

WIL-RICH

ASSEMBLY INSTRUCTIONS

WIL-RICH HEAVY DUTY FIELD CULTIVATOR

HUTCHINSON WIL-RICH
MANUFACTURING COMPANY

P.O. BOX 1030

WAHPETON, ND 58074

PHONE: (701) 642-2621

ASSEMBLY INFORMATION

Remove all wires and arrange the parts conveniently.

NOTE: Always wear safety glasses or goggles and be careful when cutting wires and steel bands as they are under tension and will spring back when cut.

Wherever the terms "left" and "right" are used, it should be understood to mean from a position behind and facing the machine.

Lubricate all bearings and moving parts as you proceed and make sure they work freely.

Loosely install all bolts connecting mating parts before final tightening.

When tightening bolts, they should be torqued to the proper number of foot-pounds as indicated in the table unless specified. It is important that all bolts be kept tight.

On new machines, all nuts and bolts should be rechecked after a few hours of operation.



GRADE 8



GRADE 5



GRADE 2

TORQUE IN FOOT POUNDS

| BOLT DIA | 3/8 | 1/2 | 5/8 | 3/4 | 7/8 | 1 |
|----------|------|-----|-------|-------|--------|-------|
| HEX HEAD | 9/16 | 3/4 | 15/16 | 1-1/8 | 1-5/16 | 1-1/2 |
| UNC | 2 | 18 | 45 | 89 | 160 | 252 |
| | G 5 | 30 | 68 | 140 | 240 | 360 |
| | R 8 | 40 | 100 | 196 | 340 | 528 |
| UNF | D 2 | 21 | 51 | 102 | 178 | 272 |
| | E 5 | 32 | 70 | 168 | 264 | 392 |
| | 8 | 48 | 112 | 216 | 368 | 792 |

PI - 75623

When replacing a bolt, use only a bolt of the same grade or higher.

Bolts with no markings are grade 2.

Grade 5 bolts furnished with the machine are identified by three radial lines on the head.

Grade 8 bolts furnished with the machine are identified by six radial lines on the head.

All U-bolts are grade 5.



THIS SYMBOL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS CONCERNING YOUR PERSONAL SAFETY. BE SURE TO OBSERVE AND FOLLOW THESE INSTRUCTIONS.

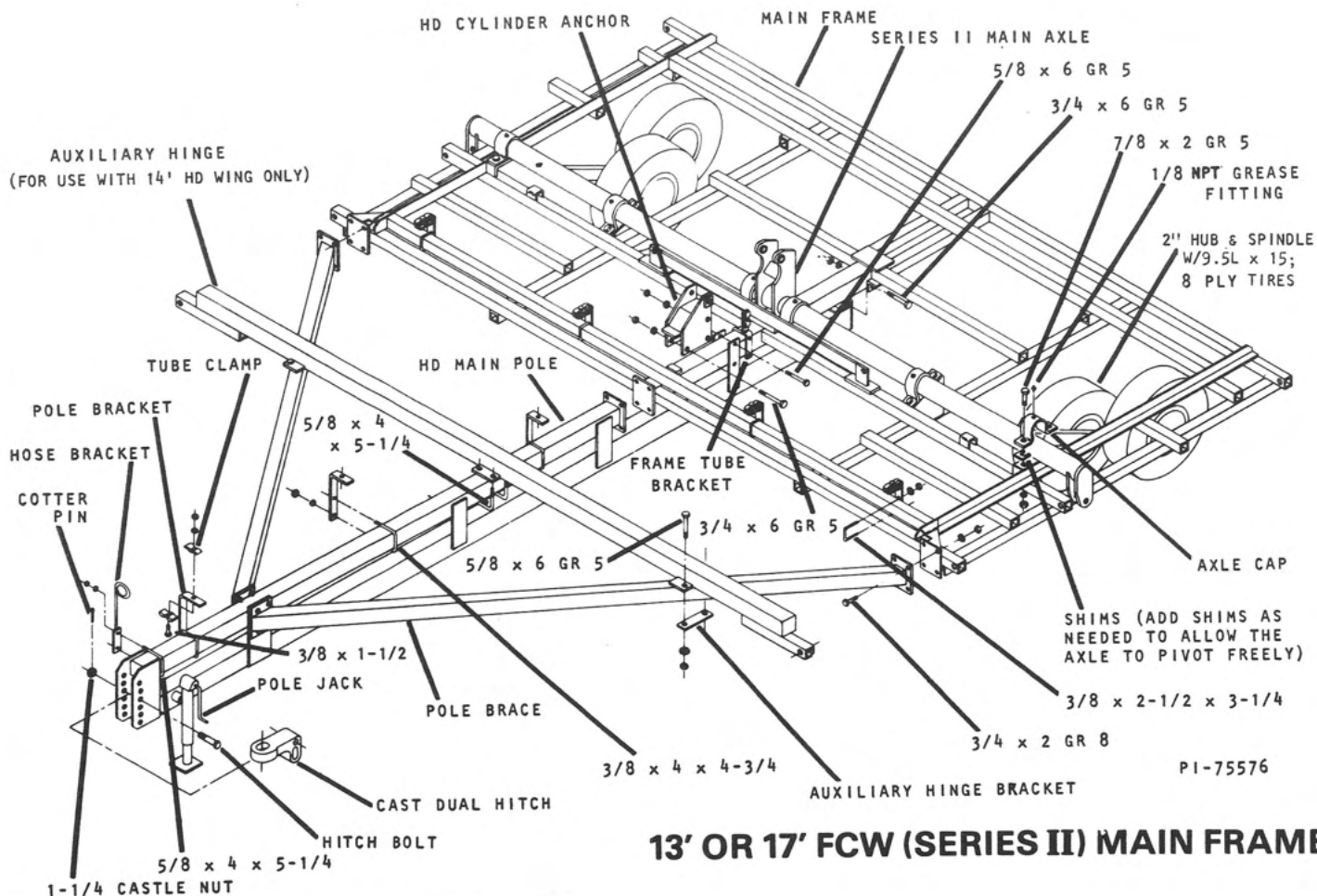


CAUTION

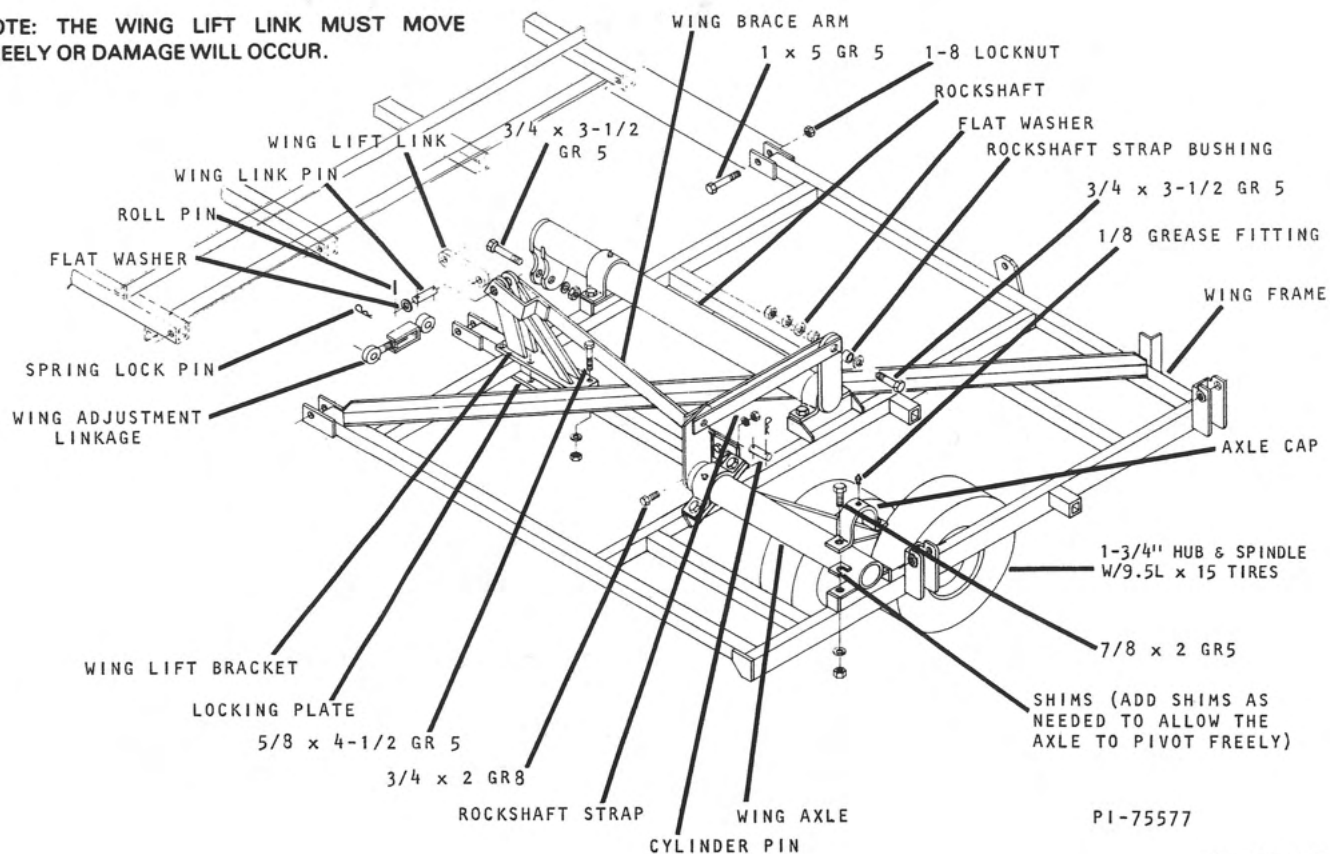
FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY AND/OR EQUIPMENT DAMAGE.

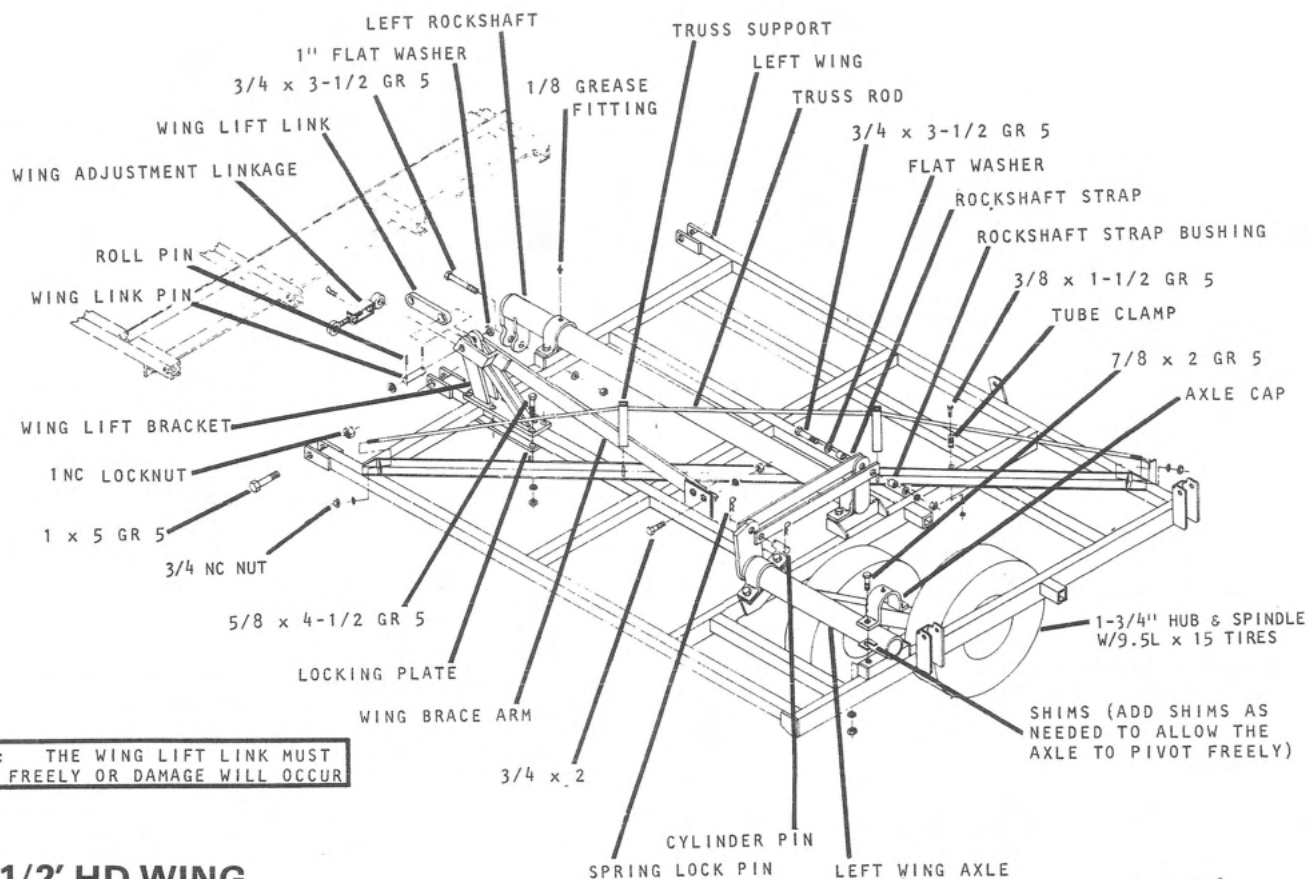
- JUST BEFORE AND DURING OPERATION BE SURE NO ONE IS ON OR AROUND THE IMPLEMENT.
- BEFORE ACTIVATING THE HYDRAULIC SYSTEM, CHECK HOSES FOR PROPER CONNECTIONS.
- BEFORE LOWERING THE WINGS FOR THE FIRST TIME, MAKE SURE THE ENTIRE SYSTEM HAS BEEN CHARGED WITH OIL.
- REMOVE AND STORE THE WING LOCK PINS BEFORE LOWERING WINGS.
- WITH WINGS DOWN, ALWAYS INSTALL HYDRAULIC CYLINDER CHANNEL LOCK(S) FOR TRANSPORTING.

22126



NOTE: THE WING LIFT LINK MUST MOVE FREELY OR DAMAGE WILL OCCUR.





10-1/2' HD WING

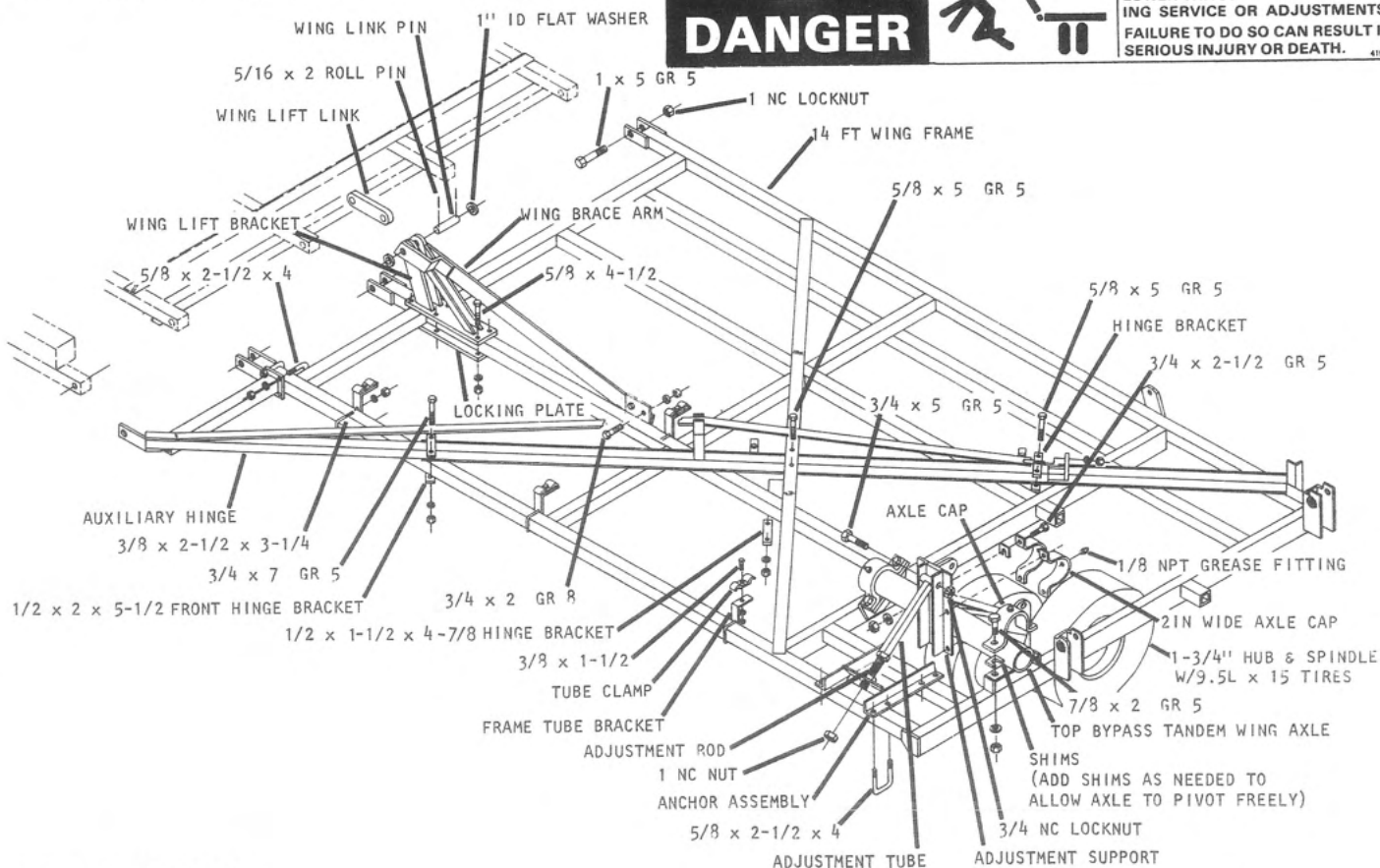
PI-75578

NOTE: THE WING LIFT LINK MUST MOVE FREELY OR DAMAGE WILL OCCUR.

DANGER

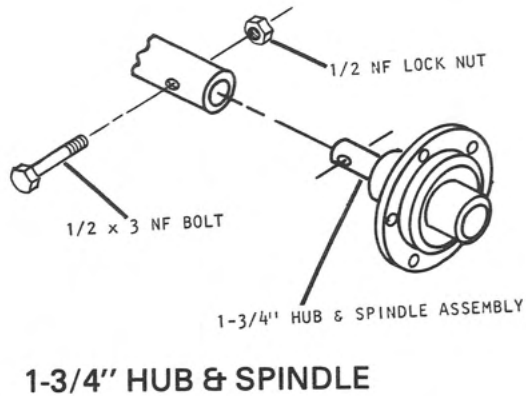
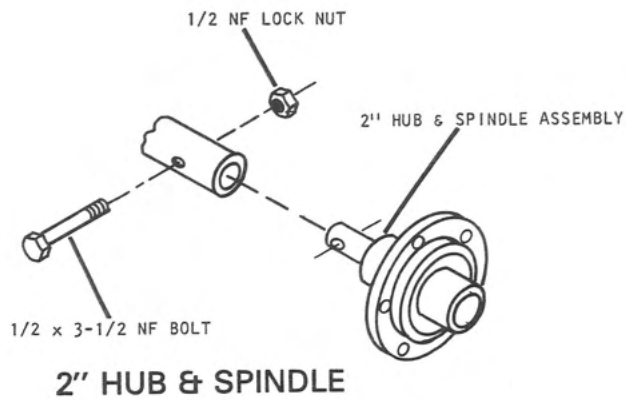


STAND CLEAR AT ALL TIMES. NEVER WALK OR STAND IN THE PATH OF THE WINGS. COMPLETELY LOWER WINGS BEFORE PERFORMING SERVICE OR ADJUSTMENTS. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH. 41508



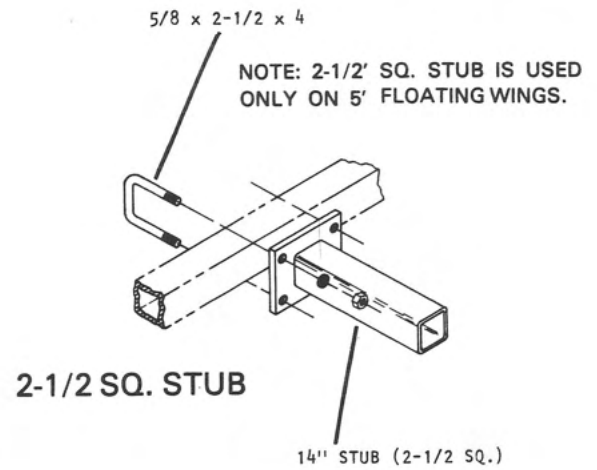
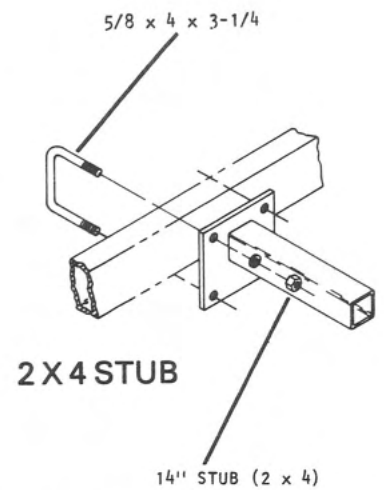
14' HD WING

PI-75629



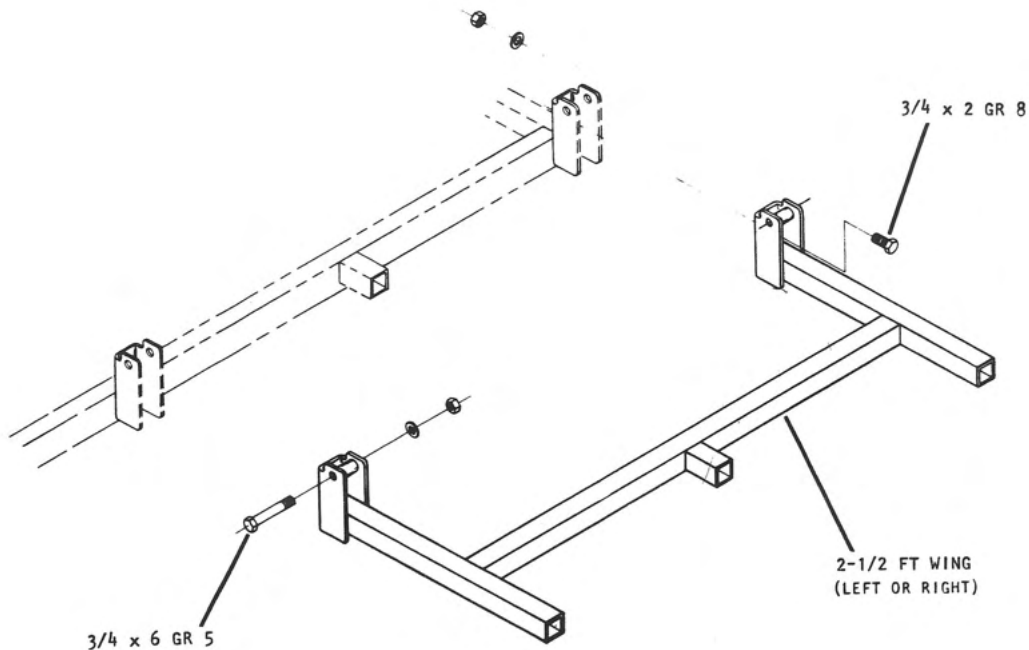
PI-75660

HUB & SPINDLE ASSEMBLIES



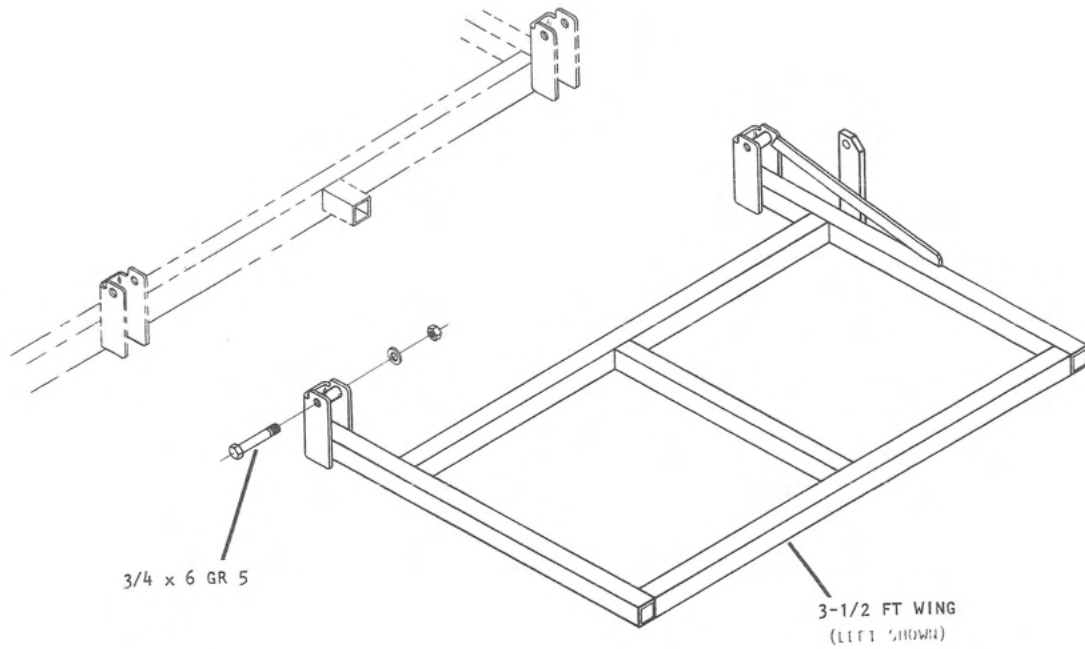
PI-75560

14" STUB



PI-75561

2-1/2' WING

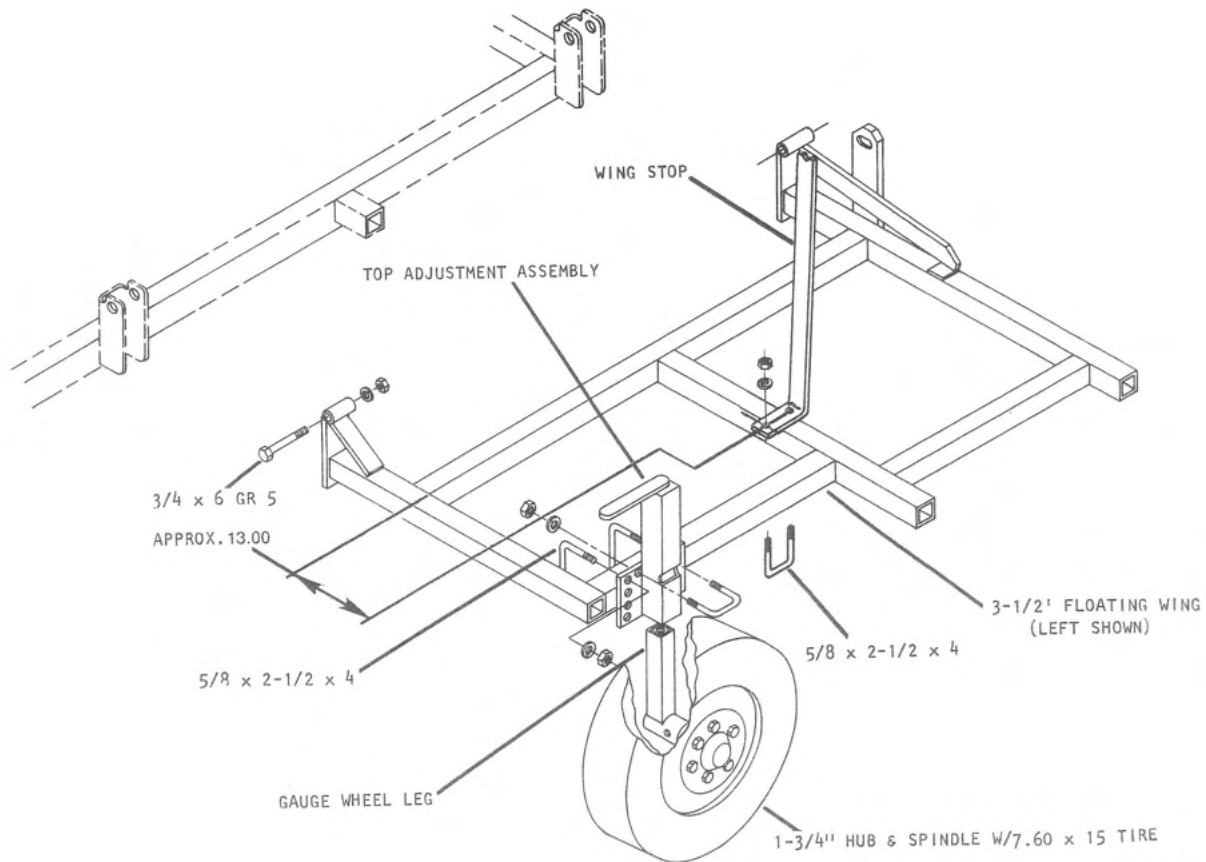


3-1/2' WING

PI-75562

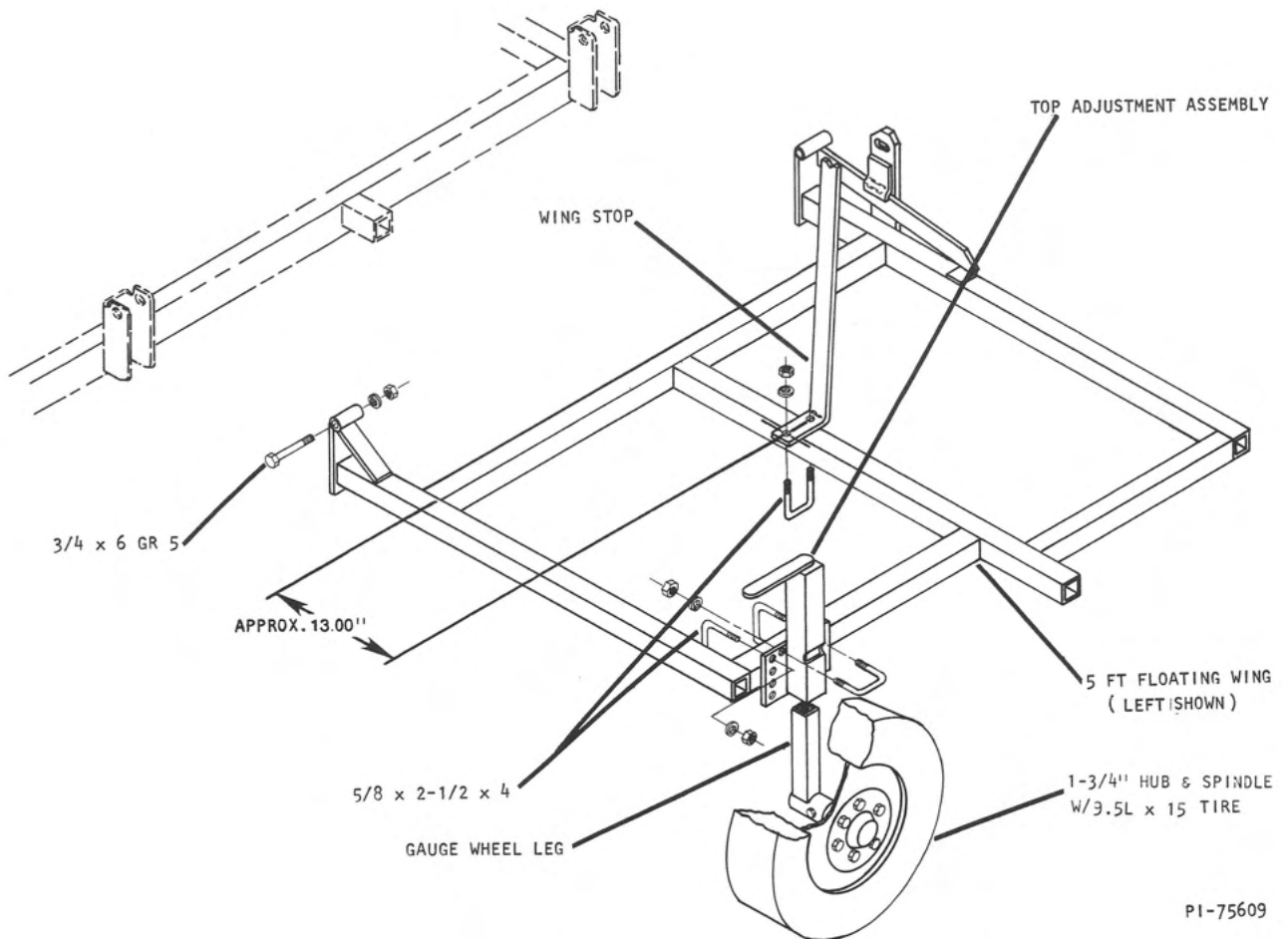


STAND CLEAR AT ALL TIMES. NEVER WALK OR STAND IN THE PATH OF THE WINGS. COMPLETELY LOWER WINGS BEFORE PERFORMING SERVICE OR ADJUSTMENTS. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH.



PI-75563

3-1/2' FLOATING WING



PI-75609

5' FLOATING WING



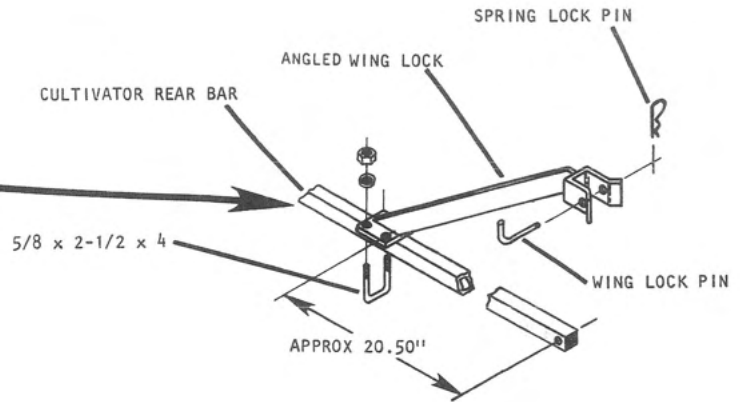
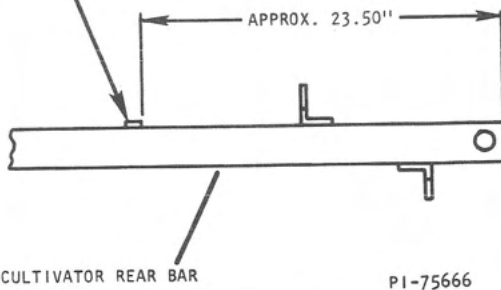
CAUTION

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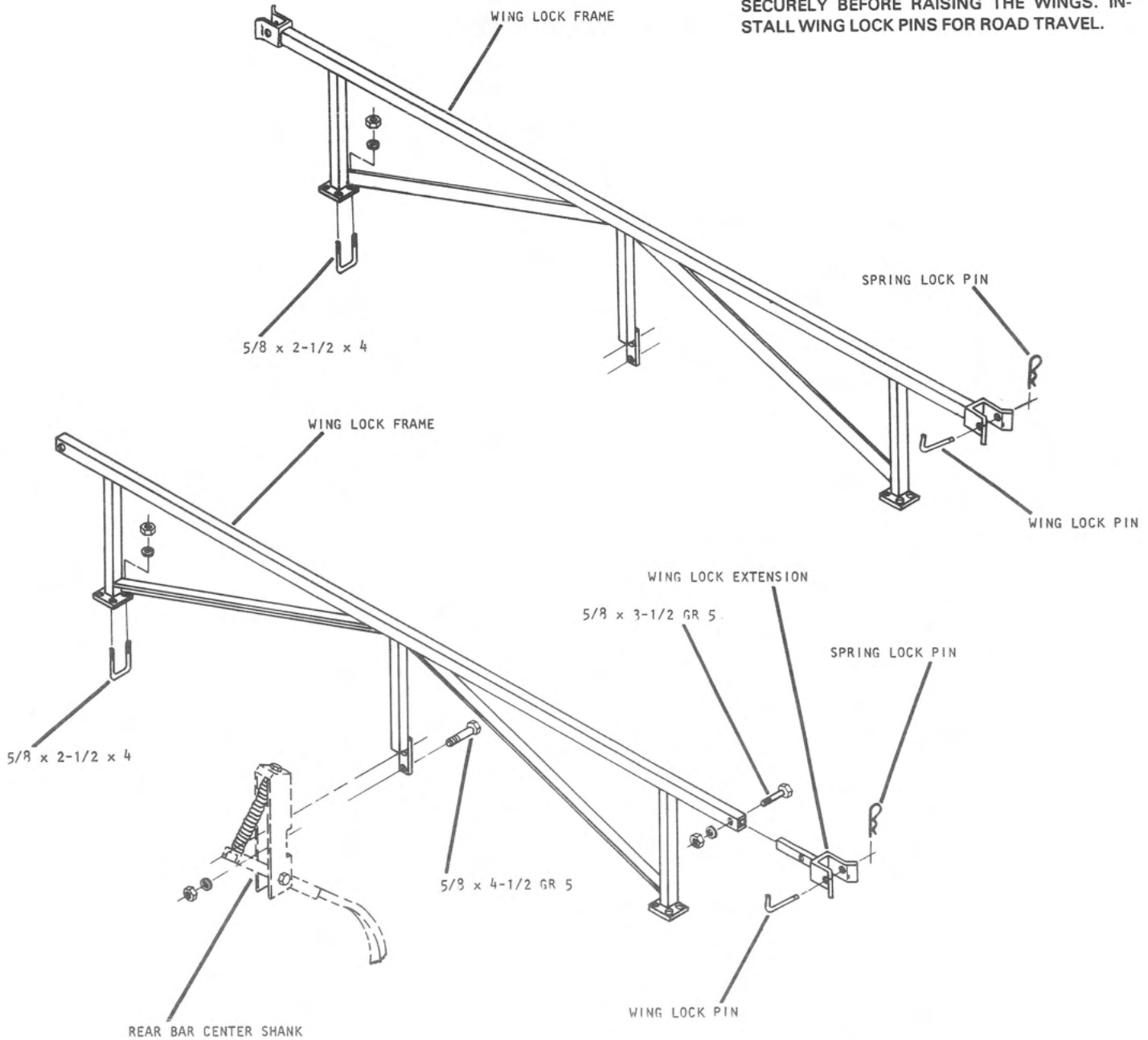
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- BEFORE ACTIVATING THE HYDRAULIC SYSTEM, CHECK HOSES FOR PROPER CONNECTIONS.
- BEFORE LOWERING THE WINGS FOR THE FIRST TIME, MAKE SURE THE ENTIRE SYSTEM HAS BEEN CHARGED WITH OIL.
- REMOVE AND STORE THE WING LOCK PINS BEFORE LOWERING WINGS.
- WITH WINGS DOWN, ALWAYS INSTALL HYDRAULIC CYLINDER CHANNEL LOCK(S) FOR TRANSPORTING.

22126

NOTE: IN SOME INSTANCES IT MAY BE REQUIRED TO REMOVE THE TAB TO PROPERLY MOUNT THE ANGLED WING LOCK.

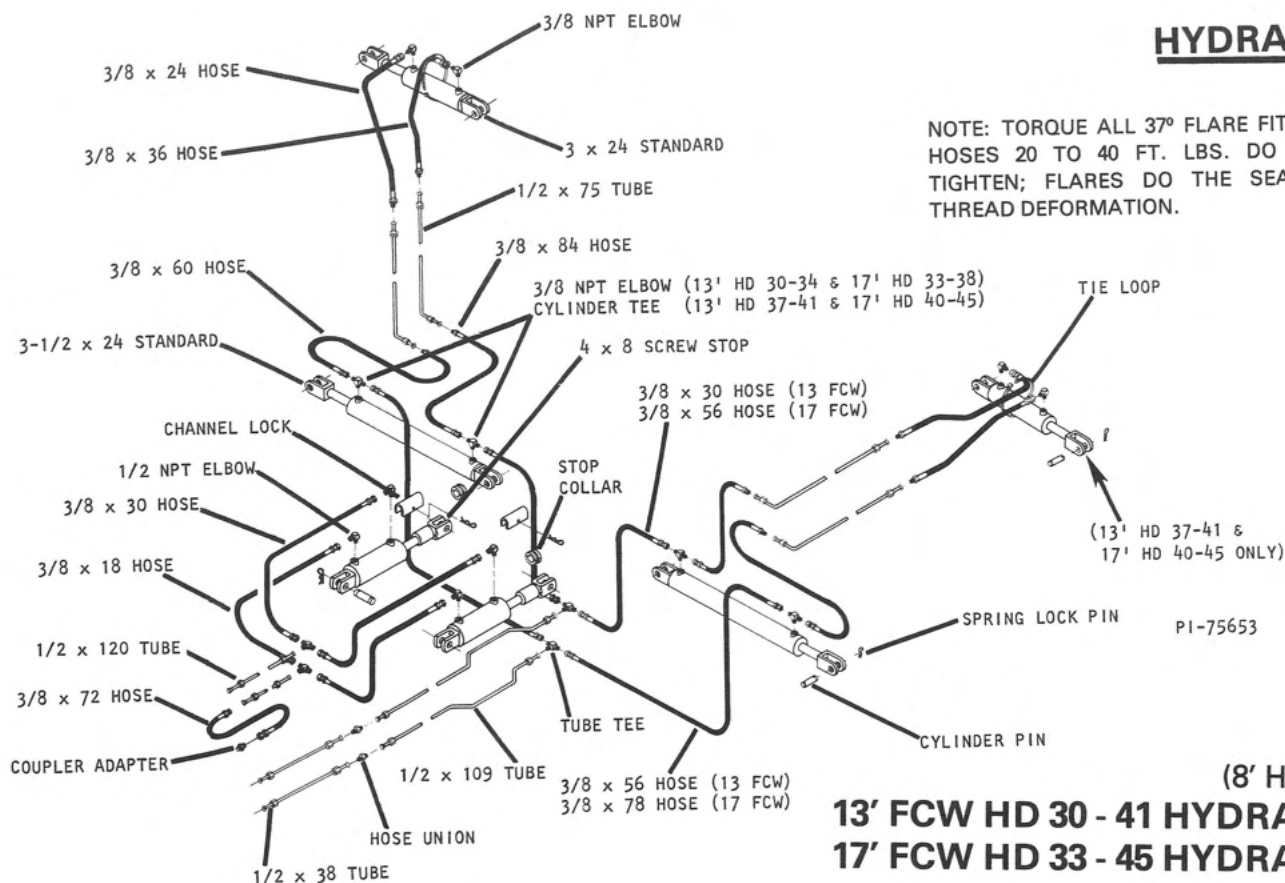


NOTE: THE WING LOCKS MUST BE POSITIONED SECURELY BEFORE RAISING THE WINGS. INSTALL WING LOCK PINS FOR ROAD TRAVEL.



PI-75590

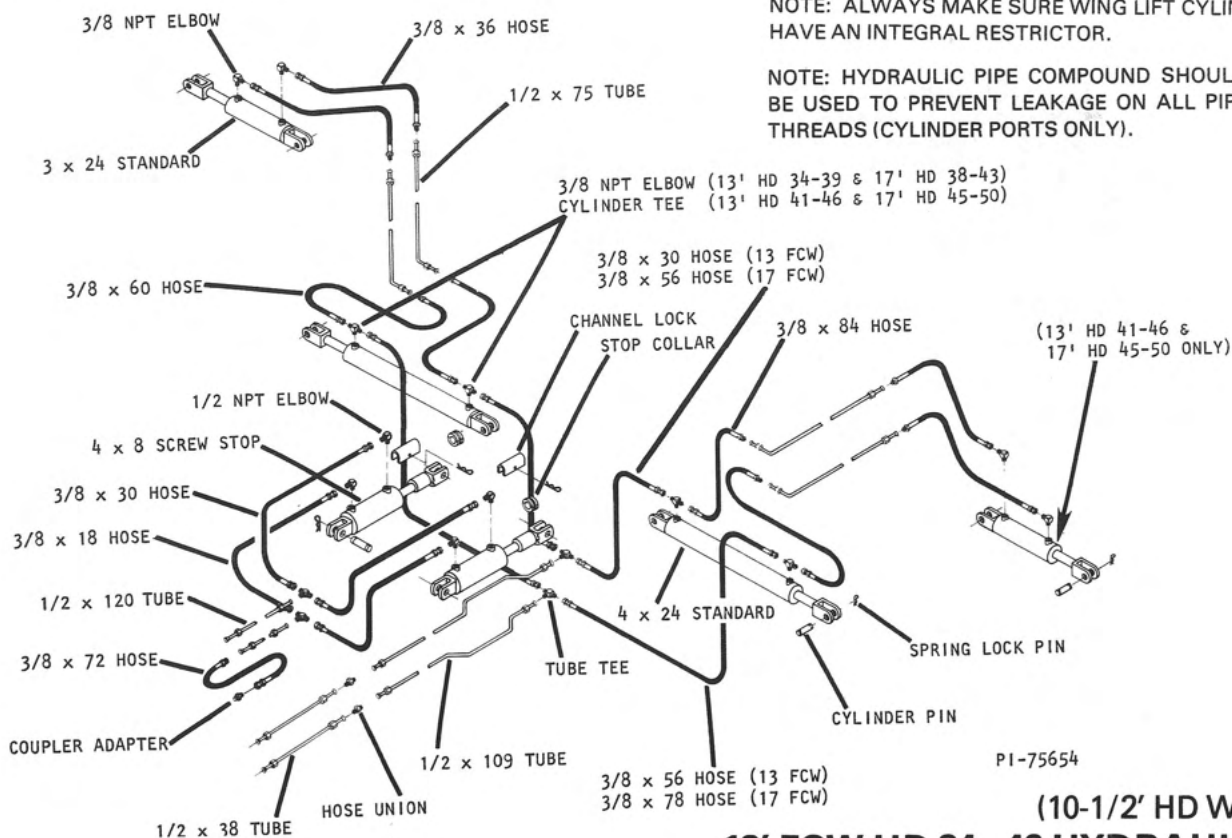
HYDRAULICS



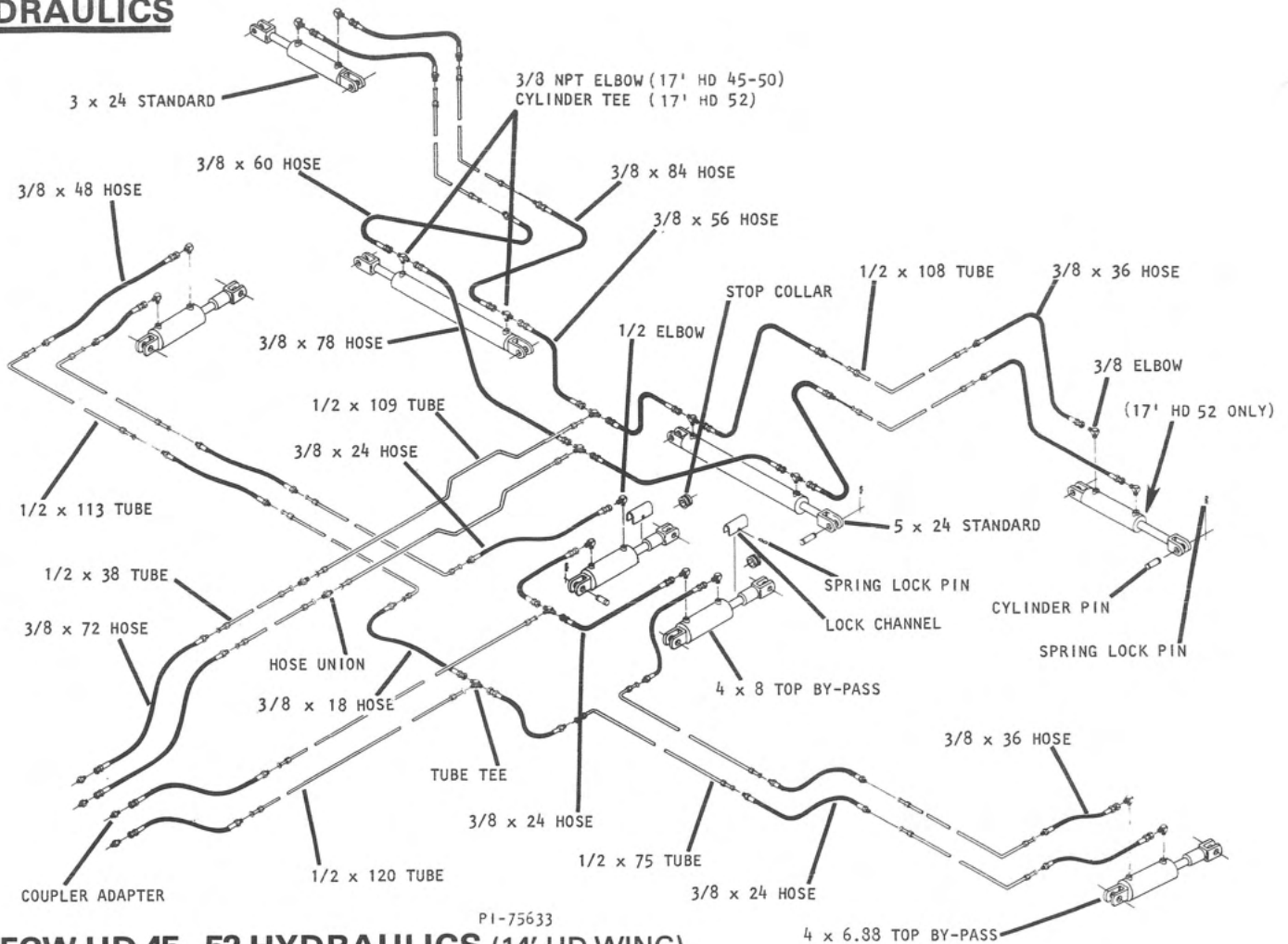
CAUTION

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- JUST BEFORE AND DURING OPERATION BE SURE NO ONE IS ON OR AROUND THE IMPLEMENT.
- NEVER FORCE THE REMOVAL OF A WING LOCK PIN. CHECK ALL HYDRAULIC AND MECHANICAL WING CONNECTIONS BEFORE REMOVING A TIGHT PIN.
- ALWAYS INSTALL WING LOCK PINS BEFORE TRANSPORTING OR STORING.
- REMOVE AND STORE WING LOCK PINS BEFORE LOWERING WINGS.

22/25



HYDRAULICS



17' FCW HD 45 - 52 HYDRAULICS (14' HD WING)



CAUTION

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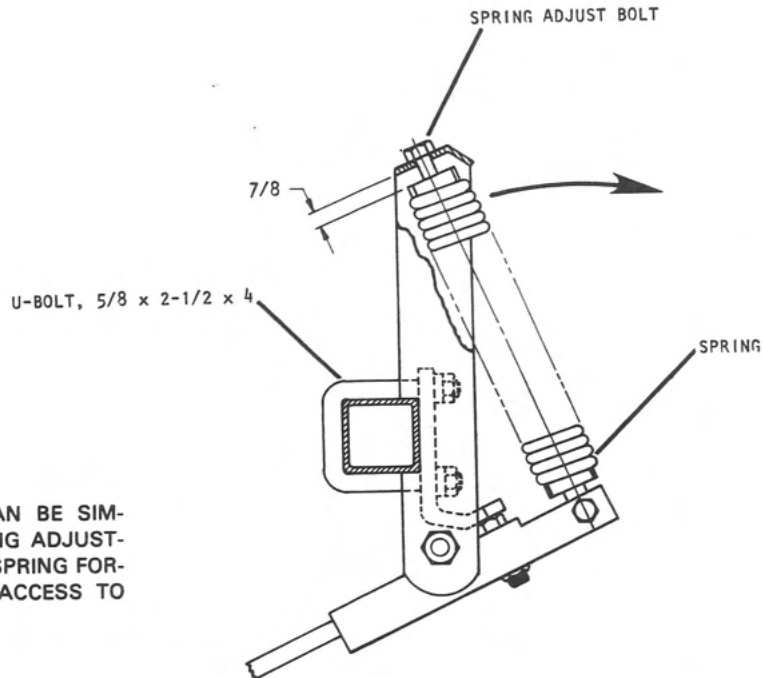
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22126

NOTE: TORQUE ALL 37° FLARE FITTINGS AND HOSES 20 TO 40 FOOT POUNDS. DO NOT OVER TIGHTEN; FLARES DO THE SEALING, NOT THREAD DEFORMATION.

NOTE: HYDRAULIC PIPE COMPOUND SHOULD BE USED TO PREVENT LEAKAGE ON ALL PIPE THREADS (CYLINDER PORTS ONLY).

NOTE: ALWAYS MAKE SURE WING LIFT CYLINDERS HAVE AN INTEGRAL RESTRICTOR.



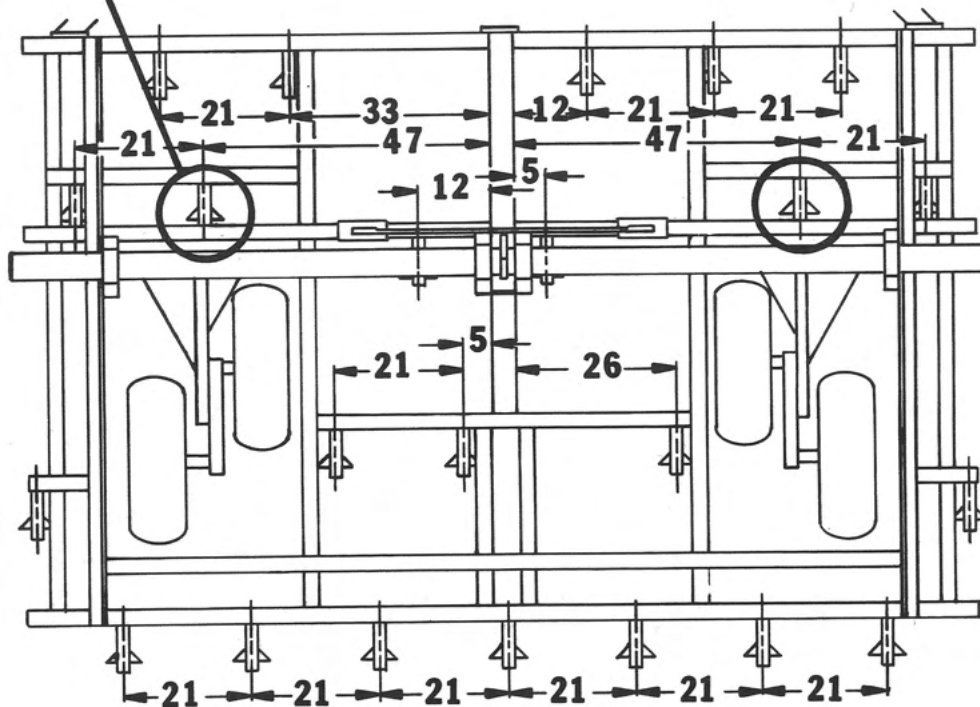
NOTE: SHANK INSTALLATION CAN BE SIMPLIFIED BY REMOVING THE SPRING ADJUSTMENT BOLT AND SWINGING THE SPRING FORWARD, THUS PROVIDING EASY ACCESS TO THE U-BOLT.

PI-75570

SHANK ILLUSTRATION

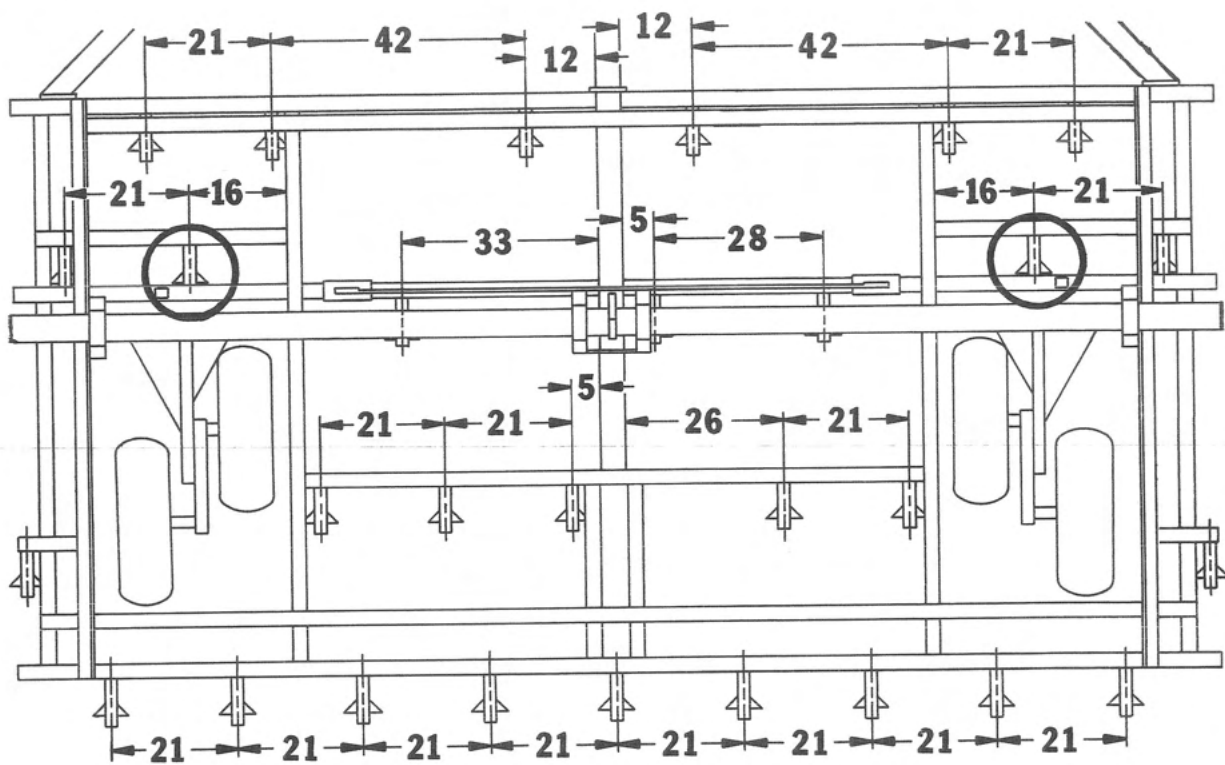
WHEN USING SWEEPS ON CIRCLED SHANKS, CAUTION SHOULD BE USED TO MAINTAIN PROPER TIRE CLEARANCE WHEN MACHINE IS IN THE RAISED POSITION.

SHANK PLACEMENTS

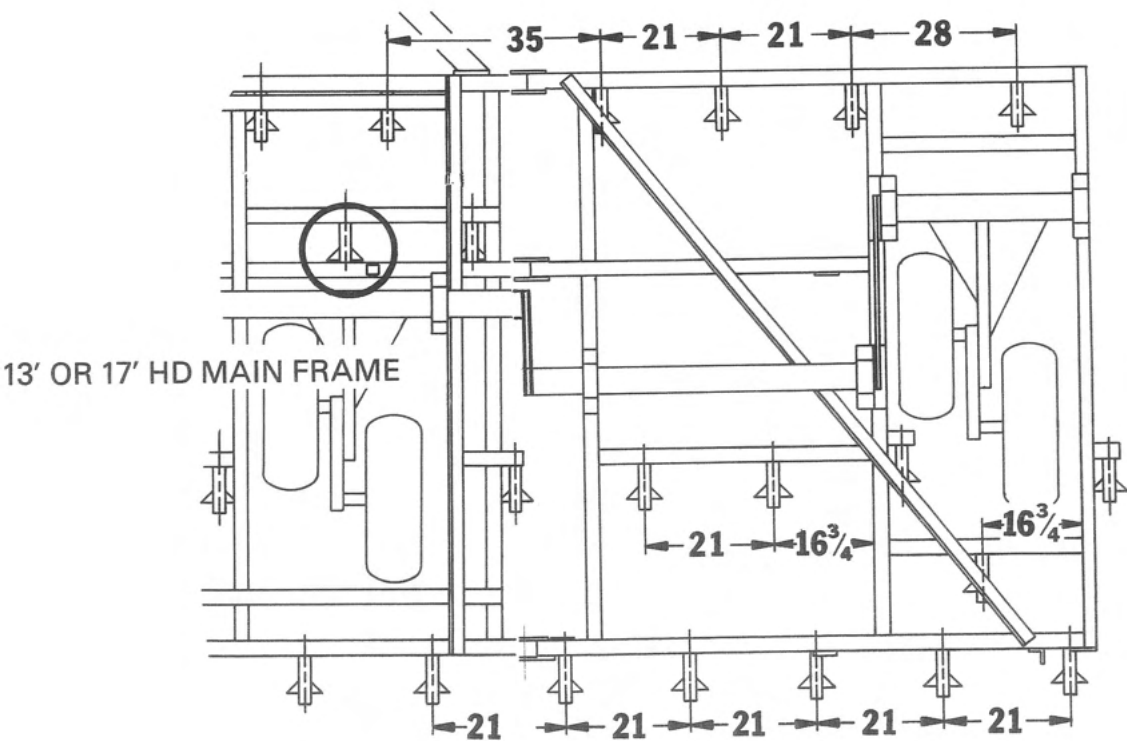


13' HD MAIN FRAME (TYPICAL)

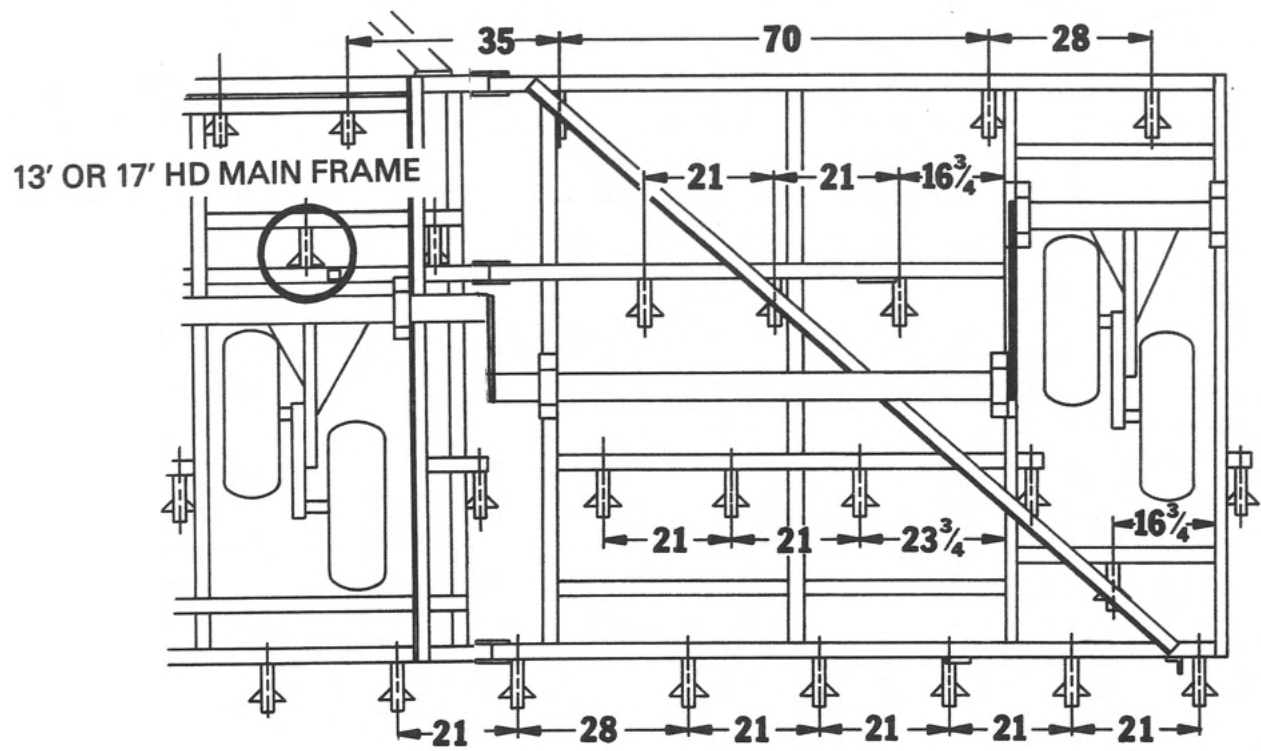
SHANK PLACEMENTS



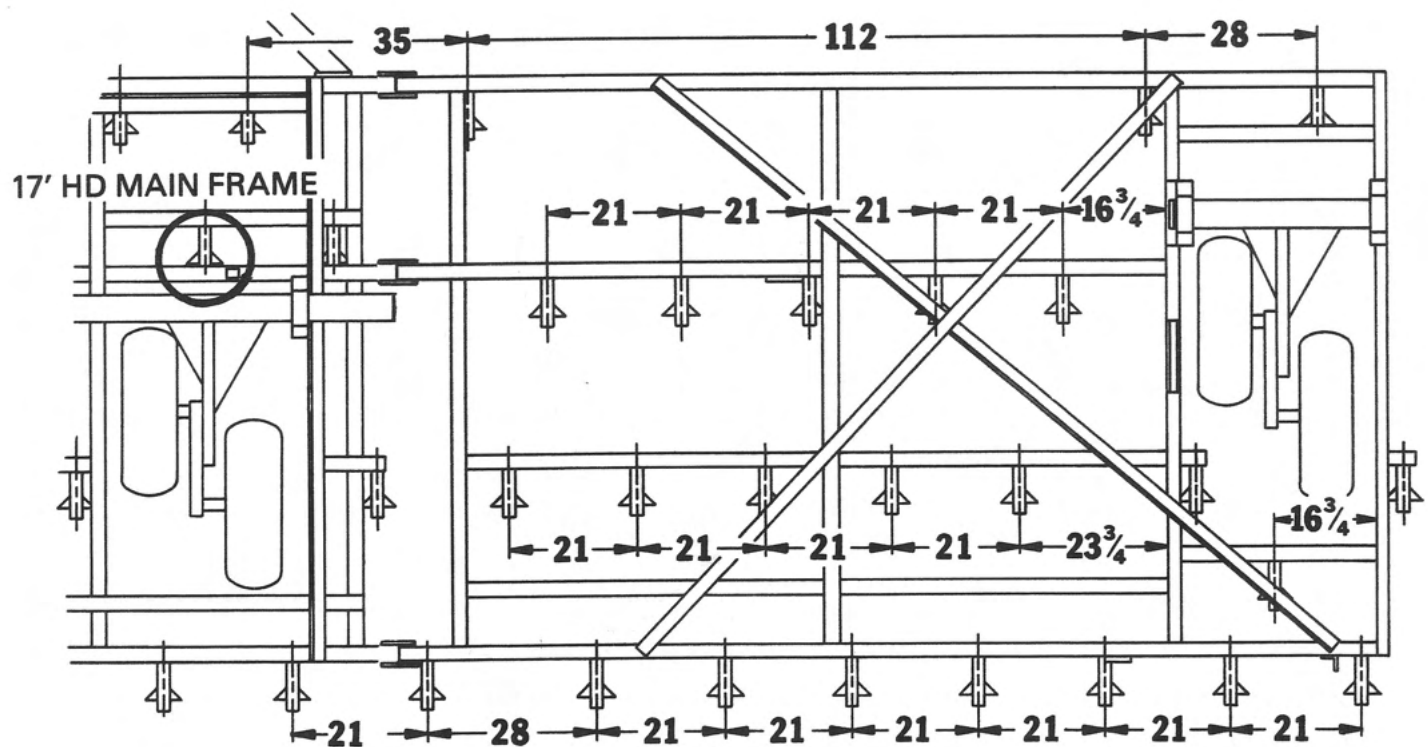
17' HD MAIN FRAME (TYPICAL)



8' HD WING

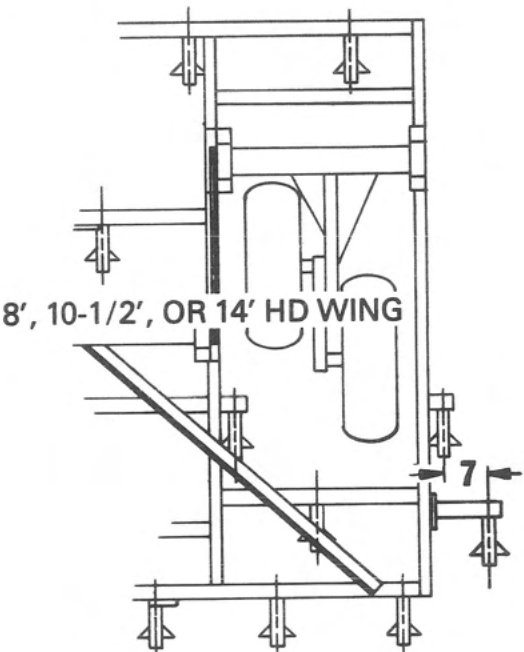


10-1/2' HD WING

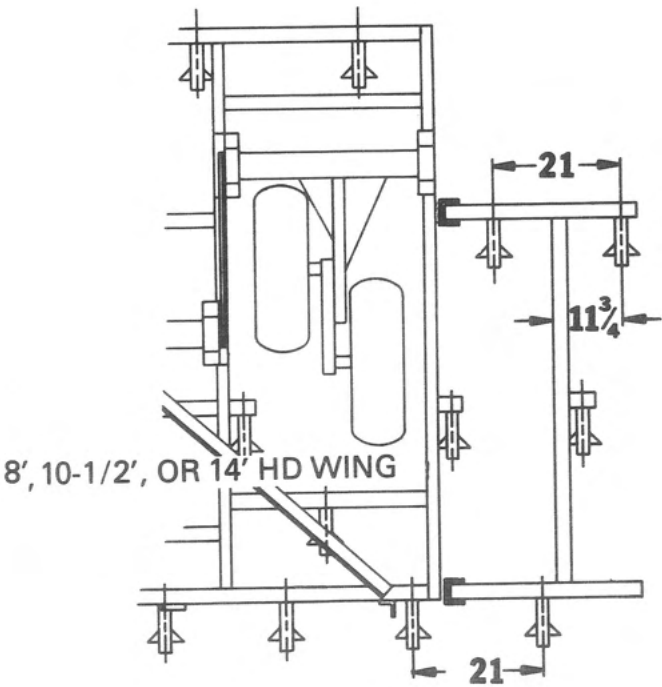


14' HD WING

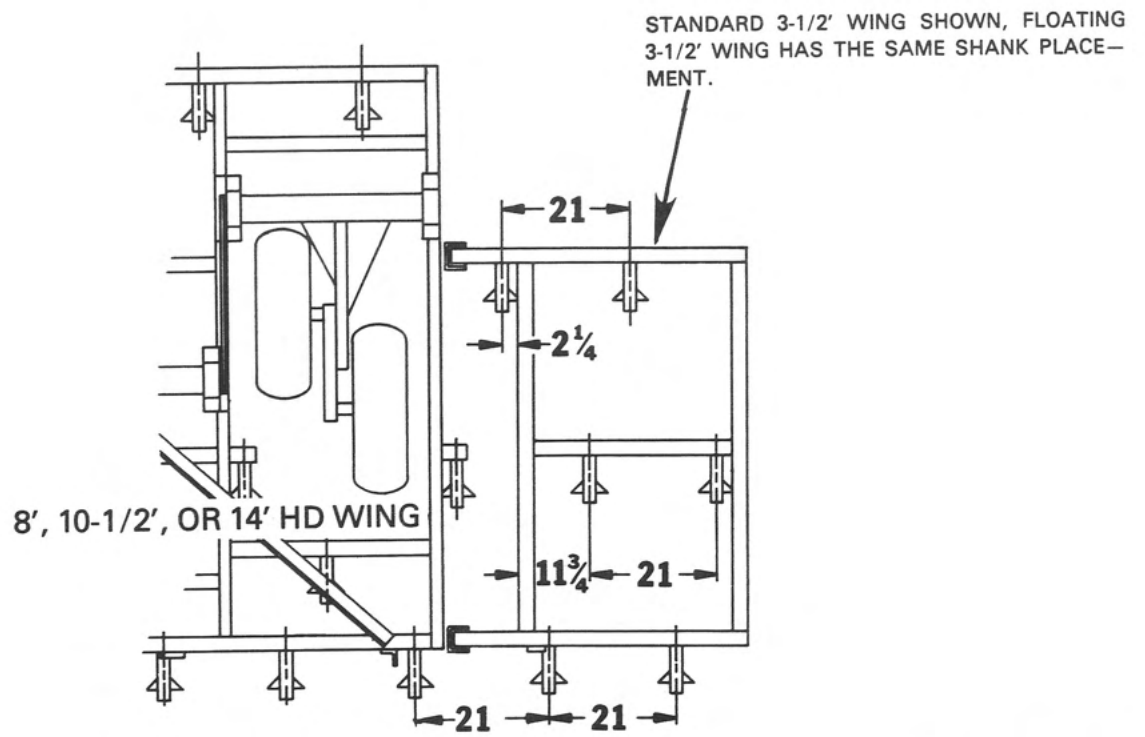
SHANK PLACEMENTS



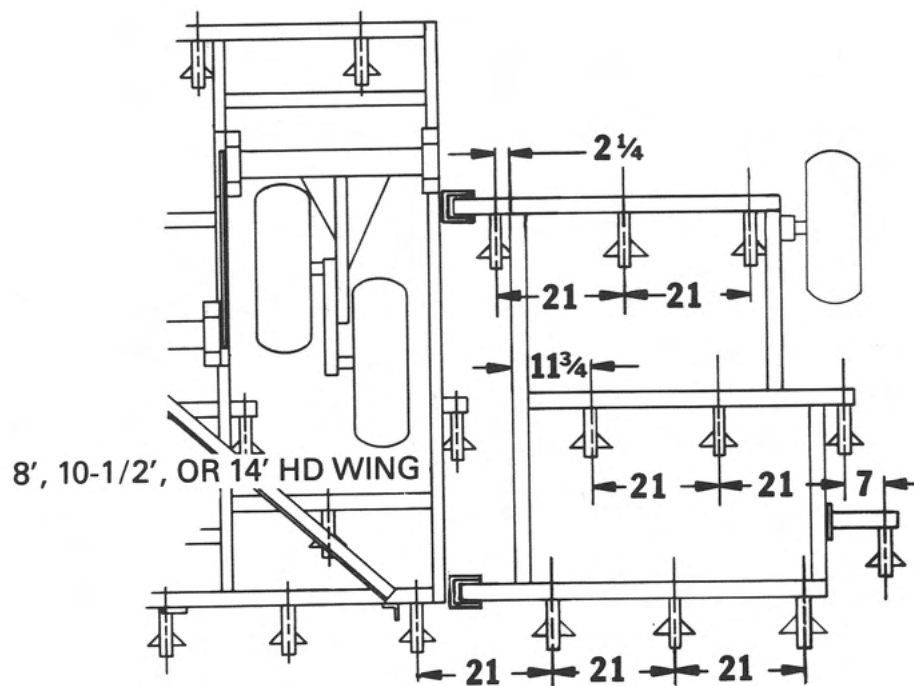
14" STUB (2x4)



2-1/2' WING



3-1/2' WING



5' FLOATING WING

PERSONAL SAFETY IS IMPORTANT !!

**ALL PERSONNEL INVOLVED WITH THE ASSEMBLY
AND/OR OPERATION OF THIS EQUIPMENT MUST BE
INFORMED OF PROPER SAFETY PROCEDURES.**

**OPERATOR'S AND ASSEMBLY MANUALS PROVIDE
THE NECESSARY INFORMATION.**

**IF A MANUAL IS LOST FOR A PARTICULAR IMPLEMENT,
A REPLACEMENT SHOULD BE ORDERED AT ONCE.
OPERATOR'S AND ASSEMBLY MANUALS ARE AVAILABLE
AT NO CHARGE UPON REQUEST.**

ADDRESS INQUIRIES TO:

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