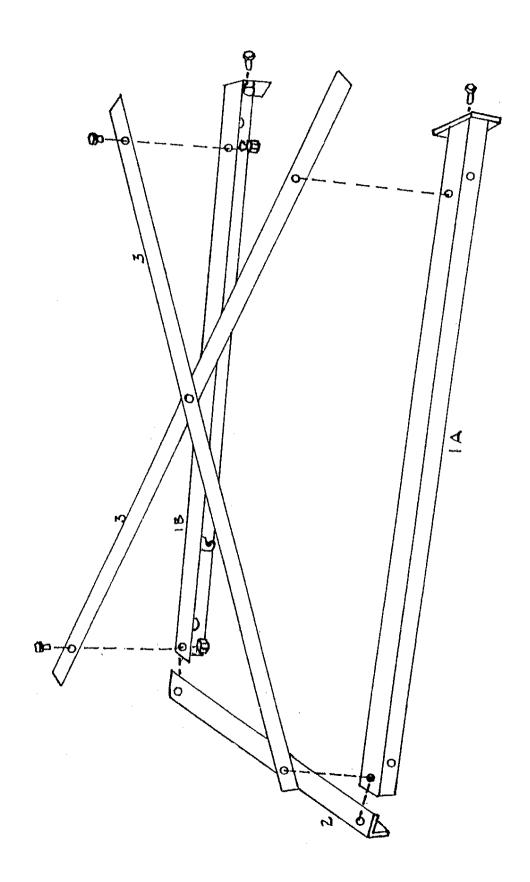
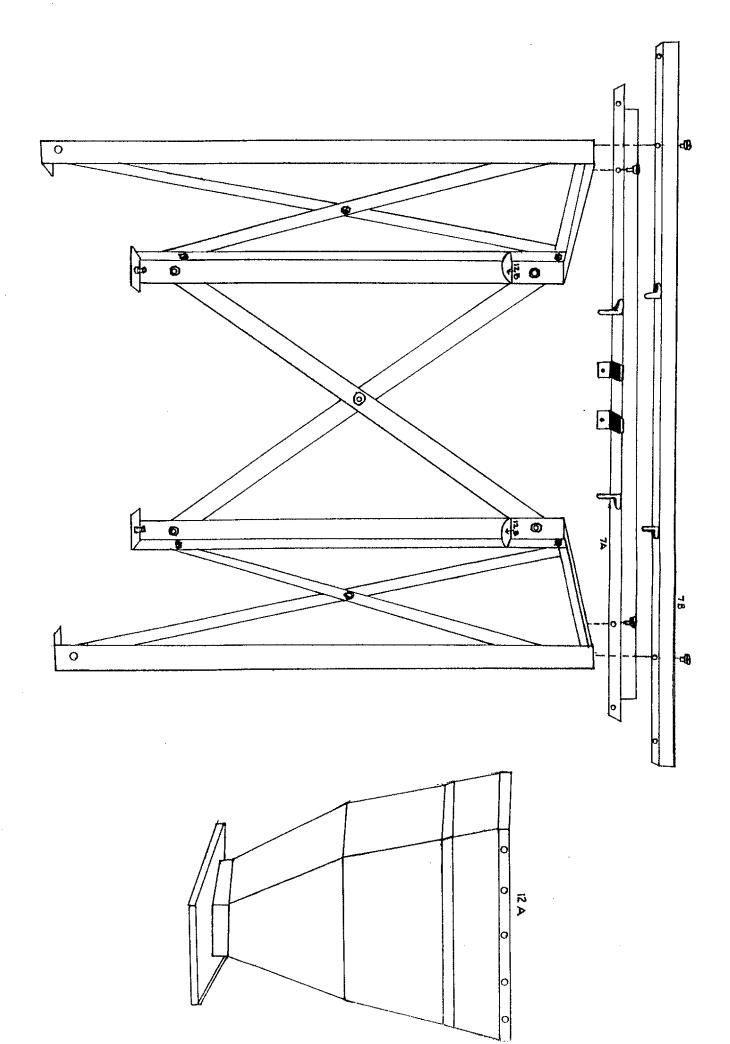


ASSEMBLY INSTRUCTIONS FOR 3800# AND 6000# DHS SCALES

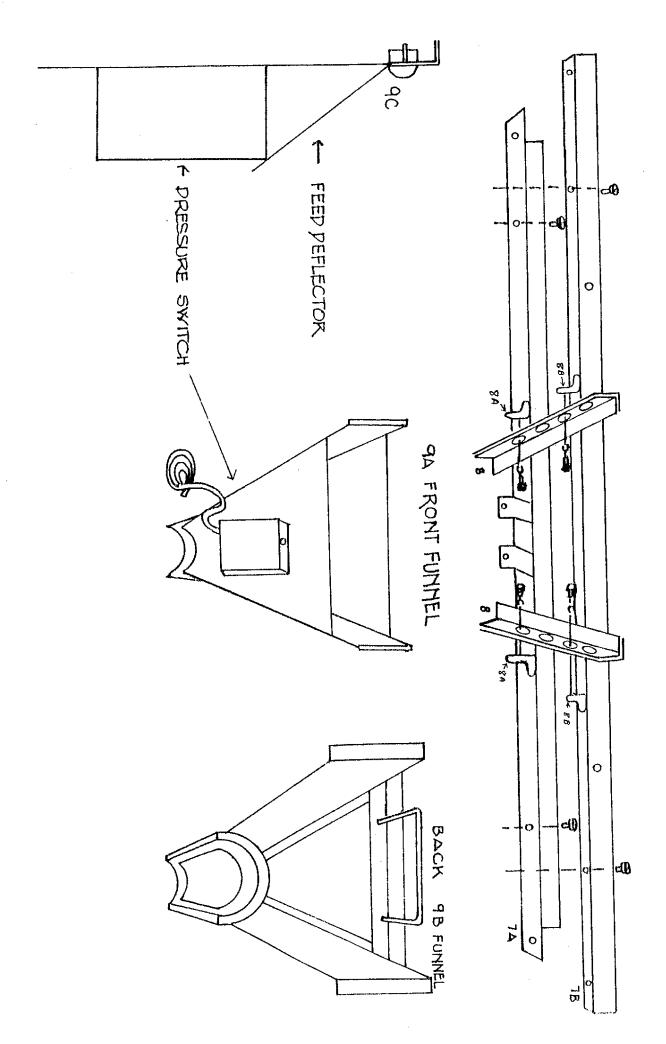
- 1. PLACE ONE LEFT HAND LEG (1A) AND ONE RIGHT HAND LEG (1B) OF THE SCALE ON CONCRETE SLAB FACING DOWNWARD AND FACING EACH OTHER. EITHER 55 1/2" APART FOR MODEL #3000 OR 60" APART FOR MODEL #5000. THE 3" X 3" LEG (FOOT) PADS SHOULD BE ON ONE END WHILE THE OPEN OR TOP ENDS SHOULD FACE THE OTHER WAY. WHEN RIGHT AND LEFT HAND LEGS ARE PROPERLY PLACED EACH ONE HAS A 5/8" HOLE APPROXIMATELY 1" (O.C.) DOWN FROM THE TOP (ON THE UPPER SIDE). SCREW A 1/2" X 1 1/4" BOLT IN EACH LEG (FOOT) FROM THE BOTTOM UP. SCREW THE BOLT INTO THE (FOOT) ITS FULL LENGTH BUT LEAVE IT LOOSE ENOUGH FOR EASY REVERSING FOR LEVELING.
- 2. PLACE ONE END SUPPORT ANGLE (#2) 55 1/2" MODEL #3000 OR 60" (BOX SHAPED) MODEL #5000 OVER THE TOP END OF A PAIR OF LEGS ALLOWING THE 5/8" HOLES IN THE END SUPPORT ANGLE TO OVERLAP AND MATCH UP WITH THE 5/8" HOLE IN THE END OF EACH LEG TOP.
- 3. THEN PLACE THE TWO 100" FLAT BARS (#3) IN AN X PATTERN ON TOP OF THE LEGS AND END SUPPORT ANGLE TO FORM ONE SIDE OF A LEG STAND.
- 4. THEN LOOSELY (HAND TIGHT ONLY) BOLT THE LEG STAND TOGETHER WITH 1/2" X 1 1/4" BOLTS AND NUTS (USE NO LOCK WASHERS AT TOP WHERE THREE THICKNESSES OF METAL ARE LOCATED USE LOCK WASHERS IN ALL OTHER LOCATIONS INCLUDING CENTER OF X BRACE).



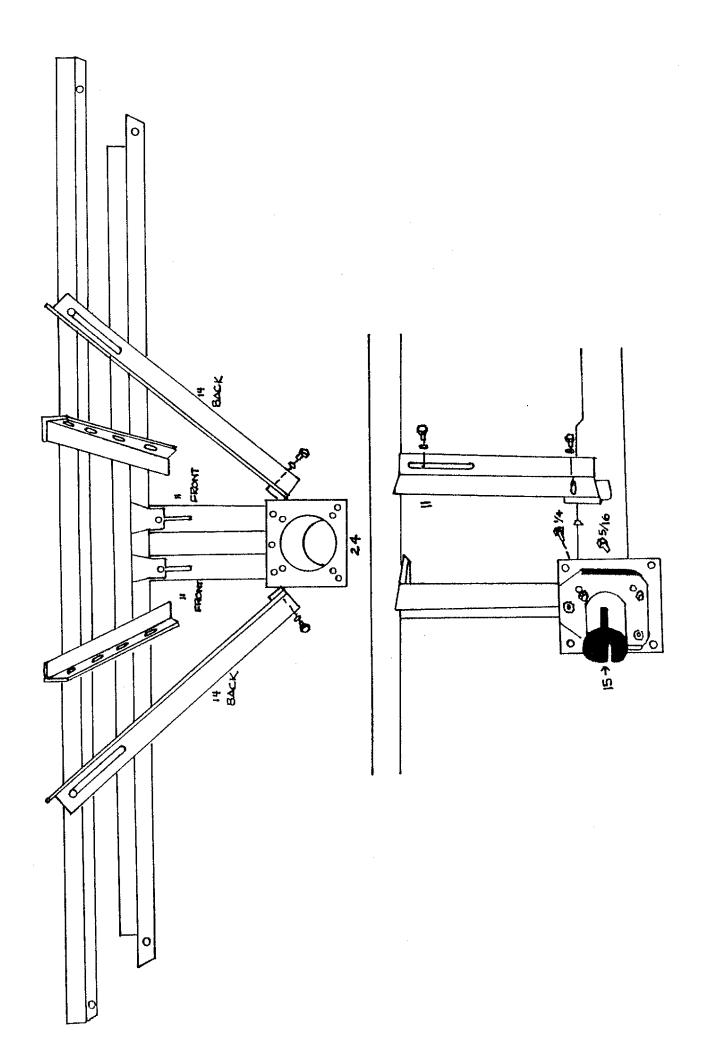
- 5 MAKE 2 IDENTICAL LEG STANDS AS PER STEPS 1 THROUGH 4.
- 6. FACE THESE 2 STANDS TOWARD EACH OTHER AND INSTALL THE 3RD SET OF X BRACES (DO NOT INSTALL THE 4TH SET AT THIS TIME).
- 7. NEXT INSTALL THE <u>FRONT</u> SCALE SUPPORT ANGLE (7A) (67" LONG WITH FOUR 2" X 2 1/2" PIECES OF ANGLE WELDED TO THE BOTTOM SIDE AND 4 COUNTER-SUNK HOLES IN THE TOP SIDE) AND THE <u>BACK</u> SCALE SUPPORT ANGLE (7B) SAME LENGTH AND SAME COUNTER-SUNK HOLES BUT ONLY TWO 2" X 2 1/2" PIECES OF ANGLE WELDED TO THE BOTTOM SIDE). ONLY TWO OF THE FOUR COUNTER-SUNK HOLES WILL BE USED IN EACH SCALE SUPPORT ANGLE THE TWO INSIDE HOLES WILL BE USED FOR MODEL #3000 WHILE THE TWO OUTSIDE HOLES WILL BE USED FOR MODEL #5000. FOUR 3/8" X 1/2" FLATHEAD BOLTS WILL FIT THROUGH THE COUNTER-SUNK HOLES IN THE SCALE SUPPORT ANGLES AND WILL SCREW INTO THREADED HOLES IN THE END SUPPORT ANGLES. LEAVE THESE BOLTS SLIGHTLY LOOSE UNTIL COMPLETED BASE SECTION IS READY TO BE PLACED WHERE IT WILL REMAIN.



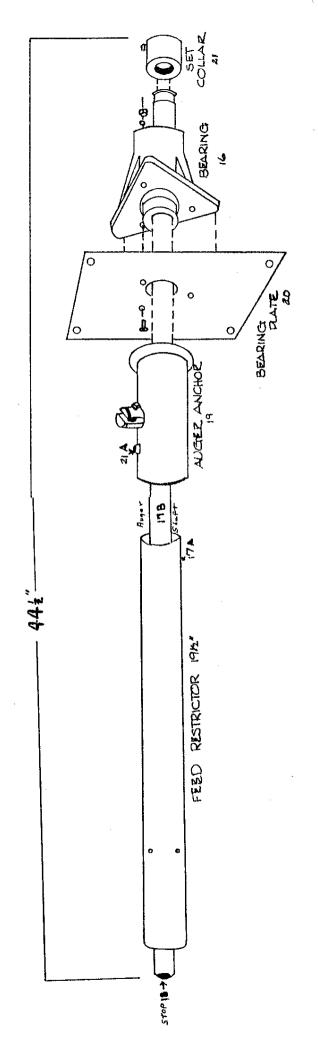
- 8. NEXT INSTALL THE FUNNEL SLIDES (#8) IN THE MANNER SHOWN IN THE DIAGRAM BY SCREWING 5/16" BOLTS WITH LOCK WASHERS INTO TAPPED HOLES (NO NUTS). FRONT OF FUNNEL SLIDE BOLTS FLUSH WITH ANGLE BRACKET (8A) ON FRONT SCALE SUPPORT. EXTRA LENGTH OF SLIDE EXTENDS PAST BACK ANGLE BRACKET (8B) ON BACK SCALE SUPPORT. LEAVE 5/16" X 3/4" BOLTS SLIGHTLY LOOSE UNTIL COMPLETED BASE SECTION IS READY TO BE PLACED WHERE IT WILL REMAIN.
- 9. NEXT INSTALL THE PRESSURE SWITCH IN ONE END OF THE FUNNEL (9A FRONT) AND THE WHEEL IN THE OTHER END (9B-BACK). INSTALL FEED DEFLECTOR OVER PRESSURE SWITCH AS PER DIAGRAM (9C). AS YOU STAND BEHIND THE FUNNEL THE OPEN SIDE OF THE WHEEL SHOULD BE TO YOUR LEFT. IF CRUMBLES OR ANY OTHER FREE FLOWING FEED IS TO BE USED INSTALL A SQUARE TUBE FEED BAFFLE INSTEAD OF THE AGITATOR WHEEL (THIS BAFFLE ATTACHES AT BOTH ENDS) IT MAY BE NECESSARY TO DRILL TWO SMALL HOLES IN THE SPACE UNDER THE PRESSURE SWITCH DIAPHRAGM FOR ATTACHMENT OF ONE END OF THE FEED BAFFLE: THE OTHER END USES THE SAME HOLES AS THE AGITATOR WHEEL.
 - 10. NEXT PLACE THE FUNNEL IN THE FUNNEL SLIDES (#8).
- 11. NEXT INSTALL THE TWO SHORT AUGER TUBE SUPPORT ANGLES (#11) ON THE "FRONT" SCALE SUPPORT AS PER DIAGRAM (VERTICAL SLOT UP AND HORIZONTAL SLOT DOWN SEE PAGE #8).
- 12. NEXT PLACE THE LOWER FIBERGLASS HOPPER (12A) (WITH BOOT ADAPTER) INSIDE THE LEGS AND LET THE SQUARE STEEL TUBES REST ON THE 4 LEDGE BRACKETS PROVIDED (12B). MAKE SURE THAT THE TWO LINES OF HOLES IN THE <u>SQUARE</u> BOOT ADAPTER LINE UP PERPENDICULAR TO THE CHICKEN HOUSES THIS WILL BE THE CORRECT POSITION FOR PROPER BOOT INSTALLATION. FIBERGLASS BOTTOM HOPPER WITH <u>ROUND</u> BOOT ADAPTER CAN BE PLACED IN LEG STAND IN ANY OF 4 POSSIBLE POSITIONS (SEE PAGE 4).
- 13. NEXT INSTALL THE FOURTH SET OF 100" FLAT BAR X BRACES ON THE OPEN SIDE.



- 14. NEXT LOCATE THE COMPLETED BASE SECTION OF THE SCALE AS NEAR AS POSSIBLE TO WHERE IT WILL REMAIN AND SQUARE IT UP WITH THE SLAB THEN TIGHTEN ALL BASE SECTION BOLTS MAKE SURE THE FRONT SCALE SUPPORT ANGLE IS NEXT TO THE CHICKEN HOUSE. THE SCALE SUPPORT ANGLES WILL BE PARALLEL TO THE CHICKEN HOUSE. NEXT INSTALL THE TWO LONG AUGER TUBE SUPPORT ANGLES (#14) IN THE THREADED HOLES 14" FROM EACH END OF THE "BACK" SCALE SUPPORT ANGLE (LONG VERTICAL UP AND SHORT HORIZONTAL SLOT DOWN).
- 15. NEXT INSTALL THE AUGER TUBE CONNECTOR (#15) TO THE FORWARD END OF THE 52" X 4" CENTER AUGER TUBE. THIS "AT" CONNECTOR HAS 5 HOLES THE HIGH TOP CENTER HOLE AND THE TWO LOWER HOLES TAKE 5/16" X 3/4" BOLTS THE OTHER TWO HOLES TAKE 1/4" X 3/4" BOLTS. (THE HEADS OF THESE TWO 1/4" X 3/4" BOLTS MUST BE INSIDE THE END PLATE NEXT TO THE TUBE WITH THE THREADED ENDS AND LOCKWASHERS AND NUTS OUTWARD).



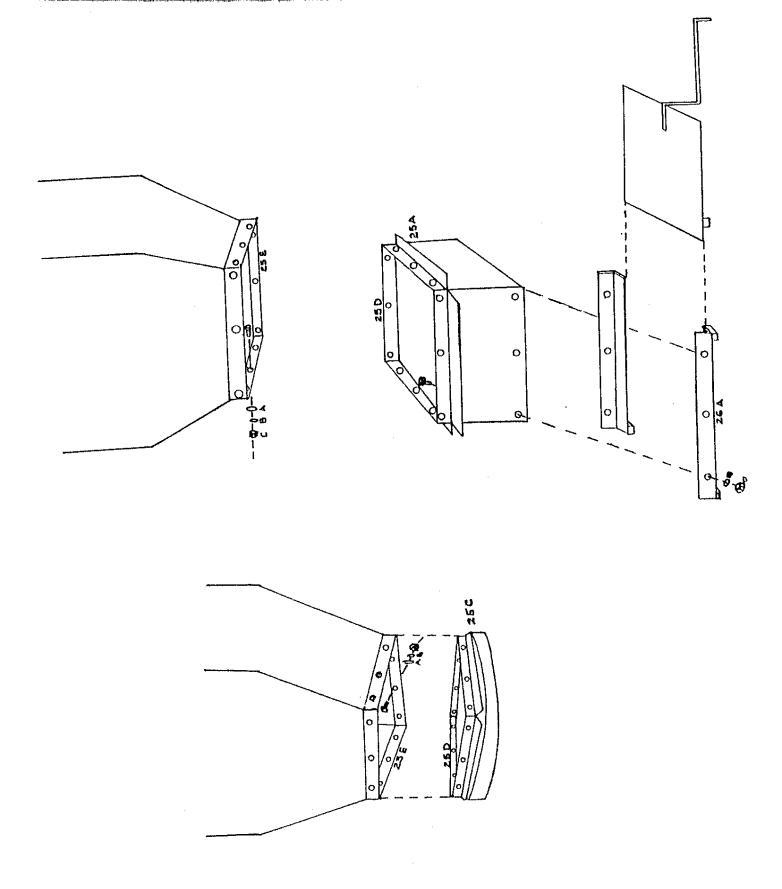
- 16. NEXT INSTALL THE NYLON BEARING (#16) IN THE BEARING END PLATE (#20) WITH THE THREE SPECIAL BUTTON (ALLEN) HEAD BOLTS PROVIDED THE HEADS MUST BE INSIDE WITH THE NUTS AND WASHERS OUTSIDE.
- 17. NEXT PLACE THE 19 1/2" X 1 3/8" DIA. RESTRICTOR TUBE (17A) ON THE 5/8" X 41 1/4" SHAFT (17B) MAKING CERTAIN THAT THE SET SCREWS ARE NEAREST TO THE FORWARD END OF THE SHAFT AND THAT THE RINGED OR GROOVED PARTS OF THE SHAFT ARE TO THE REAR. (IF HI-C-AUGER IS USED THE RESTRICTOR TUBE WILL BE 19" X 1 3/4" DIA.)
- 18. NEXT PLACE THE 4 SET SCREWS IN THE RESTRICTOR TUBE (17A) AND TIGHTEN EACH ONE A LITTLE AT A TIME UNTIL THE TUBE IS TIGHT AND IS AS NEARLY CENTERED AS POSSIBLE (SIDE TO SIDE NOT END TO END) THE RESTRICTOR TUBE SHOULD BE APPROXIMATELY 1" TO 3" BACK FROM THE END OF THE SHAFT WITH THE STOP (#18) FOR MASH AND EVEN WITH OR FORWARD OF THE SHAFT END FOR CRUMBLES.
- 19. NEXT SLIDE THE AUGER ANCHOR (#19) ON THE REAR END OF THE SHAFT LOOSELY.
 - 20. NEXT PLACE THE BEARING (WITH PLATE) ON THE SHAFT.
- 21. NEXT PLACE THE 5/8" SET COLLAR ON THE END OF THE SHAFT AND TIGHTEN. NEXT BACK UP THE BEARING AND AUGER ANCHOR TO THE SET COLLAR THEN TIGHTEN THE (SHAFT POSITION) SCREW (21A) IN THE AUGER ANCHOR.
- 22. NEXT PLACE THE WHOLE ASSEMBLY OF AUGER SHAFT, RESTRICTOR TUBE, AUGER ANCHOR, BEARING (WITH END PLATE) AND SET COLLAR IN THE 4" X 52" CENTER AUGER TUBE (#24).
- 23. CONTINUE TO ROTATE THE BEARING PLATE (#20) UNTIL 4 HOLES IN PLATE MATCH 4 HOLES IN THE 52" AUGER TUBE END PLATE THEN INSERT 4 5/16" X 3/4" OR 1/4" X 3/4" BOLTS (WHICHEVER IS PROVIDED).

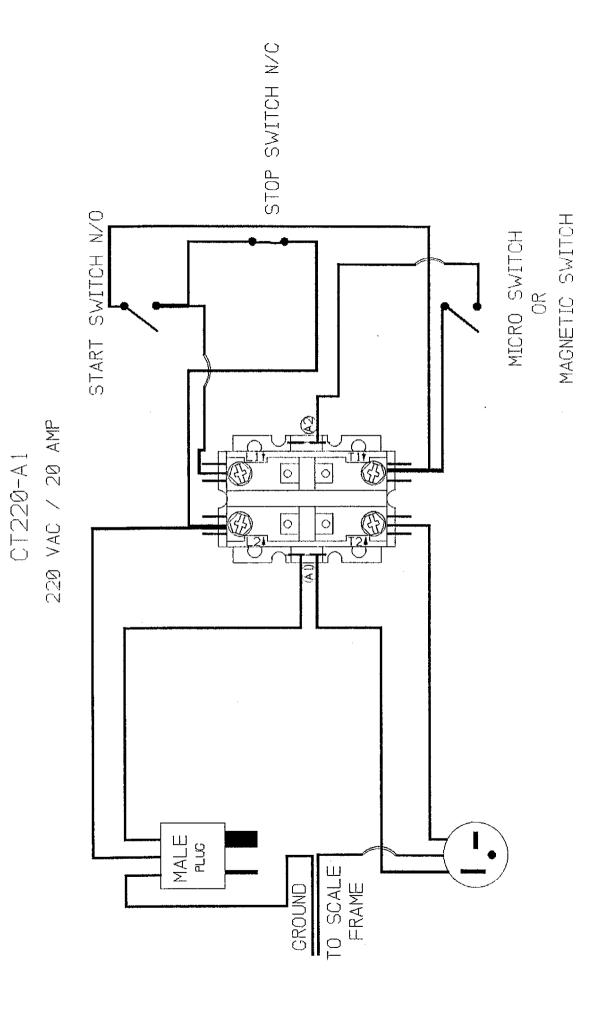


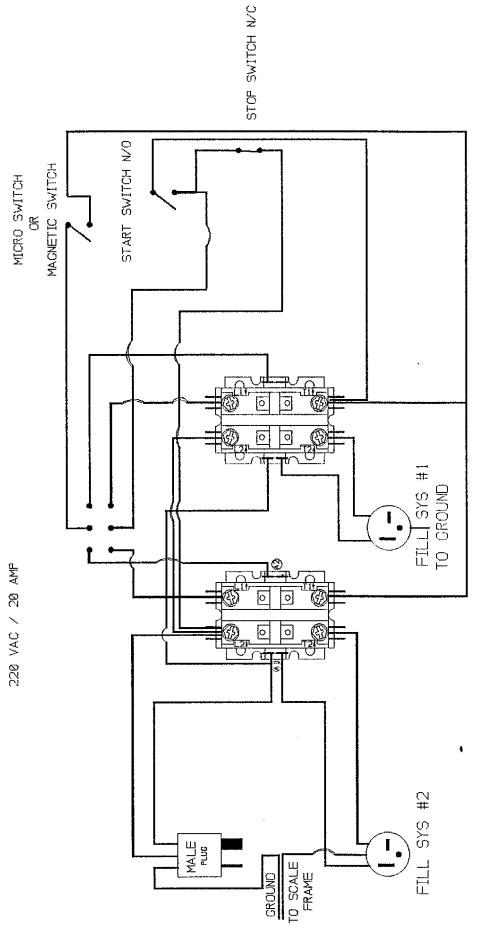
- 24. NEXT INSTALL THE 4" X 52" AUGER TUBE (#24) UNDER THE FUNNEL USING #11 SHORT TUBE SUPPORT ANGLES IN THE FRONT AND #14 LONG TUBE SUPPORT ANGLES IN THE REAR. NEXT PULL THE TUBE UP EVENLY UNDER THE FUNNEL END TO END AND FASTEN SECURELY IN PLACE BY TIGHTENING THE BOLTS IN THE AUGER TUBE SUPPORT ANGLES THE FUNNEL SHOULD BE UP AGAINST THE FUNNEL STOP ON THE TUBE, BUT NOT FORWARD OF IT. IF FUNNEL IS TOO TIGHT TO SLIDE BACK AND FORTH, ADJUST HEIGHT OF TUBE VIA VERTICAL SLOTS IN #11 AND #14 ANGLES.
- 25. WHEN INSTALLING EITHER THE SCALE HOPPER NECK (25A) OR THE SQUARE BOOT ADAPTER (25B) OR THE ROUND BOOT ADAPTER (25C) INSERT THE 1 5/8" METAL LIP (25D) INSIDE THE STRAIGHT PART OF THE SMALL END OF THE FIBERGLASS HOPPER (25E). THERE WILL USUALLY BE MATCHING ARROWS OR MARKS TO LINE UP TO GET PROPER HOLE ALIGNMENT BETWEEN FIBERGLASS AND METAL. THEN INSERT CARRIAGE BOLTS IN THE 12 HOLES PUTTING ONLY THE BOLT INSIDE. ON THE OUTSIDE PUT ON THE FENDER WASHER, LOCKWASHER AND NUT IN THAT ORDER. FOR PROPER SEATING OF THE CARRIAGE BOLT HEAD HAVE ONE PERSON TAPPING LIGHTLY ON THE HEAD OF THE BOLT WHILE ANOTHER PERSON IS TIGHTENING THE NUT. ALL OF THE BOLTS CANNOT BE PROPERLY SEATED BY TIGHTENING THE NUT ONLY. IN SOME CASES THE BOLT WILL BREAK OFF BEFORE THE HEAD IS PROPERLY SEATED IF NO TAPPING IS DONE.

- 26. AFTER THE BASE SECTION IS COMPLETE AND PROPERLY PLACED ON THE SLAB. THE SCALE SHOULD BE LIFTED INTO POSITION BETWEEN THE TWO SCALE SUPPORT ANGLES. THIS IS USUALLY ACCOMPLISHED BY HAVING 4 PERSONS LIFT THE SCALE OUT OF ITS CRATE AND PLACING IT ON THE BED OF A ONE TON OR LARGER TRUCK. IF A PICKUP IS THE ONLY VEHICLE AVAILABLE BACK IT UP AS NEAR AS POSSIBLE TO THE BASE FRAME ON THE SLAB. AFTER THE PICKUP IS IN PLACE LAY 2" X 6" OR LARGER LUMBER ACROSS THE SIDES TO FORM AN ELEVATED (SUBSTANTIAL AND STABLE) PLATFORM, (SPINKS SCALE COMPANY IS NOT RESPONSIBLE IN ANY WAY FOR THIS PLATFORM OR ACCIDENTS RESULTING FROM ITS USE). PLACE THE SCALE ON THE TRUCK BED OR ELEVATED PLATFORM. THEN PICK UP THE SCALE A SECOND TIME AND PLACE IT BETWEEN THE SCALE SUPPORT ANGLES. THEN SLIDE THE SCALE UNTIL THE CENTER OF THE 12" X 12" OPENING IN THE SCALE IS LINED UP OVER THE CENTER OF THE AUGER TUBE. THE BOLTS HOLDING THE AUGER TUBE SUPPORT ANGLES MAY PROTRUDE INTO THE SPACE BETWEEN THE SCALE SUPPORT ANGLES AND HINDER THE PLACEMENT OF THE SCALE, HOWEVER, THERE IS ENOUGH ROOM FOR THE BOLTS TO PROTRUDE AND THE SCALE TO BE BETWEEN THEM. THE BEAM BOX OR (WORKING) SIDE OF THE SCALE SHOULD BE ON THE OPPOSITE SIDE OF THE BUILDING FROM THE DOOR. THIS ALLOWS ROOM TO PUT STAIRS ON THE ENTRANCE SIDE AND PLATFORMS ON THE SLIDING FUNNEL AND BEAM BOX SIDE (OPPOSITE TO THE STAIRS). THE SLIDING FUNNEL IS ALWAYS OPERATED FROM THE BACK SIDE - THE SIDE FARTHEST FROM THE CHICKEN HOUSE.
- 27. THE NEXT STEP AFTER PLACING THE SCALES IN THE BASE FRAME IS TO PUT THE TOP (SCALE) HOPPER IN THE 12" X 12" OPENING OF THE SCALE. LINE UP THE TWO ROWS OF 3/8" HOLES PARALLEL WITH THE SCALE AND PLACE THE TWO SMALL HOLES ON THE END OPPOSITE THE BEAM BOX. IF THERE IS A PIN IN THE STEEL NECK OF THE HOPPER MUST LINE UP WITH A MATCHING HOLE IN THE TOP BED OF THE LEVER SYSTEM ON THE BACK SIDE OF THE 12" X 12" OPENING.
- 28. INSTALLING THE SCALE HOPPER GATE INSTALL THE LEFT SLIDE (26A-2 STOPS) AND THE RIGHT SLIDE (26B-1STOP) AND THE GATE SIMULTANEOUSLY, MAKING SURE THAT THE LEFT SIDE STOP ON THE GATE IS IN FRONT OF THE BACK STOP ON THE LEFT SLIDE (26A). INSTALL AS PER DIAGRAM WITH THE BOLTS (ONLY) INSIDE AND THE LOCKWASHERS AND NUTS OUTSIDE. THE SLIDING FUNNEL IS ALWAYS OPERATED FROM THE BACK SIDE (THE SIDE FARTHEST FROM THE CHICKEN HOUSE).

- 29. INSTALLING THE SAFETY CABLES YOU WILL FIND 4 SHORT LENGTHS OF CABLE WITH AN EYEBOLT ON ONE END AND AN S HOOK ON THE OTHER. THESE CABLES ARE CONNECTED LOOSELY BETWEEN 13/32" HOLES (APPROXIMATELY 2" FROM EACH END OF THE END SUPPORT ANGLES) AND ROPE LOOPS ON THE OUTSIDE OF THE HOPPER PLACE ONE 3/8" NUT ON EACH EYE BOLT AND PUT THROUGH THE 13/32" HOLES. PLACE A SECOND 3/8" NUT ON THE EYEBOLT FROM THE BOTTOM SIDE AFTER IT IS THROUGH 13/32" HOLE. HOOK THE OPEN END OF EACH S HOOK THROUGH THE ROPE LOOP DIRECTLY ABOVE IT AND PINCH THE S HOOKS CLOSED. THIS CAN USUALLY BE DONE BEST WITH A 10" VISE-GRIP CLOSING THE S HOOK A LITTLE AT A TIME WHILE REDUCING THE JAW OPENING OF THE VISE-GRIP. AFTER INSTALLATION THE CABLES MUST BE COMPLETELY LOOSE (WITHOUT ANY TENSION) IF THE SCALE IS TO WEIGH ACCURATELY. THE WEIGHT OF THE LOOSELY CONNECTED CABLES WILL BE ZEROED WHEN THE SCALE IS BALANCED.
- 30. AFTER SCALE INSTALLATION IS COMPLETE REMOVE THE "TRANSPORT" BOLTS THAT HAVE MAINTAINED THE POSITION OF THE LEVER SYSTEM TO THIS POINT. ON MODELS #3000 AND #5000 THERE WILL BE FOUR OF THESE BOLTS (5/16" X 2 1/2"), ONE IN EACH CORNER (UNLESS ONE OR MORE WAS REMOVED AT THE FACTORY BEFORE SHIPMENT). YOU MUST LOOK UP FROM THE BOTTOM SIDE TO SEE THE HEADS OF THESE BOLTS (MOST PEOPLE STAND WITH SOFT-SOLE SHOES INSIDE THE LOWER HOPPER WHILE PERFORMING THIS TASK.







CT220-A2

SPINKS SCALE COMPANY, INC. TESTING INSTRUCTIONS ALL MODELS 400 LBS THRU 3000 LBS SINGLE AND DOUBLE HOPPERS

TEST 1

CHECKING THE BALANCE OF THE SCALE FOLLOW FIGURE #3

- 1. Make sure there is no feed in the hopper before starting.
- 2. Remove the slotted weights from the shot pot hanging on the tip of the beam.
- 3. Slide the poise back to 0 and tighten the screw so that the poise can not move during this test.
- 4. The pointer on the indicator should now be pointed at the 0 on the chart.
 - a. If the pointer is above or below 0--Adjust the back balance screw with a screw driver.
 - b. If there is not enough travel on the back balance screw, it will be necessary to add or subtract weight from the shot pot.
 Pointer above 0 on the chart ----- Add Weight
 Pointer below 0 on the chart----- Remove Weight
 - c. Be sure to adjust the back balance screw to its center position if weight is to be added or removed from the shot pot. This will make fine adjustment of the pointer much easier to accomplish.

If 0 balance still can not be achieved go to section #2 of <u>TEST 2</u> and check for any of the problems listed.

Spinks Scale will rebuild and upgrade our older scales at a substantial cost savings for you or your customer.



SPINKS SCALE COMPANY

TEST 2

CHECKING REPEATABILITY OF THE SCALE FOLLOW FIGURES #1 - #2 - #3

- 1. Pull the tip of the beam down until it stops and release. The indicator should point at 0 when the tip has completed floating.
- 2. Push the beam up to the top and release. The indicator should repeat to 0 again.

If it does not repeat the following steps should be taken.

- a. Check that the shipping bolts and wire tie straps have been removed from the spider and lever assemblies. Figure #1.
- b. Make sure that there are no insect or rodent nests on the lever systems, in the scale frame, in between the dust covers and spider assembly, or in the beam box around the beam or steelyard rod assemblies. If the scale is very old or the door to the beam box is frequently left open it is possible that there could be a nest in the indicator housing also.
- c. Check the position of the bearings on the pivots as shown in figure #2.
- d. Check the steelyard rod where it goes through the bottom of the beam box to see if it is rubbing on the mouse guard.
 If it is you may have to file the opening larger to clear the rod.
- e. Check the loop and bearing assemblies shown in figure #3.

 Make sure the bearings are in place on each end of the pivots.

 There are 3 to check.

If the problem still is not solved please call us to arrange for service.



SPINKS SCALE COMPANY, INC.

TEST 3

CHECKING THE CALIBRATION OF THE SCALE FOLLOW FIGURE #3

- 1. You will need at least 1 each 50 pound calibrated test weight to properly test the scale. The more weight that is used in testing the scale the more accurate the test results will be.
- 2. Take all of the slotted weights off of the shot pot and check the zero balance as described earlier. (Make sure there is no feed left in the hopper.)
- 3. When proper 0 balance has been achieved you may carefully place the test weights on the corners of the top of the hopper.
 - a. Set the poise on the beam to the corresponding weight.
 - b. If you have 100 pounds or more in multiples of 100 pounds you can place the slotted weights onto the shot pot and check the balance this way. (Be sure the poise is set to 0 and locked if using the slotted weights to check calibration.)

To assure that the poise is calibrated correctly, place 100 lbs. of test weights in the hopper, and put the 100×1 weight on the shot pot. Notice where the pointer lines up on the chart. Remove the weight from the shot pot and move the poise tot 100 lbs. on the beam. The pointer should return to the same location on the chart within $\pm 1/8$ ". If not, consult the factory immediately.

c. The pointer on the indicator should be close to the 0 if the scale is correctly calibrated. If the pointer is not on 0 you can estimate each 1/4" of distance that from the pointer to the 0 is equal to approximately a 1 pound error.

(Consult factory before attempting to calibrate the scale.)
Calibration test weights can be purchased from Spinks Scale Company. Call for pricing.

Spinks Scale Company will rebuild and upgrade our older scales at a substantial cost savings for you or your customer. For more information, give us a call.



SPINKS SCALE COMPANY, INC.

TEST 4

FILL SYSTEM CUT-OFF ADJUSTMENT MICRO SWITCH ADJUSTMENT FOLLOW FIGURE #3

(Please Note: This adjustment is not related to the balance or calibration of the scale and should be performed after all other tests have been conducted.)

- 1. Make sure all of the cords from the control box are correctly plugged in and the gate is closed on the hopper.
- 2. Move the poise on the beam to 50 pounds and tighten the screw so it can not move during the test.
- Push the start button. The fill system should stop when the pointer approaches 0 on the chart.
 - a. If the pointer is below the 0 on the chart raise the micro switch by turning the adjustment screw shown in figure #3.
 - b. If the pointer is above the 0 lower the micro switch by turning the adjustment screw in the opposite direction.
- 4. Move the poise up to 100 pounds and repeat the sequence above.

Continue these steps until the pointer is within 1/16" of 0 on the chart.

Your scale is now properly adjusted for its most efficient operation.

Spinks scale will rebuild and upgrade our older scales at a substantial cost savings for you or your customer. For more information please call.



