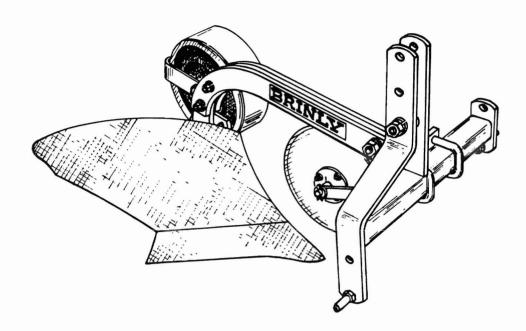
# BRINLY





# MODEL PP-1200 3 P.T. 12" MOLDBOARD PLOW

(W/DEPTH GAUGE WHEEL AND COULTER)

"IMPORTANT: THIS MANUAL CONTAINS INFORMATION FOR THE SAFETY OF PERSONS AND PROPERTY. READ IT CAREFULLY BEFORE ASSEMBLY AND OPERATION OF THE EQUIPMENT!"

#### **LIMITED WARRANTY**

Brinly-Hardy Company warrants only to the original retail purchaser that this product will remain free of defects in workmanship and materials under normal use and service for a period of two (2) years (NOTE: ninety (90) days for commercial or rental use) commencing with the date of purchase.

Any parts found to be defective within the warranty period will be replaced, with proof of date of purchase, at Brinly Hardy Company's expense. Our obligation under this warranty is expressly limited to replacement or repair, at our option of parts which are defective in material or workmanship within thirty (30) days of receipt of the parts. This warranty does not apply to damage caused by unreasonable use, including failure to provide necessary maintenance, nor does it apply to any transportation or labor charges.

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# **ASSEMBLY**

FIG. 1. Secure landside (A) to frog (B), as shown, with two %" x 1" plow bolts and two %" hex nuts. FINGER TIGHTEN. Next, mount brace (C) between moldboard (D) and landside (A). Secure with %" x 1" plow bolts and %" hex nuts. TIGHTEN ALL BOLTS SECURELY. Assemble standard assembly (E) to plow bottom (with  $\frac{6}{2}$ " x 2½" land adjusting bolt (F) and square nut (G) in place) and secure with ½" x 1½" carriage bolt (H) and hex nut (I) through top hole and ½" x 2" plow bolt and hex nut through remaining hole in landside, frog, and standard. TIGHTEN SECURELY. Position beam assembly (J) over standard, as shown, and secure with two ½" x 2½" hex bolts (K), lock washers (L), and hex nuts (M). TIGHTEN SECURELY.

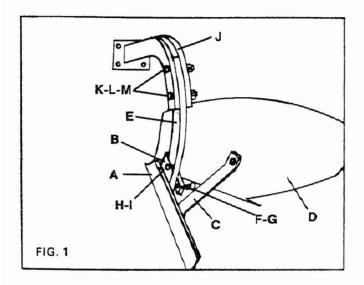
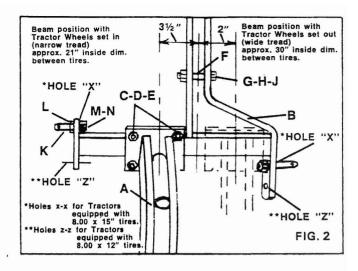


FIG. 2. Assemble beam assembly (A) to mast (B), using (2) "U" bolts (C) (saddling square tube on mast), (2) %" lock washers (D), and (2) %" hex nuts (E). IF REAR TRACTOR WHEELS ARE SET IN NARROW TREAD POSITION, ASSEMBLE IN POSITION SHOWN. If wheels are set in wide tread position, assemble as sketched in. (See width of cut instructions in operation section of manual). Insert mast spacer (F) between mast upper arms (in bottom hole), secure with %" x 2½" hex bolt (G), %" lock washer (H), and %" hex nut (J).

Assemble lower link pins (K) in holes x-x of mast (for tractors equipped with  $8.00 \times 15^{\prime\prime}$  tires or larger) or holes z-z (for tractors equipped with  $8.00 \times 12^{\prime\prime}$  tires). Secure with  $\%^{\prime\prime}$  hex jam nut (L) (outside),  $\%^{\prime\prime}$  lock washer (M), and  $\%^{\prime\prime}$  hex nut.



- FIG. 3. A. Insert standard (1) into hub on fork (2), (with forks angling downward). Secure assembly with the 5/16" x  $1\frac{1}{4}$ " roll pin (3), with equal amount of pin extending from each side of hub.
- B. Assemble hub (4) to coulter blade (5), using three 5/16" x 1!" carriage bolts (6), flat washers (7), and hex lock nuts (8).
- C. Attach fork assembly to coulter using axle (9), (with square head inserted into the hole in fork) through coulter hub. Add flat washers (10) and secure with cotter pin (11), bending legs of pin over to secure assembly.
- D. Mount the completed assembly to the left side of plow beam using coulter clamp (12), U-bolt (13), spacer (14). Insert spacers between beam halves and secure using the %" hex regular nuts (15). Refer to coulter adjustment for proper coulter setting. Tighten nuts securely.

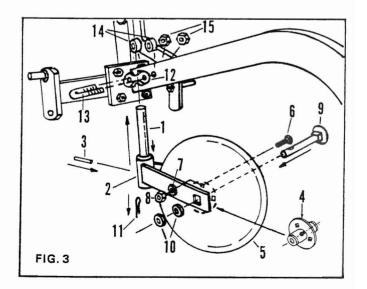
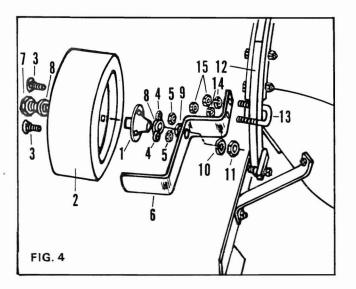


FIG. 4. A. Attach hub (1) to the gauge wheel (2), using three 5/16"  $x\frac{3}{4}$ " carriage bolts (3), 5/16" plain washers (4), and 5/16" hex lock nuts (5).

B. Install the gauge wheel to the mounting bracket (6), using the %" x  $4\frac{1}{2}$ " hex head bolt (7), one %" plain washer (8) on each side of hub, one %" hex jam nut (9), and secure with one %" lock washer (10), and one %" hex nut (11) on the other side of the mounting bracket, as shown.

C. Attach the assembly to the plow beam standard (12) with the short "U" bolt (13) and secure with %" lock washers (14) and %" hex nuts (15).



### PREPARING PLOW FOR USE

The plow bottom must be cleaned so that dirt will slide off the moldboard without sticking. Wipe the polished surface with a rag soaked in turpentine, naptha, or kerosene. An old brick or a pumice stone can also be used to remove the protective coating, but usually this is not necessary if soil is not too wet or sticky.

#### INITIAL HITCH AND PLOW ADJUSTMENTS

FIG. 5. Prior to using the plow, it is recommended that it be pre-adjusted. This is accomplished by mounting the plow to the tractor, and (on flat ground) raising and blocking the left side of tractor six to seven inches. (This simulates the tractor and plow in a plowing position – right tires in furrow wall and left tires on land).

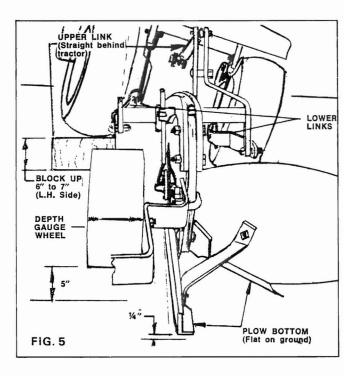
Operate the hitch (raising and lowering the plow). The plow should be free to contact the "ground" in the "lowered or float" position on operating lever.

With plow raised slightly off ground, adjust the lower links and upper link so the plow bottom is level with the ground. Place the hitch in the float position. THE PLOW SHOULD REST COMPLETELY FLAT ON THE GROUND. Next, readjust the upper link so the back part of the plow is approximately ¼" off ground.

Align the plow directly behind the tractor (upper link of three point hitch extending straight behind tractor). With a straight edge (chalk line, steel bar, 2 x 4, etc.), extend a line from inside edge of right front tire, the inside edge of right rear tire on back to the plow bottom. This simulates the furrow wall. For the plow to cut 12 inches wide, the bottom should reach this line. To **reduce** cutting width, loosen the two "U" bolts attaching mast to beam and shift beam to the **right**. To **increase** cutting width, shift to the left. Normally the bottom should be adjusted to cut 11 inches to 12 inches wide.\*

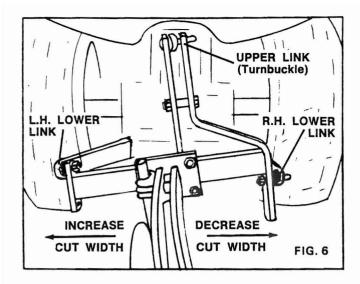
The depth gauge wheel, when properly adjusted, will prevent plow from going too deep when soft or wet spots are encountered. For a controlled 6 inch plow depth, set gauge wheel approximately 5 inches off ground.

\*Note: When extreme or heavy plowing conditions are encountered, it may be desirable to reduce plow cut width rather than plow depth, in order to reduce tractor loading.

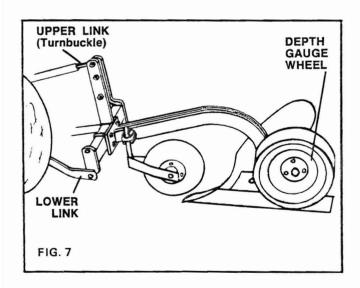


# OPERATION: Plow Adjustments

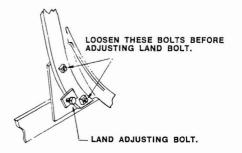
WIDTH OF PLOW CUT — After plow has been properly assembled and adjusted according to instructions, width of plow cut should be approximately 11 inches to 12 inches when R.H. rear wheel is running against furrow wall. Width of cut is controlled by loosening "U" bolts and moving beam along mast. To reduce width of cut, move beam to right. To increase width of cut, move beam to left. See FIG. 7. NOTE: When extreme or heavy plowing conditions are encountered, it may be desirable to reduce plow cut width rather than plow depth, in order to reduce tractor loading. To find best width of cut, move beam to right along mast bar one inch at a time until optimum cut width is obtained.



DEPTH ADJUSTMENT – The plow point pitch or suck is controlled by 3-point hitch top turnbuckle link. Shortening upper link will cause plow to go deeper; lengthening upper link will cause plow to run shallow. With upper link adjusted as in Fig. 5, plowing depth should be 5"-6" when tractor wheels are running in previously plowed furrow. Always readjust gauge wheel after changing plowing depth.



LANDING ADJUSTMENT – The plow bottom will react similar to a rudder while ground engaged. If plow point is too far from left of beam, plow will tend to over cut and leave a ragged furrow wall. This condition can be readily corrected by making the following adjustment:



Loosen two bolts attaching plow bottom to standard; turn land adjusting bolt clockwise two turns; retighten plow bottom attaching bolts securely. Repeat adjustment as necessary until plow follows correctly. Plow is properly landed when running clearance between lower links and tires is approximately equal and upper link extends straight behind tractor.

LEVELING ADJUSTMENT — When tractor running in previously plowed furrow, at desired depth and width of cut, stop tractor with plow in ground and view plow from rear. Plow standard should appear near vertical from ground. If plow standard appears to be leaning to the right, raise R.H. hitch link by turning R.H. lift link control clockwise, or lower L.H. link by turning L.H. lift link control counter-clockwise. The opposite adjustments would apply when plow standard leans to the left.

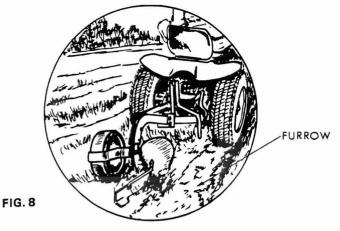
COULTER ADJUSTMENT — Coulter should be adjusted to slice 2"-3" deep. While making this adjustment, the coulter limit stop pin should also be set to prevent coulter from swinging into plow beam or bottom. If properly adjusted, coulter will be free to swing outward a limited amount from beam, but will not be free to swing in to touch plow beam or bottom.



WHEN TO PLOW — Make sure the ground is in proper plowing condition before starting. Never plow when the soil is wet. If it is too dry, it will be difficult for the plow to penetrate the soil. Avoid low places, old roadways, paths and other plces where the soil is overly packed. Expect to have trouble with a thick sod which has not been plowed in several years. However, by finding the correct setting of the plow and hitch, you should be able to do a satisfactory job under most conditions. High weeds or grass should be cut down with the rotary mower before plowing.

TO BEGIN PLOWING – This plow usually works best at a depth of approximately one-half its width; i.e. 12" plow: 6"-7". To turn plow point into ground, lower plow with hydraulic lift lever. Be sure lift control is in float position. Note: In some soils it may be necessary to shorten top hitch link to get satisfactory penetration on first and second plowing passes.

After making first two plowing passes, adjust top hitch link so that landside heel runs from level to ¼" up from bottom of furrow. See FIG. 8. After the dead furrow has been made, the plow will level off by running right tractor wheels in previously plowed furrow. Variation in plow depth will affect level attitude of plow. (See leveling instructions.)



CLEARANCE LEVEL TO ¼" BETWEEN LANDSIDE HEEL & BOTTOM FURROW.

Lay out your field to be plowed, and if possible, make it rectangular in shape, about three or more times as long as it is wide.

Note: It is easier to plow a few long furrows than many short ones. Leave some room at each end for turning your tractor. Start plowing by laying off a dead furrow as shown in FIG. 9 below.

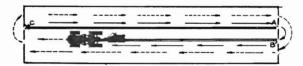


FIG. 9

Begin at point "X" and plow a furrow to the end of your plot. Fix your eyes on a tree or some distant object in line with the middle of the plow so that you can guide your tractor and plow a straight first furrow to point "A". **Note: Always lift plow before turning,** and at point "B", lower it again and plow a dead furrow, piling the dirt on top of dirt from the first furrow. When you return to point "X" and start your real plowing with both the tractor's right wheels in the furrow at point "C", level out the plow with the top hitch link. Plow in a clockwise direction, always **lifting** your plow at the end of the furrow before turning.

SPEED – Do not plow too fast. Move steadily along so that the earth will turn over and not fall back into the furrow; by plowing too fast, you will get an uneven plowing job and the dirt is apt to be thrown instead of rolled over.

LUBRICATION – Lubricate coulter and depth gauge wheel at least once daily with standard type grease gun. Note: When putting plow away, always wipe polished surface and coulter blade with grease or oil to prevent rust, replace badly worn plow shares.

After plowing a few rounds, it is suggested to check and tighten all bolted connections on plow, coulter and frame.

# PLOWING DIFFICULTIES AND REMEDIES

# POSSIBLE CAUSE OR CONDITION

#### - SLOW GROUND ENTRY -

Improper Upper Link Adjustment

Badly worn Plow Share Ground extremely dry and hard due to lack of moisture.

- PLOW CROWDING -

Improper Landing

#### - UNEVEN PLOWING DEPTH -

Extreme variation in soil texture and/or moisture Plow rides up in harder, dryer soil Plow won't stay down – runs shallow Plow goes too deep

- PLOW BOTTOM WON'T SCOUR -

New bottom or rusted bottom

## REMEDY

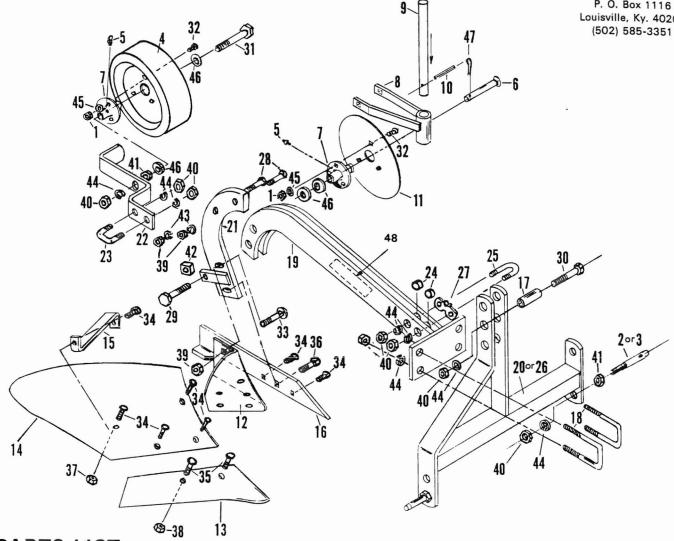
Shorten Upper Link one or two turns at a time. See Depth Adjustment. Replace with new Share Add additional weight to tractor or wait until soil conditions are more suitable for plowing.

See Landing Adjustment

See Depth Adjustment Reduce Tractor speed in hard spots Check depth adjustment See Depth Adjustment

Clean bottom with rag soaked in turpentine, naptha or kerosene. Old brick or pumice can also be used to polish bottom. Rub with rag soaked in oil and dipped in sand. Clean bottoms frequently during use until polish is obtained.

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PARTS LIST

REF.		
NO.	PART NO.	DESCRIPTION
1	B-1674P	Nut, hex lock, 5/16"
2	B-724P-01	Pin, lower link (PP-1200)
3	B-2022P-01	Pin, lower link (PP-1230)
4	C-264-10	Gauge wheel
5	D-128P	Lube fitting, 5/16"
6	P-172P	Carriage bolt blank, %"
7	P-250 A	Hub
8	P-265-10	Fork assembly
9	P-269-10	Coulter standard
10	P-270	Drive pin, 5/16"
11	P-272-10	Coulter blade
12	P-273	Frog
13	P-276	Share, 12"
14	P-279	Moldboard, 12"
15	P-285-10	Brace, moldboard
16	P-287-10	Landside assembly
17	P-328-01	Spacer (bushing)
18	P-330P	"U" bolt, (long)
19	P-331-10	Beam assembly
20	P-335-10	Mast assembly (PP-1200)
21	P-340-10	Standard
22	P-343-10	Mounting bracket - gauge wheel
23	P-367P	"U" bolt, (short)
24	P-370P-01	Beam spacer (bushing)

REF. NO.	PART NO.	DESCRIPTION
25	P-372P	"U" bolt, coulter
26	P-373-10	Mast assembly (PP-1210)
27	P-387-01	Coulter clamp
28	1M1640P	Bolt, hex, 1/2" x 21/2"
29	1M2040P	Bolt, hex, %" x 21/2"
30	1M2048P	Bolt, hex, %" x 3"
31	1M2072P	Bolt, hex, %" x 41/2"
32	10M1012P	Bolt, carriage, 5/16" x 34"
33	10M1624P	Bolt, carriage, ½" x 1½"
34	15M1216P	Bolt, plow, 36" x 1"
35	15M1416P	Bolt, plow, 7/16" x 1"
36	15M1632P	Bolt, plow, ½" x 2"
37	30M1200P	Nut, hex, ¾"
38	30M1400P	Nut, hex, 7/16"
39	30M1600P	Nut, hex, 1/2"
40	30M2000P	Nut, hex, %"
41	31 M2000P	Nut, hex jam, %"
42	35M2000P	Nut, square, ¾"
43	40M1600P	Washer, lock, 1/2"
44	40M2000P	Washer, lock, %"
45	45M1111P	Washer, plain, 5/16"
46	45M2121P	Washer, plain, %"
47	50M0420P	Pin, cotter, 1/8" x 11/4"
48	B-4685	Logo Decal