

ASSEMBLY INSTRUCTIONS FOR HAND LIFT ATTACHMENT FOR BRONCO TRACTOR

Right Hand and Left Hand are designated by viewing tractor from the rear.

TILT LEVER INSTRUCTIONS:

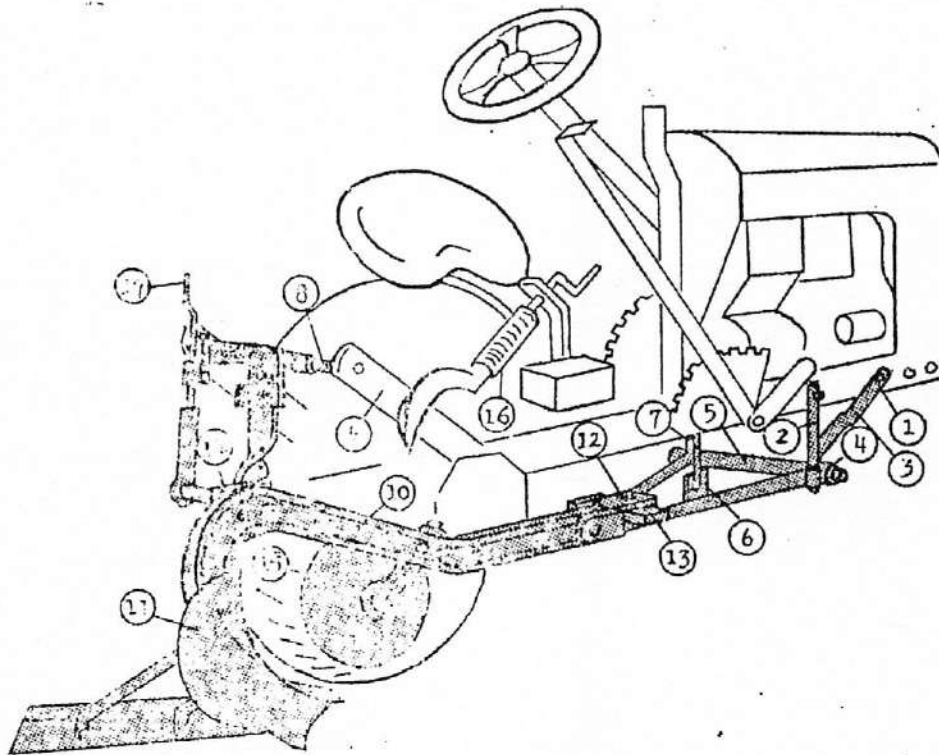
1. To assemble Tilt lever shaft bearing (Item 1) to platform (Item 2), line up hole in bearing (Item 1) with hole in platform, directly under drive shaft housing. Place bolt through bearing and platform so that the lockwasher and nut are underneath the platform. The bearing should face toward the front of platform.
2. Slide end of tilt lever shaft (Item 3) into bearing (Item 1). Line up three holes in base of quadrant (Item 4). Insert three bolts through the top of quadrant base and assemble lockwashers and nuts.

LIFT LEVER INSTRUCTIONS

1. Remove the bolt which passes through the right hand fender and frame. Bring lift lever cross shaft (Item 5) up from the bottom of the tractor frame so that the cross shaft (Item 5) nests into the two half bearings which are located at the bottom of tractor frame. Place quadrant (Item 6) to the outside of the right hand tractor frame member, so that the hole in quadrant lines up with hole in frame. Replace bolt through frame, quadrant (Item 6), spacer and fender. Place other bolt to pass through lug (Item 7) on frame member and through quadrant (Item 6). Bolt, lift lever shaft bearing caps (Item 8) over shaft (Item 5) with four bolts and lockwashers.

REAR LIFT ARM ASSEMBLY INSTRUCTIONS

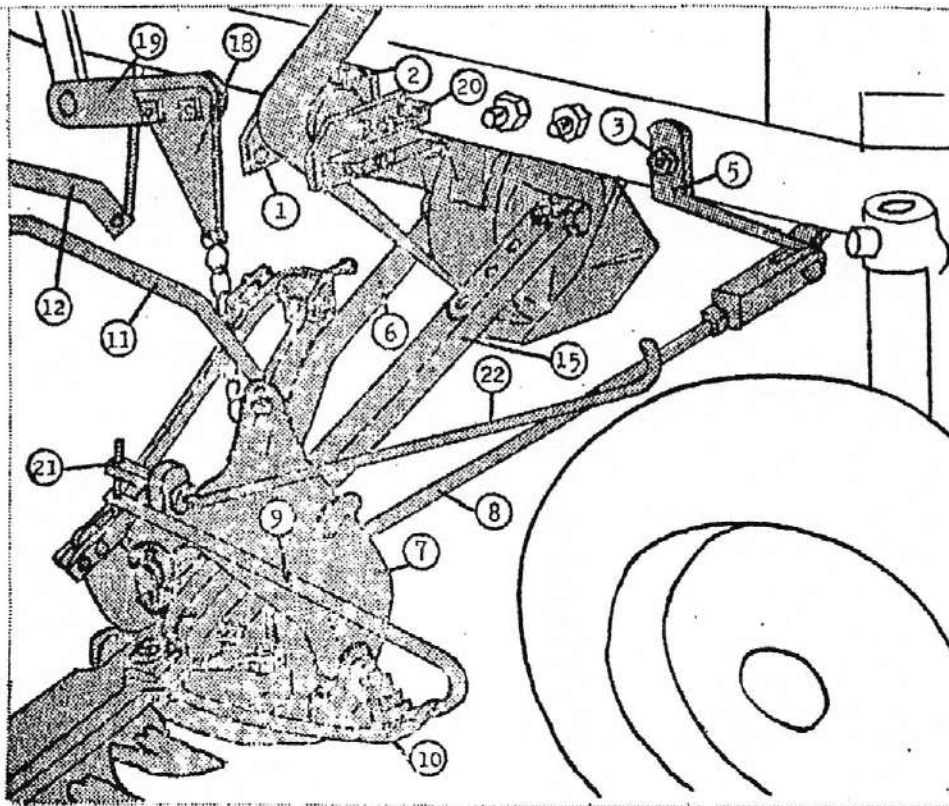
1. Remove cover from right hand differential axle housing (Item 9). Insert two bolts from the inside of housing (Item 9). Place tension spring bracket (Item 10) over these two bolts with the bend towards the back, and assemble with lockwashers and nuts.
2. Place bearings (Item 11), on both ends of Rear Rivot Rod (Item 12). Place this assembly on top of tractor frame at the rear end. It must pass under the battery box with the lift arm yoke (Item 13) to the right hand side of tractor. Place a wedge washer on each of the four bolts and insert bolts from the inside of frame to pass through the frame, and bearings (Item 11) with lockwashers and nuts on top of bearing (Item 11).
3. Assemble long end of connecting link (Item 13) with round head rivet and cotter pin.
4. Assemble spring connecting link (Item 16) to bottom hole in floating arm (Item 17) with rivet and cotter pin. Insert hook end of tension spring (Item 18) through hole in spring connecting link (Item 16). Pass tension bolt (Item 19) through hole in tension spring bracket (Item 10) and thread into spring end plug in tension spring (Item 18). Grease five alemite fittings with medium gun grease.



ASSEMBLY INSTRUCTIONS FOR 10" PLOW FOR BRONCO TRACTOR

1. Remove nut and lockwasher from bolt (Item 1) on both sides of tractor frame.
2. Assemble R.H. draw standard (Item 2) to right hand side of tractor with bolt inserted from inside of frame. Place lockwasher and nut to outside. Place draw standard brace (Item 3) over bolt (Item 1) and replace lockwasher and nut.
3. The long sleeve of draw bail adaptor (Item 4) must be towards the front of the tractor.
4. Slide end of draw bail (Item 5) into long sleeve of draw bail adaptor (Item 4), with angle lug (Item 6) to the top and to the right hand side.
5. Assemble left hand draw standard in the same manner as the right hand (Item 2).
6. Insert adjusting rod (Item 7) to first hole in arm of tilt lever and the bottom hole in lug (Item 6). Insert cotter pins.
7. Remove two bolts and lockwashers from end of Upper Tilting Cross Shaft (Item 8). Place upper tilting cross shaft (Item 8) between the rear lifting arms (Item 9). Insert two bolts and lockwashers.
8. Assemble plow beam (Item 10) to plow (Item 11) with three bolts and plow beam washers.
9. Assemble draw link (Item 12) to end of plow beam (Item 10) with bolt, lockwasher and nut.
10. Slide draw link (Item 12) over hitch bar (Item 13) and insert rivet into centre hole of hitch bar.
11. Assemble plow beam (Item 10) to the lower tilting cross bar plate (Item 14) with two bolts, lockwashers and nuts. The heads of the bolts must be on the plow beam side and the lockwashers and nuts must be on the lower tilting cross bar plate side.
There are three holes in the centre of the plow beam (Item 10). Assemble rolling coulter (Item 15) to left hand side of plow beam using the two back holes with two bolts, lockwashers and nuts.
12. Place tension on spring (Item 16) by turning crank clockwise. To adjust side tilt of plow turn crank (Item 17).

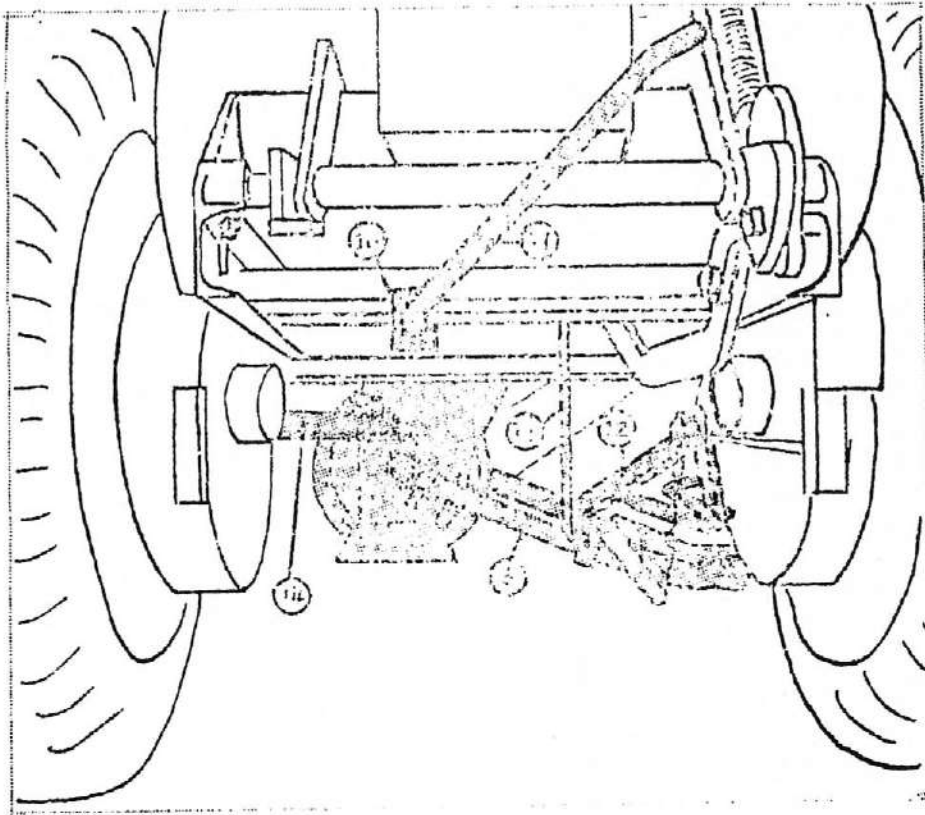
CAUTION: Take tension off spring before removing connecting link (Item 21). If plowing close to trees as in orchards etc., the plow may be assembled to the left side of tractor. To do this, reverse the draw bail (Item 5) so that the single hole lug is to the right hand side. Reverse upper tilting cross shaft (Item 8) so that the tilt adjusting crank (Item 17) is on the right hand side. The lower tilting cross bar plate (Item 14) is assembled to the right hand side, of plow beam.



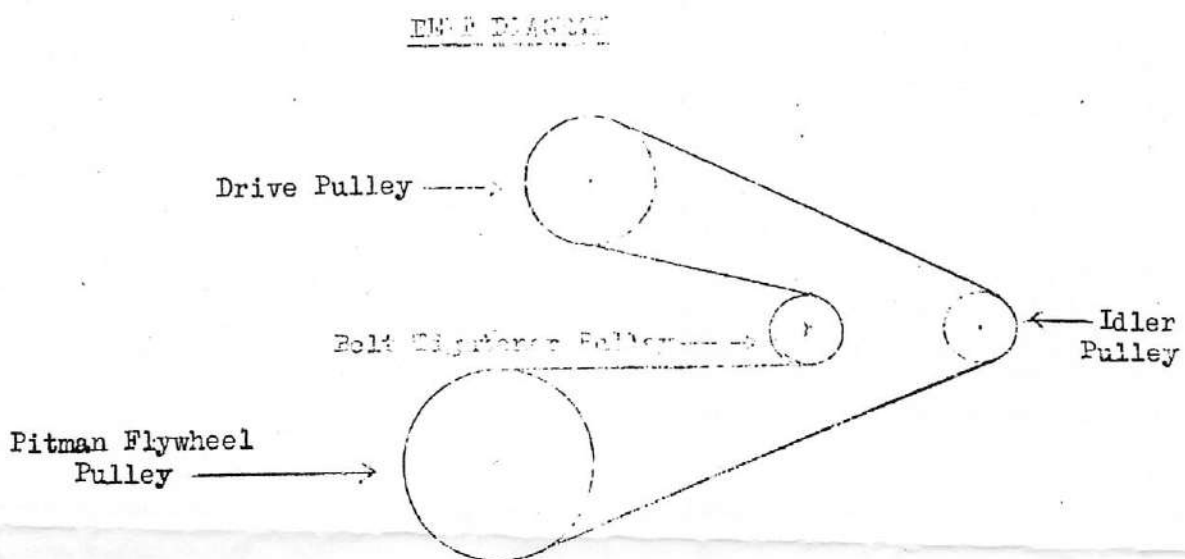
ASSEMBLY INSTRUCTIONS FOR BRONCO FIELD MOWER

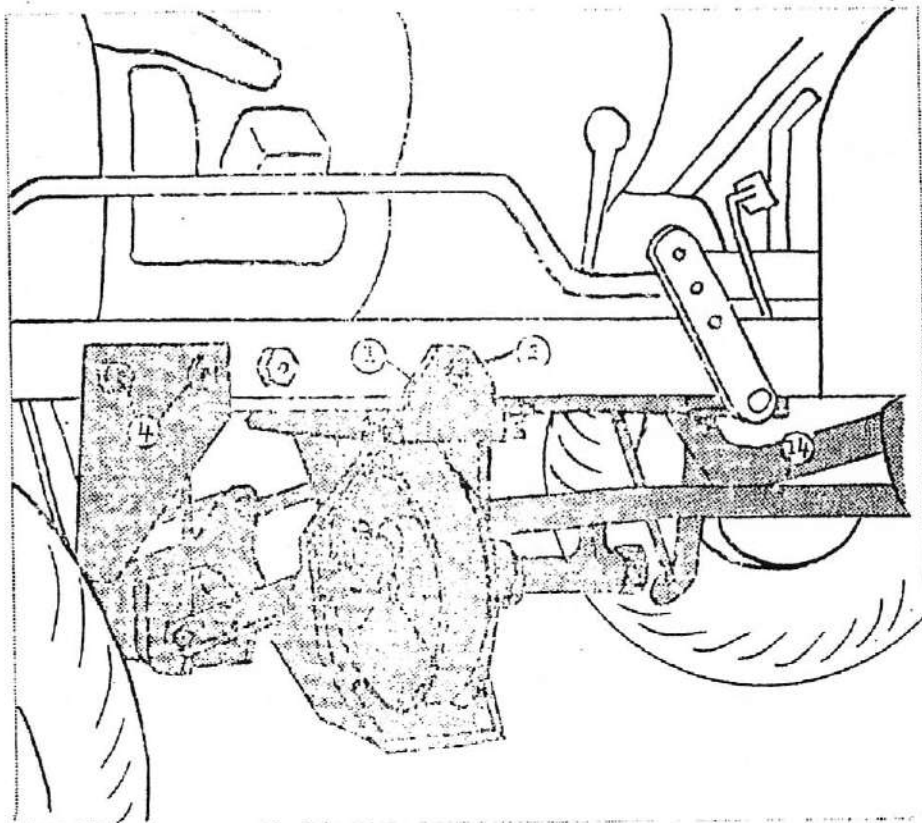
Left Hand and Right Hand are designated by viewing implement from the rear. The Bronco Field Mower is attached to the right hand side of the tractor. Remove the small cover from the right hand side of clutch housing on tractor.

1. Assemble drive mounting frame (Item 1) to tractor frame with two idler pulleys to the right hand side of the tractor. The bolt holes (Item 2) are located directly under the tractor clutch housing on both sides of the frame.
2. Remove the foremost nut (Item 3) on the right hand side of the tractor frame and the two foremost nuts (Item 4) on the left hand side of tractor frame. Assemble truss bar connecting bracket (Item 5) to these bolts and replace lockwashers and nuts (Item 3 and 4).
3. Remove cotter pin and two of the eight washers on the end of the drag rod (Item 6). Slide this end of drag rod into machined hole in shoe hinge (Item 7).
4. Insert hooked end of truss rod (Item 8) through hole in shoe hinge (Item 7), placing hook through the hole from the bottom up. Assemble other end of truss rod (Item 8) to lug in truss rod connecting bracket (Item 5) with bolt, lockwasher and nut.
5. Insert end of inner grass guide (Item 9) through the round hole at the point of the inner shoe (Item 10) starting from the top of shoe. Fasten grass guide to shoe with carriage bolt, flat washer, lockwasher and nut.
6. Assemble tilt rod (Item 11) to hole in top lug of shoe hinge (Item 7). Replace cotter pin. Assemble tilt lever assembly (Item 12) to right hand bull gear housing with shoulder bolt, lockwasher and nut. Assemble tilt connecting rod (Item 13) to arm on tilt lever. Replace cotter pin.
7. Assemble brace angle (Item 14) to the left hand bull gear housing with machine bolt, lockwasher and nut.
8. Slide knife into cutter bar with the ball on the inner shoe end. The knife must travel with ease under the retaining clips. Assemble socket end of pitman (Item 15) over the ball on knife.



9. Assemble clutch handle bearing (Item 16) to cross angle on rear of tractor frame. Insert square end of clutch handle (Item 17) into square tube on clutch shaft. Insert cotter pin through the hole in square tube and through the hole in square end of clutch handle (Item 17). The clutch handle (Item 17) is to the right when clutch is disengaged.
10. Assemble chain lift plate (Item 18) to the bar on tractor lift lever (Item 19) with two bolts, lockwashers and nuts.
11. Assemble grass board to the outside of the outer shoe on the end of the cutter bar with bolt, spring, flat washer and nut. The spring nests into the round hole to the outside of the board. Reverse the metal bracket on the end of the grass board stick and assemble to the inside of the grass board with two bolts, flat washer and nuts.





Adjustments:

See belt diagram for assembling belt to tractor and field mower.

The mounting frame (Item 1) has four set screws which tighten against the bottom of the tractor frame. Adjust these screws to make the belt run in the centre of the belt tightener pulley. To make the belt run in the centre of the fixed idler pulley, which is on the outside of the tractor frame, adjust two set screws (Item 20) on pulley bracket. These two set screws are also used to adjust belt tension.

To get proper alignment of cutter bar, take a length of cord and place this against the front face of the pitman flywheel pulley. Run this cord to the end of the cutter bar. The back edge of the knife should be in line with the face of the pitman flywheel pulley. If the outer shoe end of the cutter bar is back of the face of the pitman flywheel pulley, shorten truss rod (Item 8) by turning the sleeve on the end of the truss rod.

The knife section points should line up with the centre of the knife guards when the knife is at either end of the full stroke. If the knife travels past the centre on the pull stroke, the inner shoe should be brought closer to the tractor. To do this, remove washers which are against the inside edge of the shoe hinge (Item 7) on the drag rod (Item 8) and place them on the outside end of drag rod (Item 8). Also shorten the truss rod an equal amount. If the knife runs past centre on the push stroke, reverse the above procedure.

To transport mower, remove wing nut (Item 21) from the end of transport rod (Item 22). Pull the lift lever to the last notch on quadrant and push the tilt lever forward to the last notch in quadrant. Raise end of cutter bar by hand and insert the end of transport rod through the hole in the cutter bar. Replace wing nut (Item 21)

Lubrication:

Grease all grease fittings with medium grease.

Oil the pitman bearing and ball joint with medium grade machine oil.

Oil cutter bar frequently with machine oil.

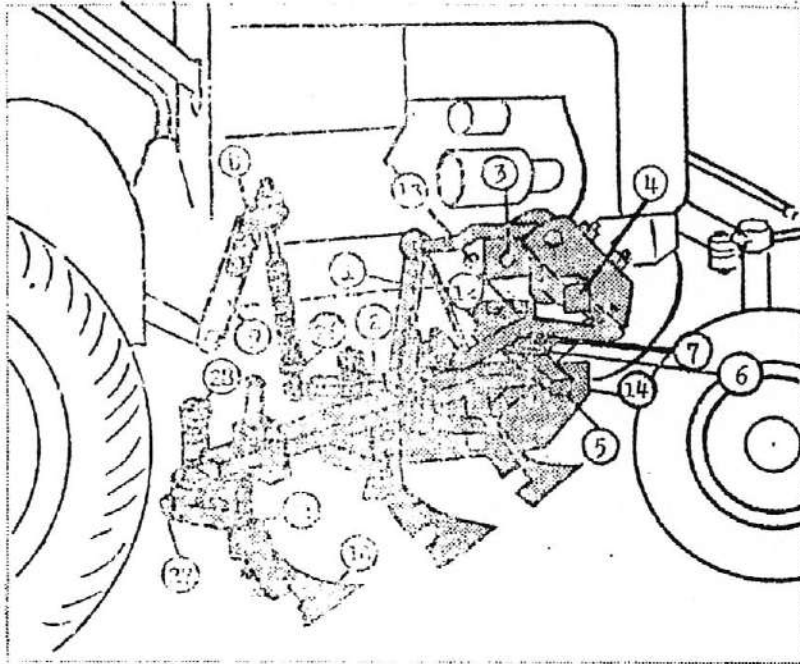


Fig. 1

ASSEMBLY INSTRUCTIONS FOR BRONCO CULTIVATOR

Left Hand and Right Hand are designated by viewing tractor from the rear.

1. (See Figure 1)
Assemble front tool bar bracket (Item 1) to front tool bar (Item 2) with two bolts, lockwashers and nuts.
2. Remove two nuts (Item 3) from the right side of tractor frame and assemble outrigger (Item 4) to these two bolts. Replace lockwashers and nuts (Item 3).
3. Slide front tool bar stub (Item 5) under clamp (Item 6) and tighten nuts on "U" bolt (Item 7).
4. Assemble lifting rod bracket (Item 8) to lift lever arm (Item 9) with two bolts, lockwashers and nuts.
5. Assemble cultivator teeth (Item 10) to cultivator standards (Item 11) with two plow bolts, flat washers, lockwashers and nuts on each tooth.
6. Remove cotterpin from the end of front tool bar stub (Item 5). Slide tool clamp (Item 12) over the tool bar stub (Item 5). Place wedge bolt (Item 13) from the top down into tool clamp (Item 12). Place plant fender bracket over tool bar stub (Item 5) and tighten bolt. Replace cotter pin in tool bar stub. Adjust plant fender (Item 14) so that it clears the inner cultivator tooth.
7. Assemble two cultivator standards on the long tool bar. The wedge bolt may be placed from the top down or from the bottom up.

The above instructions are for right hand gang. Left hand gang is assembled in the same manner.

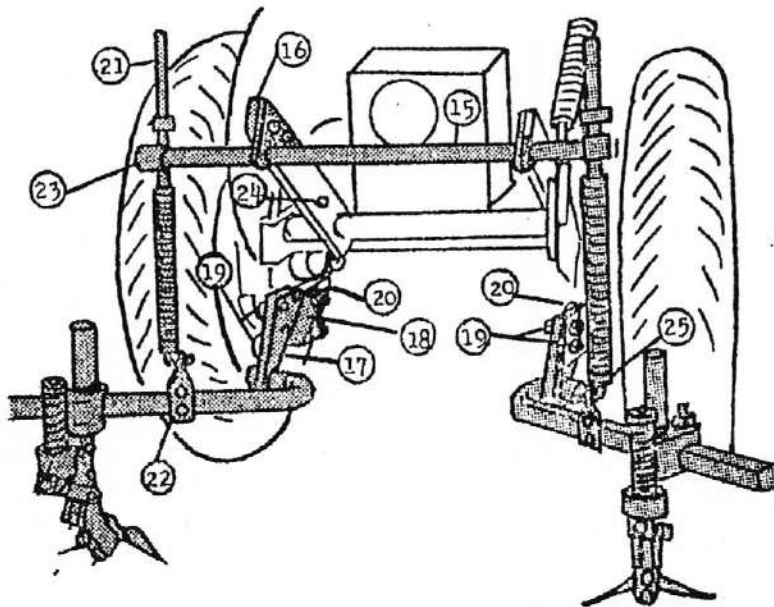


Fig 2

8. (See Figure 2)

Assemble rear cross bar (Item 15) to Lifting Arms (Item 16) with four bolts, lockwashers and nuts.

9. Assemble mounting plates (Item 17) to bull gear housings (Item 18) with four machine bolts (Item 19) and two hexagon head cap screws (Item 20).

10. Place bent end of two rear spring rods (Item 21) through the brackets (Item 22) and insert cotter pins.

11. Slide rear lifting rod sleeves (Item 23) over ends of rear cross bar (Item 15) and insert cotter pins.

12. Insert bolt (Item 24) to lock left hand lifting arm.

13. Assemble two tool standards over rear tool bars so that cultivator teeth are directly behind the rear wheels.

To increase depth of cultivation slide bottom set collars (Item 25) upwards to increase compression on springs. The same procedure is used on set collars (Item 26) for front gangs. To line up cultivator teeth the tractor should be on a fairly level surface. The heel of the tooth should be one quarter inch higher than the point. To make this adjustment turn screw (Item 27). The teeth will kick back if they hit any obstruction such as stones, etc. To adjust tension on this action, turn nut (Item 28).

INSTALLATION INSTRUCTIONS

for Model "169" Snow Plow or Grader Attachment on Waterloo Bronco Tractor

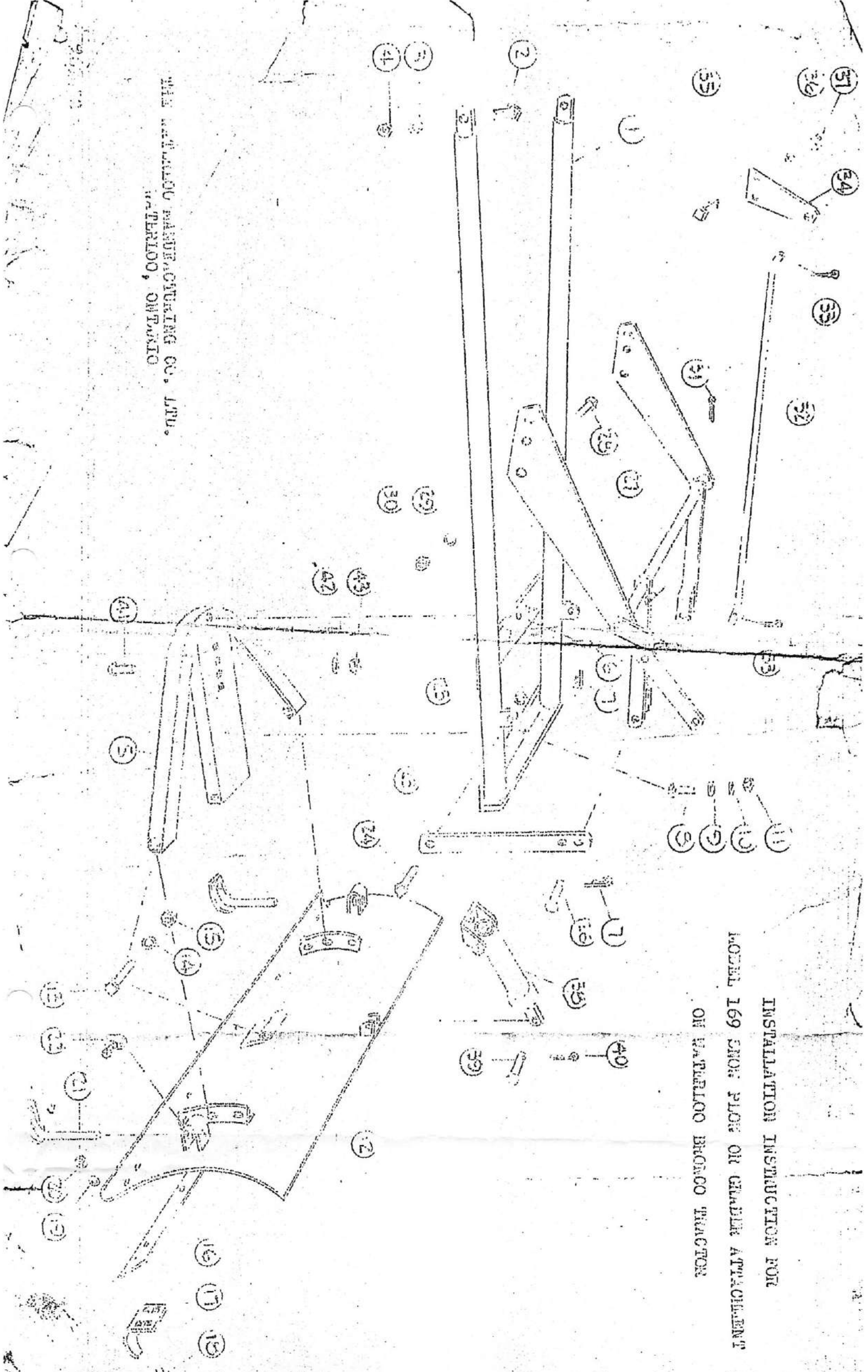
1. Slide push assembly (Item 1) under tractor from the front and attach to the lugs on the front of the bull gear housings on each side with 5/8 x 3 bolts, lockwashers and nuts (Items 2,3 & 4).
2. Instal angling arc assembly (Item 5) under front end of push rod assembly using 1/2 x 1 1/4 bolt, flatwasher, lockwasher and nut (Items 8,9,10 & 11). Set item 5 at desired angle and lock in place with 1/2 x 2 pin and pin retainer (Items 6 & 7).
3. Attach blade assembly (Item 12) to angling arc with 3 bolts 1/2 x 3 1/2" lockwashers and nuts (Items 13,14 and 15). Wearing plate, skid and attaching hardware (Items 16 to 20 Incl.) are installed as shown. Runners and adjusting collars (Items 21 & 22) are installed on each end to desired height.
4. Attach lifting links (Item 23) to inside lugs on push rod assembly using 1/2 x 1 1/4 bolts and nuts (Items 24 & 25).
5. Instal lift assembly (Item 27) on tractor frame in position shown using present engine base mounting bolt and 4 bolts 1/2 x 1 1/4, lockwashers and nuts (Items 28, 29 and 30). Insert cotter (Item 31) through hole in end of lift shaft outside frame bracket.
6. Connect upper ends of lifting links (Item 23) to clevises of lifting levers using pin and retainer (Item 26 & 7) using top or bottom hole for desired height.
7. Attach hand lever extension (Item 34) to end of hand lift short lever on right hand side of the tractor using 2 bolts 1/2 x 1 1/4, lockwashers and nuts (Items 35, 36 & 37). Connect this extension to the front lift shaft by means of lift rod (Item 32) using cotters (Item 33).
8. Mount shock absorber (Item 35) by attaching to blade using pin and retainer (Items 39 & 40) and set to desired tilt angle and secure by means of 1/2 x 1 1/2 carriage bolt, lockwasher and nut (Item 41,42 & 43) through proper hole of series of four holes in Item 5.

THE WATERLOO MANUFACTURING CO.

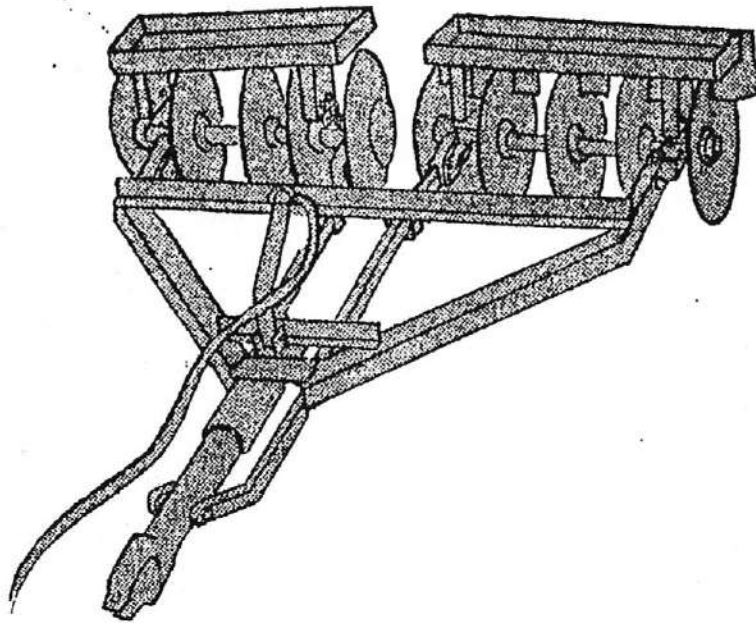
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WALFELLO MANUFACTURING CO., LTD.
MATERIO, ONTARIO



INSTALLATION INSTRUCTION FOR
MODEL 169 FRONT END GRABBER ATTACHMENT
ON WAFELLO BRONCO TRACTOR



ASSEMBLY INSTRUCTIONS FOR THE BRONCO DISC HARROW

RIGHT HAND GANG ASSEMBLY

1. Dismantle the gang bolt assembly, marked right hand, removing the bearings and spacer spools. Leave the large cast iron bumper washer on the gang bolt.
2. Next slide a disc on the gang bolt with the concave side facing to the right.
3. Slide bearing on gang bolt with the steel fabricated connecting bracket to the front and the grease fitting to the top. The flange on the top bearing cap should be facing to the right.
4. Place the remaining parts on gang bolt in the following order: Disc, Spacer spool, Disc, Spacer spool, Disc, Bearing (with slotted connecting bracket to the front and the grease fitting to the top). The flange on the top bearing cap should be facing to the right. Next, place on the last disc, cast iron washer, bent lockwasher and square nut.
5. Repeat the above procedure for the left hand gang, except have the flanges on the top bearing caps facing to the left and the long end of slotted connecting bracket facing to the left.
6. Assemble the right hand scraper and weight box assembly to the left hand side of the flanges on the top bearing caps with four bolts, lockwashers and square nuts. Repeat this procedure for the left hand scraper and weight box assembly except it is fastened to the right side of the top bearing cap flanges.
7. Remove two cotter pins from the end of the telescoping drawbar. Slide telescoping drawbar into pipe in frame. Replace two cotter pins.
8. Remove bolt from telescoping drawbar. Slide angling bars through roller guides under the frame with bends upward. Place bolt through angling bars and telescoping drawbar having a flat washer between the angling bars and on both sides of the telescoping drawbar. Place one washer between the angling bar and cotter pin. Replace cotter pin.
9. Next remove the round head rivets from the clevises on the drawbar assembly. Slide clevises over the bearing brackets and replace round head rivets, washers and cotter pins.
10. Trip Lever Assembly- The trip lever is shipped, wired to the drawbar assembly. Remove rivet from lugs on drawbar pipe. Slide forks on the trip lever over the cross pin which is located on the vertical spring container. Slide trip lever between the lugs and replace rivet, flat washer and cotter pin. Attach rope to trip lever.

Grease bearings with medium gun grease.

To angle disc gangs, pull trip lever rope and back the tractor and release trip lever rope so that the pin drops into the desired position. <https://tractormanualz.com/> To straighten gangs, pull trip lever rope and drive tractor forward.