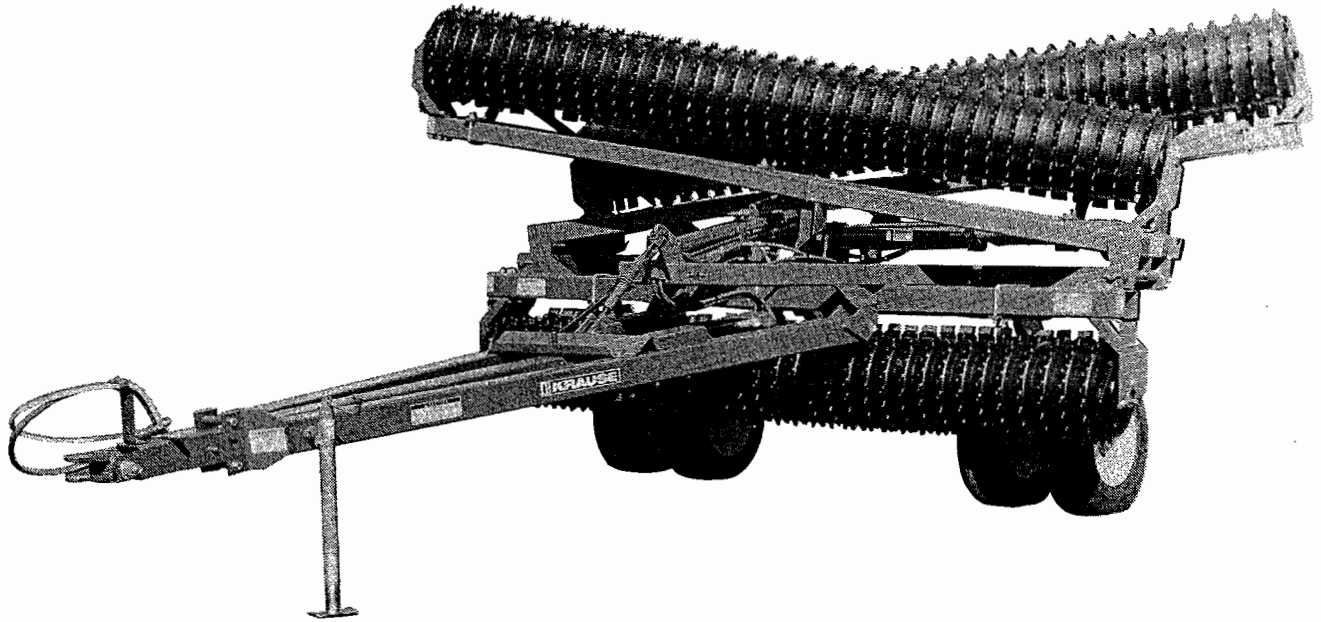




OWNER'S MANUAL

4 4 0 0

JUL 2000



FLEX WING PACKER

4400 SERIES

KRAUSE

305 SOUTH MONROE STREET HUTCHINSON, KANSAS 67501

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



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

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: 4400

This manual covers models beginning with Serial No. 1461

Owner's Manual #: 4400-1

Parts Manual #: 4400-2

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, tires, chisel 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.
- (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 owner's 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 owner's 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 operator's manual supplied with each serial numbered unit. The manual describes the safe and correct operating procedures of the specific product. The operator's 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.

**4400 SERIES WING PACKER
DEALER PREDELIVERY CHECK SHEET
TO BE CHECKED BY DEALER**

CUSTOMER _____ DATE _____

ADDRESS _____ COUNTY _____

DEALER _____

ADDRESS _____ COUNTY _____

MODEL NUMBER _____ 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 keys should be in place. Hydraulic system requires 14 Quarts for Models 4420 to 4430, and 17 Quarts for Models 4432 to 4436.
3. ___ Examine hydraulic hoses to see that they are protected from damage.
4. ___ Bolts attaching the spindle weldments to the rocker shaft should be tight. Check to see that bearings have been adjusted and greased.
5. ___ Check lug bolts holding wheels to the hubs to see that they are torqued at from 90 to 95 Ft. Lbs. / 120 N•m.
6. ___ The correct size tire, 9.5L x 15, 8-Ply with 44 PSI pressure should be on the implement.
7. ___ Check to see that bolts 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 slotted hex nut and cotter pin.
10. ___ Road lock is correctly installed and operates satisfactorily.
11. ___ Restrictors are installed in wing lift cylinder ports.
12. ___ All decals are in place per page P26 of this owner's manual.
13. ___ Customer review sheet is filled out and signed.
14. ___ Review lighting requirements. Light kits are standard.
15. ___ Check to see that the Owner's Manual is in the storage tube on the implement.
16. ___ Check to see that the SMV emblem is clean and in place.

DELIVERED BY: _____

DATE: _____

4400 SERIES WING PACKER CUSTOMER REVIEW SHEET

CUSTOMER _____ DATE _____

ADDRESS _____ COUNTY _____

DEALER _____

ADDRESS _____ COUNTY _____

MODEL NUMBER _____ 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 how the automatic road lock functions.
7. ___ Explain the ratchet jack hitch adjustment and why it is necessary.
8. ___ Explain the proper use of telescoping hitch (Models 4428–4436 ONLY).
9. ___ Explain the importance of maintaining the tools through lubrication, checking that bolts are kept tight, and replacement of worn or broken parts.
10. ___ Recommend that a safety chain be used with the tool.
11. ___ Check wheel lug bolts frequently until they become set.
12. ___ Explain lighting requirements for your area.

DEALER: _____ DATE _____

CUSTOMER: _____ DATE _____

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Rev.12/99

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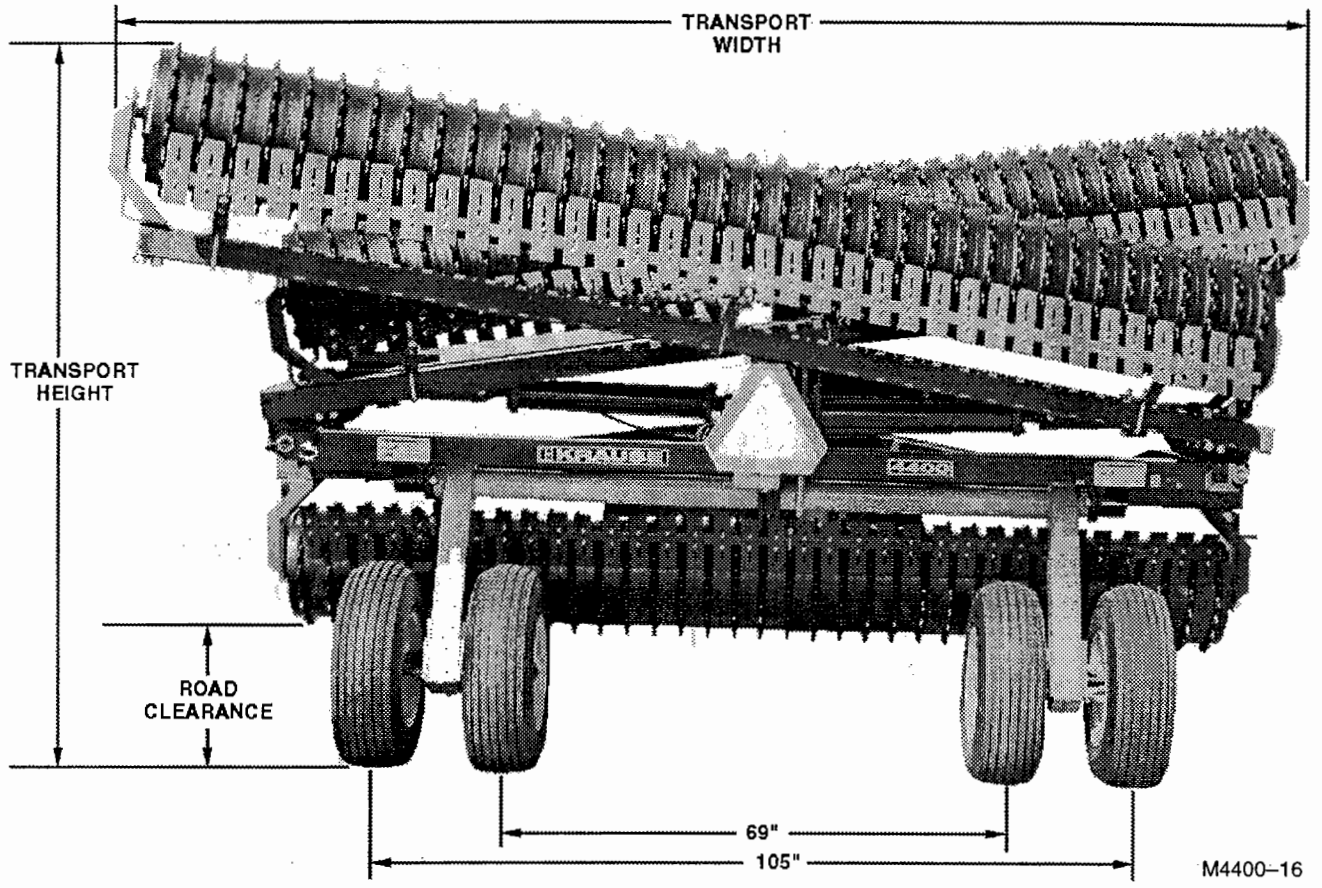
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4400 SERIES FOLDING PACKER SPECIFICATIONS

MODEL	TOTAL CUT WIDTH	TOTAL PACKER WHEELS	CENTER CUT WIDTH	CENTER PACKER WHEELS	WING CUT WIDTH	WING PACKER WHEELS
★ 4420	19' 8"	59	11' 8"	35	4' 0"	12
4420	20' 4"	61	11' 8"	35	4' 4"	13
★ 4422	21' 8"	65	11' 8"	35	5' 0"	15
4422	22' 4"	67	11' 8"	35	5' 4"	16
★ 4424	23' 8"	71	11' 8"	35	6' 0"	18
4424	24' 4"	73	11' 8"	35	6' 4"	19
★ 4426	25' 8"	77	11' 8"	35	7' 0"	21
4426	26' 4"	79	11' 8"	35	7' 4"	22
★ 4428	27' 8"	83	11' 8"	35	8' 0"	24
4428	28' 4"	85	11' 8"	35	8' 4"	25
★ 4430	29' 8"	89	11' 8"	35	9' 0"	27
4430	30' 4"	91	11' 8"	35	9' 4"	28
★ 4432	31' 8"	95	11' 8"	35	10' 0"	30
4432	32' 4"	97	11' 8"	35	10' 4"	31
★ 4434	33' 8"	101	11' 8"	35	11' 0"	33
4434	34' 4"	103	11' 8"	35	11' 4"	34
★ 4436	35' 8"	107	11' 8"	35	12' 0"	36
4436	36' 4"	109	11' 8"	35	12' 4"	37
★ Eliminate (2) Packer Wheels & Slide Wing Gangs 4" Toward Center						



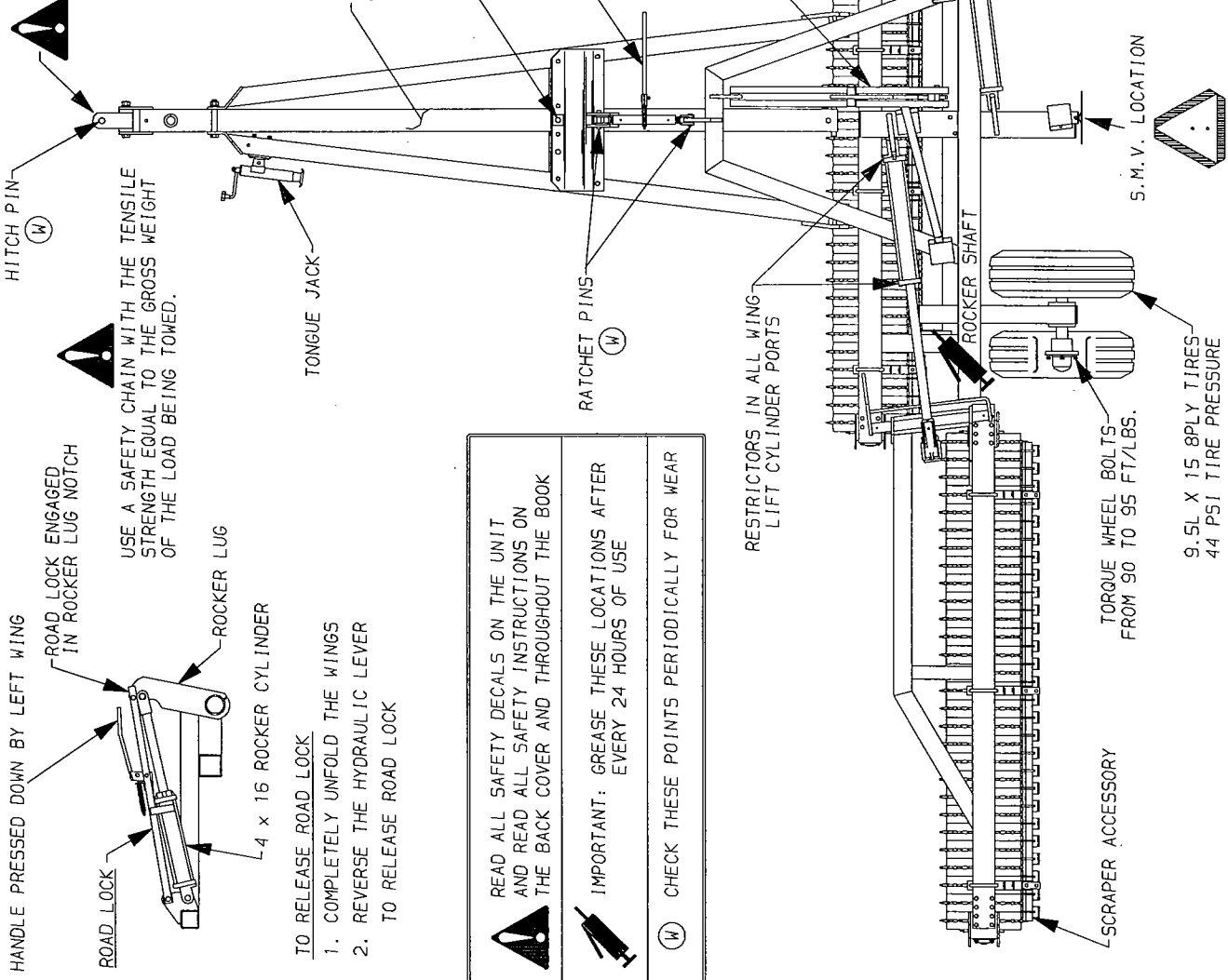
M4400-16

- Transport Width 12' 4" Models 4420-4434 13' 10" Model 4436
- Transport Height 6' 11" to 8' 4"
- Road Clearance 12"
- Recommended Horsepower ... Approximately 1 + Horsepower per foot of rolling width
- Hitch 1-1/4" Clevis Standard
- Drawbar Ratchet Jack Tongue Leveling, Telescoping Tongue
Models 4428-4436 (Extends from 13' 4" to 18' 4")
- Cylinders* 4 x 16 Cylinder ... 4 x 24 Wing Cylinders ... 4-1/2 x 24 Wing Cylinder
(All Models) (Models 4420 - 4430) (Models 4432 - 4436)
- Transport Locks Automatic Transport Lock on All Models
- Transport Wheels Single 9.5L x 15, 8-Ply for Models 4420 - 4426
..... Dual 9.5L x 15, 8-Ply for Models 4428 - 4436
- Roller Axles & Bearings Axles are 6-5/8" O.D. Steel Pipe - Regreaseable
Superseal Bearings
- Notched Rollers Cast Iron Notched Roller Wheels — Standard
- Optional Equipment Notched Ductile Iron Rollers
- Optional Equipment Scraper Kit for Notched Rollers
..... Dual Tires on Models 4420 - 4426

GENERAL INFORMATION

THE PACKER WILL BE "TAIL HEAVY" IF THE WINGS ARE FOLDED AND THE WEIGHT IS BEING CARRIED BY THE FRONT GANG. DO NOT UNHITCH FROM THE TRACTOR UNLESS THE ROCKER CYLINDER IS FULLY EXTENDED AND LOCKED OR THE WINGS HAVE BEEN UNFOLDED AND LOWERED TO THE GROUND.

READ OPERATING INSTRUCTIONS IN THIS BOOK FOR DETAILED INFORMATION



HANDLE PRESSED DOWN BY LEFT WING

ROAD LOCK ENGAGED IN ROCKER LUG NOTCH

ROCKER LUG

4 x 16 ROCKER CYLINDER

ROAD LOCK

ROCKER SHAFT

RESTRICTORS IN ALL WING LIFT CYLINDER PORTS

HINGE PINS

ALL CYLINDER PINS

BEARING ARMS

WHEEL HUBS

S.M.V. LOCATION

TORQUE WHEEL BOLTS FROM 90 TO 95 FT./LBS.

9.5L X 15 8PLY TIRES 44 PSI TIRE PRESSURE

SCRAPER ACCESSORY

W

TO RELEASE ROAD LOCK

1. COMPLETELY UNFOLD THE WINGS
2. REVERSE THE HYDRAULIC LEVER TO RELEASE ROAD LOCK

	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 24 HOURS OF USE
	CHECK THESE POINTS PERIODICALLY FOR WEAR

AUTOMATIC ROAD LOCK (LOCKS WHEN WINGS ARE FOLDED)

CUT WIDTH CAN BE REDUCED 8" BY REMOVING INSIDE WHEEL & SLIDING WING GANGS IN 4"

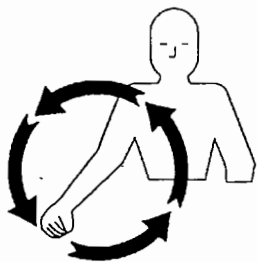
OPERATING SECTION

SAFETY ALERT SYMBOL

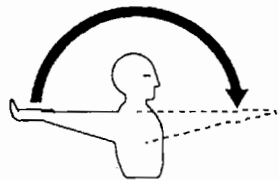


BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY.
THIS SYMBOL IDENTIFIES IMPORTANT SAFETY MESSAGES.
CAREFULLY READ THE MESSAGE THAT FOLLOWS.

TEN MOST COMMON HAND SIGNALS USED IN THE FIELD



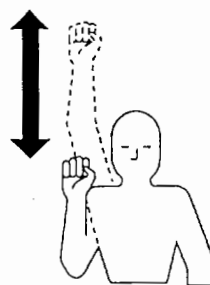
START
THE
ENGINE



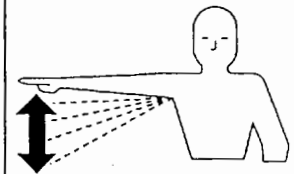
MOVE OUT
OR
TAKE OFF



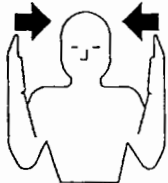
MOVE
TOWARD
ME



SPEED
IT UP



SLOW IT
DOWN



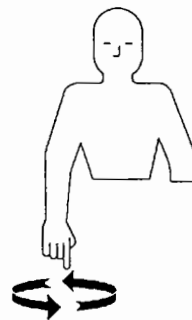
THIS FAR
TO GO



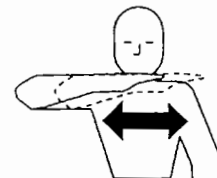
STOP



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

<ol style="list-style-type: none"> 1. Stop tractor engine and set hand brake before working on or under implement. 2. Do not allow anyone to ride on implement. Do not allow anyone on tractor except operator. 3. Make certain that everyone is clear before moving implement or 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 or implement could overturn. 	<ol style="list-style-type: none"> 5. Before transporting, install wing locks, transport locks, and safety chain. The towing vehicle must weigh more than the implement. 6. Before transporting, clean off reflectors and make certain SMV emblem is clearly visible. 7. Maximum transport speed is 15 MPH on best road surface. 8. Store with wings and implement on ground. 9. Lower wings when working on or around implement. 10. Regularly inspect bolts & pins in hitch, wheel hubs, cylinders & transport locks.
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

74-117

! 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.




INSPECT the hose assembly before each use.

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.

74-276

! WARNING



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

BE AWARE OF THE IMPLEMENT TRANSPORT WIDTH AND HEIGHT. WATCH WIDTH AND HEIGHT CLEARANCES WHEN MOVING THE IMPLEMENT.

HARROW ATTACHMENTS WILL ADD TO TRANSPORT HEIGHT AND WIDTH. FOR YOUR SAFETY, MEASURE OVERALL WIDTH AND HEIGHT OF THE IMPLEMENT AFTER INSTALLING HARROWS OR ANY OTHER ATTACHMENT TO THE IMPLEMENT.

74-121

! WARNING

CYLINDERS MUST BE CHARGED WITH OIL BEFORE IMPLEMENT OR WINGS ARE LOWERED. LOWERING WITHOUT PURGING ALL AIR FROM THE HYDRAULIC CYLINDERS MAY RESULT IN PERMANENT AND EXTENSIVE DAMAGE.

1. Remove rod end pins from cylinders.
2. Block up rod end of cylinder to allow freedom of movement while extending and retracting cylinder rod.
3. Cycle cylinder sufficient times to remove all air.
4. Reconnect cylinder rod end pin.

74-113

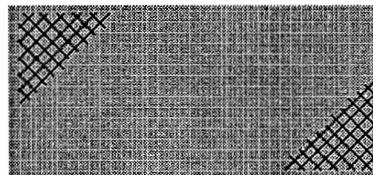
! WARNING



PINCH POINT
STAY CLEAR OF
THE LATCH
AREA!

SERIOUS PERSONAL
INJURY MAY OCCUR.

74-348



74-107 AMBER REFLECTOR



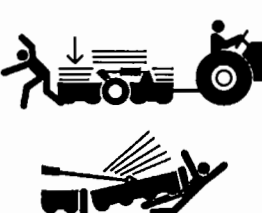
74-108 RED REFLECTOR

! CAUTION

BOTH ROAD LOCKS MUST
BE IN PLACE BEFORE
TRANSPORTING.

74-365

! WARNING



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

1. Keep everyone clear when raising or lowering implement.
2. Install all transport lock pins when working on or under implement.
3. Check for adequate overhead and side-to-side clearance before raising or lowering wings.
4. Make certain all hydraulic systems are full of oil and free of air before raising or lowering wings or implement. Check operator's manual for detailed instructions.

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OPERATING INSTRUCTIONS



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.

ABOUT YOUR FLEX WING PACKER

This folding packer can be pulled behind your tractor by itself, for seedbed preparation, or as a secondary unit behind a field cultivator or disc harrow. Its purpose is to break down clods and other residue to improve the soil consistency which will allow better soil to seed contact during planting.

This tool can be pulled over a wide range of field speeds ranging from 3 to 7 mph. In extreme rocky conditions, it is recommended that the packer be equipped with optional ductile iron packer wheels and that the field speed be reduced to 5 mph.

Horsepower requirements will be 1 to 2 horsepower per foot of cut.

Some of the features of this packer include ratchet jack tongue leveling, automatic road lock, compact folding, long tongue for shorter turns, adjustable cut width, and easy bearing replacement.

PREPARING THE PACKER FOR OPERATION



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.

1. Inspect for any loose bolts.
2. Check tire pressure. Inflate 9.5L x 15, 8-Ply tires to 44 PSI.
3. Check bearing arm bolts.
4. Check all cylinder pins.



Caution: Frequently check to see that the wheel lug bolts are torqued 90 to 95 Ft. Lbs., particularly during the initial transporting and operating of the tillage tool. The bolts may work loose, resulting in the loss of a wheel and subsequent loss of control of the tool and / or tractor.

5. Make sure that all grease zerk locations have been sufficiently greased. Grease zerks will be found on the rocker shaft bearings, regreaseable packer gang bearings, wing hinges, ratchet jack, and wheel hubs.

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 that they are in working order.

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.

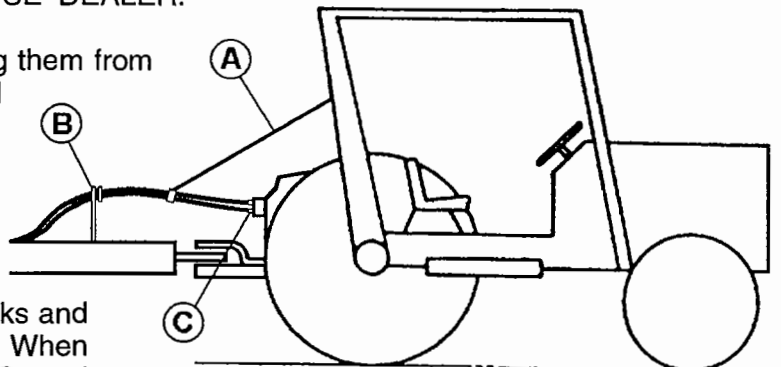
THE FOLLOWING WARNINGS PERTAIN TO THE MORE COMMON ABUSES OF HYDRAULIC HOSE:

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.
3. **DO NOT EXCEED** the maximum recommended working pressure of the hose.
4. **DO NOT KINK** the hose assembly
5. **DO NOT BEND** the hose assembly beyond its minimum bend radius of 3.25 inches.
6. **DO NOT EXPOSE** to temperatures in excess of 225° Fahrenheit
7. **DO NOT USE AS A STRENGTH MEMBER** for pulling or lifting equipment.

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

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.



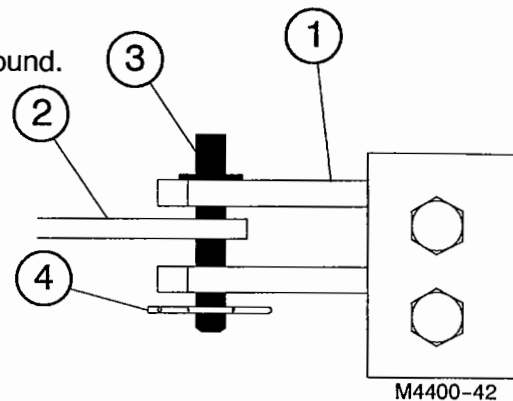
Inspect the hydraulic system for tell-tale leaks and loose fittings. Tighten if needed. When assembling your hydraulic system, if JIC and O-Ring fittings and hoses are to be used, the use of a tape or liquid sealer is not necessary. **MAKE SURE** a restrictor (YELLOW COLOR) is installed in the rod end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

HITCHING AND UNHITCHING

⚠ Caution: Do not allow any person to stand between the tractor and the 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 signal that the tractor is in park or neutral and the hand brake is set and engine is shut off.

HITCHING TO THE TRACTOR OR OTHER IMPLEMENT

1. The wing packer must be in one of the following two positions.
 - a) Raised and folded with road lock engaged.
 - b) Both center and wings have been lowered to the ground.
2. Unpin the tractor drawbar so it can be moved from side-to-side.
3. Back the tractor to the implement.
4. Attach clevis^① to drawbar^② with a clevis pin^③ that fits the hole size in the tractor drawbar. Make sure the pin is locked or bolted in place^④ to prevent loss.



UNHITCHING PACKER FROM THE TRACTOR

If the packer is not to be used for the remainder of the day, select a level piece of ground to park the implement.

If the packer is to remain parked for storage over a long period of time, be sure to read the storage suggestions on page O8 of this manual.

1. To unhitch the packer from the tractor, place the tractor in park or neutral and set the hand brake. Always block the tires to prevent damage to the jack.
2. With the packer wings folded and the automatic road lock engaged, turn off the tractor power and relieve any hydraulic pressure that might be in the system by moving the tractor control lever(s) back and forth.

Lower tongue jack, and raise the tongue height until the clevis pin can be removed.

IMPORTANT: THE PACKER WILL BE "TAIL HEAVY" IF THE WINGS ARE FOLDED AND THE WEIGHT IS BEING CARRIED BY THE FRONT GANG.

⚠ Caution: Do not unhitch from the tractor unless the rocker cylinder is fully extended and locked, or the wings have been unfolded and lowered to the ground.

TRANSPORTING

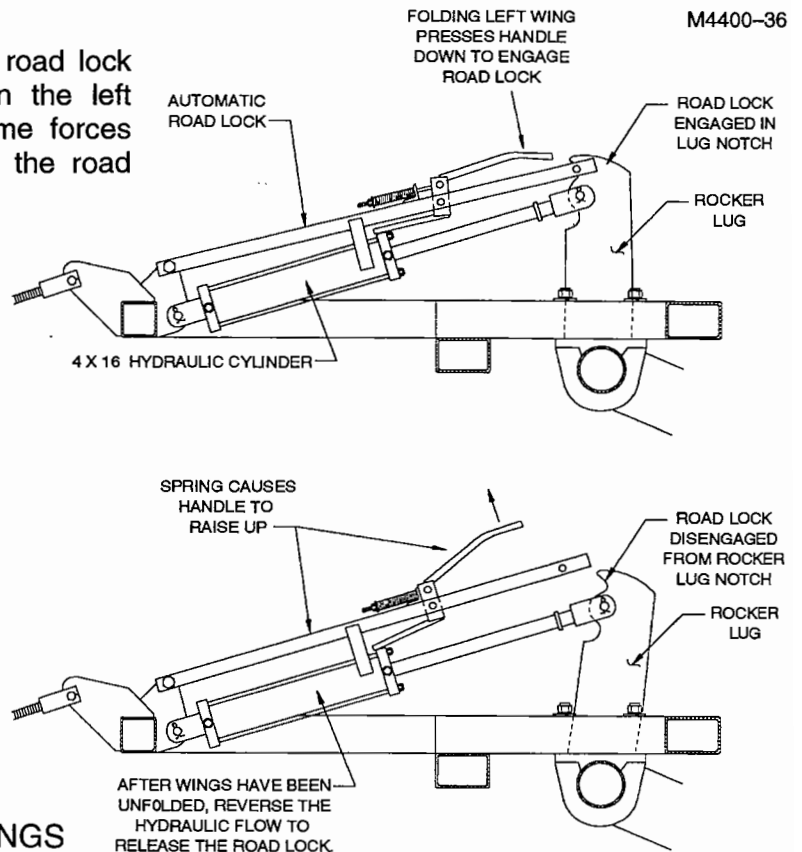
⚠ Warning: Always use the transport road locks when transporting the implement to prevent unit from falling due to hydraulic failure, or accidental activation of the operator's controls. Lowering of the tool during transport could result in loss of control of implement and / or tractor. The tractor drawbar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

⚠ Danger: 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.

ROAD LOCK

A. To **ENGAGE** Road Lock: The road lock is automatically engaged when the left wing is folded. The wing frame forces the handle down which allows the road lock pin to engage into the notch in the rocker lug.

B. To **RELEASE** Road Lock: The road lock can be disengaged by unfolding the wings completely and then reversing the hydraulic flow. Reversing the flow extends the rocker cylinder which allows the lock spring to raise the lock frame.



RAISING AND LOWERING THE WINGS

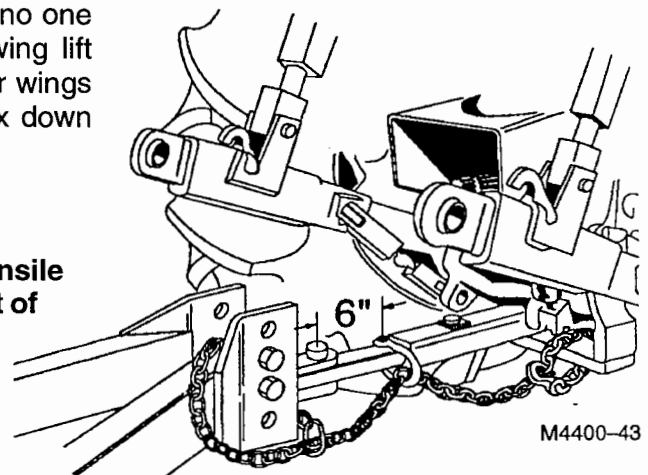
Warning: Always stand clear of the wings when raising or lowering. Hydraulic failure or accidental activation of the hydraulic controls could result in serious injury to anyone under the wings.

WARNING	
	<p>FAILURE OF HYDRAULIC COMPONENTS OR ACCIDENTAL OPERATION OF HYDRAULIC CONTROLS CAN ALLOW IMPLEMENTS OR WINGS TO FALL AND CAUSE SERIOUS BODILY INJURY OR DEATH!</p> <ol style="list-style-type: none"> 1. Keep everyone clear when raising or lowering implement. 2. Install all transport lock pins when working on or under implement. 3. Check for adequate overhead and side-to-side clearance before raising or lowering wings. 4. Make certain all hydraulic systems are full of oil and free of air before raising or lowering wings or implement. Check operator's manual for detailed instructions.
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The wings can be unfolded after you are sure no one is near the packer. It is important that the wing lift cylinders are fully extended to allow the packer wings to flex down. The wing should be able to flex down 6° or up 45°.

TRANSPORT SAFETY

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

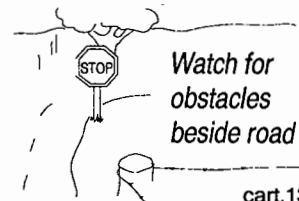


NOTE: A safety chain, SMV emblem, and a light kit were furnished as standard equipment with your implement. Make sure they are in place, clean and in working order.

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. 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.

⚠ Caution: Always check conditions of transport lock pins, tires, wheels, hubs, safety chain, hitch bolts, and clevis pin before transporting the wing packer.

Comply with state and local laws pertaining to lighting and road widths. Turn flashing lights whenever traveling on a highway except where it is prohibited by law. If the implement obscures the tractor warning lamp, a lamp must be added to the left of the implement. Transport during daylight hours only. Watch your clearance. Be aware of any obstacles on the side of the roadway that might be caught by the implement 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.



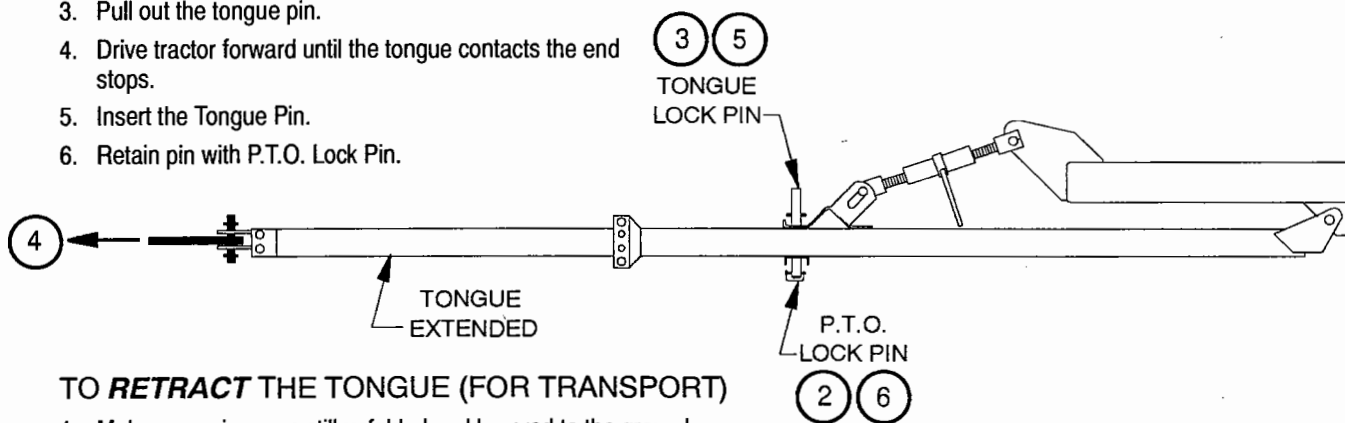
TELESCOPING TONGUE (MODELS 4428-4436)

Packer models 4428, 4430, 4432, 4434 and 4436 have an extendable tongue. The tongue can extend 5 feet for field operation, so that shorter turns can be made.

The tongue should be retracted for transporting.

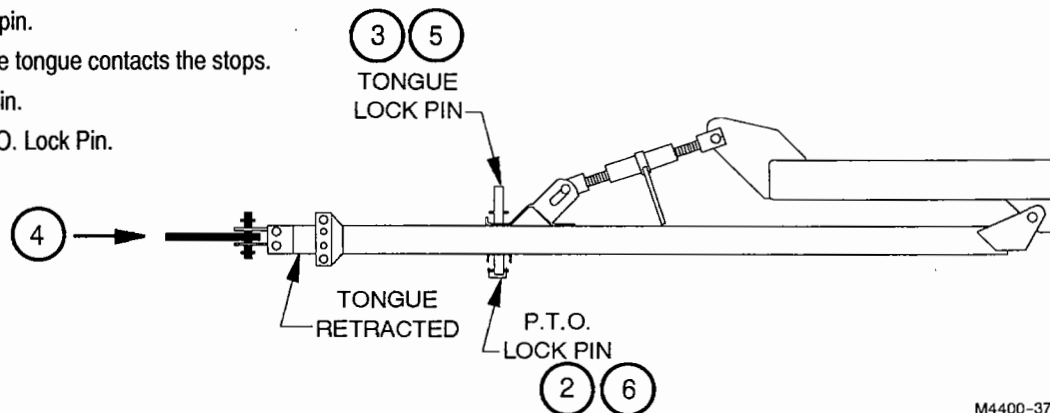
TO **EXTEND** THE TONGUE FOR FIELD OPERATION:

1. Unfold the wings and lower packer gangs down onto ground.
2. Remove P.T.O. Pins
3. Pull out the tongue pin.
4. Drive tractor forward until the tongue contacts the end stops.
5. Insert the Tongue Pin.
6. Retain pin with P.T.O. Lock Pin.

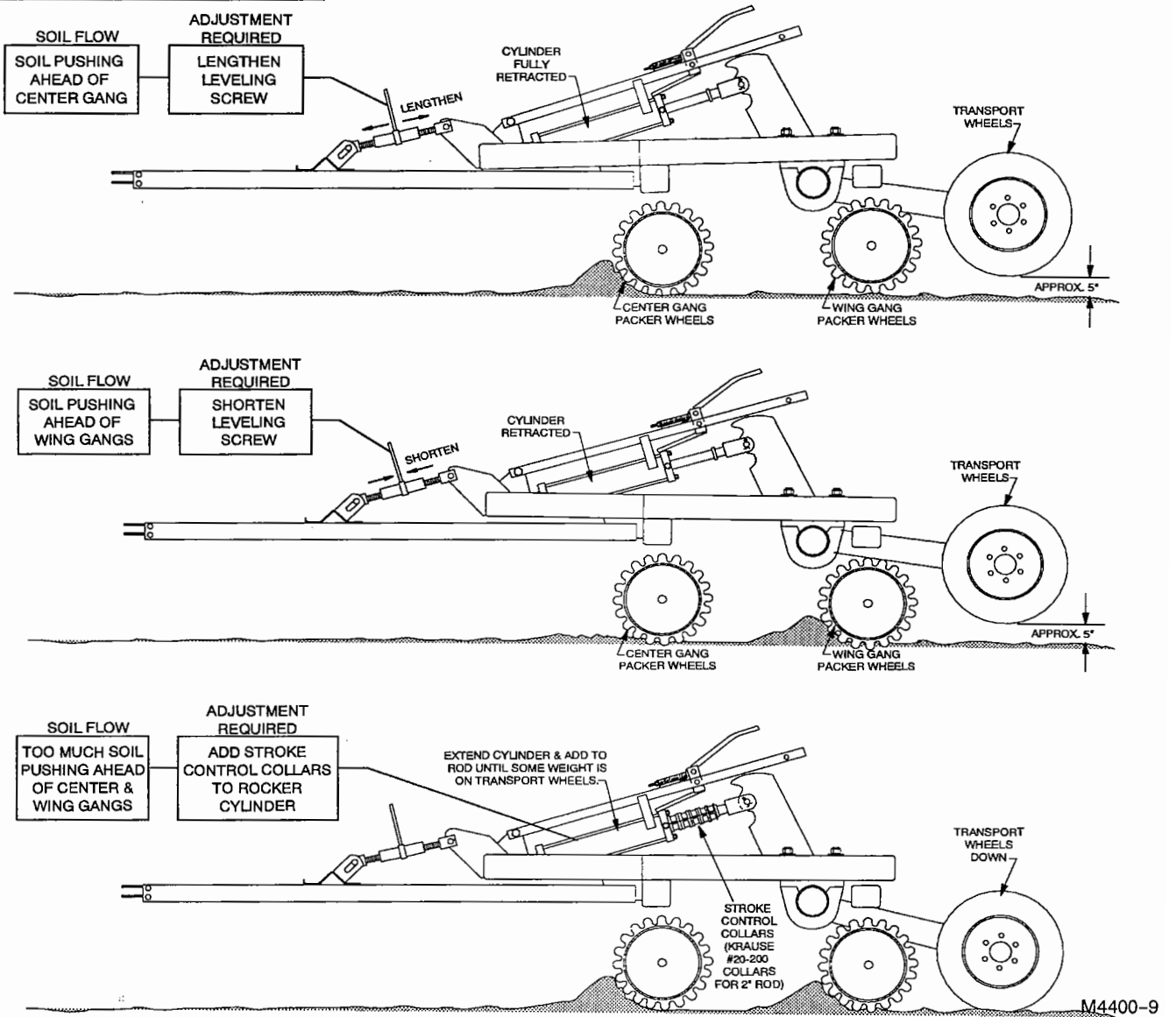


TO **RETRACT** THE TONGUE (FOR TRANSPORT)

1. Make sure wings are still unfolded and lowered to the ground.
2. Remove P.T.O. Lock Pin.
3. Pull out the tongue pin.
4. Back tractor until the tongue contacts the stops.
5. Insert the Tongue Pin.
6. Retain pin with P.T.O. Lock Pin.



FIELD ADJUSTMENTS

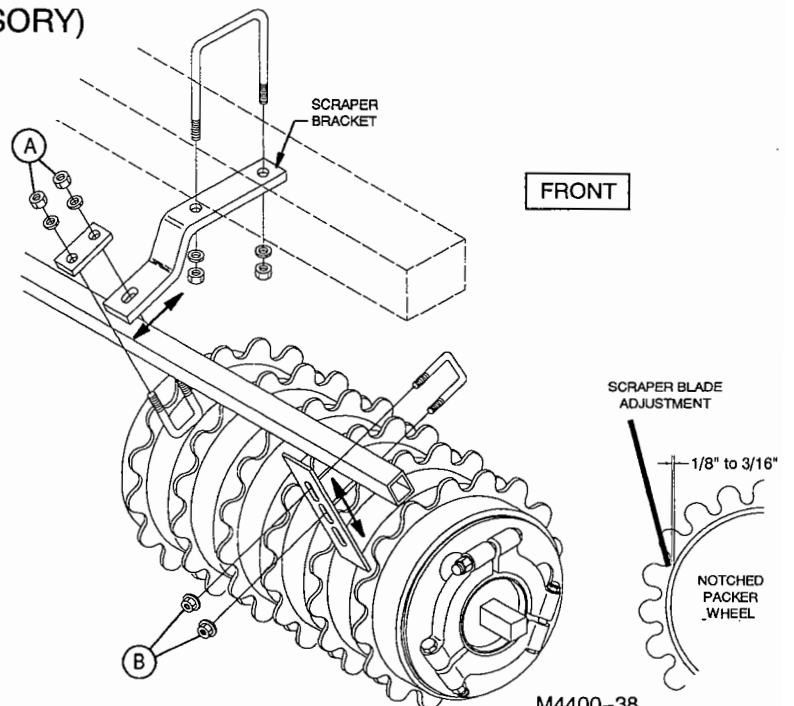


SCRAPER ADJUSTMENT (ACCESSORY)

Each scraper should be adjusted to approximately 1/8" from the packer wheel. This can be done two different ways.

- Loosen the scraper bracket U-Bolts and slide the entire scraper tube assembly to the front or back.
- Loosen each scraper U-Bolt and slide the scraper up or down.

NOTE: The scraper blades can be turned upside down after the original end wears out.



FIELD OPERATION

TURNING IN THE FIELD

It isn't necessary to raise the packer for turns, however, turns should be as wide as possible.

OPERATING IN ROCKY CONDITIONS

In extreme rocky conditions, it is recommended that the packer be equipped with optional ductile iron packer wheels instead of the cast iron wheels.

Field speed should be reduced to 5 M.P.H. or less to minimize the shock loads to the packer wheels.

STORAGE SUGGESTIONS

Store the packer with the wings folded and the automatic road lock engaged. Coat the 4 x 16 rocker cylinder rod with grease to prevent rust.

SERVICING

GENERAL MAINTENANCE

All nuts should be checked and tightened after the first day of operation, and periodically thereafter. Torque all wheel bolts from 90 to 95 Ft. Lbs.

LUBRICATION

Regreaseable gang bearings should be greased after each 48 hours of use under normal conditions and after long periods of storage. Rocker shaft bearings, wing hinges, ratchet jack and wheel hubs should be lubricated with multi-purpose type grease after each 2 hours of use.

IMPORTANT: For Your Safety: Lower implement to the ground. When lubricating or adjusting your packer, watch for obstructions or protrusions.

WHEEL BEARINGS

Grease wheel bearings every 24 hours of use. Check for excessive end play each time bearings are greased. Once a year, clean and repack wheel bearings. Replace seals each time bearings are removed. Replace any worn or damaged parts. Repack bearings with high-quality wheel bearing grease. After repacking, replace hub with seal and rear bearing already assembled. Use light oil on seal surface and use extreme care when pushing over the spindle. Install front bearing, flat washer, and slotted nut. Tighten nut while turning hub until there is resistance to rotation. Then back off nut 1 to 2 notches until hub turns freely without end play. Install new cotter pin and hub cap.

REPAIR PARTS

Refer to the Assembly Section of this owner's manual 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 manual will show a breakdown of assemblies, location of parts and part numbers.

It is recommended that KRAUSE replacement parts be used. KRAUSE PARTS WERE DEVELOPED AND TESTED FOR THESE IMPLEMENTS.



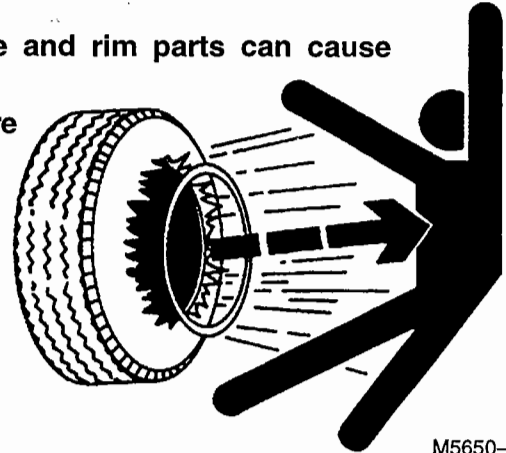
Caution: If replacing hydraulic hose, use only hose that meets or exceeds 3,000 PSI working pressure.

REPLACEMENT TIRES FOR THE CENTER SECTION MUST HAVE A MINIMUM CAPACITY OF 2,850 LBS. AT 20 M.P.H.

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

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

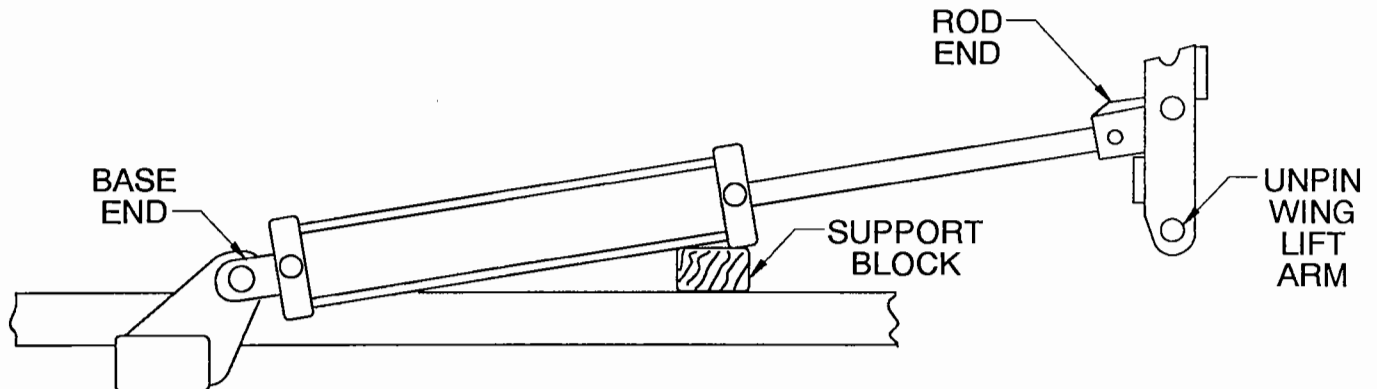
Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Inspect tires and wheels daily. Do not operate with low pressure, cuts or bubbles, damaged rims or missing lug bolts and nuts.



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HYDRAULICS

⚠ Caution: Unfold the wings and lower all packer gangs to the ground before attempting to unpin the wing lift arm weldments.



M4400-35



⚠ 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.

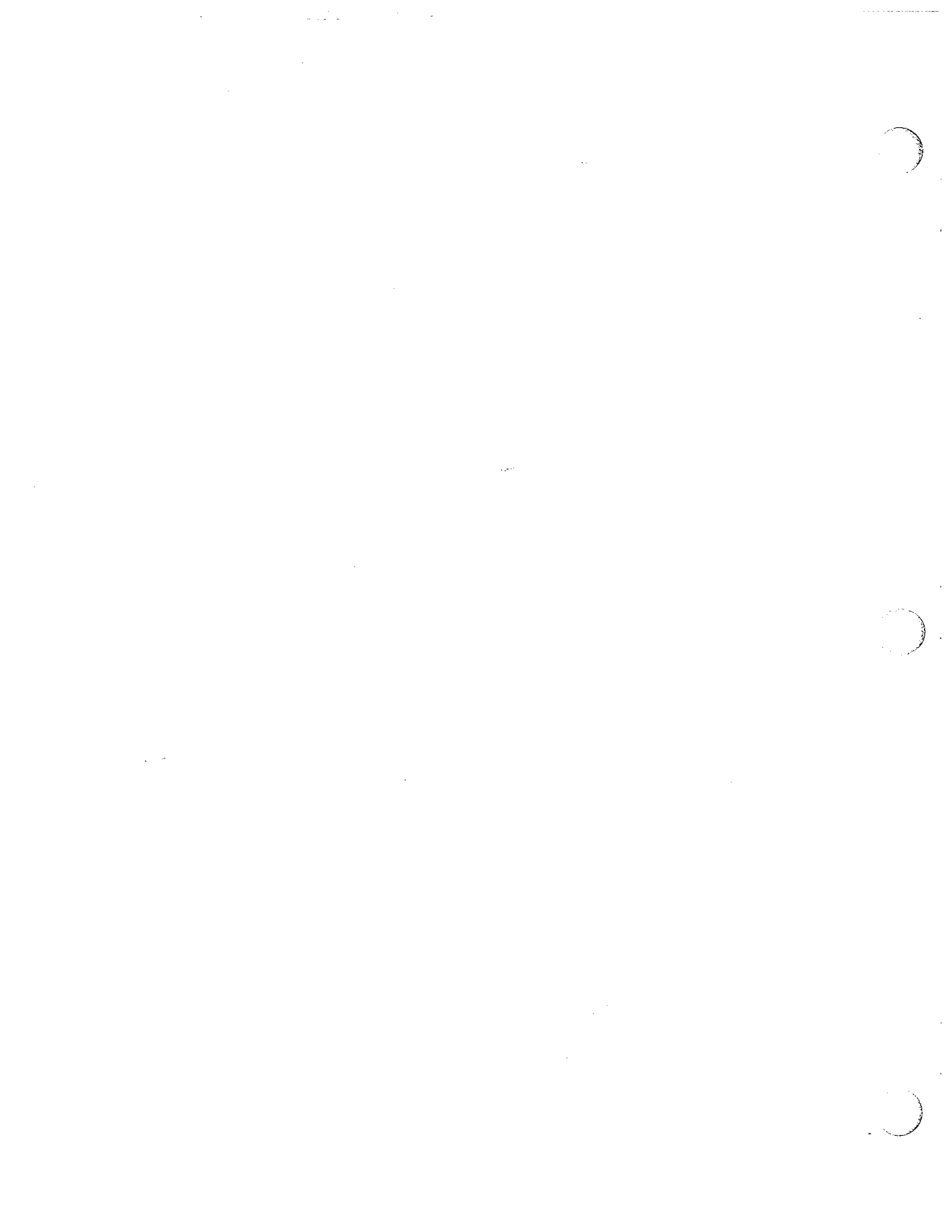
See page O3 in this manual for detailed hydraulic safety information.

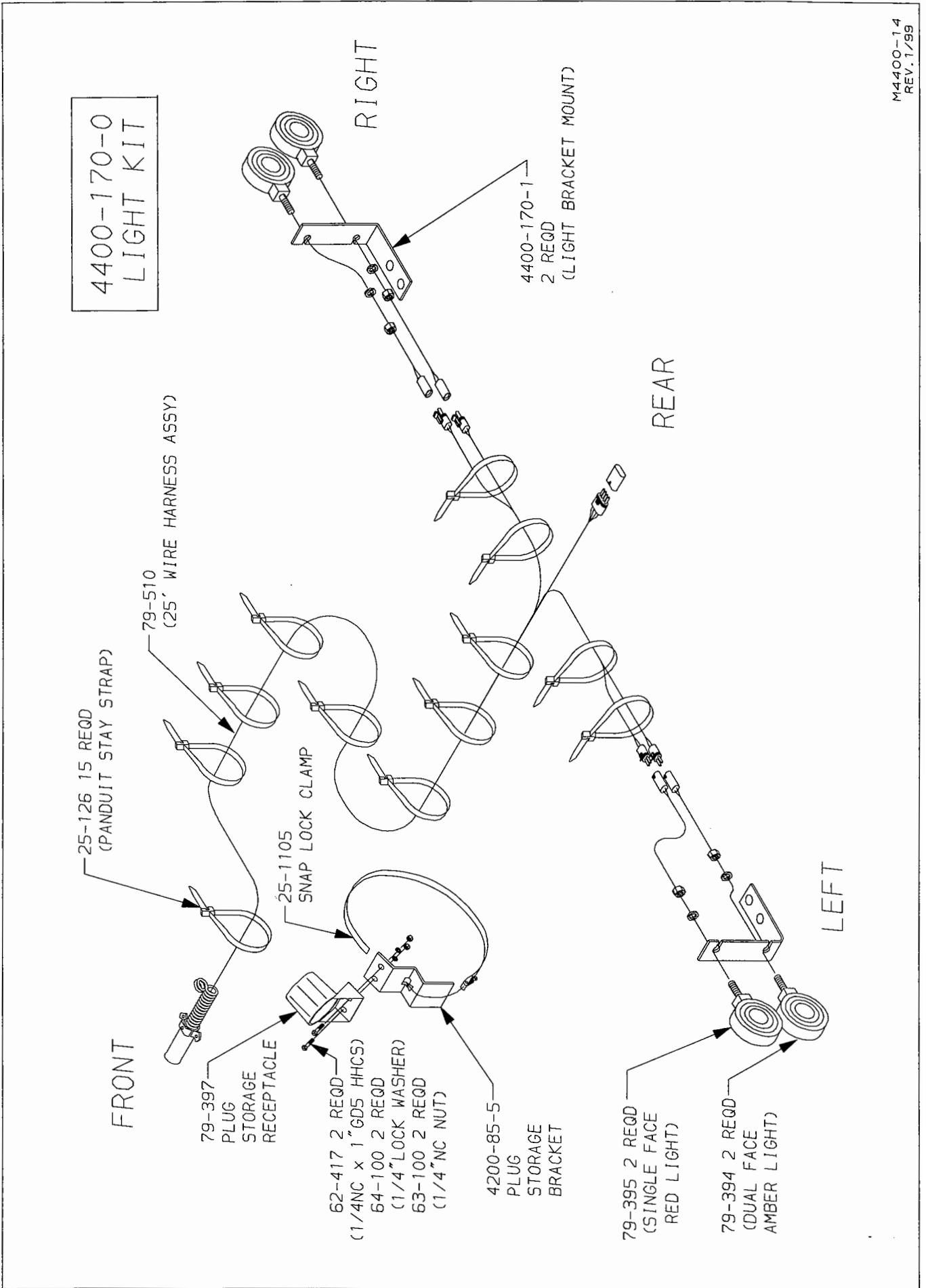
POSSIBLE REMEDIES FOR FIELD PROBLEMS

PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
SOIL PUSHING AHEAD OF CENTER GANG	Too much weight on center gang	Lengthen ratchet jack to transfer load to the wings.
SOIL PUSHING AHEAD OF WING GANGS	Too much weight on wing gangs	Shorten ratchet jack to transfer load to the center gang
SOIL PUSHING AHEAD OF BOTH CENTER AND WING GANGS	Too much weight on all gangs	Extend rocker cylinder to transfer some load to the transport wheel.
PACKER WHEELS HAVE EXCESSIVE WOBBLE	Gang Cap	Loosen gang cap U-Bolt and slide packer wheels together and retighten U-Bolt
TRANSPORT WHEELS WOBBLE	Loose wheel bolts	Immediately stop. Torque bolts from 90 to 95 Ft. Lbs.
	Loosen spindle nut	Tighten nut then back off 1 to 2 notches
PACKER WILL NOT RAISE OR LOWER	Automatic road lock	Reverse flow to release road lock
	Plugged restrictors	Check restrictors in wing lift cylinders
	No flow from tractor	Make sure hoses are fully coupled to tractor

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.





4400-170-0
LIGHT KIT

RIGHT

4400-170-1
2 REQD
(LIGHT BRACKET MOUNT)

REAR

LEFT

25-126 15 REQD
(PANDUIT STAY STRAP)

79-510
(25' WIRE HARNESS ASSY)

FRONT

79-397
PLUG
STORAGE
RECEPTACLE

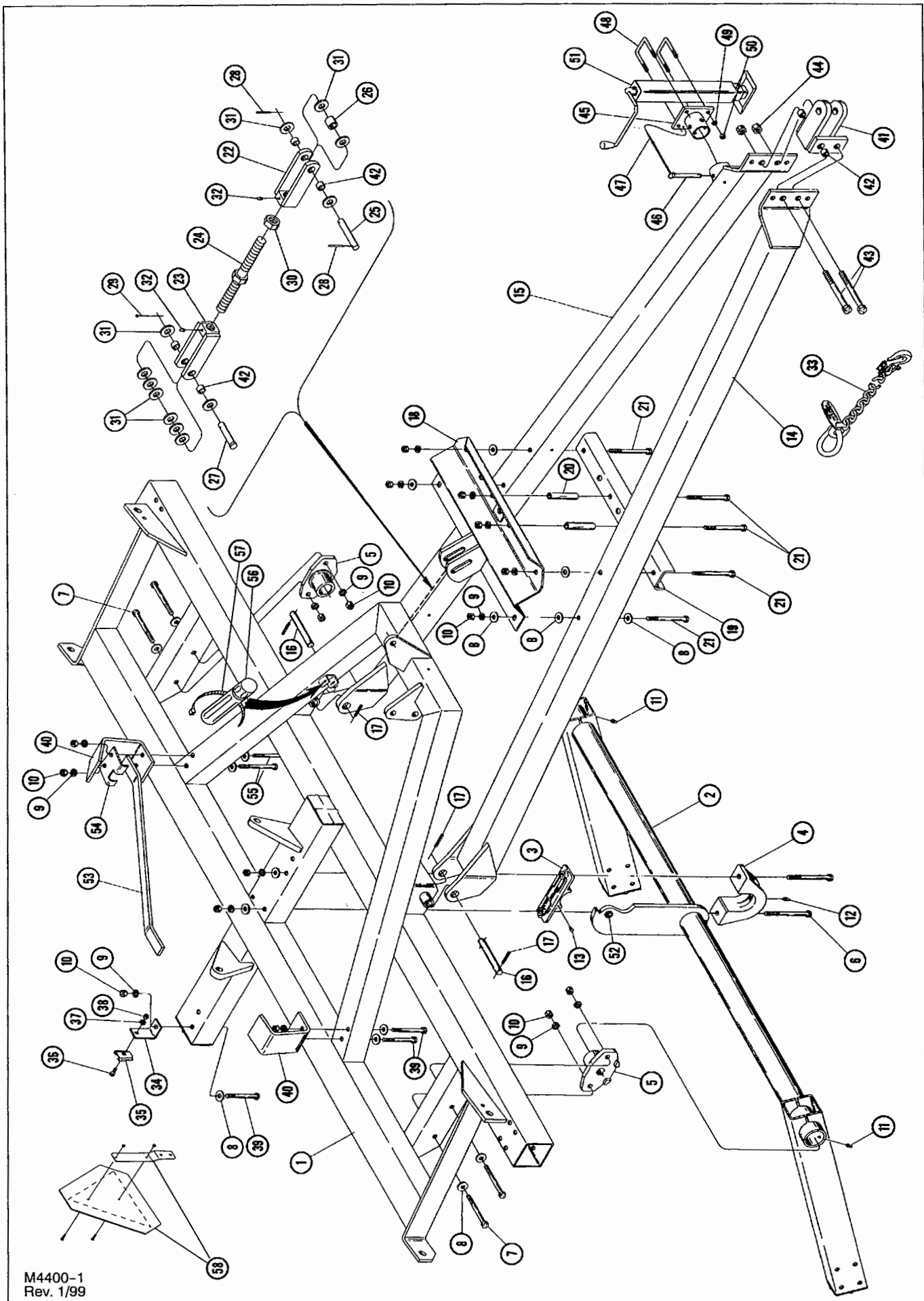
25-1105
SNAP LOCK CLAMP

62-417 2 REQD
(1/4NC x 1.6D5 HHCS)
64-100 2 REQD
(1/4\"/>

4200-85-5
PLUG
STORAGE
BRACKET

79-395 2 REQD
(SINGLE FACE
RED LIGHT)

79-394 2 REQD
(DUAL FACE
AMBER LIGHT)



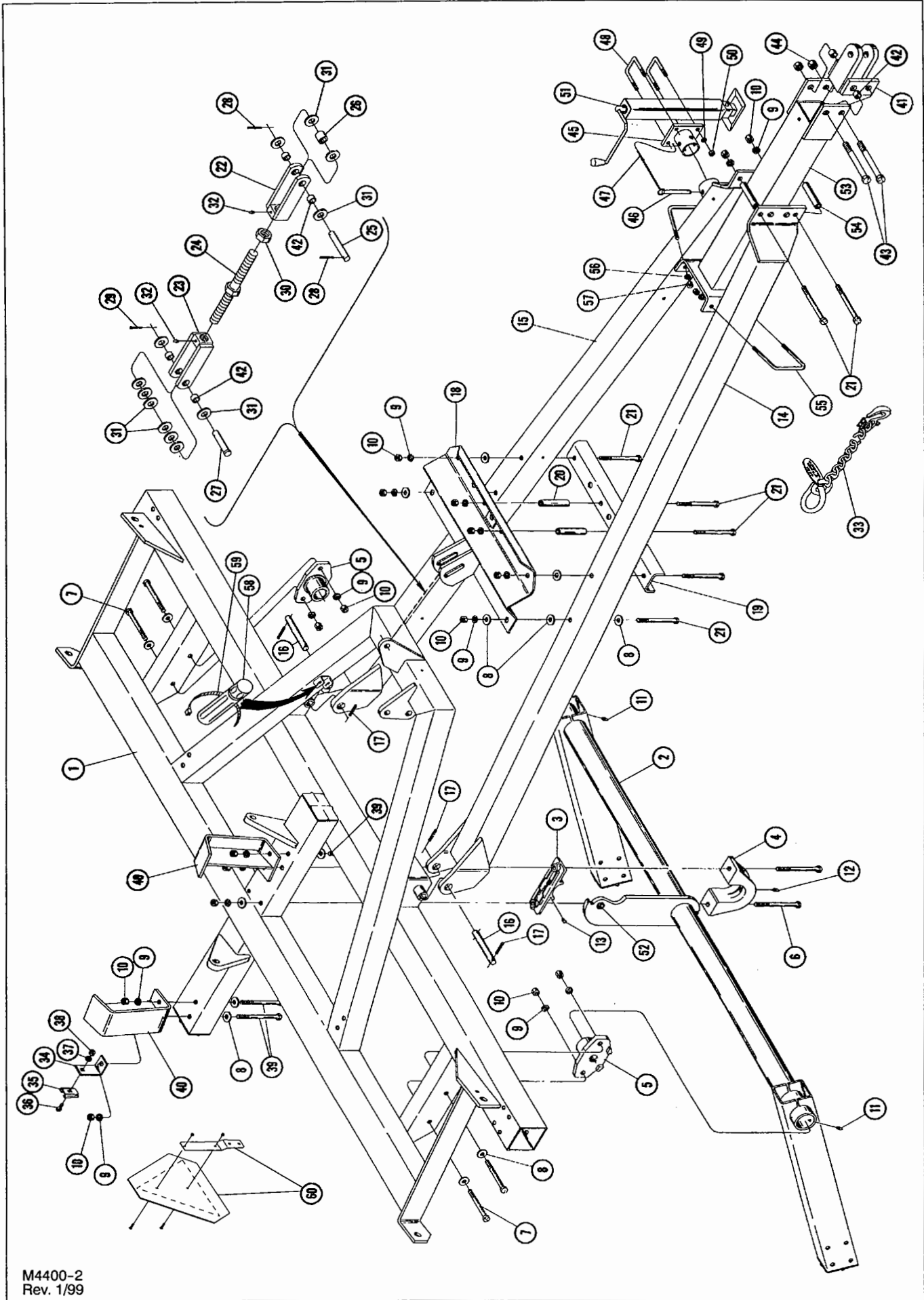
M4400-1
Rev. 1/99

CENTER FRAME, ROCKER AND TONGUE

FOR MODELS - 4420, 4422

1/99

Item	Part Number	Part Description	Qty.	Item	Part Number	Part Description	Qty.
1	4420-1-0	Center Frame Weldment	1	44	63-119	1NC Self Locking Nut	2
2	4420-10-0	Rocker Shaft Weldment	1		4956-56-0	Jack Assembly	1
3	1844-0-13	Rocker Bearing Plate	1	45	4956-55-0	Jack Mounting Weldment	1
4	1112-0-7A	Rocker Shaft Clamp	1	46	60-106	Fas-Pin with Chain	1
5	4122-0-8A	Rocker Bearing	2	47	60-702	3/16" DIA. x 1-1/2" Cotter Pin	1
6	62-217	3/4NC x 7-1/2"GD.5 Cap Screw	2	48	61-172	1/2"x 2-9/16" x 3-3/4" U-Bolt	2
7	62-210	3/4NC x 6" GD.5 Cap Screw	4	49	64-107	1/2" STD. Lock Washer	4
8	64-113	3/4" STD. Flat Washer	19	50	63-106	1/2NC Hex Nut	4
9	64-112	3/4" STD. Lock Washer	17	51	73-111	Jack	1
10	63-112	3/4NC Hex Nut	17	52	53-101	Wear Sleeve	1
11	65-110	1/8NPT Thread Cutting Zerk	2	53	76-194	Flat Spring	1
12	65-104	1/4NPT x 67-1/2° Zerk	1	54	4420-0-11	Spring Clip	1
13	65-100	1/8NPT x 45° Zerk	1	55	62-213	3/4NC x 6-1/2"GD.5 Cap Screw	2
14	4420-32-0	Right Tongue Weldment	1	56	99-192	Owners Manual Storage Tube	1
15	4420-31-0A	Left Tongue Weldment	1	57	25-1163	Hose Clamp	1
16	4260-60-1	Pin	2	58	5250-175-0	SMV Sign w/ Hardware	1
17	60-617	3/8" DIA. x 2-1/2" Roll Pin	4				
18	4420-33-0A	Tongue Plate Weldment	1				
19	4420-0-1	Hitch Channel	1				
20	4420-0-2	Spacer Tube	2				
21	62-215	3/4NC x 7" GD.5 Cap Screw	6				
	4420-53-0	Leveling Screw Assembly	1				
22	2145-56-0	Right Leveling Screw Clevis	1				
23	2145-59-0	Left Leveling Screw Clevis	1				
24	4420-58-0	Adjustment Screw	1				
25	4420-53-1	Adjustment Screw Pin	1				
26	4808-26-2	Pivot Spacer	1				
27	60-223	1"DIA. x 4" Clevis Pin	1				
28	60-608	1/4" DIA. x 2-1/2" Roll Pin	2				
29	60-704	3/16" DIA. x 2" Cotter Pin	1				
30	63-129	1-1/2NC Hex Jam Nut	1				
31	64-119	1" STD. Flat Washer	12				
32	65-101	1/8"STD. Zerk	2				
33	72-351	Safety Chain, 10,000#	1				
	4515-59-0	Lamp Bracket Assembly	1				
34	4515-59-1	Lamp Bracket	1				
35	74-144	Socket Lamp Bracket	1				
36	62-131	7/16NC x 1" Carriage Bolt	1				
37	64-105	7/16" STD. Lock Washer	1				
38	63-104	7/16NC Hex Nut	1				
39	62-207	3/4NC x 5-1/2" GD.5 Cap screw	3				
40	4420-0-10	Wing Stop	2				
41	4420-75-0	Clevis Weldment (1-1/4" Pin)	1				
42	53-103	Wear Sleeve	2				
43	62-255	1NC x 7-1/2" GD. 5 Cap Screw	2				



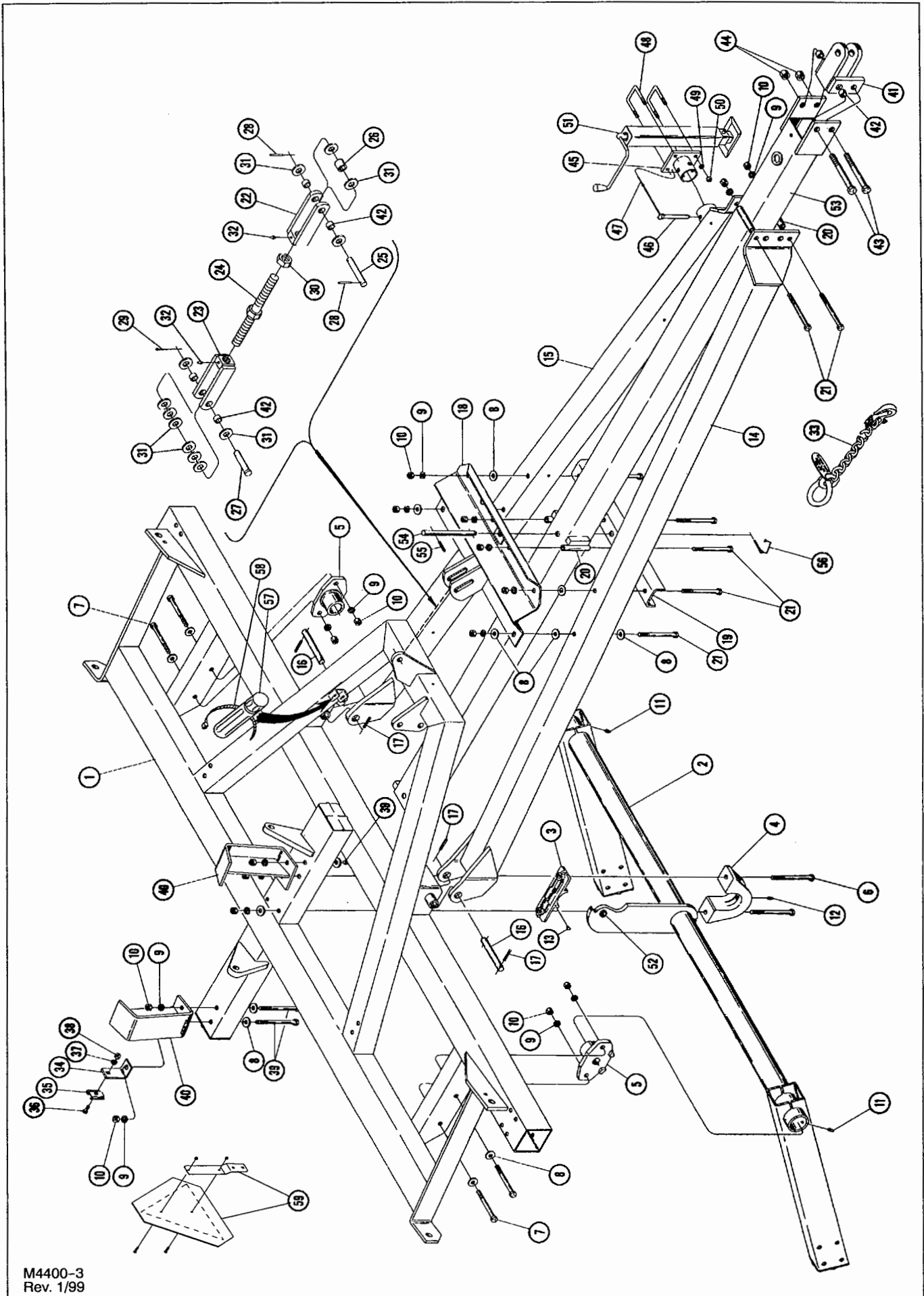
M4400-2
Rev. 1/99

CENTER FRAME, ROCKER AND TONGUE

FOR MODELS - 4424, 4426

1/99

Item	Part Number	Part Description	Qty.	Item	Part Number	Part Description	Qty.
1	4420-1-0	Center Frame Weldment	1	44	63-119	1NC Self Locking Nut	2
2	4420-10-0	Rocker Shaft Weldment	1		4956-56-0	Jack Assembly	1
3	1844-0-13	Rocker Bearing Plate	1	45	4956-55-0	Jack Mounting Weldment	1
4	1112-0-7A	Rocker Shaft Clamp	1	46	60-106	Fas-Pin with Chain	1
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6	62-217	3/4NC x 7-1/2"GD.5 Cap Screw	2	48	61-172	1/2"x 2-9/16" x 3-3/4" U-Bolt	2
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9	64-112	3/4" STD. Lock Washer	17	51	73-111	Jack	1
10	63-112	3/4NC Hex Nut	17	52	53-101	Wear Sleeve	1
11	65-110	1/8NPT Thread Cutting Zerk	2	53	4424-40-0	Hitch Extension Weldment	1
12	65-104	1/4NPT x 67-1/2° Zerk	1	54	2426-0-21	Spacer Tube	2
13	65-100	1/8NPT x 45° Zerk	1	55	61-127	5/8" DIA. U-Bolt	2
14	4420-32-0	Right Tongue Weldment	1	56	64-109	5/8" STD. Lock Washer	4
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18	4420-33-0A	Tongue Plate Weldment	1	60	5250-175-0	SMV Sign w/ Hardware	1
19	4420-0-1	Hitch Channel	1				
20	4420-0-2	Spacer Tube	2				
21	62-215	3/4NC x 7" GD.5 Cap Screw	8				
	4420-53-0	Leveling Screw Assembly	1				
22	2145-56-0	Right Leveling Screw Clevis	1				
23	2145-59-0	Left Leveling Screw Clevis	1				
24	4420-58-0	Adjustment Screw	1				
25	4420-53-1	Adjustment Screw Pin	1				
26	4808-26-2	Pivot Spacer	1				
27	60-223	1"DIA. x 4" Clevis Pin	1				
28	60-608	1/4" DIA. x 2-1/2" Roll Pin	2				
29	60-704	3/16" DIA. x 2" Cotter Pin	1				
30	63-129	1-1/2NC Hex Jam Nut	1				
31	64-119	1" STD. Flat Washer	12				
32	65-101	1/8"STD. Zerk	2				
33	72-351	Safety Chain, 10,000#	1				
	4515-59-0	Lamp Bracket Assembly	1				
34	4515-59-1	Lamp Bracket	1				
35	74-144	Socket Lamp Bracket	1				
36	62-131	7/16NC x 1" Carriage Bolt	1				
37	64-105	7/16" STD. Lock Washer	1				
38	63-104	7/16NC Hex Nut	1				
39	62-207	3/4NC x 5-1/2" GD.5 Cap screw	3				
40	4420-29-0	Wing Stop	2				
41	4420-75-0	Clevis Weldment (1-1/4" Pin)	1				
42	53-103	Wear Sleeve	2				
43	62-255	1NC x 7-1/2" GD. 5 Cap Screw	2				



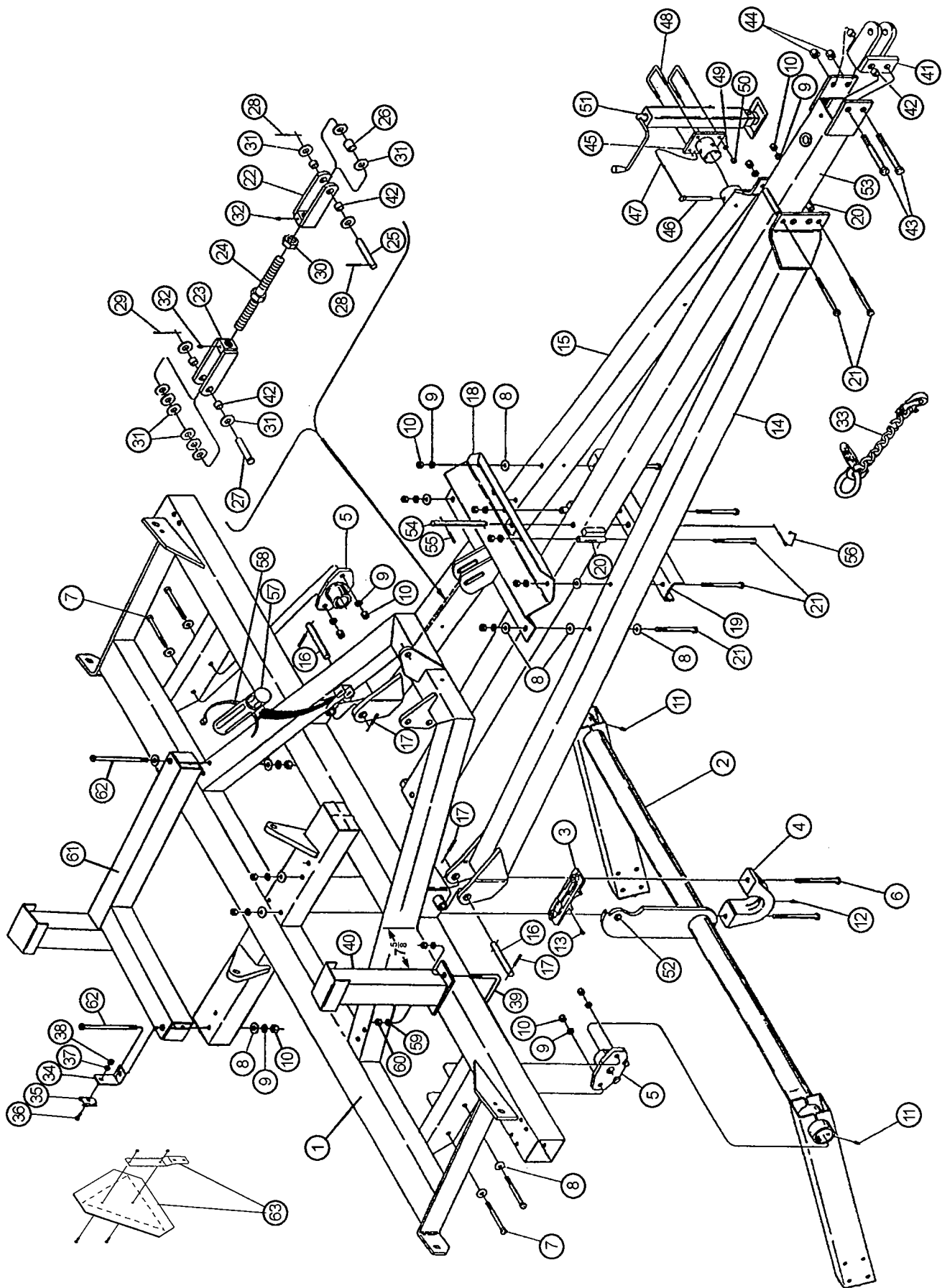
M4400-3
Rev. 1/99

CENTER FRAME, ROCKER AND TONGUE

FOR MODELS - 4428, 4430, 4432, 4434

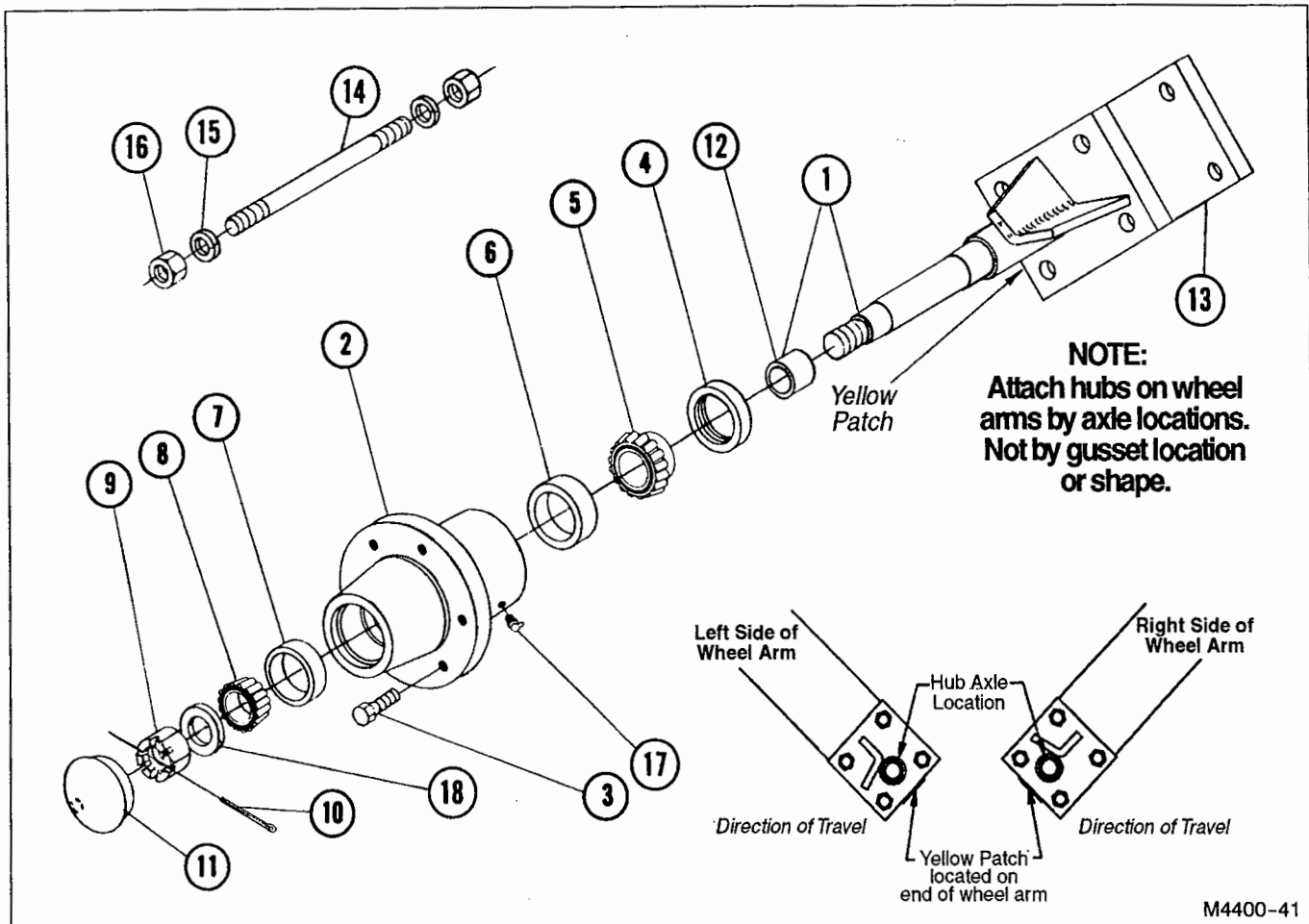
1/99

Item	Part Number	Part Description	Qty.	Item	Part Number	Part Description	Qty.
1	4420-1-0	Center Frame Weldment	1	44	63-119	1NC Self Locking Nut	2
2	4420-10-0	Rocker Shaft Weldment	1		4956-56-0	Jack Assembly	1
3	1844-0-13	Rocker Bearing Plate	1	45	4956-55-0	Jack Mounting Weldment	1
4	1112-0-7A	Rocker Shaft Clamp	1	46	60-106	Fas-Pin with Chain	1
5	4122-0-8A	Rocker Bearing	2	47	60-702	3/16" DIA. x 1-1/2" Cotter Pin	1
6	62-217	3/4NC x 7-1/2"GD.5 Cap Screw	2	48	61-172	1/2"x 2-9/16" x 3-3/4" U-Bolt	2
7	62-210	3/4NC x 6" GD.5 Cap Screw	4	49	64-107	1/2" STD. Lock Washer	4
8	64-113	3/4" STD. Flat Washer	16	50	63-106	1/2NC Hex Nut	4
9	64-112	3/4" STD. Lock Washer	17	51	73-111	Jack	1
10	63-112	3/4NC Hex Nut	17	52	53-101	Wear Sleeve	1
11	65-110	1/8NPT Thread Cutting Zerk	2	53	4428-30-0	Sliding Tongue Weldment	1
12	65-104	1/4NPT x 67-1/2° Zerk	1	54	4428-0-1	Tongue Pin	1
13	65-100	1/8NPT x 45° Zerk	1	55	60-615	3/8" DIA. x 2-1/2" Roll Pin	1
14	4420-32-0	Right Tongue Weldment	1	56	60-103	P.T.O.	1
15	4420-31-0A	Left Tongue Weldment	1	57	99-192	Owners Manual Storage Tube	1
16	4260-60-1	Pin	2	58	25-1163	Hose Clamp	1
17	60-617	3/8" DIA. x 2-1/2" Roll Pin	4	59	5250-175-0	SMV Sign w/ Hardware	1
18	4420-33-0A	Tongue Plate Weldment	1				
19	4420-0-1	Hitch Channel	1				
20	4420-0-2	Spacer Tube	4				
21	62-215	3/4NC x 7" GD.5 Cap Screw	8				
	4420-53-0	Leveling Screw Assembly	1				
22	2145-56-0	Right Leveling Screw Clevis	1				
23	2145-59-0	Left Leveling Screw Clevis	1				
24	4420-58-0	Adjustment Screw	1				
25	4420-53-1	Adjustment Screw Pin	1				
26	4808-26-2	Pivot Spacer	1				
27	60-223	1"DIA. x 4" Clevis Pin	1				
28	60-608	1/4" DIA. x 2-1/2" Roll Pin	2				
29	60-704	3/16" DIA. x 2" Cotter Pin	1				
30	63-129	1-1/2NC Hex Jam Nut	1				
31	64-119	1" STD. Flat Washer	12				
32	65-101	1/8"STD. Zerk	2				
33	72-351	Safety Chain, 10,000#	1				
	4515-59-0	Lamp Bracket Assembly	1				
34	4515-59-1	Lamp Bracket	1				
35	74-144	Socket Lamp Bracket	1				
36	62-131	7/16NC x 1" Carriage Bolt	1				
37	64-105	7/16" STD. Lock Washer	1				
38	63-104	7/16NC Hex Nut	1				
39	62-207	3/4NC x 5-1/2" GD.5 Cap screw	3				
40	4420-29-0	Wing Stop	2				
41	4420-75-0	Clevis Weldment (1-1/4" Pin)	1				
42	53-103	Wear Sleeve	2				
43	62-255	1NC x 7-1/2" GD. 5 Cap Screw	2				



M4400-57
Rev.1/99

HUB ASSEMBLY

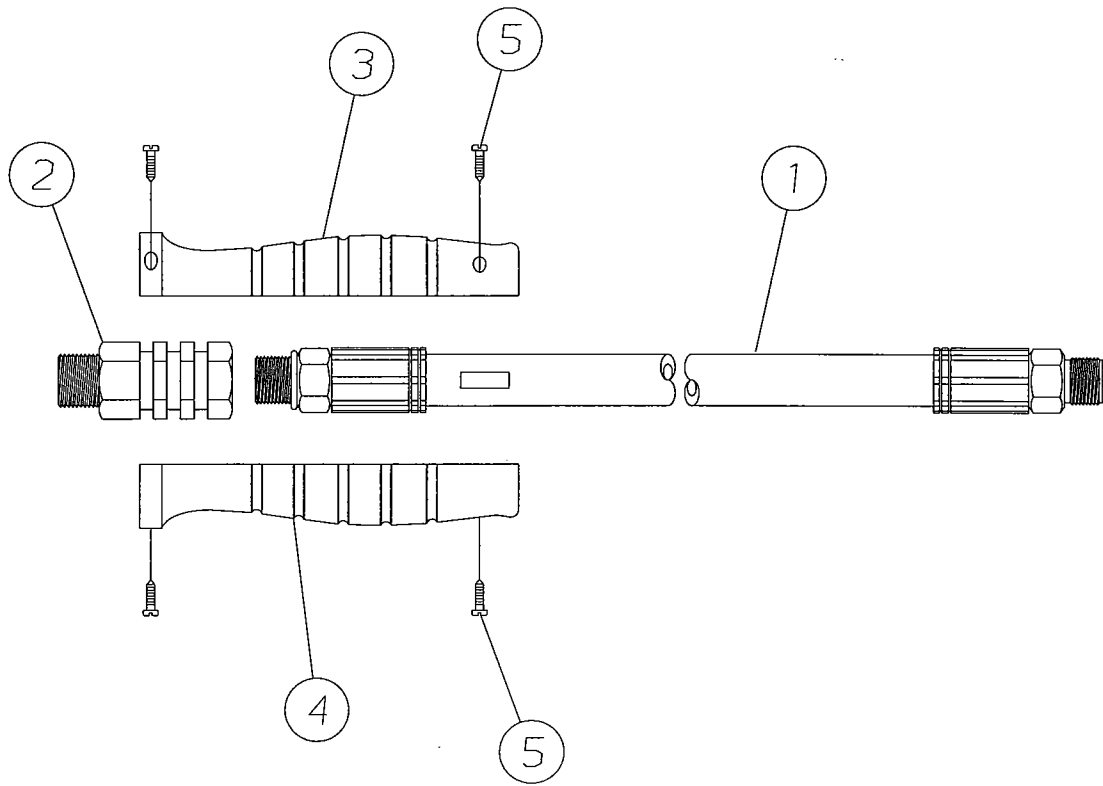


FOR MODELS - ALL

1/99

Item	Part Number	Part Description	Qty.
	1918-17-0	Hub and Axle Assembly	★2/4
1	1918-15-0	Repair Spindle & Sleeve Assembly (Includes Item 12)	Spec.
2	1918-14-0A	Repair Hub Assembly (Includes Items 2, 3, 6, 7 & 8)	Spec.
3	62-295	916NF x 1-1/8" GD.5 Wheel Bolt	6
4	42-108	Seal	1
5	41-113	Rear Cone	1
6	41-209	Rear Cup	1
7	41-208	Front Cup	1
8	41-112	Front Cone	1
9	63-204	1NF Slotted Hex Nut	1
10	60-702	3/16" DIA. x 1-1/2" Cotter Key	1
11	52-302	Hub Cap	1
12	53-105	Wear Sleeve	1
13	● 1112-70-1	Axle Plate	1
14	62-302	3/4NC x 7-3/8" Axle Stud	8
15	64-112	3/4" STD. Lock Washer	16
16	63-112	3/4NC Hex Nut	16
17	65-122	1/4NPT x 65° Drive Zerk	2
18	64-120	1" SAE Flat Washer	1
	1918-84-0	Hub Bearing Repair Kit (Items 4, 5, 6, 7 & 8 Included)	
★ Quantity of (2) Used for Models 4420-4426, Quantity of (4) Used for Models 4428-4436			
● Used for Models 4420-4426 ONLY			

HYDRAULIC HOSE WITH PLASTIC GRIP ASSEMBLIES

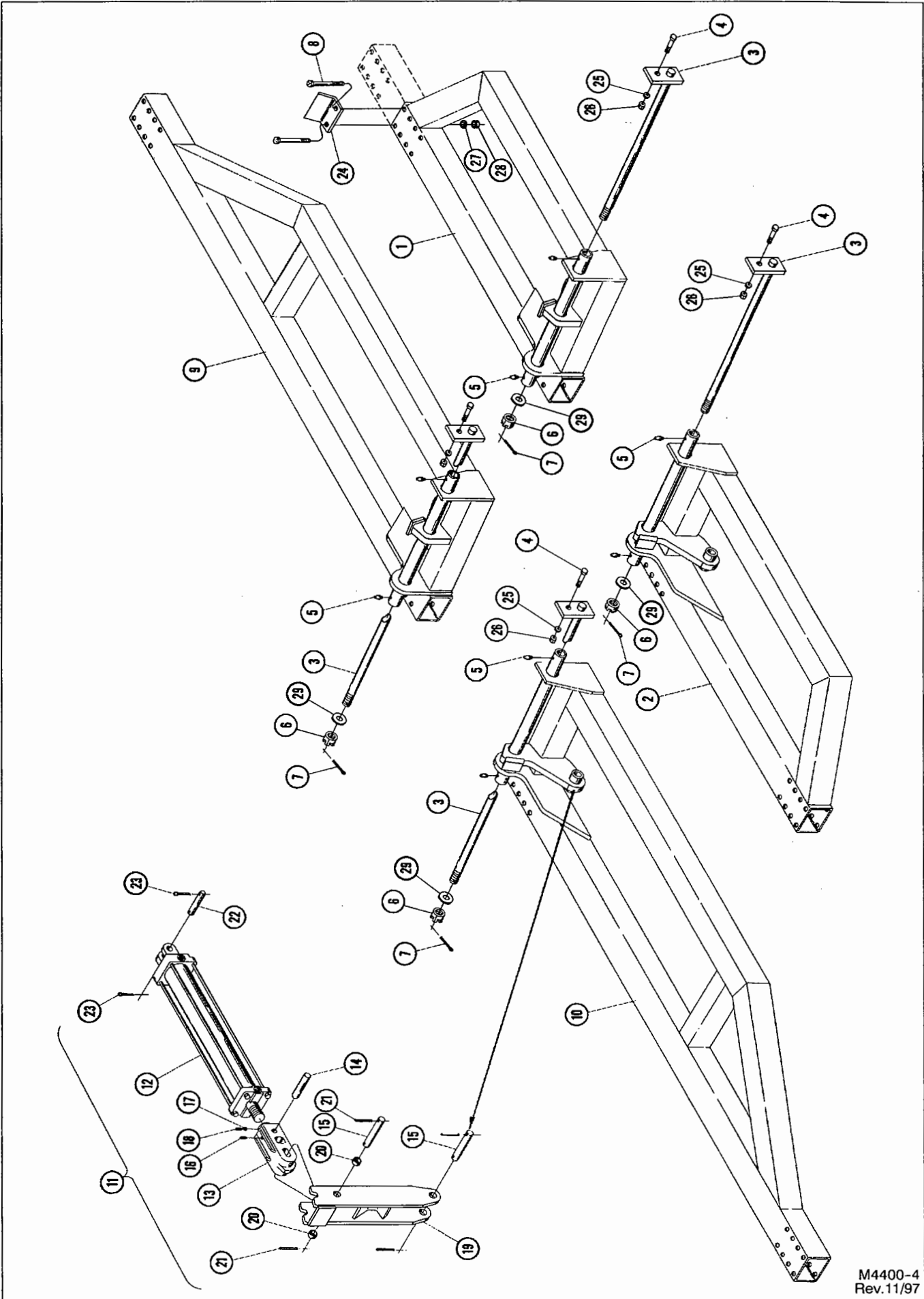


M6100-125
Rev. 5/97

FOR MODELS - ALL

10/97

Item	Part Number	Part Description	Qty.
	4990-75-0	Hose 1/2" DIA. x 92" 100R2 with Red/Red Grip Assembly	1
1	24-330R	1/2" DIA. x 92" 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	Hose 1/2" DIA. x 92" 100R2 with Yellow/Yellow Grip Assembly	1
1	24-330R	1/2" DIA. x 92" 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



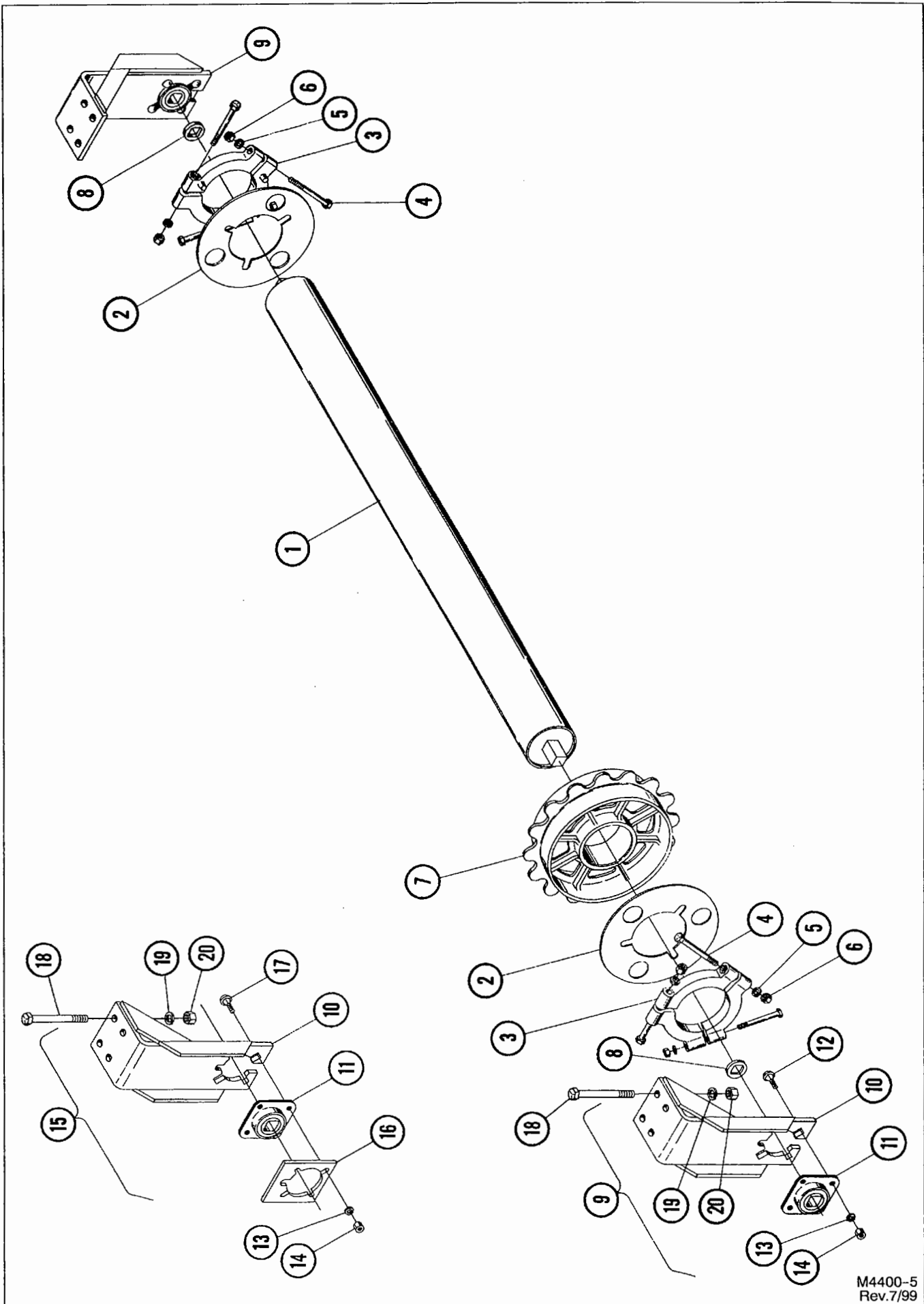
M4400-4
Rev.11/97

WING FRAMES

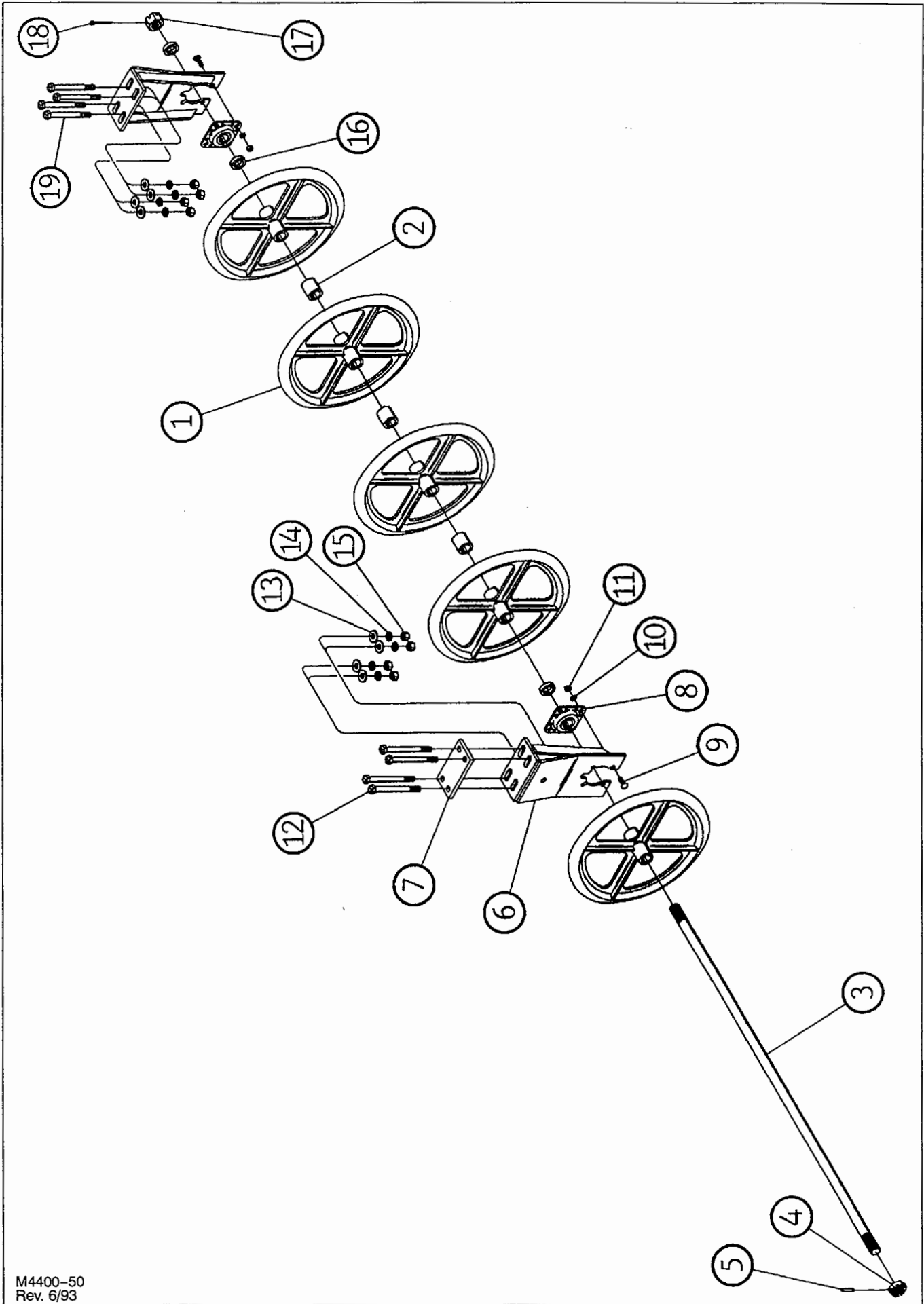
FOR MODELS - ALL

1/99

Item	Part Number	Part Description	Qty.
1	4420-18-0A	Left Wing Frame Weldment (For Model 4420)	1
	4422-18-0A	Left Wing Frame Weldment (For Model 4422)	1
	4424-18-0A	Left Wing Frame Weldment (For Model 4424)	1
	4426-18-0A	Left Wing Frame Weldment (For Model 4426)	1
2	4420-20-0A	Right Wing Frame Weldment (For Model 4420)	1
	4422-20-0A	Right Wing Frame Weldment (For Model 4422)	1
	4424-20-0A	Right Wing Frame Weldment (For Model 4424)	1
	4426-20-0A	Right Wing Frame Weldment (For Model 4426)	1
3	4420-37-0	Wing Hinge Pin	4
4	62-169	5/8NC x 2" GD.5 Cap Screw	4
5	65-110	1/8NPT Zerk	8
6	63-128	1-1/2NC Slotted Hex Nut	4
7	60-711	1/4" DIA. x 3" Cotter Pin	4
8	62-210	3/4NC x 6" GD. 5 Cap Screw (Models 4420 & 4422 ONLY)	2
9	4428-18-0A	Left Wing Frame Weldment (Model 4428)	1
	4430-18-0A	Left Wing Frame Weldment (Model 4430)	1
	4432-18-0A	Left Wing Frame Weldment (Model 4432)	1
	4434-18-0A	Left Wing Frame Weldment (Model 4434)	1
	4436-18-0A	Left Wing Frame Weldment (Model 4436)	1
10	4428-20-0A	Right Wing Frame Weldment (Model 4428)	1
	4430-20-0A	Right Wing Frame Weldment (Model 4430)	1
	4432-20-0A	Right Wing Frame Weldment (Model 4432)	1
	4434-20-0A	Right Wing Frame Weldment (Model 4434)	1
	4436-20-0A	Right Wing Frame Weldment (Model 4436)	1
11	4420-80-0A	4" x 24" Wing Lift Cylinder Assembly	2
	4432-80-0A	4-1/2" x 24" Cylinder Assembly	2
12	21-174	4" x 24" Hydraulic Cylinder Assembly	1
	21-176	4-1/2" x 24" Hydraulic Cylinder Assembly	1
13	4260-81-0	Cylinder Rod End	1
14	4260-81-1	Pin (1-1/4" x 5")	1
15	4260-80-3	Pin	2
16	60-608	1/4"DIA. x 2-1/2" Roll Pin	1
17	21-407	Nylon Bushing	1
18	62-324	3/8NC x 3/8" Socket Head Cup Point Set Screw	1
19	4420-87-0A	Wing Lift Arm Weldment	1
20	53-109	Wear Sleeve (Included in Item #23)	2
21	60-618	3/8" DIA. x 3" Roll Pin	4
22	21-296	Clevis Pin	1
23	60-703	3/16" DIA. x 1" Cotter Pin	2
24	4420-0-12	Spring Deflector (For Models 4420 & 4422 ONLY)	1
25	64-109	5/8" STD. Lock Washer	4
26	63-109	5/8NC Hex Nut	4
27	64-112	3/4" STD. Lock Washer (Models 4420 & 4422 ONLY)	2
28	63-112	3/4NC Hex Nut (Models 4420 & 4422 ONLY)	2
29	64-145	2-1/2"O.D. x 1-5/8" I.D. x 3/16" Wear Washer	2

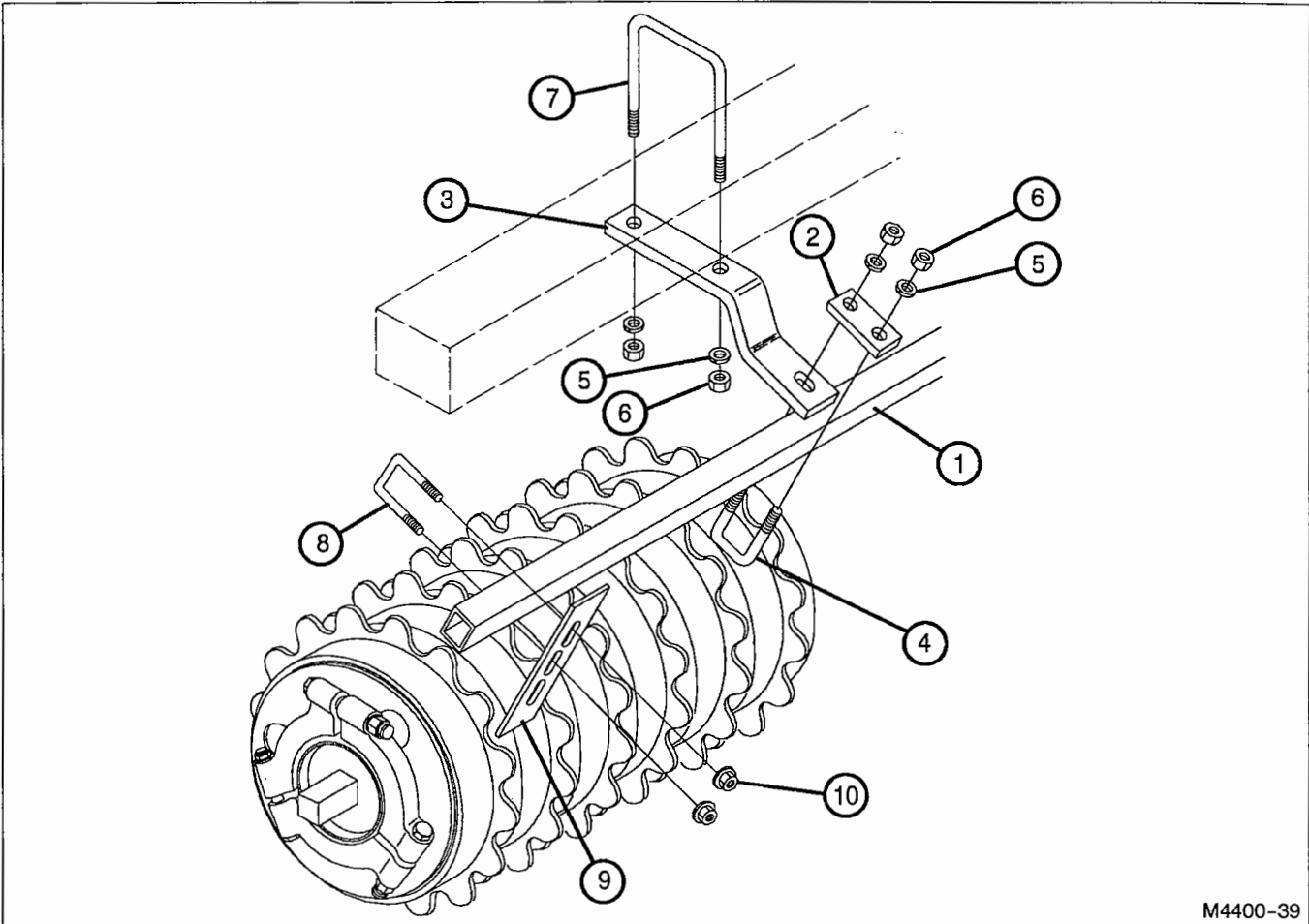


M4400-5
Rev.7/99



M4400-50
 Rev. 6/93

SCRAPERS



M4400-39

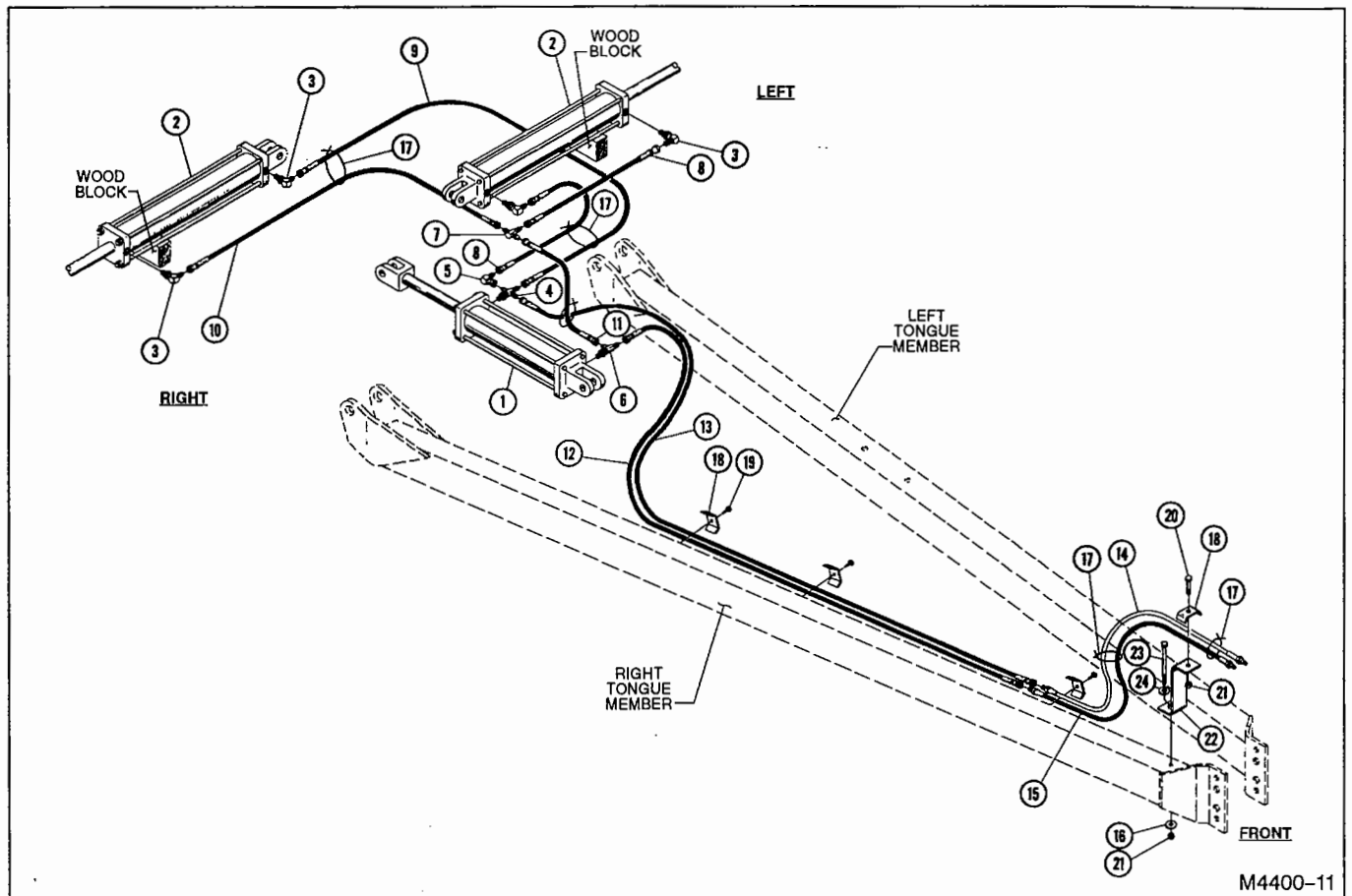
FOR MODELS - ALL

7/00

Item	Part Number	Part Description	Length	No. of Packers	Qty.
1	4420-289-1	Scraper Tube	48"	13	
	4422-289-1	Scraper Tube	60"	16	
	4424-289-1	Scraper Tube	72"	19	
	4426-289-1	Scraper Tube	84"	22	
	4428-289-1	Scraper Tube	96"	25	
	4430-289-1	Scraper Tube	108"	28	
	4432-289-1	Scraper Tube	120"	31	
	4434-289-1	Scraper Tube	132"	34	
	★ 4420-289-2	Scraper Tube	136"	35	
	4436-289-1	Scraper Tube	144"	37	
2	4420-0-6A	Mounting Clamp			
3	4420-0-7	Scraper Bracket			
4	61-116	5/8" DIA. U-Bolt			
5	64-109	5/8" STD. Lock Washer			
6	63-109	5/8NC Hex Nut			
7	61-223	5/8" DIA. U-Bolt (For 5 x 5 Box)			
	61-127	5/8" DIA. U-Bolt (For 4 x 5 Box)			
8	61-229	5/16" DIA. U-Bolt			
9	4420-0-8A	Scraper Blade (3" Wide)			
10	63-143	5/16NC Hex Flange Serrated Nut			

★ Used for Center Section scrapers on all models.

HYDRAULIC HOSE GROUP



M4400-11

FOR MODELS - 4420, 4422, 4424, 4426

12/96

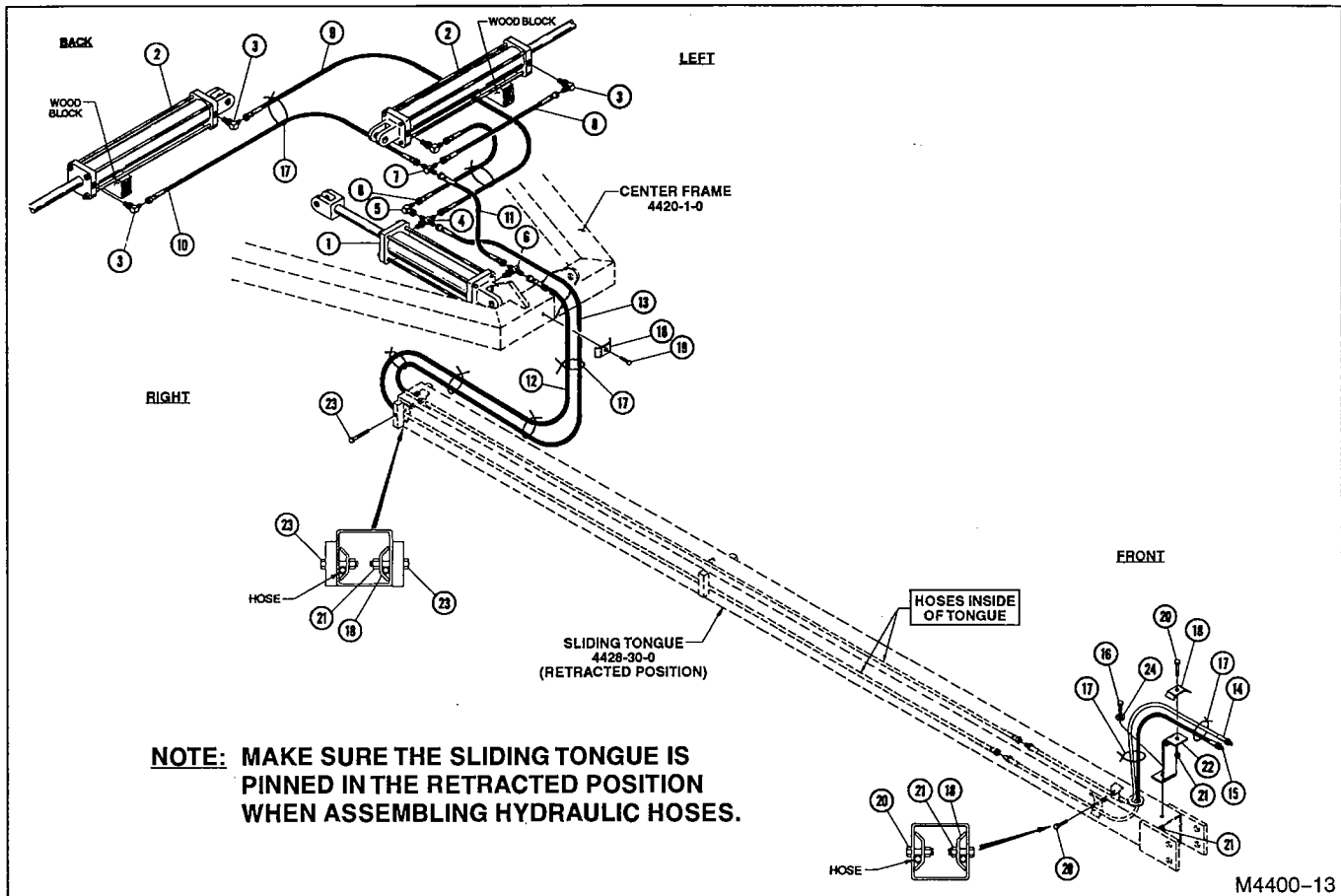
Item	Part Number	Part Description	Qty.
1	21-171	Prince Hydraulic Cylinder 4" x 16"	1
2	4420-80-0A	Wing Lift Cylinder Assembly 4" x 24"	2
3	4956-75-0	O-Ring 37° Flare 90° Restrictor Assembly w/tag	4
4	25-308	37° Flare Cross	1
5	25-310	37° Flare Male / Female 90° Elbow	1
6	25-302	O-Ring 37° Flare Male Tee	1
7	25-303	37° Flare Male Tee	1
8	24-268R	3/8" DIA. Hose 27" Long (3/4" Swivel Both Ends)	2
9	24-256R	3/8" DIA. Hose 48" Long (3/4" Swivel Both Ends)	1
10	24-206R	3/8" DIA. Hose 57" Long (3/4" Swivel Both Ends)	1
11	24-202R	3/8" DIA. Hose 36" Long (3/4" Swivel Both Ends)	1
12	★ 24-390R	1/2" DIA. Hose 93" Long (3/4" Swivel Both Ends)	1
	● 24-337R	1/2" DIA. Hose 122" Long (3/4" Swivel Both Ends)	1
13	★ 24-321R	1/2" DIA. Hose 105" Long (3/4" Swivel Both Ends)	1
	● 24-359R	1/2" DIA. Hose 135" Long (3/4" Swivel Both Ends)	1
14	■ 4990-76-0	1/2" x 92" 100R2 Hose w/ Yellow/Yellow Plastic Grip	1
15	■ 4990-75-0	1/2" x 92" 100R2 Hose w/ Red/Red Plastic Grip	1
16	64-108	1/2" STD. Flat Washer	1
17	25-126	Panduit Stay Strap	5
18	3514-0-2	Hose Clamp	4
19	62-115	3/8NC x 1-1/2" Thread Cutting Screw	3
20	62-343	1/2NC x 2" GD.5 Cap Screw	1
21	63-107	1/2NC Self Locking Nut	2
22	4901-0-18	Hose Stand	1
23	62-395	1/2NC x 6" GD.5 Cap Screw	1
24	64-108	1/2" STD. Flat Washer	1

★ For Models 4420 & 4422 ONLY

● For Models 4424 & 4426 ONLY

■ See page P12 for parts listing

HYDRAULIC HOSE GROUP



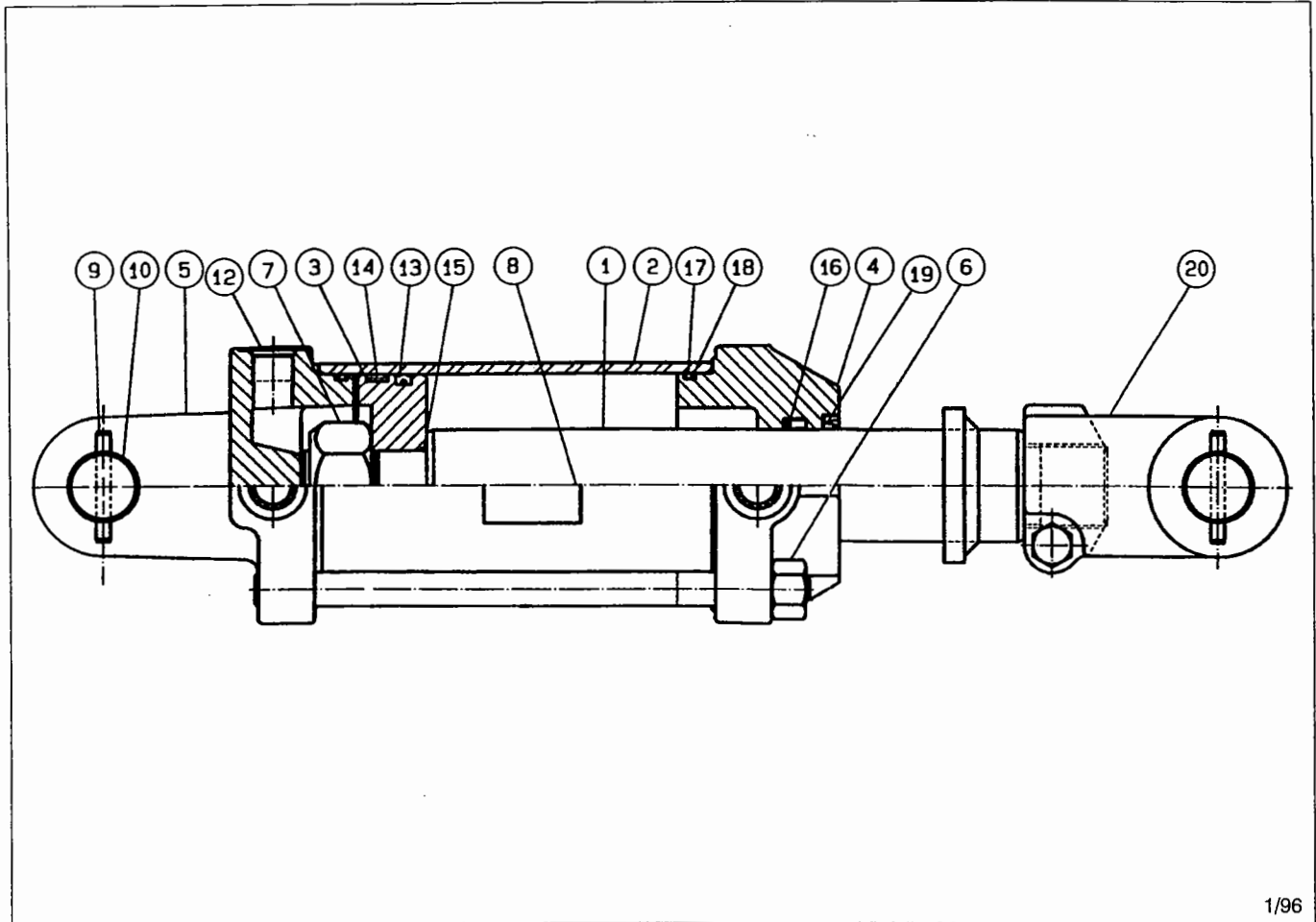
FOR MODELS - 4428, 4430, 4432, 4434, 4436

12/96

Item	Part Number	Part Description	Qty.
1	21-171	Prince Hydraulic Cylinder 4" x 16"	1
2	4420-80-0A	Wing Lift Cylinder Assembly 4" x 24" (Models 4428 & 4430)	2
	4432-80-0A	Wing Lift Cylinder Assembly 4-1/2" x 24" (Models 4432-4436)	2
3	4956-75-0	O-Ring 37° Flare 90° Restrictor Assembly w/tag	4
4	25-308	37° Flare Cross	1
5	25-310	37° Flare Male / Female 90° Elbow	1
6	25-309	O-Ring 37° Flare Male Tee	1
7	25-303	37° Flare Male Tee	1
8	24-268R	3/8" DIA. Hose 27" Long (3/4" Swivel Both Ends)	2
9	24-256R	3/8" DIA. Hose 48" Long (3/4" Swivel Both Ends)	1
10	24-206R	3/8" DIA. Hose 57" Long (3/4" Swivel Both Ends)	1
11	24-202R	3/8" DIA. Hose 36" Long (3/4" Swivel Both Ends)	1
12	24-362R	1/2" DIA. Hose 170" Long (3/4" Swivel Both Ends)	1
13	24-373R	1/2" DIA. Hose 190" Long (3/4" Swivel Both Ends)	1
14	• 4990-76-0	1/2" x 92" 100R2 Hose w/ Yellow/Yellow Plastic Grip	1
15	• 4990-75-0	1/2" x 92" 100R2 Hose w/ Red/Red Plastic Grip	1
16	62-569	1/2NC x 1-1/2" GD.5 Cap Screw	1
17	25-126	Panduit Stay Strap	8
18	3514-0-2	Hose Clamp	6
19	62-115	3/8NC x 1-1/2" Thread Cutting Screw	1
20	62-343	1/2NC x 2" GD.5 Cap Screw	3
21	63-107	1/2NC Self Locking Nut	6
22	4901-0-18	Hose Stand	1
23	62-151	1/2NC x 3" GD.5 Cap Screw	2
24	64-108	1/2" STD. Flat Washer	1

• See page P12 for Parts Listing

PRINCE HYDRAULIC CYLINDER



1/96

21-171 4" X 16" PRINCE HYDRAULIC CYLINDER ASSEMBLY

1/99

Retracted - 31-1/2"

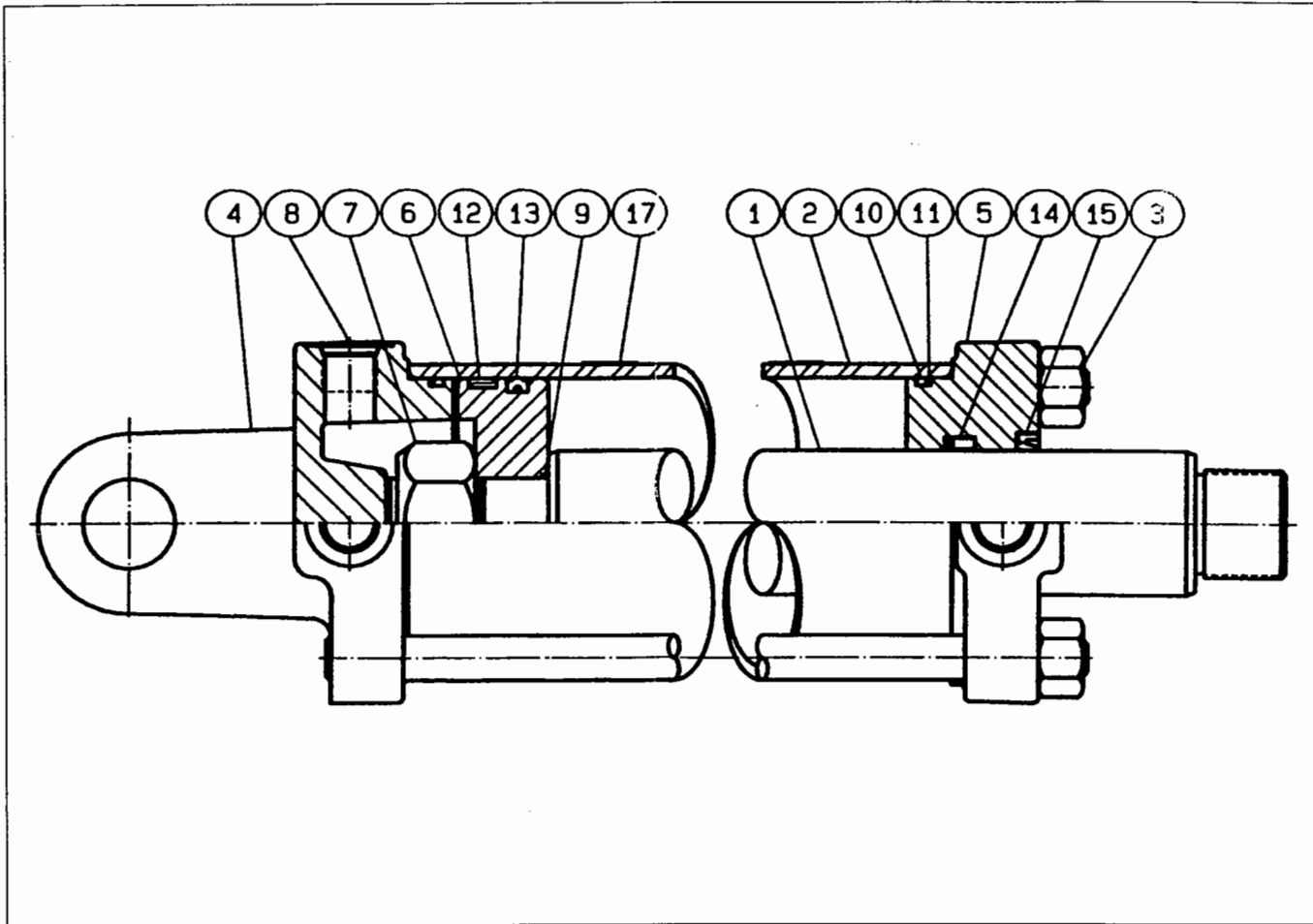
Stroke - 16"

Extended - 47-1/2"

Rod - 2"

Item	Part Number		Qty.
1	21-893	Piston Rod Assembly	1
2	21-282	Tube	1
3	21-879	Piston	1
4	21-894	Gland	1
5	21-738	Butt	1
6	21-288	Tie Rod	4
7	21-286	Lock Nut	1
8	74-113	Cylinder Warning Decal	1
9		1/4" DIA. x 2" Roll Pin	4
10	21-859	Clevis Pin	2
11			
12	21-404	#8 SAE Plug	3
13	*	Crown Seal	1
14	*	Bearing Ring	1
15	*	O-Ring	1
16	*	U-Cup	1
17	*	O-Ring	2
18	*	Back-Up Washer	2
19	*	Wiper	1
20	21-685	Clevis Assembly	1
	• 21-895	Seal Kit (* Items Included in Kit)	
	•	Not included in Hydraulic Cylinder Assembly	

PRINCE HYDRAULIC CYLINDER



21-174 4" X 24" PRINCE HYDRAULIC CYLINDER ASSEMBLY

10/97

Retracted - 35"

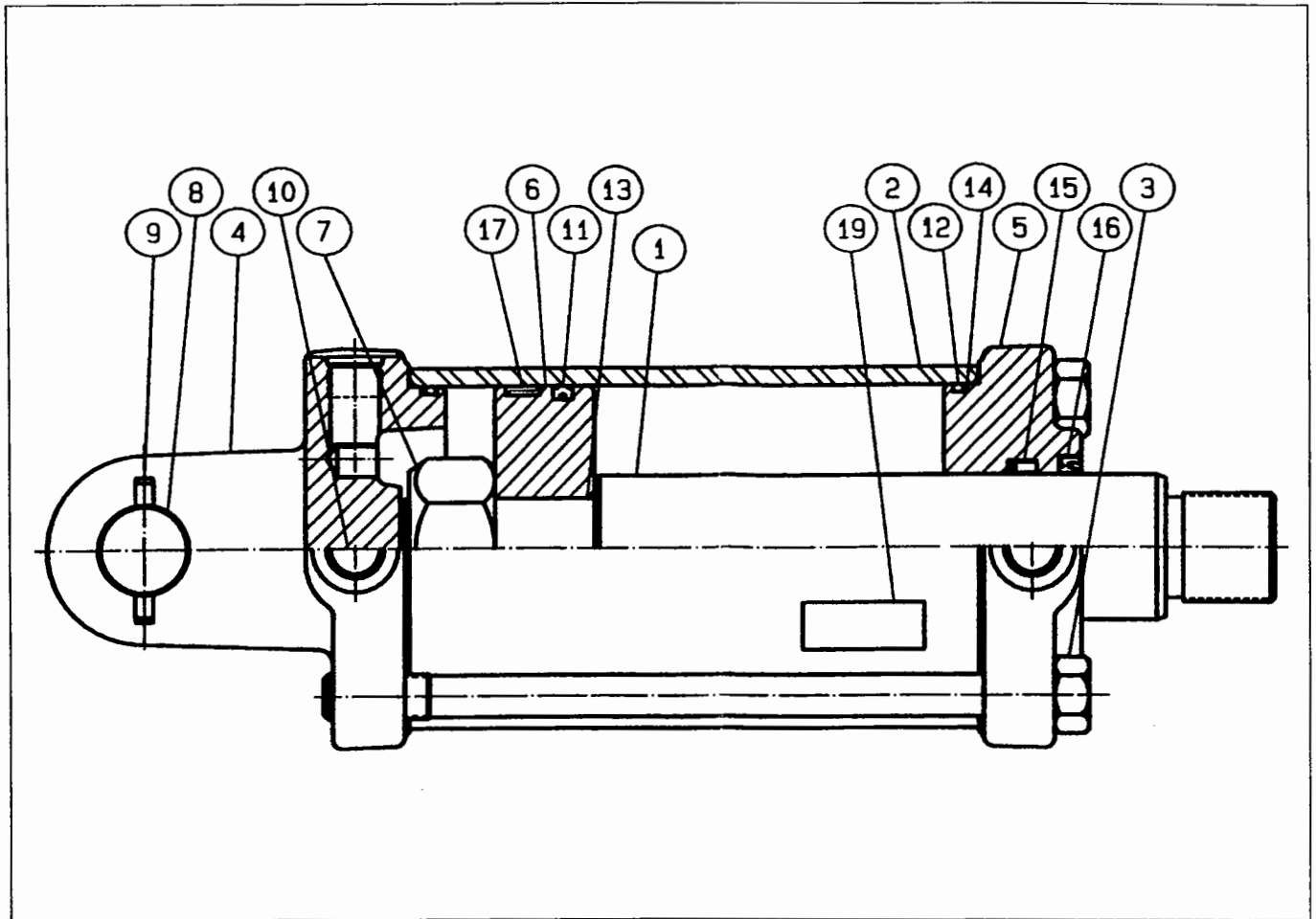
Stroke - 24"

Extended - 59"

Rod - 2"

Item	Part Number	Part Description	Qty.
1	21-896	Piston Rod	1
2	21-222	Tube	1
3	21-897	Tie Rod	4
4	21-738	Butt	1
5	21-898	Gland	1
6	21-879	Piston	1
7	21-286	Lock Nut	1
8	21-831	#8 SAE Plug	3
9	*	O-Ring	1
10	*	O-Ring	2
11	*	Back-Up Washer	2
12	*	Bearing Ring	1
13	*	Crown Seal	1
14	*	U-Cup	1
15	*	Wiper	1
16			
17	74-113	Cylinder Warning Decal	1
	• 21-895	Seal Kit (* Items Included in Kit)	
	•	Not included in Hydraulic Cylinder Assembly	

PRINCE HYDRAULIC CYLINDER ASSEMBLY



21-176 4-1/2" X 24" PRINCE HYDRAULIC CYLINDER ASSEMBLY

1/99

Retracted - 35"

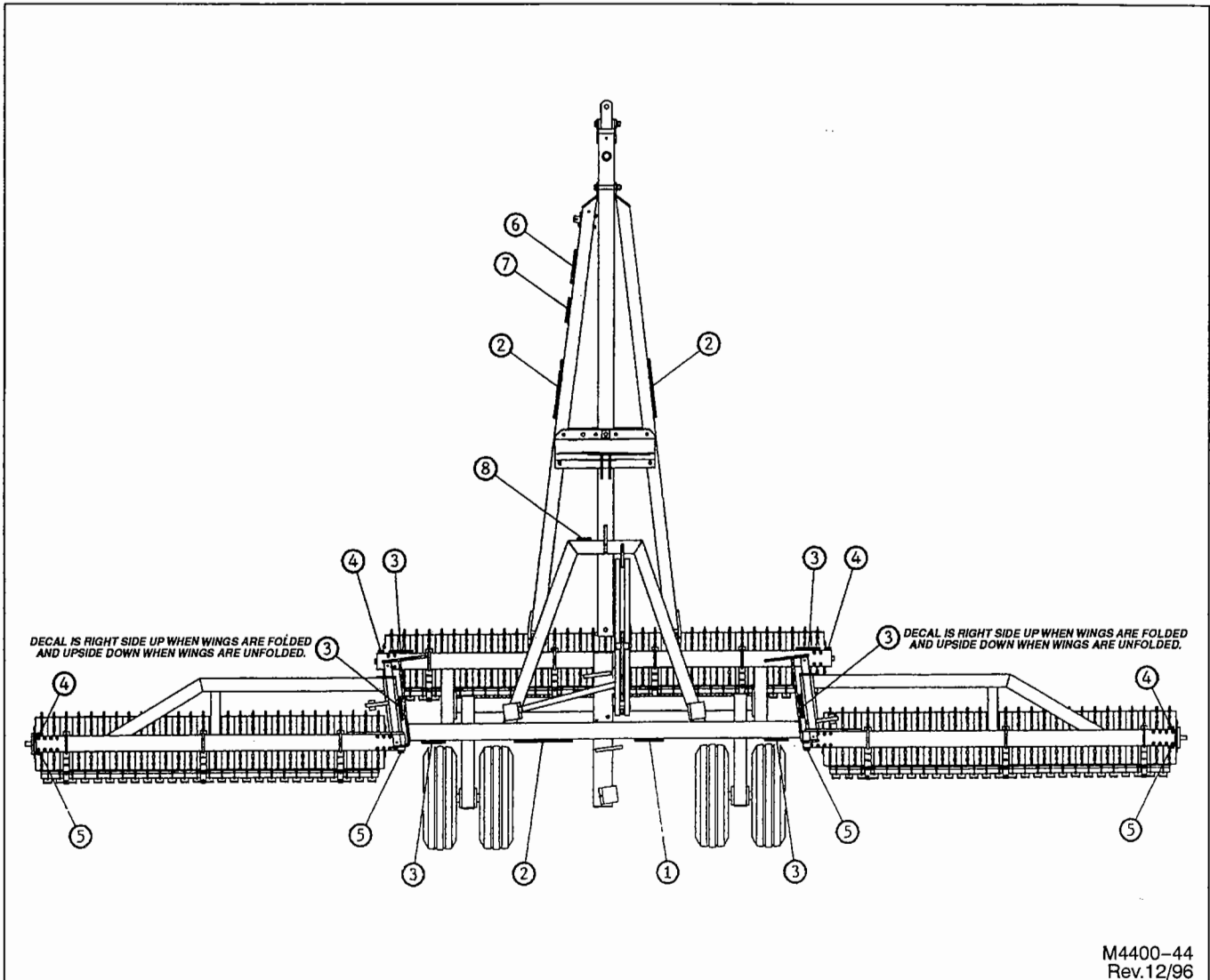
Extended - 59"

Stroke - 24"

Rod - 2"

Item	Part Number	Part Description	Qty.
1	21-884	Piston Rod	1
2	21-885	Tube	1
3	21-886	Tie Rod	4
4	21-887	Butt	1
5	21-888	Gland	1
6	21-889	Piston	1
7	21-890	Lock Nut	1
8	21-859	Clevis Pin	1
9		1/4" DIA. x 2" Roll Pin	2
10	21-831	Plug - Port	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	*	Bearing Ring	1
18			
19	74-113	Cylinder Warning Decal	1
	• 21-892	Seal Kit (* Items Included in Kit)	
	•	Not included in Hydraulic Cylinder Assembly	

DECALS & REFLECTORS



M4400-44
Rev.12/96

FOR MODELS - ALL

1/96

Item	Part Number	Part Description	Qty.
1	74-362	4400 Series Decal	1
2	74-100	Krause Decal (Large)	3
3	74-102	Stand Clear of Wing Decal	6
4	74-107	Amber Reflector	4
5	74-108	Red Reflector	4
6	74-117	Implement Safety Decal	1
7	74-276	Warning - Hydraulic Safety Decal	1
8	74-115	Name Plate	1

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 values listed are for general use only. Check tightness of fasteners periodically.

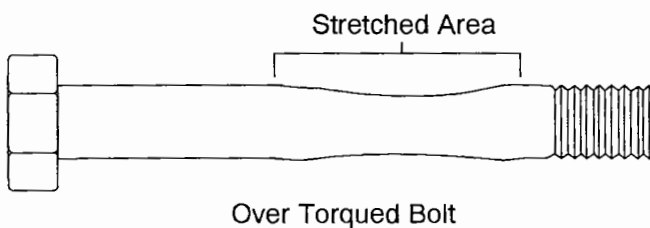
Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

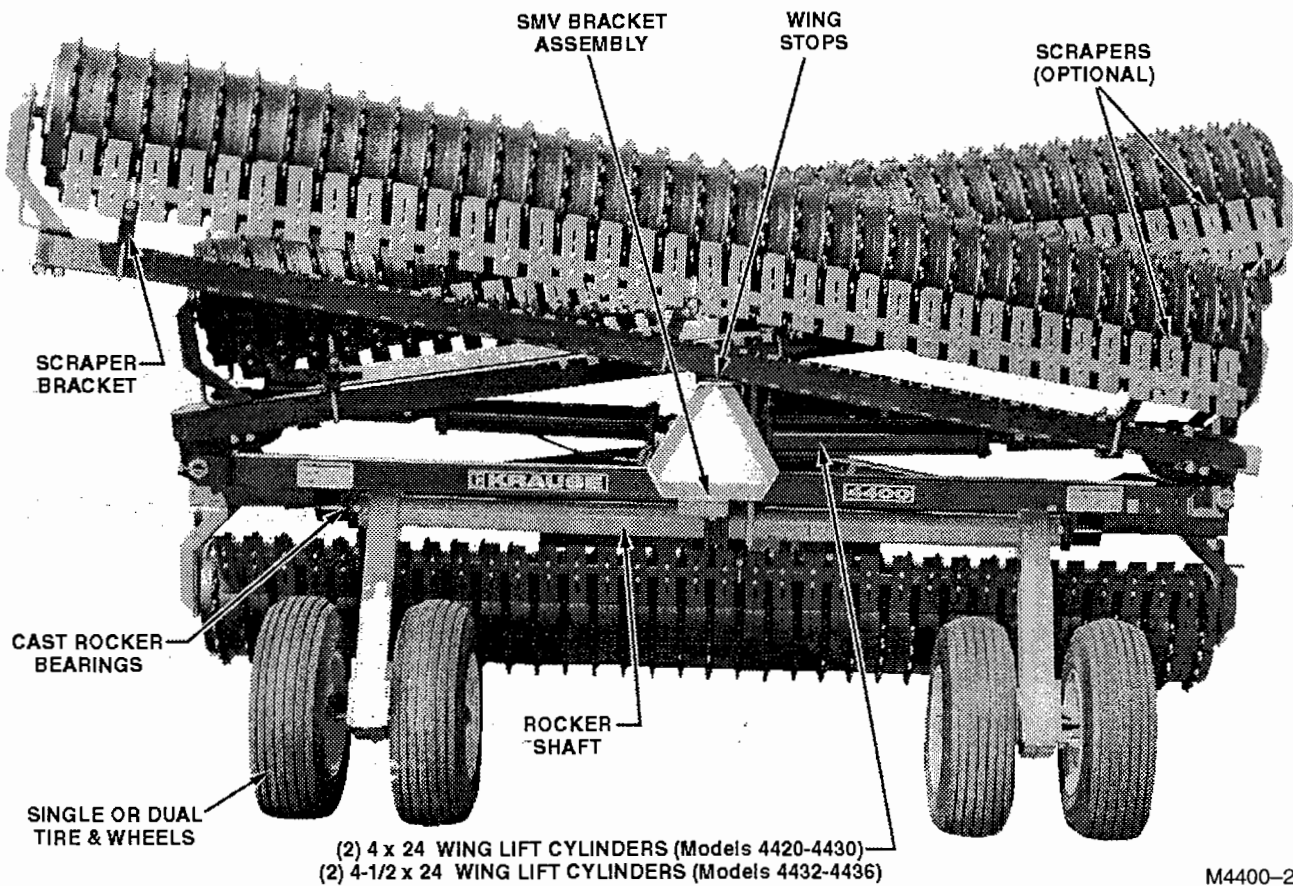
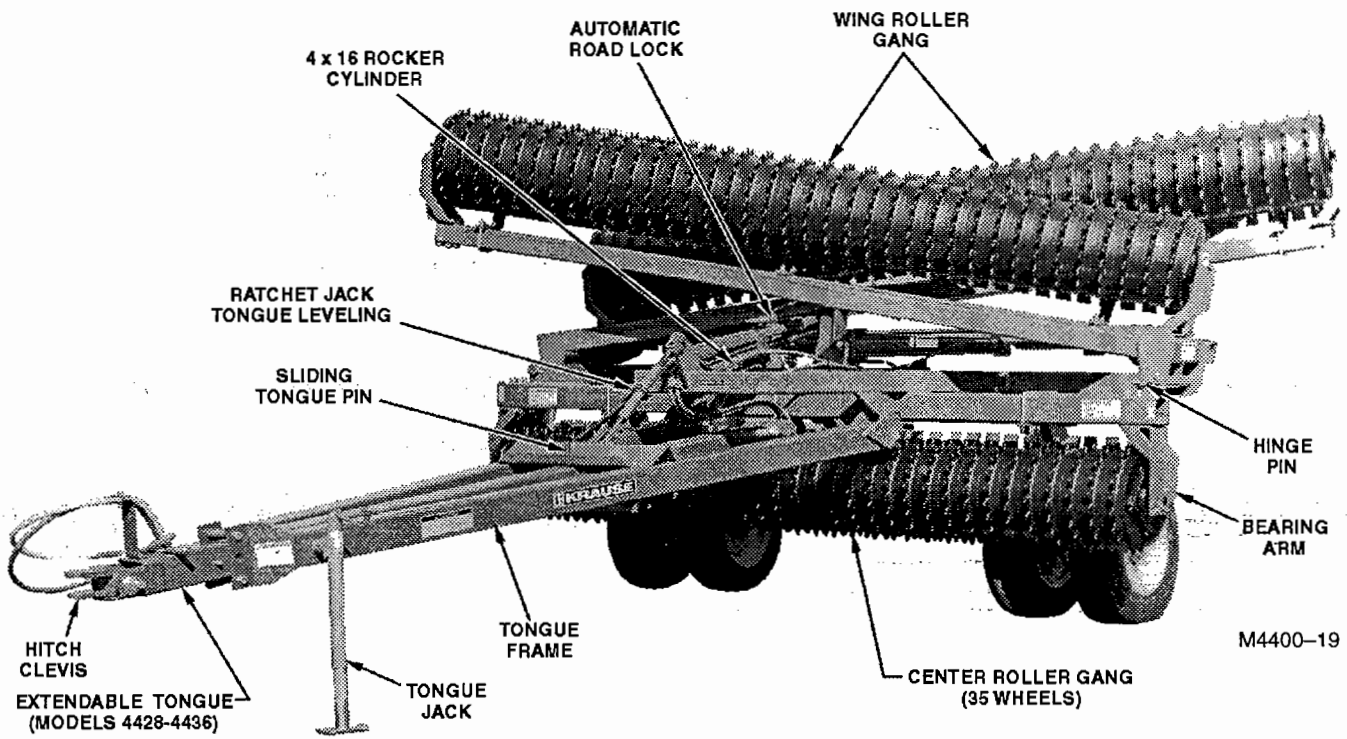
Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

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.

BOLT SIZE	BLACK OR PLATED BOLTS		OILED BOLTS	
	GRADE 2	GRADE 5	GRADE 2	GRADE 5
3/8"	20	33	16	26
7/16"	32	52	26	41
1/2"	50	80	39	63
5/8"	100	160	78	125
3/4"	175	280	140	225
7/8"	175	450	140	360
1"	270	675	210	540
1-1/8"	375	850	300	675
1-1/4"	530	1200	425	950
1-1/2"	930	1400	725	1250
TIE ROD TIGHTENING TORQUE				
1-1/2" Dia. Rods		1000 Ft. Lbs.		
1-3/4" Dia. Rods		1400 Ft. Lbs.		
2" Dia. Rods		1600 Ft. Lbs.		





ASSEMBLY INSTRUCTIONS

STUDY NAMES AND LOCATIONS OF THE PARTS AND FAMILIARIZE YOURSELF WITH THE FLEX WING PACKER BEFORE STARTING THE ASSEMBLY. READING THE STEP-BY-STEP INSTRUCTIONS THAT FOLLOW WILL BE HELPFUL.

SAFETY



READ ALL OF THE SAFETY NOTATIONS IN THE ASSEMBLY INSTRUCTIONS FOR YOUR PROTECTION. ACCIDENTS CAN BE PREVENTED BY RECOGNIZING THE CAUSE OF AN ACCIDENT BEFORE IT CAN HAPPEN.

ASSEMBLY AREA

Select an area for assembly that will be large enough to accommodate the completed implement. 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 for different size bolts.

PART LOCATIONS

FRONT – the front of the frame can be determined by the 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, or the direction of travel.

TOP – To be sure that the frame is right side up, position the front hitch members of the frame pointing **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 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. The 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 ROLLER GANG WHICH WEIGHS 1,577 LBS.

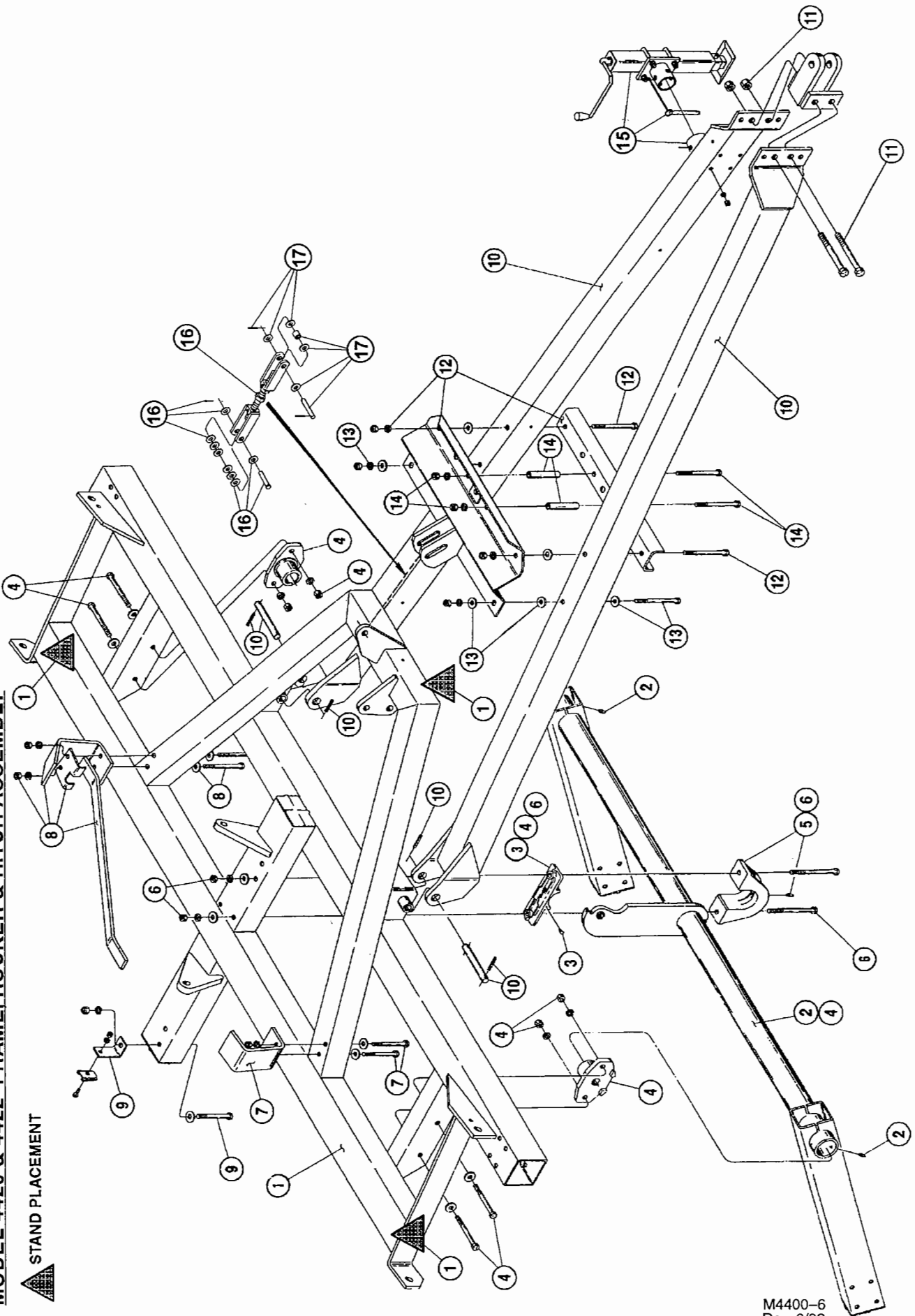
MODEL NUMBER

Know the model number of the Packer being assembled. Use this model number whenever referring to the assembly, parts listing pages or placement pages. The number is stamped on the Name Plate which is located on the front frame member of the flex wing packer.



MODEL 4420 & 4422 FRAME, ROCKER & HITCH ASSEMBLY

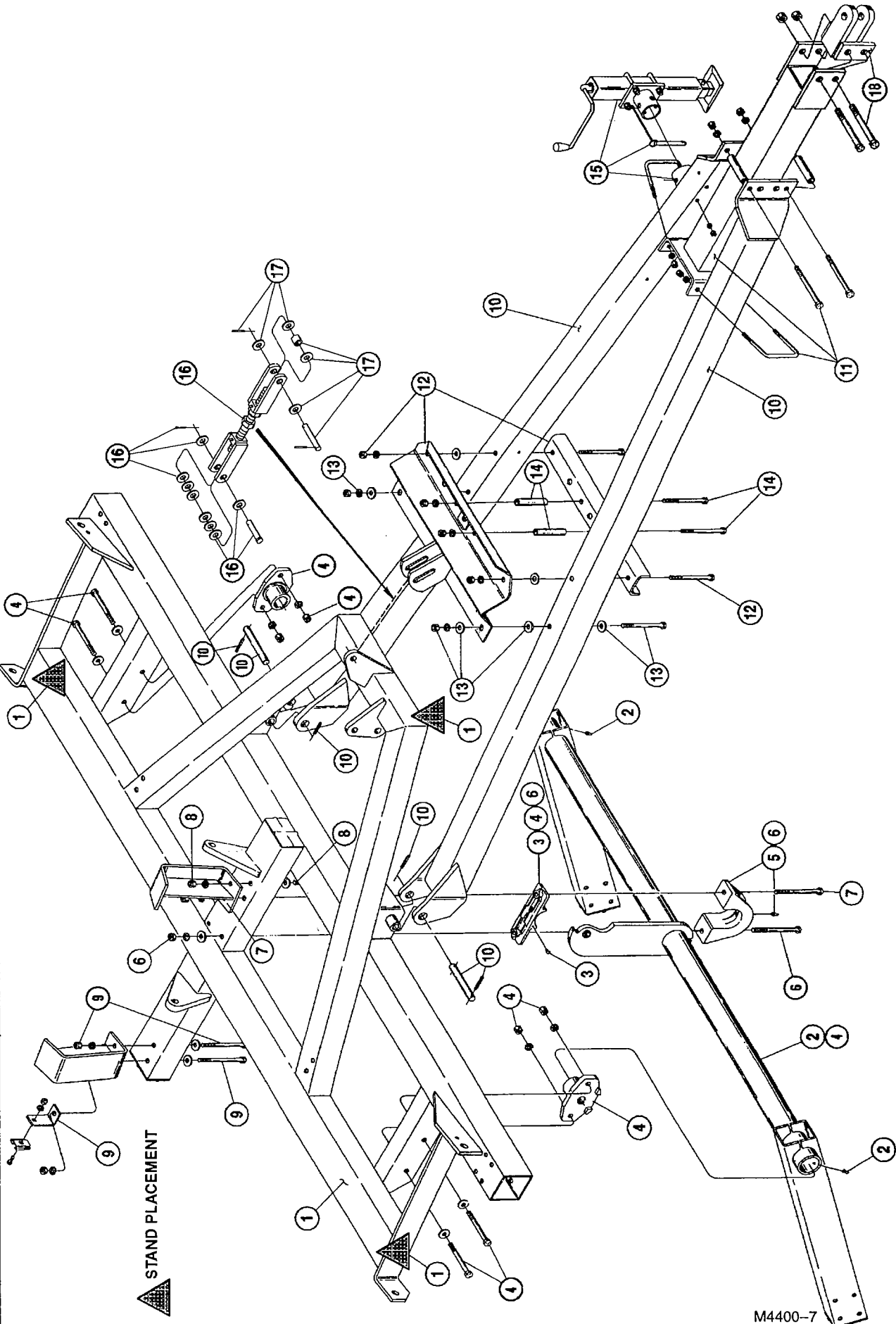
STAND PLACEMENT



M4400-6
Rev. 6/93

STEP #	ASSEMBLY DESCRIPTION	ASSEMBLY COMPONENTS REQUIRED	HARDWARE REQUIRED
1.	Center Frame on stands	Center Frame 4420-1-0, (3) Frame Stands	
2.	Zerks into Rocker Shaft	Rocker Shaft, 4420-10-0	(2) 1/8NPT Thread Cutting Zerks
3.	Zerk into Rocker Bearing Shaft	Rocker Bearing Plate, 1844-0-13	1/8NPT x 45 degree Zerk
4.	Lift rocker into frame & fasten End Rocker Bearings	Rocker Shaft, 4420-10-0, (2) End Rocker Bearings, 4122-0-8A, Rocker Bearing Plate, 1844-0-13	(4) 3/4NC x 6" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
5.	Zerk in center rocker clamp	Rocker shaft clamp, 1112-0-7A	1/4NPT x 67-1/2 degree Zerk
6.	Rear bolt in center clamp	Bearing Plate 1844-0-13, Rocker Clamp 1112-0-7A	3/4NC x 7-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
7.	Front bolt in center clamp and rear bolt in wing stop	Wing Stop 4420-29-0	3/4NC x 7-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
8.	Front bolt in wing stop		3/4NC x 5-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut.
9.	Lamp bracket & Wing stop	Lamp Bracket Assembly 4519-59-0, Wing Stop 4420-29-0	(2) 3/4NC x 5-1/2" GD.5 Cap Screw, Flat Washer & Hex Nut
10.	Tongue beams to frame	Left Tongue Beam 4420-31-0, Right Tongue Beam 4420-32-0, (2) Pins 4260-60-1	(2) 3/4NC x 5-1/2" GD.5 Cap Screw, Flat Washer & Hex Nut
11.	Hitch Extension to Tongue Beams	Hitch Extension Weldment 4424-40-0, Spacer Bushing 2426-0-21	(2) 5/8" DIA. U-Bolts, Lock Washers & Hex Nuts, (2) 3/4NC x 7" GD. 5 Cap Screw & Self Locking Nut
12.	Front bolts in tongue plate to Tongue Beams & Channel	Tongue Plate 4420-33-0A, Hitch Channel 4420-0-1	(2) 3/4NC x 7" GD.5 Cap Screw, Flat/Lock Washer & Nut. (Do Not Tighten)
13.	Rear bolts in Tongue Plate		(2) 3/4NC x 7" GD.5 Cap Screw, (6) Flat & Lock Washr & Hex Nut
14.	Spacer Tubes to Topngue Plate	(2) Spacer Tubes 4420-0-2	(2) 3/4NC x 7" GD.5 Cap Screw, Lock Washer & Nut
15.	Jack assembly to left Tongue Beam	Jack Assembly 4956-56-0	Pin provided in Jack Assembly
16.	Leveling Screw to Center Frame	Leveling Screw 4420-53-0	(8) Flat Washers, (1) Clevis Pin & (1) 3/16" DIA. x 2" Cotter Pin
17.	Leveling Screw to Tongue Plate		(4) Flat Washers, (1) Spacer, (1) Pin & (2) 1/4" DIA. x 2-1/2" Roll Pins
18.	Clevis to Tongue Beams	Clevis Weldment 4420-75-0	(2) 1NC x 7-1/2" GD.5 Cap Screw & Lock Nut. Tighten all Hitch Bolts.

MODEL 4424 & 4426 FRAME, ROCKER & HITCH ASSEMBLY

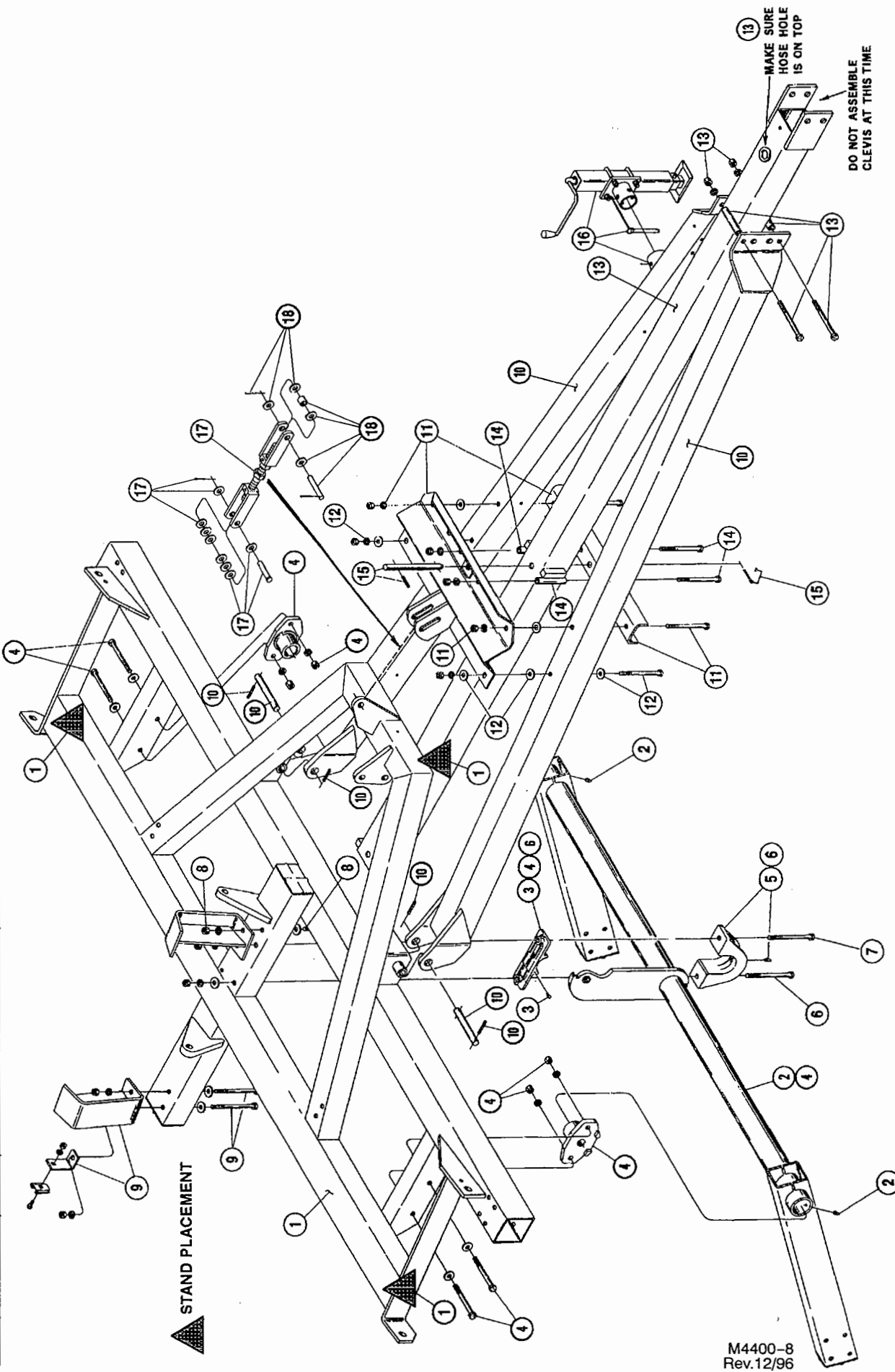


STAND PLACEMENT

M4400-7
Rev. 6/93

STEP #	ASSEMBLY DESCRIPTION	ASSEMBLY COMPONENTS REQUIRED	HARDWARE REQUIRED
1.	Center Frame on stands	Center Frame 4420-1-0, (3) Frame Stands	
2.	Zerks into Rocker Shaft	Rocker Shaft, 4420-10-0	(2) 1/8NPT Thread Cutting Zerks
3.	Zerk into Rocker Bearing Shaft	Rocker Bearing Plate, 1844-0-13	1/8NPT x 45 degree Zerk
4.	Lift rocker into frame & fasten End Rocker Bearings	Rocker Shaft, 4420-10-0, (2) End Rocker Bearings, 4122-0-8A, Rocker Bearing Plate, 1844-0-13	(4) 3/4NC x 6" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
5.	Zerk in center rocker clamp	Rocker shaft clamp, 1112-0-7A	1/4NPT x 67-1/2 degree Zerk
6.	Rear bolt in center clamp	Bearing Plate 1844-0-13, Rocker Clamp 1112-0-7A	3/4NC x 7-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
7.	Front bolt in center clamp & rear bolt in wing stop	Wing Stop 4420-29-0	3/4NC x 7-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
8.	Front bolt in Wing Stop		3/4NC x 5-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
9.	Lamp Bracket & Wing Stop	Lamp Bracket Assembly 4519-59-0, Wing Stop 4420-29-0	(2) 3/4NC x 5-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
10.	Tongue beams to frame	Left Tongue Beam 4420-31-0, Right Tongue Beam 4420-32-0, (2) Pins 4260-60-1	(4) 3/8" DIA. x 2" Roll Pins
11.	Hitch Extension to Tongue Beams	Hitch Extension Weldment 4424-40-0, Spacer Bushing 2426-0-2	(2) 5/8" DIA. U-Bolts, Lock Washers & Hex Nuts (2) 3/4NC x 7" GD.5 Cap Screw & Self Locking Nut
12.	Front Bolts in Tongue Plate to Tongue Beams & Channel	Tongue Plate 4420-33-0A, Hitch Channel 4420-0-1	(2) 3/4NC x 7" GD.5 Cap Screw, Flat / Lock Washer & Nut (Do Not Tighten)
13.	Rear Bolts in Tongue Plate		(2) 3/4NC x 7" GD.5 Cap Screw, (6) Flat & Lock Washer & Hex Nut
14.	Spacer Tubes to Topngue Plate	(2) Spacer Tubes 4420-0-2	(2) 3/4NC x 7" GD.5 Cap Screw, Lock Washer & Nut
15.	Jack assembly to left Tongue Beam	Jack Assembly 4956-56-0	Pin provided in Jack Assembly
16.	Leveling Screw to Center Frame	Leveling Screw 4420-53-0	(8) 1" Flat Washers, (1) Clevis Pin & (1) 3/16" DIA. x 2" Cotter Pin
17.	Leveling Screw to Tongue Plate		(4) 1" Flat Washers, (1) Spacer, (1) Pin & (2) 1/4" DIA. x 2-1/2" Roll Pins
18.	Clevis to Tongue Beams	Clevis Weldment 4420-75-0	(2) 1NC x 7-1/2" GD.5 Cap Screw & Lock Nut. Tighten all Hitch Bolts.

MODELS 4428, 4430, 4432 & 4434 FRAME, ROCKER & HITCH ASSEMBLY

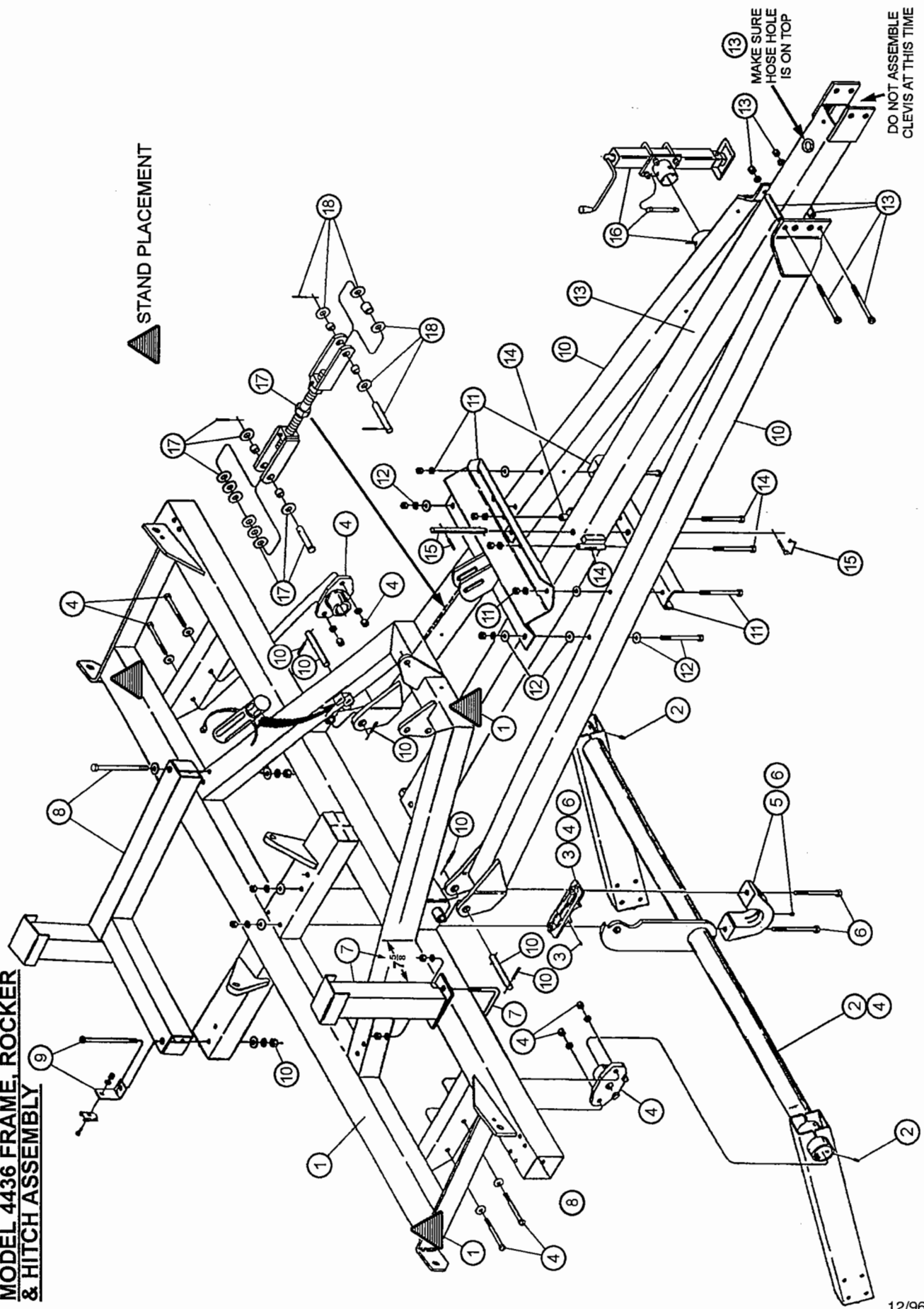


M4400-8
Rev.12/96

STEP #	ASSEMBLY DESCRIPTION	ASSEMBLY COMPONENTS REQUIRED	HARDWARE REQUIRED
1.	Center Frame on stands	Center Frame 4420-1-0, (3) Frame Stands	
2.	Zerks into Rocker Shaft	Rocker Shaft, 4420-10-0	(2) 1/8NPT Thread Cutting Zerks
3.	Zerk into Rocker Bearing Shaft	Rocker Bearing Plate, 1844-0-13	1/8NPT x 45 degree Zerk
4.	Lift rocker into frame & fasten End Rocker Bearings	Rocker Shaft, 4420-10-0, (2) End Rocker Bearings, 4122-0-8A, Rocker Bearing Plate, 1844-0-13	(4) 3/4NC x 6" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
5.	Zerk in center rocker clamp	Rocker shaft clamp, 1112-0-7A	1/4NPT x 67-1/2 degree Zerk
6.	Rear bolt in center clamp	Bearing Plate 1844-0-13, Rocker Clamp 1112-0-7A	3/4NC x 7-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
7.	Center clamp & Rear wing stop bolt	Wing Stop 4420-29-0	3/4NC x 7-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
8.	Front bolt in Wing Stop		3/4NC x 5-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
9.	Lamp Bracket & Wing Stop	Lamp Bracket Assembly 4519-59-0, Wing Stop 4420-29-0	(2) 3/4NC x 5-1/2" GD.5 Cap Screw, Flat Washer & Hex Nut
10.	Tongue beams to frame	Left Tongue Beam 4420-31-0, Right Tongue Beam 4420-32-0, (2) Pins 4260-60-1	(4) 3/8" DIA. x 2" Roll Pins
11.	Tongue Plate-Tongue Beams/Channel	Tongue Plate 4420-33-0A, Hitch Channel 4420-0-1	(2) 3/4NC x 7" GD.5 Cap Screw, Flat / Lock Washer & Nut (Do Not Tighten)
12.	Rear bolts in Tongue Plate		(2) 3/4NC x 7" GD.5 Cap Screw, (6) Flat / Lock Washer & Hex Nut
13.	Sliding Tongue & Spacer Tubes	Sliding Tongue 4428-30-0, (2) Spacer Tubes 4420-0-2	(2) 3/4NC x 7" GD.5 Cap Screw, Lock Washer & Hex Nut
14.	Spacer Tubes to Topngue Plate	(2) Spacer Tubes 4420-0-2	
15.	Pin Tongue in tetracted position	Tongue Pin 4428-0-1, P.T.O. Pin 60-103	(2) 3/4NC x 7" GD.5 Cap Screw, Lock Washer & Nut Tighten all hitch bolts.
16.	Jack assembly to left Tongue Beam	Jack Assembly 4956-56-0	3/8" DIA. x 2" Roll Pin
17.	Leveling Screw to Center Frame	Leveling Screw 4420-53-0	Pin provided in Jack Assembly
18.	Leveling Screw to Tongue Plate		(8) 1" Flat Washers, (1) Clevis Pin & (1) 3/16" DIA. x 2" Cotter Pin
			(4) 1" Flat Washers, (1) Spacer, (1) Pin & (2) 1/4" DIA. x 2-1/2" Roll Pins

**MODEL 4436 FRAME, ROCKER
& HITCH ASSEMBLY**

▲ STAND PLACEMENT

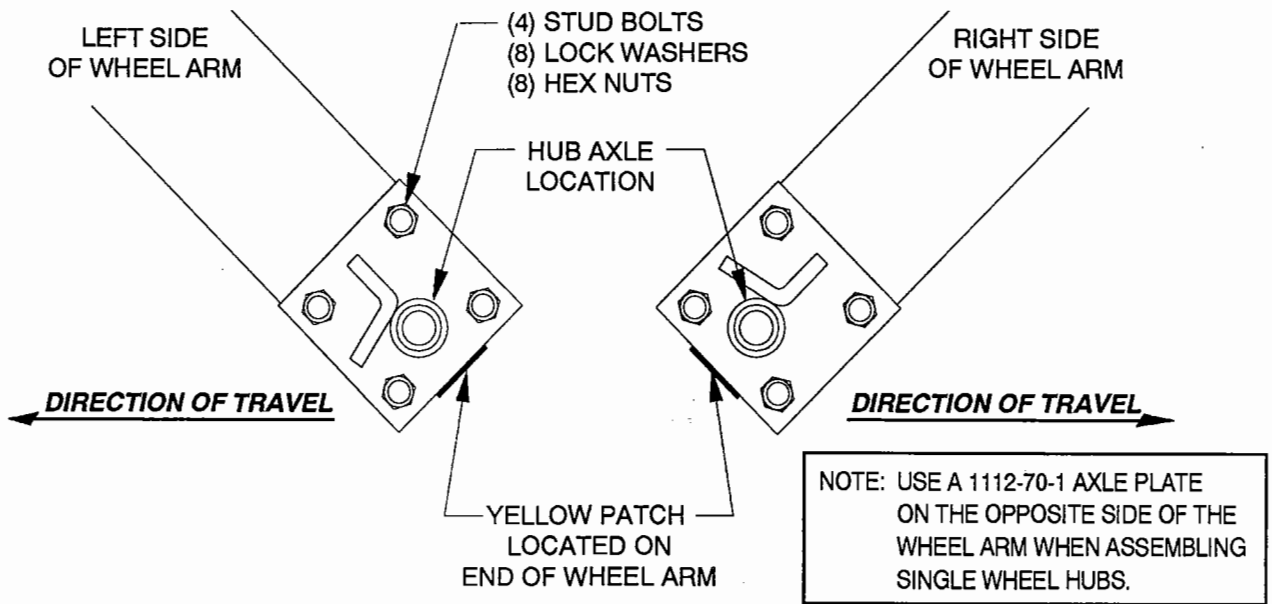


12/96
M4400-58

STEP #	ASSEMBLY DESCRIPTION	ASSEMBLY COMPONENTS REQUIRED	HARDWARE REQUIRED
1.	Center Frame on stands	Center Frame 4420-1-0, (3) Frame Stands	
2.	Zerks into Rocker Shaft	Rocker Shaft, 4420-10-0	(2) 1/8NPT Thread Cutting Zerks
3.	Zerk into Rocker Bearing Shaft	Rocker Bearing Plate, 1844-0-13	1/8NPT x 45 degree Zerk
4.	Lift rocker into frame & fasten End Rocker Bearings	Rocker Shaft , 4420-10-0, (2) End Rocker Bearings, 4122-0-8A, Rocker Bearing Plate, 1844-0-13	(4) 3/4NC x 6" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
5.	Zerk in center rocker clamp	Rocker shaft clamp, 1112-0-7A	1/4NPT x 67-1/2 degree Zerk
6.	Center Rocker Clamp	Bearing Plate 1844-0-13, Rocker Clamp 1112-0-7A	(2) 3/4NC x 7-1/2" GD.5 Cap Screw, Flat & Lock Washer & Hex Nut
7.	Front Wing Stop	Wing Stop 4436-35-0	5/8" U-Bolt 1-223, (2) Lock Washers & Hex Nuts
8.	Rear Wing Stop	Wing Stop 4436-37-0	3/4NC x 9-1/2"GD5 Bolt, (2) Flat Washer, (1) Lock Washer & Hex Nut.
9.	Lamp Bracket & Wing Stop	Lamp Bracket Assembly 4519-59-0, Wing Stop 4420-29-0	3/4NC x 10" GD.5 Bolt, Flat Washer, Lock Washer & Hex Nut
10.	Tongue beams to frame	Left Tongue Beam 4420-31-0, Right Tongue Beam 4420-32-0, (2) Pins 4260-60-1	(4) 3/8" DIA. x 2" Roll Pins
11.	Tongue Plate-Tongue Beams/Channel	Tongue Plate 4420-33-0A, Hitch Channel 4420-0-1	(2) 3/4NC x 7" GD.5 Cap Screw, Flat / Lock Washer & Nut (Do Not Tighten)
12.	Rear bolts in Tongue Plate		(2) 3/4NC x 7" GD.5 Cap Screw, (6) Flat / Lock Washer & Hex Nut
13.	Sliding Tongue & Spacer Tubes	Sliding Tongue 4428-30-0, (2) Spacer Tubes 4420-0-2	(2) 3/4NC x 7" GD.5 Cap Screw, Lock Washer & Hex Nut :
14.	Spacer Tubes to Topngue Plate	(2) Spacer Tubes 4420-0-2	(2) 3/4NC x 7" GD.5 Cap Screw, Lock Washer & Nut Tighten all hitch bolts.
15.	Pin Tongue in retracted position	Tongue Pin 4428-0-1, P.T.O. Pin 60-103	3/8" DIA. x 2" Roll Pin
16.	Jack assembly to left Tongue Beam	Jack Assembly 4956-56-0	Pin provided in Jack Assembly
17.	Leveling Screw to Center Frame	Leveling Screw 4420-53-0	(8) 1" Flat Washers, (1) Clevis Pin & (1) 3/16" DIA. x 2" Cotter Pin
18.	Leveling Screw to Tongue Plate		(4) 1" Flat Washers, (1) Spacer, (1) Pin & (2) 1/4" DIA. x 2-1/2" Roll Pins

SINGLE OR DUAL HUB AND WHEEL ASSEMBLY

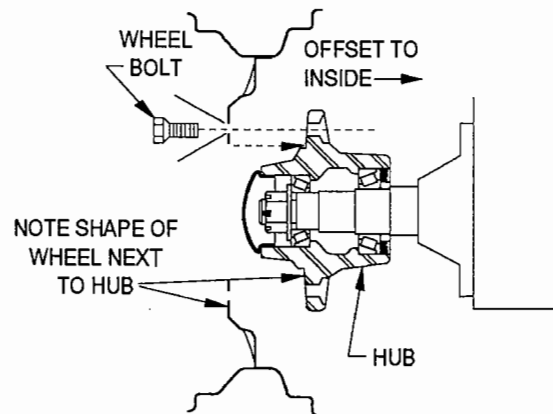
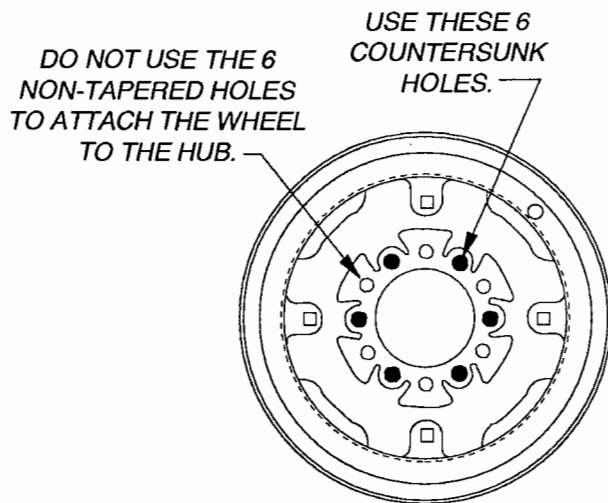
- Using the axle stud bolts provided, attach the dual hubs to both rocker shaft wheel arms. Make sure that the hubs are positioned with the axle (spindle) at the same location on each side. The axle is off-center on the mounting plate, and will appear different on opposite sides as shown in the illustrations below. The yellow patch on each hub edge will help. See illustration below.



M4400-22

- This series of packers have been furnished with 15 x 8, 6-bolt wheels that require 9.5L x 15 tires. Remove the 6 wheel bolts in each hub and attach the wheels and tires to the hubs through the countersunk wheel bolt holes as shown in the drawing below. Note how the wheel has been formed to fit the hub in a concave shape next to the hub.

**INFLATE TIRES
8 - PLY TO 44 P.S.I.**



IMPORTANT

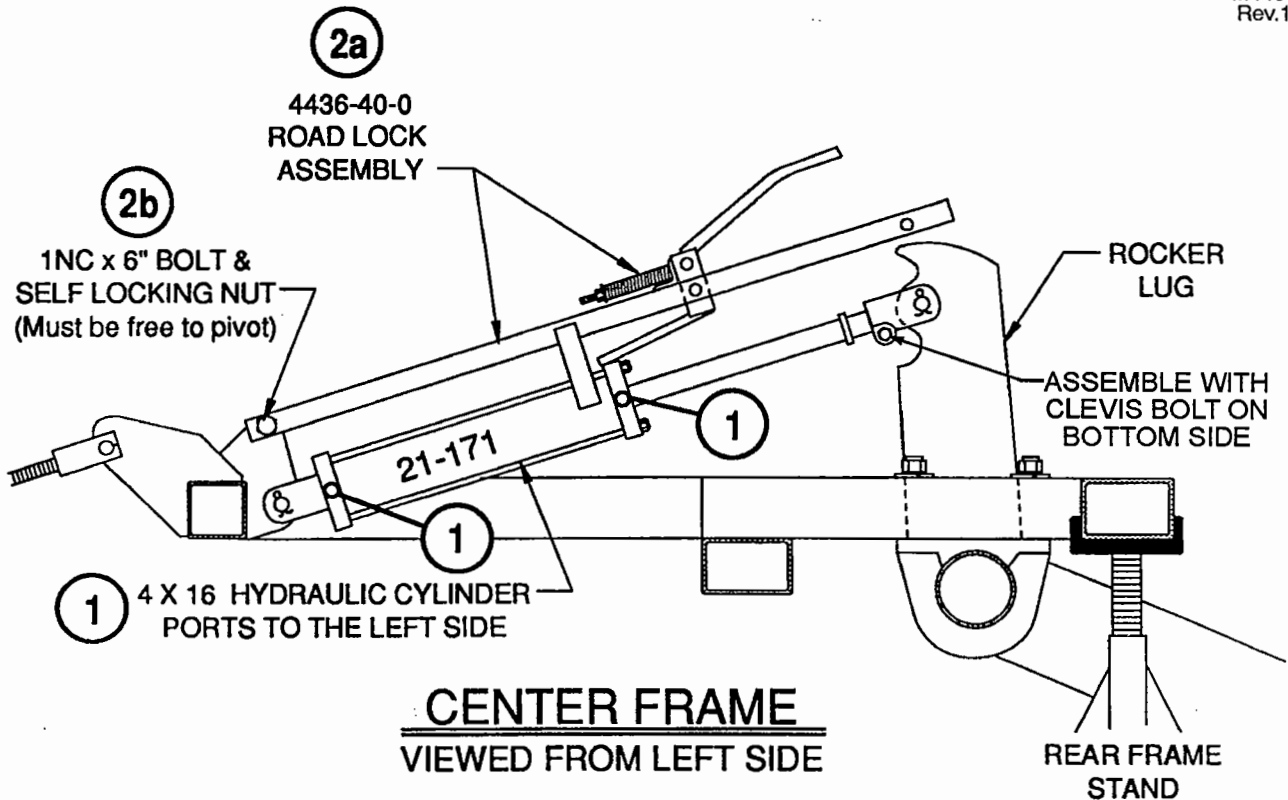
**TORQUE ALL WHEEL BOLTS
FROM 90 TO 95 FT. LBS.**

M4400-23

ROCKER HYDRAULIC CYLINDER AND ROAD LOCK

1. Assemble the 21-171 4" x 16" HYDRAULIC CYLINDER to the center frame and rocker lug with the ports on the left side.

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Rev.12/96

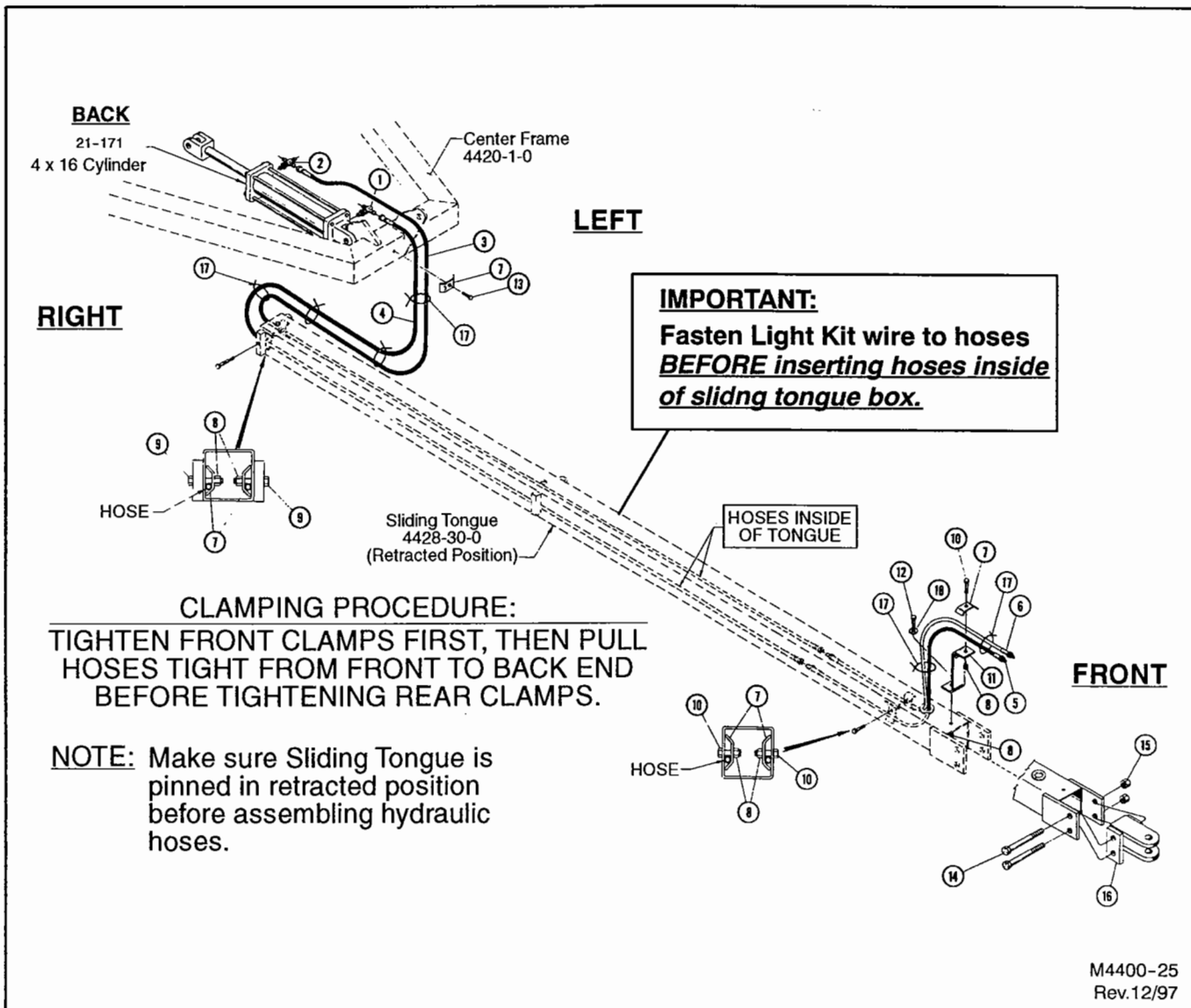


2. Position the 4336-40-0 ROAD LOCK ASSEMBLY on top of the 4" x 16" hydraulic cylinders. Fasten it to the frame lug with a 1NC x 6" BOLT and SELF LOCKING NUT. (Do not over-tighten the nut -- road lock must be free to pivot.)

IMPORTANT: DO NOT ENGAGE ROAD LOCK UNTIL THE HYDRAULIC PLUMBING HAS BEEN COMPLETED AND THE CYLINDERS ARE FILLED WITH OIL.

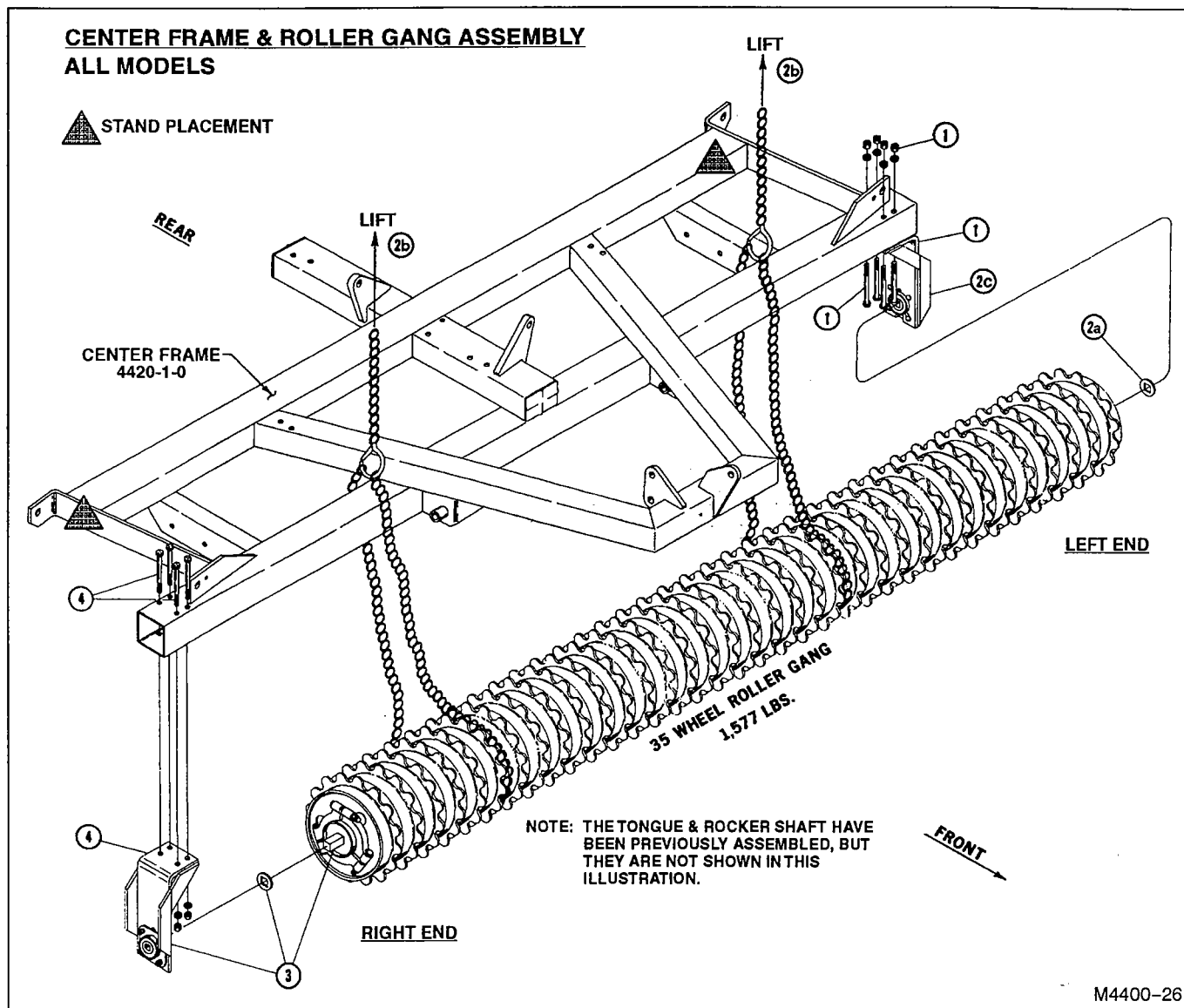
⚠ Caution: Do not remove the rear frame stands. The cylinder will not support the packer until it is filled with oil.

SLIDING TONGUE HYDRAULIC HOSE & HITCH CLEVIS ASSEMBLY



Item	Part Number	Part Description	Qty.
1	25-309	O-Ring 37° Flare Tee	1
2	25-308	O-Ring 37° Flare Cross	1
3	25-373	1/2" DIA. Hose 190" (3/4" Swivel Both Ends)	1
4	25-362	1/2" DIA. Hose 170" (3/4" Swivel Both Ends)	1
5	4990-75-0	1/2" DIA. Hose 92" Hydraulic Hose w/ RED/RED Grip	1
6	4990-76-0	1/2" DIA. Hose 92" Hydraulic Hose w/ YELLOW/YELLOW Grip	1
7	3514-0-2	Hose Clamp	6
8	63-107	1/2NC Self Locking Nut	6
9	62-151	1/2NC x 3" GD.5 Cap Screw	2
10	62-343	1/2NC x 2" GD.5 Cap Screw	3
11	4901-0-18	Hose Stand	1
12	62-569	1/2NC x 1-1/2" GD.5 Cap Screw	1
13	62-115	3/8NC x 1-1/2" Thread Cutting Screw	1
14	62-255	1NC x 7-1/2" GD.5 Cap Screw	2
15	63-119	1NC Self Locking Nut	2
16	4420-75-0	Clevis Weldment	1
17	25-126	Pandit Stay Strap	6
18	64-108	1/2" STD. Flat Washer	1

CENTER FRAME AND ROLLER GANG ASSEMBLY



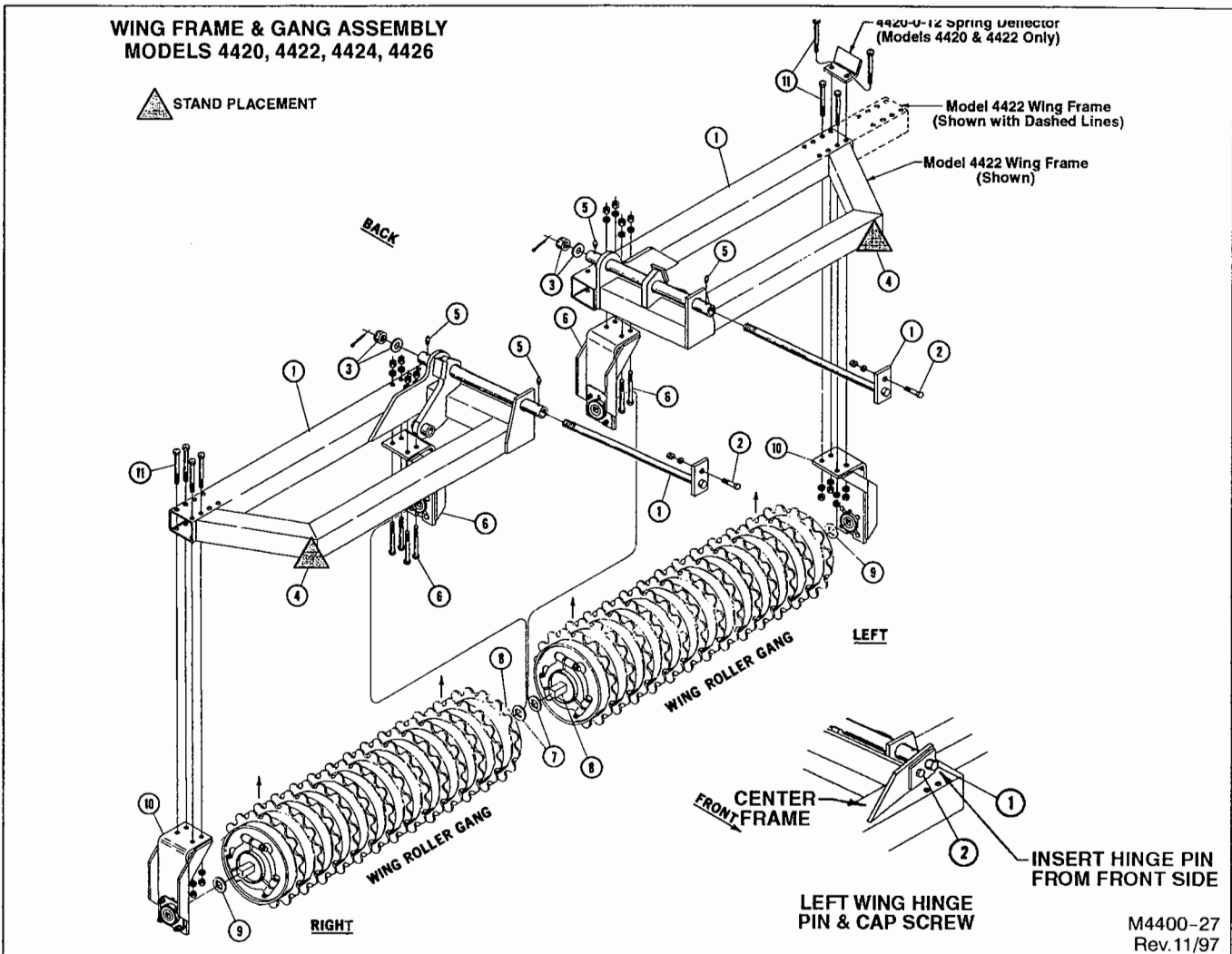
1. Fasten the left end BEARING ARM (4420-13-0) to the center frame with (4) 3/4NC x 6-1/2" GD.5 Cap Screws, Lock Washers and Hex Nuts.

(Bolts inserted from the bottom side as shown in the illustration above)

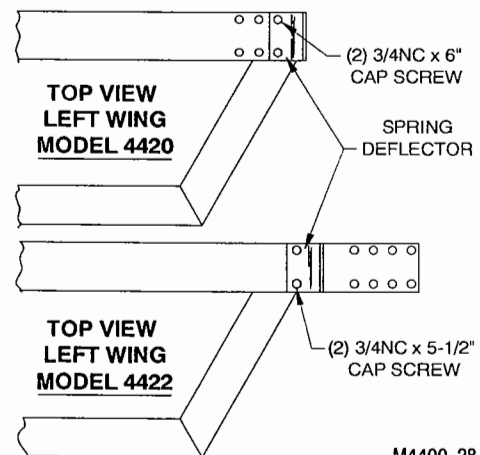
2. a. Slide a special ROLLER SHAFT WASHER (4420-0-9) onto the left end roller shaft.
 b. Make sure your lift chains can safely handle 1,600 LBS.
 c. Raise the 35 wheel center ROLLER GANG and insert the left end shaft into the bearing.
3. Slide a ROLLER SHAFT WASHER (4420-0-9) and a BEARING ARM (4420-13-0) on the right end.
4. Fasten the right end bearing to the center frame with (4) 3/4NC x 6-1/2" GD.5 Cap Screws, Lock Washers and Hex Nuts.

(Bolts inserted from the top side as shown in the illustration above)

MODELS 4420, 4422, 4424, 4426 WING FRAME & GANG BEAM ASSEMBLY



1. Position the wing frame so that the HINGE PIN (4420-37-0) can be inserted.
2. Secure hinge pin weldment to center frame lug with a 5/8NC X 2" GD.5 CAP SCREW, LOCK WASHER & HEX NUT.
3. Retain the HINGE PIN with a 1-1/2NC SLOTTED HEX NUT, a special FLAT WASHER (2-1/2 x 1-5/8 x 3/16), and a 1/4" DIA x 3" COTTER PIN.
4. Support the outer end of the wing with another frame stand.
5. Screw in (2) 1/8" STD. ZERKS into each hinge tube.
6. Fasten the inside BEARING ARM (4420-14-0) to the wing frame with (4) 3/4NC x 5-1/2" GD.5 CAP SCREWS, LOCK WASHERS, and HEX NUTS.
7. Slide a special ROLLER SHAFT WASHER (4420-0-9) on the outer end of the gang.
8. Raise another roller gang carefully and insert the inside end into the bearing.
9. Use another ROLLER SHAFT WASHER (4420-0-9) on the outer end of the gang.
10. Slide the outer BEARING ARM (4420-13-0) onto the roller gang shaft.
11. Fasten the outer end bearing arm with (4) 3/4NC x 5-1/2" GD.5 Cap Screws, Lock Washers and Hex Nuts.

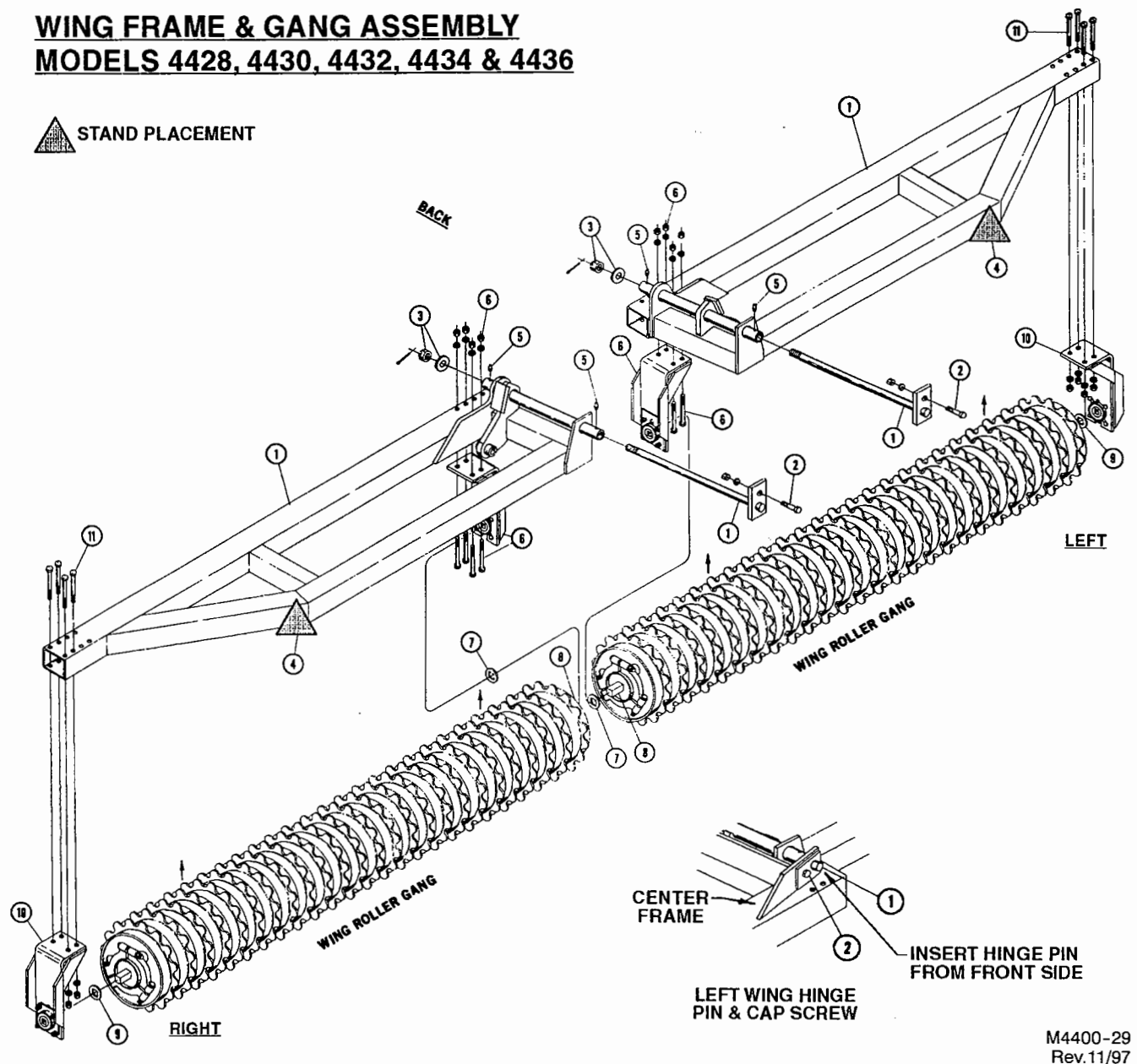


NOTE: Use (2) 3/4NC x 6" GD.5 Bolts to fasten the outer BEARING ARM and SPRING DEFLECTOR to the left wing of Model 4422.

12. Use (2) extra 3/4NC x 5-1/2" GD.5 Bolts to fasten the spring deflector to the left wing of Model 4422.

WING FRAME & GANG ASSEMBLY MODELS 4428, 4430, 4432, 4434 & 4436

 STAND PLACEMENT



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1. Position the wing frame so that the HINGE PIN (4420-37-0) can be inserted.
2. Secure hinge pin weldment to center frame lug with a 5/8NC X 2" GD.5 CAP SCREW, LOCK WASHER & HEX NUT.
3. Retain the hinge pin with a 1-1/2NC SLOTTED HEX NUT, a special FLAT WASHER (2-1/2 x 1-5/8 x 3/16), and a 1/4" DIA. x 3" Cotter Pin.
4. Support the outer end of the wing with another frame stand.
5. Screw in (2) 1/8" STD. ZERKS into each hinge tube.
6. Fasten the inside BEARING ARM (4420-14-0) to the wing frame with (4) 3/4NC x 5-1/2" GD.5 CAP SCREWS, LOCK WASHERS, and HEX NUTS.
7. Slide a special ROLLER SHAFT WASHER (4420-0-9) onto the inside end of the wing roller gang.
8. Raise the roller gang carefully and insert the inside end into the bearing.
9. Use another ROLLER SHAFT WASHER (4420-0-9) on the outer end of the gang.
10. Slide the outer end BEARING ARM (4420-13-0) onto the roller gang shaft.
11. Fasten the outer end bearing arm with (4) 3/4NC x 5-1/2" GD.5 Cap Screws, Lock Washers and Hex Nuts.

"V"PACK GANG ASSEMBLY

STEP 1 IDENTIFY THE GANGS TO BE ASSEMBLED USING THE "V"PACK GANG ASSEMBLY AND PLACEMENT PAGES A29 TO A35. POSITION EACH GANG UNDER THE FRAME AS SHOWN. MAKE SURE THE ROLL PINNED JAM NUT END OF THE TIE ROD IS LOCATED AT THE CORRECT END.

STEP 2 FASTEN THE BEARING ARMS TO THE GANG BEARINGS WITH (4) 1/2"NC X 1-1/2" CARRIAGE BOLTS, 1/2" LOCK WASHERS, AND 1/2"NC HEX NUTS. NOTE THE DIRECTION OF EACH BEARING ARM AND ASSEMBLE IT FACING THE CORRECT WAY.

"V"PACK LEFT CENTER GANG ASM.

(BOLT THROUGH FRAME BOX)

(4) 3/4"NC X 7"GD5 CAP SCREW

(4) 3/4" FLAT WASHER

(4) 3/4" LOCK WASHER

(4) 3/4"NC HEX NUT

(1) 4400-0-5 (BOLT PLATE)

(4) 3/4"NC X 7-1/2"GD5 CAP SCREW

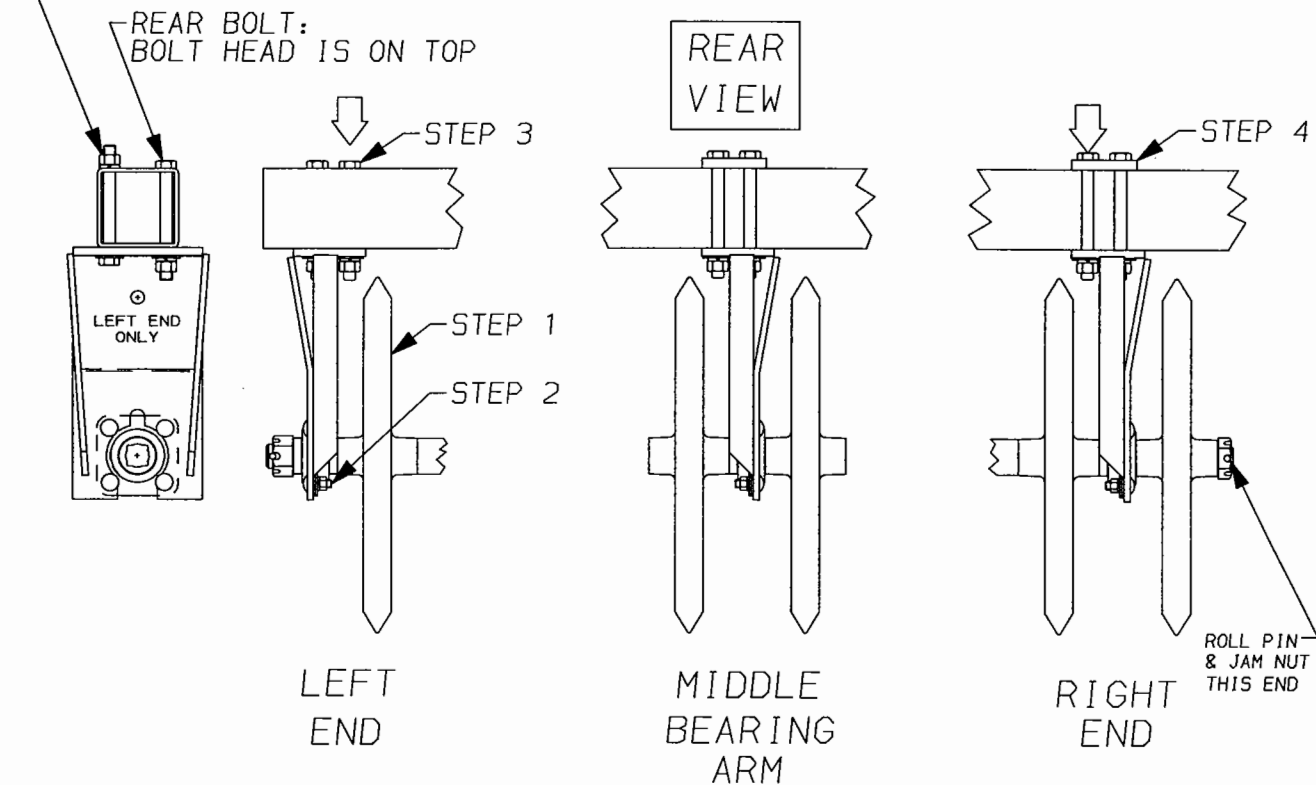
(4) 3/4" FLAT WASHER

(4) 3/4" LOCK WASHER

(4) 3/4"NC HEX NUT

FRONT BOLT:
NUT & LOCK WASHER IS ON TOP

REAR BOLT:
BOLT HEAD IS ON TOP



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STEP 3 STARTING AT THE LEFT END OF THE CENTER FRAME, RAISE THE GANG AND FASTEN THE BEARING ARM WITH 3/4"NC X 7" GD5 BOLTS THROUGH THE FRAME BOX AS SHOWN.

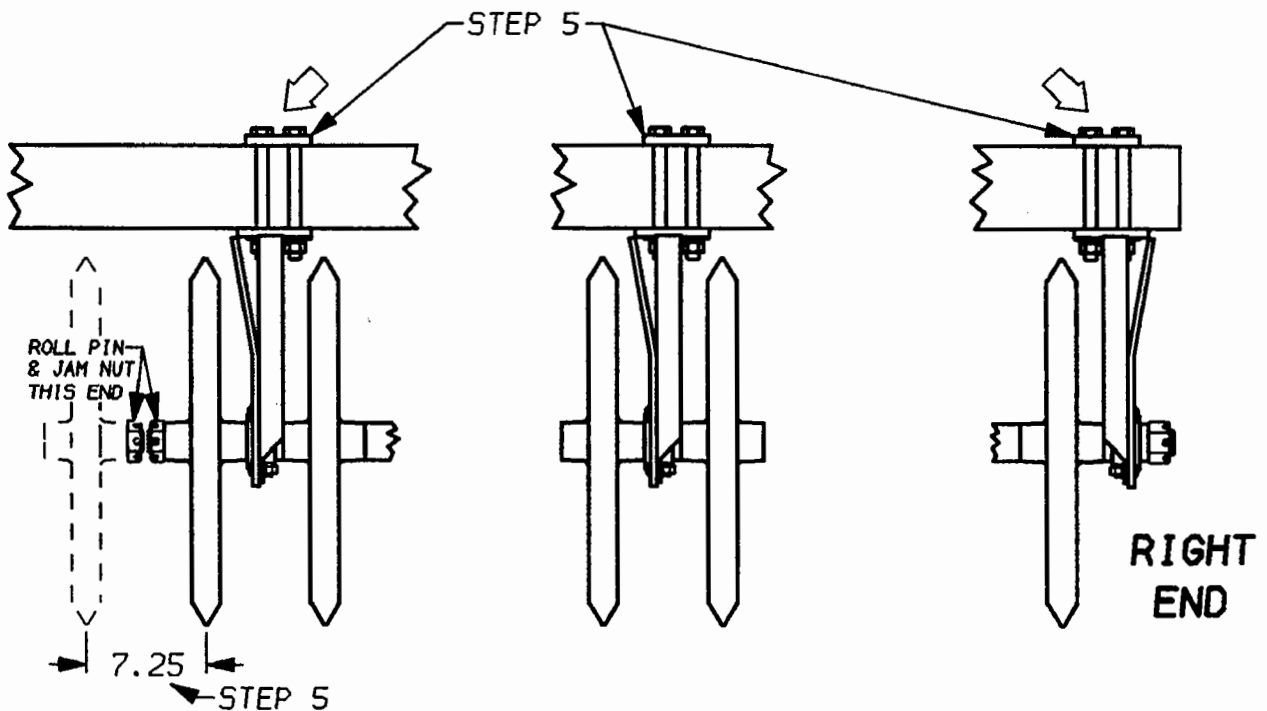
STEP 4 FASTEN THE MIDDLE AND OPPOSITE END TO THE FRAME WITH 4400-0-5 BOLT PLATES AND 3/4"NC X 7-1/2"GD5 BOLTS.

STEP 5 POSITION THE RIGHT CENTER GANG 7-1/4" FROM LEFT GANG AS SHOWN AND FASTEN THE BEARING ARMS WITH 4400-0-5 (BOLT PLATES) AND 3/4"NC X 7-1/2"NC GD5 BOLTS.

"V"PACK RIGHT CENTER GANG ASM.

AT EACH BEARING
ARM LOCATION

- (1) 4400-0-5 (BOLT PLATE)
- (4) 3/4"NC X 7-1/2"GD5 CAP SCREW
- (4) 3/4" FLAT WASHER
- (4) 3/4" LOCK WASHER
- (4) 3/4"NC HEX NUT



**REAR
VIEW**

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M4400-52

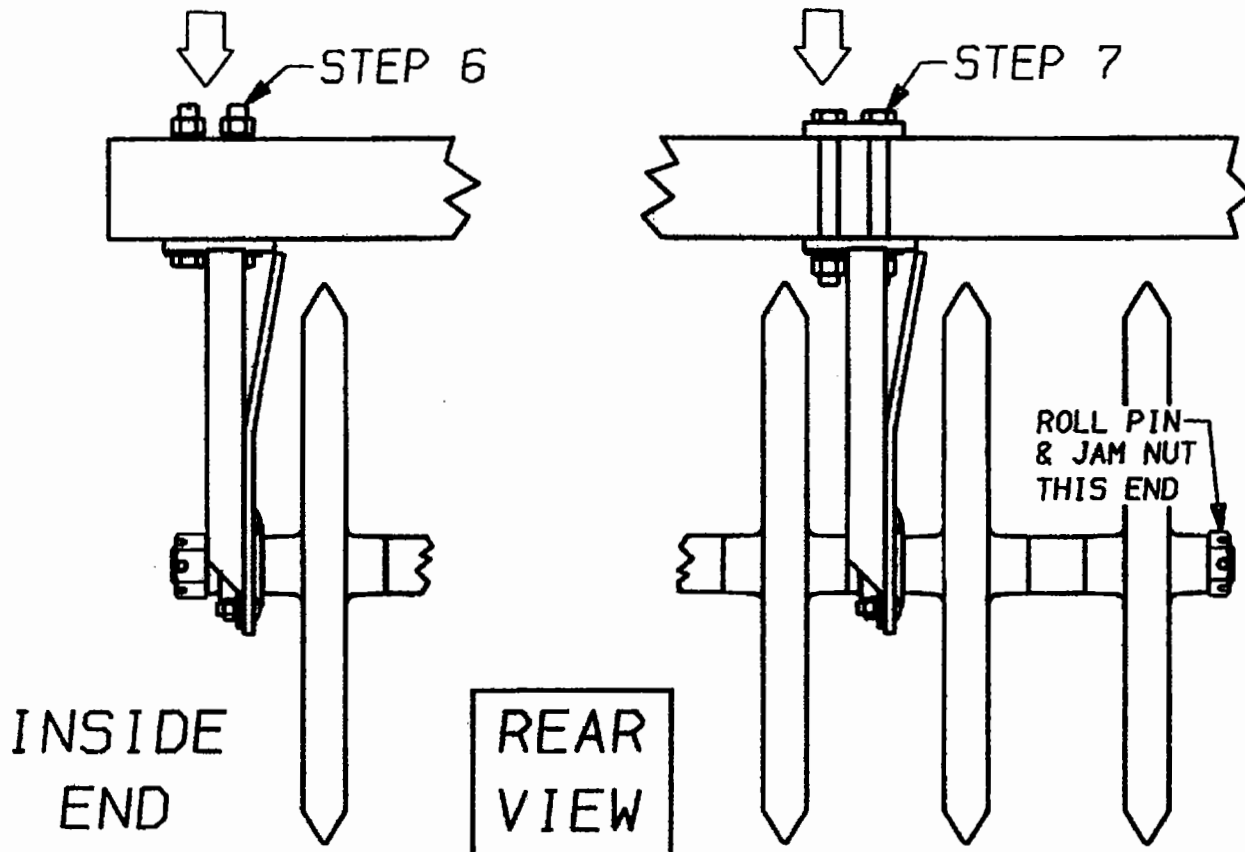
STEP 6 STARTING AT THE INSIDE END OF THE WING, RAISE THE GANG AND FASTEN THE BEARING ARM WITH 3/4"NC X 6"GDS BOLTS THROUGH THE FRAME BOX AS SHOWN.

STEP 7 FASTEN THE OUTER END OF THE INSIDE WING GANG TO THE WING FRAME WITH A 4400-0-5 (BOLT PLATE) AND 3/4"NC X 6-1/2"GDS BOLTS.

"V"PACK INSIDE WING GANG ASM.

(BOLT THROUGH FRAME BOX)
 (4) 3/4"NC X 6"GDS CAP SCREW
 (4) 3/4" FLAT WASHER
 (4) 3/4" LOCK WASHER
 (4) 3/4"NC HEX NUT

(1) 4400-0-5 (BOLT PLATE)
 (4) 3/4"NC X 6-1/2"GDS CAP SCREW
 (4) 3/4" FLAT WASHER
 (4) 3/4" LOCK WASHER
 (4) 3/4"NC HEX NUT



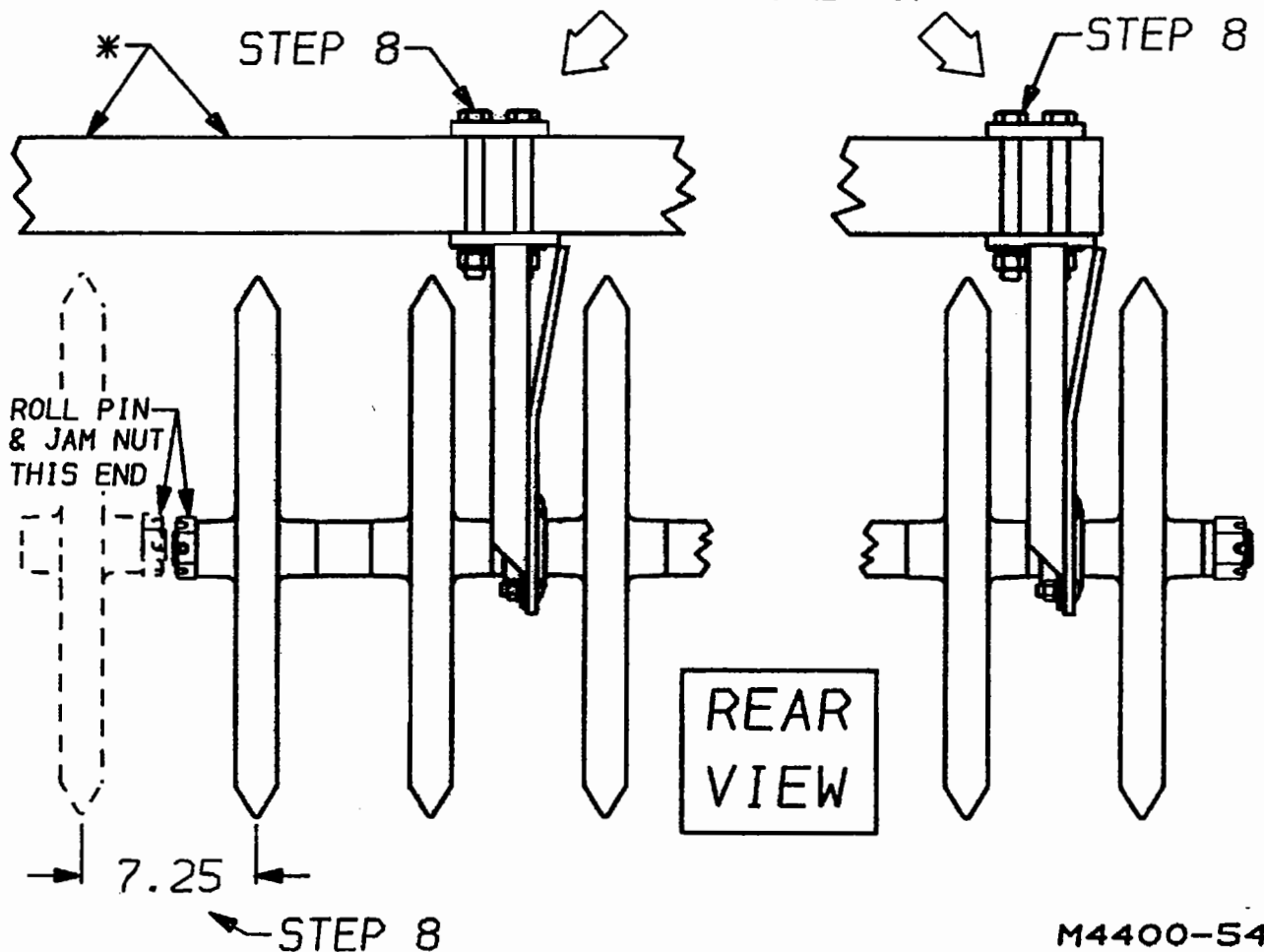
M4400-53

STEP 8 POSITION THE OUTER WING GANG 7-1/4" FROM THE INSIDE GANG AND FASTEN THE BEARING ARMS WITH 4400-0-5 (BOLT PLATES) AND 3/4"NC X 6-1/2"GD5 BOLTS.

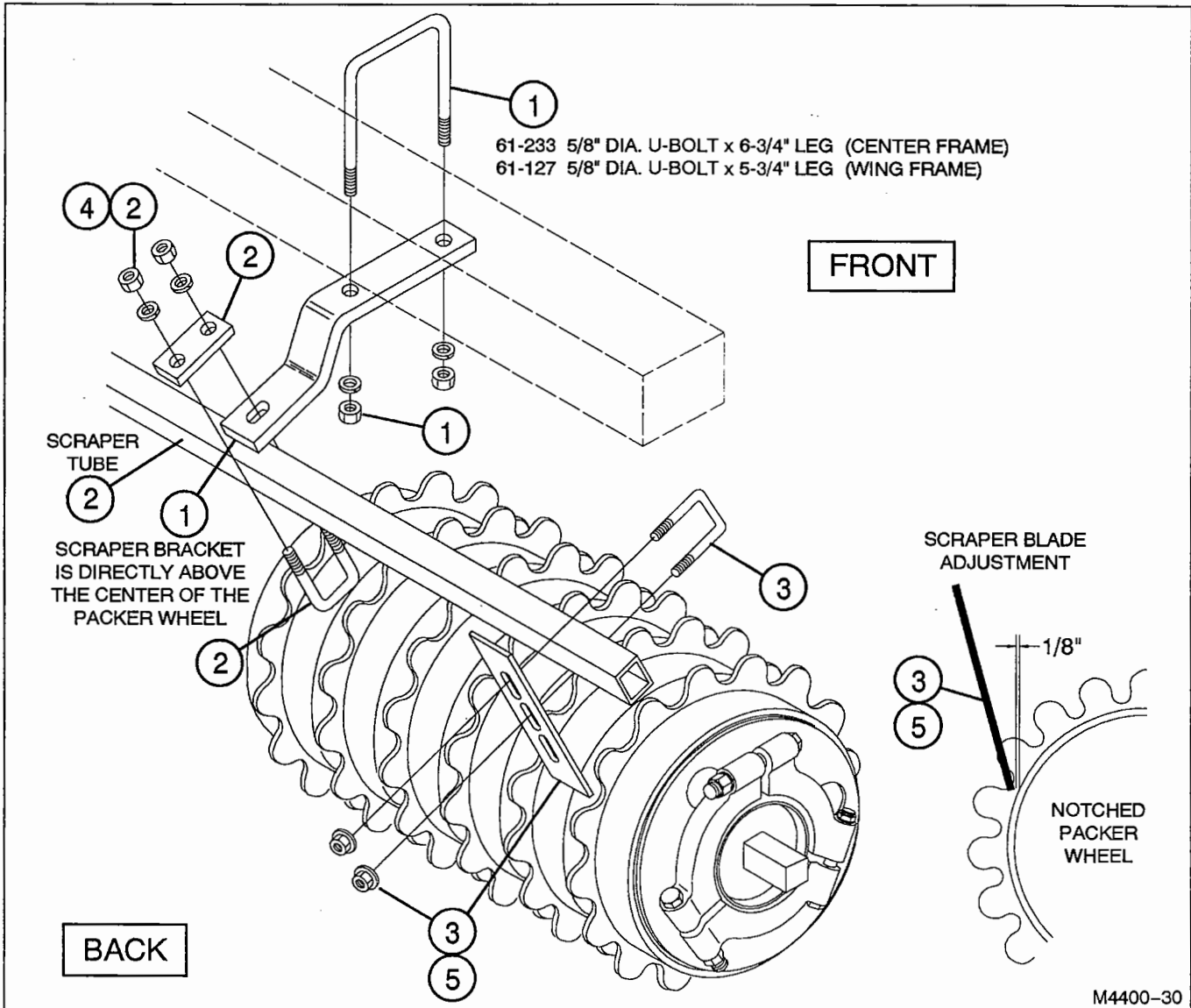
*NOTE: BEARING ARMS IN THIS AREA MAY INTERFERE WITH THE AUTOMATIC WING LOCK WHEN THE WING IS FOLDED. MAKE SURE BEARING ARMS ARE ASSEMBLED AS SHOWN IN THE PLACEMENT PAGES.

"V"PACK OUTSIDE WING GANG ASM.

- (1) 4400-0-5 (BOLT PLATE)
- (4) 3/4"NC X 6-1/2"GD5 CAP SCREW
- (4) 3/4" FLAT WASHER
- (4) 3/4" LOCK WASHER
- (4) 3/4"NC HEX NUT



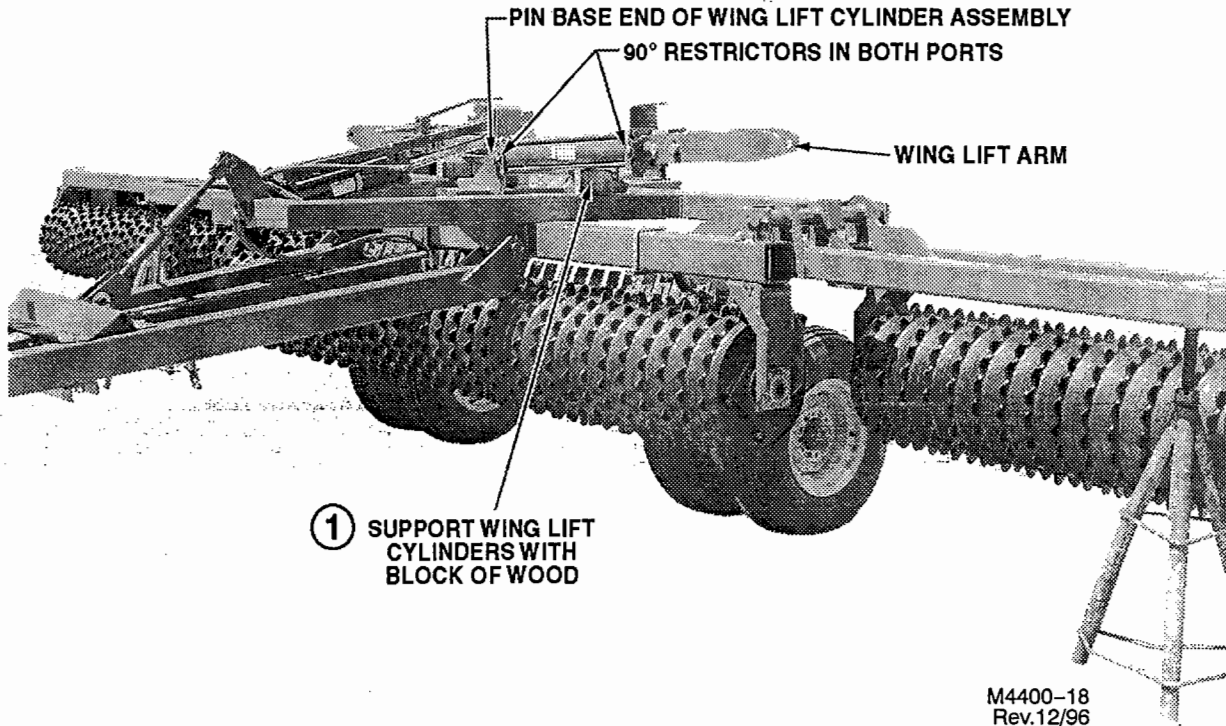
SCRAPER ASSEMBLY -- ACCESSORY



1. The placement pages at the back of the assembly section will show the correct location of each SCRAPER BRACKET (4420-0-7). The bracket will be directly above the center of the PACKER WHEEL. Mark the location and assemble each bracket to the frame with a 5/8" DIA. U-BOLT, (2) LOCK WASHERS and HEX NUTS. (Center Frame U-Bolt is part #61-223, Wing Frame U-Bolt is part #61-127.)
2. Center the SCRAPER TUBE behind the roller gang so that it is the same on both ends. Clamp the scraper tube to the bracket with a MOUNTING CLAMP (4420-0-6), a 5/8" DIA. U-BOLT, (2) LOCK WASHERS and HEX NUTS. DO NOT TIGHTEN.
3. Attach the (2) END SCRAPER BLADES (4420-0-8) to the scraper tube with 5/16" DIA. U-BOLTS (61-229) and HEX FLANGE SERRATED NUTS. Center them in the top slots and tighten them in place.
4. Adjust the scraper tube in or out at the bracket locations until the end scrapers are from 1/8" to 3/16" from the wheel. TIGHTEN THE MOUNTING CLAMP U-BOLTS.
5. Assemble the remaining scrapers to the scraper tube and adjust them up or down to adjust before tightening.

HYDRAULICS

IMPORTANT: DO NOT PIN THE ROD END OF THE WING LIFT CYLINDERS TO THE WING LUGS UNTIL ALL HYDRAULIC ASSEMBLY IS COMPLETE AND THE SYSTEM IS FULL OF OIL AND PURGED OF AIR.



1. Pin the base end of each WING LIFT CYLINDER ASSEMBLY to the center frame lugs. Support the cylinders with wood blocks so that the rod can be extended without interference.

Plumbing --



Caution: Use only hose that meets or exceeds 2,500 PSI working pressure.

2. Refer to the hydraulic plumbing pages in the Parts Section (pages P19 to P20) for the correct assembly of hoses, fittings and hose clamps.

IMPORTANT: A 90° RESTRICTOR SHOULD BE ASSEMBLED INTO ALL WING LIFT CYLINDER PORTS. THE PROPER LOCATION OF THESE FITTINGS IS IMPORTANT TO PREVENT THE WINGS FROM FREE-FALLING IF A HYDRAULIC FAILURE OCCURS.

3. Back the tractor to the front of the packer and connect the hydraulic hoses to the tractor. Check the tractor hydraulic reservoir and make sure it is full of the manufacturer's recommended oil. If you are sure the implement connections are tight and leakproof, begin filling the system by extending and retracting the cylinders. Hold the control lever open at the end of each cycle for 15 to 20 seconds. This will allow some time for the air to be forced out. Continue the cycles until the hydraulic cylinders respond with immediate solid actuation.

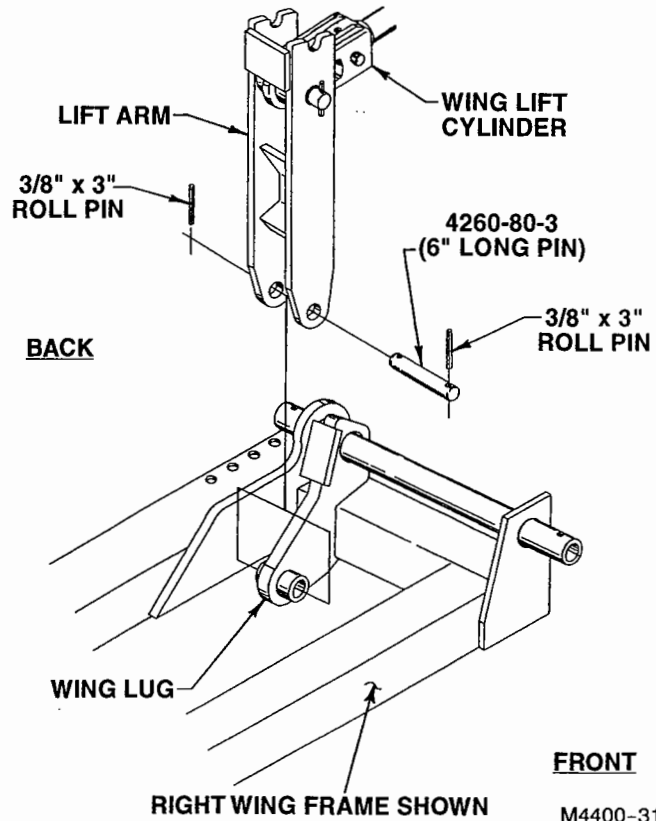


Warning: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

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.



4. When you are sure that the system is free of air, pin the wing lift arms to the wing lugs.
See illustration to the right.

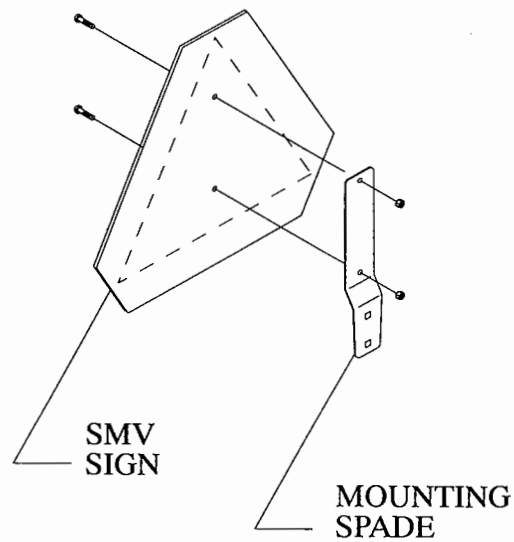


DECALS

The DECALS are important to the safety of the operators and to others and must be attached to the PACKER at the proper locations. Some DECALS are applied to the proper location at the factory; however, these should be checked for location, and to be sure that they have not been damaged in shipping or set-up. Remove the protective backing from each remaining decal, and attach to the packer at the locations shown on the parts drawing on page P26 of this manual.

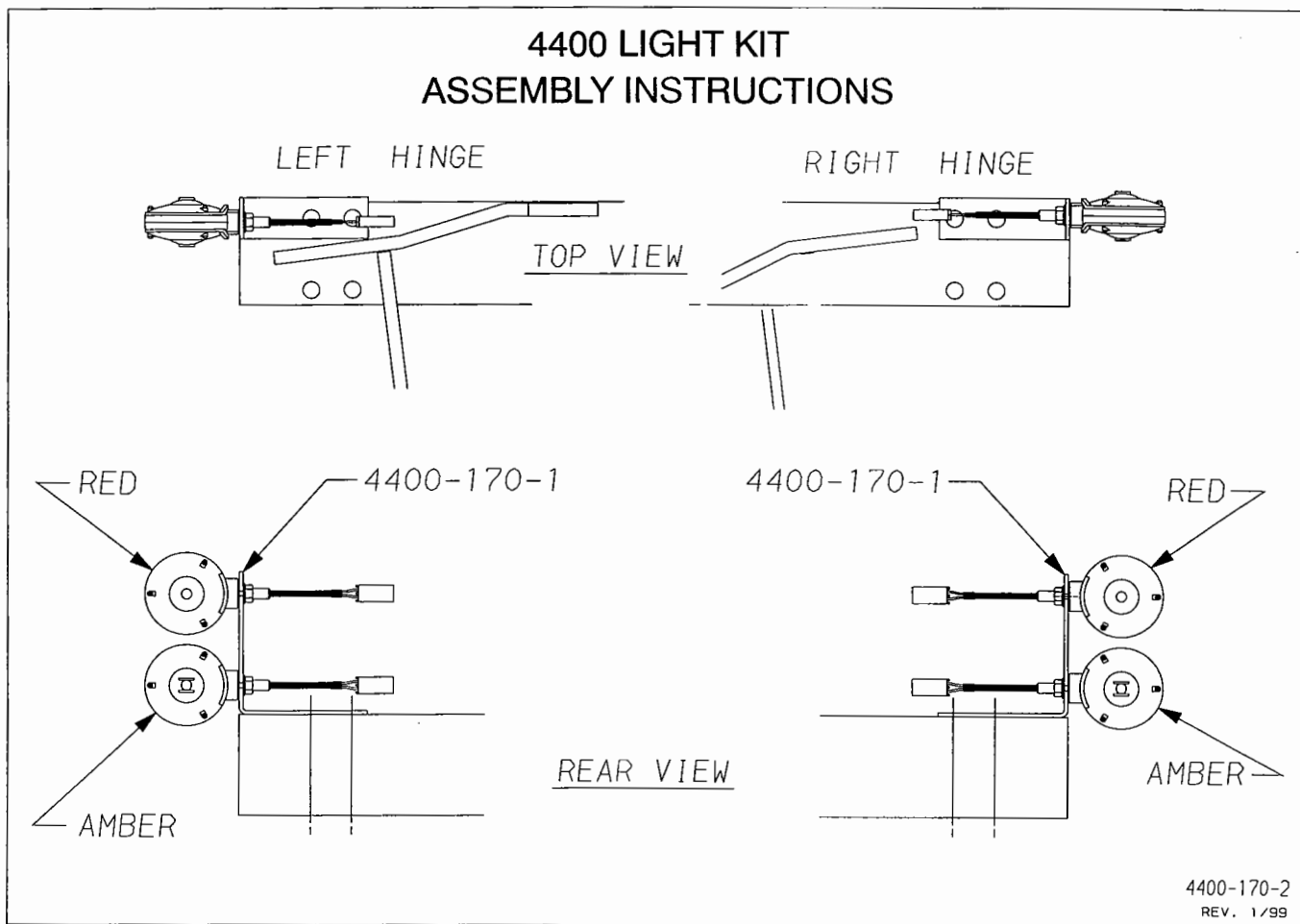
SMV SIGN

Insert the SMV Mounting spade into the socket lamp bracket bolted to the rearmost frame member as shown on parts pages P2 through P9 in this manual.



LIGHT KIT

Always comply with state and local laws pertaining to lighting. Install the light kit as shown below using parts shown on page P1 in this manual.

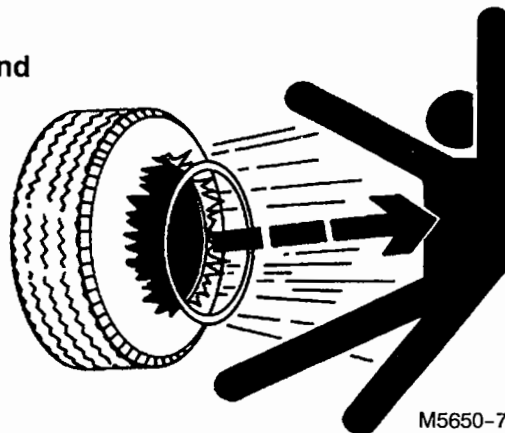


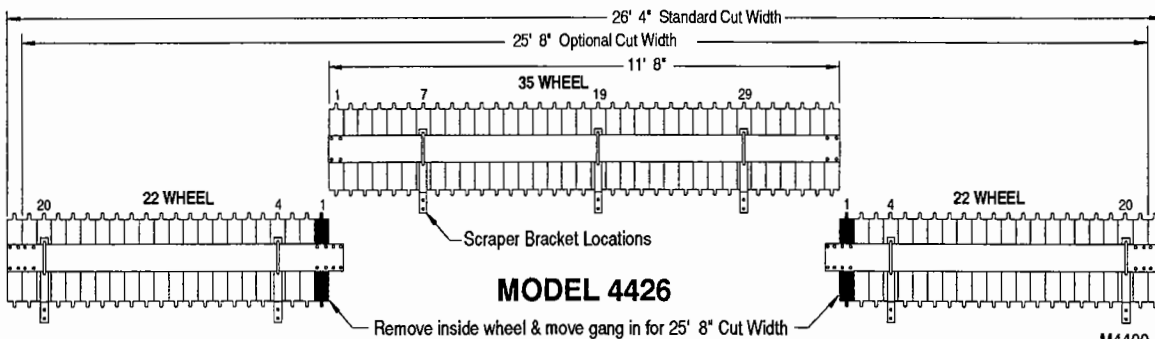
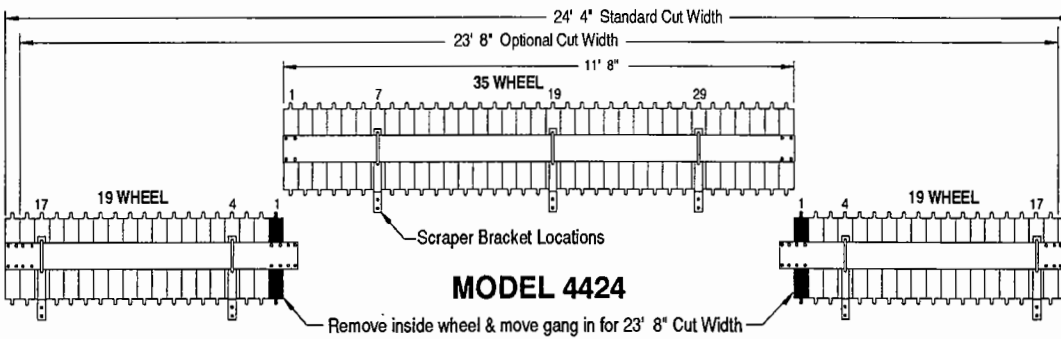
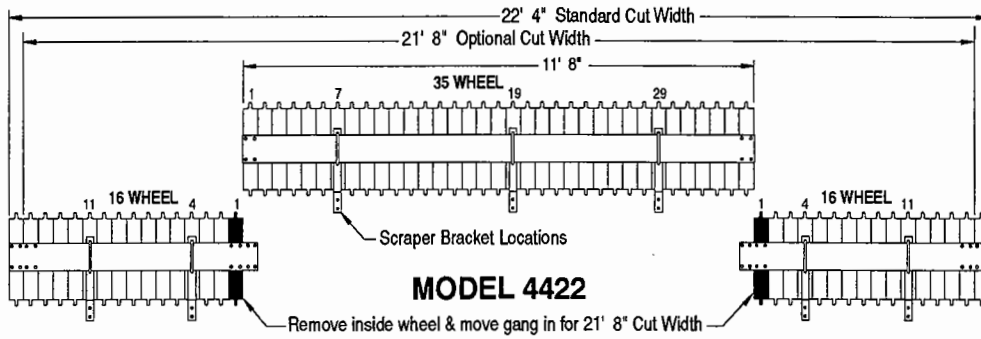
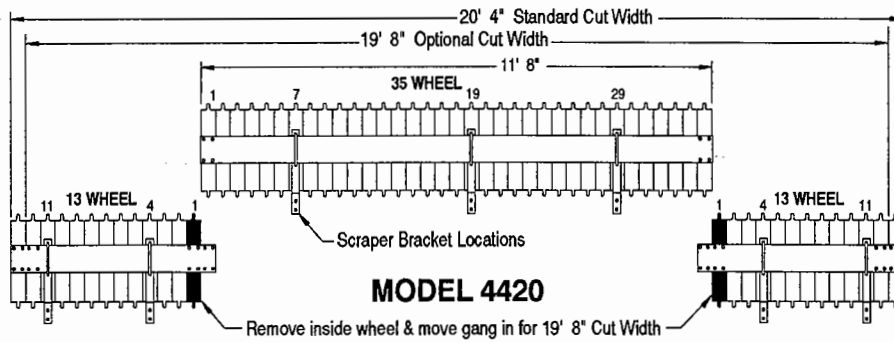
FINAL CHECK

1. Check the hydraulic system for leaks.
2. Lubricate all grease points.
3. Fully extend the depth control cylinders. Install road transport locks.
4. Lower tongue jack.
5. Check tire pressure and wheel bolt torque.
6. Perform final inspection. See Dealer Predelivery Check Sheet (follows Warranty page at the front of this manual.)

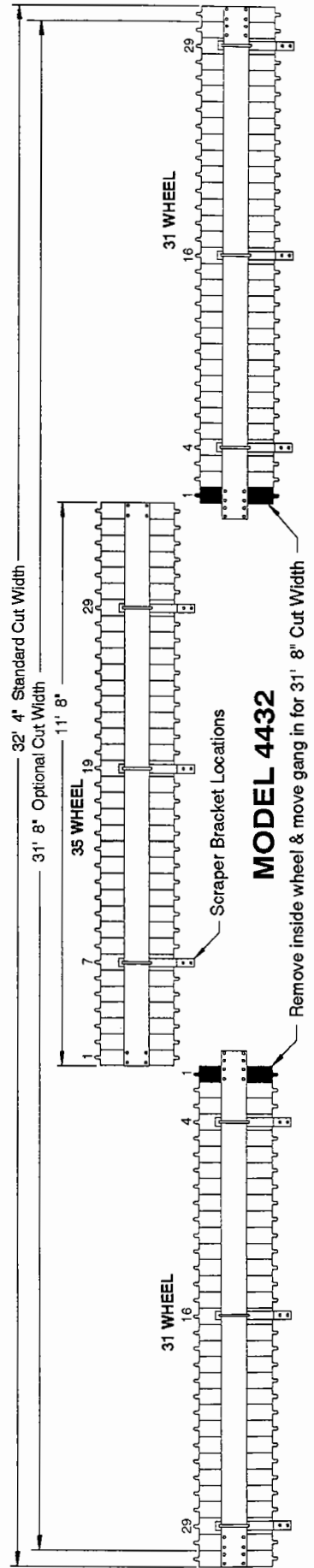
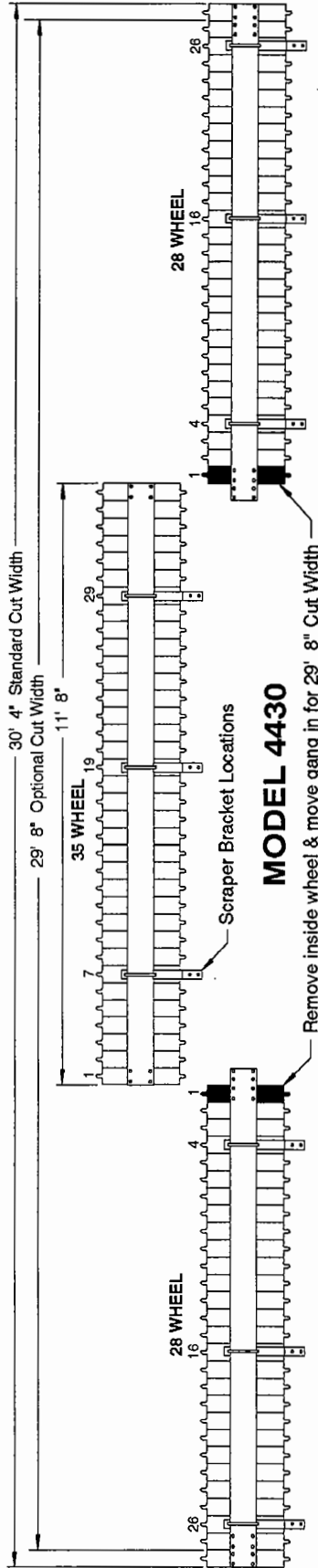
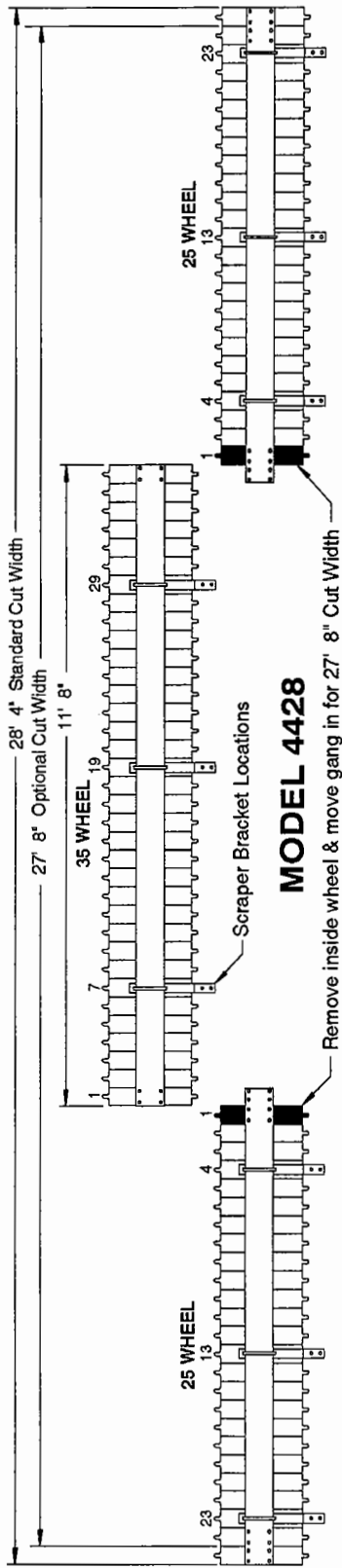
⚠ Caution: Explosive separation of a tire and rim parts can cause serious injury or death.

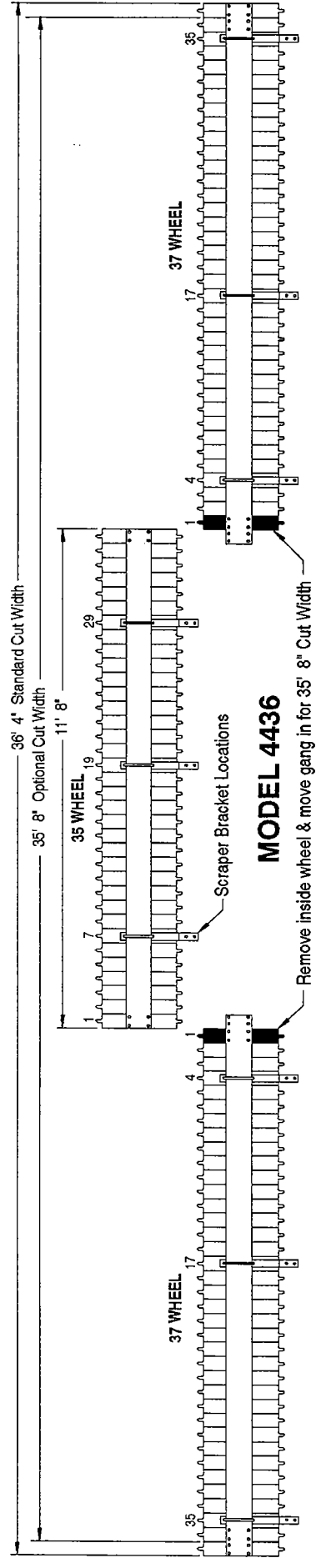
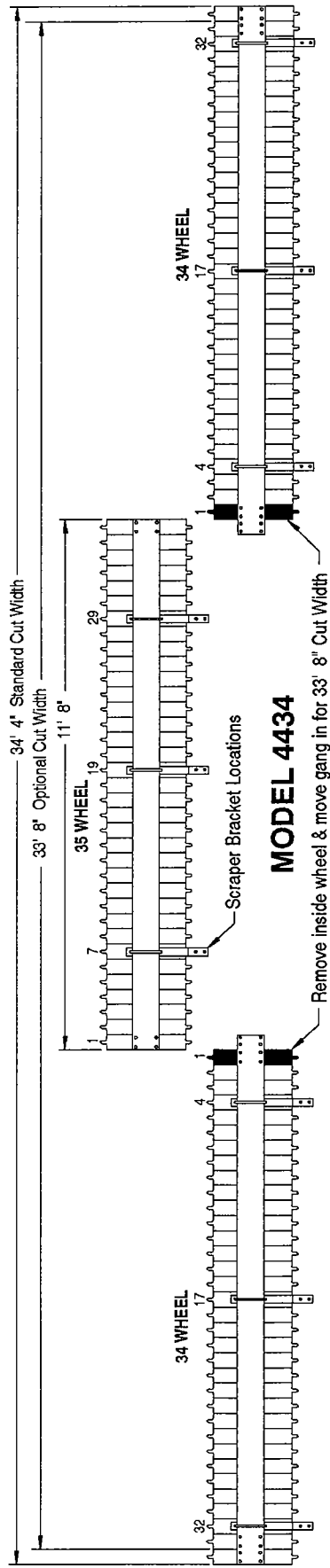
Always maintain the correct tire pressure. Do not inflate tires above the recommended pressure. Inspect tires and wheels daily. Do not operate with low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.





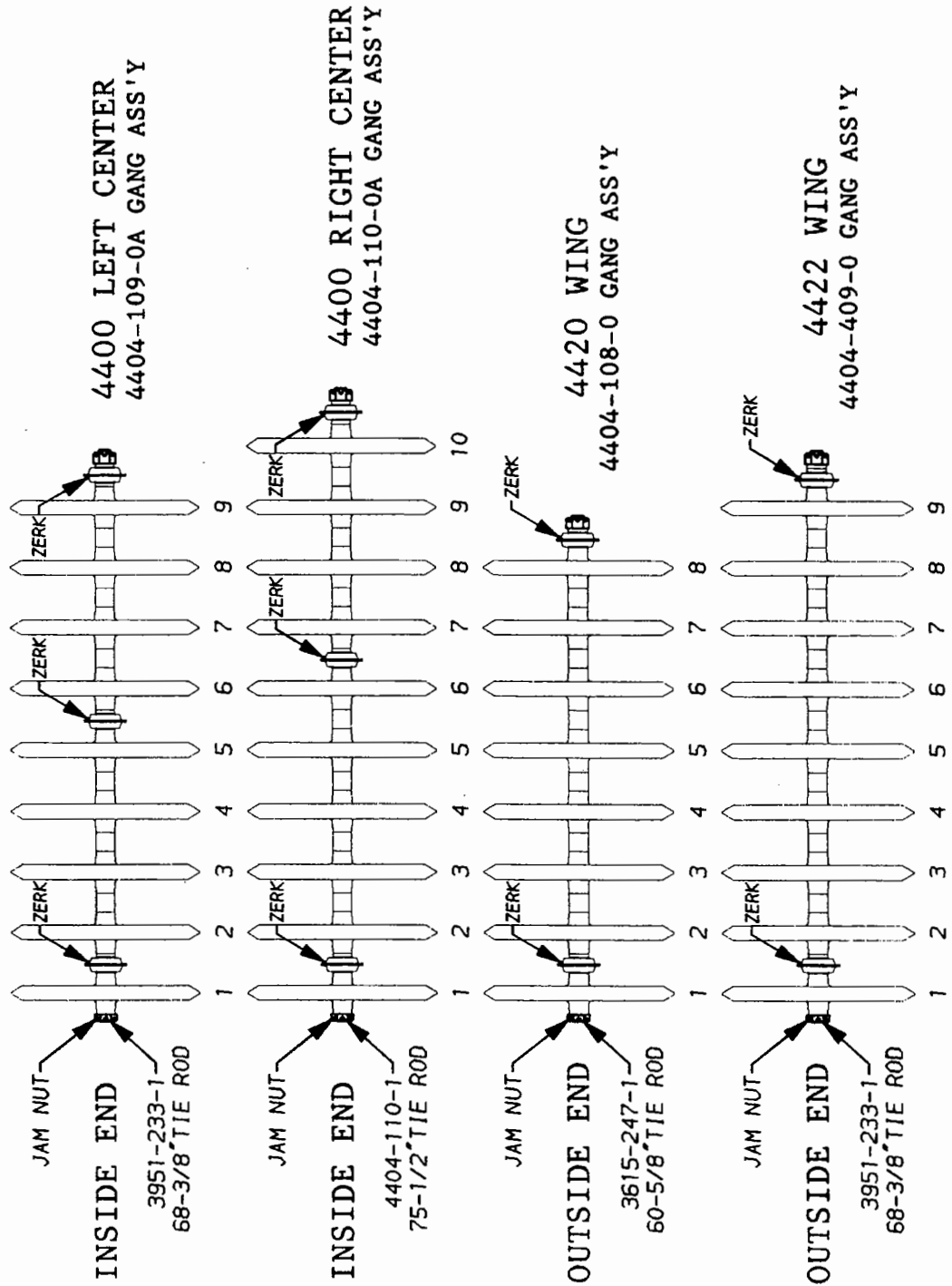
M4400-32
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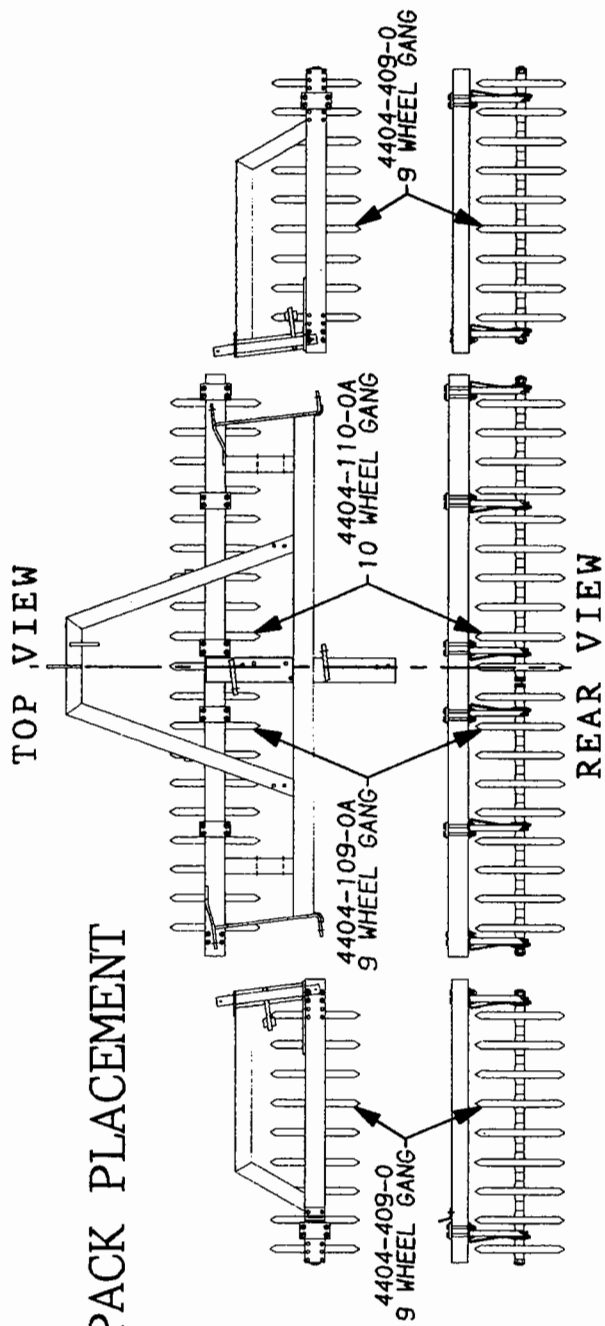


M4400-34
Rev.12/90

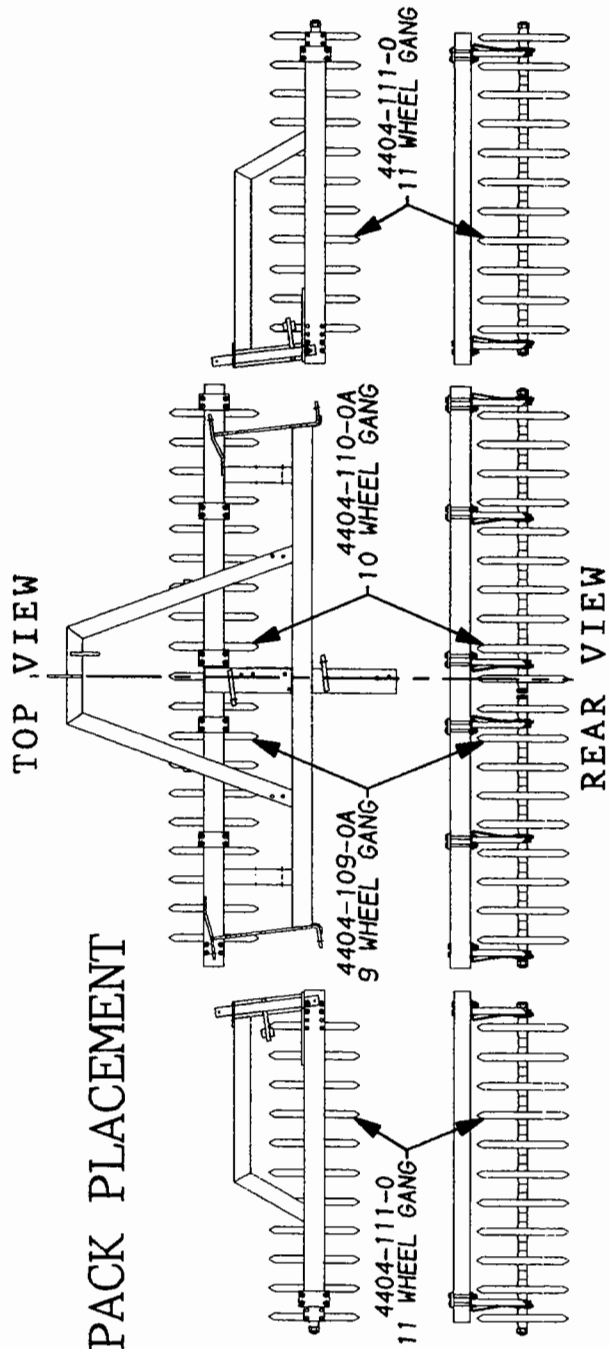
4400 V-PACK GANG ASSEMBLIES



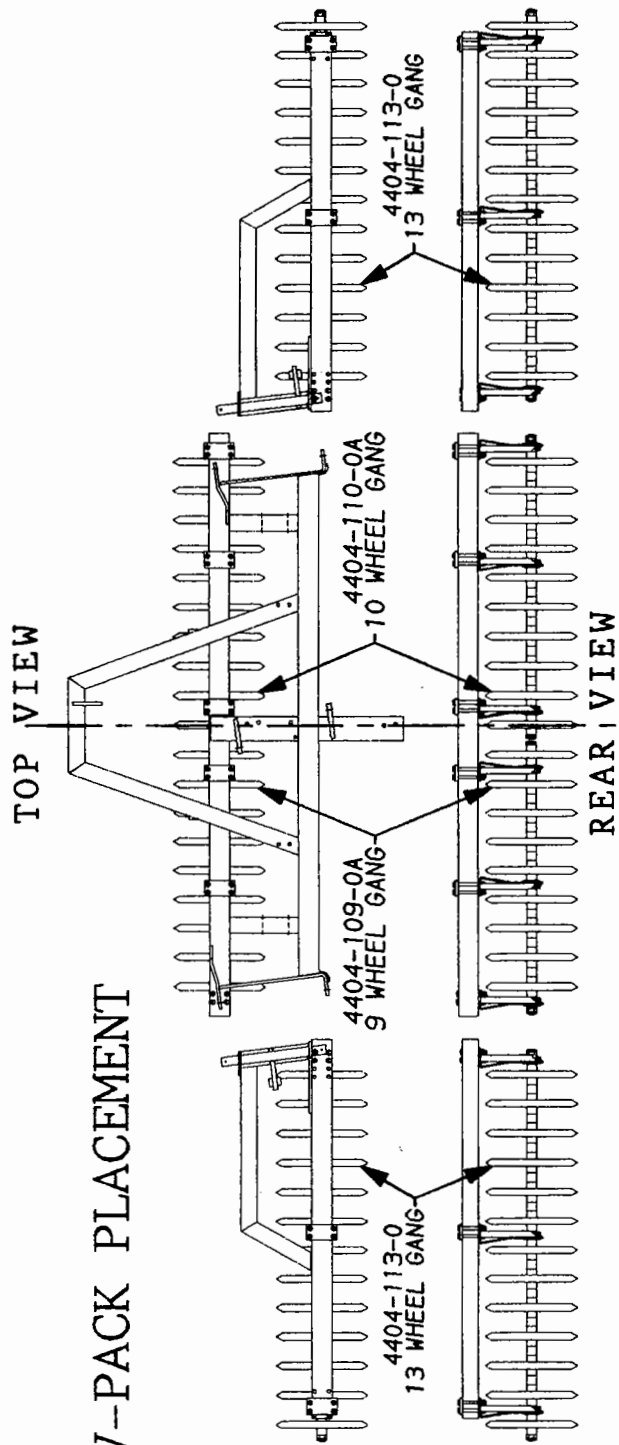
4422 V-PACK PLACEMENT



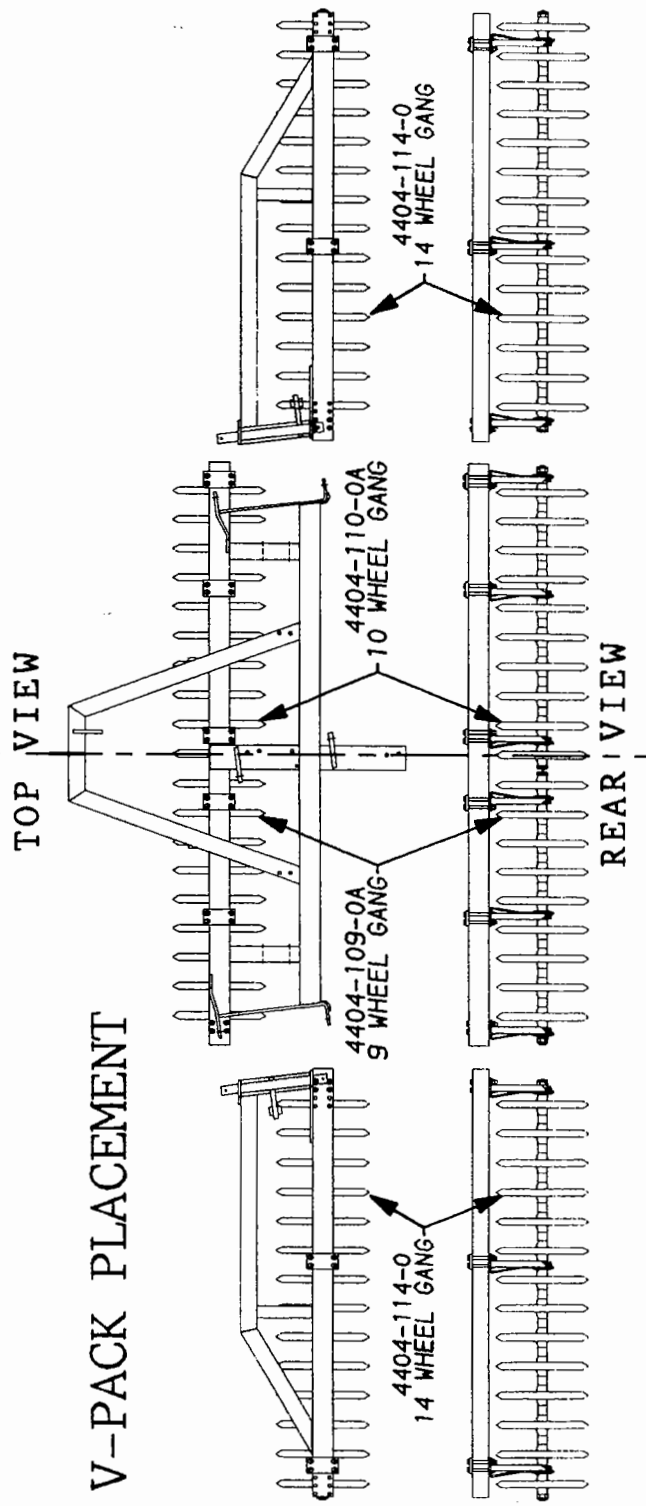
4424 V-PACK PLACEMENT



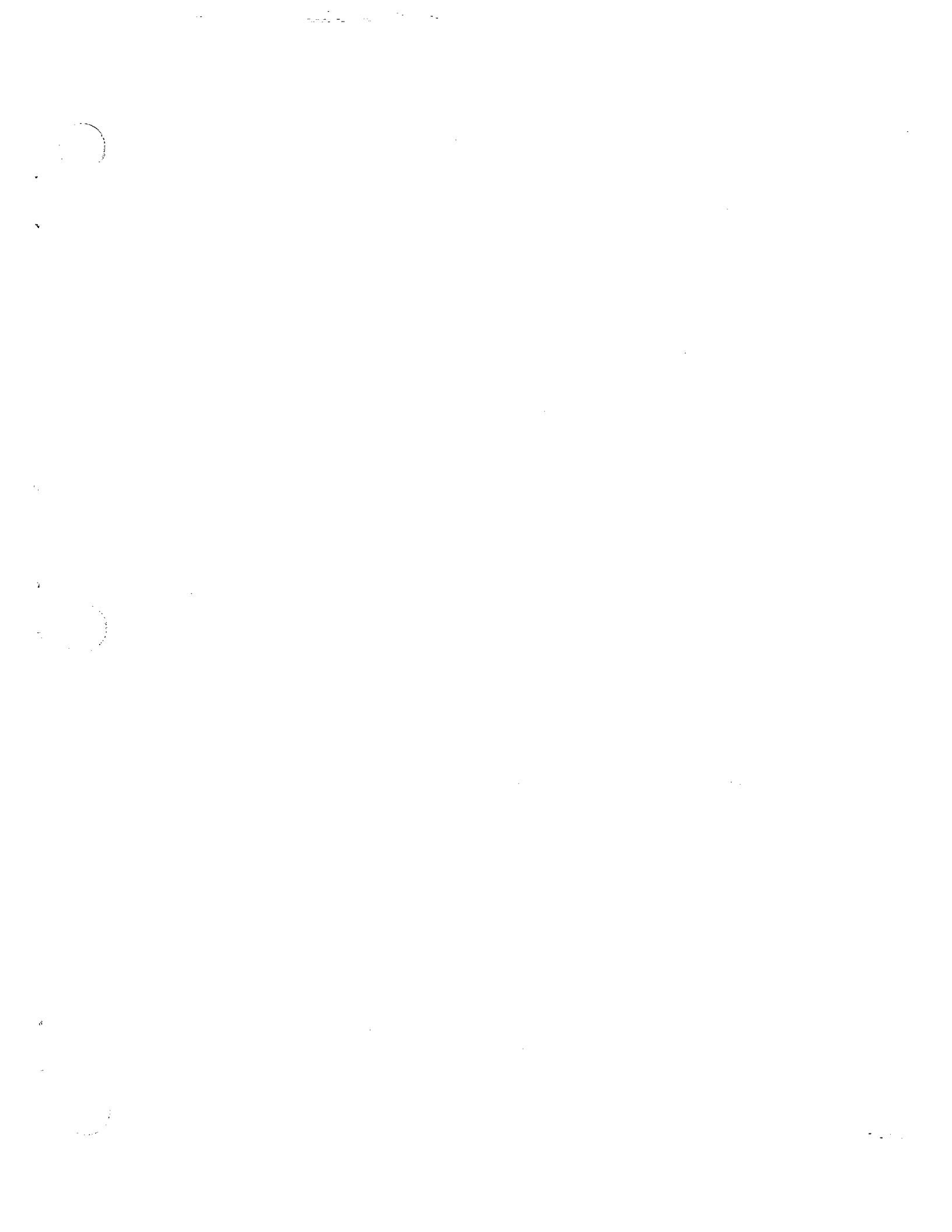
4426 V-PACK PLACEMENT



4428 V-PACK PLACEMENT



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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.