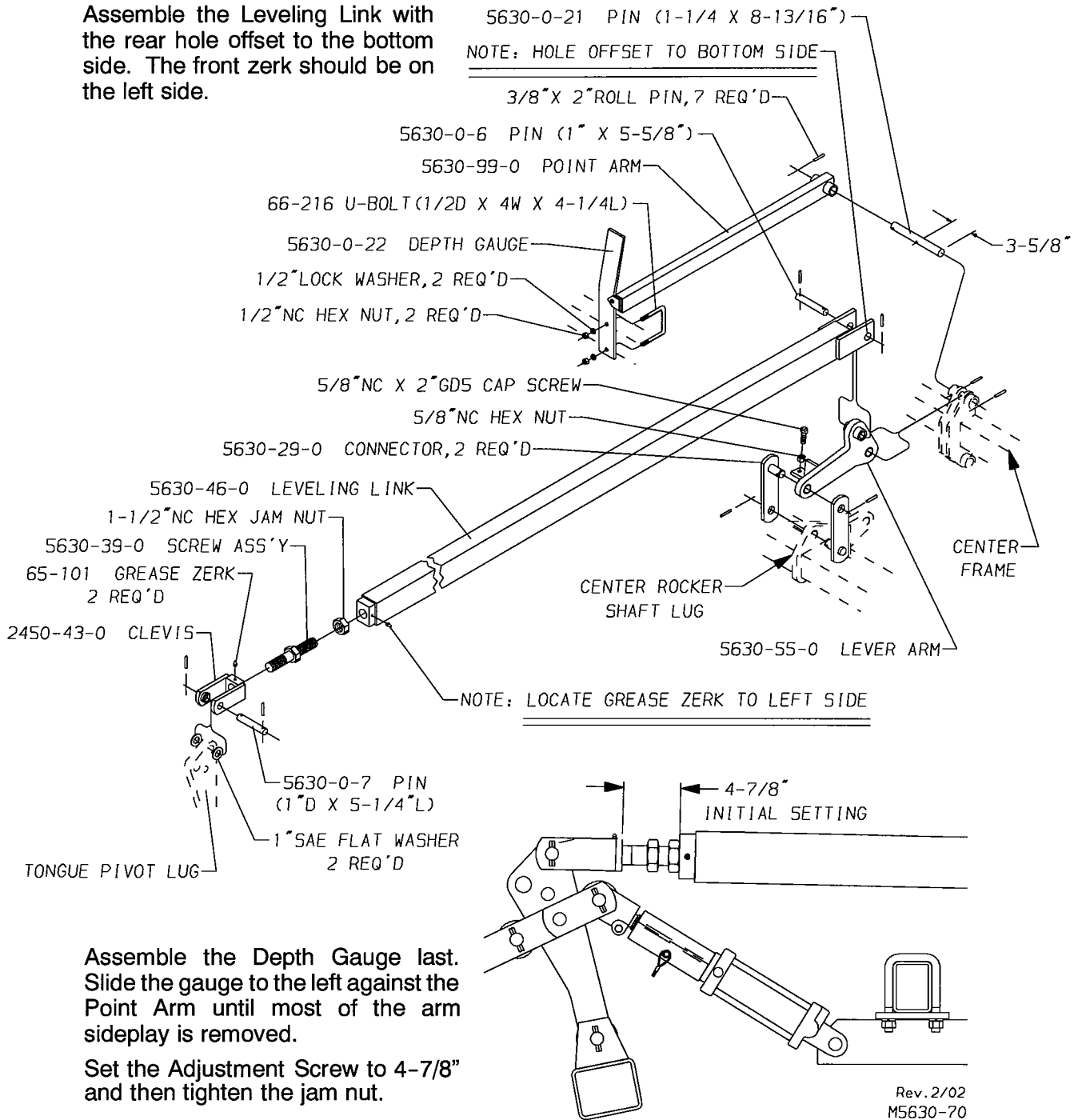
IMPORTANT: INSTALL 5630-157-1 CYLINDER LOCK ONTO 3 X 5 CYLINDER ROD AS SHOWN. DO NOT REMOVE LOCK UNTIL THE UNIT IS FULLY ASSEMBLED AND THE HYDRAULIC SYSTEM HAS BEEN CHARGED.

SECURE LOCK WITH 60-103 P.T.O. PIN

Rev. 2/02
M5630-69

9. Rocker Linkage Assembly

Assemble the Leveling Link with the rear hole offset to the bottom side. The front zerk should be on the left side.



Assemble the Depth Gauge last. Slide the gauge to the left against the Point Arm until most of the arm sideplay is removed.

Set the Adjustment Screw to 4-7/8" and then tighten the jam nut.

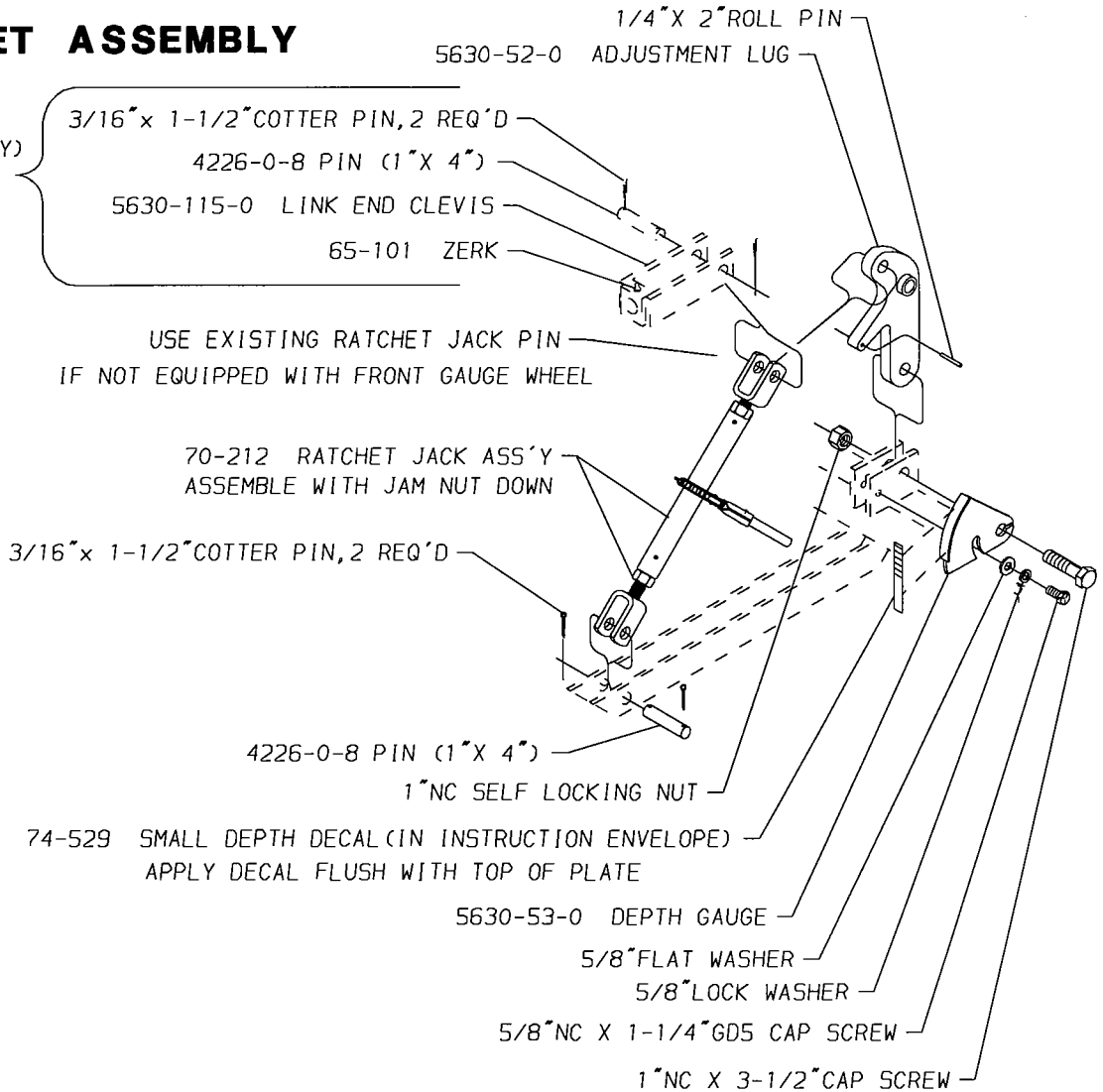
10. Depth Adjustment Assembly

Start by assembling the Adjustment Lug to the frame and then the Ratchet Jack to the Lug.

NOTE: The Front Gauge Link Clevis will have to be assembled to the Ratchet Jack pin if equipped with the Floating Hitch.

RATCHET ASSEMBLY

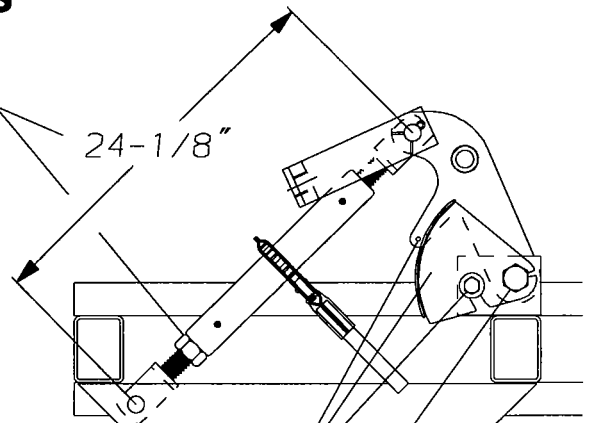
CENTER
(FLOAT HITCH ONLY)
AND AT
ALL WING
LOCATIONS



INITIAL DEPTH ADJUSTMENTS

1 ST

ADJUST THE RATCHET JACK
TO THE 24-1/8" DIMENSION AND
THEN TIGHTEN THE JAM NUT.



2 ND

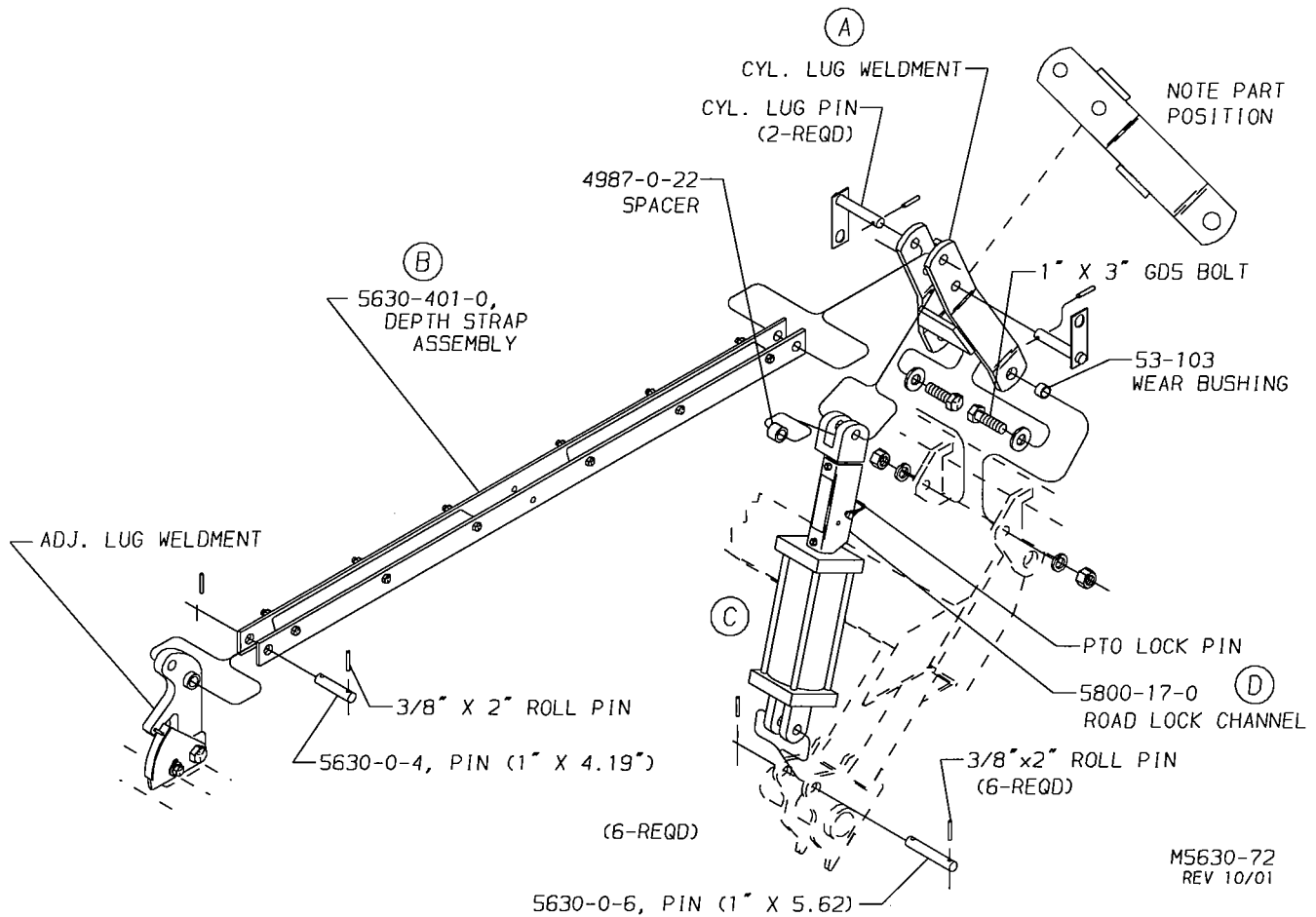
ROTATE DEPTH GAUGE UNTIL
THE ROLL PIN IS BETWEEN
"B" & "C" BEFORE TIGHTENING
THE GAUGE BOLT.

3 RD

REMOVE SIDE PLAY BUT DO NOT
FULLY TIGHTEN THE 1" PIVOT BOLT.

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11. CENTER ROCKER CYLINDER, DEPTH STRAP & CYLINDER LOCK ASSEMBLY



- A.) Assemble the Cylinder Lug to the frame.
- B.) Pin the Depth Strap Assembly to the Cylinder Lug weldment at the rear and the Adjustment Lug at the front.
- C.) Pin the Rocker Cylinder to the Rocker Wheel Arm and to the rear Cylinder Lug.

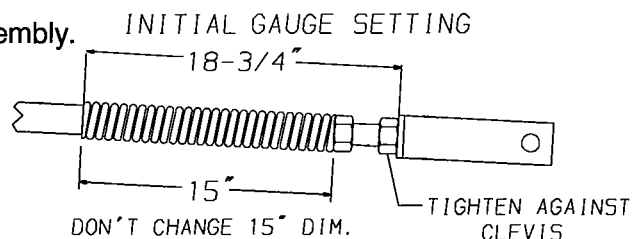
NOTE: Use the Hydraulic Plumbing Diagrams in the Parts Section to determine the correct size of cylinder to use at each rocker location for the model being assembled. (Also shown on chart on page A15)

- D.) Install a Cylinder Rod Lock onto each Center Cylinder extended rod as shown.

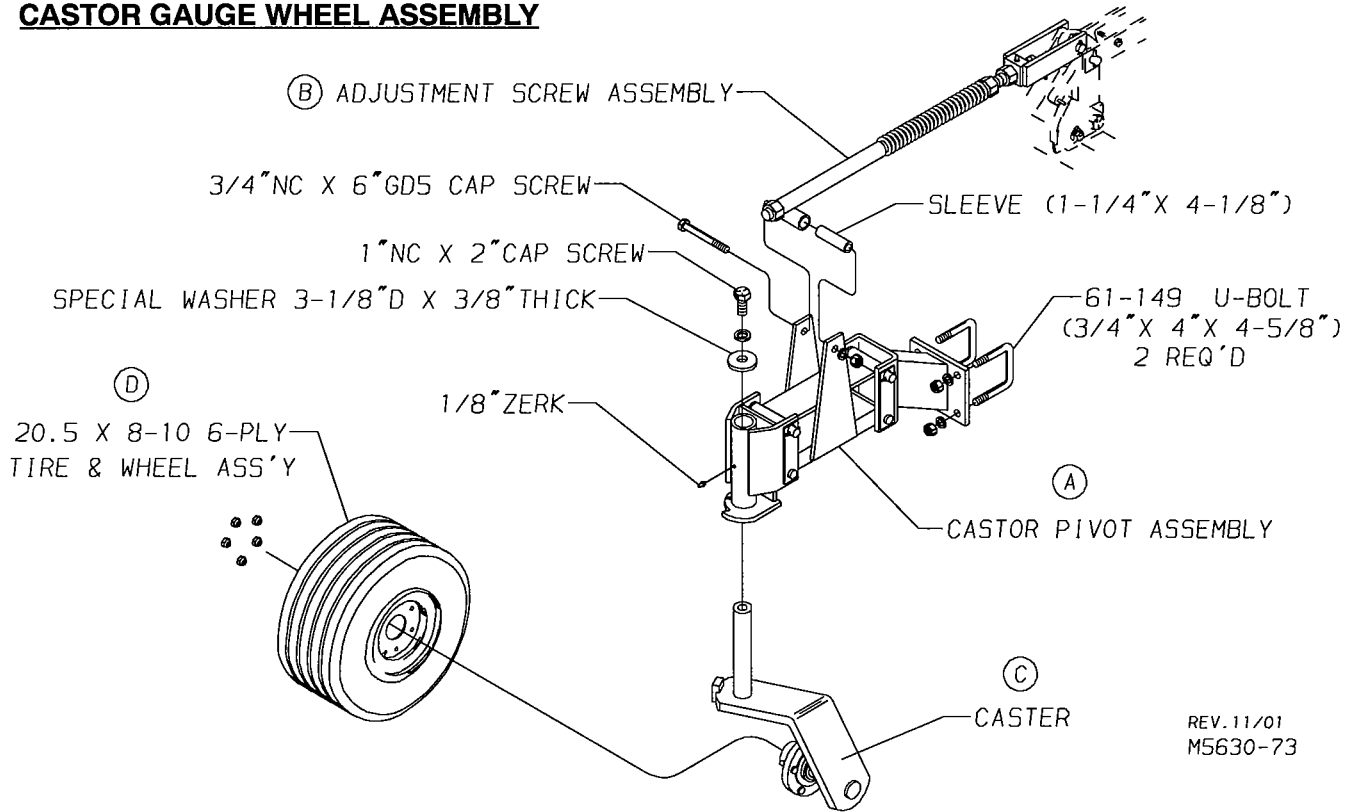
After the cylinder rod locks are installed on both center rocker cylinders and the tongue cylinder, and the tongue jack is in place, carefully lift the assembly and remove the frame stands. The center section should be free standing.

12. FRONT GAUGE WHEEL ASSEMBLY (Center Section with Floating Hitch Option)

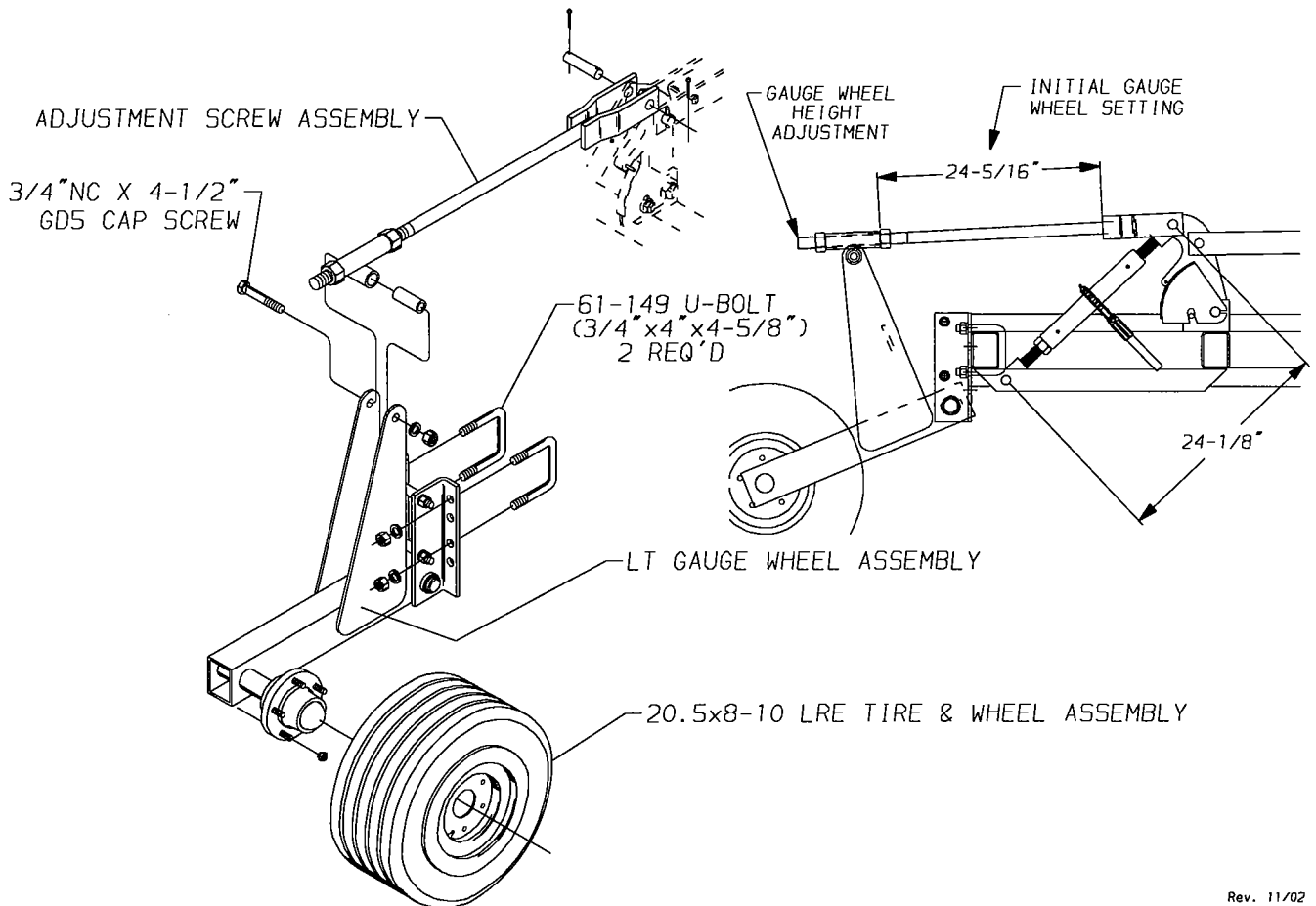
- A.) Bolt the Caster Pivot Assembly to the front frame bar ahead of depth ratchet.
- B.) Assemble the Adjustment Screw Assembly to the previously assembled Link End Clevis.
- C.) Bolt the Caster to the Caster Pivot Assembly.
- D.) Assemble the Tire & Wheel to the Hub.
- E.) Set the spring length to 15" and the clevis position to 18-3/4" as shown below.



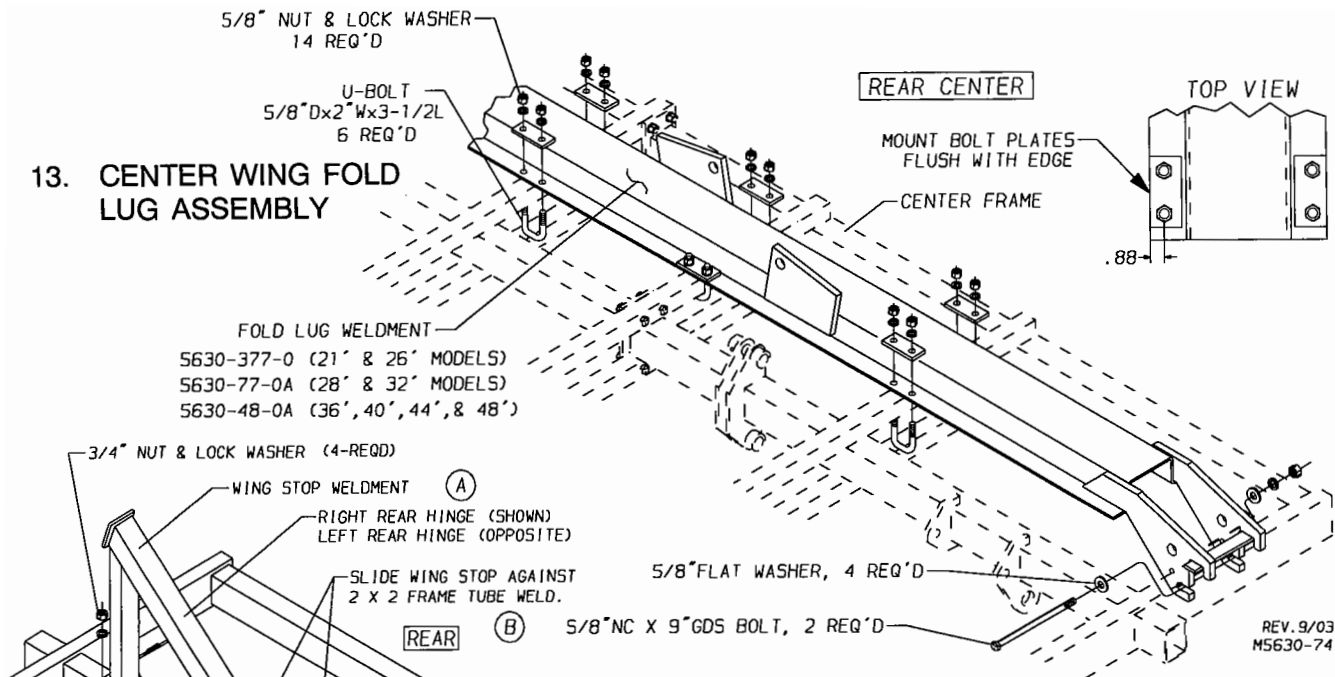
CASTOR GAUGE WHEEL ASSEMBLY



RIGID GAUGE WHEEL ASSEMBLY



13. CENTER WING FOLD LUG ASSEMBLY

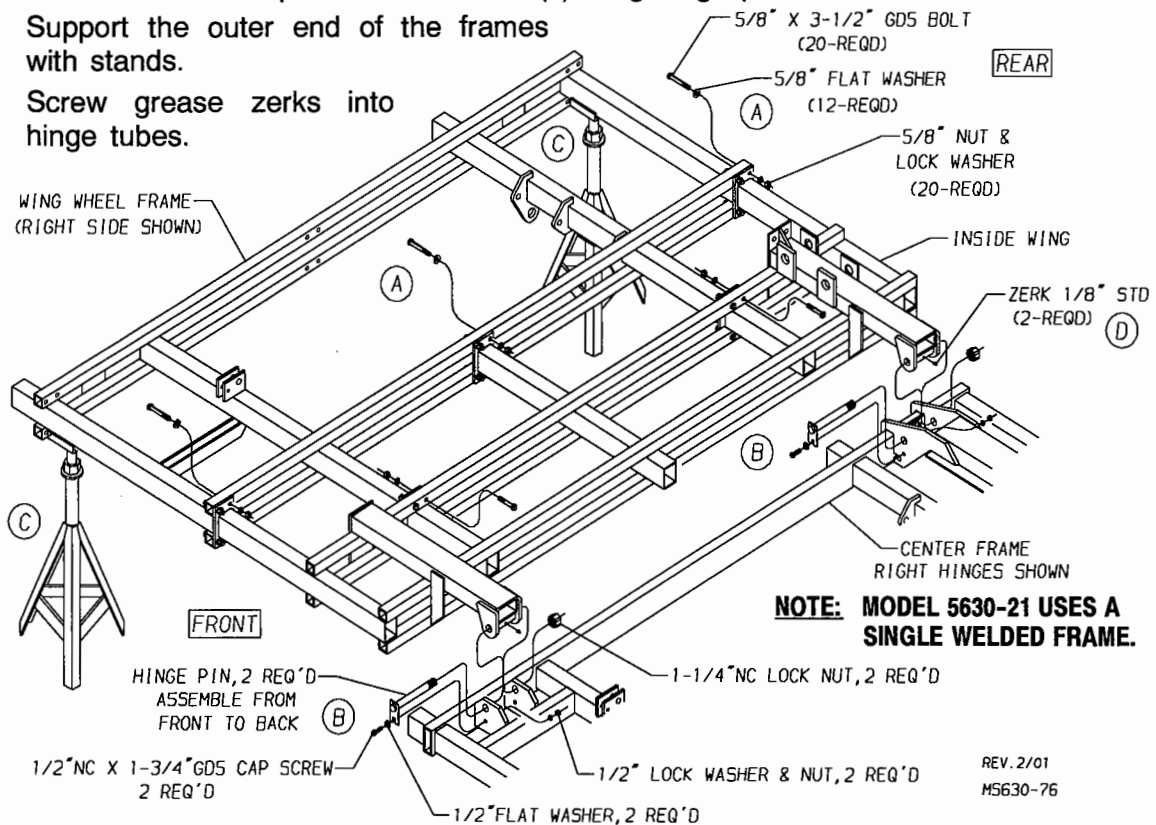


14. CENTER WING STOP ASSEMBLY

- A.) Locate the wing stops just ahead of the rear center hinges as shown.
- B.) Slide the wing stop against the 2 x 2 frame tube before tightening the U-Bolts.

15. INSIDE WING ASSEMBLY

- A.) Bolt the inside wing to the wing wheel frame before putting it onto stands.
- B.) Lift the frame into position and insert (2) wing hinge pins.
- C.) Support the outer end of the frames with stands.
- D.) Screw grease zerks into hinge tubes.



NOTE: MODEL 5630-21 USES A SINGLE WELDED FRAME.

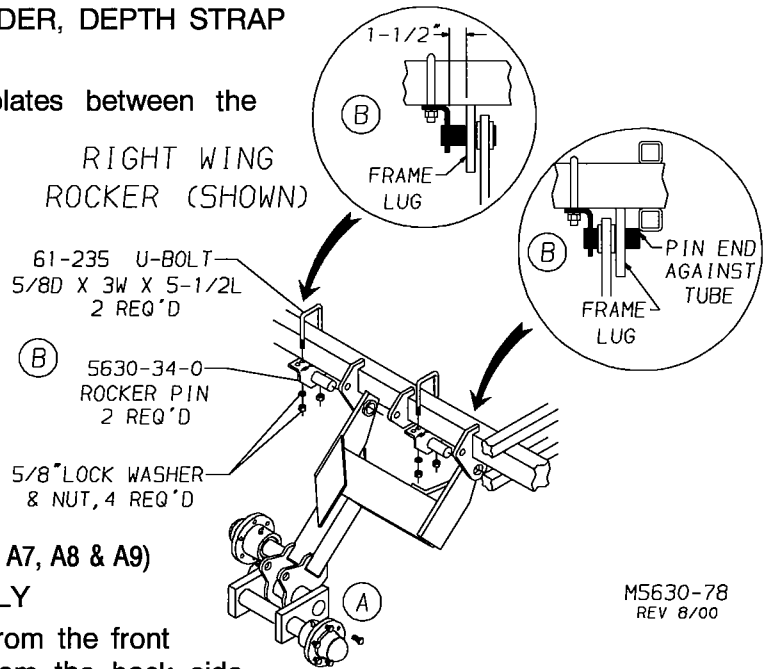
16. WING ROCKER, ROCKER CYLINDER, DEPTH STRAP & FRONT GAUGE ASSEMBLY

- A.) Position the Wing Rocker plates between the frame lugs as shown.

NOTE: The inside hub is forward.

- B.) Insert the rocker pins. The outer pin should be set at the 1-1/2" dimension. The inside pin is inserted until it contacts the 2 x 2 frame member.

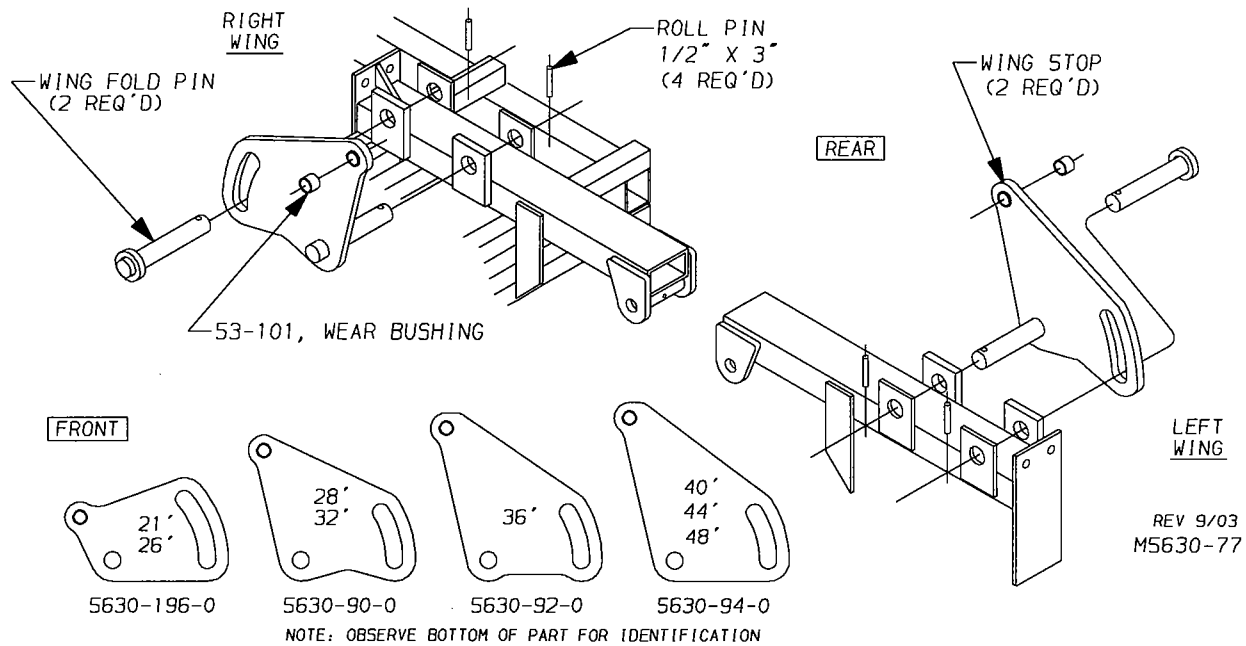
- C.) Assemble the rocker cylinder, depth straps and front gauge the same as the center section. (see pages A7, A8 & A9)



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17. MAIN WING FOLD LUG ASSEMBLY

Assemble the right wing fold lug from the front side and the left wing fold lug from the back side.

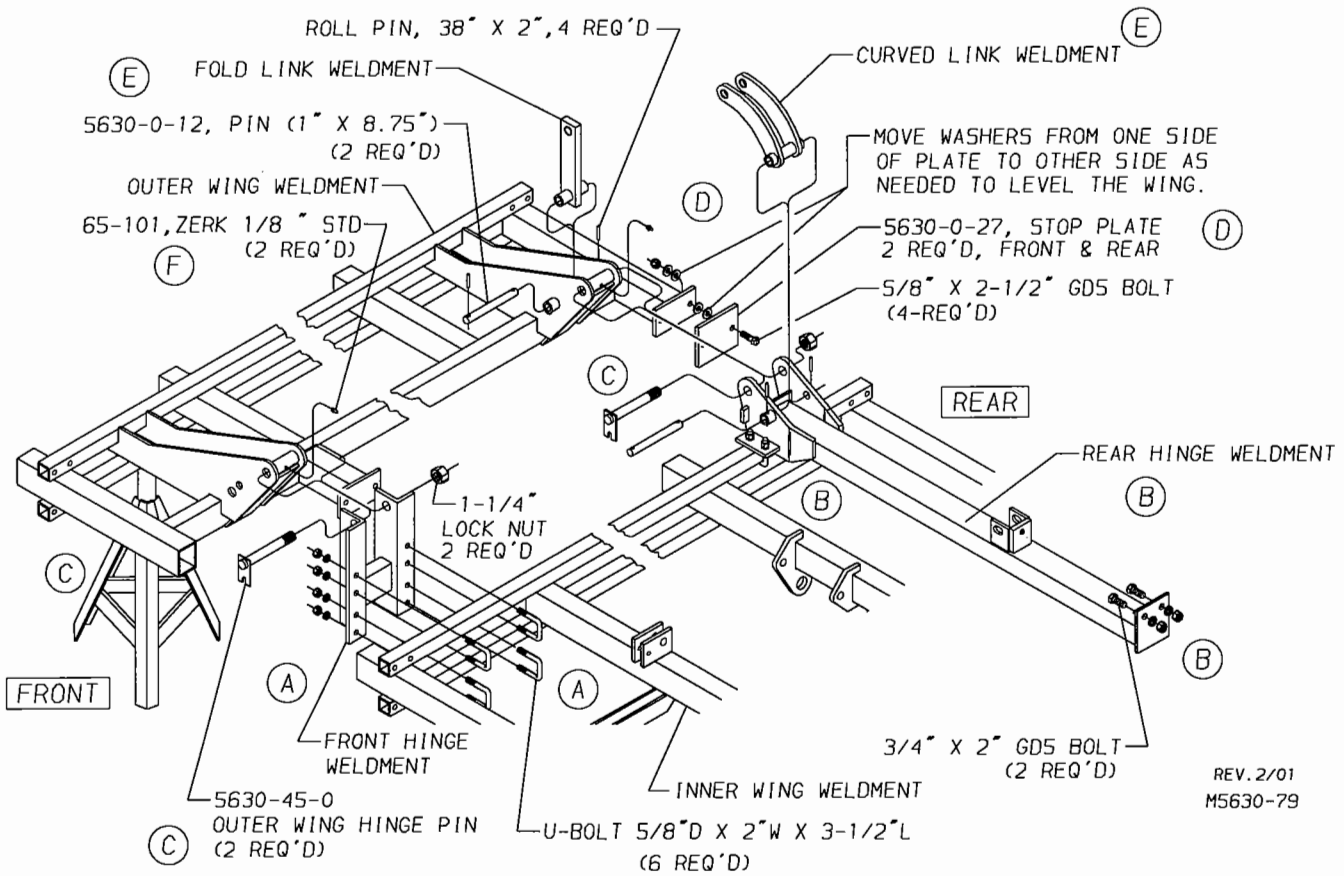


REV 9/03
M5630-77

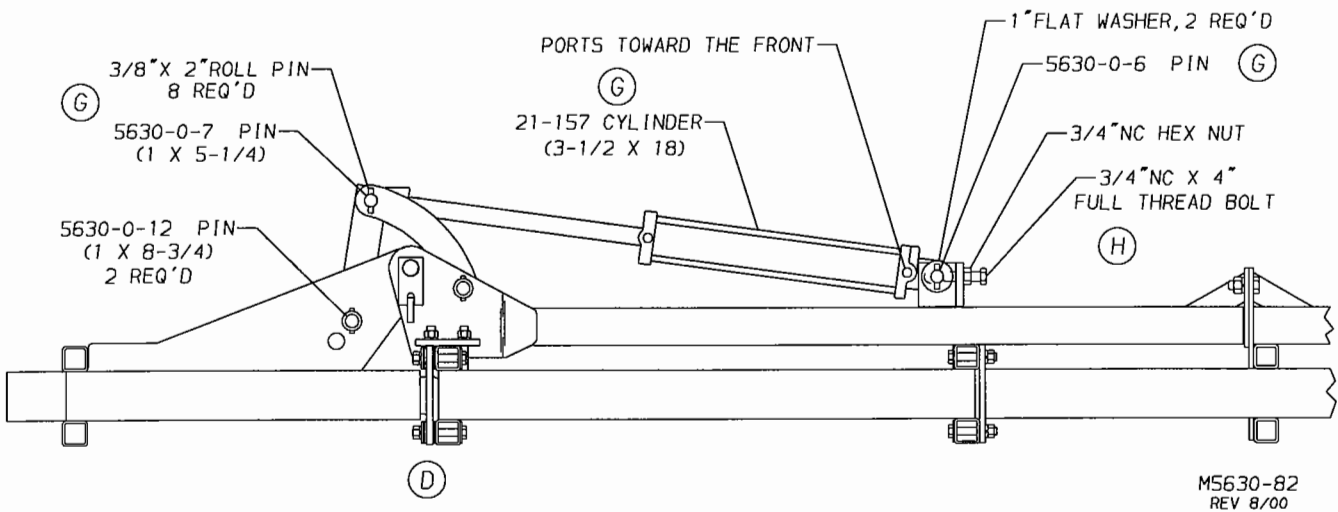
18. 5630-36 FOLDING EXTENSION ASSEMBLY

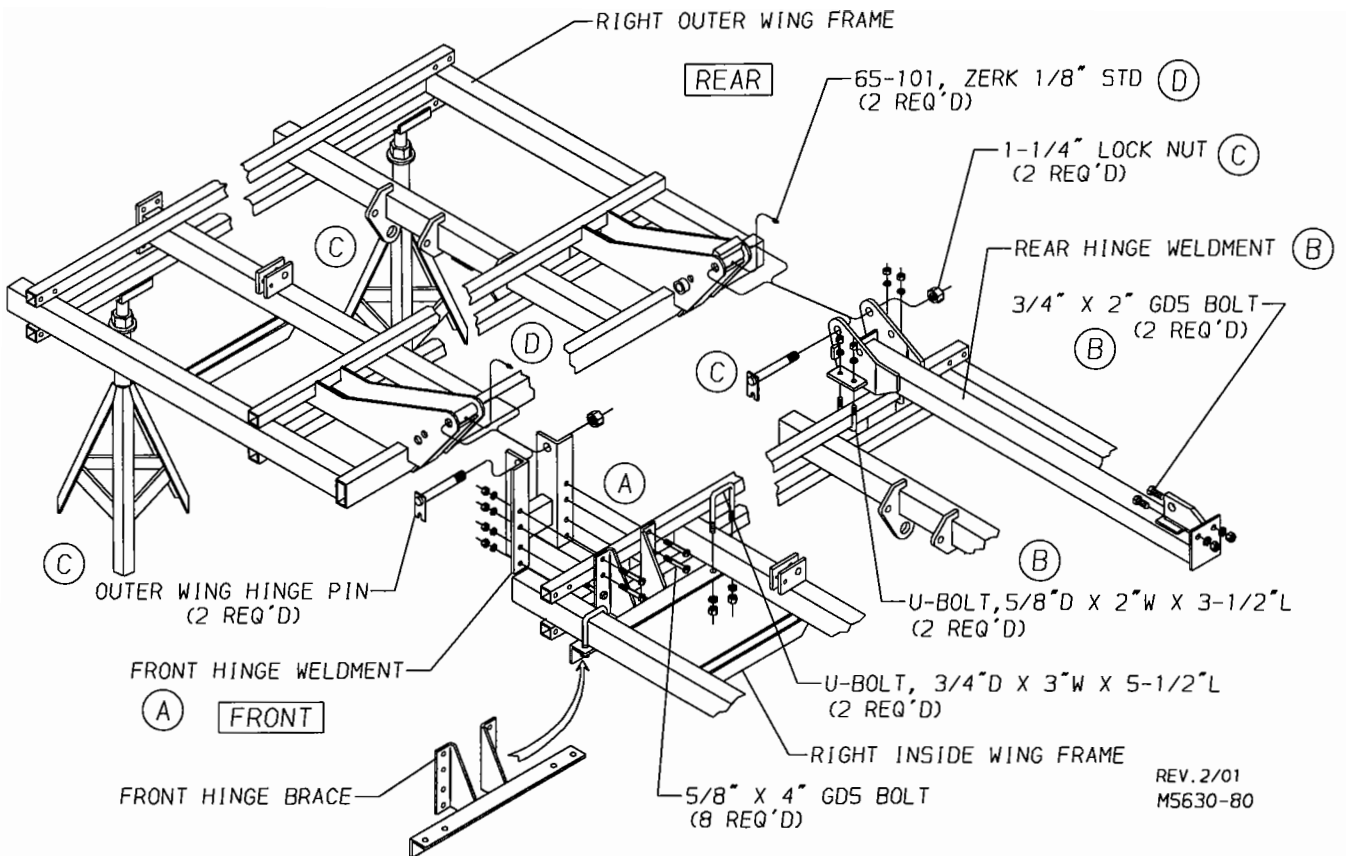
- A.) U-bolt the front hinge to the inner wing frame.
- B.) Assemble the rear hinge to the inner wing frame.
- C.) Pin the folding extension to the front and rear hinges and support the outer end with stands.
- D.) Bolt the stop plates to the inner wing wheel frame. Use washers as needed on each side of the stop plate to make the extension level with the inner wing.
- E.) Pin the fold link and the curved link to the rear hinges as shown.
- F.) Screw grease zerks into the front and rear hinges.

G.) Assemble the cylinder to the fold links and the slotted lug.



H.) After the hydraulic plumbing has been completed, fully extend the wing fold cylinders and then tighten the lug bolt against the cylinder pin. This will prevent the extension from raising during field operation. Lock the 3/4NC nut against the plate to prevent the bolt from turning.

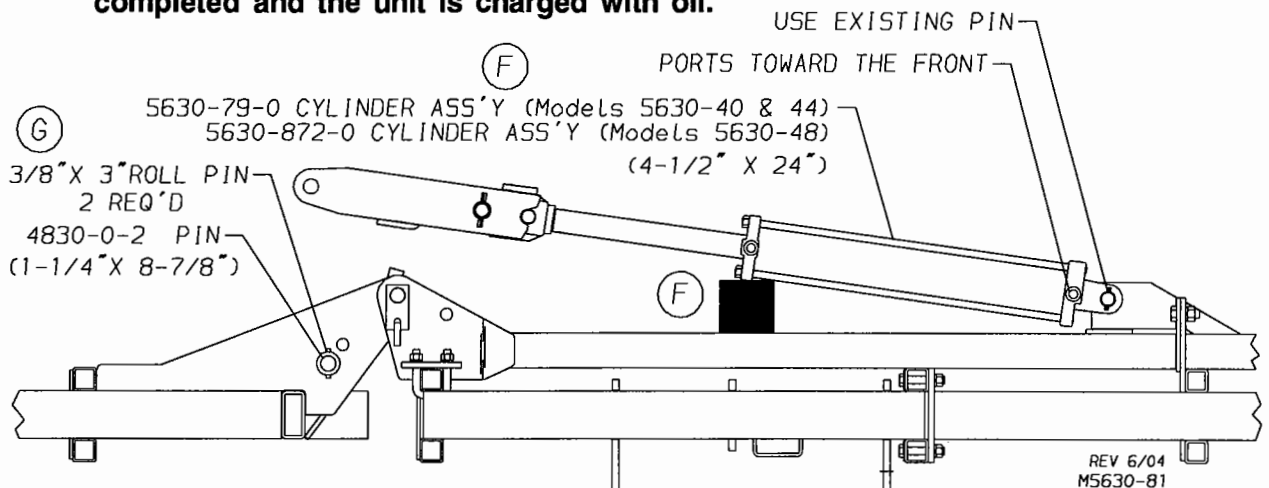




19. 5630-40, 5630-44 & 5630-48 OUTER WING, ROCKER, CYLINDER, DEPTH STRAPS, AND FRONT GAUGE WHEELS

- A.) Assemble the front hinge and the front hinge brace to the inside wing frame.
- B.) Bolt the rear hinge to the inner wing frame.
- C.) Pin the outer wing to the front and rear hinges and support the outer end with stands.
- D.) Screw in grease zerks at both front and rear hinge locations.
- E.) Assemble the rocker, rocker cylinder depth straps, and front gauge wheels the same as the center section. (see pages A8 & A9)
- F.) Pin the base end of the outer wing fold cylinder to the inner wing frame lug and then block the cylinder enough that it can extend and retract when charged with oil.

NOTE: Do not pin the rod end lug to the outer wing until the hydraulic plumbing has been completed and the unit is charged with oil.



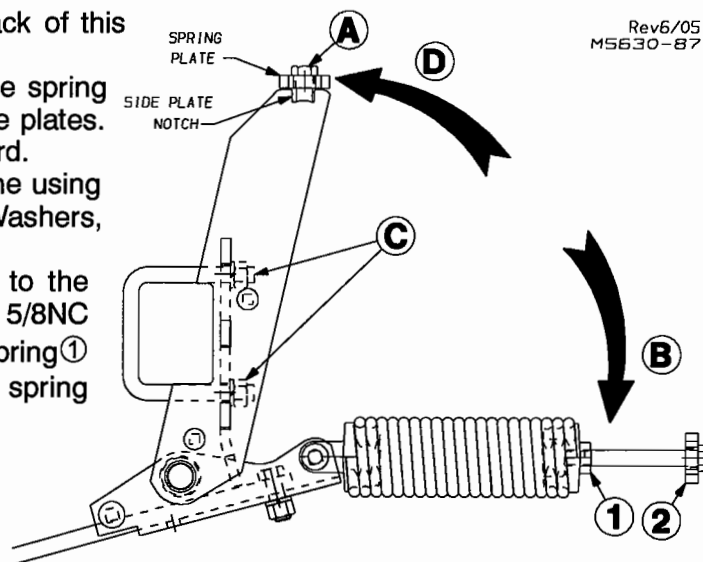
- G.) After the cylinder has been charged with oil and purged of air, pin the fold lug to the outer wing frame.

20. SPRING SHANK ASSEMBLY

Refer to placement drawings at the back of this manual for shank locations.

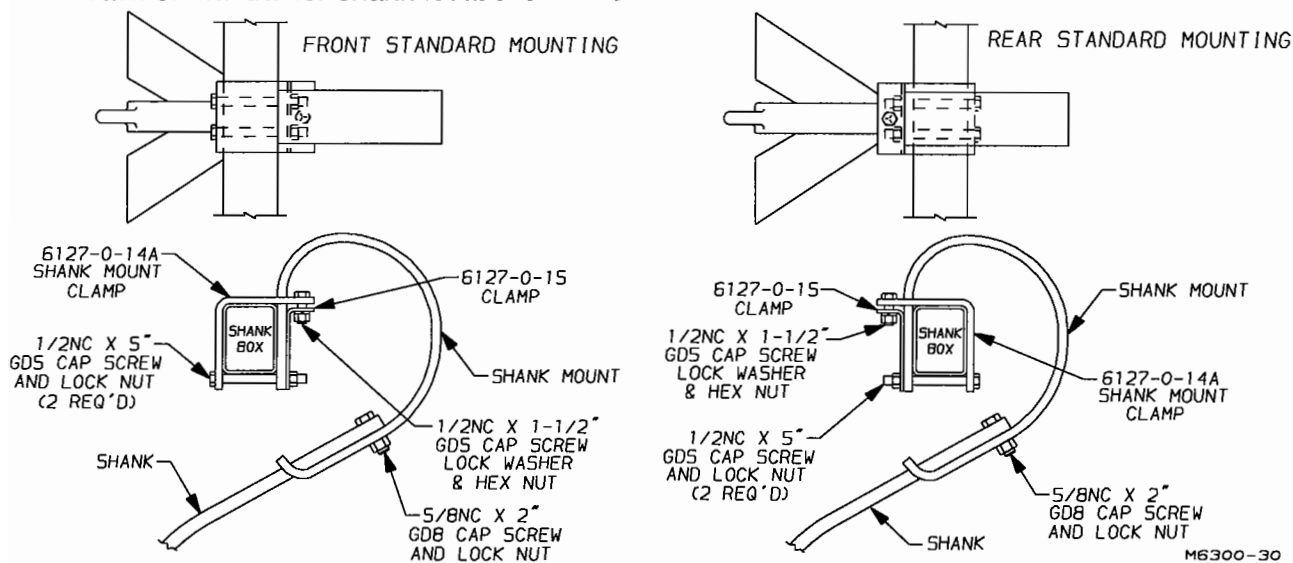
- Loosen spring tension bolt until the spring plate is above the notch in the side plates.
- Rotate the spring assembly forward.
- Fasten shank assembly to the frame using (1) 61-155 U-Bolt, (2) 5/8" Lock Washers, and 5/8NC Hex Nuts.
- Rotate the spring assembly back to the vertical position and retighten the 5/8NC tension bolt. The top of the spring ① should touch the bottom of the spring plate ②.

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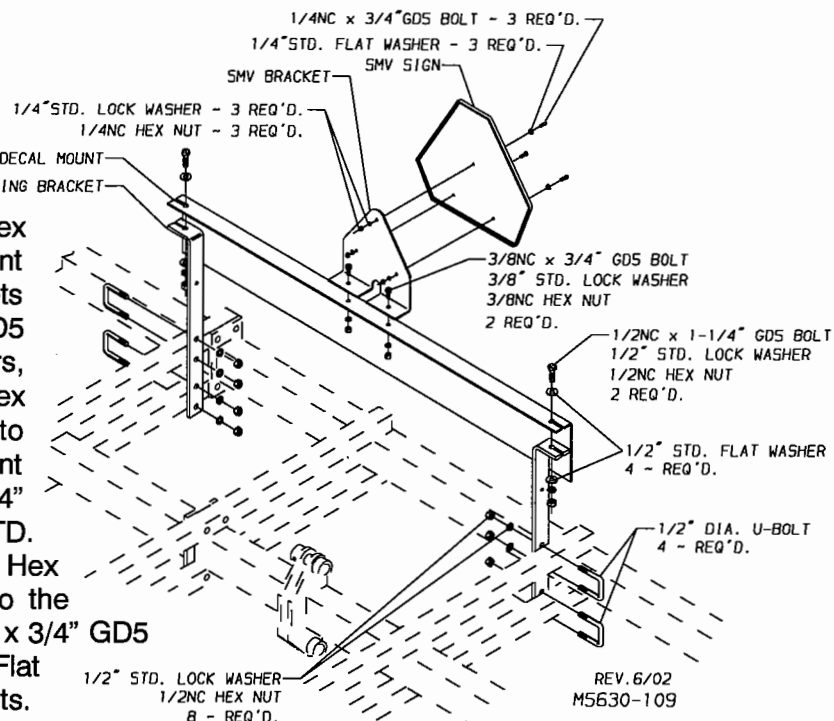
21. 2-PC K-TINE SHANK ASSEMBLY

Refer to placement drawings at the back of manual for shank locations.



22. S.M.V. SIGN ASSEMBLY

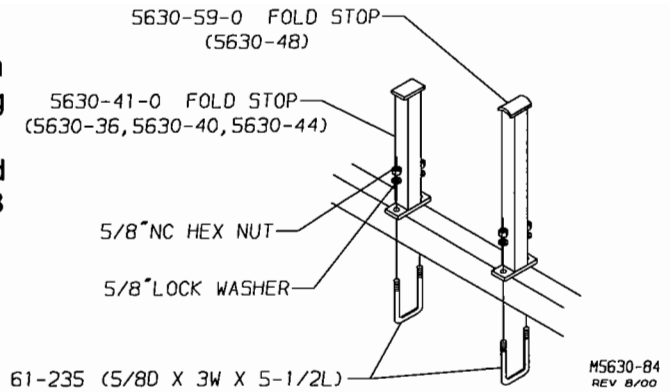
- Bolt (2) Mounting Brackets at the rear of the center frame as shown using (4) 1/2" DIA. U-Bolts, (8) 1/2" Lock Washers & Hex Nuts. Attach the Decal Mount Plate to the mounting brackets with (2) 3/8NC x 3/4" GD5 Bolts (4) 3/8" Flat Washers, (2) 3/8" Lock Washers & Hex Nuts. Bolt the SMV bracket to the center of the decal mount plate using (2) 3/8NC x 3/4" GD5 Cap Screws, 3/8" STD. Lock Washers, and 3/8NC Hex Nuts. Bolt the SMV sign to the SMV bracket with (3) 1/4NC x 3/4" GD5 Cap Screws, 1/4" STD. Flat Washer, and 1/4NC Hex Nuts.



23. 180° WING FOLD STOPS

A.) Attach the Wing Fold Stops as shown on Placement drawing for model being assembled.

NOTE: Model 5630-36 has (2) Wing Fold Stops. Models 5630-40, 44 & 48 have (4) Wing Fold Stops.



24. HYDRAULICS

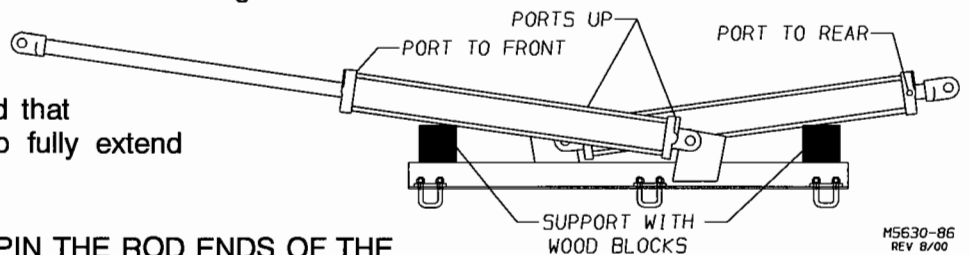
A.) Check the chart below for cylinder size and location.

MODELS ►	CYLINDER SELECTION CHART						
	5630-21 & 26	5630-28	5630-32	5630-36	5630-40	5630-44	5630-48
CENTER ROCKER	21-1007	21-1007	21-1007	21-1007	21-1007	21-1007	21-1007
	4 X 10	4 X 10	4 X 10	4 X 10	4 X 10	4 X 10	4 X 10
INSIDE WING ROCKER	21-1006	21-1006	21-1006	21-1006	21-1006	21-1006	21-1006
	3-3/4 X 10	3-3/4 X 10	3-3/4 X 10	3-3/4 X 10	3-3/4 X 10	3-3/4 X 10	3-3/4 X 10
OUTSIDE WING ROCKER	----	----	----	----	21-1031	21-1031	21-1031
					3-1/2 X 10	3-1/2 X 10	3-1/2 X 10
MAIN WING LIFT	21-172	21-168	21-168	21-169	21-169	21-169	21-169
	4 X 32	4 X 40	4 X 40	5 X 40	5 X 40	5 X 40	5 X 40
OUTER WING LIFT	----	----	----	21-157	21-176	21-176	21-176
				3-1/2 X 18	4-1/2 X 24	4-1/2 X 24	4-1/2 X 24

B.) Pin the base end of the main wing fold cylinders.

Support the cylinder with a block of wood that will allow the rod to fully extend without obstruction.

REAR VIEW OF CENTER FOLD CYLINDERS



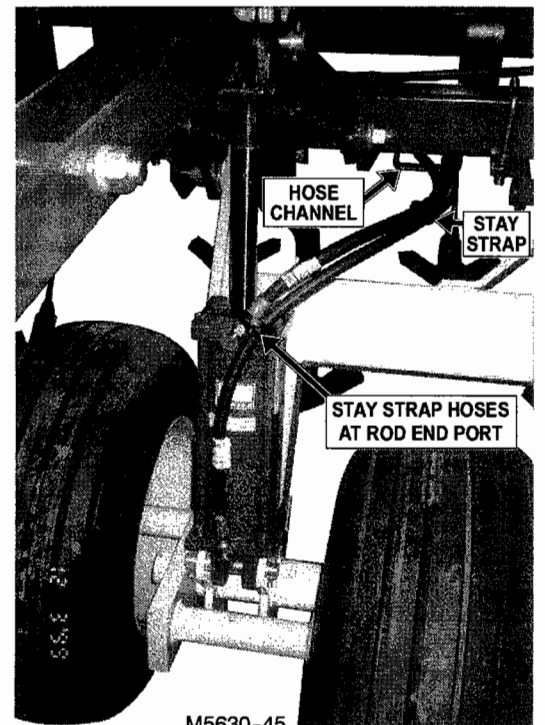
IMPORTANT: DO NOT PIN THE ROD ENDS OF THE CYLINDERS TO THE LIFT LUGS UNTIL ALL HYDRAULIC ASSEMBLY IS COMPLETE AND THE SYSTEMS HAVE BEEN PURGED OF AIR AND FILLED WITH OIL.

C.) Use the hydraulic plumbing diagrams in the parts section as well as photos and drawings on the following pages, assemble all hoses, fittings and hose clamps as shown.

⚠ Caution: Use only hose that meets or exceeds 3,000 PSI working pressure.

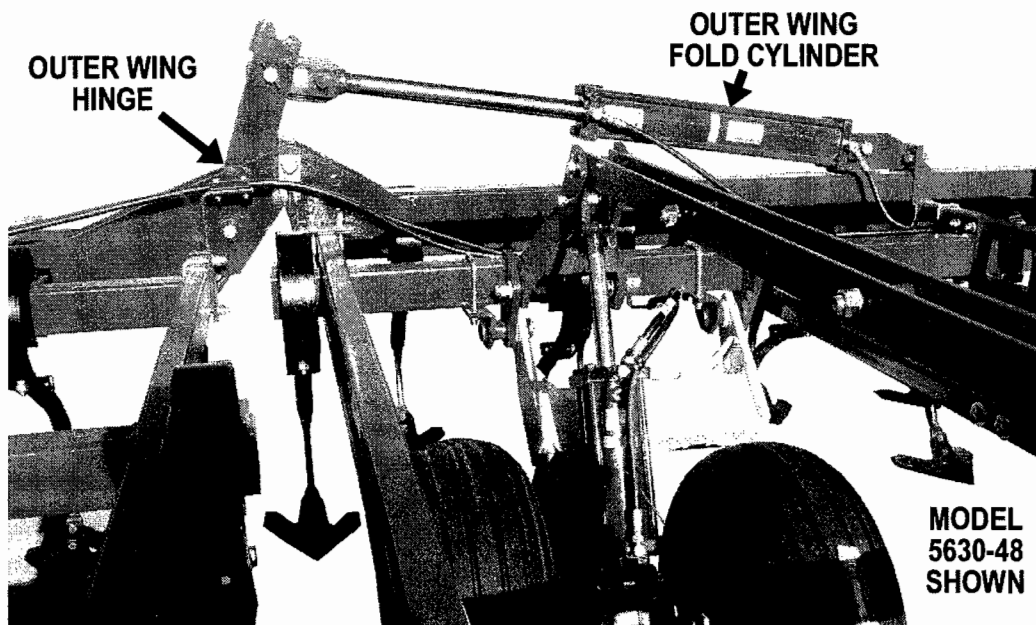
Start the plumbing at the outer wing rocker cylinder. Route both hoses next to the rod end port and through the hose channel under the frame. Fasten a stay strap at the rod end port and another between the rod end port and the hose channel.

Work toward the center routing the hoses and loosely assembling the hose clamps as shown in the hose diagrams in the parts section.

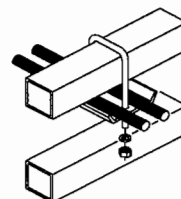
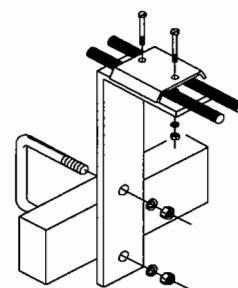
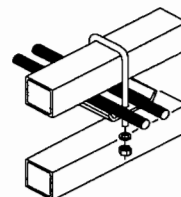
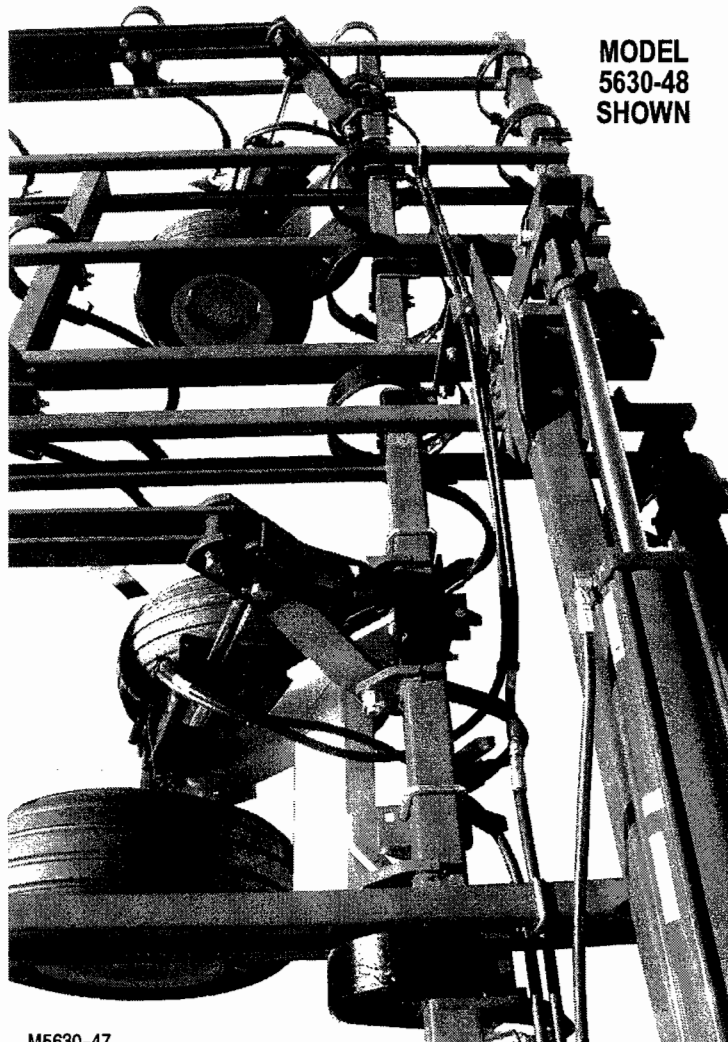


The hoses are mounted high at the hinge between the inner and outer wing to prevent stretching during folding.

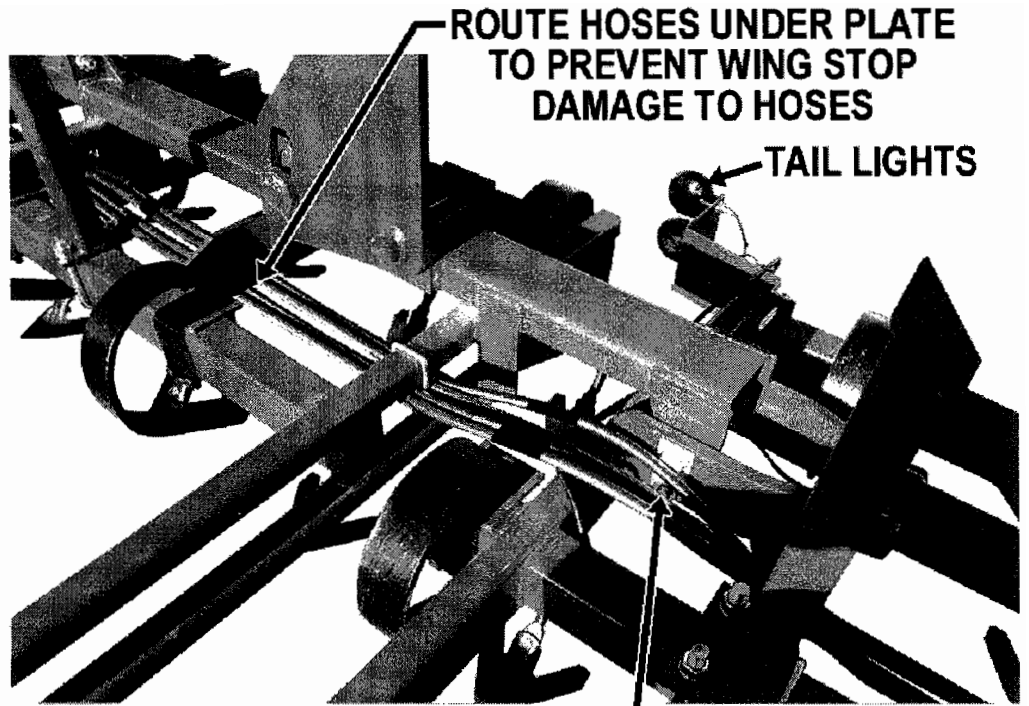
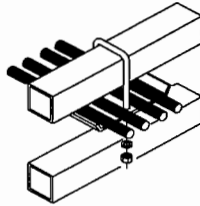
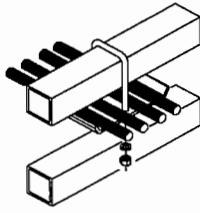
IMPORTANT: MAKE SURE WING FOLD CYLINDERS ARE ASSEMBLED WITH RESTRICTORS IN THE ROD END PORTS. OUTER WING FOLD CYLINDERS HAVE RESTRICTORS IN BASE END PORT ALSO.



M5630-48



M5630-47

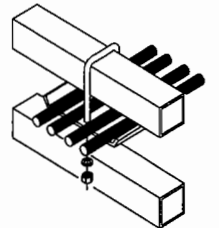
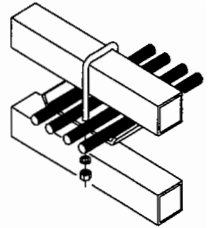
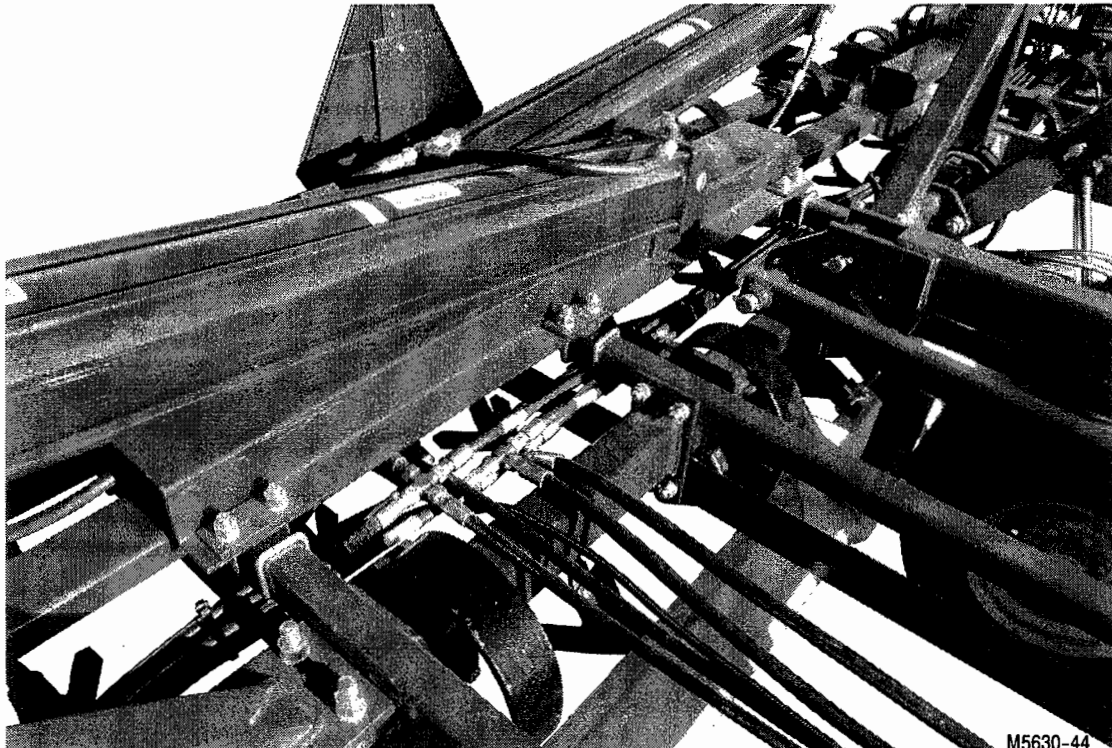


ROUTE HOSES UNDER PLATE TO PREVENT WING STOP DAMAGE TO HOSES

TAIL LIGHTS

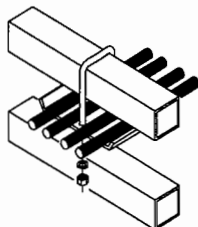
CENTER FRAME HINGE
(MAKE SURE HINGE PIN NUT IS TO THE REAR)

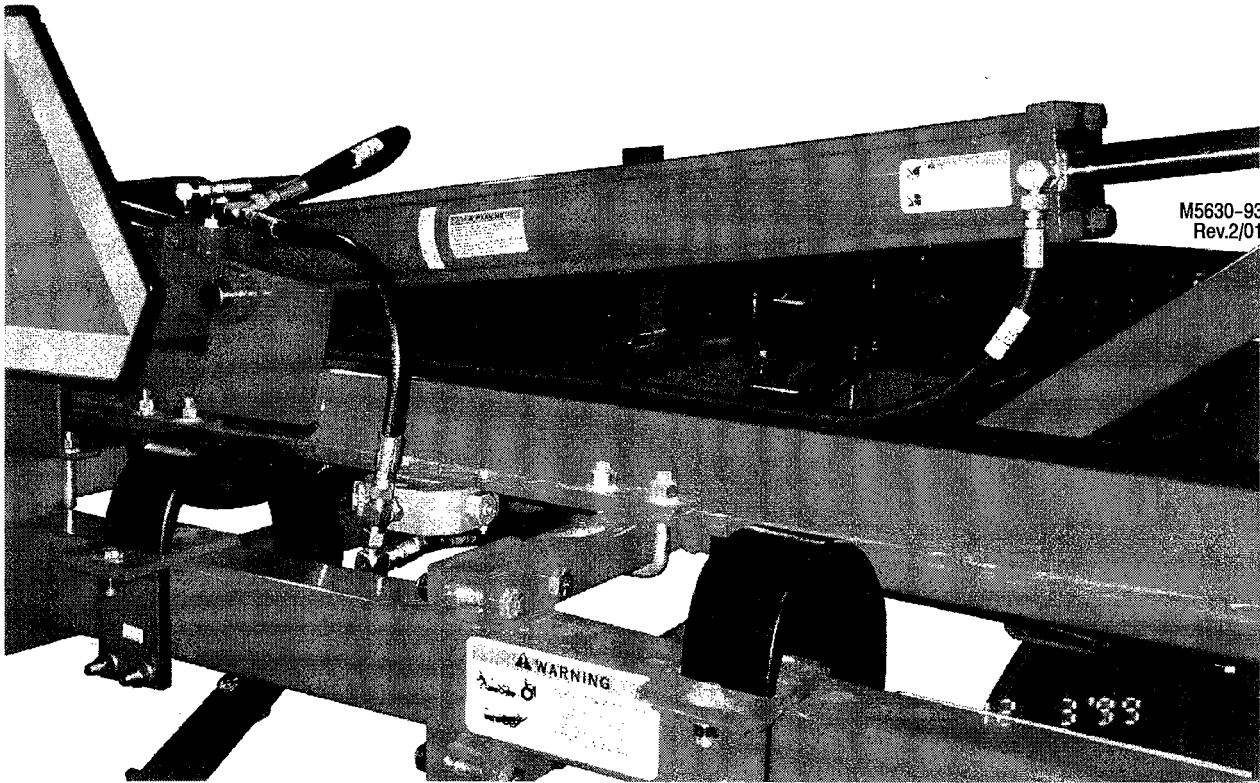
M5630-67



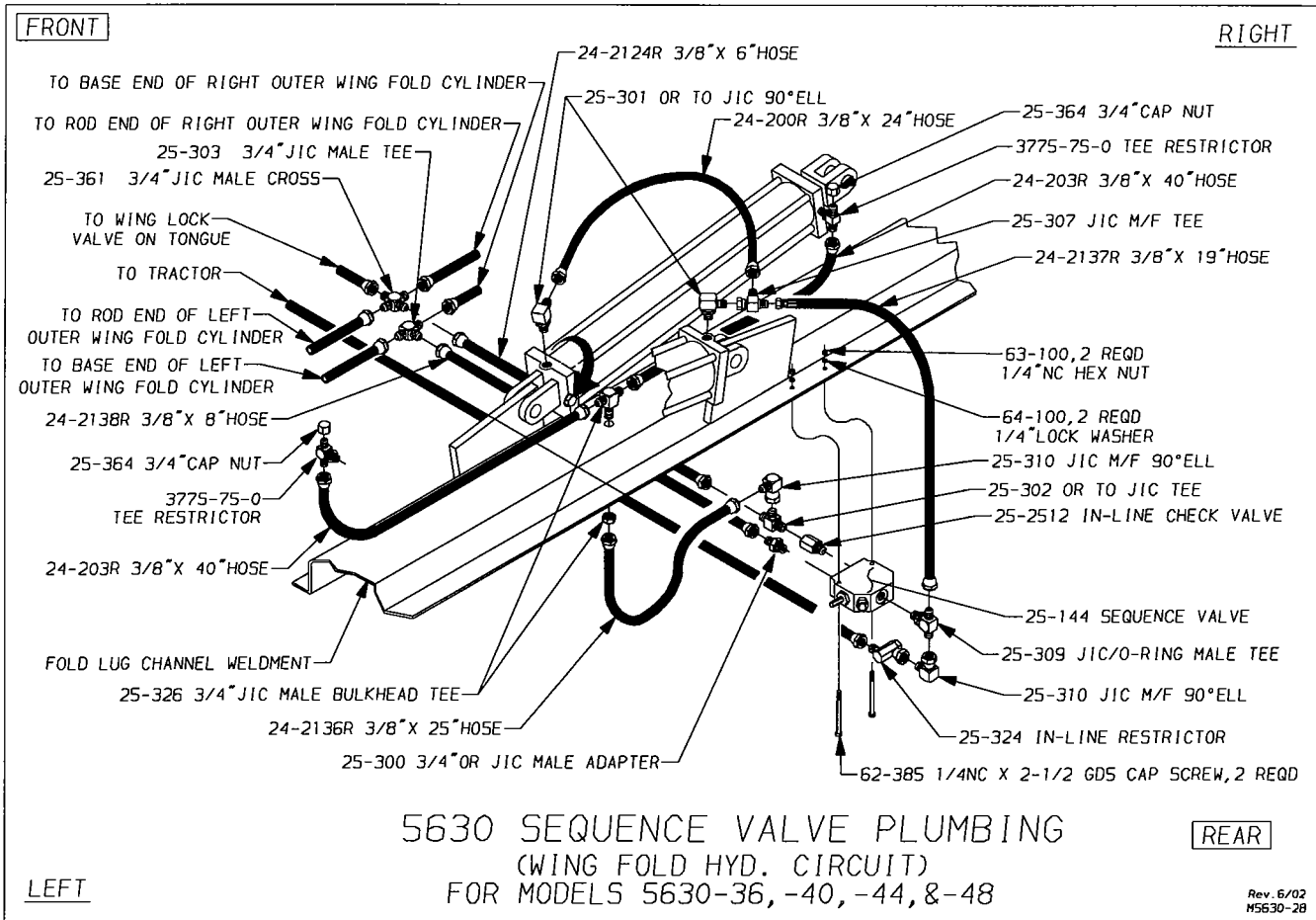
M5630-44

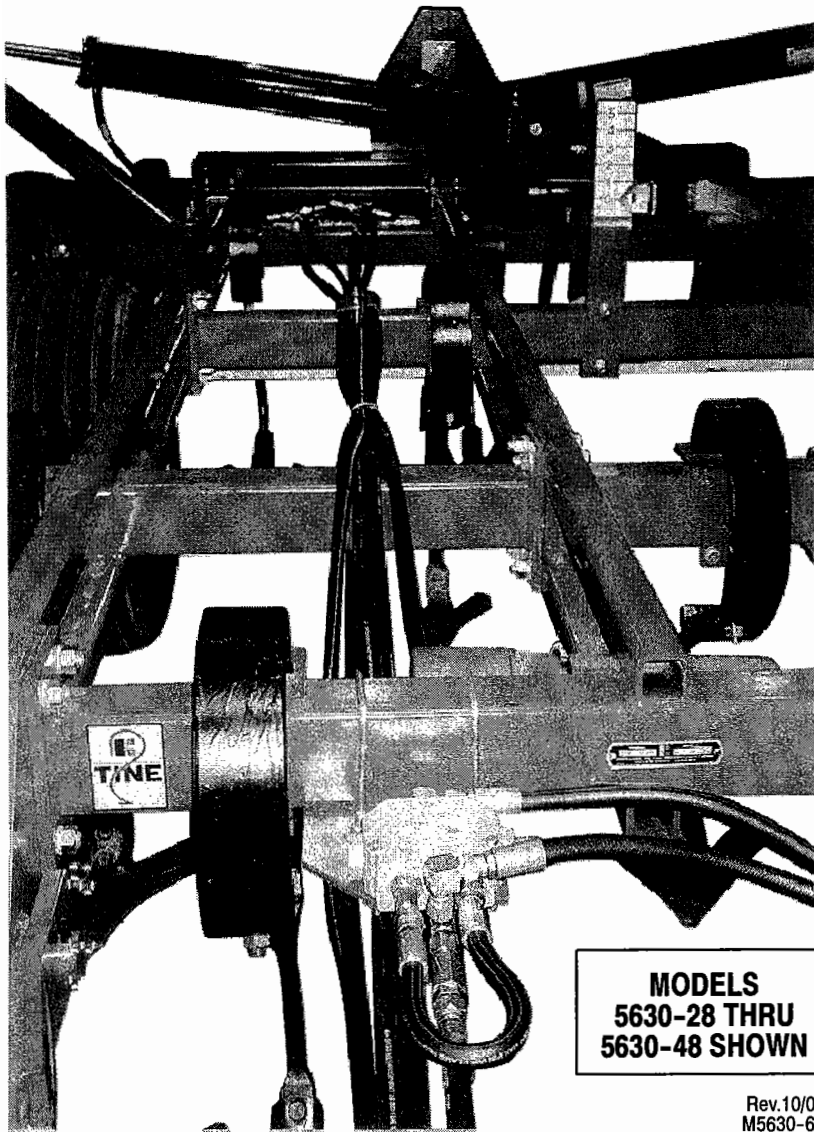
CENTER SECTION





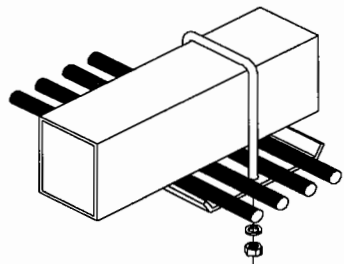
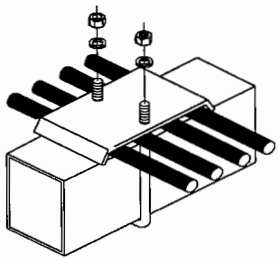
REAR VIEW OF SEQUENCE VALVE & CENTER WING FOLD CYLINDER





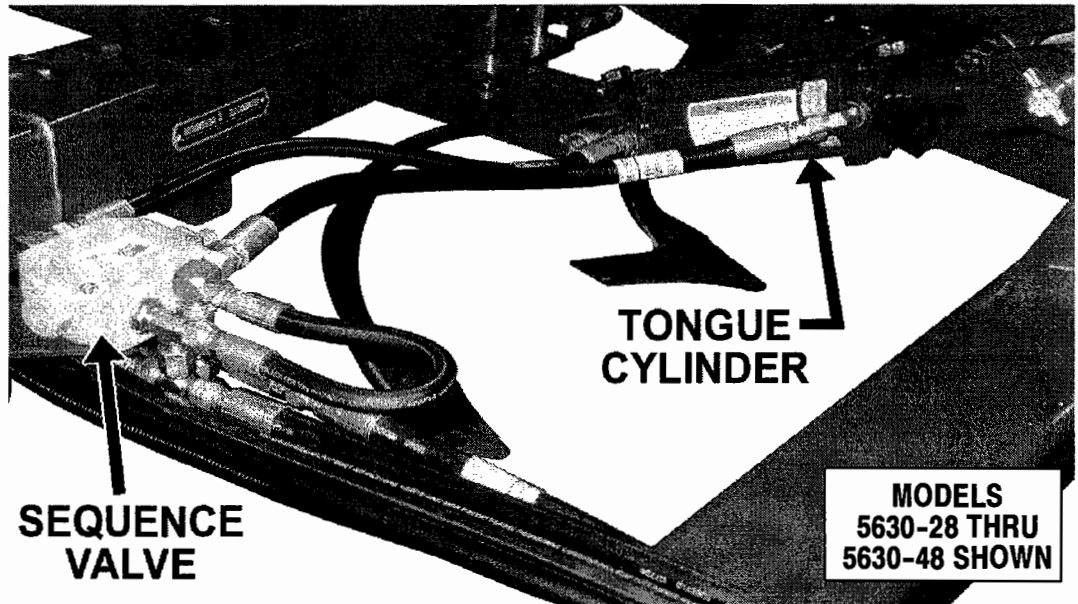
**MODELS
5630-28 THRU
5630-48 SHOWN**

Rev.10/03
M5630-66



**USE (4) HOSE CLAMP WITH
STANDARD HITCH.
(FLOATING HITCH SHOWN)**

Use the photograph below and parts pgs. P48-49 to assemble the optional Floating Hitch hydraulics.



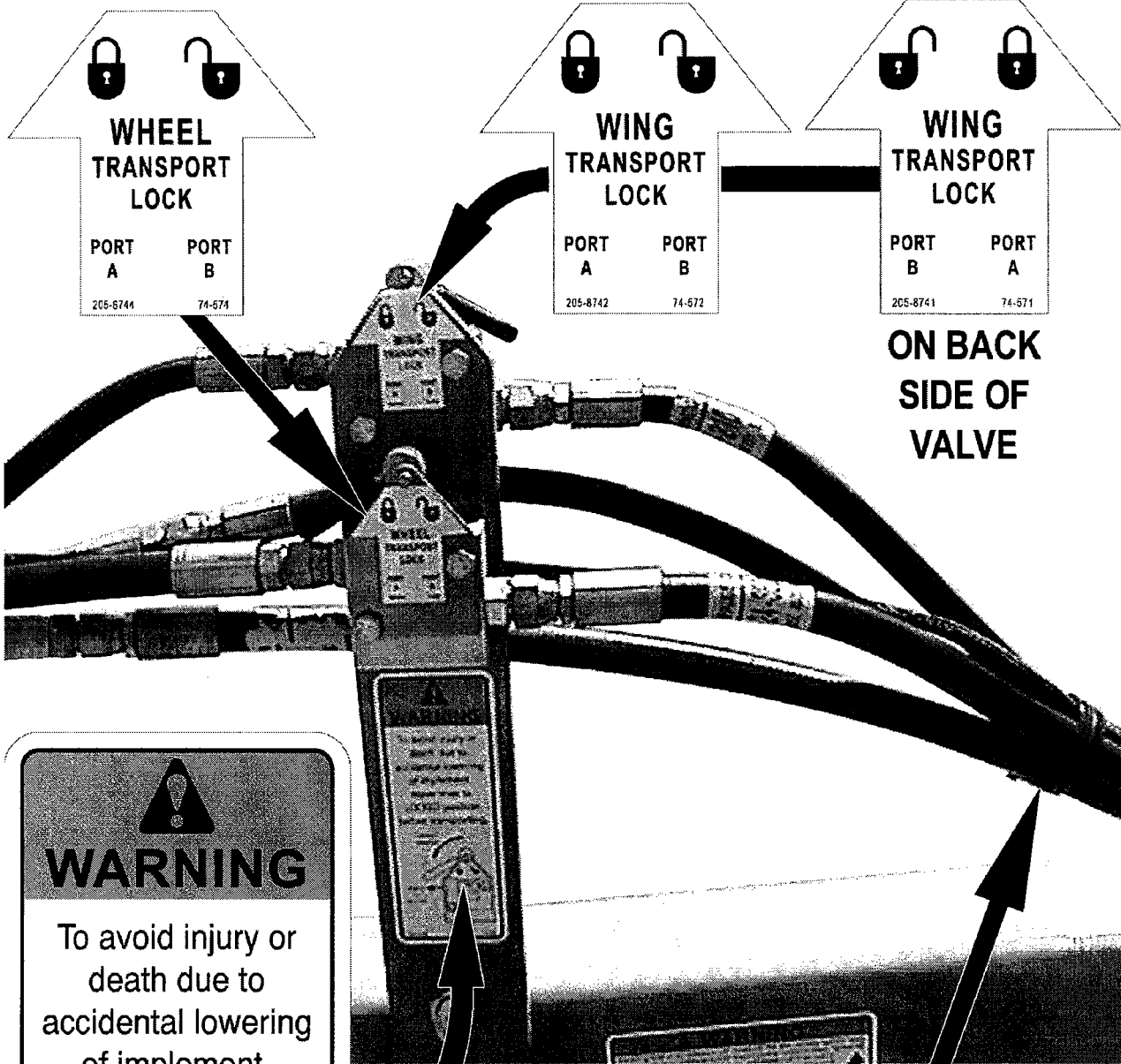
**SEQUENCE
VALVE**

**TONGUE
CYLINDER**

**MODELS
5630-28 THRU
5630-48 SHOWN**

FLOATING HITCH (OPTION)

Rev.10/03
M5630-43



**WHEEL
TRANSPORT
LOCK**

PORT A PORT B

205-6744 74-674

**WING
TRANSPORT
LOCK**

PORT A PORT B

205-6742 74-672

**WING
TRANSPORT
LOCK**

PORT B PORT A

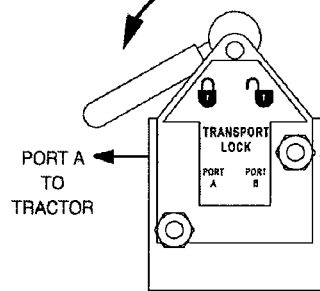
205-6741 74-671

**ON BACK
SIDE OF
VALVE**

WARNING

To avoid injury or death due to accidental lowering of implement, move lever to LOCKED position before transporting.

LOCKED POSITION



206-0308

74-393

**FASTEN STAY STRAPS
AROUND ALL (4) HOSES
& LIGHT HARNESS ON
BOTH SIDES OF VALVE**

CHARGING THE CYLINDERS-

- A.) After all hose and fittings are assembled, check the blocks under the wing cylinders. Make sure they are raised high enough to clear any attaching lugs.
- B.) Attach hydraulic hoses to tractor. Check the tractor hydraulic reservoir and make sure it is full of the manufacturer's recommended oil.



Warning: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

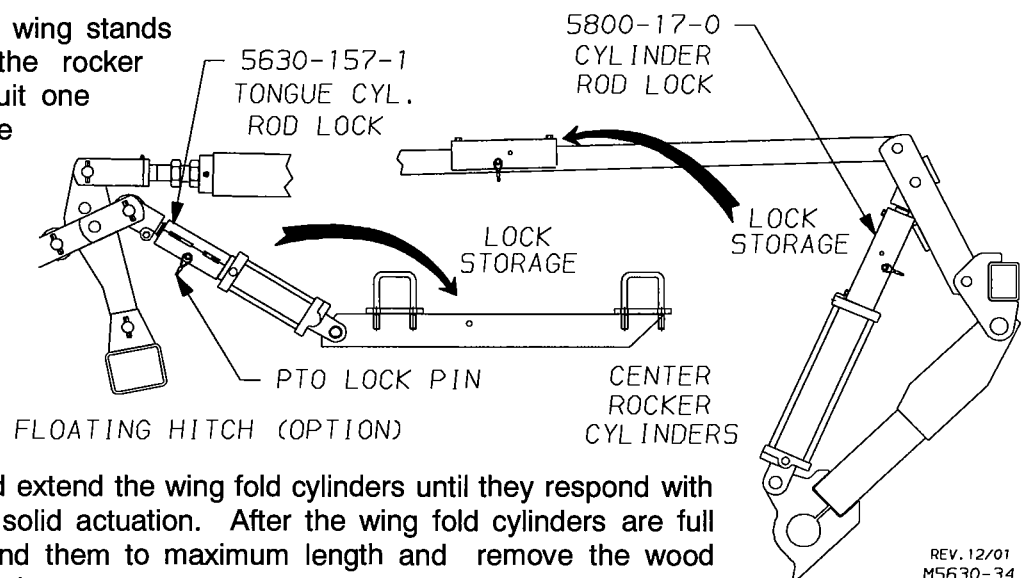
If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

- C.) When you are sure all connections are tight and leakproof, begin filling the system by extending the rocker cylinders. Hold the tractor hydraulic lever open for 30 to 45 seconds. This will force oil through the rephasing grooves and allow the series cylinders to be charged with oil. Repeat if necessary until the rocker cylinders (and tongue cylinder if equipped with floating hitch) respond with solid actuation.
- D.) The center rocker cylinder rod locks (and the tongue cylinder if equipped with floating hitch) can be removed if they are loose around the rod. If they are not loose, extend the cylinders and continue rephasing.

Caution: Do not remove the rod locks by having someone hold the hydraulic lever open. It is normal for the rephasing cylinders to bleed down approximately 3/8". If they bleed down more than that there is still air in the system and rephasing should continue. Only remove the rod locks when they can be removed with the hydraulic lever in the neutral position.

Pin the cylinder rod locks in to the storage positions shown below.

Remove the wing stands and cycle the rocker cylinder circuit one or two more times.

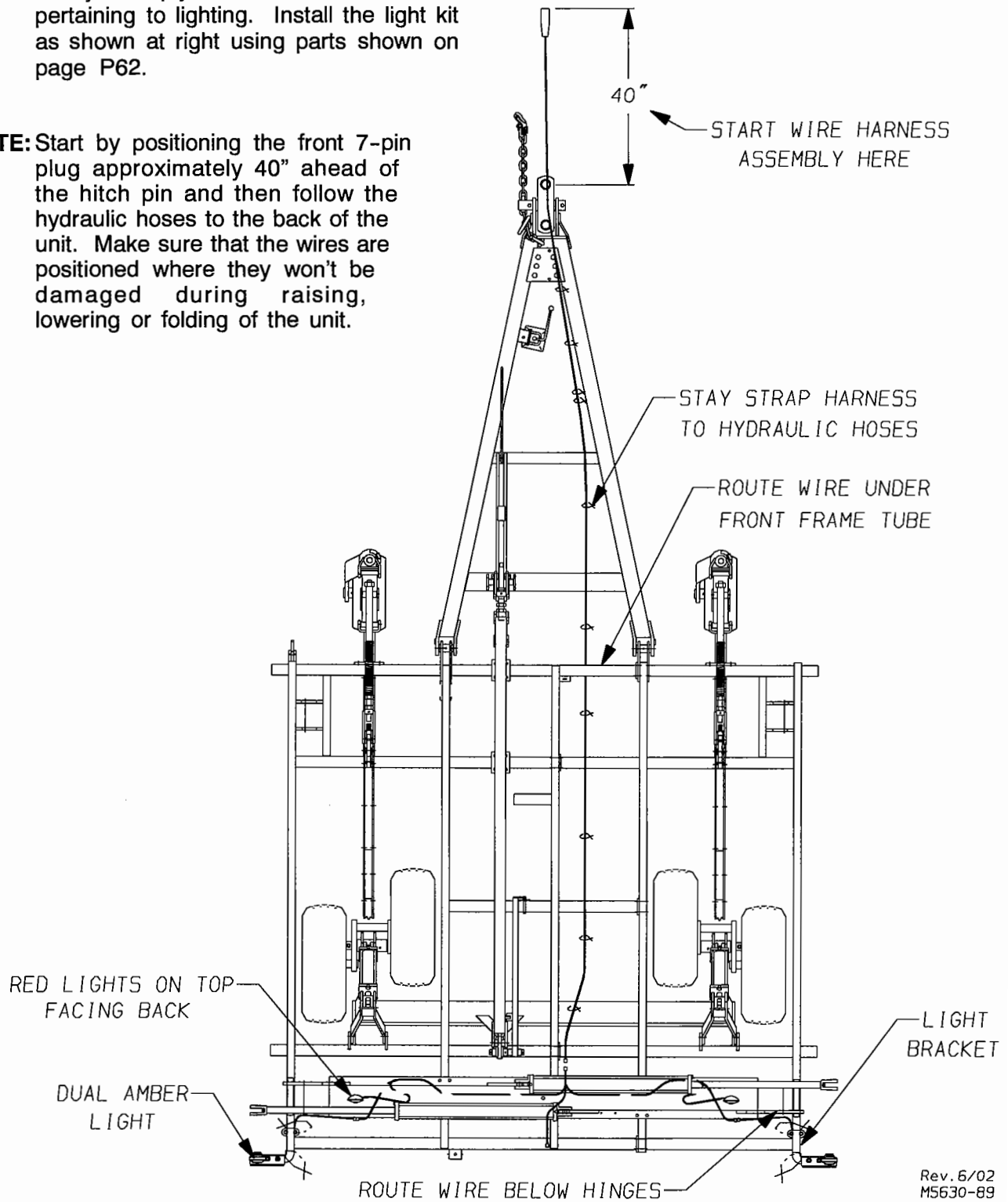


- E.) Retract and extend the wing fold cylinders until they respond with immediate solid actuation. After the wing fold cylinders are full of oil, extend them to maximum length and remove the wood support blocks.
- F.) Pin the center wing fold cylinder rod end to the fold lugs. Refer to page A13 for attaching the outer wing fold lugs.

25. LIGHT KIT

Always comply with state and local laws pertaining to lighting. Install the light kit as shown at right using parts shown on page P62.

NOTE: Start by positioning the front 7-pin plug approximately 40" ahead of the hitch pin and then follow the hydraulic hoses to the back of the unit. Make sure that the wires are positioned where they won't be damaged during raising, lowering or folding of the unit.



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M5630-89

26. DECAL ATTACHMENT

It is very important that all decals be placed on the implement. These decals, reflectors, safety, and operating messages are just as important as the parts that have been assembled.

Wipe the frame members clean before applying decals for better adhesion. If decals or reflectors should become faded or damaged, be sure to replace them.

NOTE: See decal illustration and parts listing on page P59 of this manual.

27. TRANSPORT LOCKS

The LOCK VALVES when engaged prevent the return of oil to the tractor. Turn both handles toward the tractor and raise the unit and wings fully. Verify that the unit cannot be unfolded or lowered with the lock valves engaged.

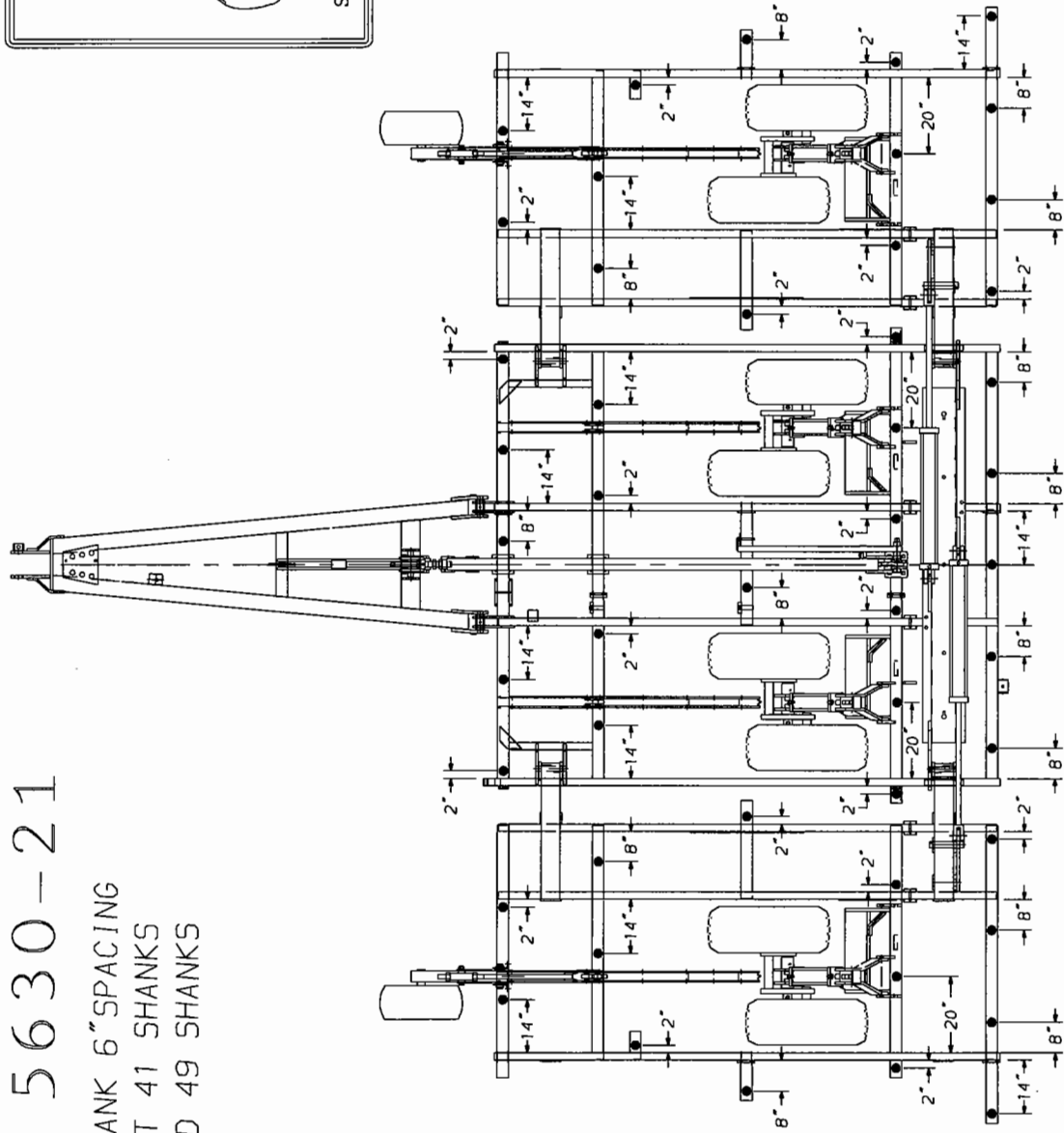
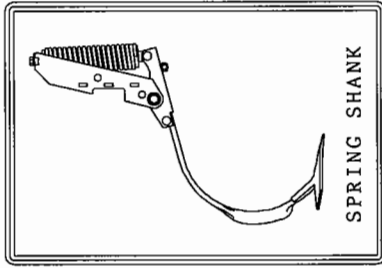
28. ASSEMBLE REAR HARROW AS DIRECTED IN THE HARROW ATTACHMENT BOOK.

29. FINAL CHECK

- A.) Check the hydraulic system for leaks.
- B.) Lubricate all grease points.
- C.) Check torque of all bolts.
- D.) Fully extend the depth control cylinders. Close transport lock valve.
- E.) Lower tongue jack.
- F.) Check tire pressure and wheel bolt torque.
- G.) Check to make sure SMV sign is clean and in place.
- H.) Perform final inspection. See Dealer Predelivery Check Sheet (located after the Warranty pages in the front of this manual).

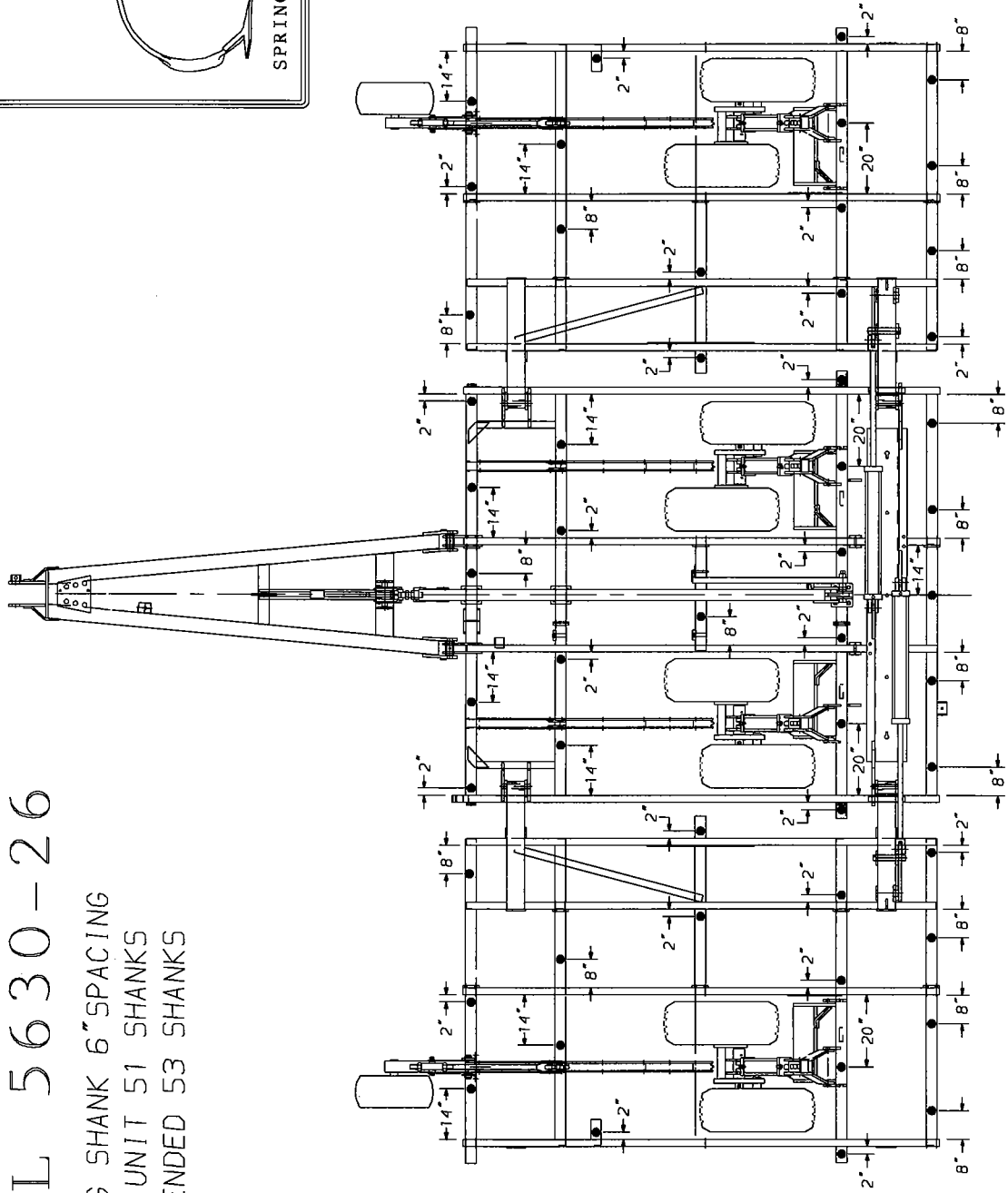
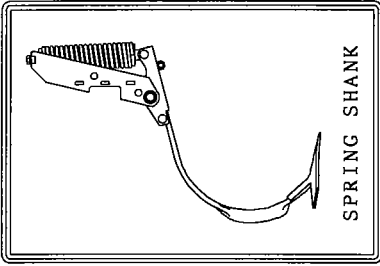
MODEL 5630-21

SPRING SHANK 6" SPACING
BASE UNIT 41 SHANKS
EXTENDED 49 SHANKS



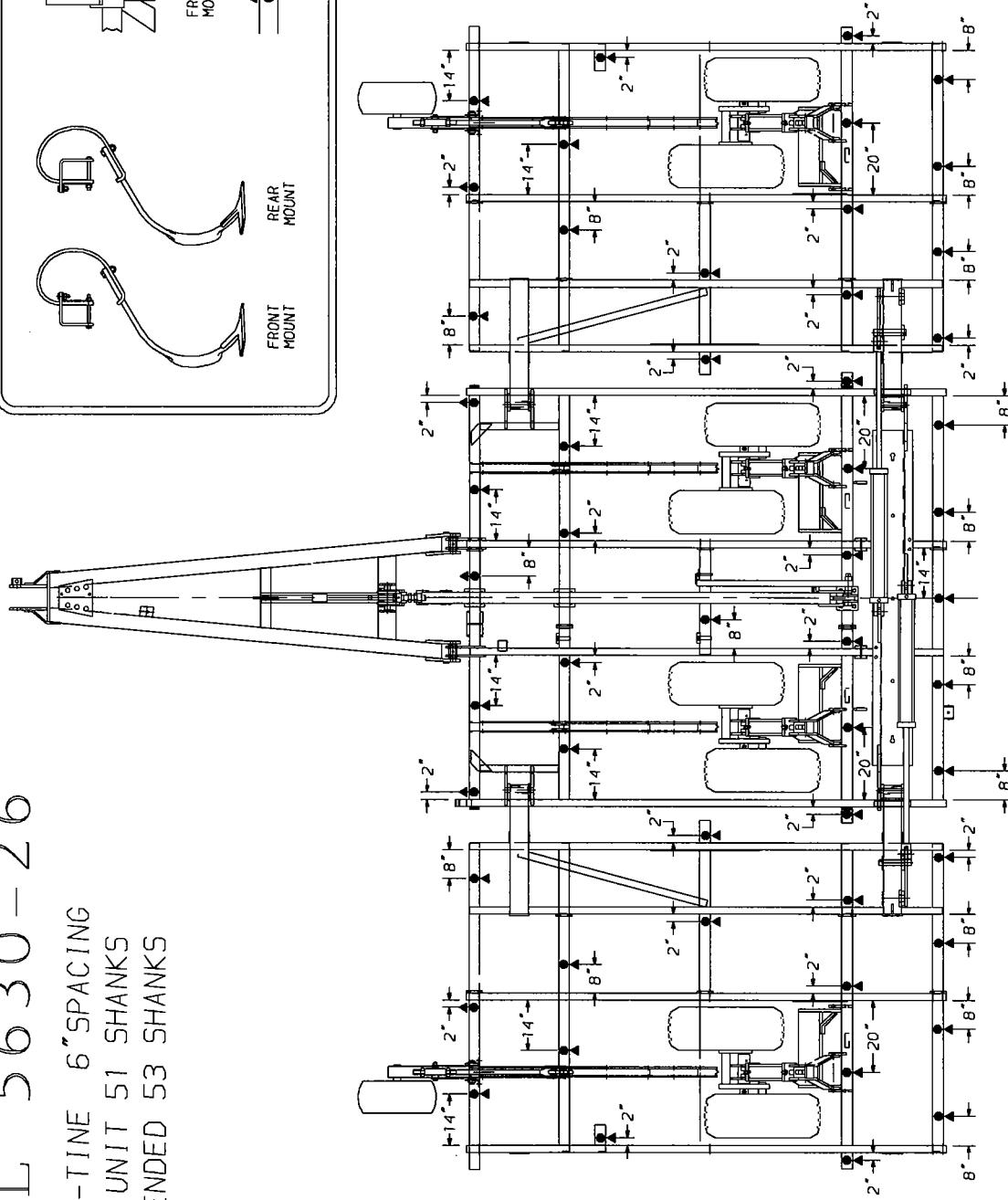
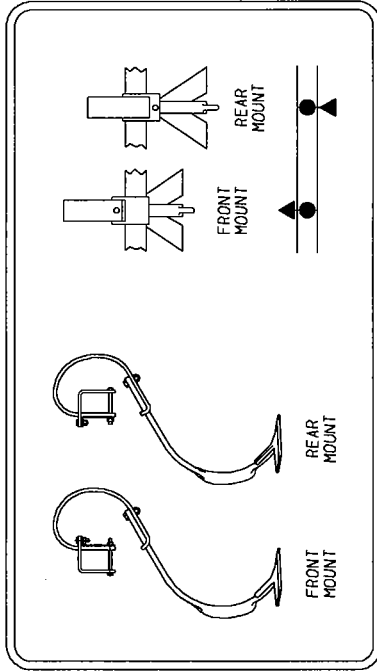
MODEL 5630-26

SPRING SHANK 6" SPACING
BASE UNIT 51 SHANKS
EXTENDED 53 SHANKS



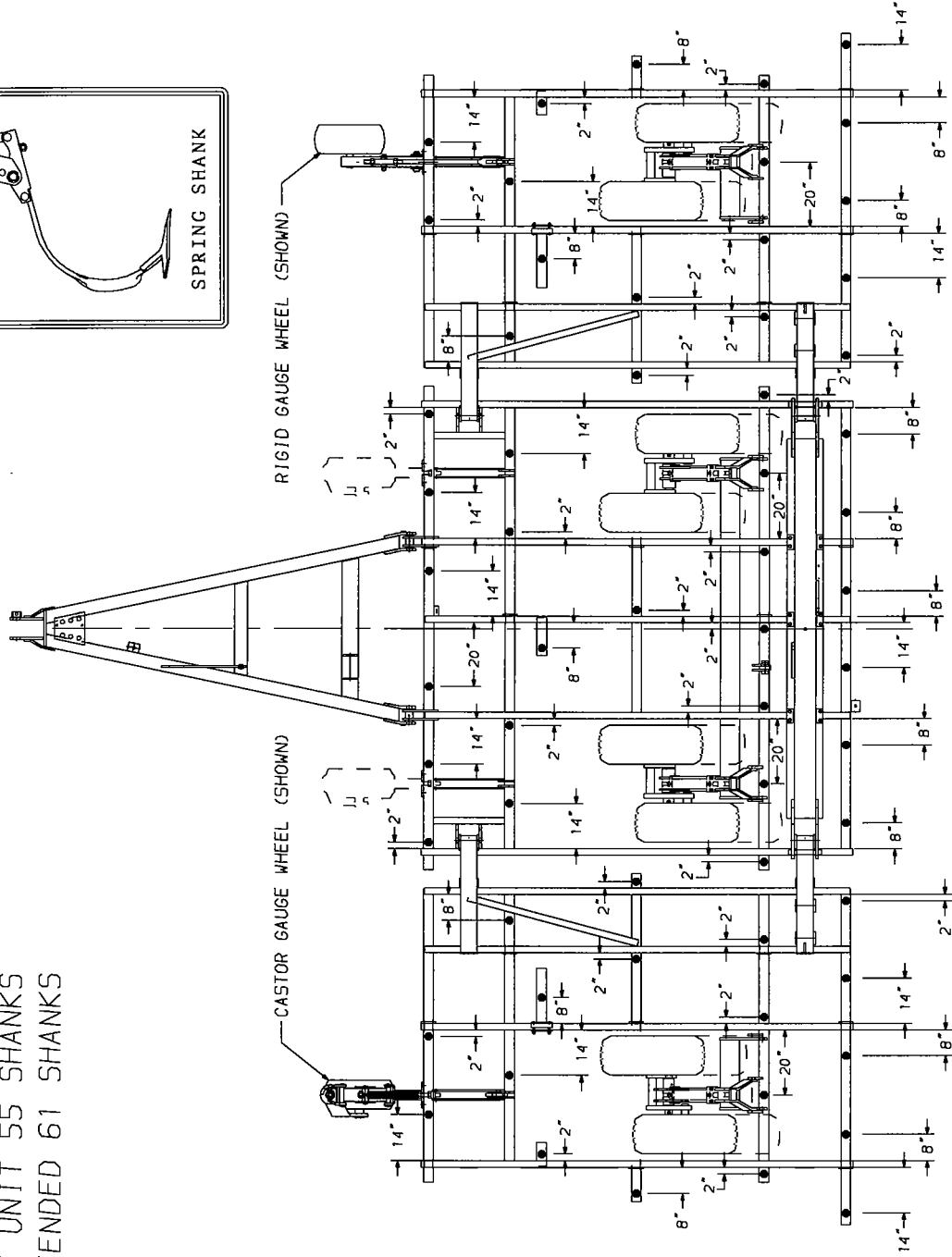
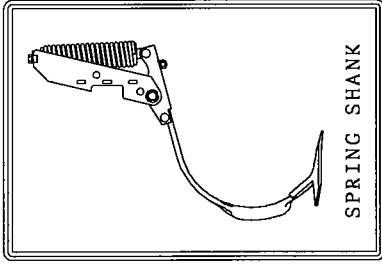
MODEL 5630-26

2-PC K-TINE 6" SPACING
BASE UNIT 51 SHANKS
EXTENDED 53 SHANKS



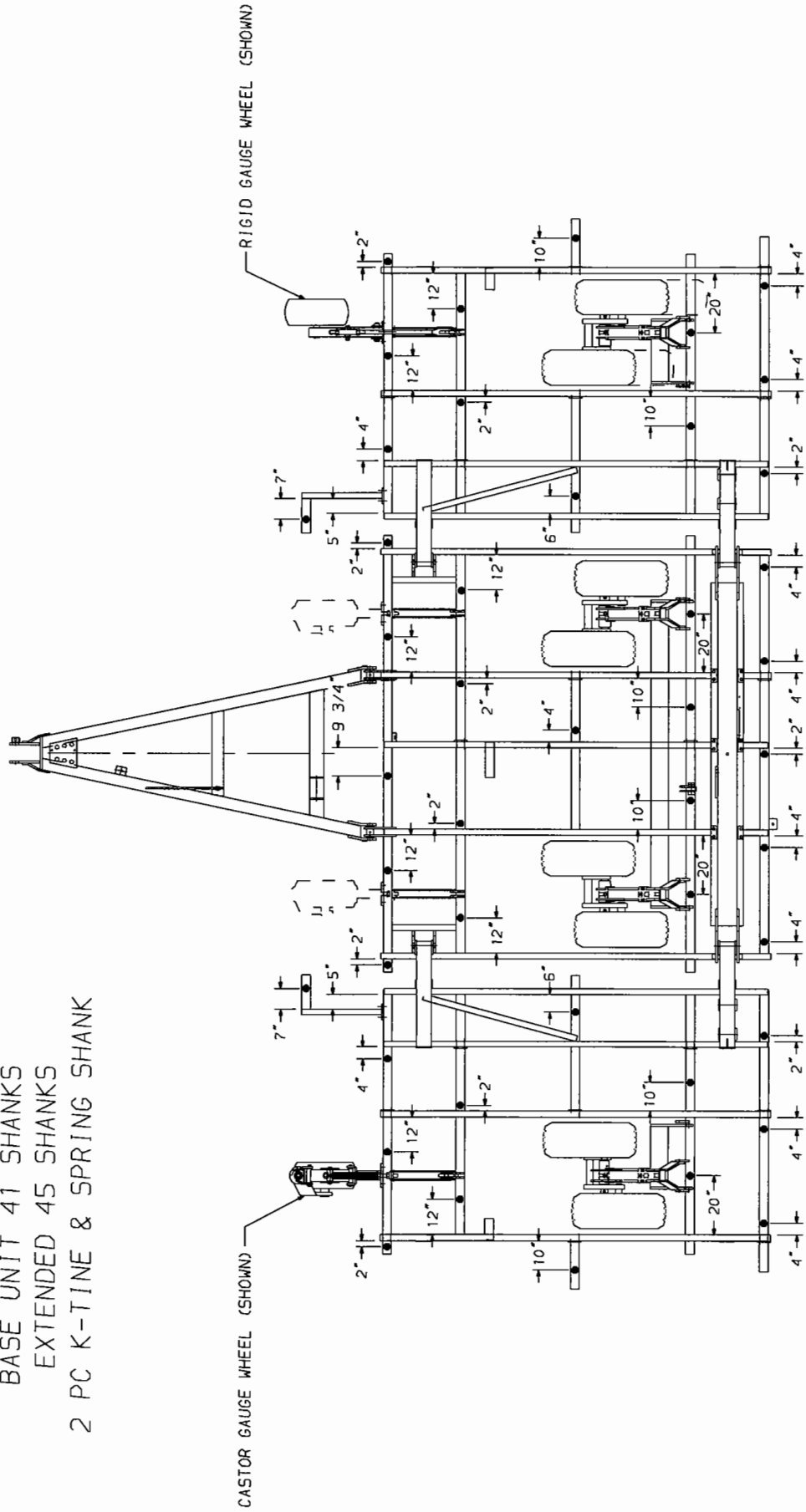
MODEL 5630-28

SPRING SHANK 6" SPACING
BASE UNIT 55 SHANKS
EXTENDED 61 SHANKS



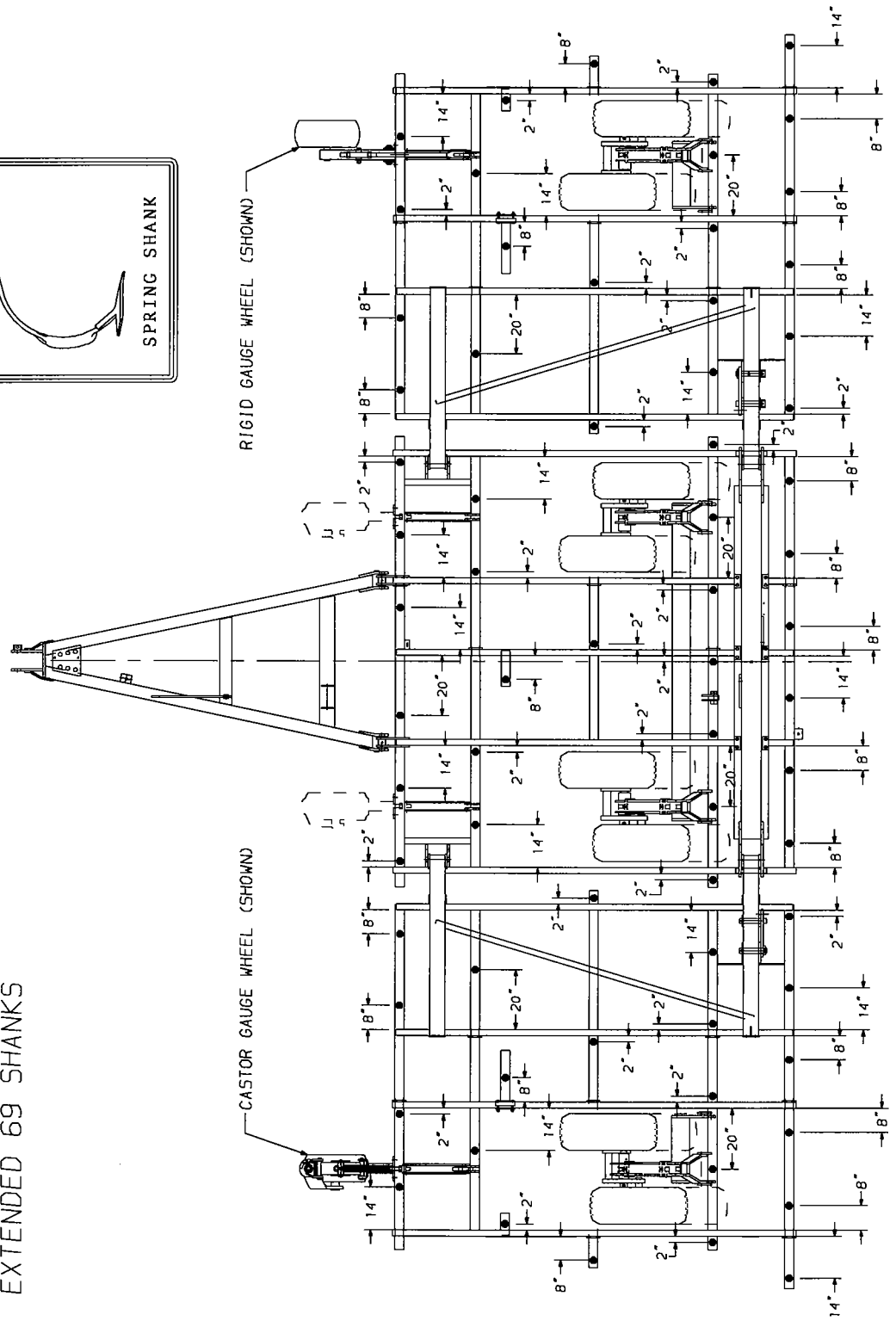
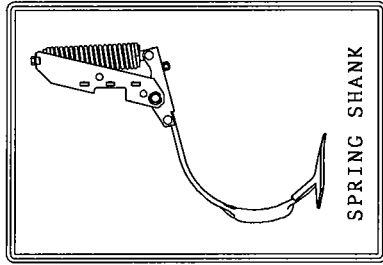
MODEL 5630-28

8" SPACING
BASE UNIT 41 SHANKS
EXTENDED 45 SHANKS
2 PC K-TINE & SPRING SHANK



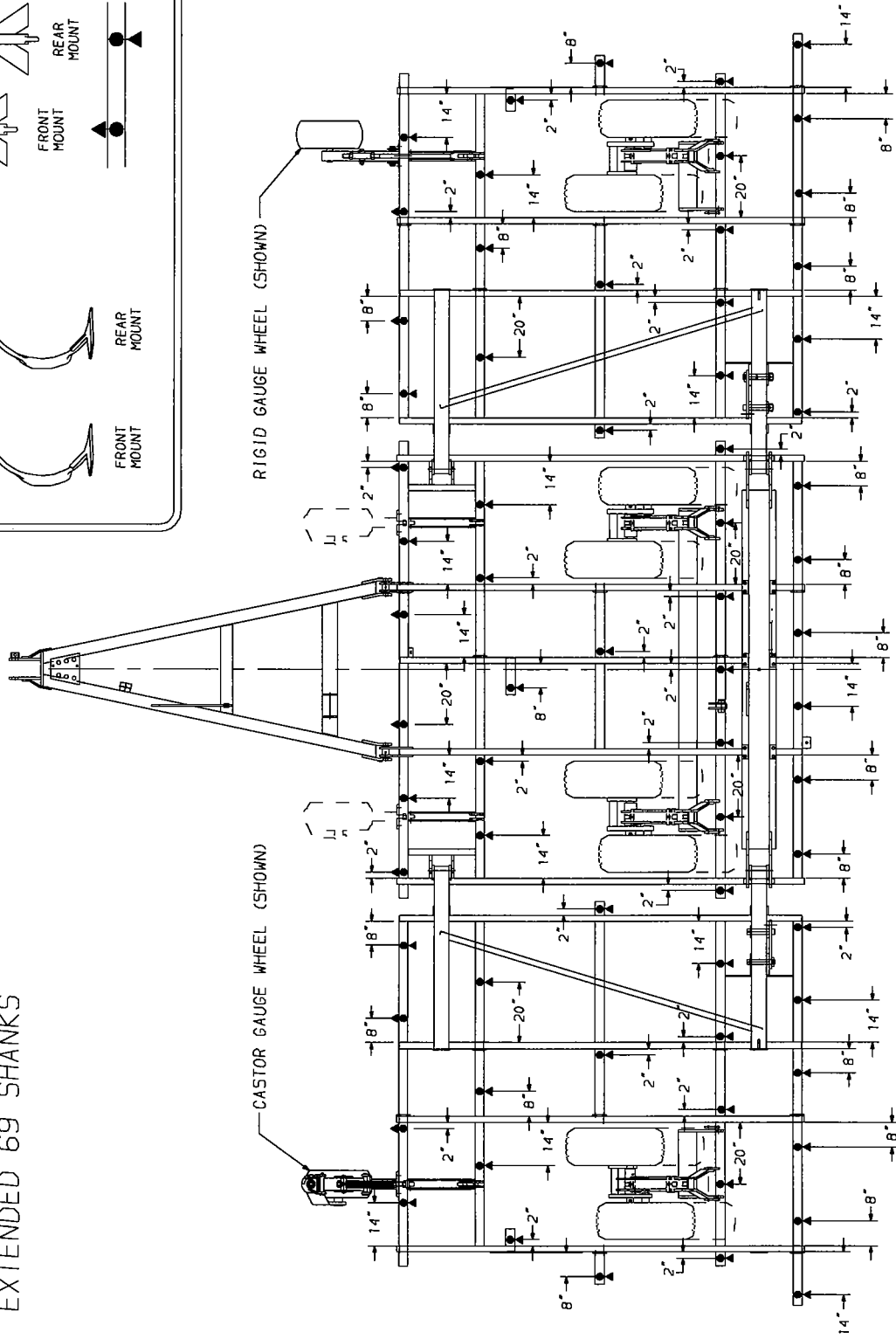
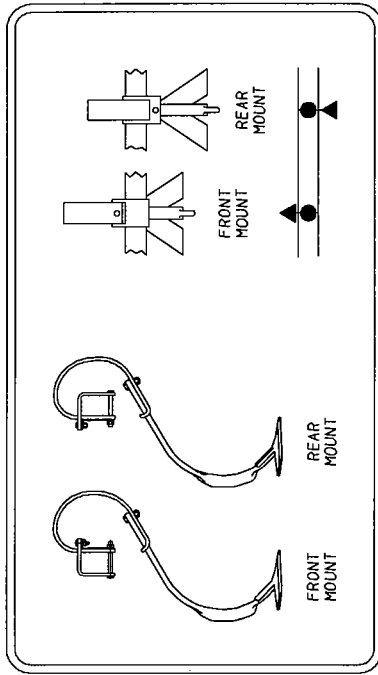
MODEL 5630-32

SPRING SHANK 6" SPACING
BASE UNIT 63 SHANKS
EXTENDED 69 SHANKS



MODEL 5630-32

2-PC K-TINE 6" SPACING
BASE UNIT 63 SHANKS
EXTENDED 69 SHANKS



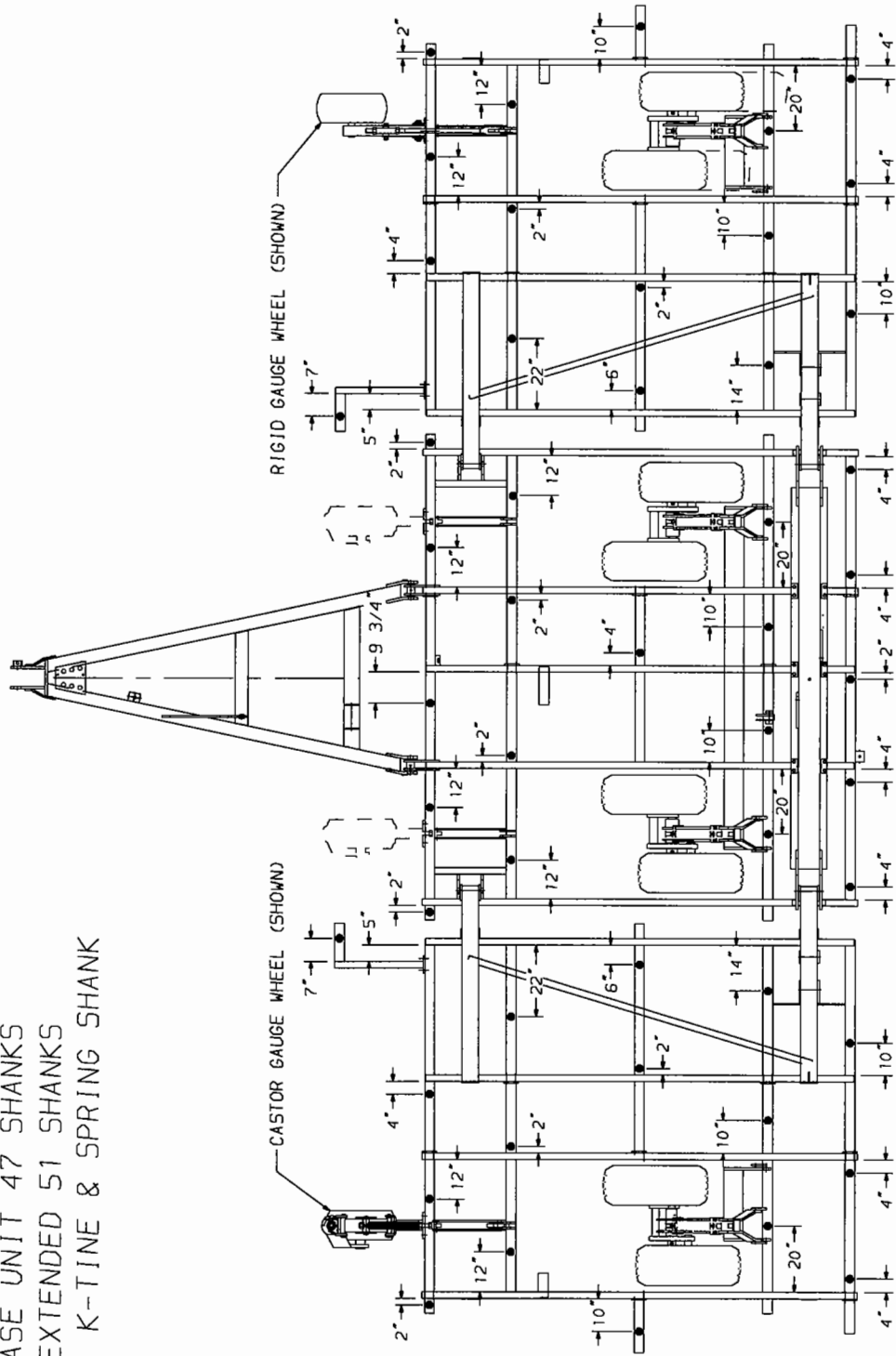
MODEL 5630-32

8" SPACING

BASE UNIT 47 SHANKS

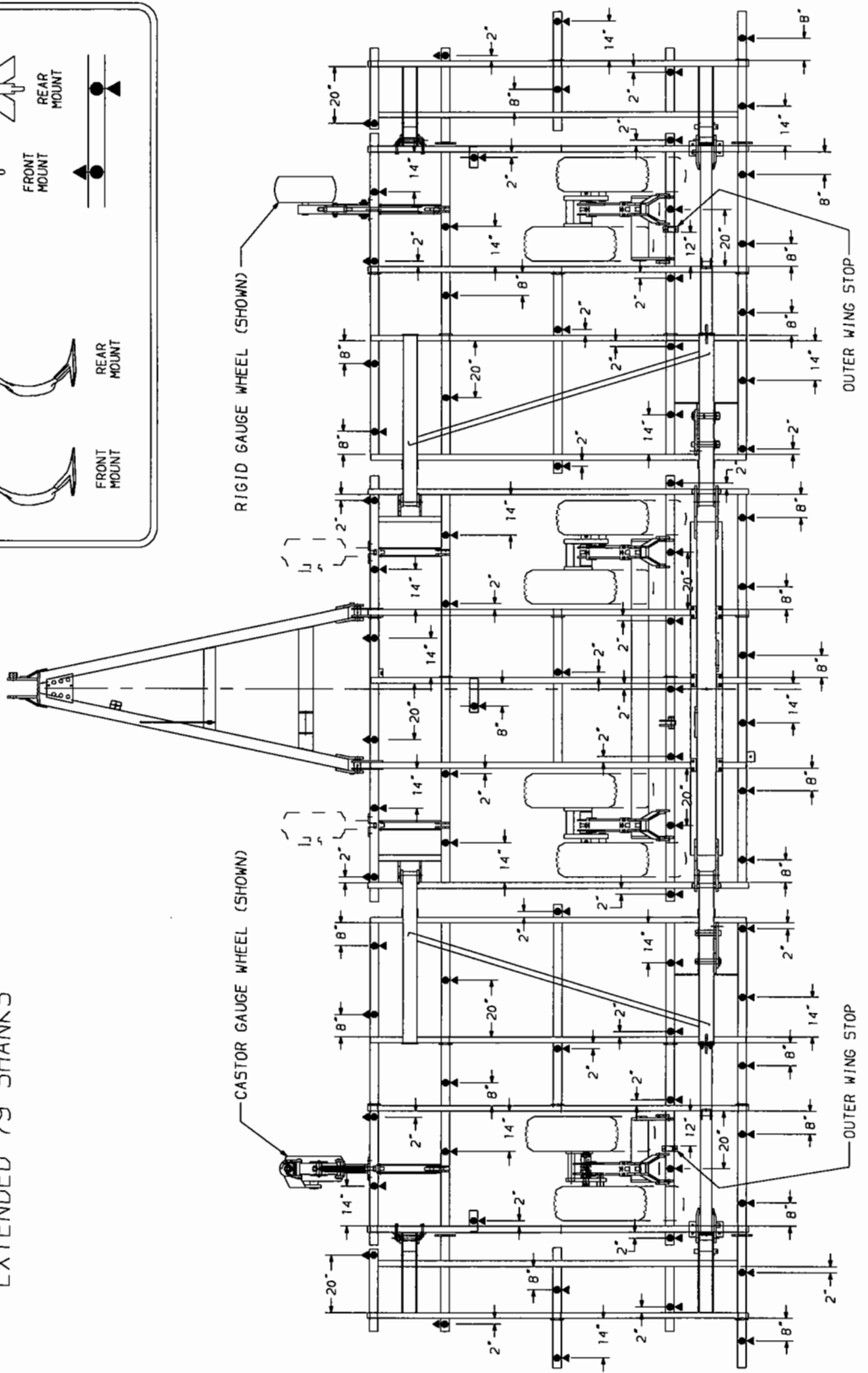
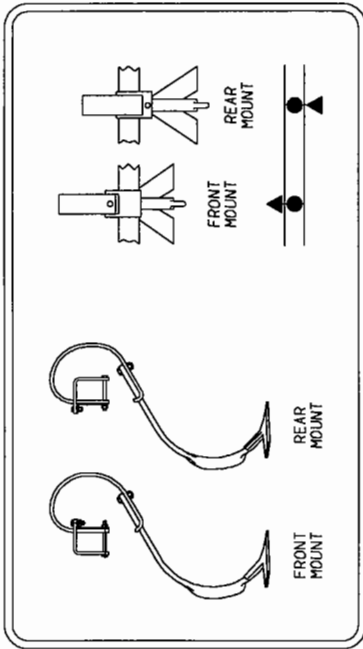
EXTENDED 51 SHANKS

2 PC. K-TINE & SPRING SHANK



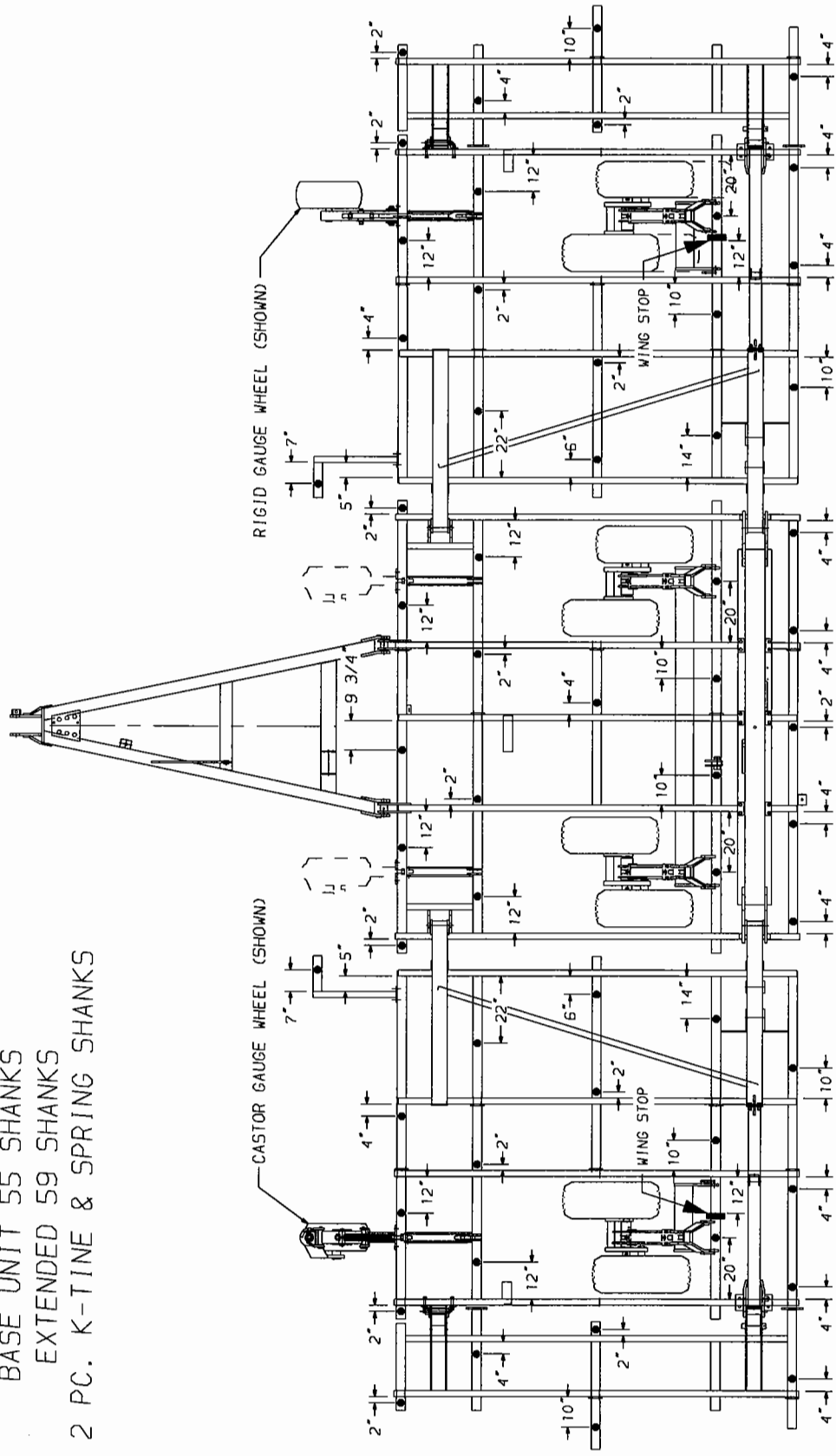
MODEL 5630-36

2-PC K-TINE 6" SPACING
BASE UNIT 73 SHANKS
EXTENDED 79 SHANKS



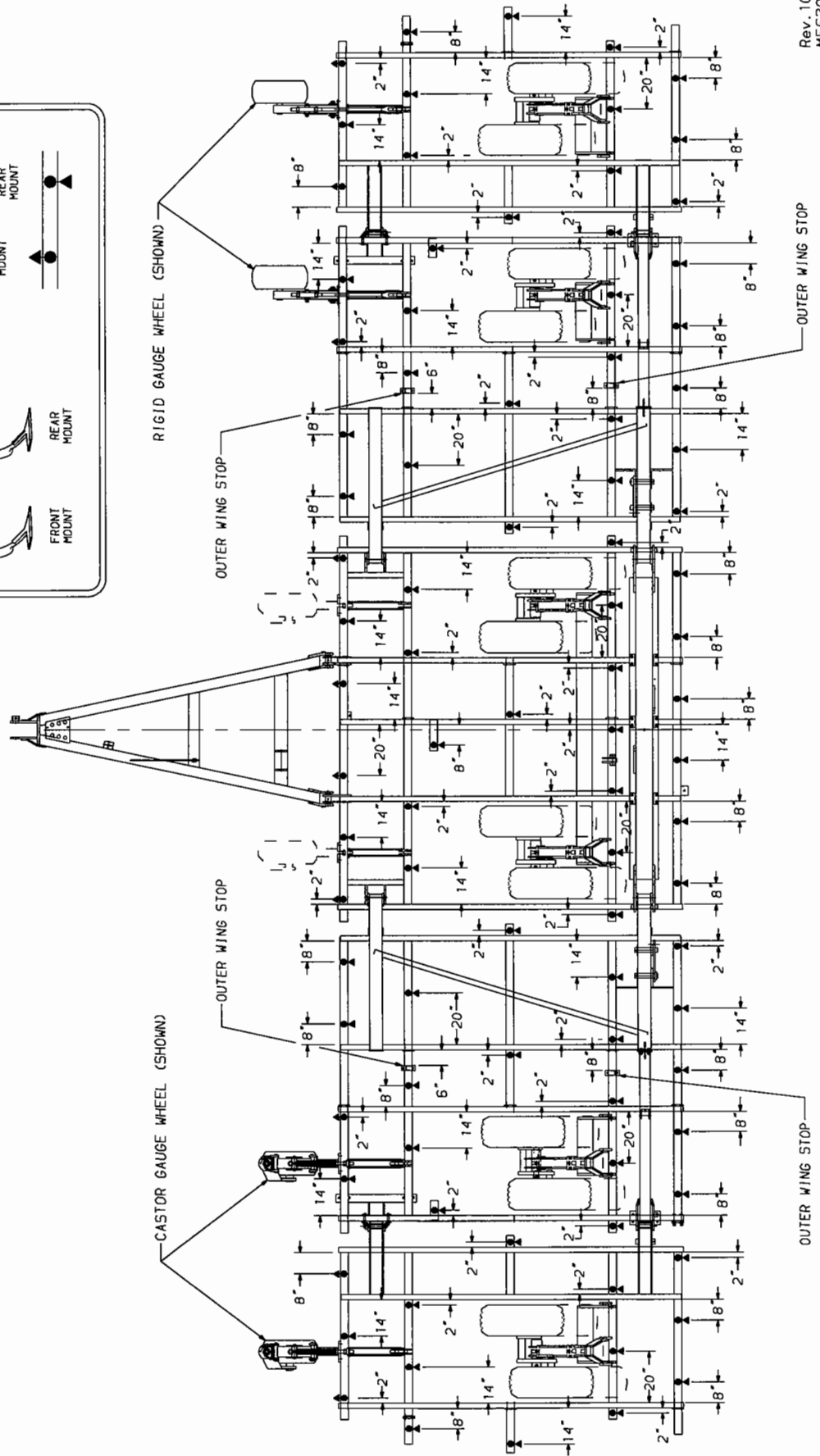
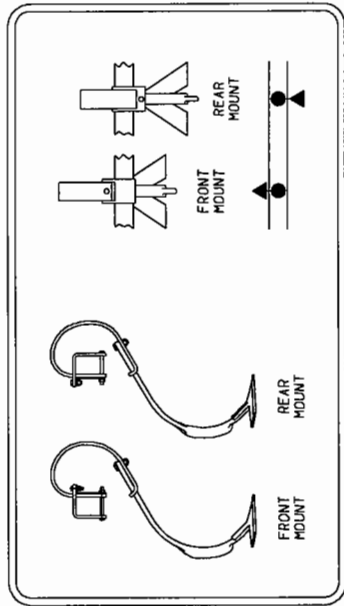
MODEL 5630-36

8" SPACING
BASE UNIT 55 SHANKS
EXTENDED 59 SHANKS
2 PC. K-TINE & SPRING SHANKS



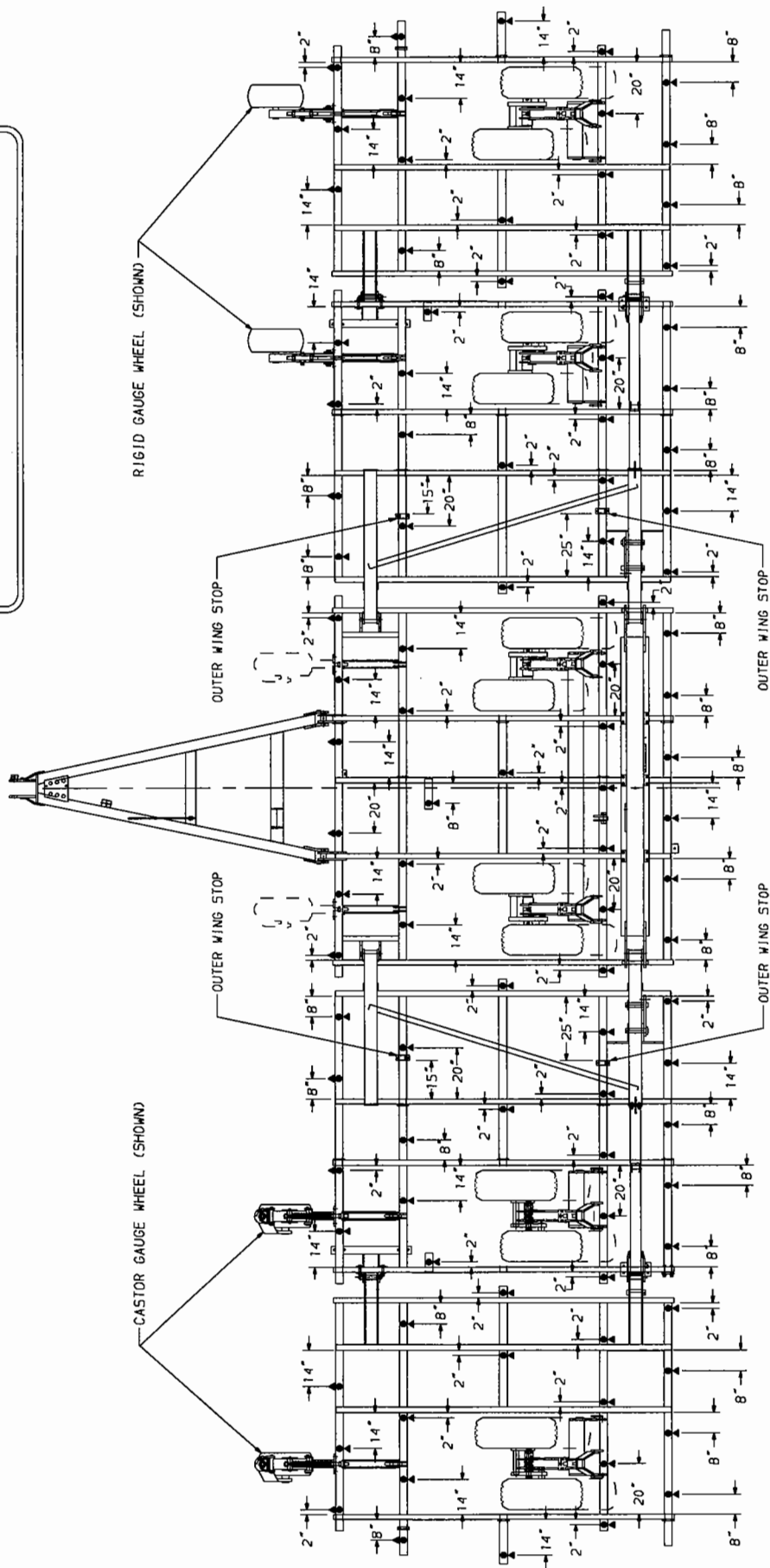
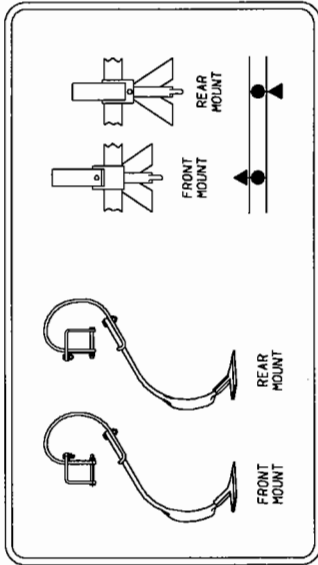
MODEL 5630-44

2-PC K-TINE 6" SPACING
 BASE UNIT 87 SHANKS
 EXTENDED 93 SHANKS



MODEL 5630-48

2-PC K-TINE 6" SPACING
 BASE UNIT 95 SHANKS
 EXTENDED 101 SHANKS



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SAFETY FIRST

Be observant and safety minded. Recognize and correct or avoid hazardous conditions before an accident can happen. Most accidents can be prevented by practicing simple fundamental safety rules.

1. Read and understand the implement and tractor owner's manuals before operating.
2. Be sure safety decals and reflectors are clean and in place.
3. Do not climb or walk on gangs or frames or tires.
4. Never position yourself under any portion of implement unless the transport lock is engaged or entire unit is lowered to the ground.
5. Stop engine before leaving the operator's position to adjust, lubricate, clean or unclog the machine.
6. Do not stand between the implement and tractor unless the tractor brakes are locked and engine is shut off.
7. Do not stand on or straddle a tongue when unhitching.
8. Always store a winged implement with the wings down.
9. Never remove locking pins until hydraulic cylinders and lines are full of oil and free of air. See Operating Instructions for proper method of removing air.
10. Never use machinery until all safety devices are in place.
11. Release all hydraulic pressure before shutdown periods.
12. Comply with Federal, State and local laws.
13. Use a Slow-Moving-Vehicle (SMV) emblem when transporting.
14. Always use a safety chain of tensile strength equal to the gross weight of the implement and attachments when roading.
15. Towing vehicle weight must exceed weight of towed implement.
16. Check wheel bolts before and during transport.
17. Always use wing locks and road locks to hold raised positions.
18. Never permit riders on implement.
19. Do not road an implement over 15 miles per hour on the best surface conditions. Reduce speed when going up or down hills and when approaching ditches.
20. Keep small children away from farm equipment.
21. Never modify an implement without permission from the Krause Engineering Department.
22. Always use authorized Krause parts.