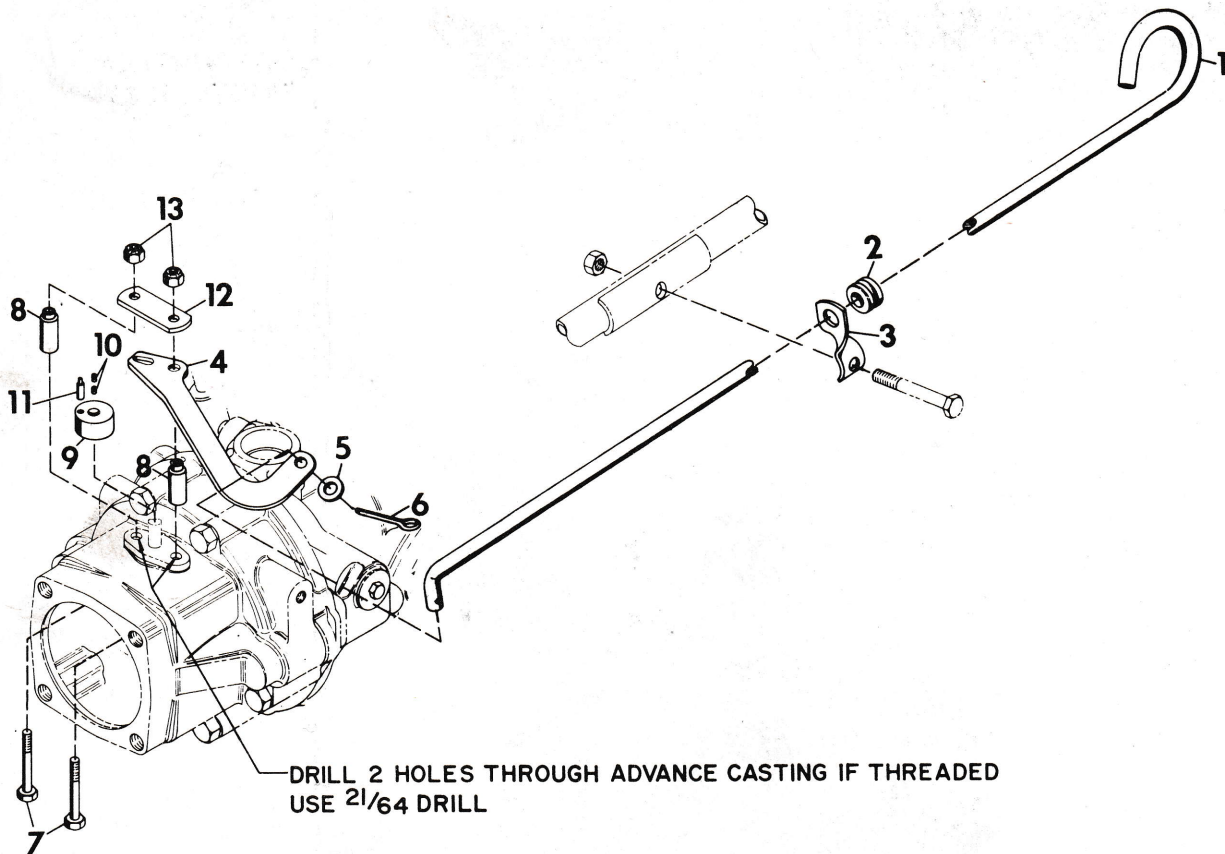




7.6 CONVERTIBLE GRAVELY EQUIPPED WITH PTO CONTROL

GENERAL

1. The PTO Control is a dealer installed, remote controlled (from operator's position) power take-off shifter used to replace the existing non-remote PTO on Model L and 7.6 Gravelys that do not have this feature. Once the PTO Control is assembled to The Gravelly it becomes a permanent part of the unit and is no longer referred to as accessory equipment.
2. The Owners Manual includes parts list, set up, safety, operator and maintenance instructions. Item numbers used in this manual are in reference to fig 1, Illustrated Parts List. All references to right-side, left-side are made from the operators position. Contact The Gravelly Dealer for further information.
3. To continue its program of quality and design improvement, the manufacturer reserves the right to change specifications, design or prices without notice and without incurring obligation.
4. Safety and Convenience: Power to equipment (mowers, rotary plow, snowblowers, etc.) is controlled (engaged and disengaged) from the operator's position at the handles of The Gravelly.



<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	12323P1	Rod, Shifter
2	12325P1	Grommet, Shifter
3	12324P1	Clevis, Shifter Rod
4	12321P1	Arm, Shifter
5	120394	Washer, Flat 13/32 x 13/16 x .065
6	121222	Pin, Cotter 3/32 x .75
7	180091	Bolt, Hex 5/16-18 x 2-1/2
8	12322P1	Spacer, .343 x .562 x 1.080
9	12319P1	Body, Shifter
10	102591	Screw, Set 3/8-16 x 1/4 Hex Socket
11	12320P1	Dowel, Shifter Body
12	20822P1	Spacer, Strap
13	9419455	Nut, Lock 5/16-18 Washer Insert Hex

fig 1

ILLUSTRATED PARTS LIST

ASSEMBLY TO THE GRAVELY

1. Remove any equipment mounted to the advance casting. Support The Gravelly in a level position.
2. Electric start models: remove hood, battery and battery box.
3. Remove the old shifter body from the shipper shaft. Keep the ball and spring for use with the new shifter body.
4. Unbolt and remove the shipper shaft guide from the advance casting. Note: When the shipper shaft guide is being removed the trunnion will most likely drop from the shipper shaft, and possibly the shaft itself may drop from the guide. Get the shaft and trunnion out of the advance casting.
5. Slide the dog off the pinion shaft. With the dog removed, there is more room inside the advance casting for placing drop cloths.
6. Place clean cloths inside the advance casting in positions where they will catch metal chips when the bolt holes are drilled out. Caution: Care must be taken to prevent metal particles from getting into the advance casting.
7. Using a 21/64" drill, bore down through the bolt holes of the advance casting. Remove any burrs. The bolt holes in the shipper shaft guide are the right size without drilling.
8. Remove the cloths from the advance casting. Do not allow any metal particles to get inside the advance casting.
9. Put the dog back on the pinion shaft.
10. Place the shipper shaft in a vise. Hold it with the eccentric lobe in the jaws of the vise; the shaft points straight up.
11. Slide on the shipper shaft guide. Apply a coat of general purpose grease to the ball track of the guide.
12. Start one setscrew into the side of the new body. Place the spring and ball into the body.
13. Put the shifter body (spring and ball in place) on the shipper shaft and guide. Rotate the guide and body until the ball drops into a detent and the flat part of the shaft lines up with the setscrew.

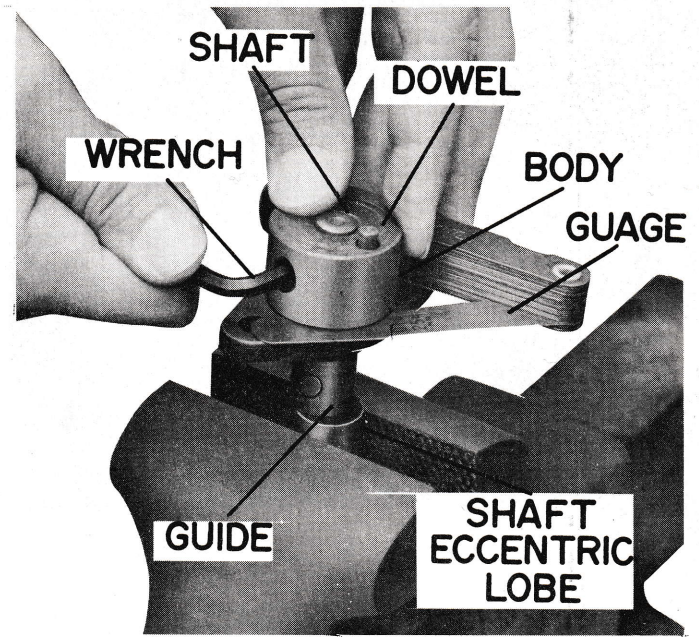


fig 2

14. Slide a .010" gauge between the shifter body and the guide.
15. Press the body down to compress the spring and at the same time tighten the set screw against the shaft. Make the screw tight, fig 2.
16. Remove the gauge. Rotate the guide. Check for smooth, no-bind operation and that the ball seats well in the detent. Jam the second set screw against the first screw.
17. Release the assembly from the vise and position it on the advance casting, reinstall the trunnion to the shipper shaft and in the channel of the dog. Rotate the body so the dowe pin is on the right side.
18. Slide a bolt from inside the advance casting left-side, up through the casting, guide, spacer, arm and strap as in fig 1. Start the nut on but do not tighten it at this time. Be sure the dowel pin is in the slot of the arm.
19. Slide the other bolt from inside the advance casting up through the casting, guide, spacer and strap. Start the nut on. Be sure the dowel pin is in the slot of the arm. Tighten the right-side to 20 ft. lbs. of torque.

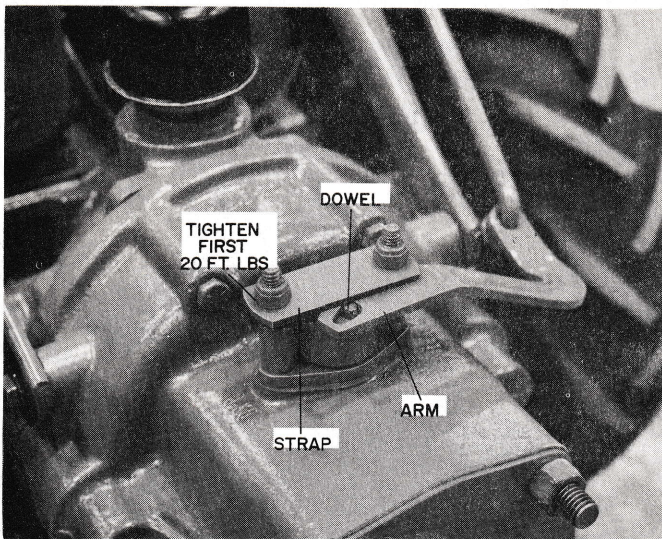


fig 3

20. After the right-side is tight, torque the left-side to 20 ft. lbs., fig 3.
21. Slip the grommet in place in the clevis, Item 2 & 3.
22. Bolt the clevis to the left handle with the bolt holding the fan housing to the handle.
23. Slide the shifter rod through the grommet down to the shift arm. Fasten it to the arm as in fig 1, Items 1, 5 & 6.
24. Testing: Operate the control in a determined manner. Upon full movement of the control, the ball must drop in the detent keeping the body in a secure position (either engaged or disengaged). Attempting to turn the body with the fingers will readily give assurance as to whether the ball has dropped or not. If the body turns freely, the ball is not in the detent. If the body feels stuck the ball has dropped in the detent (which is the correct operation).

SAFETY

1. Know The Gravely and how to STOP quickly in an emergency.
2. Operate the PTO Control from the operator's position at the handles of The Gravely.
3. Never start the engine with the PTO engaged (IN).

4. Never engage the PTO with the HIGH-LOW gear selector in gear. Always move HIGH-LOW gear selector to NEUTRAL before engaging PTO.
5. Disengage (OUT) the PTO before stopping the engine.

OPERATION

Shifting from OUT to IN

1. Idle engine.
2. Move HIGH-LOW gear selector to neutral.
3. Pull the shifter rod in a determined manner to engage.
4. Increase engine speed.
5. Select either HIGH or LOW gear. Power is now driving the equipment.

Shifting from IN to OUT

1. The PTO can be disengaged any time during operation of The Gravely. It is most easily accomplished with the HIGH-LOW gear selector in neutral.
2. Push the shifter rod in a determined manner to disengage.

MAINTENANCE

1. Keep the lock nuts tight, Item 13.
2. Oil the ball track of the shifter shaft guide if shifting becomes difficult due to lack of lubrication.
3. If a well lubricated PTO becomes difficult to shift, perform this adjustment.
 - A. Loosen both lock nuts, Item 13.
 - B. Tighten the right-side nut first; 20 ft. lbs. of torque.
 - C. Tighten the left-side nut second; 20 ft. lbs. of torque.

NOTE: Similar tightness can be reached with an 8" length handle wrench when used by an average man.

This adjustment should realign the shifter arm to the correct position.

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.



A Division of Clarke-Gravely Corporation
ONE GRAVELY LANE
Clemmons, North Carolina 27012

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