



WIL-RICH

ASSEMBLY INSTRUCTIONS

WIL-RICH 3PT & 4B 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	320
G 5	30	68	140	240	360	544
R 8	40	100	196	340	528	792
A 8						
UNF						
D 2	21	51	102	178	272	368
E 5	32	70	168	264	392	572
8	48	112	216	368	792	840

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.

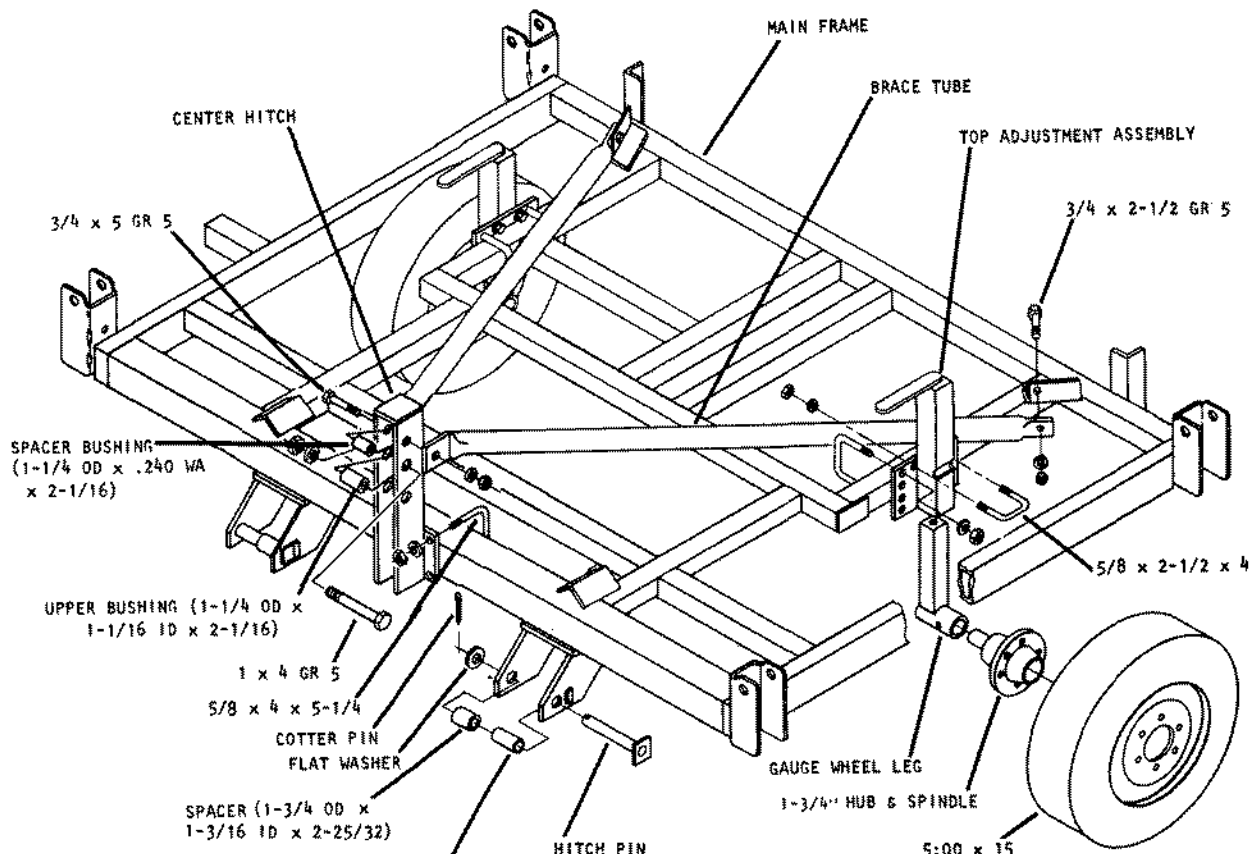


CAUTION

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



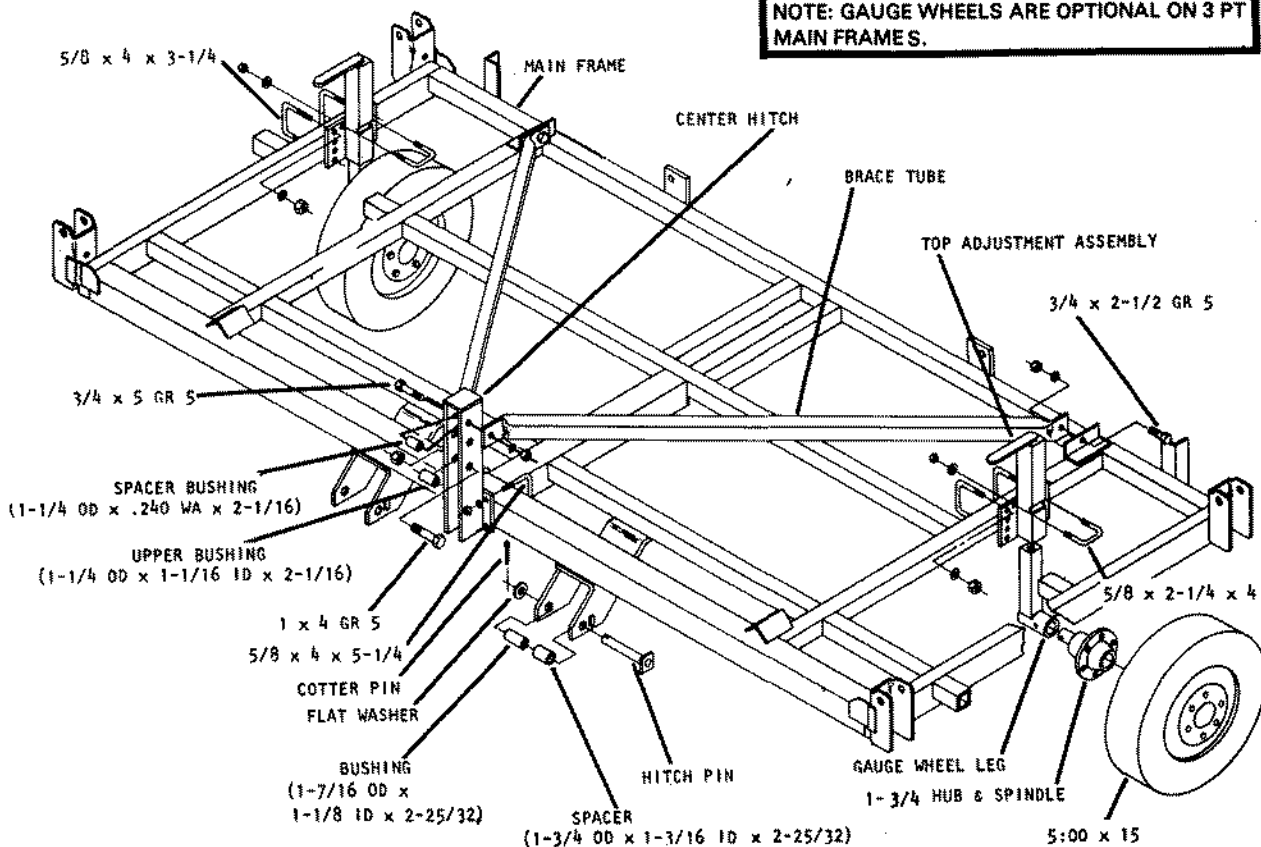
CATEGORY III QUICKHITCH SET-UP SHOWN (SEE LAST PAGE FOR ADDITIONAL HITCHING ARRANGEMENTS)

BUSHING (1-7/16 OD x 1-1/8 ID x 2-25/32)

PI-75557

8' & 9' 3 PT MAIN FRAME

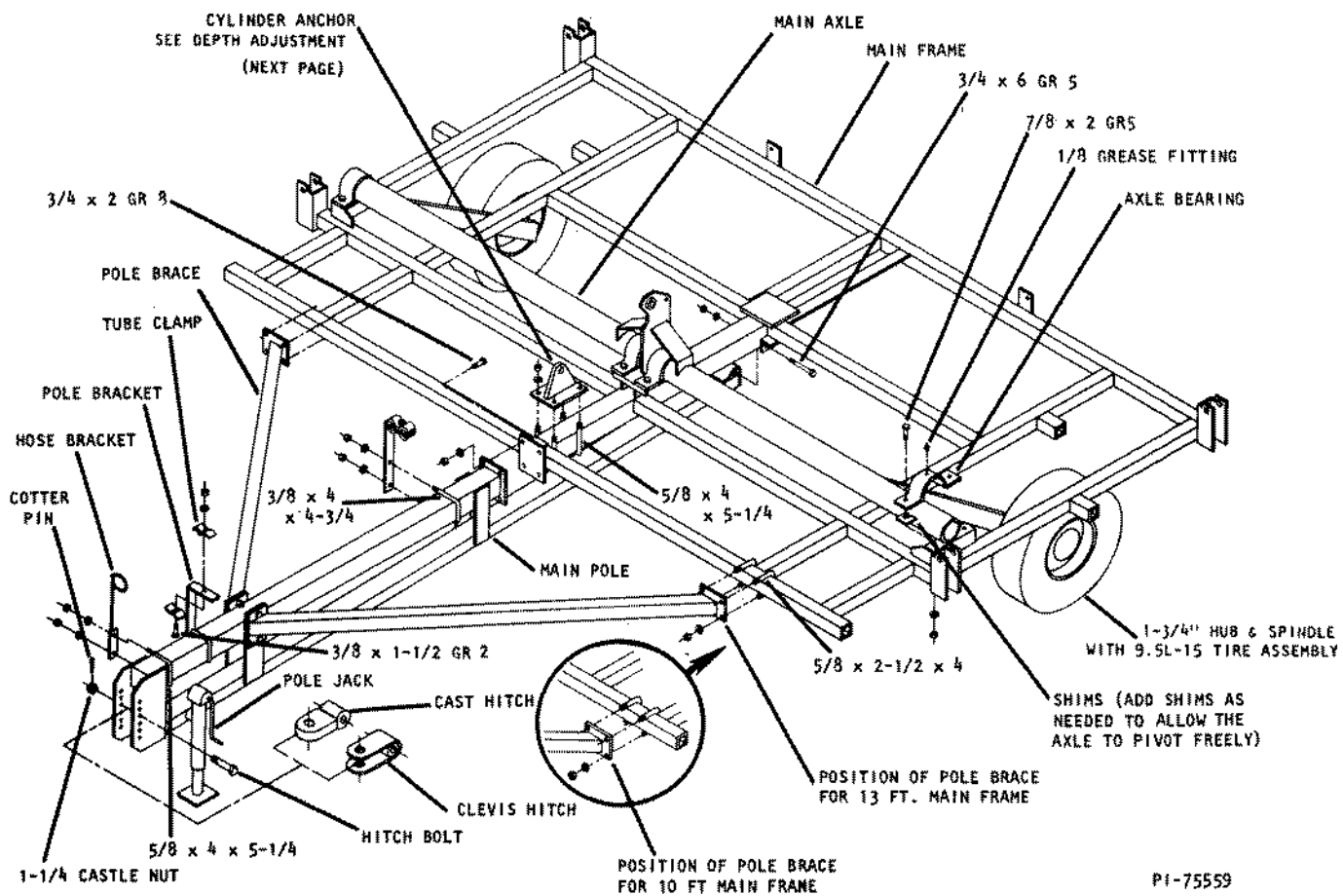
NOTE: GAUGE WHEELS ARE OPTIONAL ON 3 PT MAIN FRAMES.



CATEGORY II QUICKHITCH SET-UP SHOWN (SEE LAST PAGE FOR ADDITIONAL HITCHING ARRANGEMENTS)

PI-75558

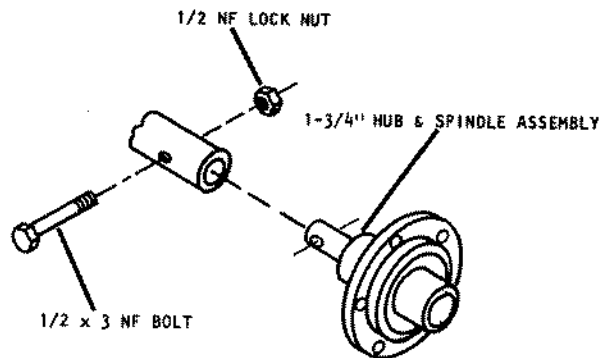
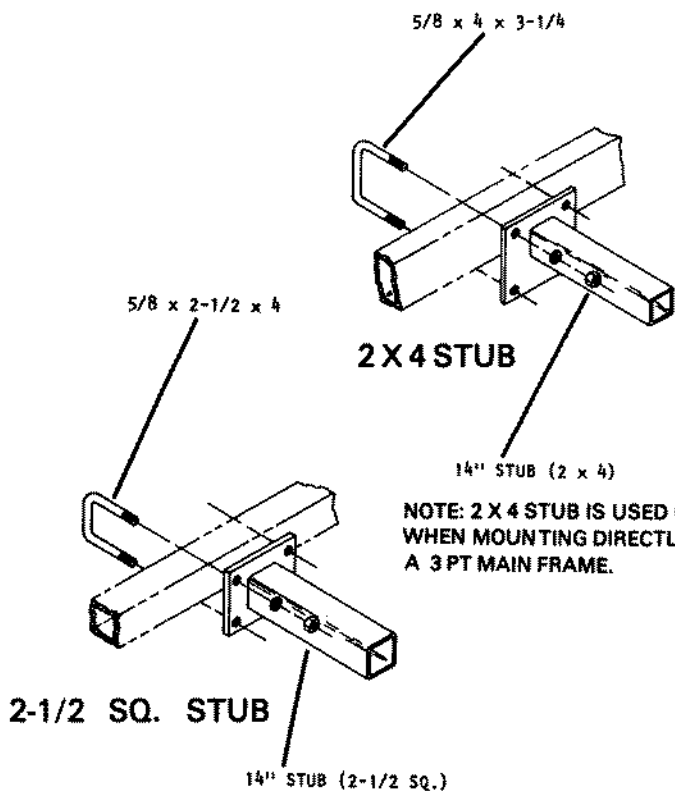
13' 3 PT MAIN FRAME



**10' & 13' 4 B MAIN FRAME
(13' SHOWN)**

P1-75559

NOTE: LOOSELY INSTALL ALL BOLTS CONNECTING MATING PARTS BEFORE FINAL TIGHTENING. (SEE TORQUE CHART).

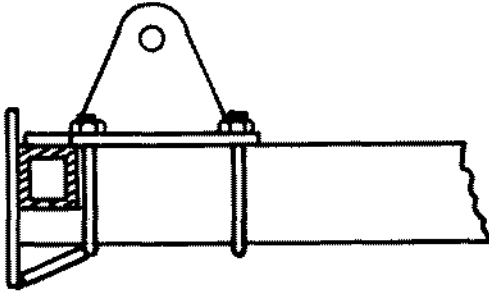


P1-75560

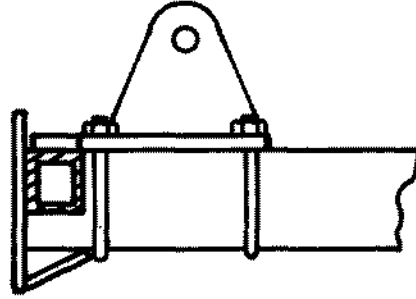
14" STUB

1-3/4" HUB & SPINDLE

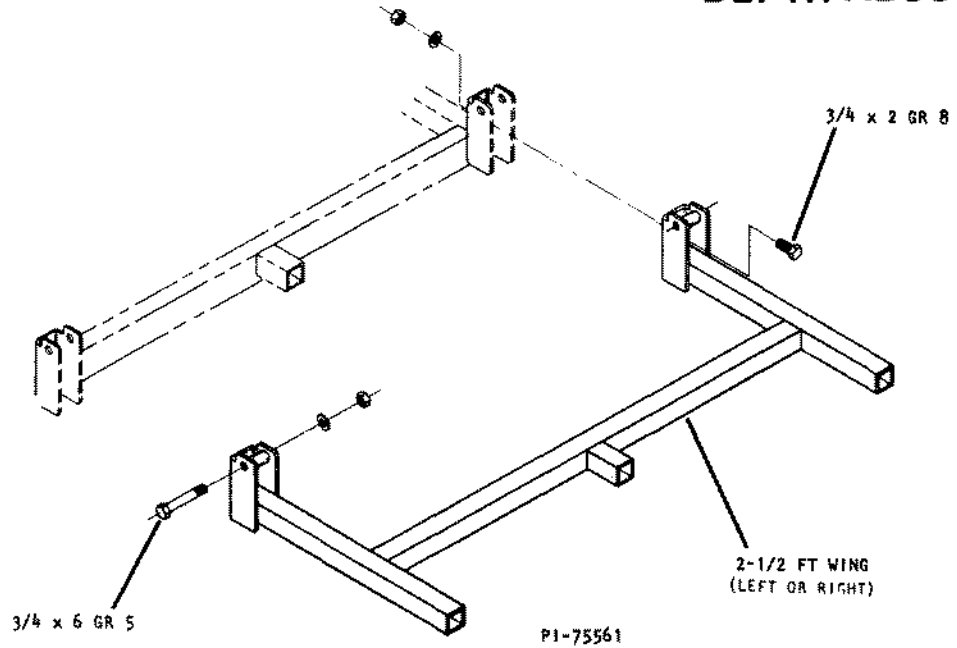
CYLINDER ANCHOR POSITION FOR
MAXIMUM SHANK PENETRATION



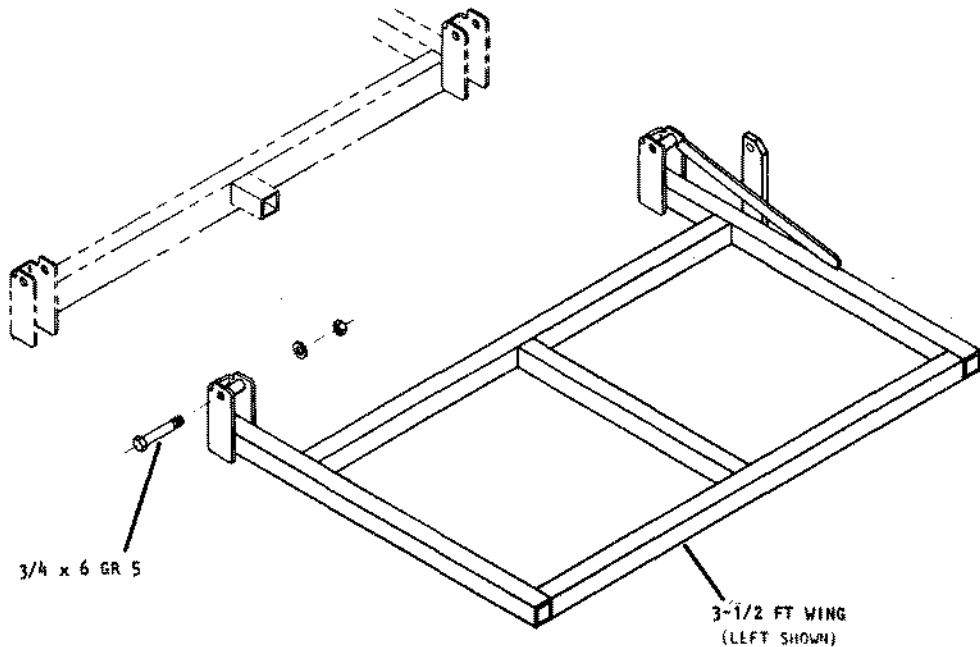
CYLINDER ANCHOR POSITION FOR
MODERATE SHANK PENETRATION



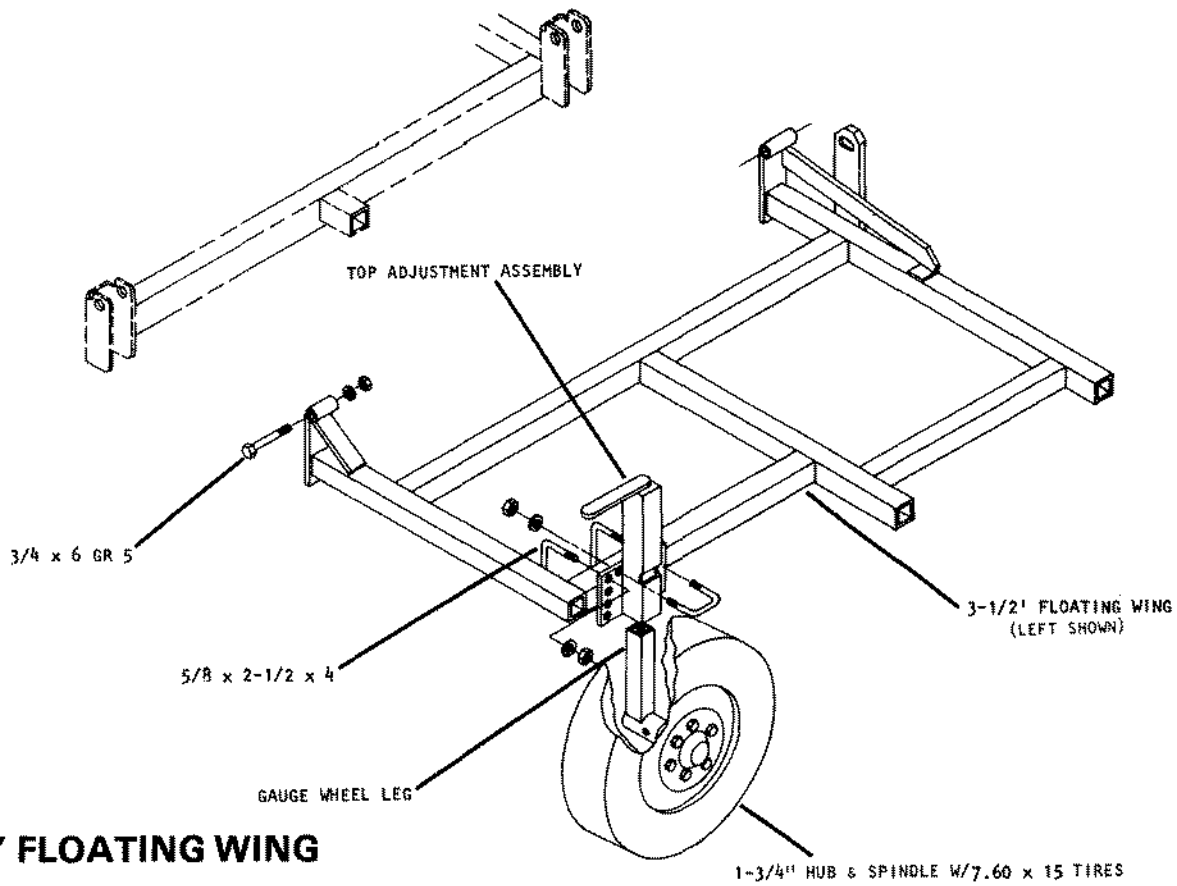
DEPTH ADJUSTMENT



2-1/2' WING

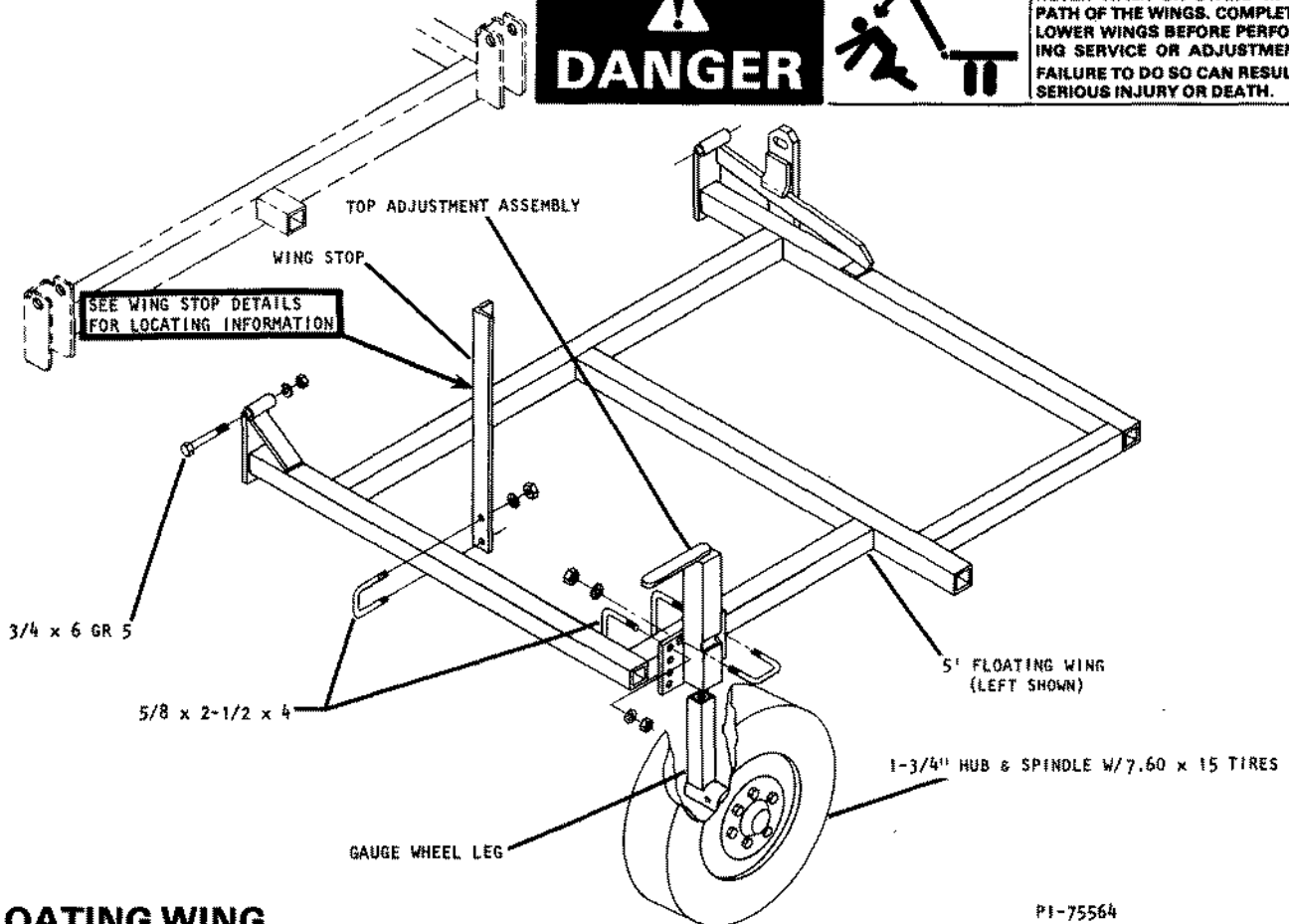


3-1/2' WING



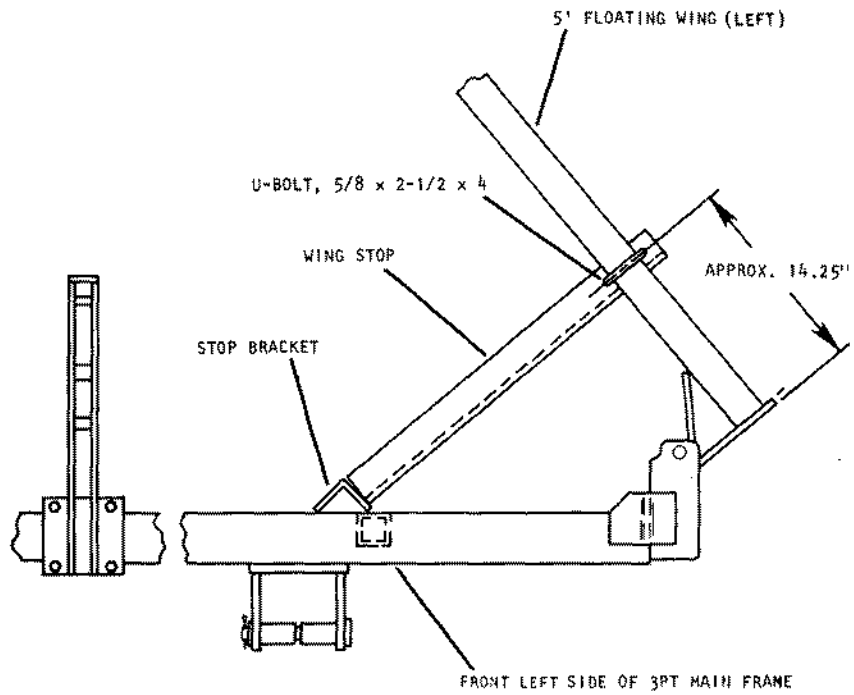
3-1/2' FLOATING WING

 DANGER		<p>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.</p>
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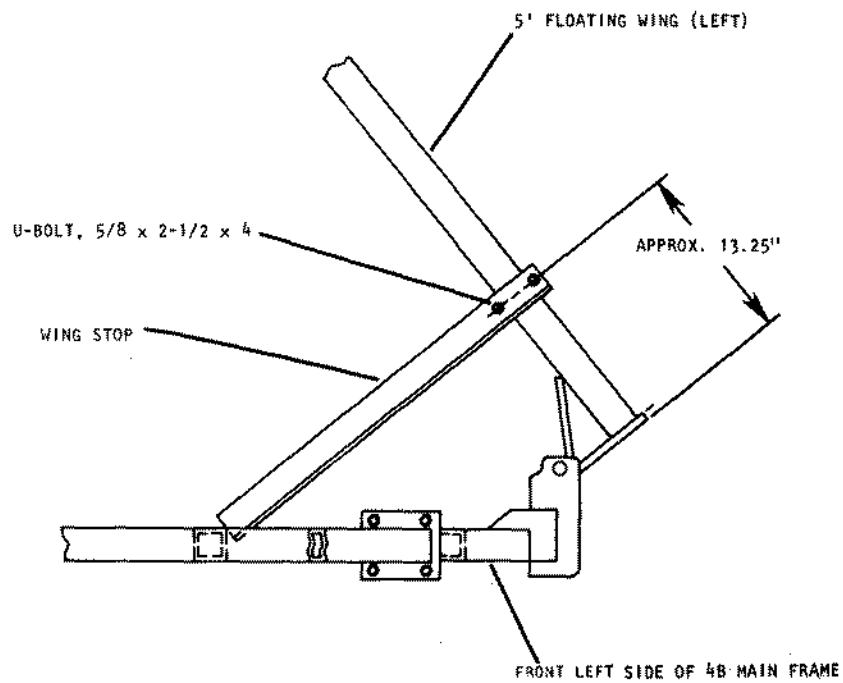
5' FLOATING WING

PI-75564



P1-75566

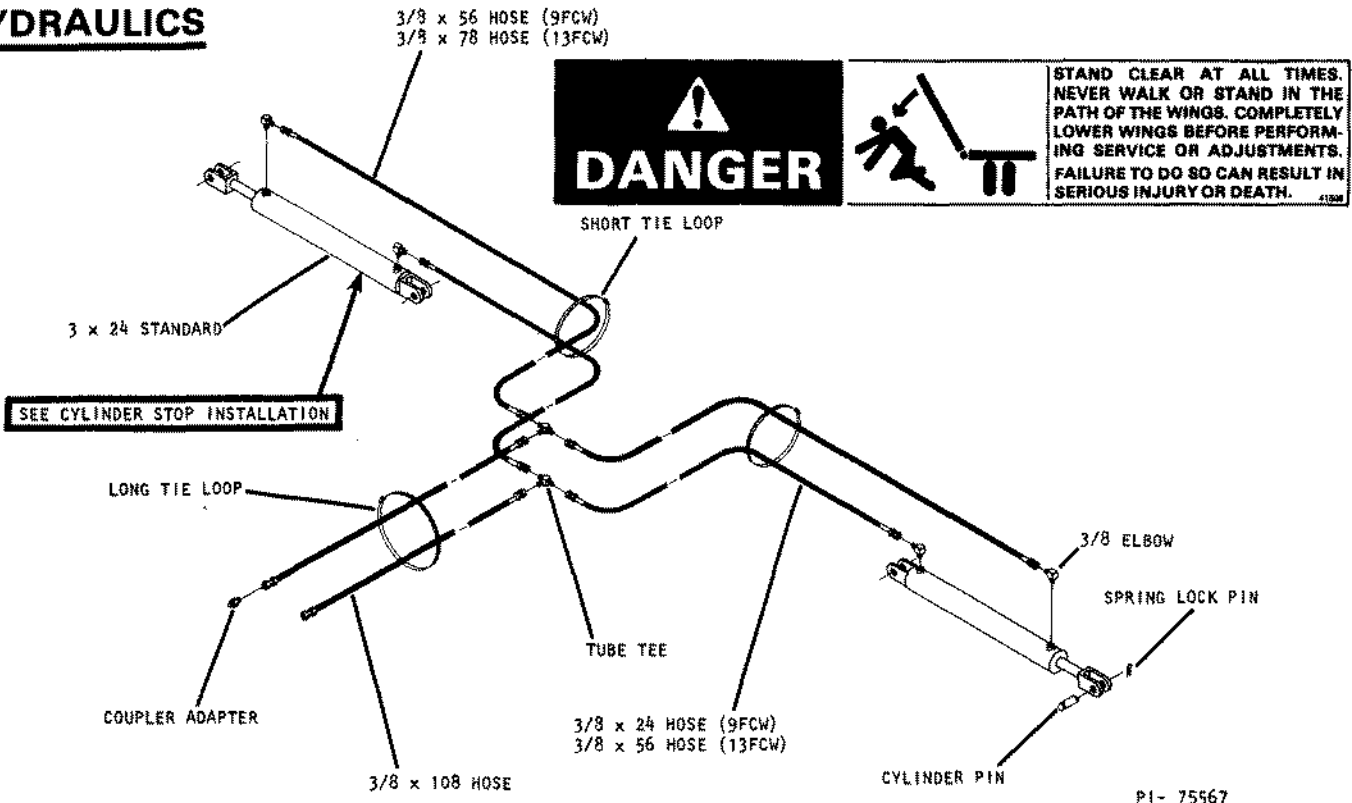
3 PT WING STOP DETAIL



P1-75565

4 B WING STOP DETAIL

HYDRAULICS

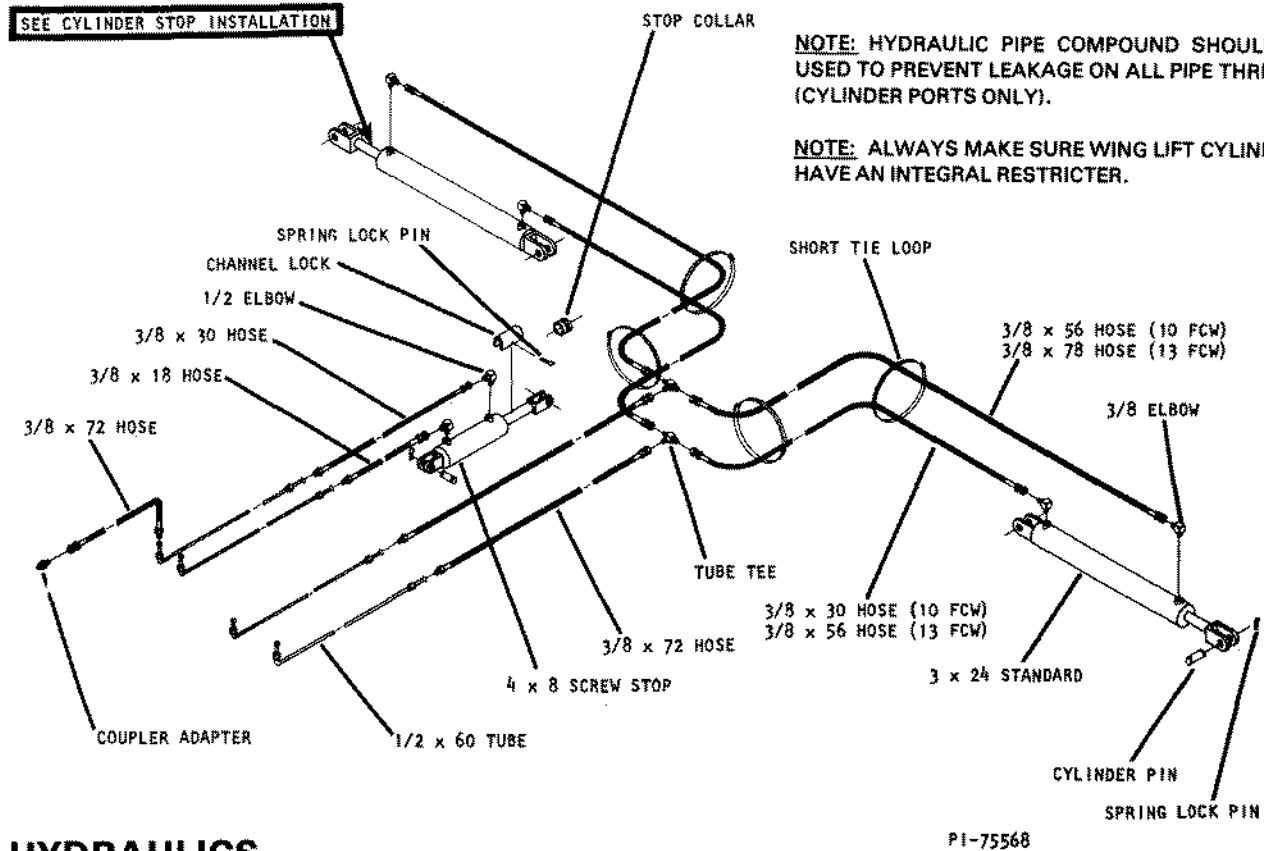


3 PT HYDRAULICS

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

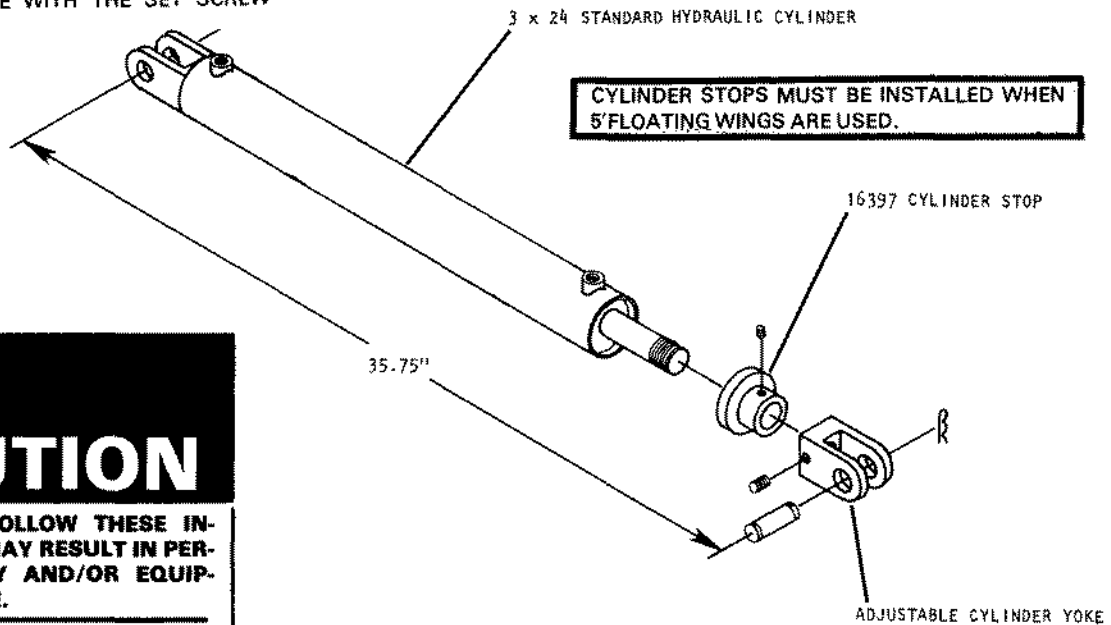
NOTE: HYDRAULIC PIPE COMPOUND SHOULD BE USED TO PREVENT LEAKAGE ON ALL PIPE THREADS (CYLINDER PORTS ONLY).

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




4 B HYDRAULICS

NOTE: BEFORE ATTACHING WING CYLINDERS, INSTALL CYLINDER STOPS ON EACH CYLINDER AS SHOWN. USE ADJUSTABLE YOKE TO SET A FULLY RETRACTED LENGTH OF 35.75", THEN SECURE THE CYLINDER STOP FLUSH TO THE BASE OF THE YOKE WITH THE SET SCREW PROVIDED.



PI-75569

CYLINDER STOP INSTALLATION

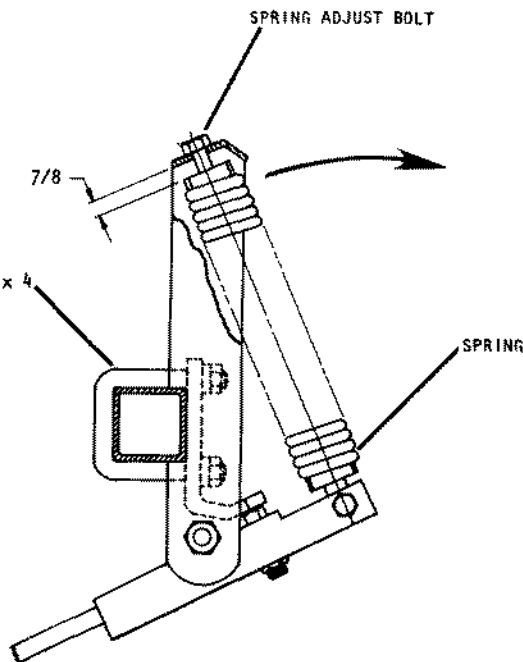


CAUTION

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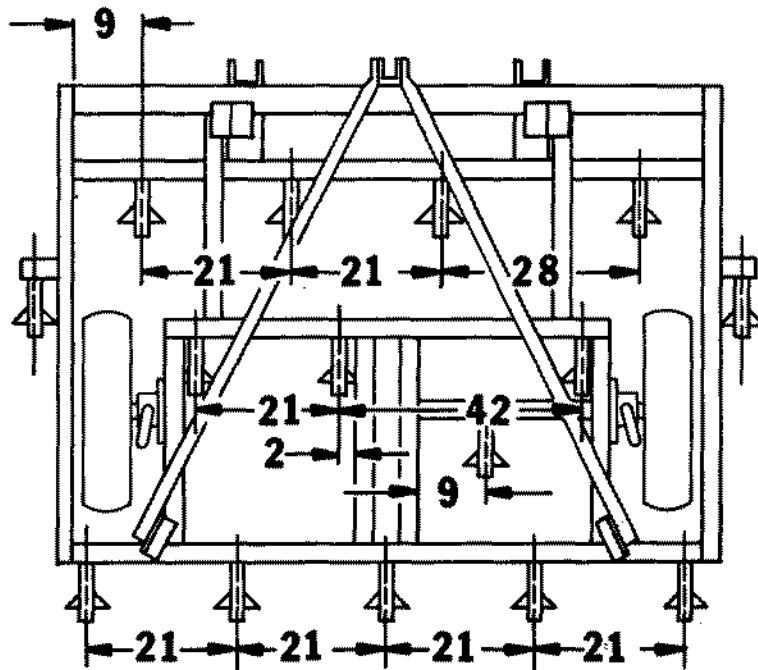


PI-75570

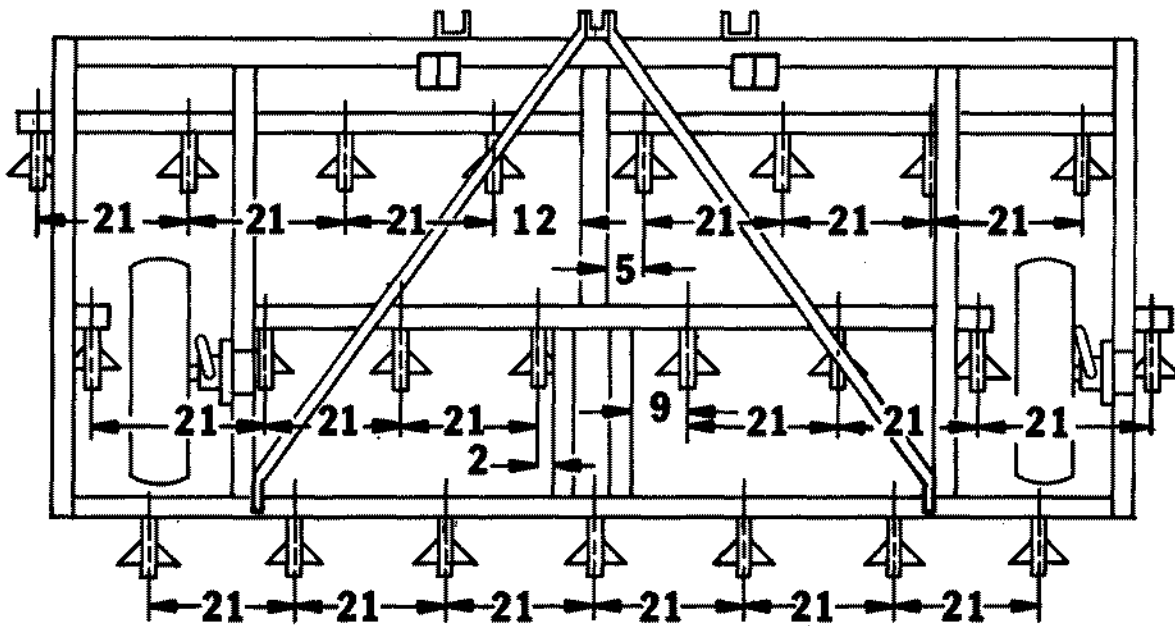
SHANK ILLUSTRATION

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.

SHANK PLACEMENTS

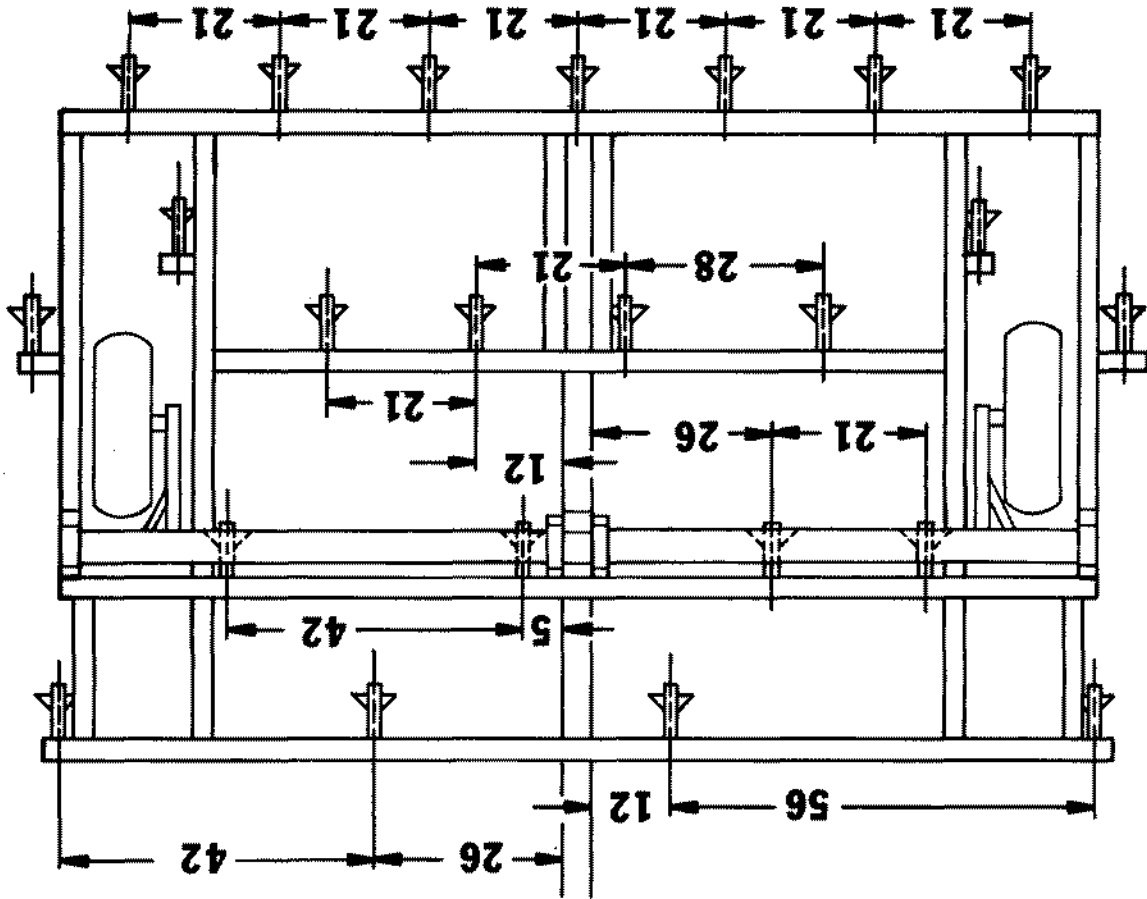


8' & 9' 3 PT MAIN FRAME (TYPICAL)

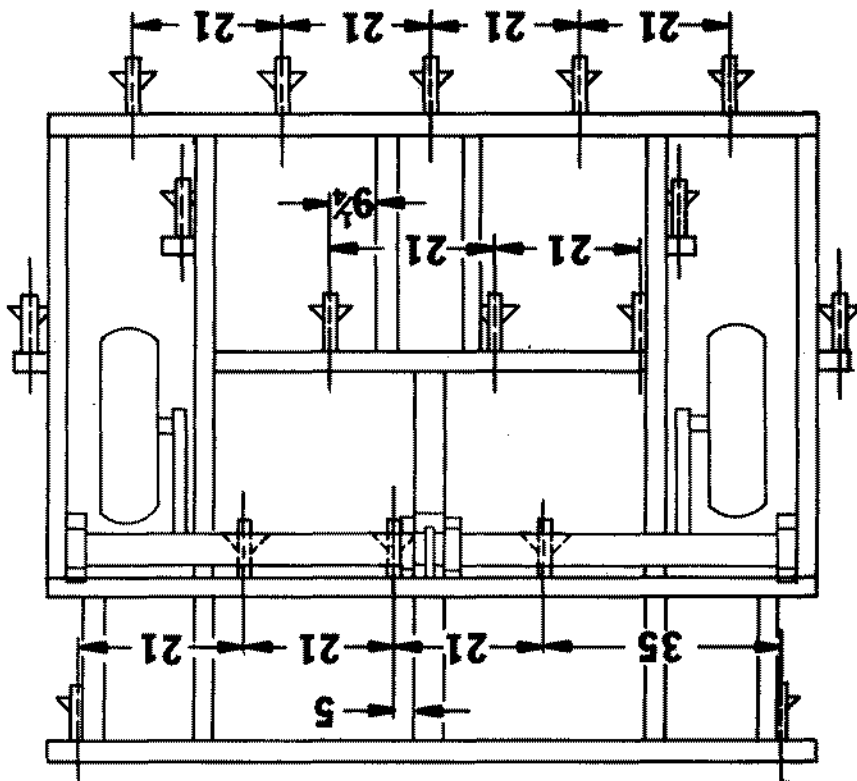


13' 3 PT MAIN FRAME (TYPICAL)

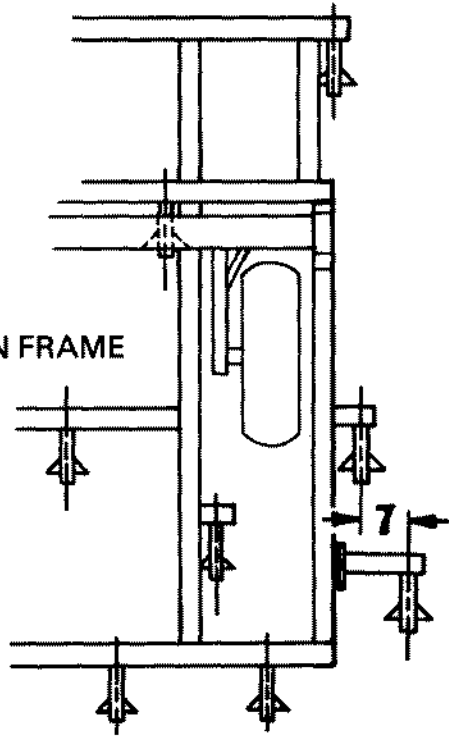
13'4 B MAIN FRAME (TYPICAL)



10'4 B MAIN FRAME (TYPICAL)



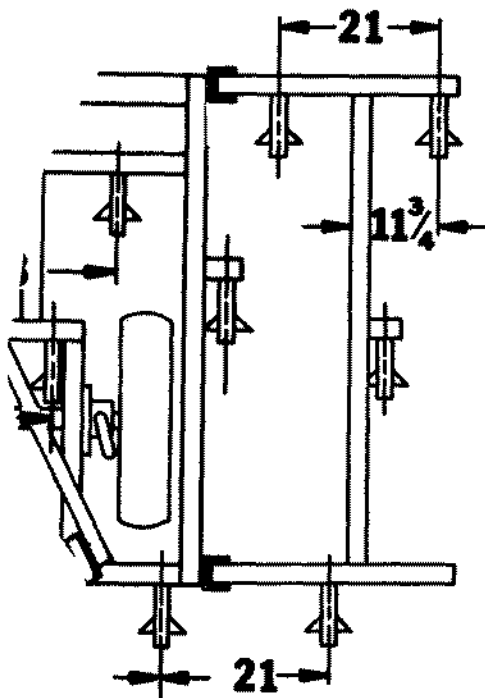
3 PT OR 4 B MAIN FRAME
(4 B SHOWN)



9 FCW 3 PT (10)
13 FCW 3 PT (15)
10 FCW 4 B (11)
13 FCW 4 B (15)

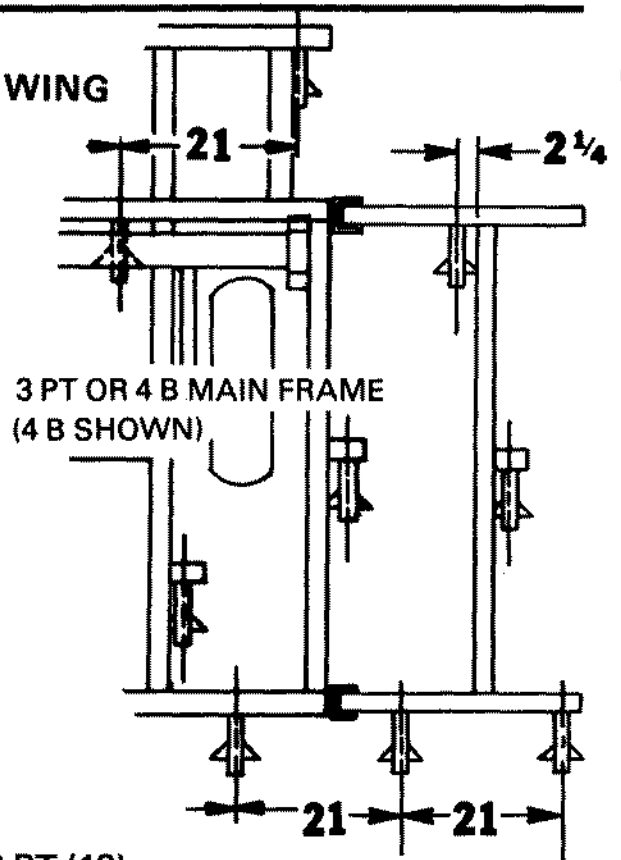
14" STUB

2-1/2' WING



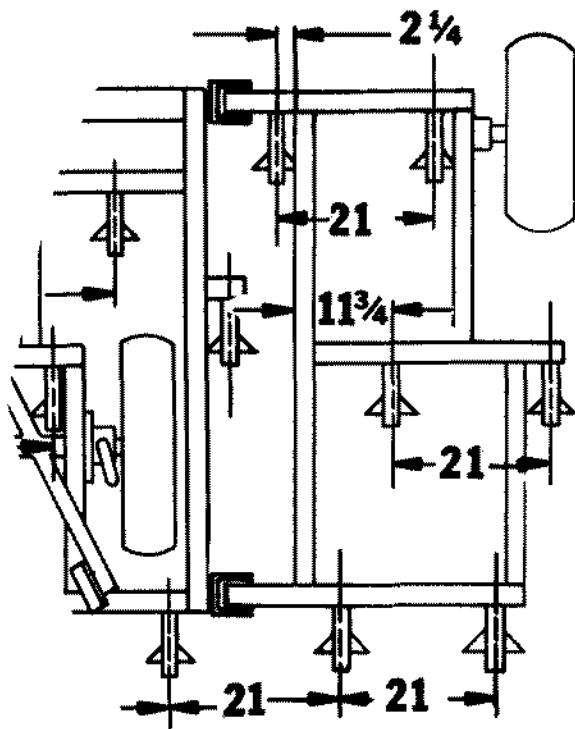
9 FCW 3 PT (13)

2-1/2' WING

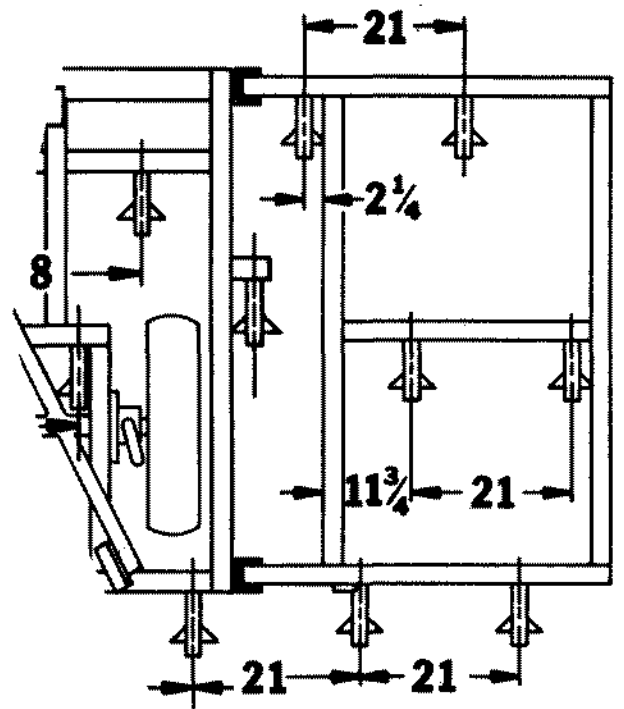


3 PT OR 4 B MAIN FRAME
(4 B SHOWN)

13 FCW 3 PT (18)
10 FCW 4 B (15)
13 FCW 4 B (18)



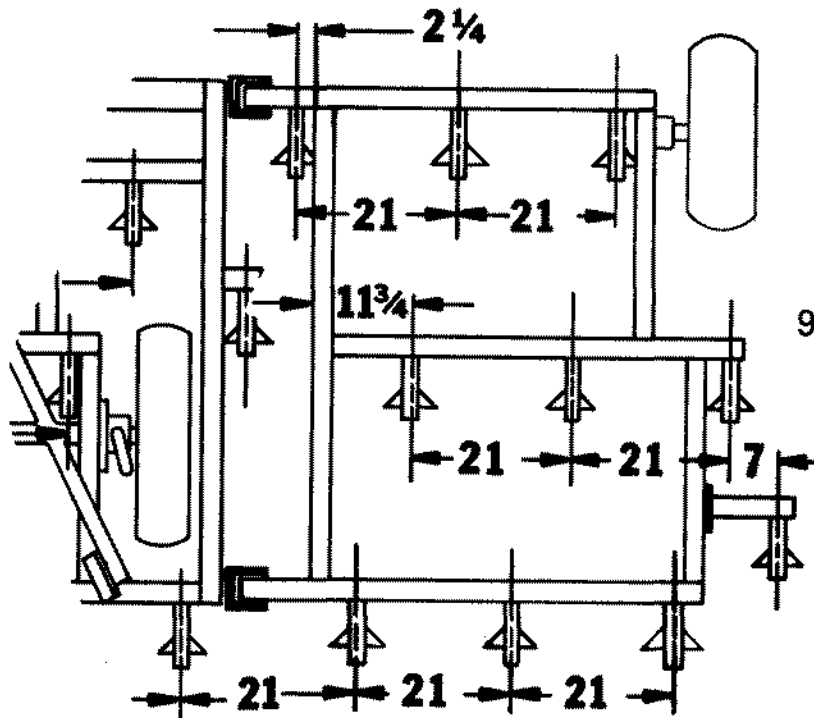
3-1/2' FLOATING WING



3-1/2' WING

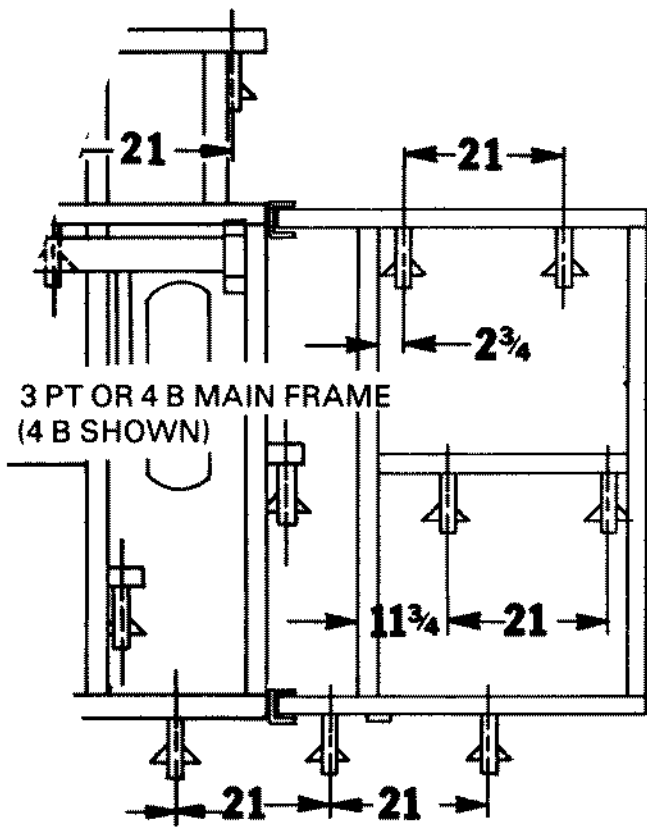


9 FCW 3 PT (16)

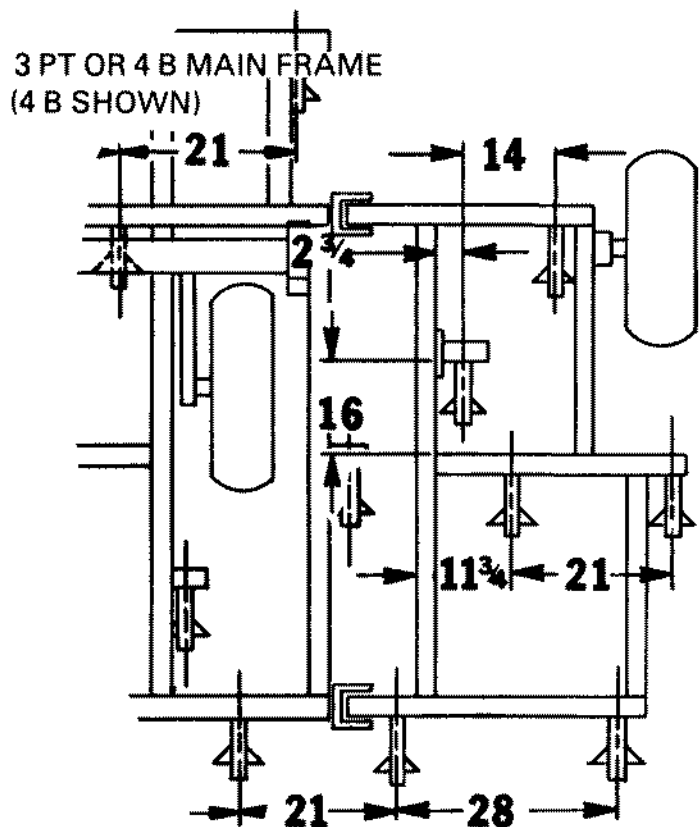


9 FCW 3 PT (19 - 20)

5' FLOATING WING

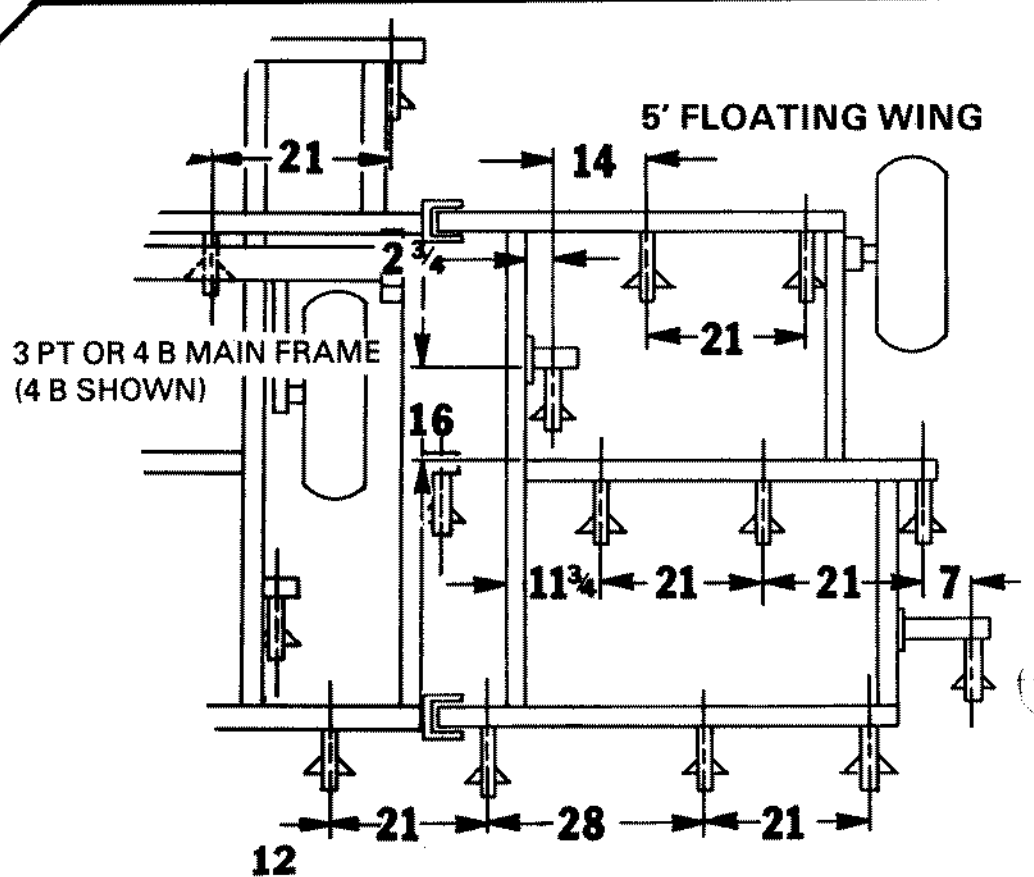


3-1/2' WING



3-1/2' FLOATING WING

- 13 FCW 3 PT (20)
- 10 FCW 4 B (17)
- 13 FCW 4 B (20)

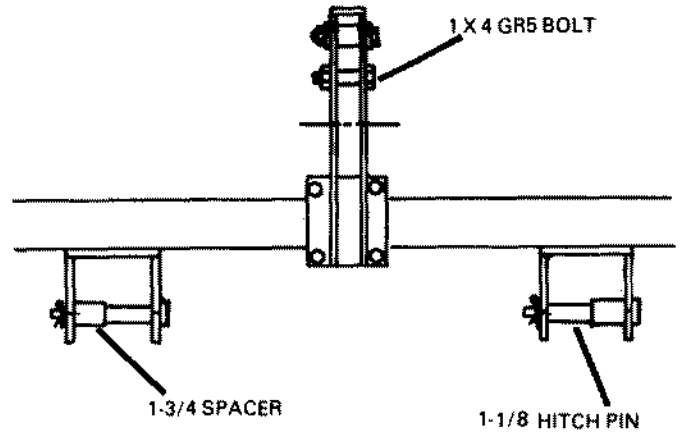


- 13 FCW 3 PT (24 - 25)
- 10 FCW 4 B (20 - 22)
- 13 FCW 4 B (24 - 25)

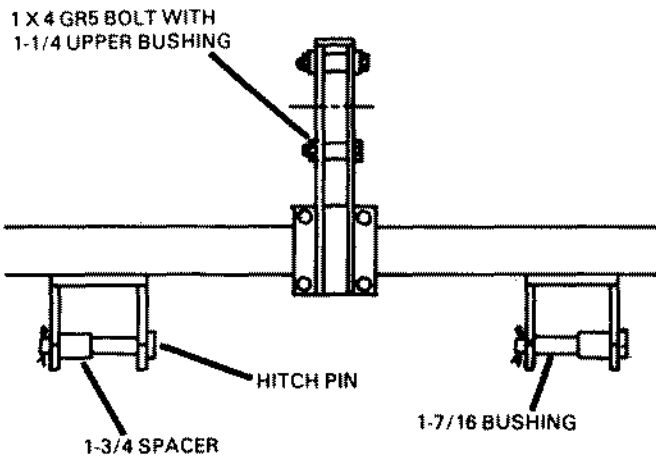
3 PT HITCHING ARRANGEMENTS

Wil-Rich 3-point cultivators will hitch to a category II or III Quickhitch or 3-point by using the following combinations of the hitch pin, spacers, and bushings.

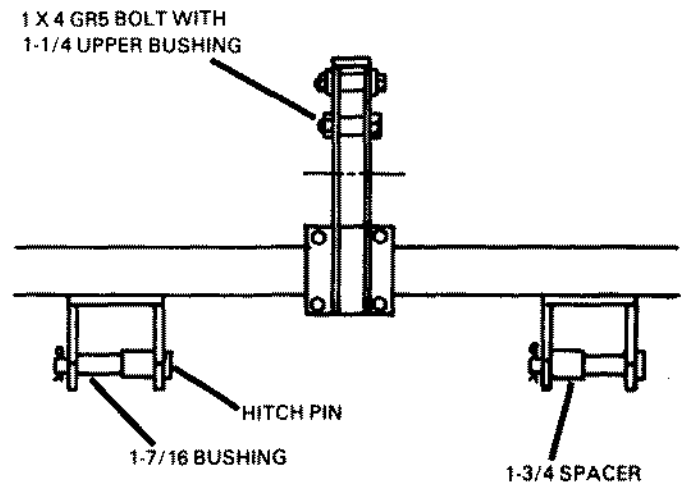
Refer to your tractor's operator's manual for exact hitching procedures.



CATEGORY II FREE-LINK



CATEGORY II QUICK HITCH



CATEGORY III QUICKHITCH

PI-75659

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:

HUTCHINSON WIL- RICH MANUFACTURING COMPANY

P.O. BOX 1090

WAHPETON, ND 58074

(701) 642-2621