

Figure 1



15579E1 Rotary Cultivator mounted on Commercial 10A Convertible Tractor.

Where Used: 7.6 HP Convertible, Commercial 10A and 12 Convertible Tractors

Additional Equipment Required: 15578E1 Rotary Plow or 10287E1 Plow/Cultivator Drive

Additional Equipment Recommended: None

ASSEMBLY INSTRUCTIONS

ALL ITEM NUMBERS REFER TO ILLUSTRATED PARTS LIST

1. Remove spacers, washers and locknuts (Items 27, 28, 29 and 30) from tine shafts (Items 8 and 19). Place three (3) hoe tines (Item 39) on each tine shaft in the position as shown on the Illustrated Parts List. Place one long spacer (Item 27) on each tine shaft followed by another set of tines set in the same position as the first set. Replace the short spacer, washer and locknut. Torque to 100-150 Ft. Lbs.
2. Install the end plates (Items 37 and 38) on the dirt shield (Item 35) in the position shown on the Illustrated Parts List, using the three (3) 1/4 x 5/8 bolts, six (6) flatwashers, (one on each side of the plate) and three (3) nuts (Items 42, 43, and 44) on each side. Tighten securely.

ATTACHING TO 15578E1 ROTARY PLOW

The following steps are to be used if the rotary cultivator is to be used on a rotary plow.

3. Remove the dirt shield (Figure 2, Item 3) from the plow drive by removing the bolts holding the adjusting straps to the drive. Replace the bolts in the drive and tighten securely.
4. Remove the rotor shaft and spade assembly (Figure 2, Item 4) from the drive.
5. Remove the depth wheel assembly (Figure 2, Item 5) by removing the four bolts securing the drive housing extension to the drive housing.

NOTE: Replace the bolts in the bolt holes using five (5) 3/8 flatwashers on each bolt. These bolts MUST be replaced to prevent oil loss from the drive unit.

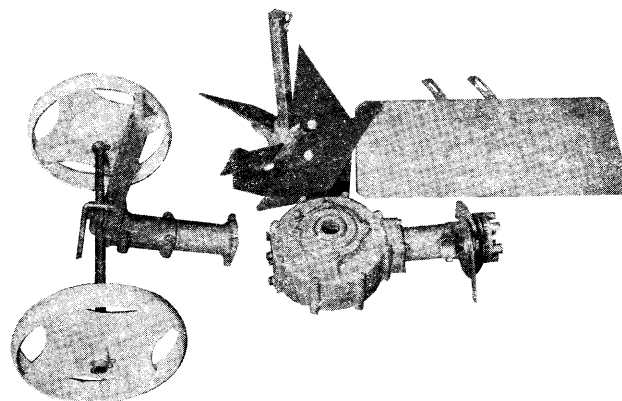
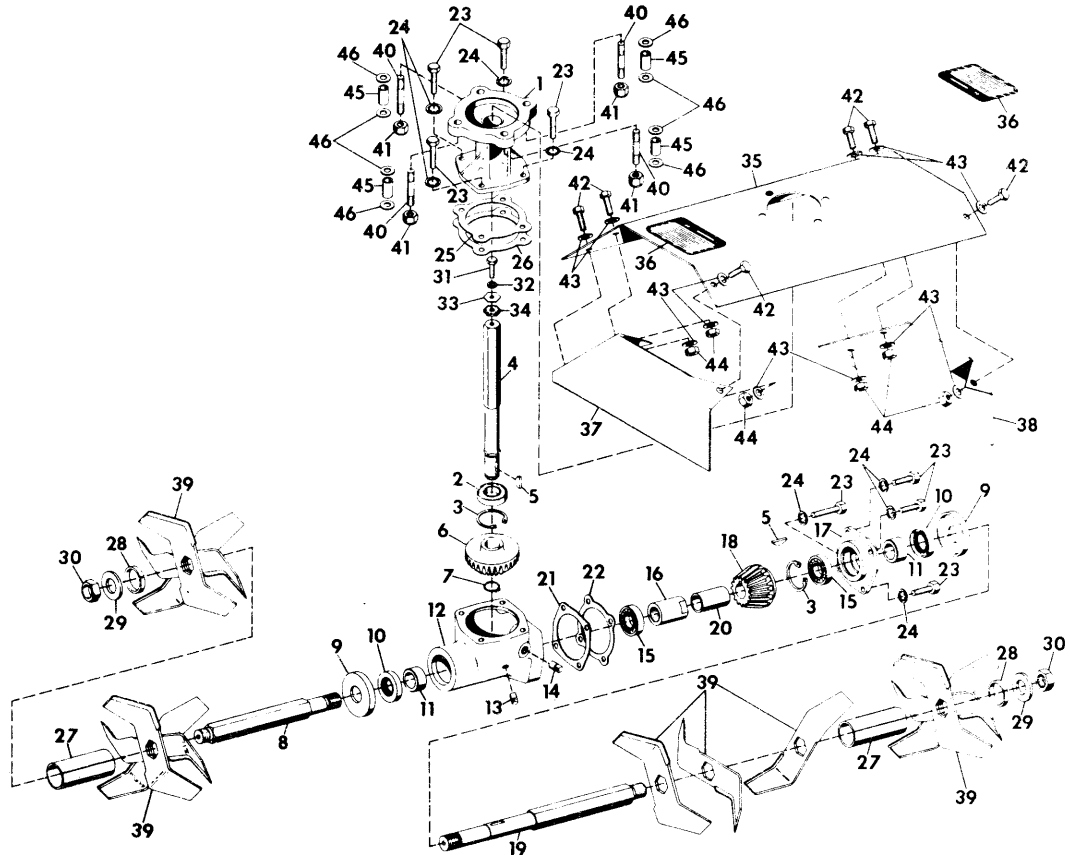


Figure 2

ALTERNATE PROCEDURE: The depth wheel assembly need not be removed to install the rotary cultivator. This allows the use of the depth wheels to regulate the depth of the rotary cultivator. If desired, the depth wheels can be completely removed by unscrewing the wheel bracket screw clamp (Figure 2, Item 1)

6. The top side of the drive is identified by the oil filler plug. Turn the drive housing upside down and remove the four bolts closest to the center of the drive. Install the four studs (Item 40) in the drive housing with the coarse threaded end going into the housing. (See Figure 3)
7. Install the dirt shield assembly on the housing as shown in Figure 4.
8. Remove the bolt, lockwasher, hex washer and seal (Items 31, 32, 33 and 34) from the drive shaft on the cultivator unit. Install the cultivator assembly on the studs with the oil check plug facing the front of the unit relative to operator position. (See Figure 1).



ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	12488P1	Column	24	138542	3/8 Internal Tooth Lock Washer
2	13560P1	Ball Bearing	25	5317P1	Shim .005
3	12492P1	Retaining Ring	26	14230P1	Shim .020
4	12470P1	Drive Shaft	27	12485P1	Tine Spacer
5	124553	1 x 1/4 Woodruff Key	28	12486P1	End Spacer
6	12497P1	Bevel Gear	29	131019	1-1/16 x 2 x .134 Flat Washer
7	12495P1	Retaining Ring	30	13619P1	1-14 Washer Insert Locknut
8	12479P1	Right Tine Shaft	31	180021	1/4-20 x 7/8 Hex Hd Bolt
9	12483P1	Shield Cup	32	120423	1/4 Internal Tooth Lock Washer
10	12489P1	Oil Seal	33	12487P1	Washer
11	12480P1	Bearing Spacer	34	12469P1	Seal
12	12481P1	Gear Case	35	12472P1	Dirt Shield
13	103877	1/8 Sq Hd Pipe Plug Steel	36	19479P1	Decal Caution
14	103880	1/2 Sq Hd Pipe Plug Steel	37	12473P1	Right End Plate
15	12494P1	Ball Bearing	38	12474P1	Left End Plate
16	12477P1	Coupling	39	12484P1	Hoe Tine
17	12482P1	End Cap	40	12471P1	Column Stud
18	12475P1	Bevel Pinion	41	192481	3/8-24 Washer Insert Lock Nut
19	12478P1	Left Tine Shaft	42	180018	1/4-20 x 5/8 Hex Hd Bolt
20	12476P1	Spacer Tube	43	120386	5/16 x 47/64 x .065 Flat Washer
21	12491P1	Gasket	44	120375	1/4-20 Hex Nut
22	12490P1	Gear House Shim .005	45	3213P1	Skid Spacers
23	180121	3/8-16 x 7/8 Hex Hd Bolt	46	120394	13/32 ID x 13/16 OD x .065 Washer

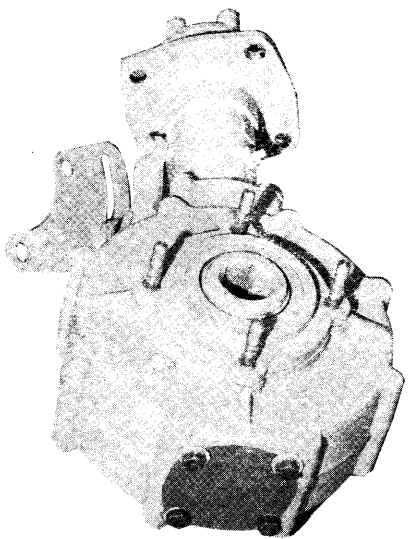


Figure 3

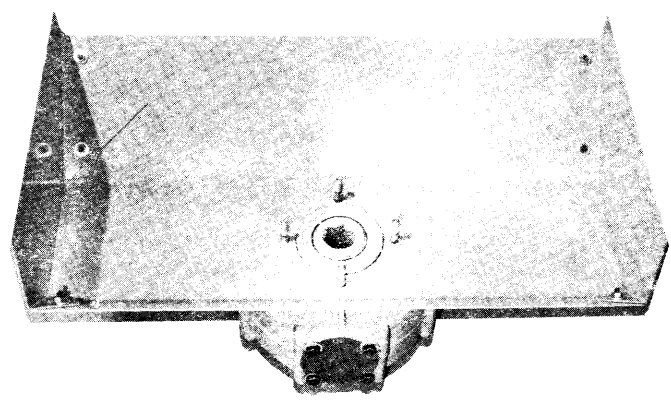


Figure 4

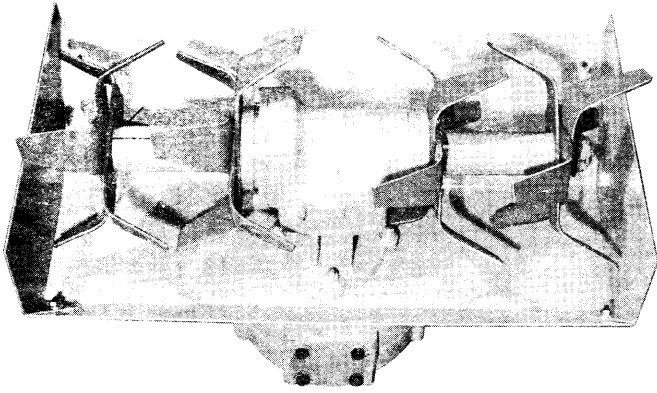


Figure 5

Secure in place with locknuts and washers (Items 41 and 46, see Figure 5). Return unit to the upright position and reinstall the seal, hex washer, lockwasher, and bolt (Items 31, 32, 33 and 34) in top of the drive shaft. Tighten securely.

NOTE: When converting the cultivator back to a plow, install four (4) flatwashers, four (4) spacers, four (4) more flatwashers, and four (4) locknuts (Items 41, 45 and 46) on the studs on the bottom of the plow drive.

ATTACHING TO 10287E1 PLOW/CULTIVATOR DRIVE

To attach the cultivator to the drive unit, follow instructions 6, 7 and 8 only of the above.

LUBRICATION

Plow/Cultivator Drive: 1 1/2 pints of SAE 140 or SAE 90W EP gear lubricant.

Cultivator Gearbox: Add SAE 140 or SAE 90W EP gear lubricant at Item 14 until oil begins to run out of the oil level plug (Item 13) in the front of the unit. Cultivator must be level when checking.

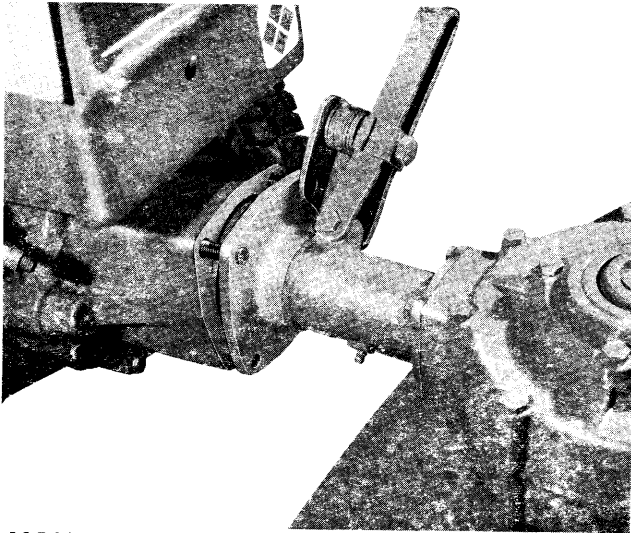


Figure 6

MOUNTING

Mount the assembled rotary cultivator on the tractor, using the two bolts and two nuts as shown in Figure 6.

SAFETY INSTRUCTIONS

1. Refer to Tractor Owner's Manual to familiarize yourself with all controls before operation.
2. Do not let anyone operate the unit without proper instructions.
3. Keep all safety shields and safety devices in place.
4. Disengage power to any attachment and stop engine prior to making adjustments. Remove any object from unit.
5. Disengage PTO before taking tractor out of gear.
6. Do not wear loose fitting clothing that might get caught in moving parts. Keep hands and feet away from moving parts.

OPERATING INSTRUCTIONS

Refer to Tractor Owner's Manual for proper operation of PTO. The 15579E1 Cultivator is a gear driven attachment. The PTO must be engaged to operate unit.

Cultivating depth is controlled by light pressure on the handles of the tractor. Normal depth is three (3) inches. To cultivate slightly deeper than this, raise up on the handles. To cultivate shallower than three (3) inches, push down on the handles. NOTE: If the depth wheels have been left on, raise the wheels to lower the cultivator; lower the wheels to raise the cultivator.

Disengage PTO before taking tractor out of gear.

ROUTINE MAINTENANCE

NOTE: THE FOLLOWING ROUTINE MAINTENANCE IS REQUIRED TO BE PERFORMED BY THE OWNER TO KEEP THE WARRANTY VALID.

1. Check fluid level before each usage. SEE LUBRICATION.
2. Keep all nuts and bolts tight on cultivator.
3. Check tines and replace as necessary.

REMOVAL

To remove rotary cultivator from the tractor, remove the two nuts and bolts and pull unit away from tractor. See Figure 6.

OFF SEASON STORAGE

The only steps that have to be taken to prepare the cultivator for storage is to clean the unit off, apply a light coat of oil to prevent rust, and make sure that it is filled to the proper level with lubricant.

WARRANTY

Products manufactured by Gravely are warranted to be free from defective material and workmanship for a period of one year from date of purchase, under normal use by a homeowner, and for a period of ninety (90) days from date of purchase, when used for commercial purposes.

Any defective part manufactured by Gravely will be replaced without charge provided such part is certified as defective by the manufacturer or by the manufacturer's expressly authorized representative.

IMPORTANT PROVISIONS

The foregoing warranty is in lieu of all others and GRAVELY MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER.

This warranty is not subject to change or modification by field representatives or Gravely dealers.

Certain components carry separate warranties by the manufacturer of such components. Defective components are subject to their manufacturer's warranties, and any claims, work, or return of parts must be through an authorized Gravely dealer. Service costs for the transporting of a unit to and from the dealer are the responsibilities of the customer, and when such service is performed by the dealer, the dealer will charge the customer the usual rate for such service.

It is the dealer's responsibility to mail the "Warranty Card" to the manufacturer within fourteen (14) days after date of purchase to ensure prompt handling of any warranty claim by the dealer or the manufacturer.



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