Ford TRACTOR

DANUSER

POST HOLE DIGGER

MODEL 22-11

Dearborn FARM EQUIPMENT

ASSEMBLY and OPERATING *Instructions*

DEARBORN MOTORS CORPORATION — DETROIT 3, MICHIGAN

PROTECT YOUR INVESTMENT

You purchased this implement for a reason—to get maximum benefit from it. To do this you must understand clearly how it works, what can be done with it and how to make it operate properly.

This manual gives you this information. Read it carefully and follow the instructions to get satisfactory results from your investment.

Keep this manual available for ready reference at all times.

DESCRIPTION

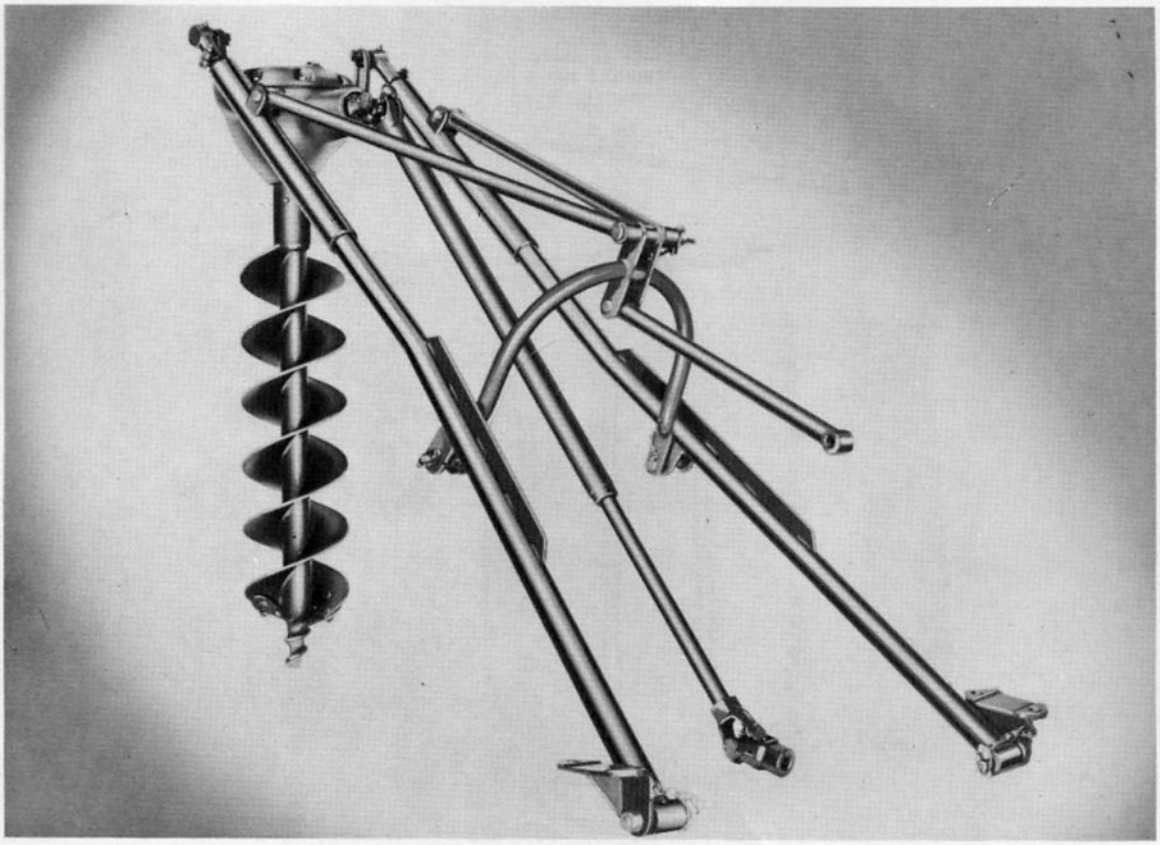


Figure 1

Danuser Post Hole Digger Model 22-11

The Danuser Post Hole Digger is built to the high quality standards required of all Dearborn Farm Equipment. Welded tubular and cast steel are used in its construction to assure long life and efficient operation.

The auger and drive mechanism is rigidly supported by a welded tubular frame. The arms of this frame are designed so that the arms which are attached to the digger gear housing assembly telescope into them. This design feature permits the digger to be moved freely up or down within the range of the Ford Tractor Hydraulic Control.

The auger drive shaft is also constructed so it telescopes. The forward end of this drive shaft attaches directly to the spline end of the Ford Tractor power take-off which also drives the hydraulic pump in the tractor. This permits the digger to be raised or lowered with the auger revolving, thereby enabling the operator to thoroughly clean out the post holes.

The auger drive mechanism in the gear housing assembly is made up of a precision machined bevel and pinion gear assembly mounted on roller bearings to give smooth and easy operation. The pinion and gear assembly along with the supporting bearings operate in a bath of heavy gear lubricant. This unit is packed with lubricant at the factory.

The external moving parts of the digger and the universal joints in the digger drive shaft are equipped with pressure gun grease fittings to permit easy and thorough lubrication.

Seven different augers are manufactured for use with the digger. They are sold separately in the following sizes: 4″, 6″, 9″, 10″, 12″, 14″, and 18″.

DESCRIPTION

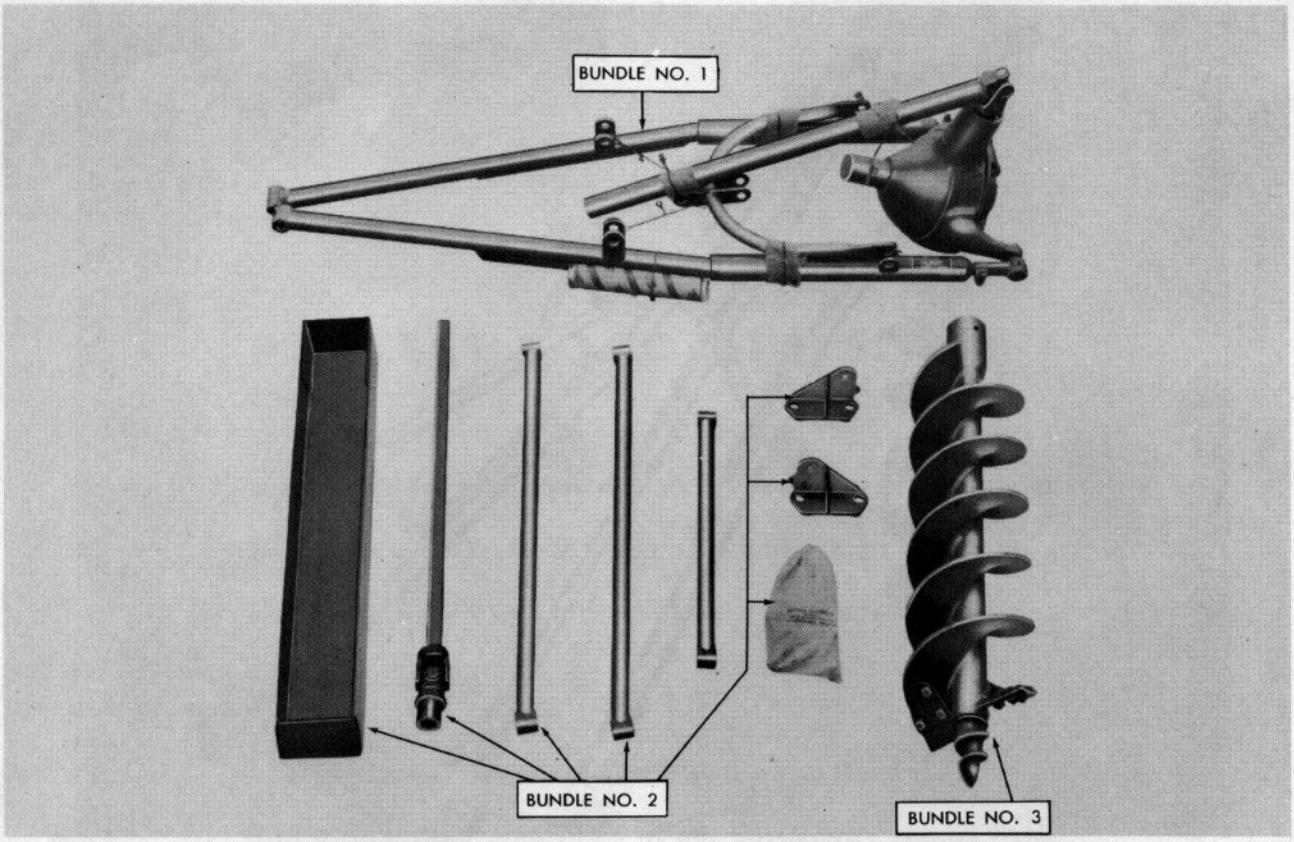


Figure 2

Implement Bundled for Shipment

All augers have double flights with the exception of the 18 inch auger which has triple flights. The replaceable auger tips are made of heat treated steel. The high carbon steel cutting edges with which all augers are equipped, are replaceable. Serrated cutting edges are available for all except the 4″ and 6″ augers.

The auger is attached to the drive spindle by means of a shear bolt. This shear bolt is a safety feature which protects the digger and the tractor from damage should the auger strike rocks, large roots or other obstructions.

The digger is ideal for drilling fence post holes, and is well suited for use in construction work to dig holes for pilings, and in nursery work for setting out seedlings.

Under normal conditions the operator can bore 500 to 600 holes in an average working day.

NOTE: *The assembly of the Danuser Post Hole Digger is the responsibility of the Ford Tractor and Dearborn Farm Equipment dealer. The implement should be delivered completely assembled. The following instructions are provided in case of need.*

BUNDLE INFORMATION

The Danuser Post Hole Digger, complete with auger, is shipped in three bundles.

Bundle No. 1. Auger lift and drive assembly.

Bundle No. 2. Carton contains the power take-off shaft and universal assembly, two stabilizer brackets, two rear digger links, one front digger link and a bag of small parts.

Bundle No. 3. Auger assembly.

ASSEMBLY

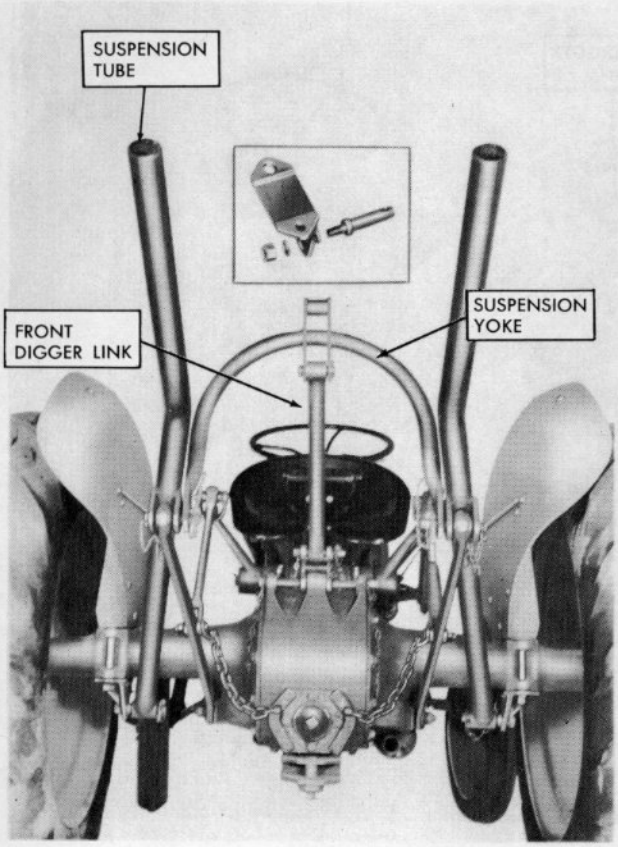


Figure 3

Lift Assembly

ASSEMBLY PROCEDURE

NOTE: *The Danuser Post Hole Digger when correctly assembled is completely attached to the tractor.*

1. Remove the wires from all bundles and open the carton and bag of small parts.
2. Attach the link pins found in the bag of small parts to the stabilizer brackets. Be sure to insert the link pins from the inside of the bracket. See insert, Figure 3.
3. Attach the stabilizer brackets to the rear axle housing with the fender bolts. The bracket flange faces inward with the wide portion of the flange forward, as shown in Figure 3. Use the nuts and lock washers from the fender bolts to secure the brackets.
4. Attach the suspension tubes to the stabilizer brackets. Be sure the reinforcement ribs are upward and the bend in each arm is inward as shown in Figure 3. Secure with the linch pins provided.
5. Attach the suspension yoke and the suspension tubes to the tractor lower links as shown in Figure 3.
6. Attach the front digger link to the tractor control spring yoke and the digger suspension yoke. See Figure 3.
7. Lay the auger assembly drive unit on the ground behind the tractor.
8. Coat the engaging ends of the suspension tubes with grease to facilitate attachment. Back the tractor up to the auger unit and put the ends of the suspension tubes in the open ends of the telescopic arms on the auger drive unit. See Figure 4.
9. Back up the tractor slowly until the suspension tubes are fully engaging with the lift arms.
10. Raise the unit with the Ford Tractor Hydraulic Touch Control to a position where the telescopic lift tubes are approximately level. Shut off the tractor.
11. Attach the front ends of the right and left rear digger links to the upper end of the yoke hinge and the rear ends to the brackets on the telescopic tubes as shown in Figure 4.
12. Start the tractor and raise the digger to transport position. Shut off the tractor.
13. Fit the auger on the drive spindle and secure with the shear bolt. See fig. 4.
14. Coat the male drive shaft with grease and insert it in the female drive tube as shown.
15. Remove the tractor power take-off cap and attach the universal joint to the power take-off shaft. Secure with the bolt and nut provided. The Post Hole Digger is now completely assembled and attached to the tractor as shown in Figure 4.

CAUTION: Remember that when the tractor power take-off lever is in the "engaged" position and the tractor is running, the auger will

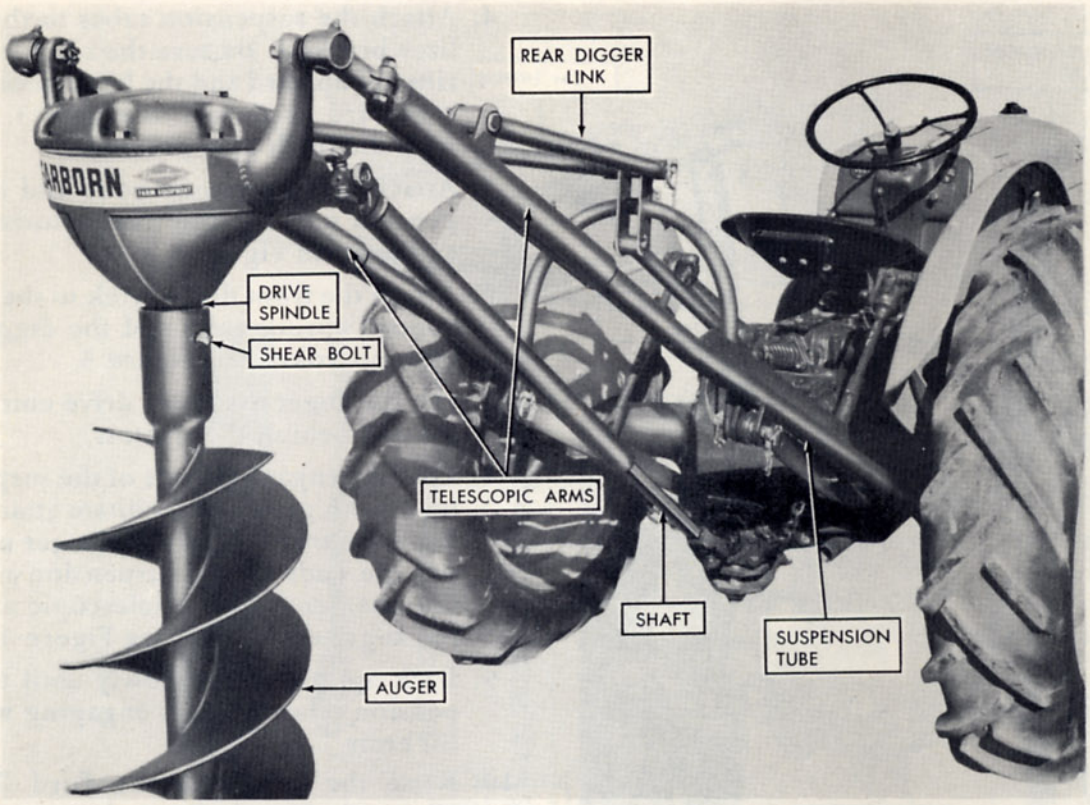


Figure 4

Power Take-Off and Rear Links Attached

turn. Therefore, be sure the digger is free and clear and check the position of the tractor power take-off lever, *before* starting the tractor.

16. Lubricate all grease fittings. These fittings are on the auger lift and drive assembly. They should be lubricated every fifteen hours of operation thereafter.

DETACHING

1. Raise the digger to transport position and shut off the tractor engine.
2. Remove the digger drive shaft from the tractor power take-off and pull the shaft free from the digger. Replace the attaching bolt in the spline end of the universal joint. Replace the tractor power take-off cap.
3. Lower the auger with the Ford Tractor Hydraulic Touch Control Lever until the point rests firmly on the ground or floor.
4. Back the tractor up slowly and at the same time lower the auger with the Ford Tractor Hydraulic Touch Control Lever until the auger unit rests on the ground or floor.
5. Push the Ford Tractor Hydraulic Touch Control Lever to its lowest position and shut off the tractor engine.
6. Disconnect the forward end of the right and left rear digger links from the yoke.
7. Pull the suspension tubes out of the telescopic arms on the auger unit by rolling or driving the tractor forward.
8. Disconnect the front digger link from the tractor control spring yoke.
9. Disconnect the yoke and the right and the left lower tractor links from the suspension tubes.
10. Disconnect the suspension tubes from the stabilizer brackets.

OPERATION

Figure 5

Post Hole Digger in Operation

11. Remove the stabilizer brackets from the tractor rear axle housing, and replace the nuts and washers on the fender bolts. (Brackets may be left on the tractor if desired.)

OPERATION

The Danuser Post Hole Digger is easily operated from the seat of the tractor by means of the Ford Tractor Hydraulic Control.

The following information on operating the digger is provided to aid the operator in getting maximum performance from this equipment. Read this material carefully.

DRILLING HOLES

To drill a hole, drive the tractor into position so that the auger point is directly over the center of the hole location. With the engine running at about half throttle, lower the digger slowly by pushing downward on the Ford Tractor Hydraulic Touch Control lever until the auger point and cutting edges engage the ground. This will assure accurate hole location. Then, increase the engine R.P.M. and continue to lower the auger into the ground.

In order to drill a clean hole, drill in a foot or so and then raise the auger until it is almost out of the hole, then drill deeper and raise the auger again. Repeat this process until the desired hole depth is reached.

To obtain uniform hole depth, drill the first hole to the desired depth and then set the stop on the Touch Control Quadrant so the touch control lever will be moved downward the same distance in drilling each successive hole.

OPERATION

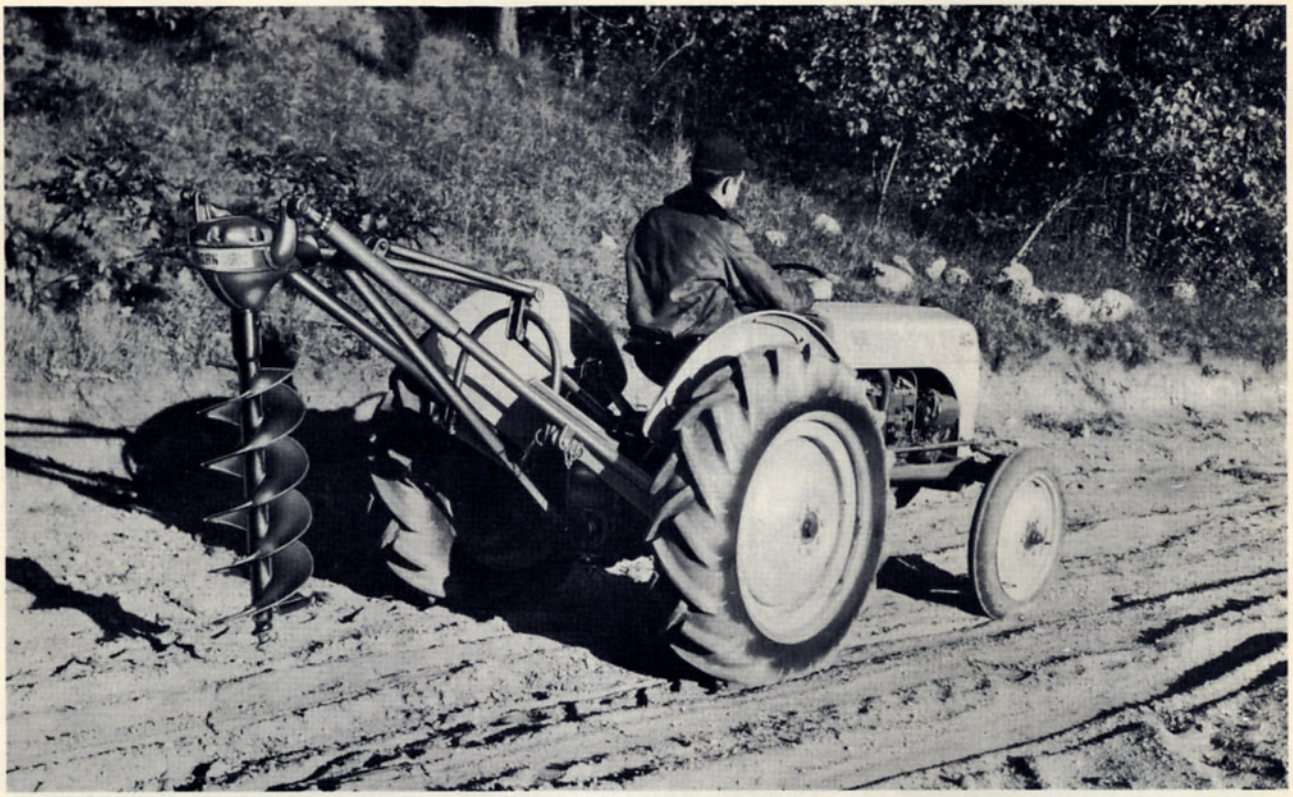


Figure 6

Implement in Transport Position

Engine R.P.M. for most efficient digging will be determined by the condition and type of soil and the experience of the operator.

The Danuser Post Hole Digger operates equally well on either hillside or level land. The auger unit is suspended so that it is free to swing toward or away from the tractor. This suspension along with the adjustment provided by the tractor lower link leveling crank enables the operator to drill vertical holes regardless of tractor tilt.

CUTTING EDGES

All augers with the exception of the 4″ and 6″ are equipped with removable cutting edges. These edges should be kept reasonably sharp. This should be done by grinding only the beveled surface. Serrated cutting edges are optional on the 9″, 10″, 12″, 14″ and 18″ augers.

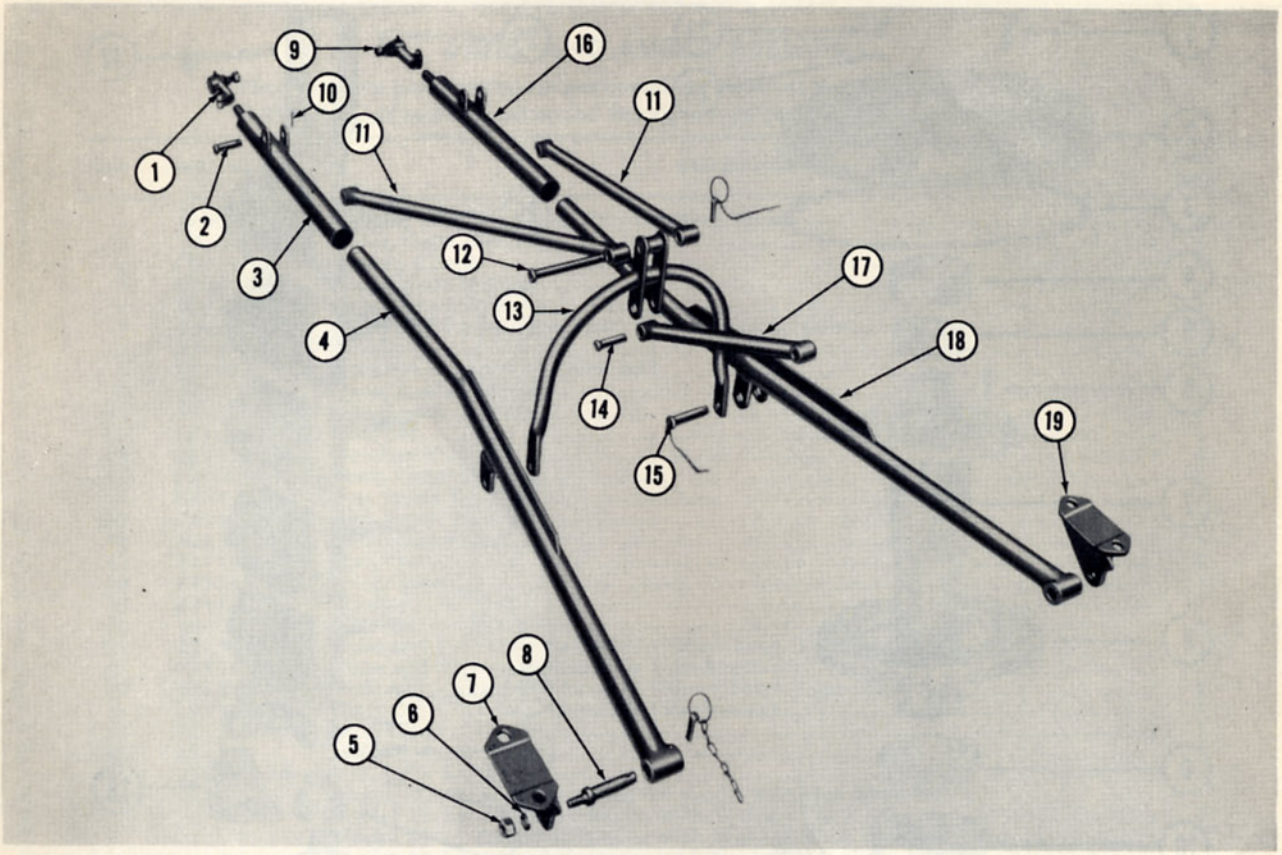
TRANSPORT

When transporting the digger to and from work areas raise it as high as possible with the Ford Tractor Hydraulic Touch Control. The maximum clearance, with the auger hanging in transport position, is eight inches.

LUBRICATION

The lubricant used in the gear box should be a good grade of heavy gear lubricant. Check the lubricant level occasionally and keep the gear box two thirds full.

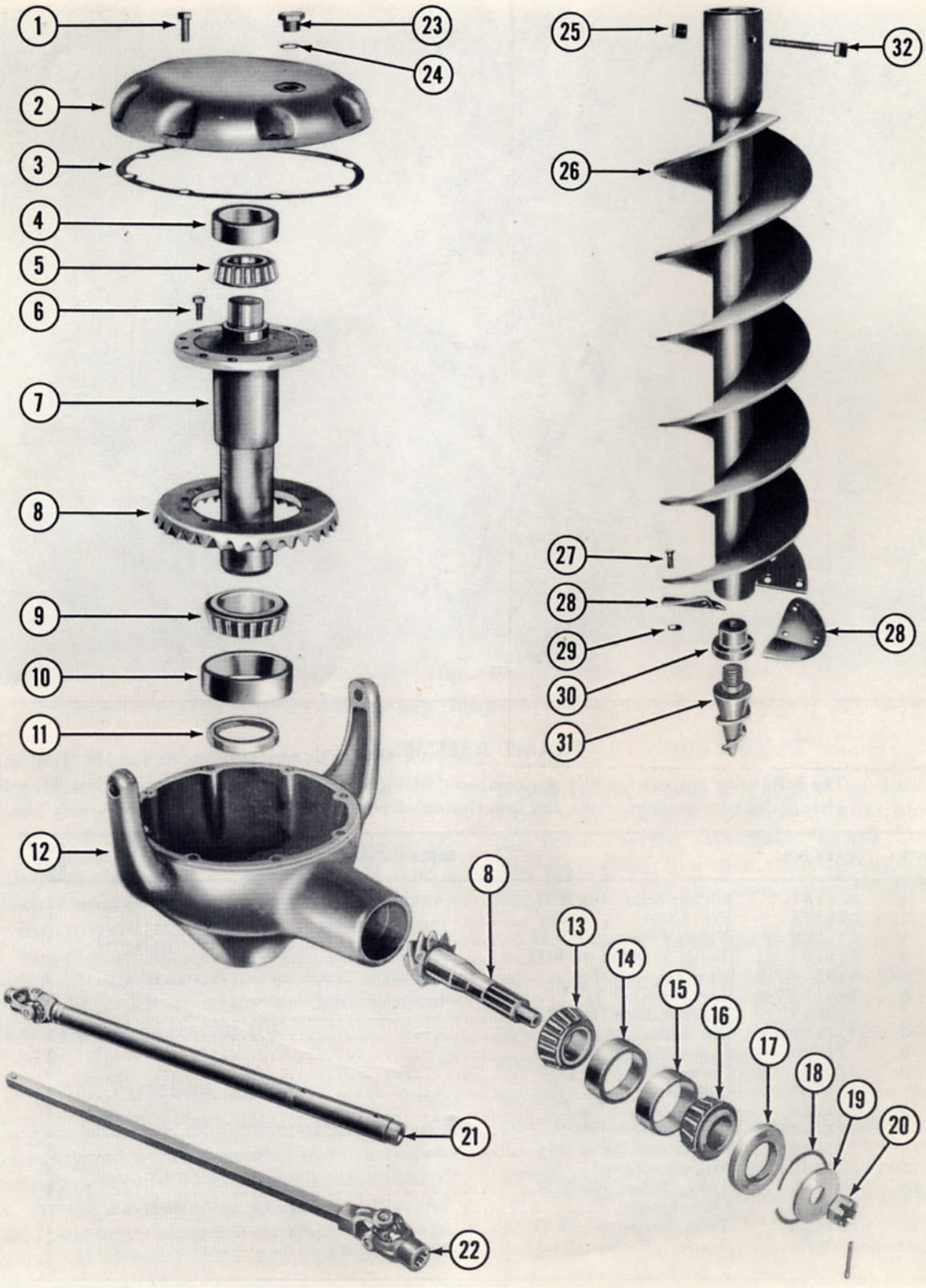
Grease fittings are provided to lubricate the remaining moving parts of the digger. These fittings are located as follows: two on the universal joints, two on the telescopic tubes, two on the socket assemblies. These fittings should be lubricated by a pressure gun before the digger is first used and every fifteen hours of operation thereafter.



FRAME ASSEMBLY

The following parts list, while not complete, identifies the more important parts, giving, the part number, name and description of part and the quantity required.

KEY	PART NO.	DESCRIPTION	NO. REQ.
1	221181	Socket Assembly R.H.	1
2	221224	Pin, Clevis, $\frac{3}{4}$" x $2\frac{1}{2}$"	3
3	221188	Tube, Telescopic R.H.	1
4	221193	Tube, Suspension R.H.	1
5	33850-S7-8	Nut, $\frac{5}{8}$"—18 Hex	2
6	34811-S7-8	Lock Washer $\frac{5}{8}$"	2
7	230043	Bracket, Stabilizer R.H.	1
8	221218	Pin, Link	2
9	221180	Socket Assembly L. H.	1
10	72055-S7-8	Cotter Pin $\frac{3}{16}$" x $1\frac{1}{4}$"	3
11	221267	Link, Rear	2
12	221225	Pin, Hinge $\frac{3}{4}$" x $5\frac{7}{8}$"	1
13	221202	Yoke, Suspension	1
14	221224	Pin, Clevis, $\frac{3}{4}$" x $2\frac{1}{2}$"	3
15	221208	Pin, Attaching	2
16	221187	Tube, Telescopic L.H.	1
17	221220	Link, Front	1
18	221198	Tube, Suspension L.H.	1
19	230061	Bracket, Stabilizer L.H.	1



DRIVE AND AUGER ASSEMBLY

The following parts list, while not complete, identifies the more important parts, giving, the part number, name and description of part and the quantity required.

KEY	PART NO.	DESCRIPTION	NO. REQ.
1	300067	Bolt, 7/16"—20 x 1" Hex Hd—Housing Cover	8
2	221322	Cover, Gear Housing	1
3	221326	Gasket, Cover	1
4	684222	Cup, Upper Bearing	1
5	684221	Cone Upper Bearing	1
6	300317	Bolt 3/8—24 x 7/8" Hex. Drld. Hd. Gear to Spindle	12
7	221320	Spindle	1
8	221321	Gear and Pinion (Matched Set)	1
9	BB4221-B	Cone, Lower Bearing	1
10	BB4222	Cup, Lower Bearing	1
11	221168	Seal, Oil	1
12	221325	Housing Gear	1
13	8M4630	Cone, Inner Bearing	1
14	8A4628	Cup, Inner Bearing	1
15	221138	Cup, Outer Bearing	1
16	221142	Cone, Outer Bearing	1
17	221144	Seal, Oil	1
18	221145	Ring, Snap	1
19	221146	Washer, 1 1/2" Flat	1
20	34001-S7-8	Nut, 3/4—16 Hex. Slotted	1
21	221353	Tube and Universal Assembly (Blood Bros. Type IFR)	1
—	221304	Tube and Universal Assembly (Mechanics)	1
22	221355	Shaft and Universal Assembly (Blood Bros. Type IFR)	1
—	221303	Shaft and Universal Assembly (Mechanics)	1
23	221323	Plug Cover	1
24	221324	Gasket, Cover Plug	1
25	33801-S7-8	Nut, 7/16"—14 Sq.	1
26		Auger Assembly (order from the model numbers listed below)	
		Model 22-14 Auger Assembly, with Welded Plain Edge	4"
		Model 22-15 Auger Assembly, with Welded Plain Edge	6"
		Model 22-16 Auger Assembly, with Replaceable Plain Edge	9"
		Model 22-17 Auger Assembly, with Replaceable Serrated Edge	9"
		Model 22-18 Auger Assembly, with Replaceable Plain Edge	10"
		Model 22-19 Auger Assembly, with Replaceable Serrated Edge	10"
		Model 22-20 Auger Assembly, with Replaceable Plain Edge	12"
		Model 22-21 Auger Assembly, with Replaceable Serrated Edge	12"
		Model 22-22 Auger Assembly, with Replaceable Plain Edge	14"
		Model 22-23 Auger Assembly, with Replaceable Serrated Edge	14"
		Model 22-24 Auger Assembly, with Replaceable Plain Edge	18"
		Model 22-25 Auger Assembly, with Replaceable Serrated Edge	18"
27	23410-S7-8	Bolt, 3/8—16 x 1 Carr. (For 9" to 14" Auger)	6
—	23410-S7-8	Bolt, 3/8"—16 x 1 Carr. (For 18" Auger)	15
28	221271	Edge, Plain Cutting—For 4" Auger	2
	221281	Edge, Plain Cutting—For 6" Auger	2
	221237	Edge, Plain Cutting—For 9" Auger	2
	221238	Edge, Serrated Cutting—For 9" Auger	2
	221245	Edge, Plain Cutting—For 10" Auger	2
	221246	Edge, Serrated Cutting—For 10" Auger	2
	221255	Edge, Plain Cutting—For 12" Auger	2
	221256	Edge, Serrated Cutting—For 12" Auger	2
	221292	Edge, Plain Cutting—For 14" Auger	2
	221293	Edge, Serrated Cutting—For 14" Auger	2
	221265	Edge, Plain Cutting—For 18" Auger	3
	221266	Edge, Serrated Cutting—For 18" Auger	3
29	34097-S7-8	Nut, 3/8"—16 Sq. (For 9" to 14" Auger)	6
—	34097-S7-8	Nut, 3/8"—16 Sq. (For 18" Auger)	15
30	221440	Adapter, Auger Tip—For 4" Auger	1
—	221442	Adapter, Auger Tip—For 6" Auger and up	1
31	221441*	Tip, Auger, Screw-in Type—For 4" Auger	1
—	221443	Tip, Auger, Screw-in Type—For 6" Auger and up	1
32	23115-S7-8	Bolt, 7/16"—14 x 4" Sq. Hd. (Auger to Spindle)	1

*NOTE: The old style Auger Tip is secured by the process of welding. Therefore, when it is necessary to replace one of these older Auger Tips, use the corresponding Auger Tip Adapter.

SEE YOUR LOCAL FORD TRACTOR DEALER

Here are some of the implements in the Dearborn Farm Equipment Line:

MOLDBOARD PLOWS	SPRING SHANK CULTIVATORS	COMBINES
DISC PLOWS	RIGID SHANK CULTIVATORS	MOWERS
TWO-WAY PLOWS	FIELD CULTIVATORS	SWEEP RAKES
MIDDLEBUSTERS	FOUR ROW WEEDERS	SCOOPS
SINGLE DISC HARROWS	ROTARY HOES	BLADES
TANDEM DISC HARROWS	LISTER PLANTERS	SCRAPERS
SPRING TOOTH HARROWS	BUSTER PLANTERS	WAGONS
SOIL PULVERIZERS	CORN PICKERS	POST HOLE DIGGERS
SUBSOILERS	CORN SNAPPERS	DISC RIDGERS
LISTED CROP CULTIVATORS	MANURE & MATERIAL LOADERS	SNOW PLOWS

Your dealer will be glad to come to your farm and, without obligation, demonstrate any equipment that interests you. Other equipment is constantly being developed and added to the Dearborn line.

Ask for a Demonstration

DEARBORN MOTORS CORPORATION

EQUIPMENT WARRANTY

DEARBORN MOTORS CORPORATION warrants all parts (other than pneumatic tires, inner tubes and batteries) of equipment bearing the trade-mark "Dearborn" to the original purchaser thereof at retail, for a period of six (6) months from the date of delivery thereof to the original purchaser at retail, to be free from defects in workmanship and material under normal use and service. The obligation of Dearborn Motors Corporation under this warranty shall be limited to shipment, without charge to the original purchaser at retail, of the part or parts of such Dearborn Equipment intended to replace the part or parts acknowledged by Dearborn Motors Corporation to be defective in workmanship or material. This warranty is in lieu of all other warranties, expressed or implied, and of all obligations or liabilities on the part of Dearborn Motors Corporation, and it neither assumes nor authorizes any person to assume for it, any other obligation or liability in connection with workmanship or material of equipment bearing the trade-mark "Dearborn" or any part thereof. This warranty shall not apply to any Dearborn Equipment, or any part thereof, which has been damaged in any accident, or by fire, flood, or Act of God, or abused or misused, or which has been altered elsewhere than at the place of manufacture, or in which the original purchaser thereof at retail, has used or allowed to be used, parts not made or supplied by Dearborn Motors Corporation. Dearborn Motors Corporation reserves the right at any time to make changes in the design, materials and/or specifications of equipment bearing the trade-mark "Dearborn" and/or accessories, therefor, without thereby becoming liable to make similar changes in equipment bearing the trade-mark "Dearborn" and/or accessories therefor, previously manufactured.

DEARBORN MOTORS CORPORATION
DETROIT 3, MICHIGAN

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