

# OWNER'S MANUAL

- ASSEMBLY
- OPERATION
- MAINTENANCE
- PARTS LIST

Model No's.

**199-956A**

**19956-9**

**199-981A**

**19981-9**

*(SAME Tiller except for Drive Shaft system.)*

*(990)*

*(995)*

## Important:

**Read Safety Instructions Carefully**

## 40" TILLER ATTACHMENT

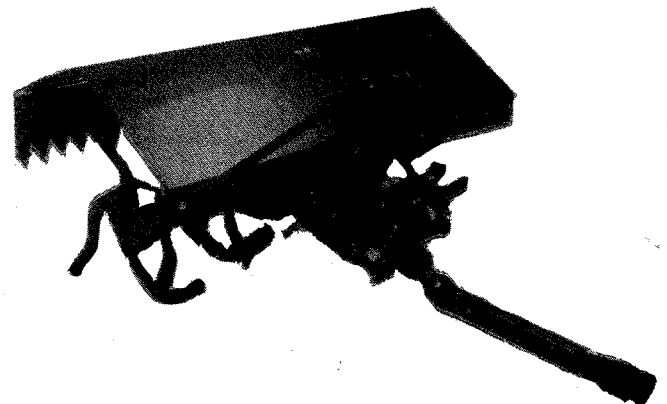
**Note below does not apply for Hydrostatic Tractors.**



**THE FOLLOWING IS REQUIRED TO ASSEMBLE TILLER TO TRACTOR:**

- 1.) Three point hitch kit 199-951A
- 2.) Front P.T.O. Kit 199-952A
- 3.) Linkage Kit 199-953A

**IF 42" OR 50" DECK ASSEMBLY IS INCLUDED WITH TRACTOR, LINKAGE KIT 199-953A WILL NOT BE REQUIRED.**



## LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges under this warranty must be paid by the purchaser unless return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

Your new tiller attachment comes unassembled from the factory. You will need two adjustable wrenches and one hammer to complete the assembly of your tiller.

### LIST OF CONTENTS IN HARDWARE PACK.

(See figure 1)

- A (4) Hex Screws 5/8-11 x 1-1/2" long
- B (6) Lockwashers for 5/8" screw
- C (4) Hex Screws 1/2-13 x 1-1/4" long
- D (4) Lockwashers for 1/2" screw
- E (4) Spring pins 3/8" Dia. x 2" long
- F (3) Hair pin cotters for 5/8" Dia.
- G (2) Link Clevis Pins
- H (2) Hex Lock Nuts 5/8-18 Thread
- I (1) Clevis Pin 5/8" Dia. x 2" long
- J (4) Hex Screws 5/16-24 x 3/4" long
- K (4) Lockwashers for 5/16" screw
- L (4) Hex Nuts 5/16-24 Thread
- M (2) Hair Pin Cotters for 3/8" Dia.
- N (2) Clevis Pins 3/8" Dia. x 1-1/4" long
- O (1) Spring Pin 5/16" Dia. x 1-3/4" long
- P (1) Square Head Pipe Plug-Vented
- Q (10) Carriage Bolts 5/16-18 x 1" long
- R (10) Lockwashers for 5/16" Screw
- S (10) Hex Nuts 5/16-18 Thread

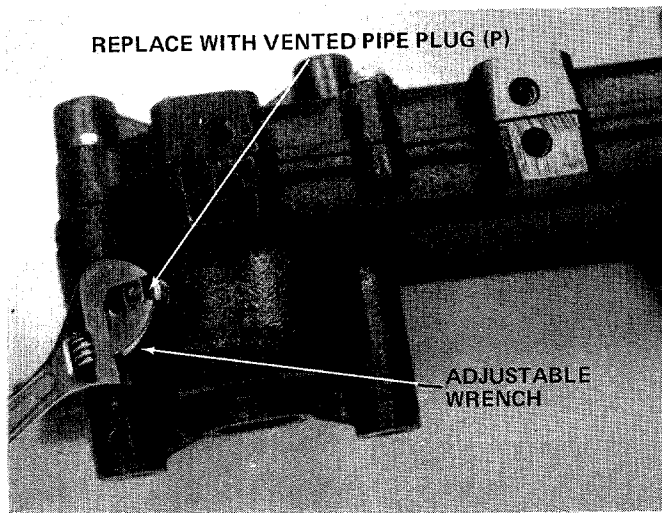


FIGURE 2

3. With an adjustable wrench remove the pipe plug and replace with vented pipe plug (P) provided in hardware parts pack. See figure 2.
4. Assemble the right and left hand tine assemblies to gear box, with four spring pins (E). A hammer is required. See note below before continuing.

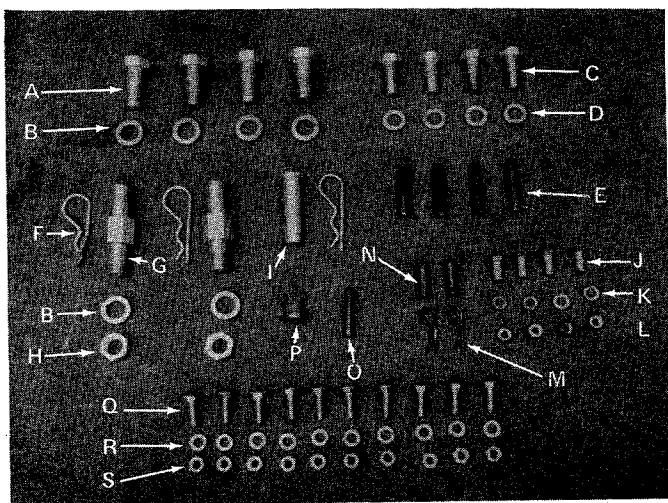


FIGURE 1



Right and left hand is determined from behind the gear box. The sharp edge of the tines must enter the soil first. See figures 3 and 4.

## ASSEMBLY INSTRUCTIONS

1. Remove the tiller, all loose parts and hardware parts pack from the carton before discarding the carton.
2. Place the gear box so that the pipe plug is up, as shown in figure 2.

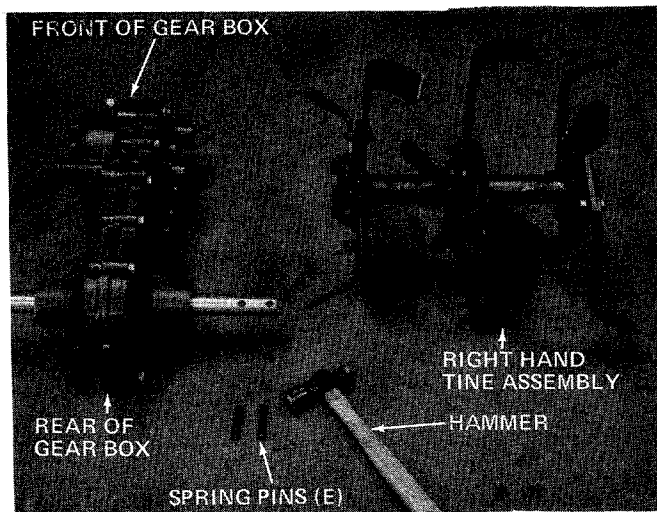


FIGURE 3

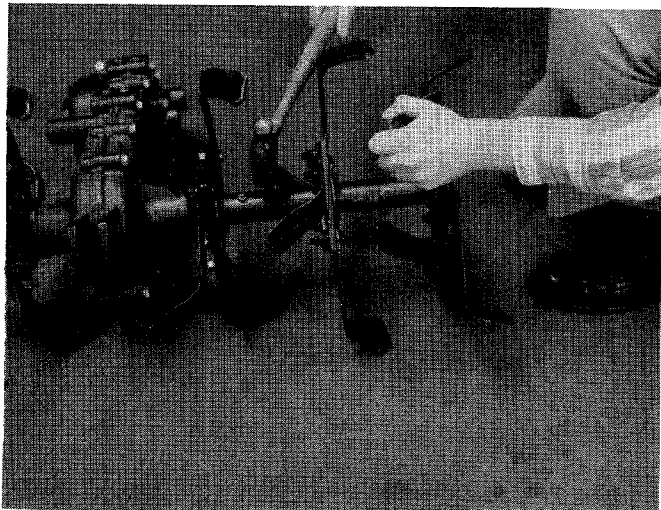


FIGURE 4

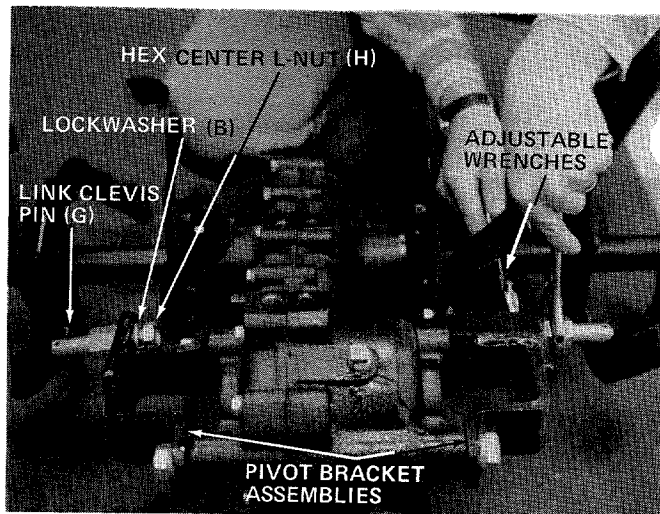


FIGURE 6

5. Install tiller pivot bracket assemblies. An adjustable wrench is required. Place pivot bracket in position on gear box as shown in figure 5. Secure with four hex screws (A) and lockwashers (B). See figure 5.

7. Install cover bracket assembly to gear box (as shown in figure 7) using four hex screws 1/2-13 x 1-1/4" (C) and 1/2" lockwashers (D). An adjustable wrench is required.

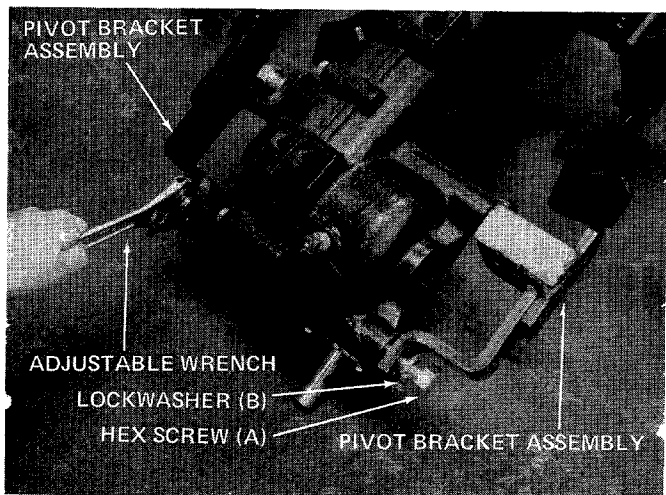


FIGURE 5

6. Insert link clevis pins (G) through outside holes of pivot bracket assemblies. Using two adjustable wrenches, tighten link clevis pins in place with lockwashers 5/8" (B) and hex center lock nuts 5/8-18 (H). See figure 6.



All hex screws should be hand tightened. When all screws are in place, then tighten with adjustable wrench.

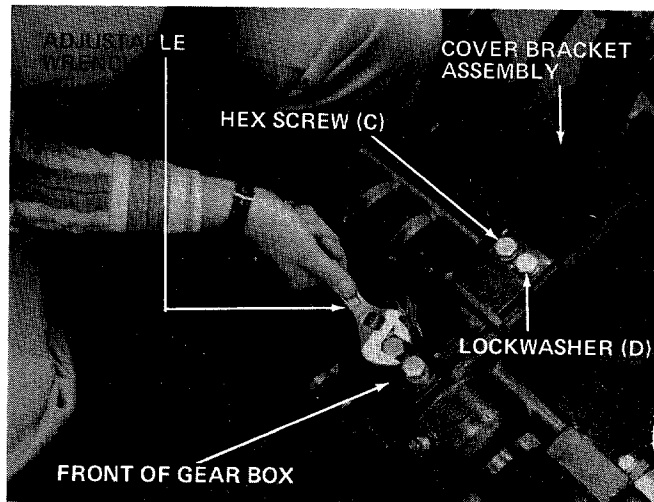


FIGURE 7

8. Place tiller cover assembly in position on the tiller cover bracket as shown in figure 8. Using six 1" carriage bolts (Q), six 5/16" lockwashers (R) and six 5/16-18 hex nuts (S) start by hand. **Do Not Tighten.**
  - a. Place two of the carriage bolts in the top center of the cover first. See figure 8.
  - b. Place the next two carriage bolts in the rear of the cover as shown in figure 8.
  - c. Place two more carriage bolts in the front of the cover as shown in figure 8.
  - d. Do not tighten any of the six bolts in step 8 until step 9 is completed.

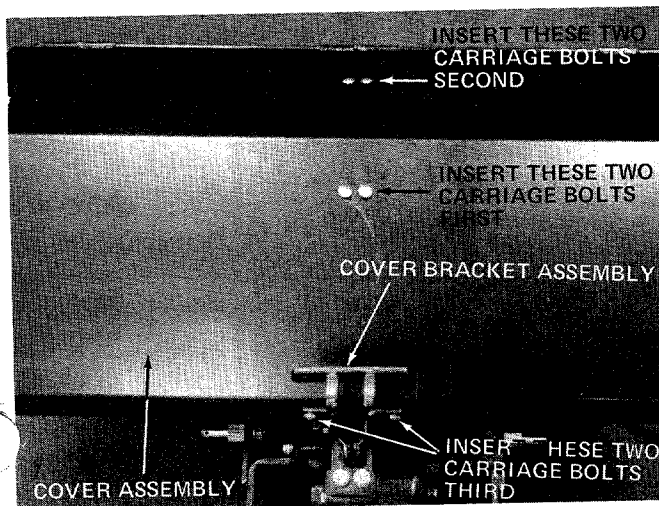


FIGURE 8

9. Using the four remaining carriage bolts (Q), lockwashers (R) and hex nuts (S), assemble tiller cover straps to cover bracket and cover. See figure 9.

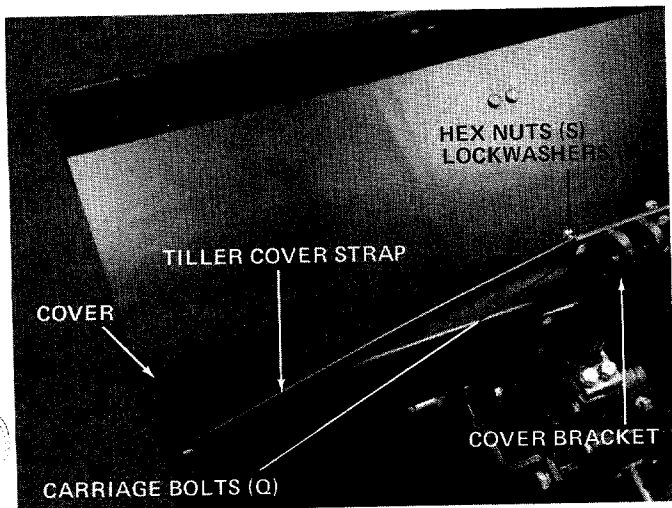


FIGURE 9

10. Using an adjustable wrench, tighten all ten carriage bolts used in steps 8 and 9.
11. Block up the front of the tiller so that the input shaft is clear of the ground. Place the universal drive shaft in position on input shaft of gear box and secure with spring pin (O). See figure 10. A hammer is required.

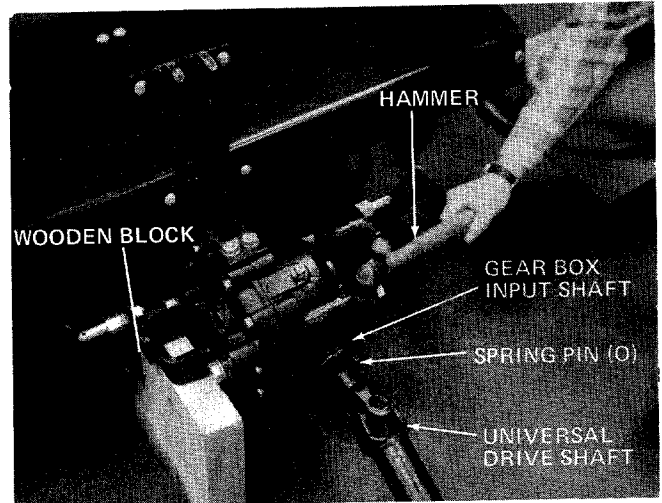


FIGURE 10

## ATTACHING TILLER TO TRACTOR

1. Determine which linkage kit you have on your tractor. See figures 11 and 12.

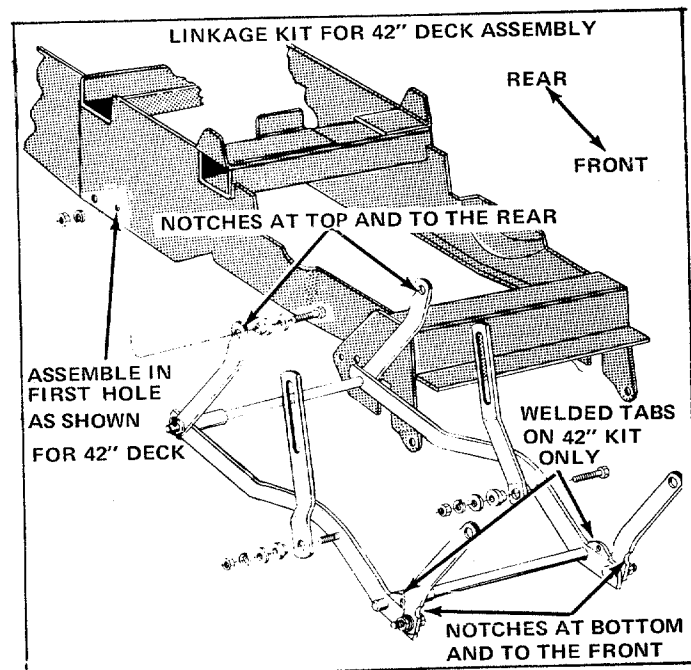


FIGURE 11

- The front cross shaft must be removed in install tiller. Store in a safe place. It will be required when reinstalling deck.



When removing tiller and reinstalling mower deck, be sure front cross shaft is reassembled as shown in figures 11 and 12.

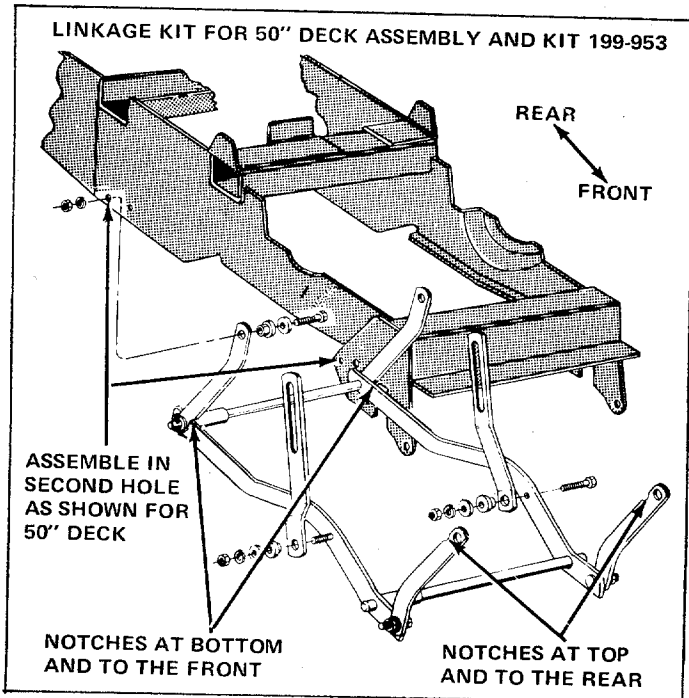


FIGURE 12.

- Raise the lift lever on tractor.
- Assemble the hanger brackets to drive shaft, using four hex screws (J), lockwashers (K) and hex nuts (L). See figures 13 and 14 to determine hole locations required. For 42" or 50" linkage kits. See figure 14A for hydrostatic tractors only.

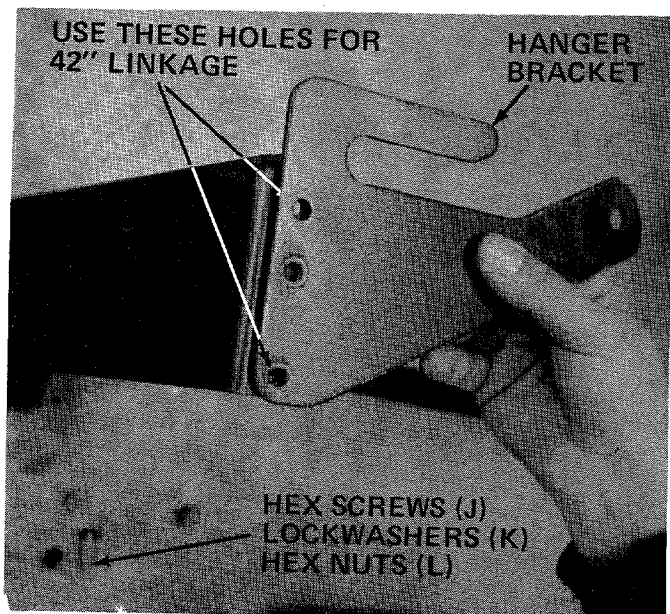


FIGURE 13

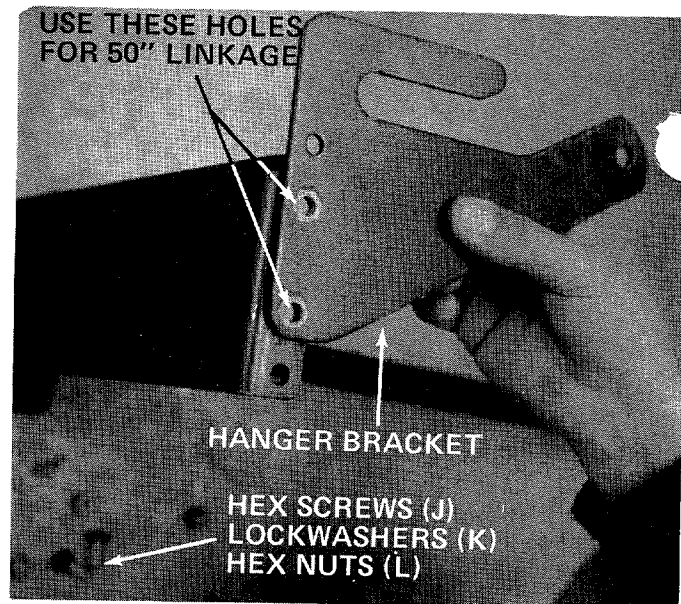


FIGURE 14

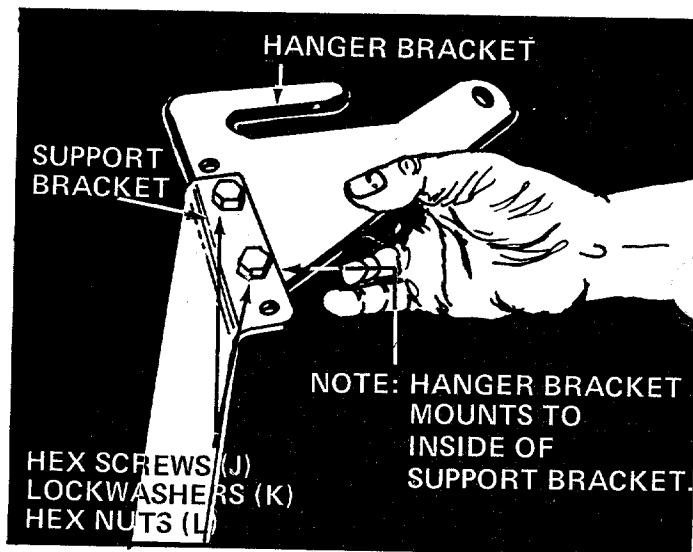


FIGURE 14A-Used on Hydrostatic Tractor Only.

- Place end of drive shaft over P.T.O. shaft on front of tractor. See figure 15.

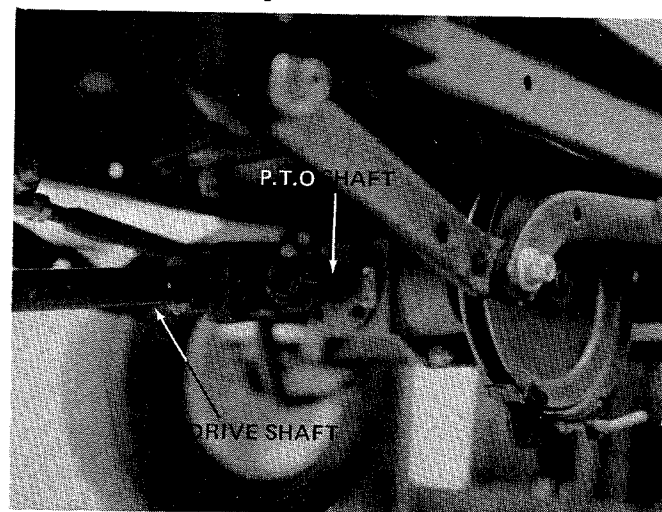


FIGURE 15

- Secure drive shaft and hanger brackets to linkage kit as shown in figure 16. Clevis pins (N) and hair pins (M) are assembled through the hanger brackets and both lift straps.

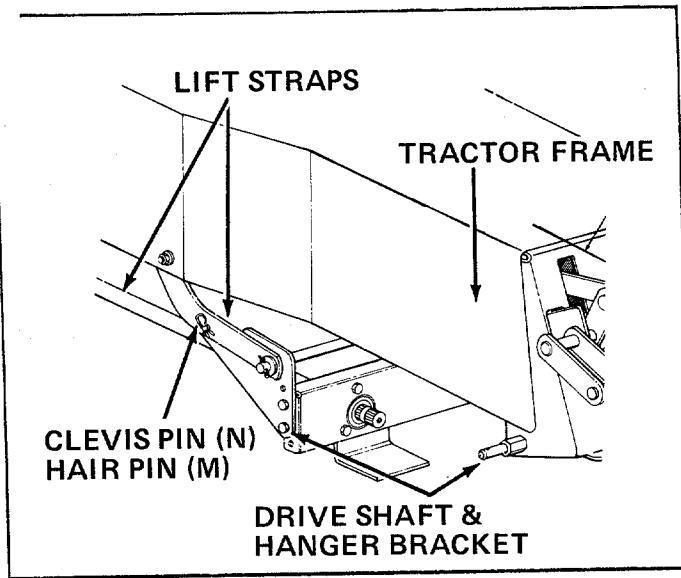


FIGURE 16

- Place the tiller behind the tractor. Lower the lift lever on the tractor.
- Remove the turn buckle from tractor. Remove the chains and hook bolts from three point hitch. See figure 17.

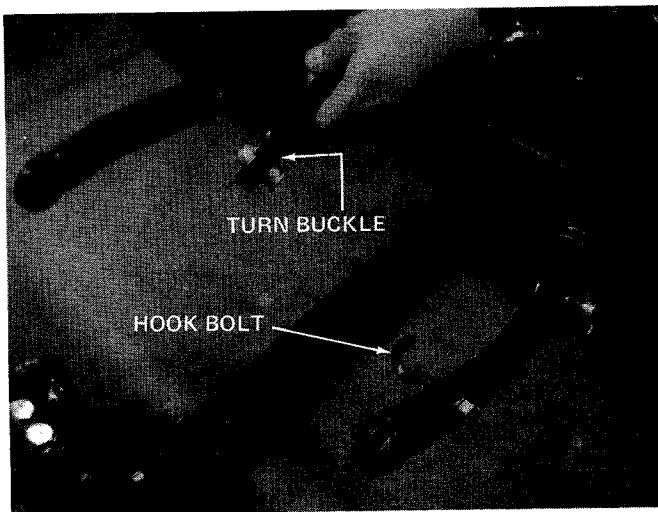


FIGURE 17

- Slide the tiller forward so the universal drive shaft can be attached to drive shaft. See figure 18.
- To hook the universal drive shaft to the drive shaft, pull back on spring-loaded portion of universal, slide over end of drive shaft and release to lock. See figure 18.

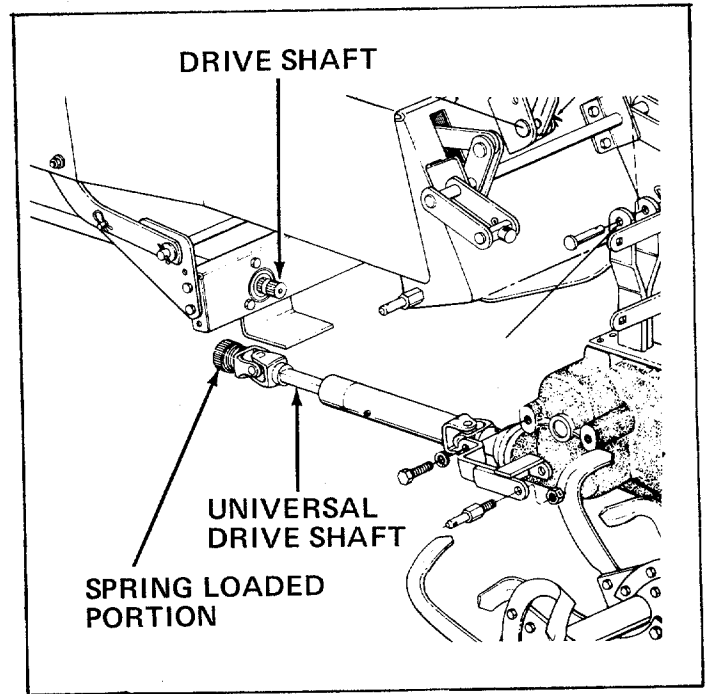


FIGURE 18

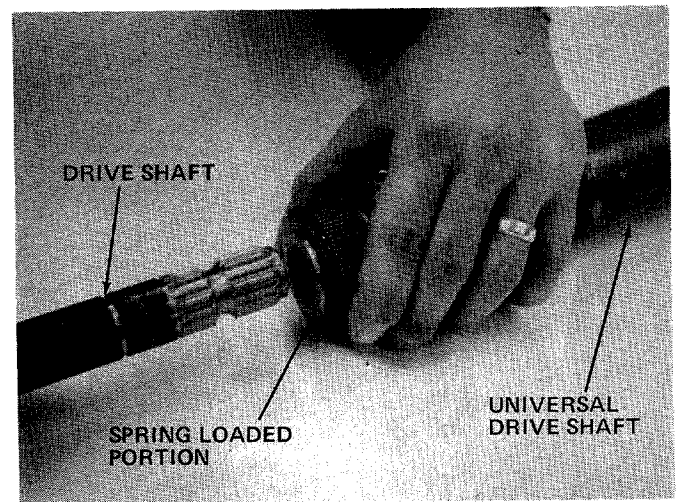


FIGURE 19

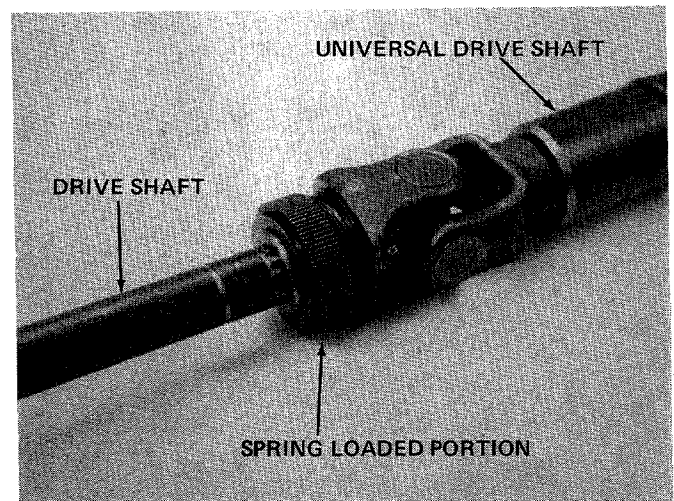


FIGURE 20

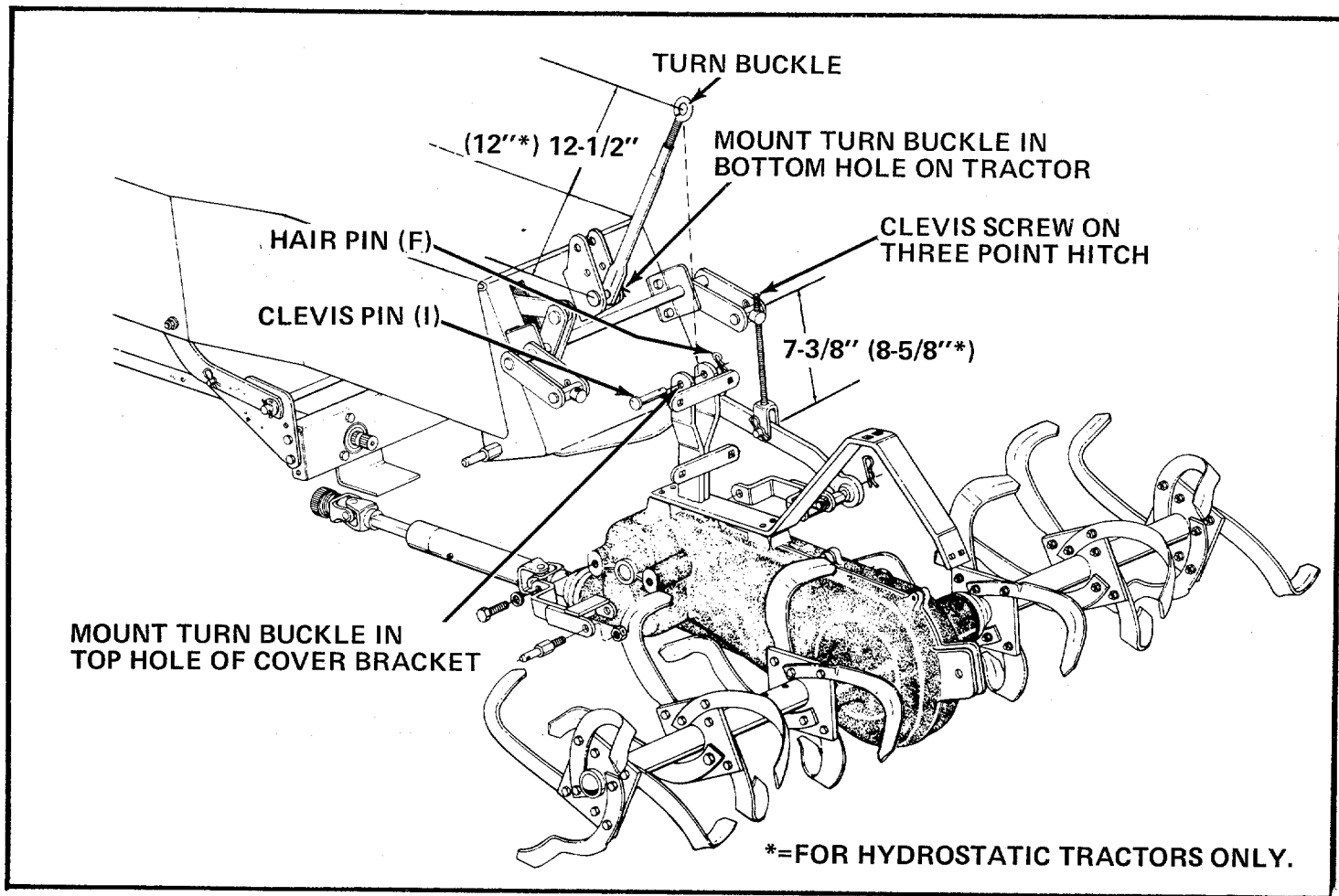


FIGURE 21

11. Preset the clevis screws on three point hitch to 7-3/8" as shown. See figure 21.
12. Place the right and left hand draft bar assemblies over the link clevis pins on tiller and secure with hair pin cotters (F) provided. See figure 22.
13. Preset turn buckle to 12-1/2 inches as shown. See figure 21.
14. Assemble turn buckle to tractor using the bottom hole of bracket on tractor. See figure 21.
15. Assemble other end of turn buckle to tiller cover bracket, using the top hole. Secure with clevis pin (I) and hair pin (F). See figure 21.
16. After completing step 15, raise and lower the tiller attachment with the tractor lift lever, to make certain the universal drive shaft does not hit on bottom of tractor.

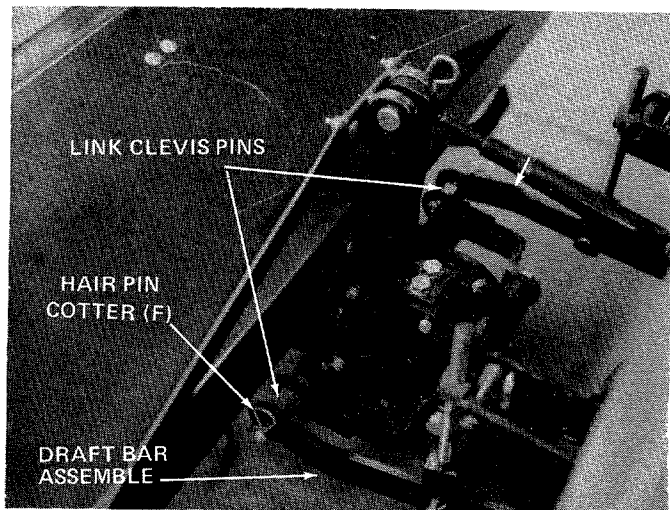


FIGURE 22

## ADJUSTMENTS

The dimensions shown in figure 21 will allow approximately eight inches of tilling depth, and approximately five inches of ground clearance.



## LUBRICATION

The gear box is prelubricated at the factory with 3 quarts of SAE 140 oil. Check the oil level when the tiller is not attached to the tractor. Remove the breather plug, located on top front of gear box.

When the breather plug has been removed, oil should be up to the top of breather plug hole.

The universal joints on the drive shafts have grease fittings and should periodically be greased. See figure 23.

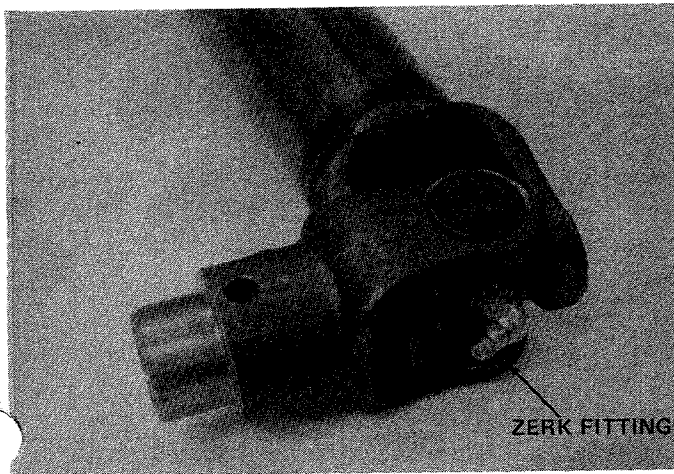


FIGURE 23

## TILLING HINTS

Soil conditions vary greatly. For this reason, the depth and number of passes needed to obtain the desired soil requirements will also differ from region to region.

The dimensions given under adjustments and in figure 21, may also vary depending upon soil conditions.



When removing tiller and reinstalling mower deck, be sure front cross shaft is reassembled as shown in figure 24.

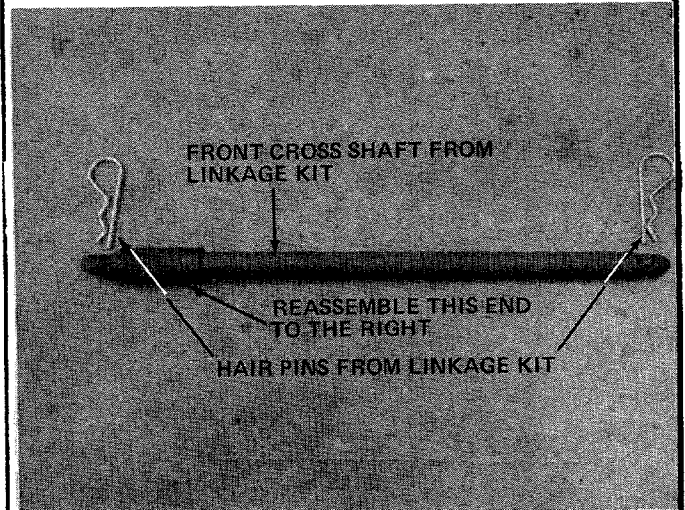


FIGURE 24

**199-956A**  
**19956-9**

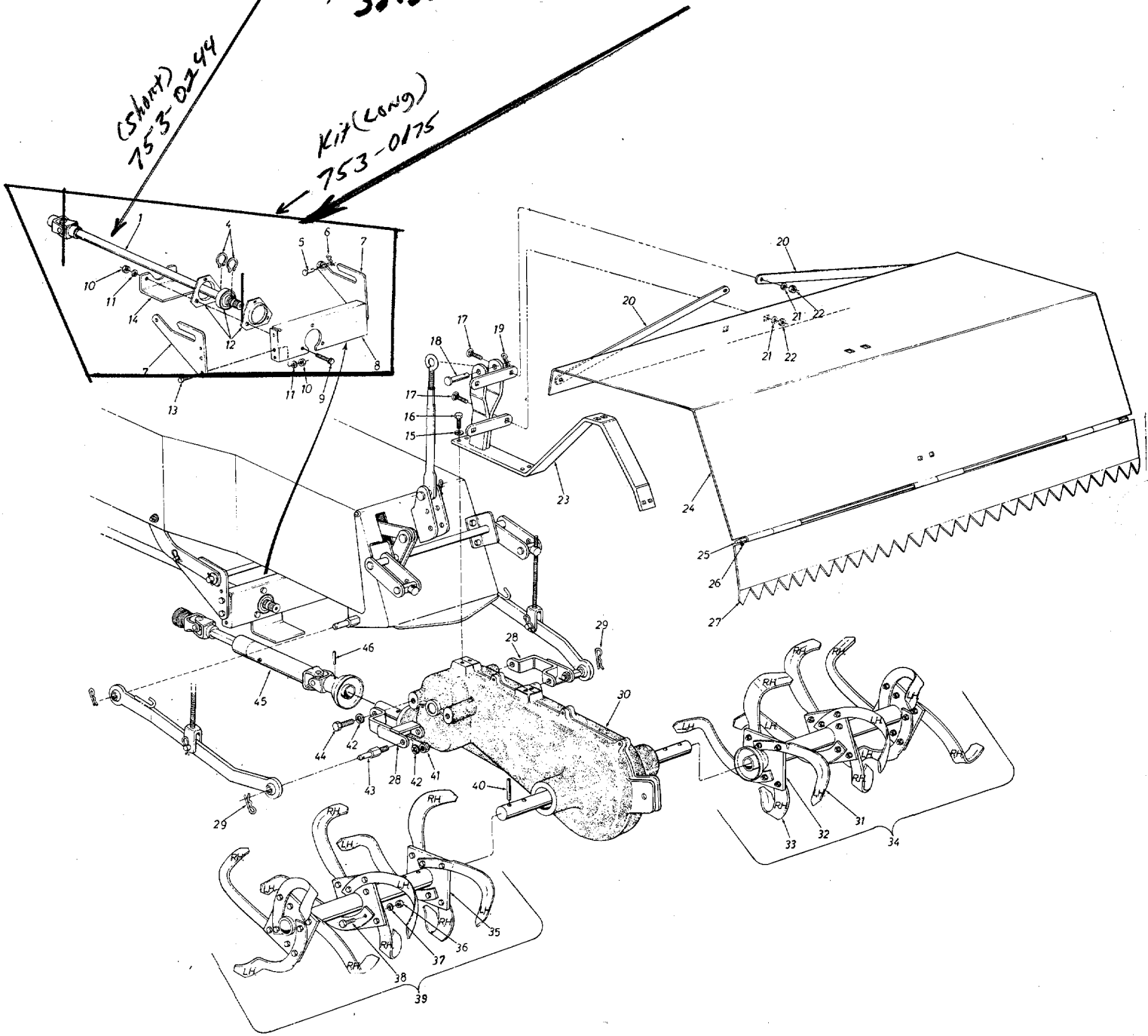
This tiller model uses a  
[redacted] long drive shaft.  
**27.25**

**199-981A**  
**19981-9**

This tiller model uses a  
[redacted]" long drive shaft.  
**38.38**

*(Short)*  
*753-0174*


*Kit (Long)*  
*753-0175*



PARTS LIST FOR MODEL 199-956A, 19956-9, 199-981A and 19981-9

Ref. No.	PART No.	DESCRIPTION	New Part	Ref. No.	PART No.	DESCRIPTION	New Part
1	<del>717-0372</del> <del>717-0405</del> 717-0438 <del>717-0404</del>	Universal Drive Shaft Ass'y. (956)	N	24	04780	Tiller Cover Ass'y.	
		Universal Drive Shaft Ass'y. (981)	N	25	747-0251	Cover Flap Rod	
				26	714-0115	Cotter Pin 1/8" Dia. x 1.00 Lg.*	
4	716-0127	Retaining Ring 1.00" Dia. Shaft		27	04782	Cover Flap Ass'y.	
5	711-0648	Clevis Pin		28	10982	Tiller Pivot Brakt. Ass'y.	
6	714-0145	Internal Cotter Pin		29	714-0117	Internal Cotter Pin 5/8" Dia.	
7	13167	Hanger Bracket		30	717-0375	Gear Box Ass'y.-Comp.	
8	13166	Drive Shaft Brg. Support Brkt.		31	742-0175	14" Tine-L.H.	
9	710-0276	Carriage Bolt 5/16-18 x 1.00" Lg.*		32	04788	Mounting Adapter-R.H.	
10	712-0123	Hex Nut 5/16-24 Thd.*		33	742-0174	14" Tine-R.H.	
11	736-0119	L-Wash. 5/16" Scr.*		34	04786	Right Hand Tine Ass'y.-Comp.	
12	741-0243	Flangette Bearing		35	04749	Mounting Adapter-L.H.	
13	710-0157	Hex Scr. 5/16-24 x .75" Lg.*		36	712-0241	Hex Nut 3/8-24 Thd.*	
14	13208	Bearing Brkt. Guard		37	736-0169	L-Wash. 3/8" Scr.*	
15	736-0921	L-Wash. 1/2" Scr.*		38	710-0191	Hex Scr. 3/8-24 x 1.25" Lg.*	
16	710-0474	Hex Scr. 1/2-13 x 1.25" Lg.*		39	04787	Left Hand Tine Ass'y.-Comp.	
17	710-0276	Carriage Bolt 5/16-18 x 1.00 Lg.*		40	715-0125	Spring Pin Spirol 3/8" Dia. x 2.00" Lg.	
18	711-0299	Clevis Pin 5/8" Dia. x 2.4" Lg.		41	712-0923	Hex Cent. L-Nut 5/8-18 Thd.	
19	714-0117	Internal Cotter Pin 5/8" Dia.		42	736-0158	L-Wash. 5/8" Scr.*	
20	04784	Tiller Cover Strap		43	711-0497	Link Clevis Pin	
21	736-0119	L-Wash. 5/16" Scr.*		44	710-0367	Hex Scr. 5/8-11 x 1.50" Lg.*	
22	712-0267	Hex Nut 5/16-18 Thd.*		45	717-0371	Universal Drive Shaft Ass'y.	
23	10981	Cover Brkt. Ass'y.		46	715-0118	Spring Pin Spirol 5/16" Dia. x 1.75" Lg.	

\*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

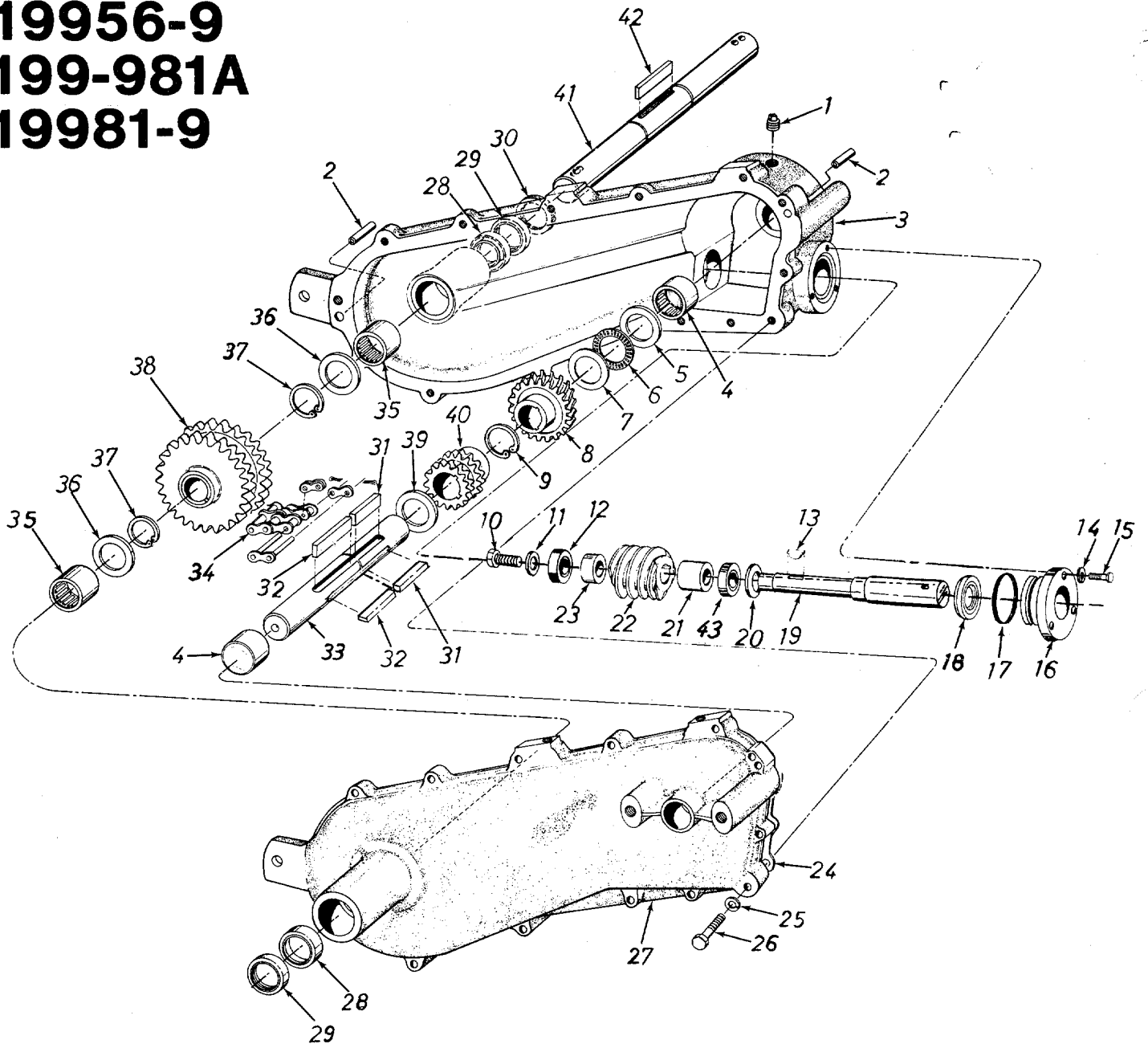
 **NOTE**

This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

717-0372 Assy'  
717-373 - 21-joint  
738-368 - shaft  
715-113 - roll pin

717-0438 Assy'  
717-438 21-joint  
738-468 shaft  
715-113 roll pin

**199-956A**  
**19956-9**  
**199-981A**  
**19981-9**



# 199-956A

# 19956-9

# 199-981A

# 19981-9

## PARTS LIST FOR GEAR BOX ASSEMBLY 717-0375

Ref. No.	PART No.	DESCRIPTION	Ref. No.	PART No.	DESCRIPTION
1	737-0102	Sq. Hd. Pipe Plug with Vent	22	717-0380	Worm Gear
2	715-0118	Spring Pin Spiral 5/16" Dia. x 1.75" Lg.	23	750-0115	Spacer
3	717-0379	Gear Case - L.H. Half	24	721-0107	Gasket
4	741-0127	Needle Bearing	25	736-0119	L.-Wash. 5/16" Scr.*
5	741-0130	Thrust Race 1.25" I.D. x .126 THK.	26	710-0380	Hex Scr. 5/16-18 x 1.75" Lg.*
6	741-0128	Thrust Bearing 1.25" I.D. x 1.977 O.D.	27	717-0376	Gear Case - R.H. Half
7	741-0129	Thrust Race 1.25" I.D. x .303 THK.	28	721-0110	Oil Seal 1.25" I.D. x 2.004" O.D.
8	717-0381	Worm Wheel	29	721-0109	Oil Seal 1.25" I.D. x 2.004" O.D.
9	715-0116	Snap Ring-for 1.25" Dia. Shaft			
10	710-0627	Hex Lock Scr. 5/16-24 x .75" Lg.	31	714-0125	Sq. Key 5/16 x 1.25" Lg.*
11	736-0242	Belleville Wash. 5/16" Dia.	32	714-0124	Sq. Key 5/16 x 1.75" Lg.*
12	741-0241	Ball Bearing .669 I.D.x1.85 O.D.x.55	33	711-0325	Worm Gear Shaft
13	714-0126	#9 Hi-Pro-Key 3/16" x 3/4" Dia.	34	713-0119	Chain w/master link #60 x 39
14	736-0329	L.-Wash. 1/4" Scr.*	35	741-0126	Needle Brg. 1.25" I.D. x 1.927" O.D.
15	710-0206	Hex Scr. 1/4-20 x .88" Lg.*			
16	711-0661	End Cap	36	748-0159	Thrust Bearing
17	721-0160	"O"-Ring	37	716-0116	Tru arc Snap Ring
18	721-0161	Oil Seal .875" I.D. x 1.503 O.D.	38	717-0148	Sprocket - 25 Teeth
19	738-0369	Worm Input Shaft	39	748-0159	Thrust Bearing
20	736-0287	Fl.-Wash. .793 I.D. x 1.240 O.D.	40	717-0147	Sprocket 13 Tooth
21	750-0341	Clutch Idler Bushing	41	738-0374	Tine Shaft
			42	714-0123	Sq. Key 5/16" x 2.0" Lg.*
			43	741-0240	Ball Bearing .787 I.D.x2.048 O.D. x.59

\*For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.





**MTD PRODUCTS INC ..... YARD-MAN COMPANY**

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