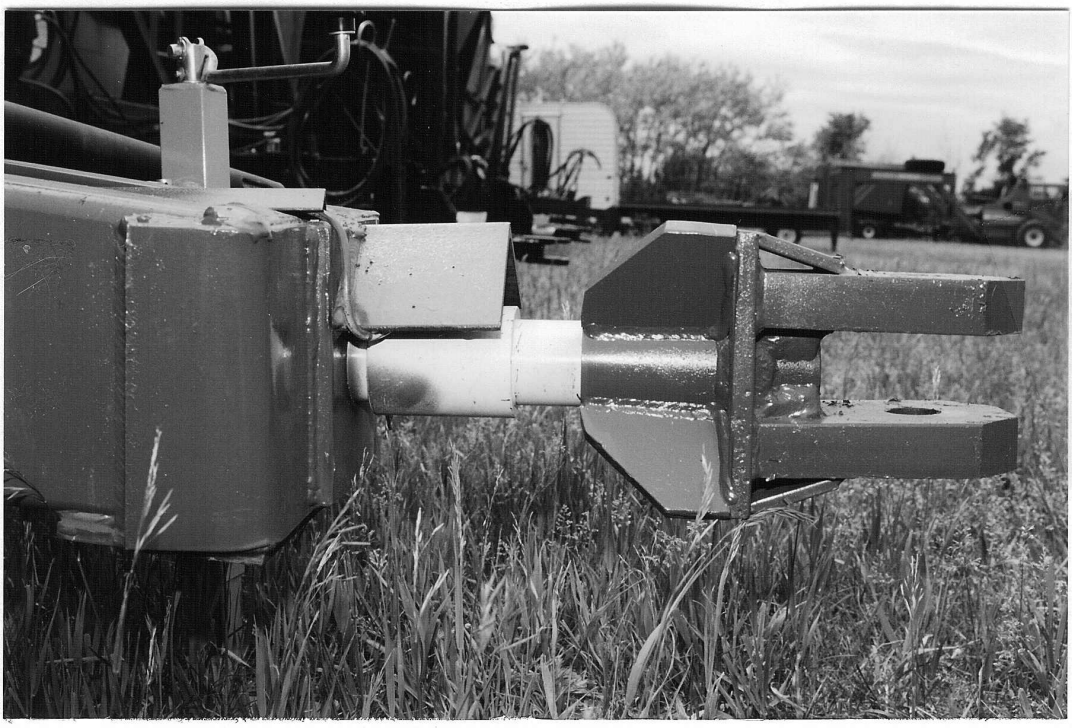
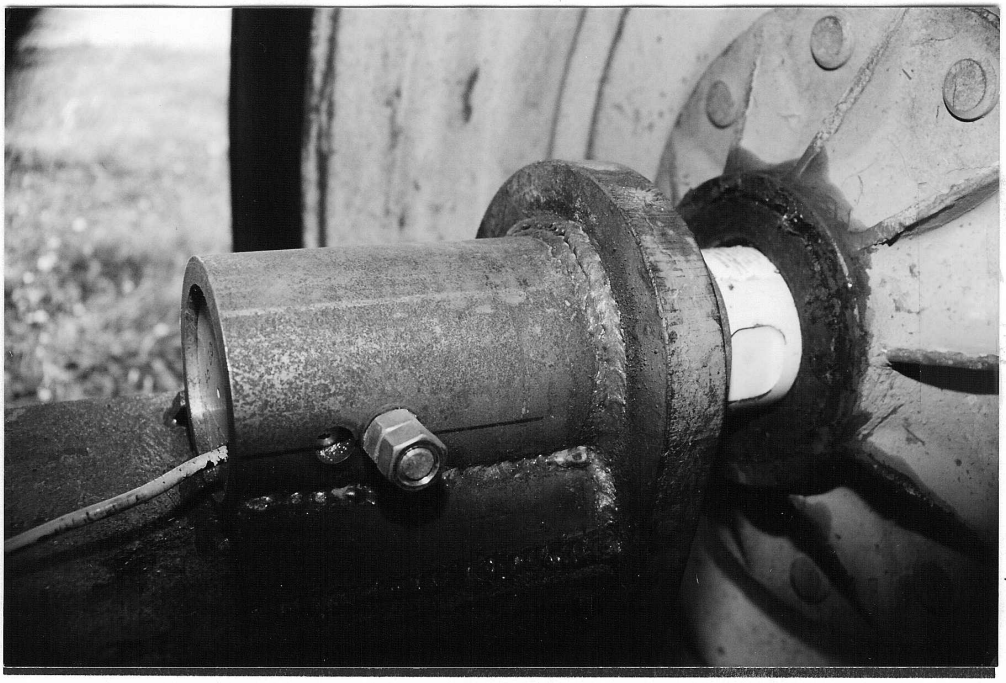
MOUNTING THE HITCH WEIGH-BAR ON A GRAIN CART

Provided is a picture of how your hitch should appear when a scale is installed on your grain cart. Most of the weigh-bars that go on the hitch of a grain cart are a 2 1/2" diameter shaft. Most of the grain carts have a swivel hitch clevis that is welded to a shaft that slides inside a tube and has a collar on the back end. This allows it to swivel (J & M), (A & L), (Brent), (Orthman), etc. Some have a solid front hitch bolted on welded to the frame. On the hitches with the swivel shaft, we first remove the bolt that holds the collar on and remove the clevis with shaft off of the back of the clevis. We then take a 4" sleeve and weld it to the back of this clevis. This is done with a weld all the way around the sleeve. We also weld four gussetts to reinforce sleeve to clevis. A hole is then drilled into the sleeve that matches the hole in the end of the weigh-bar. Now we are ready to slide the weigh-bar shaft into the opening in the wagon. Sometimes the opening and weigh-bar are the same size, sometimes the opening is large and you need a sleeve to take up the size difference. Do not be alarmed by the size difference as the weigh-bar is made of a much higher density steel and will not break. You will then weld another collar on the backside of the receptable tube of the wagon. This collar will need to have a hole in it that lines up with the hole in the weigh-bar. We then bolt the weigh-bar solid into the collar. The hitch does not swivel but this has worked satisfactory. There is enough play between the clevis, tractor hitch, and bolts to keep it between from binding up. A solid hitch also is less apt to damage weigh-bar sensor also. However, If you choose to design a swivel weigh-bar hitch that is okay also. You will need to check your PTO shaft when done as on most carts, the weigh-bar lengthens the hitch. This can not be helped. Carts are built with a recessed hitch only when ordered with a scale from the factory. If your clevis does not swivel and its welded solid then you will need to weld in a receptable tube and two heavy plates to hold the receptable tube. A picture of this is provided.



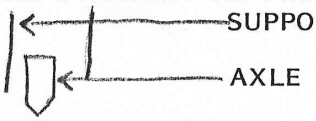


WHEN YOU MOUNT AXLES ON GRAIN CART

FIRST, HAVE HITCH AT HEIGHT IT WOULD BE IF HOOKED TO TRACTOR. THEN WHEN YOU MOUNT AXLE, HAVE MOUNTING BOLT AS STRAIGHT AS POSSIBLE.

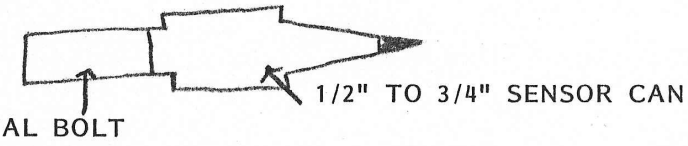
ALSO, HAVE AXLE AS STRAIGHT AS POSSIBLE IN RELATIONSHIP TO CART.

TOP VIEW

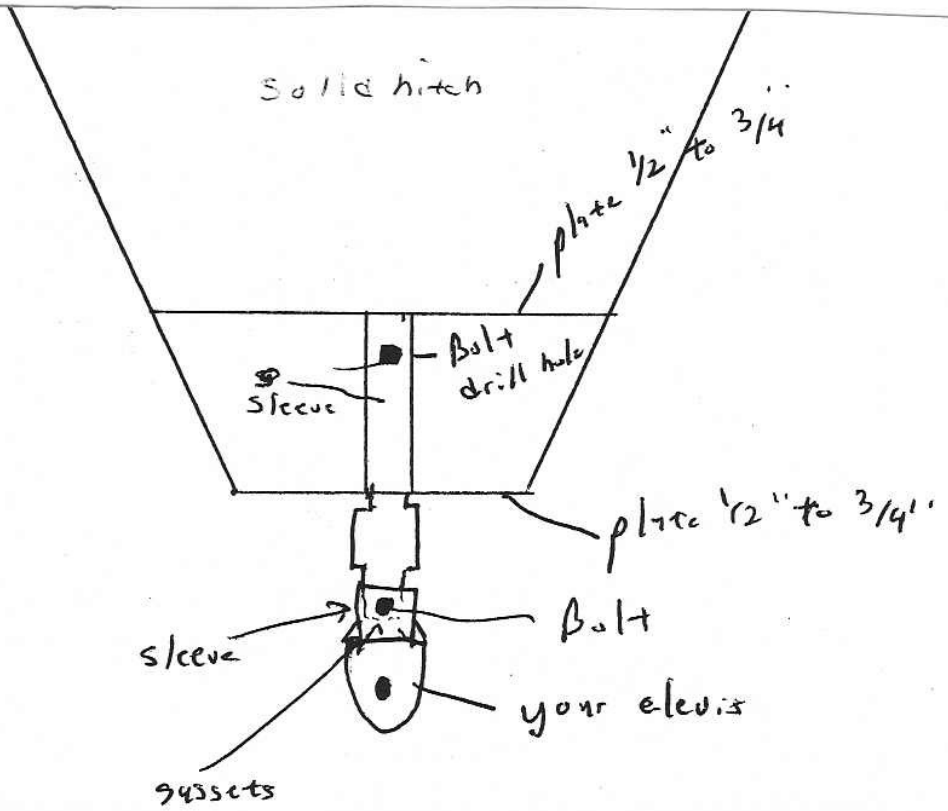


BE SURE TAGS MARKED TOP FACE UP.

ON 3 3/4" AXLE, THE BACK 9 1/4" SHOULD BE IN TUBE THE REST OUT. ALSO ON 3 3/4" AXLE YOU SOMETIMES NEED TO MAKE A SPACER FOR GREASE SEAL ON HUB. ON 3 1/8" AXLE SUPPORT UP TO WITHIN 1/2 TO 3/4 INCH OF SENSOR CAN. ON 3 3/4" AXLE P.V.C. TUBING WORKS AS A SEAL SPACER.



ON J & M CARTS YOU WILL WANT TO PLACE SOME FLAT IRON SHIMS UNDERNEATH THE SUPPORT SLEEVE BECAUSE THE SPINDLE IS SHORTER THAN THE SLEEVE AND THE SHIMS HELP SUPPORT THE SPINDLE.


Solid hitch
plate 1/2" to 3/4
Bolt
drill hole
sleeve
plate 1/2" to 3/4"
Bolt
sleeve
your elevis
gussets

TOP VIEW

IMPORTANT

GRAIN CART OPERATORS

MUST READ THIS BEFORE ATTEMPTING TO USE THIS SCALE

THE FOLLOWING STEPS MUST BECONSIDERED WHEN USING YOUR SCALE OR ELSE YOU WILL NOT REALIZE ITS BEST PERFORMANCE. J-STAR SCALES ARE MANUFACTURED TO PROVIDE ± 1/2% MAXIMUM ERROR. A GOOD INSTALLATION AND PROPER USE ARE REQUIRED IN ORDER TO OBTAIN ADVERTISED ACCURACY.

A GOOD INSTALLATION REQUIRES THAT ALL LOAD CELLS ARE PROPERLY INSTALLED WITH "TOP" ACCURATELY POSITIONED.

OPERATION

TO INSURE ± 1/2% MAXIMUM ERROR, THE UNIT MUST BE USED AS A STATIONARY LOAD-OUT WEIGH HOPPER FROM BIN TO TRUCK. FOR EXAMPLE: THE GROUND MUST BE SMOOTH AND LEVEL WITHIN 5" IN 10 FEET.

TO INSURE ± 1% MAXIMUM ERROR, THE UNIT MUST BE USED SO THAT ALL WEIGHT MEASUREMENTS OCCUR ON FLAT, SMOOTH GROUND (MAXIMUM OUT OF LEVEL 10" IN 10 FEET). IDEALLY, ALL WEIGHT MEASUREMENTS FOR A FIELD WOULD OCCUR IN THE SAME SPOT.

IF WEIGHT MEASUREMENTS ARE TAKEN RANDOMLY IN THE FIELD, THE SURFACE IS ROUGH AND RUTTED OR THE GROUND IS OUT OF LEVEL MORE THAN 10" IN 10 FEET, THEN YOU CAN EXPECT ERRORS TO "EXCEED" ±1%.