

OPERATOR'S MANUAL

No. OM-Y1-348

JOHN DEERE



This manual
contains correct
information
regarding lubrication,
operation, main-
tenance, setting-up
and parts.



LINDEMAN
"LS-200"
LANDSHAPER

For the best service see your
JOHN DEERE DEALER
Use Only Genuine John Deere Parts

TO THE PURCHASER

The purpose of this manual is to acquaint you with your new "LS-200" Landshaper. In this manual you will find instructions and helpful suggestions for operating, hitching, transporting, adjusting, setting-up and servicing your new Landshaper. Also included is a complete parts list with helpful illustrations to aid in proper identification of parts if replacement becomes necessary.

Keep this manual in a convenient place for quick and easy reference. Use it as a guide whenever questions arise. You have purchased a dependable, sturdy machine, but only by proper care and operation can you expect to receive the service and long life designed and built into it.

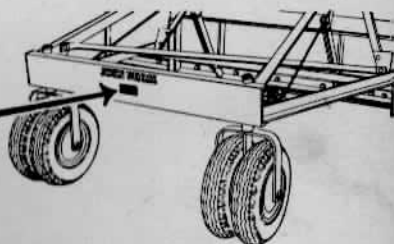
If you need additional information or if your Landshaper requires special servicing see your John Deere dealer. He will be glad to serve you.

Sometime in the future your Landshaper may need new parts or replacements. If so, your John Deere dealer will see that you get high-quality, genuine John Deere parts. When ordering, be sure to give him the correct part number and description of the part desired. This information can be obtained from the parts list section of this manual. Also provide your dealer with the model number of your Landshaper, its serial number and year purchased. This information will help him identify the part you need. Please record this information immediately in the space provided at the bottom of this page. Make use of it in future reference.

If, after much active work, your Landshaper requires attention, go to your John Deere dealer for parts or special service as soon as possible. Give your Landshaper proper attention during slack periods and it will always be ready for use when you need it.

**JOHN DEERE-LINDEMAN
LS-200 LANDSHAPER**

Serial No. _____
Date Purchased _____
Owner _____

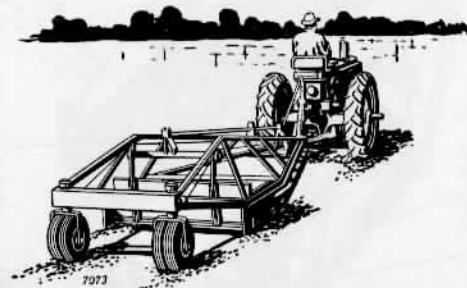


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The "LS-200" Landshaper is a new landscaping machine engineered to stay on the job. Its sturdy, simple construction has been farm-tested, thus assuring you another John Deere quality-built product. The hitch on your Landshaper is adjustable to all John Deere tractors. It will also fit most modern, medium-sized tractors with drawbars not over three inches wide. The five-foot blade coverage can be extended to nine feet by installing two detachable extensions. These are bolted to the top angles when not in use. The bucket is operated either hydraulically or by hand crank. Pneumatic tires provide easy movement in the field or on the highway (between jobs). The few adjustments necessary to maintain peak performance are simple and easy to make. This Landshaper will meet your most exacting demands.

SPECIFICATIONS AND DATA

Frame Construction.....	1/4 x 2-inch angle-steel welded and bolted
Over-All Dimensions:	
Height.....	42 in.
Length.....	22 ft. 5 in.
Width (without blade extensions).....	65-1/4 in.
Weight.....	1140 lbs.
Tires (4 used).....	4 x 8, 2-ply wheelbarrow
Wheel Base.....	No front wheel; front rests on tractor drawbar
Wheel Tread.....	47 in.
Shaping Blade:	
Width.....	5 ft.
Height.....	21 in.
Blade Extensions (Detachable):	
Width.....	24 in.
Height.....	10 in.
Blade Control.....	Hydraulic or Manual
Recommended Drawbar H.P.....	18 to 30 H. P.

(Subject to Change Without Notice)

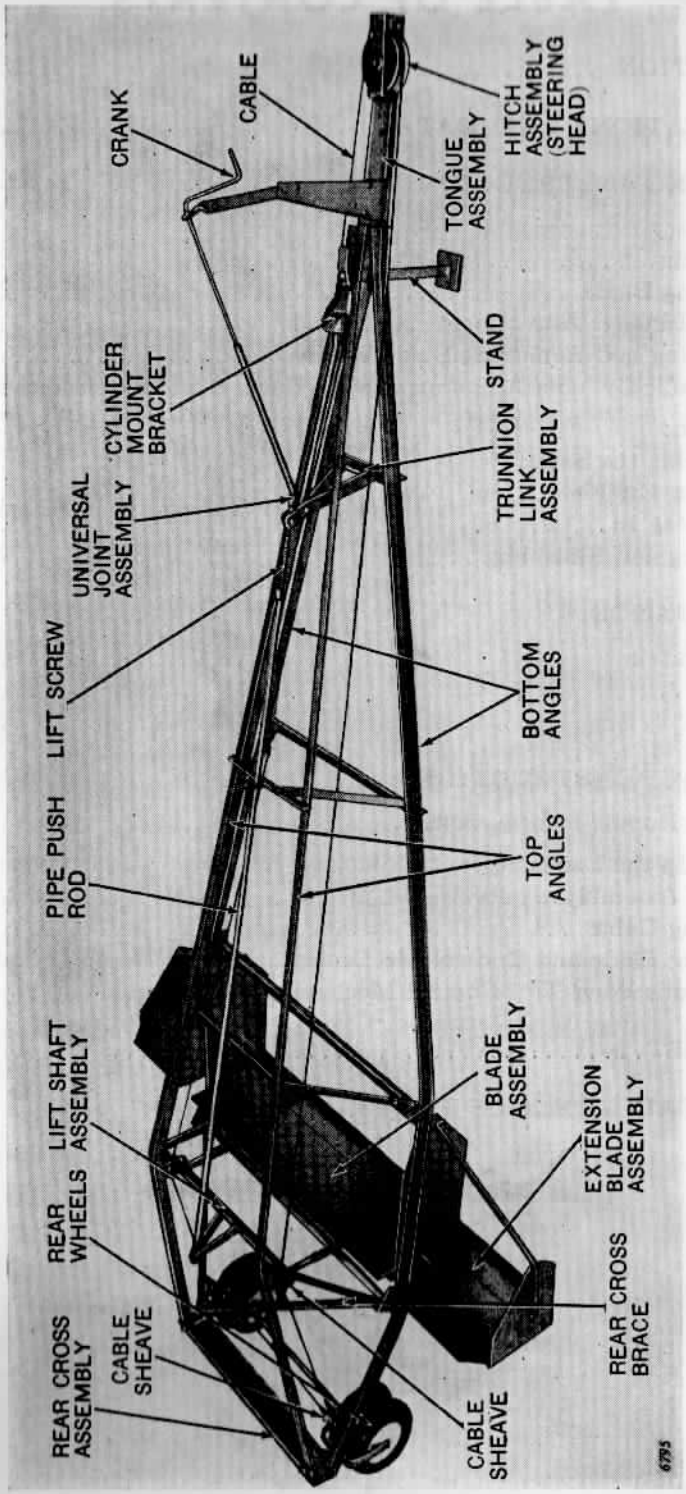


Figure 1—John Deere-Lindeman "LS-200" Landshaper

Before taking your Landshaper into the field certain preliminary adjustments are necessary. Read carefully.

PRELIMINARY ADJUSTMENTS

Hitching.

The clevis on the steering head will fit the drawbar of most modern tractors (Figure 2). When hitching, all side play between the clevis and the tractor drawbar must be eliminated by the use of the two sets of studded plates and shims provided for that purpose. Wider drawbars may only require shimming on one side.

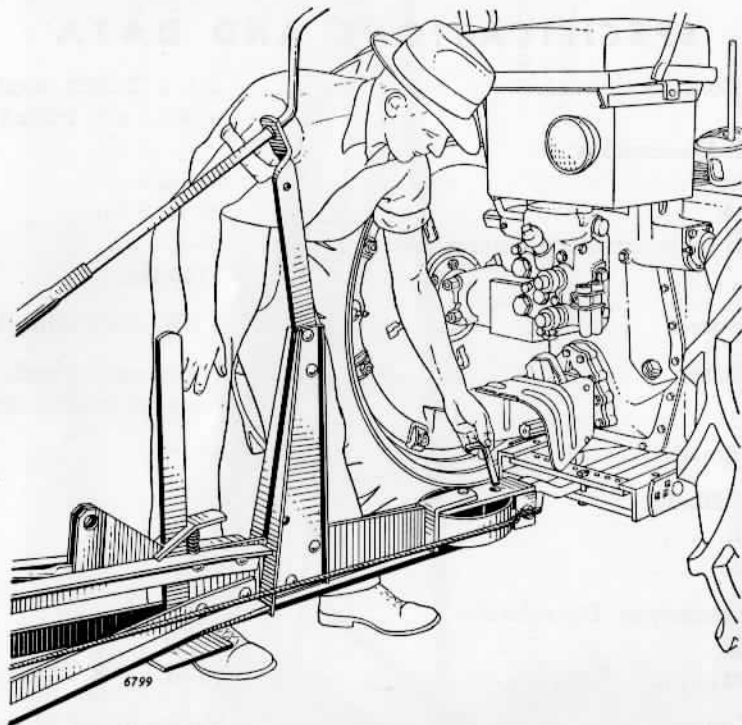


Figure 2—Hitching Landshaper to John Deere Tractor

Leveling Blade.

Run rear wheels up on a piece of 2 x 4 or 2 x 6 board approximately as long as the blade (with extensions). Stand 5 to 10 feet behind the machine on the center line and sight across the top of the board to each end of the blade. If the blade is not parallel to board it can be adjusted by changing the number of washers under the rear wheel spindles. To lower the right end of the blade, remove some of the washers from the right-hand spindle (removed washers should be placed on top of the spindle).

Blade Linkage Adjustment.

When a hydraulic cylinder such as John Deere Powr-Trol is used, make sure that blade linkage is adjusted as follows:

- (1) By hand crank, run blade to full down position.
- (2) Disconnect trunnion strut.
- (3) Extend cylinder to fully extended position and connect it to trunnion. (Use hand crank to match up piston clevis and trunnion.)

This adjustment will prevent damage to linkage when lowering the blade.

Installing and Removing Blade Extensions.

Blade extensions can be used if desired, provided their use does not impose too great a load on the tractor. Bolt extensions to the two side plate assemblies, using the two lower holes at rear, and the front hole for the extension brace (Figure 3). Bottom edge of blade extensions must line up with main blade. Bolt holes are slotted to permit adjustment.

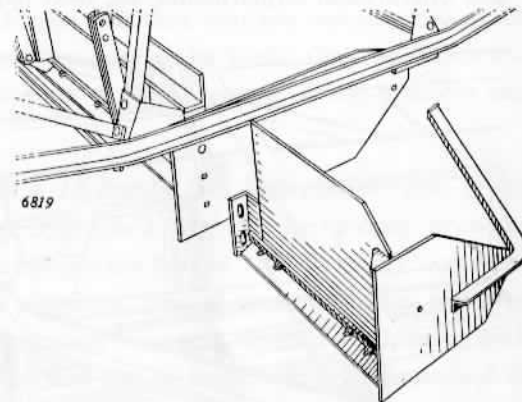


Figure 3—Installing Blade Extensions

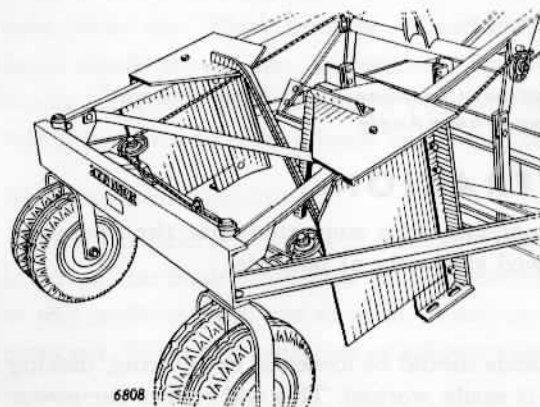


Figure 4—Blade Extensions Stored when Not in Use

When not in use, the blade extensions should be bolted to the frame as shown in Figure 4. Right extension goes on right side, left extension on left side. Note that the bits are forward and that the braces remain bolted to the extensions.

Hydraulic Cylinder Adjustment When Using Blade Extensions.

To prevent structural damage when using blade extensions, additional adjustments must be made as follows. *This adjustment is important:*

- (1) Lower the shaping blade to its full down position.
- (2) Now, by hydraulic power, raise the blade until blade extension is 3/4- to 1-inch from the lower frame angle (Figure 5). Stop blade and adjust the piston stroke stop of the Powr-Trol unit so it stops the stroke at this point.

CAUTION: Hand crank must not be used after this adjustment unless piston stroke stop is changed to hold the adjustment.

For operational adjustments, see next page.

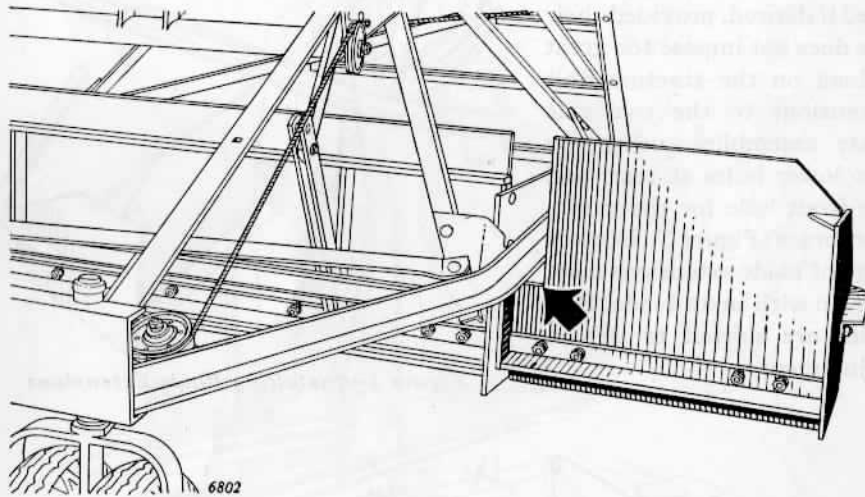


Figure 5—Point of Adjustment between Blade Extension and Lower Frame Angle

OPERATION

To get the most from this machine, it is suggested that the operating procedure given below be followed as closely as possible.

Preparing the Soil.

The soil of new or hardened fields should be loosened by plowing, disking or some other method, to make it easily worked. This will reduce the power required to pull the Landshaper, thereby cutting operational costs and reducing the time required to do the job.

Opening the Field.

Field conditions are so varied it would be impossible to prescribe any set method for shaping; however, in general, a good shaping job consists of three steps: *Roughing In, Shaping and Finishing.*

Roughing In.

As there are three possible methods of controlling the blade depth, there are three different conditions to be considered here:

(1) *When Using a Fixed Drawbar and Hand Crank.* Raise the blade until it is about 3 inches above the extreme bottomed position. Enter the field and rough over the whole field once to shave off small knolls and to smooth unusually rough spots. If you find that you are carrying too much dirt (indicated by overloading tractor), raise the blade slightly. Blade extensions can be used for all shaping work if desired, if the tractors can handle it.

(2) *When Using Tractor with a Hydraulic Lift Type Hitch* and Hand Crank.* Refer to your Tractor Operator's Manual for proper drawbar operation. If Landshaper is used behind the Model "M" Tractor, locate the drawbar in one of three locked positions. One of these positions will give the proper draft necessary for operation of your Landshaper. Operate with a fixed drawbar. Adjust the blade by use of hand crank as explained in Paragraph (1) above.

(3) *When Using John Deere Powr-Trol Hydraulic Cylinder.* In this case, after the "Blade Linkage Adjustment" (Page 5) has been made, the hand crank should not be touched. Raise blade by hydraulic power to about 3 inches above full down position. Enter the field and rough it in. Use Powr-Trol to relieve loads and dump trash.

Shaping and Finishing.

After the field is roughed in, continue the trips across the field, gradually lowering the blade until it is fully extended. Go over the field with blade in this position until the amount of soil carried by blade seems to remain constant. When this condition exists over the entire field, your job is finished.

*Hitches such as those on John Deere Model "M" and Ford-Ferguson Tractors.

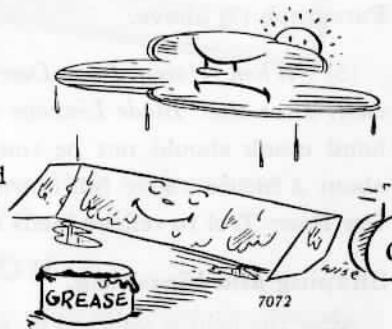
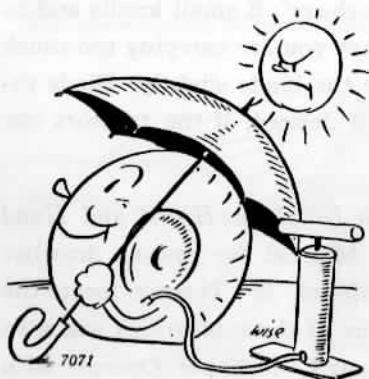
Lubrication.

Pin joints and other moveable parts run dry. Wheel bearings and sheave bearings are sealed and should not be lubricated or washed in solvent. Do not oil cable.



Tires.

For best results in the field and for highway towing, tires should be inflated to 20 pounds. Keep tires covered with cloth or in the shade when machine is not used.



Blade.

Keep cutting edge of blade covered with oil or grease when not in use.

SHIPPING BUNDLE INFORMATION

The "LS-200" Landshaper is shipped dismantled in eight bundles. Each bundle has an assembly number. Check number and contents under each photograph. Each bundle is inspected before shipment. Report shortages and damages (if any) to your dealer.

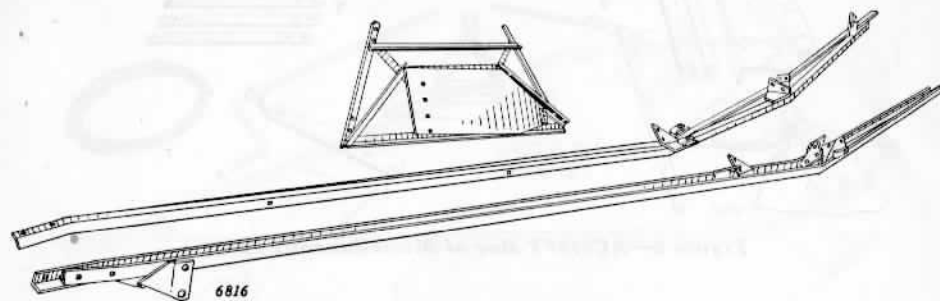


Figure 6—AC3101 Y Top Angles (2).
—AC3102 Y Lower Angles (2). Also Includes Connecting Rod (1) and Diagonal Brace (1).
—AC3106 Y Cross Braces (2). Also Includes Wing Plates for Blade (2).

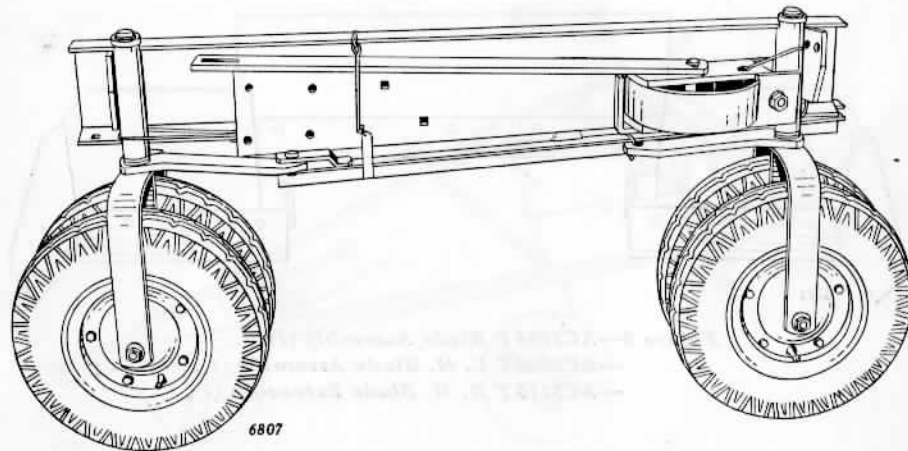


Figure 7—AC3103 Y Rear Wheel Assembly (1).
Also Includes Hitch Assembly (1).

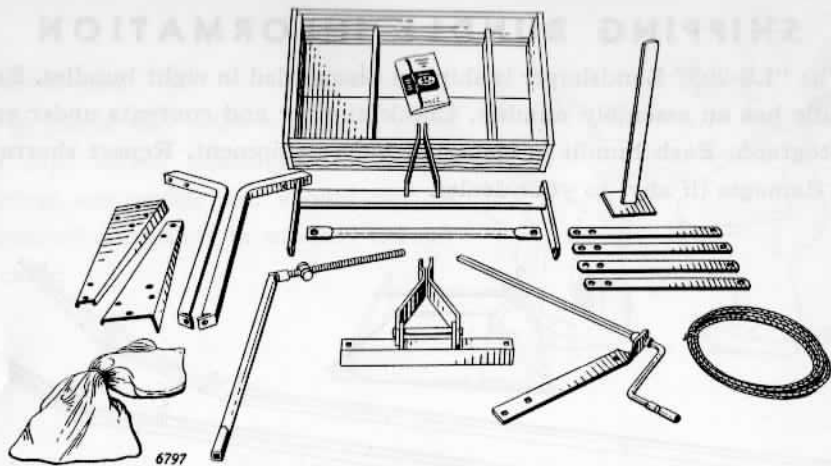


Figure 8—AC3107 Y Box of Miscellaneous Parts

The above box includes necessary nuts, bolts, washers, sheaves, cable and cable clamps, pins and snap rings, lift shaft assembly and other blade control parts. **CAUTION: This box contains many small parts. Do not lose them.**

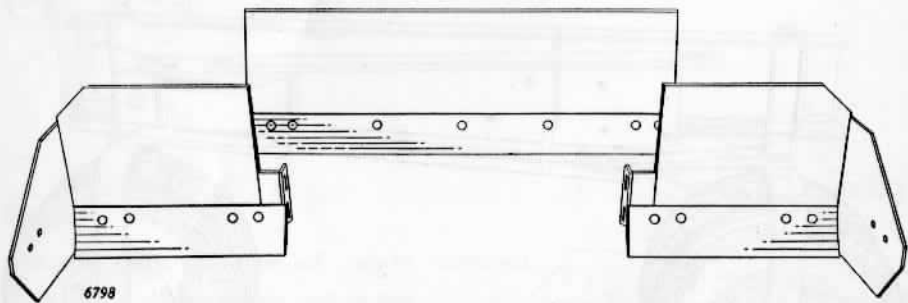


Figure 9—AC3104 Y Blade Assembly (I).
 —AC3109 Y L. H. Blade Assembly (I).
 —AC3110 Y R. H. Blade Extension (I).

SETTING-UP THE LANDSHAPER

To avoid difficulties, the following illustrated steps for setting up the Landshaper should be performed in the order given. *Important—When installing snap rings, clean grooves:*

Frame Assembly.

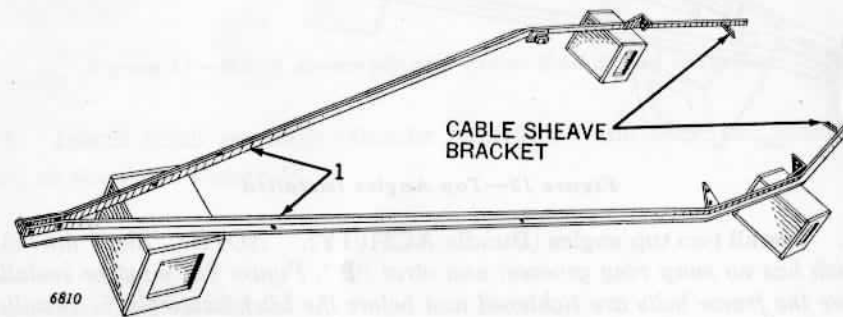


Figure 10—Lower Angles in Position

1. Lay the two longer angles (Bundle AC2102Y) on the ground or on boxes with cable pulley brackets pointed "in" as shown in Figure 10.

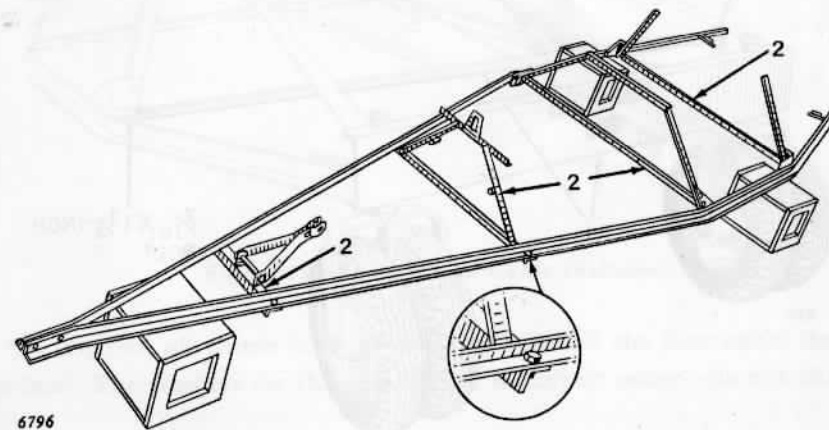


Figure 11—Cross Braces and Trunnion Link Installed

2. Bolt the three cross braces (Bundle AC3106Y) and the trunnion link assembly (in box) **loosely** to the two lower angles. (See Figure 11.) **NOTE: All lower angles of cross braces should point back as shown in insert.**

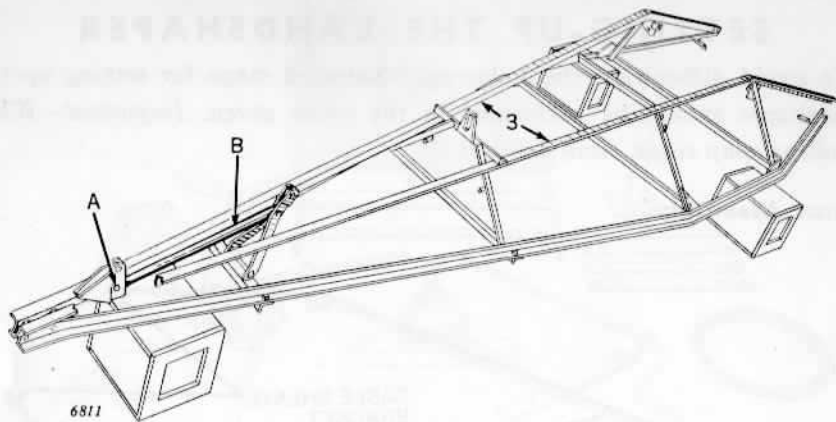


Figure 12—Top Angles Installed

3. Install two top angles (Bundle AC3101Y). *NOTE: Short pin "A", (which has no snap ring grooves) and strut "B", Figure 12, must be installed before the frame bolts are tightened and before the hitch assembly is installed. (The short pin and the strut are packed in the box.)*

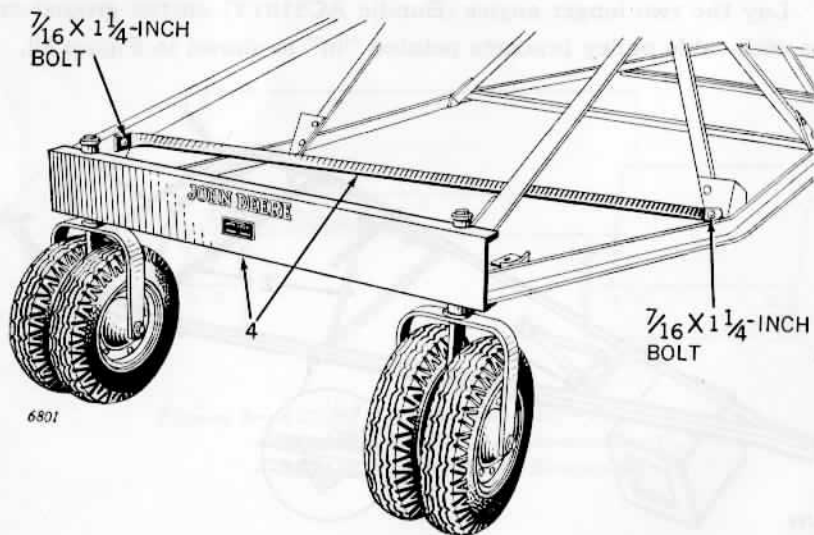


Figure 13—Rear Wheel Assembly and Diagonal Brace Installed

4. Install rear wheel assembly (Bundle AC3103Y). Diagonal brace can be installed at this time. This brace is in Bundle AC3102Y and requires two 7/16 x 1-1/4-inch bolts. Arrow points to brace placement (Figure 13).

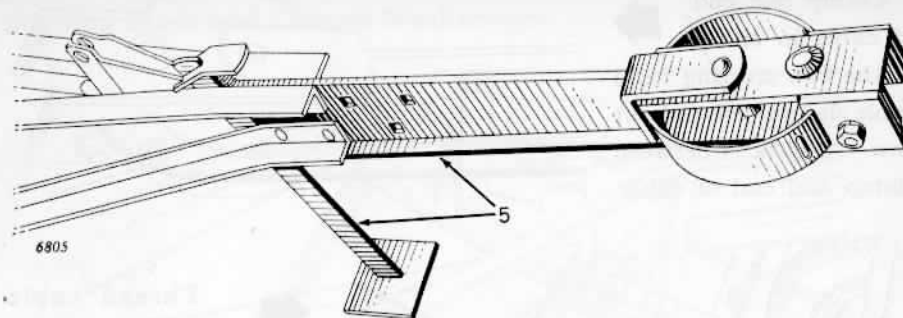


Figure 14—Hitch Assembly and Front End Stand Installed

5. Install hitch assembly (Bundle AC3103Y), and front end stand (in box) as shown in Figure 14.

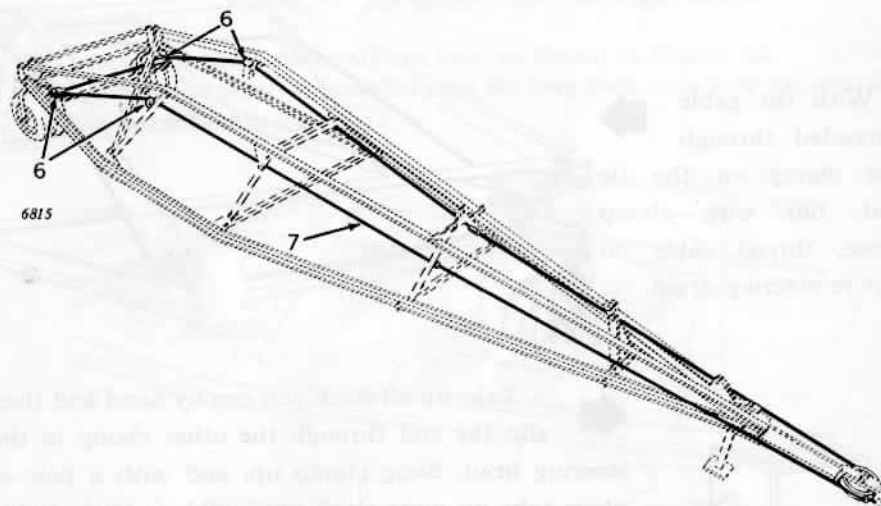


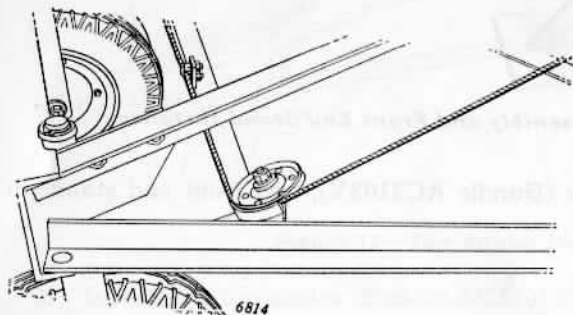
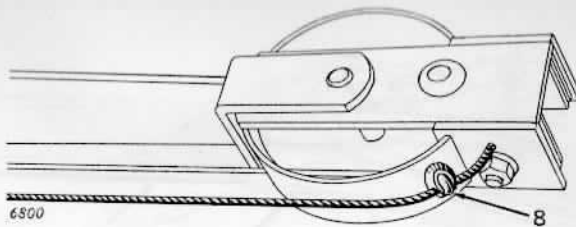
Figure 15—Sheaves and Cable Installed

6. Tighten all frame bolts securely and install the four cable sheaves (in box). The washers for the sheaves are in correct order—do not change.

Steering Cable.

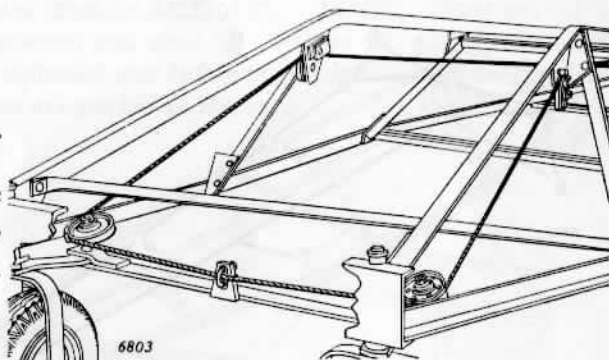
Best method of installing steering cable (7, Figure 15) is described and illustrated on the next page.

Clamp one end of cable in either of the two steering head cable clamps; leave about two inches between clamp and end of cable.



Thread cable back through framework and sheaves to the cable clamp on the rear wheel tie rod.

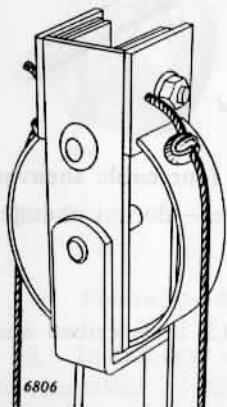
With the cable threaded through the clamp on the tie rod, but with clamp loose, thread cable on out to steering drum.



Take up all slack you can by hand and then slip the end through the other clamp in the steering head. Snug clamp up, and with a pair of pliers take up more slack until cable is fairly tight.

Now tighten clamp.

There should be about 1-1/2 to 2 inches of cable at each end past the clamp when tight. Line rear wheels and steering head up with the center line of the machine as close as you can judge by eye and tighten the tie rod cable clamp. When machine is towed, it should trail straight behind the tractor. Check the trail and adjust by means of the tie rod clamp.



Shaping Blade and Control Mechanism.

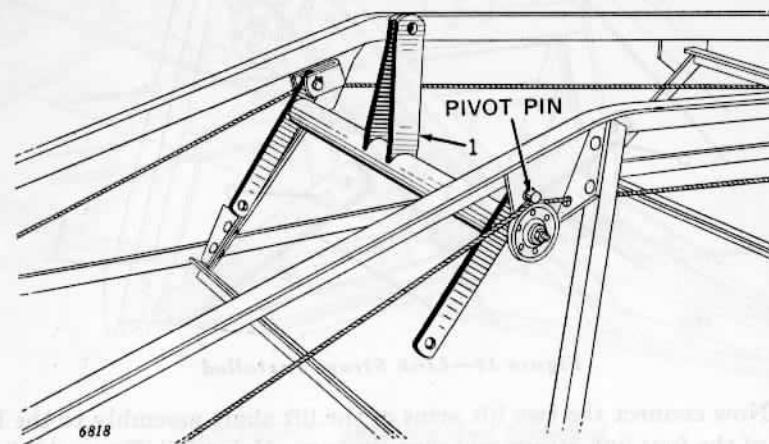


Figure 16—Bell Crank Shaft Installed

1. Install lift shaft assembly (in box) as shown in Figure 16. **NOTE:** The two pivot pins must be installed with the long ends extending out over the two sheaves as shown in Figure 16.

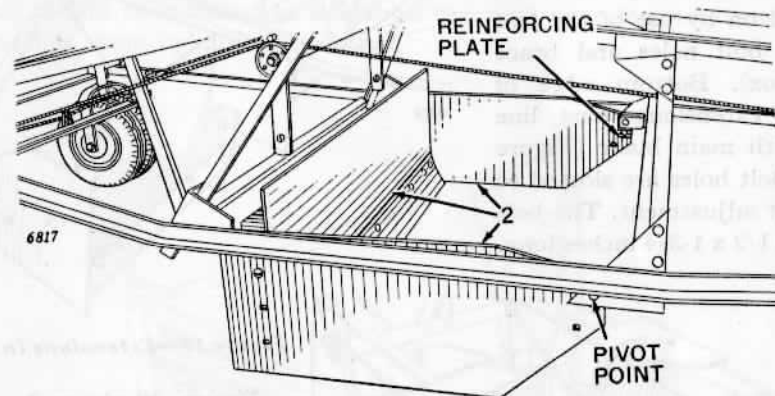


Figure 17—Shaping Blade and Wings Installed

2. Place shaping blade (Bundle AC3104Y) in place (Figure 17). Now by use of two upper bolt holes, attach the two side wing plates (Bundle AC3106Y) to shaping blade. **NOTE:** Reinforcing plate at front pivot point of wings should be facing inward. Install the forward pivot pins (at arrow) in the center hole if your tractor drawbar is average height; in a lower hole if it is low, and in the upper one if it has a high drawbar. The lower edge of the wing should be approximately parallel to the ground when Landshaper is hitched to tractor and the blade in bottom position.

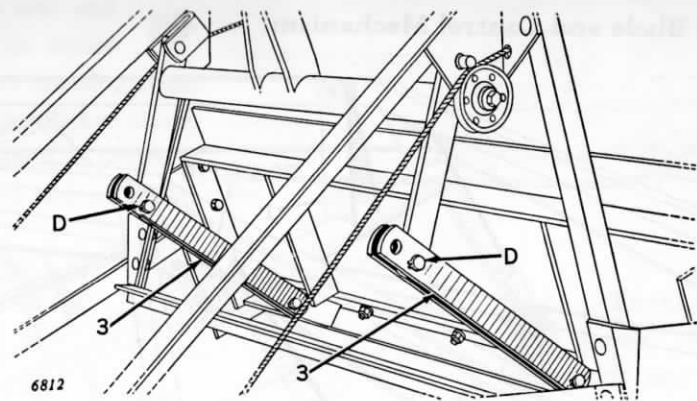


Figure 18—Link Straps Installed

3. Now connect the two lift arms of the lift shaft assembly to the blade by use of the four link straps and pins (in box). Hole "D" (Figure 18) is used for the average height drawbar; for extremely high drawbars, the upper hole is used.

4. The blade extensions (Bundles AC3109Y and AC3110Y) may now be bolted on by use of the two lower bolt holes and brace (in box). Bottom edge of blade extensions must line up with main blade (Figure 19). Bolt holes are slotted to permit adjustment. The bolt size is 1/2 x 1-3/4 inches long.

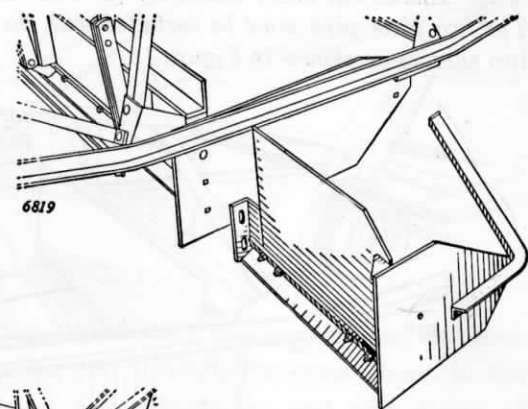


Figure 19—Extensions in Place

Figure 20 shows how extension blades are bolted on the frame when not in use. Right extension goes on right side, left extension on left side. Note that the bits are forward, also that the braces remain secured to the extensions.

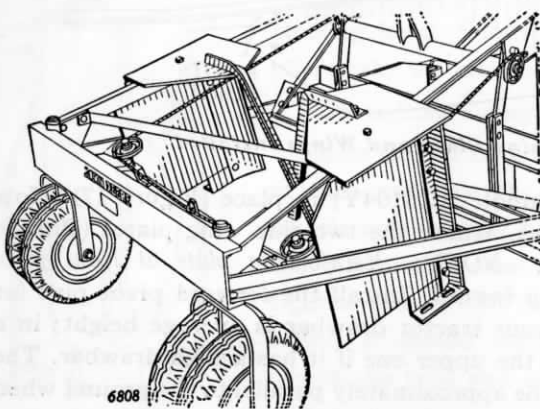


Figure 20—Extensions Stored

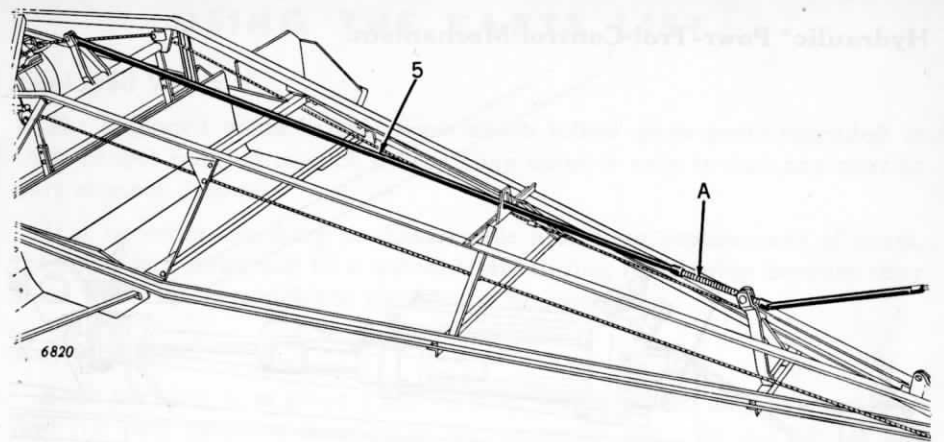


Figure 21—Connecting Rod Installed

5. Now attach long connecting rod (Bundle AC3102Y) to the bell crank as shown in Figure 21. At the front end, screw the free end of the adjusting screw assembly marked "A" into the forward end of the connecting rod. Slip trunnion link over the traveling nut on the adjustment screw and install snap rings. The strut (or cylinder piston rod clevis if Powr-Trol unit is used) should be installed at this time. See next page for more complete information about cylinder installation.

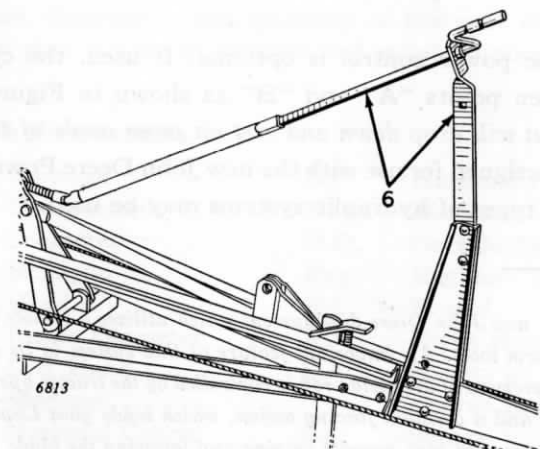


Figure 22—Hand Crank Assembly Installed

6. Install hand crank assembly (in box) as shown in Figure 22. The hand crank assembly is the last installation. When this is complete the Landshaper is ready for preliminary adjustments. For instructions, refer to Page 4.

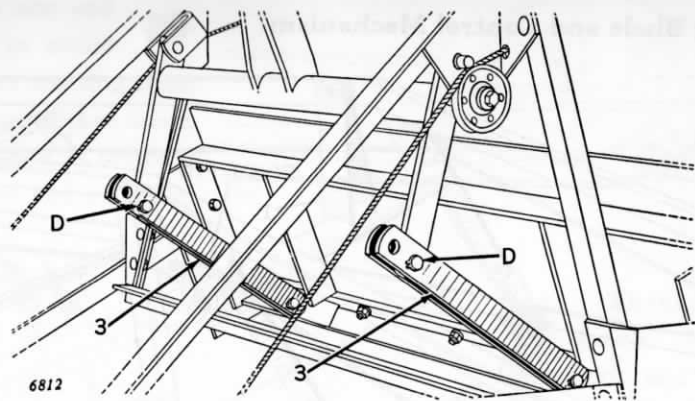


Figure 18—Link Straps Installed

3. Now connect the two lift arms of the lift shaft assembly to the blade by use of the four link straps and pins (in box). Hole "D" (Figure 18) is used for the average height drawbar; for extremely high drawbars, the upper hole is used.

4. The blade extensions (Bundles AC3109Y and AC3110Y) may now be bolted on by use of the two lower bolt holes and brace (in box). Bottom edge of blade extensions must line up with main blade (Figure 19). Bolt holes are slotted to permit adjustment. The bolt size is 1/2 x 1-3/4 inches long.

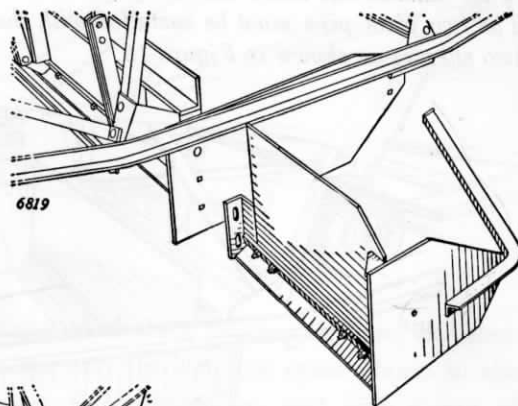


Figure 19—Extensions in Place

Figure 20 shows how extension blades are bolted on the frame when not in use. Right extension goes on right side, left extension on left side. Note that the bits are forward, also that the braces remain secured to the extensions.

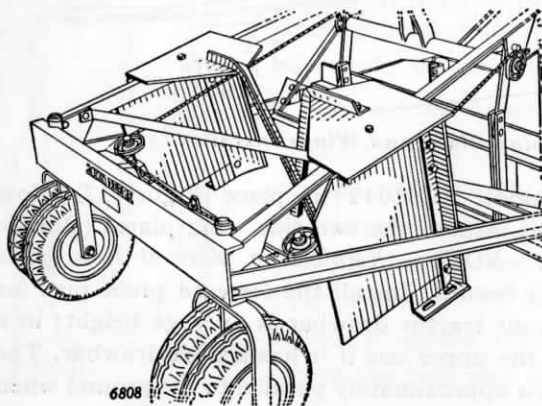


Figure 20—Extensions Stored

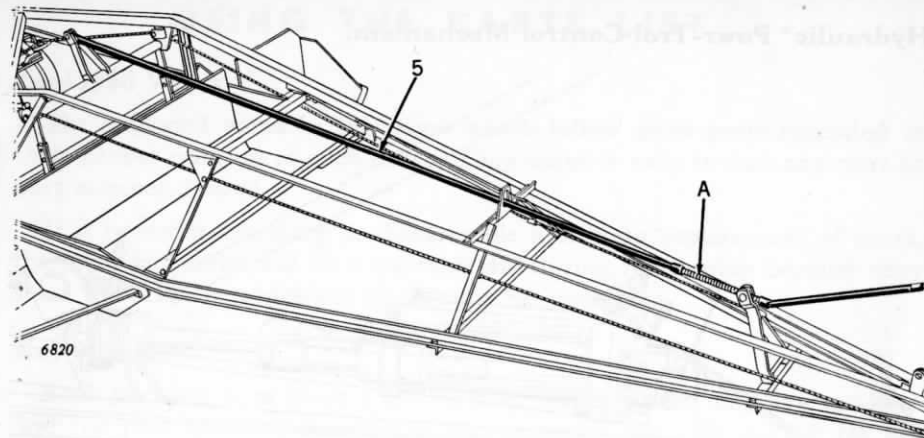


Figure 21—Connecting Rod Installed

5. Now attach long connecting rod (Bundle AC3102Y) to the bell crank as shown in Figure 21. At the front end, screw the free end of the adjusting screw assembly marked "A" into the forward end of the connecting rod. Slip trunnion link over the traveling nut on the adjustment screw and install snap rings. The strut (or cylinder piston rod clevis if Powr-Trol unit is used) should be installed at this time. See next page for more complete information about cylinder installation.

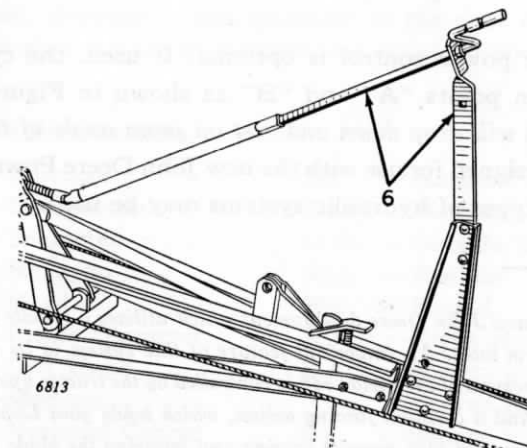


Figure 22—Hand Crank Assembly Installed

6. Install hand crank assembly (in box) as shown in Figure 22. The hand crank assembly is the last installation. When this is complete the Landshaper is ready for preliminary adjustments. For instructions, refer to Page 4.

Hydraulic* Powr-Trol Control Mechanism.

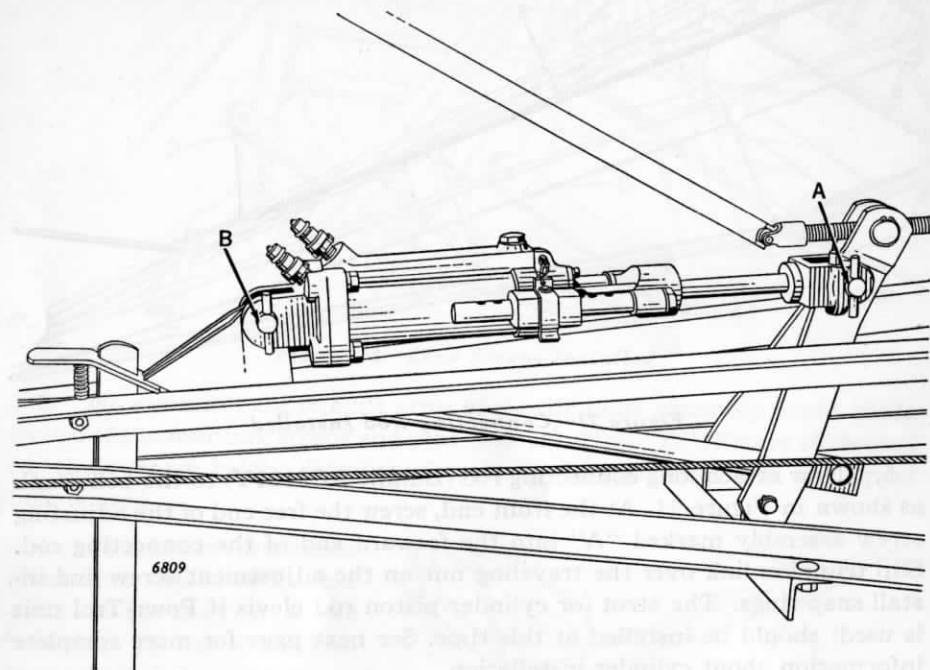


Figure 23—Powr-Trol Cylinder Installed

The hydraulic power control is optional. If used, the cylinder will be installed between points "A" and "B" as shown in Figure 23. *NOTE:* Rear end of strut will drop down and rest on cross angle of trunnion. Your Landshaper is designed for use with the new John Deere Powr-Trol cylinder; however, other types of hydraulic systems may be used.

**Powr-Trol is a new John Deere development which utilizes a remote hydraulic cylinder for operation of farm tools. An important feature of this system is its double action. The "in" and "out" movement of the piston rod is controlled by the tractor operator. This assures both a positive lift and a constant forcing action, which holds your Landshaper blade at a selected depth. This system also permits raising and lowering the blade for dumping trash and relieving loads.*

USING THE PARTS LIST

Exploded Views.

The exploded views in the pages which follow show parts extended in their proper relation to each other. They make it easy to find any part or part number desired.

If it becomes necessary to disassemble a unit for replacement of parts, the exploded views will be a valuable aid during reassembly because they show the order in which the parts must be assembled.

Key Numbers.

Each part has been given a key number which is used only as a guide to find the part number, description and quantity used. *Do not use the key number when ordering parts.*

Quantity.

If only one of each part is used, the quantity is not shown. If more than one part of each is used, the quantity is shown with the description. Quantities, when given, are only for the one illustration to which the list applies. They do not refer to the complete Landshaper.

When Purchasing or Ordering Parts.

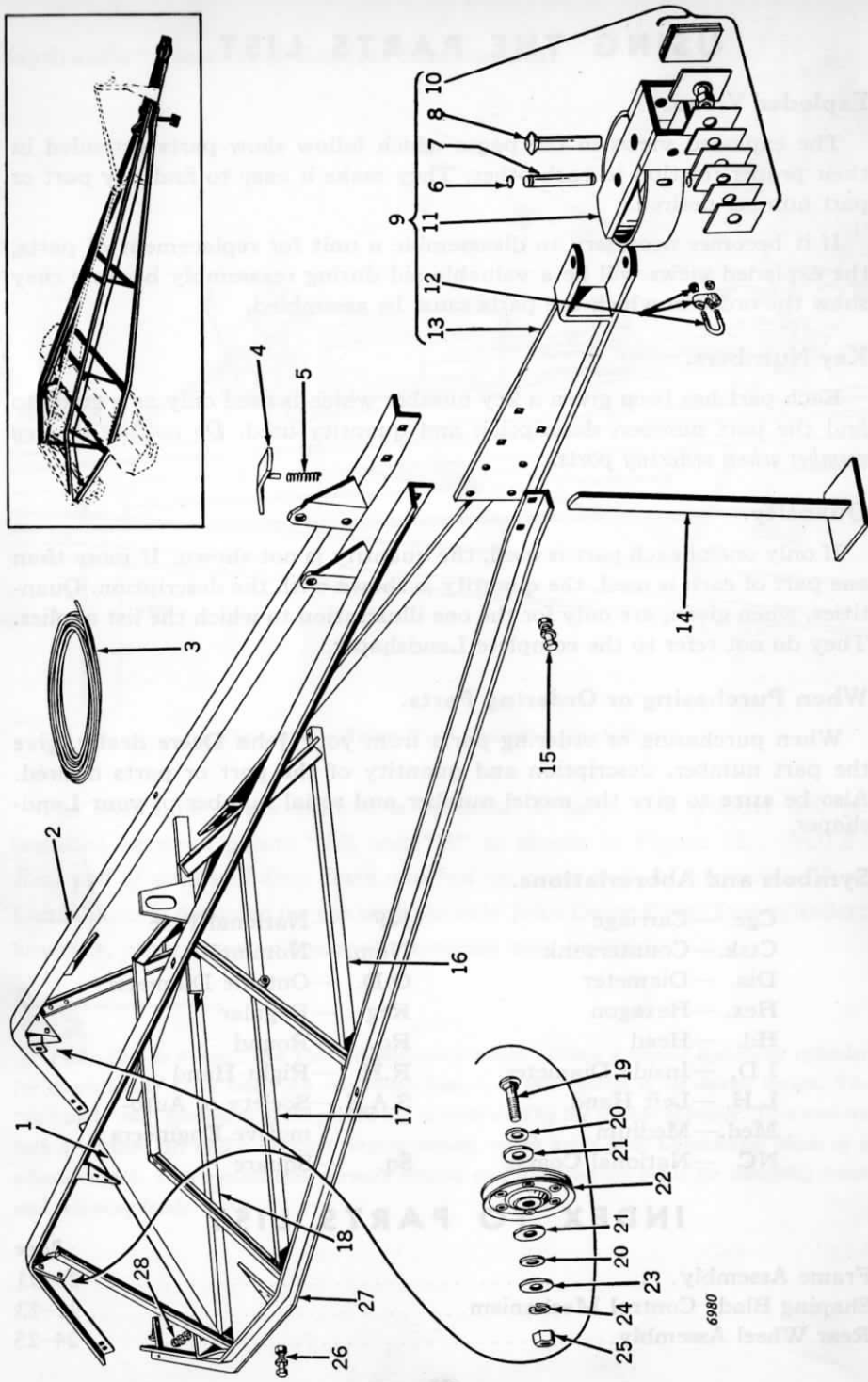
When purchasing or ordering parts from your John Deere dealer, give the part number, description and quantity of the part or parts desired. Also be **sure** to give the model number and serial number of your Landshaper.

Symbols and Abbreviations.

- | | |
|-----------------------|-------------------------|
| Cge. —Carriage | NF —National Fine |
| Ctsk.—Countersunk | Nom.—Nominal |
| Dia. —Diameter | O.D. —Outside Diameter |
| Hex. —Hexagon | Reg. —Regular |
| Hd. —Head | Rd. —Round |
| I.D. —Inside Diameter | R.H. —Right-Hand |
| L.H. —Left Hand | S.A.E.—Society of Auto- |
| Med.—Medium | motive Engineers |
| NC —National Coarse | Sq. —Square |

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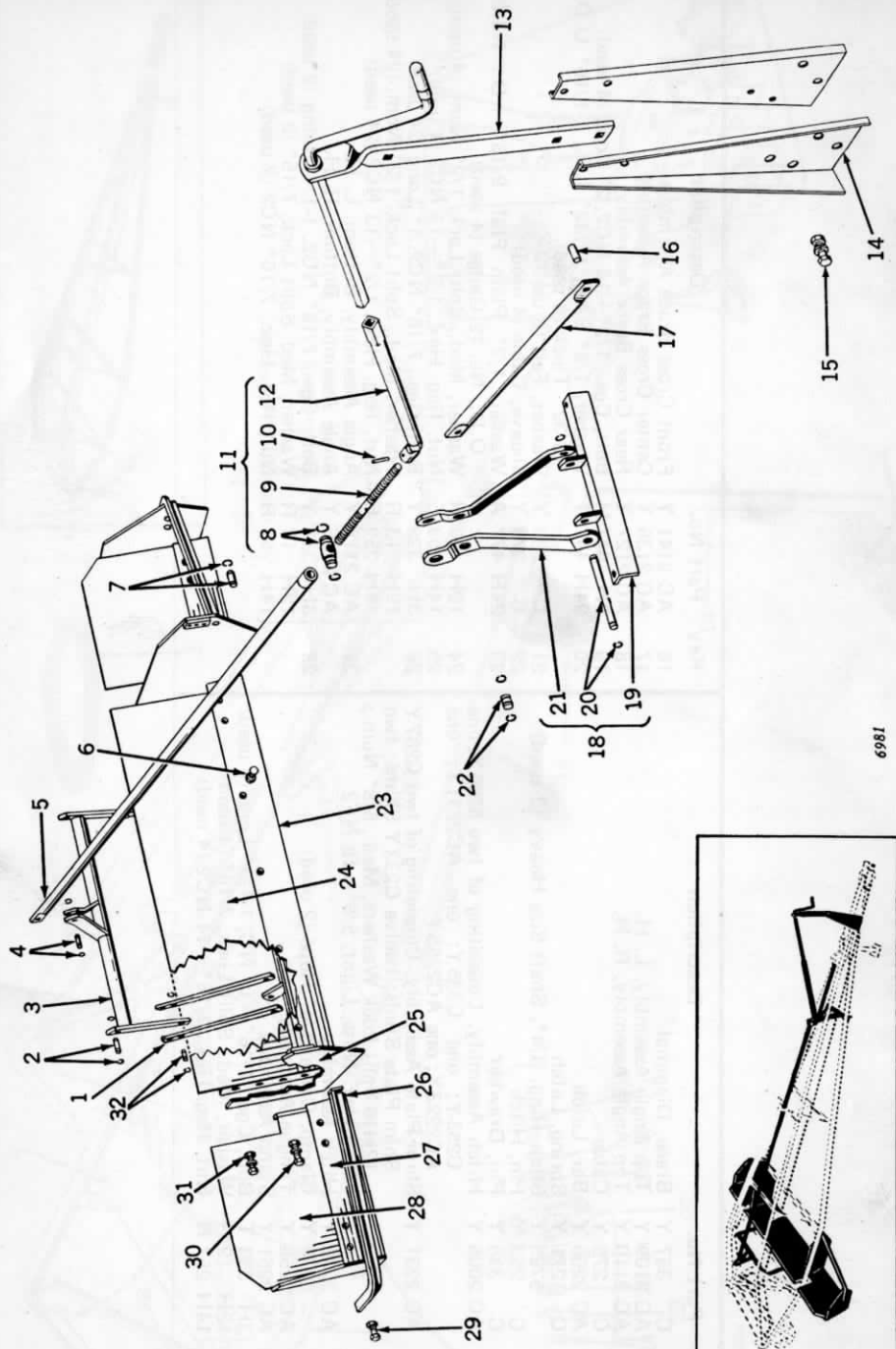
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Rear Wheel Assembly	24-25



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Key	Part No.	Description
1	C 337 Y	Brace, Diagonal
2	(AC 2109 Y Y Y)	Top Angle Assembly, L. H.
3	(AC 2110 Y Y Y)	Top Angle Assembly, R. H.
4	C 275 Y	Cable
5	AC 2265 Y	Bar, Latch
6	C 271 Y	Spring, Latch
7	5785 Y Y	Snap Ring, 3/4", Shaft Size Heavy (2 used)
8	C 253 Y	Pin, Hitch
9	C 335 Y	Pin, Drawbar
10	AC 2005 Y	Hitch Assembly, Consisting of two 5785 Y; one C253 Y; one C335 Y; one AC2231 Y; one AC2255 Y
11	AC 2231 Y	Shim Plate Assembly, Consisting of two C287 Y Shim Plate Studs; twelve C233 Y Shims; two 12H15 Split Lock Washers, Med., 5/8" Nom.; two Hex. Nuts, Light, 5/8"—18 NF2
12	AC 2223 Y	Hitch Assembly
13	AC 9075 Y	Clamp, Cable, 1/4" Rope (2 used)
14	AC 2255 Y	Tongue Assembly
15	AC 2261 Y	Stand Assembly
16	(3H 333 T	Bolt, Cge., 7/16"—14 NC, 1-1/2" Long (4 used)
17	12H 12 R	Washer, Med., Split Lock, 7/16" (4 used)
18	14H 257 R	Nut, Reg. Hex., 7/16"—14 NC2 (4 used)
19	AC 2141 Y	Front Cross Brace Assembly
20	AC 2135 Y	Center Cross Brace Assembly
21	AC 2127 Y	Rear Cross Brace Assembly
22	2H 647 H	Bolt, Cge., 1/2"—13 NC2, 2" Long (4 used)
23	24H 447 T	Washer, 1/2" SAE, 17/32" I.D., 1-1/16" O.D., 3/32" Thick (8 used)
24	C 289 Y	Washer, Felt (8 used)
25	C 273 Y	Sheave, Cable (4 used)
26	24H 477 A	Washer, 1/2" Plain Flat, 9/16" I.D., 1-3/8" O.D., No. 12 Gauge (4 used)
27	12H 13 R	Washer, Med., Split Lock, 1/2" Nom. (4 used)
28	14H 259 E	Nut, Reg. Hex., 1/2"—13 NC2 (4 used)
	12H 13 R	Bolt, Cge., 7/16" NC2, 1" Long (24 used)
	14H 259 E	Washer, Med., Split Lock, 1/2" Nom. (24 used)
	(AC 2115 Y	Nut, Reg. Hex., 1/2"—13 NC2 (24 used)
	AC 2116 Y	Angle Assembly, Bottom, R. H.
	(3H 331 Y	Angle Assembly, Bottom, L. H.
	12H 13 R	Bolt, Cge., 7/16" NC2, 1-1/4" Long (2 used)
	14H 257 R	Nut, Reg. Hex., 7/16" NC2 (2 used)

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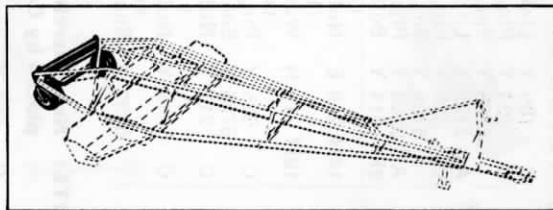
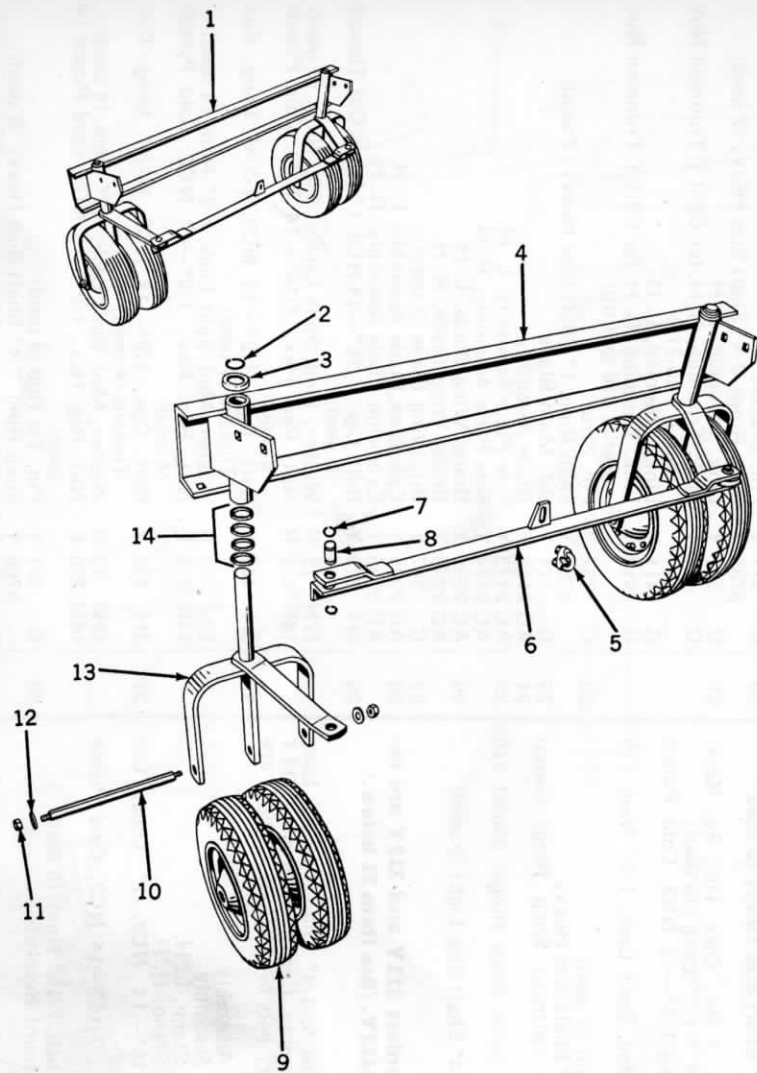


6981

Key	Part No.	Description	Key	Part No.	Description
1	C 189 Y	Link, Bucket Lift (4 used)	18	AC 2001 Y	Trunnion, Link Assembly, Consisting of one AC2313 Y; one C317 Y; two 5785 Y; one C311 Y and C312 Y or one 411 Y and one 412 Y
2	C 323 Y	Pin, Lift Shaft (2 used)	19	AC 2313 Y	Bracket Assembly
3	AC 2179 Y	Snap Ring, 3/4" Shaft Size Heavy (4 used)	20	C 317 Y	Pin, Bracket
4	C 325 Y	Lift, Shaft Assembly	21	C 311 Y	Snap Rings, 3/4" Shaft Size Heavy (2 used)
5	AC 2203 Y	Pin, Bucket Pivot	22	C 411 Y	Link, Trunnion, L. H.
6	AC 2203 Y	Snap Ring, 3/4" Shaft Size Heavy (6 used)	23	C 412 Y	Link, Trunnion, R. H. for C211 Y Trunnion Nut (Serial 1 to 315)
7	9H 614 Y	Pipe, Push Rod	24	C 327 Y	Link, Trunnion, L. H. for C212 Y Trunnion Nut (Serial 316 and up)
8	14H 259 E	Bolt, Flaw, No. 3 Rd., Ctsk. Hd., Sq. Neck, 1/2"-13 NC2, 1-1/2" Long (15 used)	25	C 327 Y	Pin, Strut
9	12H 13 R	Nut, Reg., Hex., 1/2"-13 NC2, Cold Punch (15 used)	26	C 5789 Y	Snap Ring, 1" Shaft Size Heavy (2 used)
10	12H 13 R	Washer, 1/2" Med. Split Lock, 1/2" Nom. (15 used)	27	C 171 Y	Bit, Main Blade
11	C 325 Y	Pin, Bucket Pivot	28	AC 2159 Y	Blade Assembly
12	C 325 Y	Snap Ring, 3/4" Shaft Size Heavy (2 used)	29	AC 2173 Y	Side Plate Assembly, L. H.
13	C 295 Y	Bracket, Crank Stand, L. H.	30	AC 2174 Y	Side Plate Assembly, R. H.
14	C 296 Y	Bracket, Crank Stand, R. H.	31	AC 2249 Y	Brace, Wing Blade, L. H.
15	3H 329 Y	Bolt, Cge., 7/16"-14 NC2, 1" Long, Cut Thread (5 used)	32	AC 2250 Y	Brace, Wing Blade, R. H.
16	14H 257 R	Nut, Reg. Hex., 7/16"-14 NC2, Cold Punch (5 used)		C 247 Y	Bit, Wing Blade (2 used)
17	12H 12 R	Washer, Split Lock, 7/16" Nom. (5 used)		AC 2235 Y	Extension Blade Assembly, L. H.
	C 333 Y	Pin, Cylinder Mount Bracket		AC 2236 Y	Extension Blade Assembly, R. H.
	C 299 Y	Strut, Blade Lift		3H 329 Y	Bolt, Cge., 7/16"-14 NC2, 1" Long, Cut Thread (6 used)
				12H 12 R	Washer, Med. Split Lock, 7/16" Nom. (6 used)
				14H 257 R	Nut, Reg. Hex., 7/16"-14 NC2, Cold Punch (6 used)
				3H 441 Y	Bolt, Cge., 1/2"-13 NC2, 1-3/4" Long, Cut Threads (4 used)
				12H 13 R	Washer, Med. Split Lock, 1/2" Nom. (4 used)
				14H 259 E	Nut, Reg. Hex., 1/2"-13 NC2, Cold Punch (4 used)
				3H 435 Y	Bolt, Cge., 1/2"-13 NC2, 1-1/4" Long, Cut Threads (4 used)
				12H 13 R	Washer, Med. Split Lock, 1/2" Nom. (4 used)
				14H 259 E	Nut, Reg. Hex., 1/2"-13 NC2, Cold Punch (4 used)
				C 321 Y	Pin, Tie Rod (4 used)
				5785 Y	Snap Ring, 3/4" Shaft Size Heavy (8 used)

NOTE: Not interchangeable unless 311 Y and 312 Y are replaced by C411 Y and C412 Y. (See item 21 below.)

NOTE: Only one part used in this grouping unless otherwise indicated.



6979

Key	Part No.	Description
1	AC 2003 Y	Rear Wheel Assembly
2	5790 Y	Snap Ring, 1-1/8" Shaft Size Heavy (2 used)
3	C 105 Y	Cap, Dust, Spindle
4	AC 2125 Y	Rear Cross Assembly
5	9075 Y	Clamp, Cable, 1/4" Rope (Not with Assy. shown for Placement)
6	AC 2215 Y	Steering Tie Rod Assembly
7	5785 Y	Snap Ring, 3/4" Shaft Size Heavy (4 used)
8	C 321 Y	Pin, Tie Rod (2 used)
9	(AE 1191 Y	Pneumatic Wheel Assembly
	E 191 Y	Pneumatic Gage Wheel (2 per Wheel)
	19H 37 T	Cap Screw, Hex., 1/4" x 1-1/2" Long, NC2 (5 Per Wheel)
	14H 251 R	Nut, Hex., 1/4"—20 NC2, Reg. (5 per Wheel)
	12H 9 R	Washer, Med. Split Lock, 1/4" (5 per Wheel)
	JD 7126 H	Bearing, New Departure 88120A (2 per Wheel)
10	C 201 Y	Axle (2 used)
11	14H 259 E	Nut, Reg. Hex., 1/2"—13 NC2 (4 used)
12	24H 477 A	Washer, 1/2" Plain Flat, 9/16" I.D., 1-3/8" O.D. No. 12 Gage (4 used)
13	(AC 2191 Y	Spindle Assembly, L. H.
	(AC 2192 Y	Spindle Assembly, R. H.
14	24H 522 H	Washer, Plain Flat, 1-9/64" I.D., 1-5/8" O.D., No. 12 Gage (Approx. 8 used. Use sufficient washers to space spindles properly.)

NOTE: Only one part used in this grouping unless otherwise indicated.



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TRACTORS: Standard tread, general purpose, and orchard in sizes and types for every farm, crop, and purpose.

PLOWS: All sizes and types, moldboard and disk, including integral moldboard and disk types for John Deere general purpose tractors. Middlebreakers. Disk tillers in all sizes. Plow-sole fertilizer attachment for plows.

LISTERS: One-, two-, and three-row for cotton, corn, and other crops. Integral middlebreakers and bedders and bedder planters for John Deere general purpose tractors.

HARROWS: Single- and double-action disk types. Offset disk harrows for orchard, vineyard, and cover-crop work. Spike-tooth harrows, spring-tooth harrows, and spring-tooth weed destroyers. Stalk cutters.

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PLANTERS: One-, two-, and four-row for corn, cotton, peanuts, and other crops. Multi-row planters for beets, beans, and other narrow-row crops with or without fertilizer attachment. Planting and fertilizing attachments for cultivators.

POTATO MACHINERY: One- and two-row planters, with or without fertilizer attachment. Two-row tractor-drive diggers. One-row diggers—ground- and tractor-drive. Hoe and hilling attachment.

CULTIVATORS: One-, two-, four-, and six-row for flat-planted crops; one-, two-, and four-row for listed crops. Field and orchard cultivators with stiff or spring teeth. Alfalfa cultivators. Beet and bean cultivators. Rotary hoes. Rod weeders.

DUSTERS: For cotton, vegetables, orchards, and groves.

HAY MACHINERY: Enclosed-gear horse mowers, tractor-drawn mower, power-driven mowers. Side-delivery rakes, hay loaders, sweep rakes, sulky rakes. Power baler; automatic pick-up baler, hay choppers.

HARVESTING MACHINERY: Combines and threshers. Grain binders, corn binders, rice binders for horses or tractor. Wind-rows. Power-driven one- and two-row corn pickers. Ensilage harvesters; blowers. Beet lifters. Beet harvester. Beet loader. Bean harvesters. Peanut pullers. Cotton harvesters.

GRAIN ELEVATORS: Portable, for ear corn and small grains, portable type for small grains only. Trench silo elevator. Grain mover.

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MISCELLANEOUS: Deep tillage equipment, including panbreakers, subsoilers, and chisel cultivators. Land levelers. Tire pumps.

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