

The logo consists of the letters 'H&S' in a bold, black, sans-serif font, enclosed within a yellow rectangular border.

DEALER

**SETUP
INSTRUCTIONS
HDII**

REVISION #00
PART #75813

HSMFG0916

H&S MANUFACTURING CO.,INC.

P.O BOX 768 (715) 387-3414 FAX (715) 384-5463

MARSHFIELD, WISCONSIN 54449

HD II ASSEMBLY INSTRUCTIONS

DETERMINE RIGHT OR LEFT SIDE OF RAKE BY VIEWING IT FROM THE REAR.

TO FACILITATE IN THE ASSEMBLY, LIFTING EQUIPMENT MUST BE AVAILABLE.

SAFETY IS YOUR RESPONSIBILITY

- 1 UNPACK RAKE AND FAMILIARIZE YOURSELF WITH PARTS.

QTY. 1 RAKE BUNDLE

INCLUDES: POLE ASSEMBLY, MAIN FRAME, 1 LEFT BEAM, 1 RIGHT BEAM & 4 ROAD WHEELS.

1 RACK OF RAKE WHEELS: 9 RIGHT HAND, 8 LEFT HAND

1 BOX WITH CONTROL BOX, MANUAL HOLDER WITH BRACKET AND PARTS MANUAL, WORK LIGHT AND SMV SIGN.

- 2 RAISE THE MAIN FRAME APPROXIMATELY 6 FT. ABOVE FLOOR. (FIGURE 1)

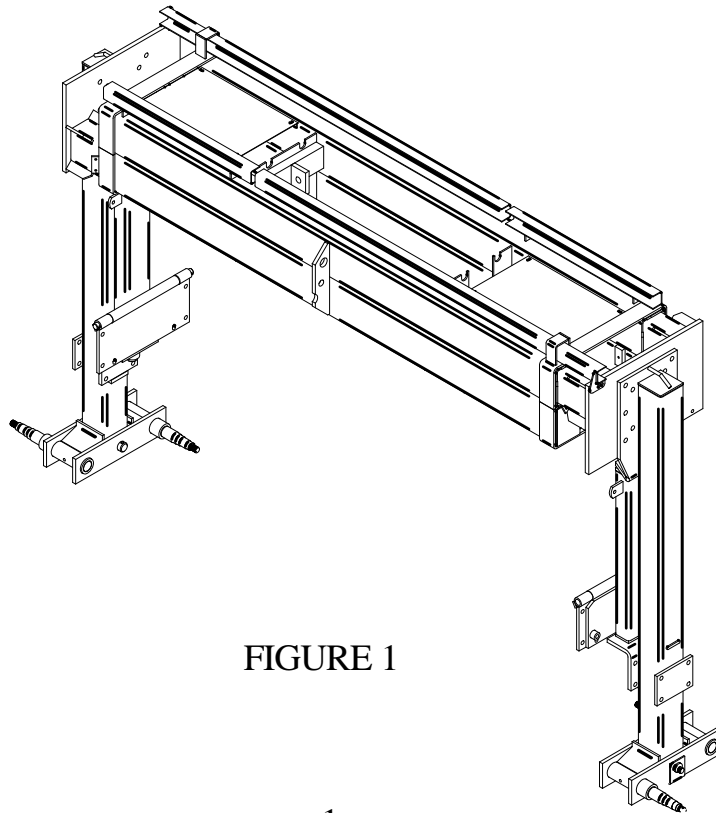
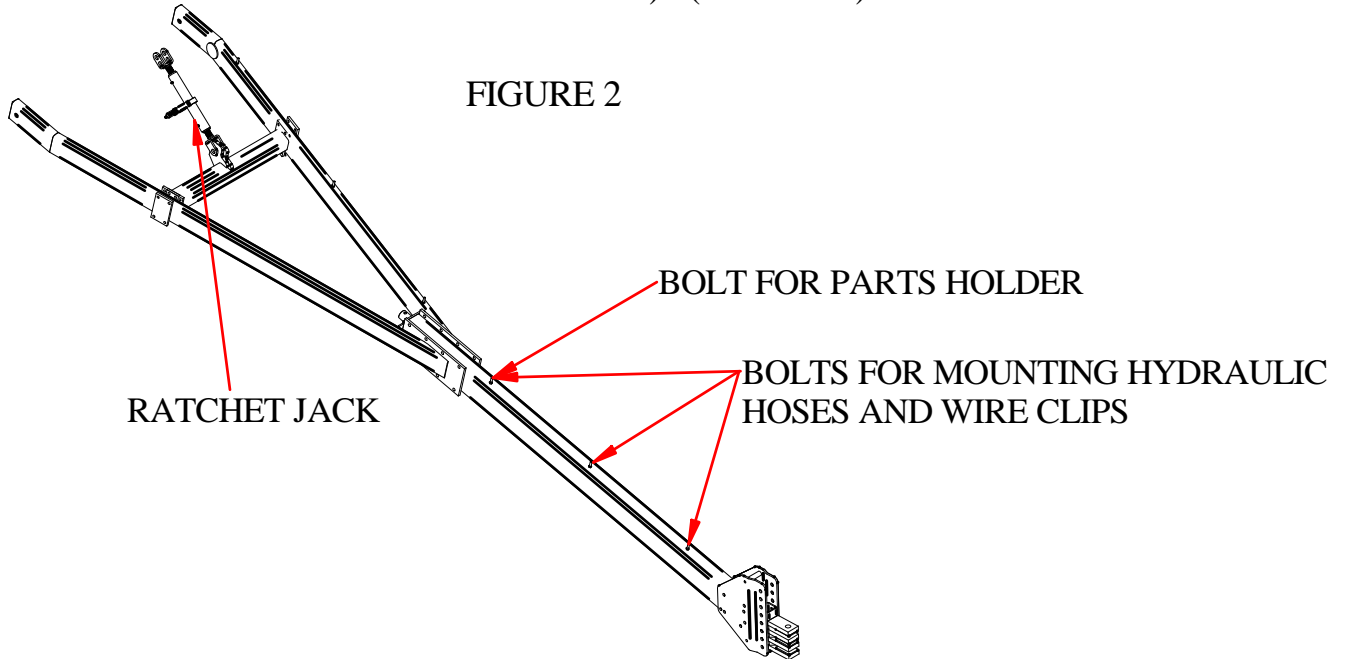
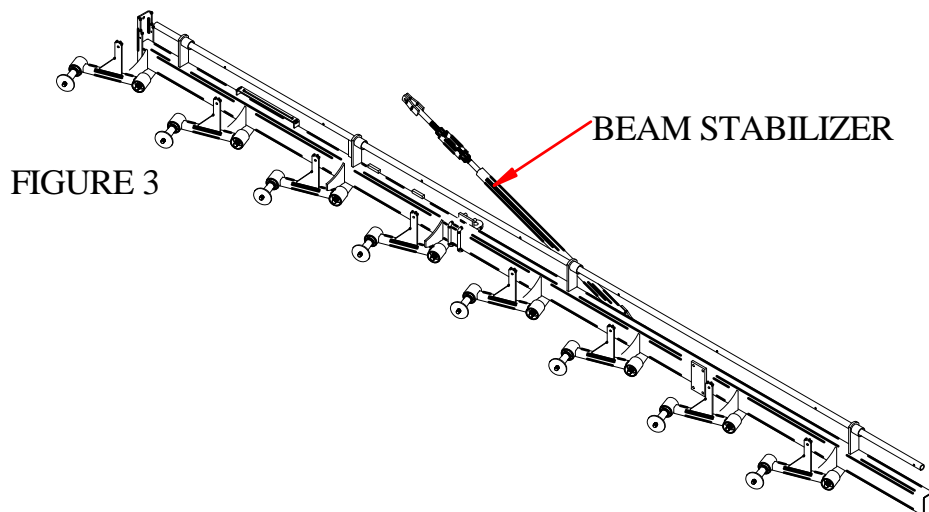


FIGURE 1

- ATTACH POLE AND RATCHET JACK TO MAIN FRAME, WITH PINS (HD93 & T143) PROVIDED IN MOUNTS (RATCHET JACK CENTERS ARE APPROXIMATELY 28 TO 28-1/2"). (FIGURE 2)

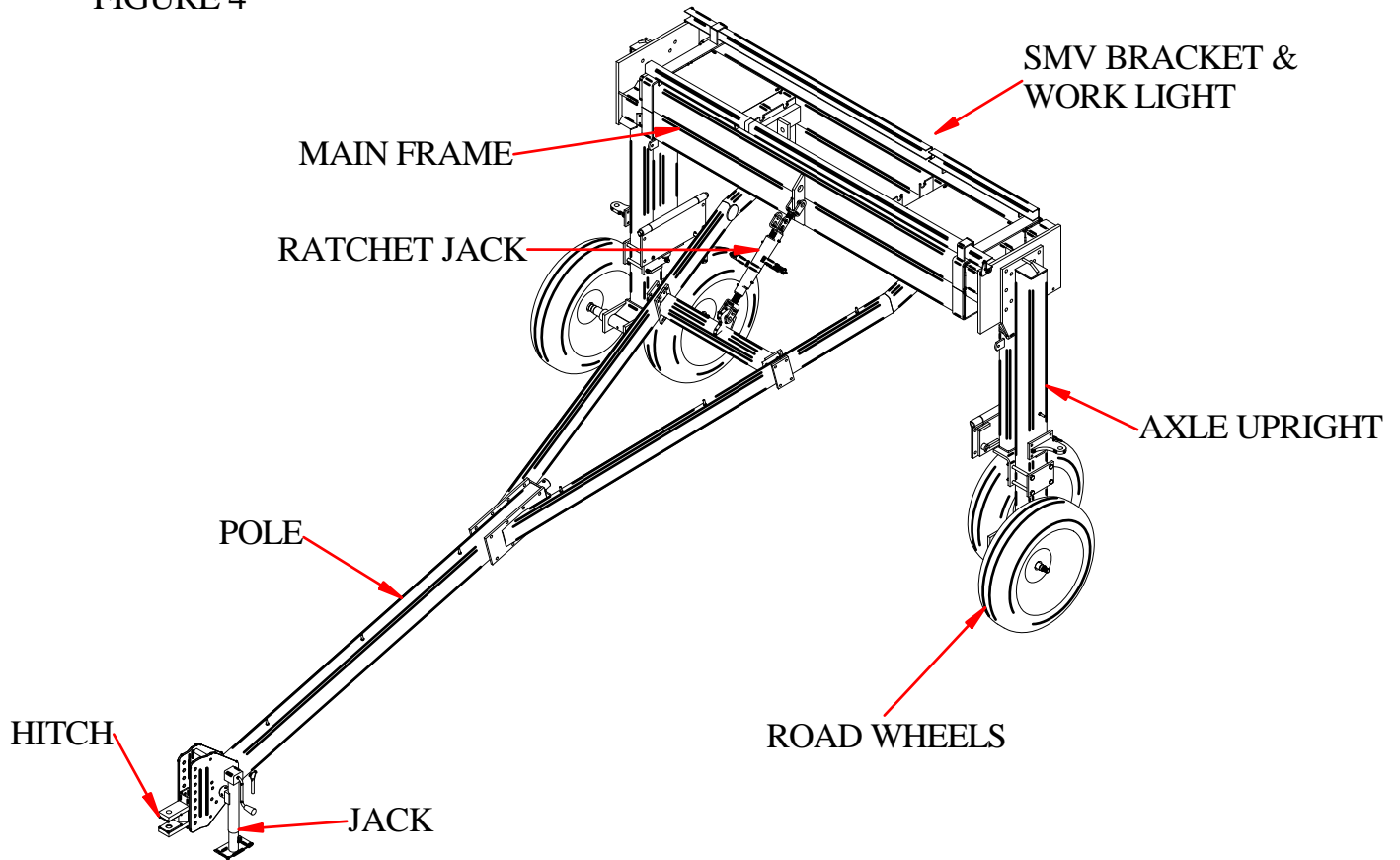


- INSTALL ROAD WHEELS TO RAKE FRAME. (FIGURE 4)
- PLACE LEVEL ON AXLE UPRIGHT AND ADJUST RATCHET JACK ON POLE UNTIL UPRIGHT IS PLUMB. (FIGURE 4)
- ADJUST HITCH TO DESIRED HEIGHT FOR YOUR TRACTOR, BY MOVING HITCH. (FIGURE 4)
- ATTACH RAKE BEAMS TO RESPECTED SIDES OF RAKE USING PLATES AND BOLTS, DO NOT TIGHTEN BOLTS UNTIL UNIT IS COMPLETELY LEVELED. (FIGURE 3)



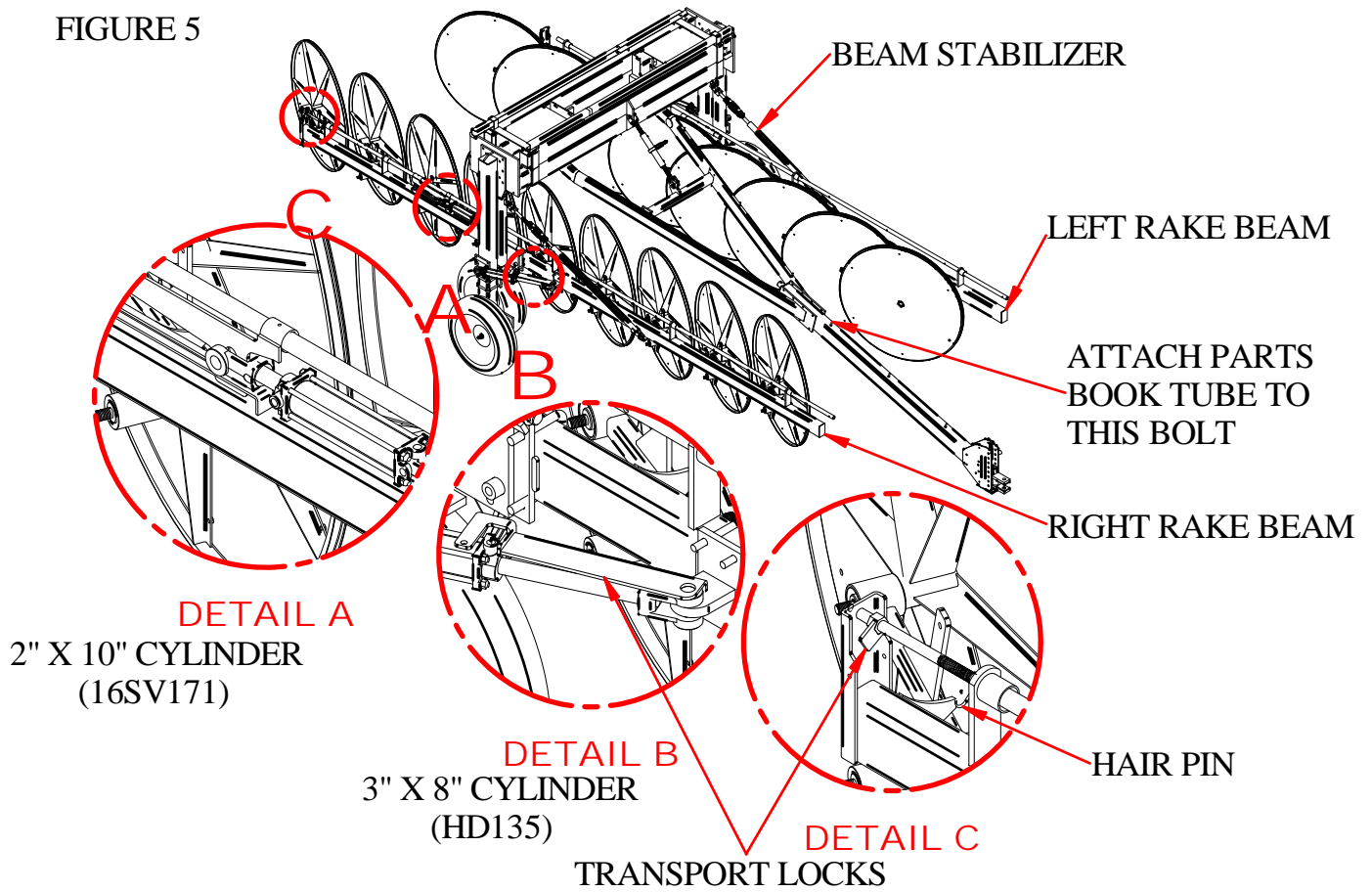
- BOLT BEAM STABILIZER TO BEAM PIVOT ASSEMBLY. (FIGURE 5)

FIGURE 4



- 9 PLACE LEVEL ON BEAMS (HD109 & HD111) AND ADJUST TURNBUCKLES ON STABILIZERS (HD113) UNTIL LEVEL. TIGHTEN ALL BOLTS.
- 10 ATTACH 2" X 10" HYDRAULIC CYLINDERS (16SV171) TO RAKE BEAM LIFTING PIPE (DETAIL A, FIGURE 5).
- 11 ATTACH 3" X 8" HYDRAULIC CYLINDERS (HD135) TO RAKE BEAM (DETAIL B, FIGURE 5). THEN BOLT (BFR177) THROUGH ROD END OF CYLINDERS MUST BE TIGHTENED SO TRANSPORT LOCK MOVES WITH RESISTANCE.
- 12 REMOVE POWER CORD AND HYDRAULIC HOSES FROM INSIDE OF MAIN FRAME. ATTACH HYDRAULIC HOSES UNDER HOSE CLAMPS AND PLACE WIRE LOOM THROUGH WIRE LOOPS. ATTACH PARTS BOOK TUBE TO POLE. (FIGURE 5) **BE SURE THAT ALL HYDRAULIC LINES DO NOT CONFLICT WITH MOVING PARTS.**

FIGURE 5

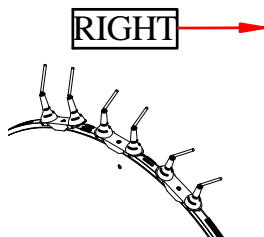


13 INSTALL ALL RAKE WHEELS TO RAKE ARMS.

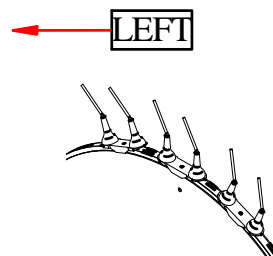
NOTE:

RAKE WHEELS SHOULD BE INSTALLED WITH IMPACT WRENCH SO NUT WILL TIGHTEN, AND NOT JUST TURN THE SPINDLE, TORQUE TO 125 - 135 FT. LB.

WHEN FACING SIDE WITH WIND
GUARD THE TEETH FACE
CLOCKWISE DIRECTION.



WHEN FACING SIDE WITH WIND
GUARD THE TEETH FACE
COUNTERCLOCKWISE DIRECTION



- 14 ATTACH RAKE TO TRACTOR AND HOOK UP HYDRAULIC AND ELECTRICAL.
- 15 IT IS THE DEALER/CUSTOMER'S RESPONSIBILITY TO MOUNT AND INSTALL THE CONTROL BOX ON THE TRACTOR.

WHEN WIDENING FRAME, RAKE MUST BE MOVING FORWARD OR SEVERE DAMAGE WILL HAPPEN.

- 16 HYDRAULICS HAVE BEEN PURGED FROM FACTORY. IF SYSTEM HAS BEEN OPENED TO REMOVE PLUG FOR OPEN CENTER TRACTORS OR ANY OTHER REASON THE SYSTEM MUST BE PURGED. **STAY CLEAR OF RAKE WHEN PURGING HYDRAULICS. AIR IN HYDRAULIC LINES MAY CAUSE RAPID MOVEMENT OF COMPONENTS.** IT MAY BE NECESSARY TO OPERATE CYLINDERS IN EACH DIRECTION SEVERAL TIMES, HOLDING FOR APPROXIMATELY 30 SECONDS TO PURGE ALL AIR FROM SYSTEM. **NEVER LOOSEN A FITTING TO PURGE THE SYSTEM.**
- 17 CHECK HYDRAULIC FLUID IN YOUR TRACTOR, ADD AS NEEDED.
- 18 INSTALL SMV SIGN ON BACK SIDE OF MAIN FRAME, ON BRACKET PROVIDED (FIGURE 4).
- 19 INSTALL WORK LIGHT (FACING REARWARD) TO CENTER OF BOTTOM SIDE OF MAIN FRAME. WIRE FOR LIGHT IS NEAR MOUNT (FIGURE 4).
- 20 WHEN TRANSPORTING **SAFETY LOCKS MUST BE USED.** (DETAIL B & C, FIGURE 5) THERE ARE (4) SAFETY LOCKS, ONE FOR EACH OF THE RAKE WHEEL LIFTING PIPES AND ONE FOR EACH OF THE RAKE BEAMS.
- 21 WHEN UNHOOKING THE RAKE, BE SURE TO DISCONNECT THE POWER CABLE AS WELL AS THE HYDRAULIC HOSES.

H & S WILL PICKUP THE 3 BLACK PACKING RACKS

