

Parts List and Tool List

Your package should contain the following components:

- 1 of Toolbar Assembly with 2 wheel arms
- 1 of Steel Wheel with bronze bushing installed
- 2 of Steel Dust Caps (For wheel assembly)
- 3 of Cultivator Teeth
- 2 of Solid Wood Handles
- 1 of Tapered Dowel Rod

Fasteners:

- 1 of 3/8"X2-1/4" shoulder bolt + washer and 5/16" nylon lock nut. (Wheel Assembly)
- 4 of 1/4"x1-1/2" carriage head bolts + flat washers, lock washers and 1/4" nuts (Handle Assembly)
- 2 of wood screws (Handle Assembly)
- 3 of 3/8"x2" carriage head bolts + Flange nuts. (Cultivator Teeth)

Tools Required : (Tools Not Included)

- 1 of 3/16" Allen wrench
- 1 of 7/16" wrench
- 1 of 1/2" wrench
- 1 of 9/16" wrench
- 1 of Phillips Screw Driver

Wheel Assembly Instructions



Mounting the wheel to the wheel arms:

Components Required:

- 2 of Steel dust caps
- 1 of wheel (Bearing is factory installed)
- 1 of 3/8"x2-1/4" shoulder bolt
- 1 of 5/16" nylon lock nut
- 1 of flat washer

Prior to attaching wheel: Set the wheel hoe frame on a flat surface and insert the shoulder bolt through the wheel arms. Visually inspect that the shoulder bolt is parallel to the flat surface. If not, loosen the adjustment bolts on the higher arm and lower it until the bolt is parallel. Re-tighten arm bolts.



Assembly:

- 1) Fit a dust cap over both bearing hubs.
- 2) Slide wheel into place between wheel arms
- 3) Place 3/8" shoulder bolt through wheel arms and hub
- 4) Install 5/16" nylon lock nut.
- 5) Tighten nut completely.
- 6) Check to see if wheel turns freely. If yes, stop.
- 7) If no, loosen nut slightly until wheel turns freely.

(Tape added to hub for photograph clarity)

Cultivator Teeth (Tines) Assembly

Components Required:

3 of Cultivator Teeth

3 of 3/8"x2" carriage head bolts

3 of Flange Nut

(Note that washers and nuts in the picture are no longer accurate)



Assembly

Place 3/8"x2" carriage head bolt from bottom up through the front hole of cultivator tooth and into the desired slot on the tool bar.

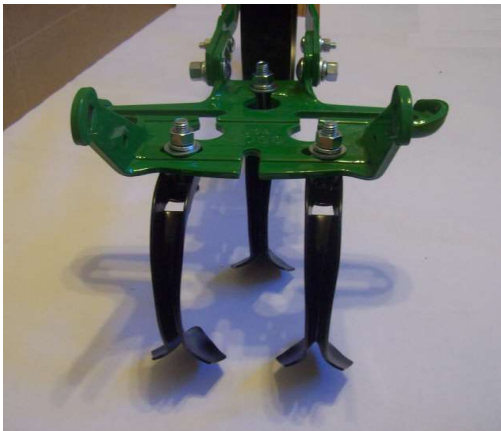
Adjust to the desired position and secure using the Flange nuts. Tighten with a 9/16" wrench.

Do not over-tighten. The cultivator teeth positions will be changed occasionally so it is important not to damage the fasteners.



Widest position of cultivators (wheel arm in highest position* to level cultivator bottoms)

*Wheel arms height is changed by loosening the two bolts that attach each arm to the frame (4 in total) and pivoting the arms up or down to the desired position. Re-tighten all four bolts, beginning with the 1/4" bolts.



Narrowest position of cultivators (wheel arm in lowest position* to level cultivator bottoms)

Wooden Handle Assembly



Components Required:

2 of Wood Handles

1 of tapered Wood Dowel

2 of wood screws

4 of 1/4"x1-1/2" "carriage head bolts + fender washers, lock washers, and nuts.

ASSEMBLY



- 1) Position handles to the outside of each toolbar handle mounting tab using the bottom 2 holes in each handle. (Logo should be facing outward on each handle)
- 2) Place 1/4" x 1-1/2" carriage head bolts through toolbar handle mounting tab, and out through the handle.
- 3) Fasten using the fender washer, then the lock washer, and then the 1/4" nut. Tilt each handle down to it's lowest position and tighten all four nuts.
- 4) Place the tapered Wood Dowel into the holes between the handles (Slight tightness is

common when installing the tapered Wood Dowel. A twisting motion will help seat the dowel into the holes. Both sides should bottom out against tapered dowel's shoulders)

- 5) Insert a wood screw into the pilot holes in each of the handles at the location shown in the picture.
- 6) Tighten both sides down snug with a Philips screwdriver, this secures the tapered Wood Dowel.
- 7) If the handles position is too low for comfortable operation, loosen all four nuts and tilt both handles up equally at the same time. Re-tighten all four nuts.