



JWN Ride-On Trowel

MULTIQUIP® Clutch Retrofit Kit Installation Instructions

The following instructions are intended to assist the user in the installation of a CVTech centrifugal clutch system. The CVTech clutch system replaces the Comet CVT system. Please read all assembly instructions before installing the kit.

REQUIRED TOOLS

- Torque Wrench
- Ratchet/Socket Set
- Open/box-end wrenches
- Misc. Pry-Bars
- CV Joint Grease
- Grease Gun w/Multi-purpose grease
- 2x4 wood block
- Forklift/Hoist
- Clutch Puller
- Heavy Duty Jack Stands

PARTS

Verify that all parts are accounted for. See Figure 1 and Table 1.

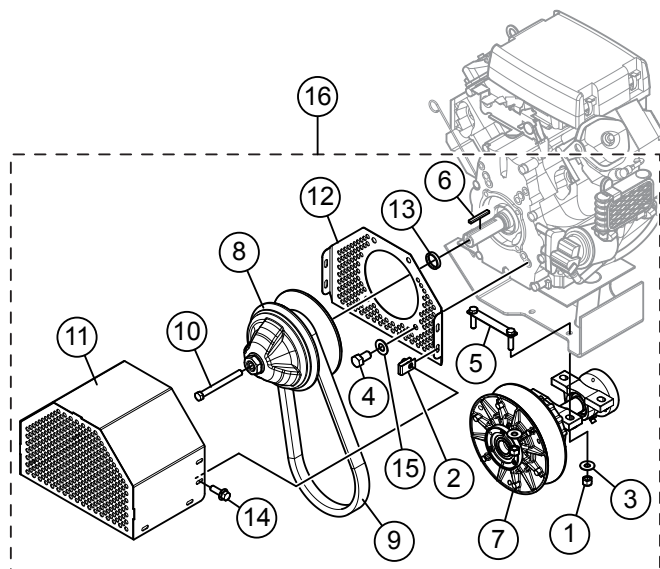


Figure 1. Clutch Retrofit Kit

Table 1. JWN Clutch Retrofit Kit Parts

Item	Part No.	Description	Qty.	Remarks
1	10133	Nut, Nyloc 3/8-16	4	
2	11534	Nut, "U" Type, 1/4-20	8	
3	13351	Washer, Flat 3/8 Ext Thick High Strgth	4	
4	15563	Screw, HHC 7/16-14 X 0.75	4	
5	20186	Plate, Pillow Block Bearing Mount	2	
6	22632	Key, Steel .188 X .250 X 2.063	1	
7	23478	Drive Asm, Rider JWN 24H	1	
8	23512	Clutch, Drive JWN24	1	
9	23513	Belt, Light Duty Rider CVT	2	
10	23516	Screw, HHC 7/16-20 X 4.0" Grd 8	1	
11	23562	Guard, Belt, JWN	1	
12	23565	Panel, Back, Belt Guard	1	
13	23590	Spacer, Upper Clutch, JWN	1	
14	49048	Screw, HHFS 1/4-20 X 3/4 Grd 5	8	
15	933243	Washer, Flat Sae 7/16 Grd 9 YZ	4	
16	23626	JWN Clutch Kit	1	Includes items 1-15

WORK SAFELY!

Only a **qualified service technician** with proper training should perform this installation. Follow all shop safety rules when performing this installation.

LIFTING THE TROWEL

1. Send a lifting strap or chain through the lift points on each side of the trowel. Attach the ends of the lifting straps or chains to the lifting device (Figure 2).

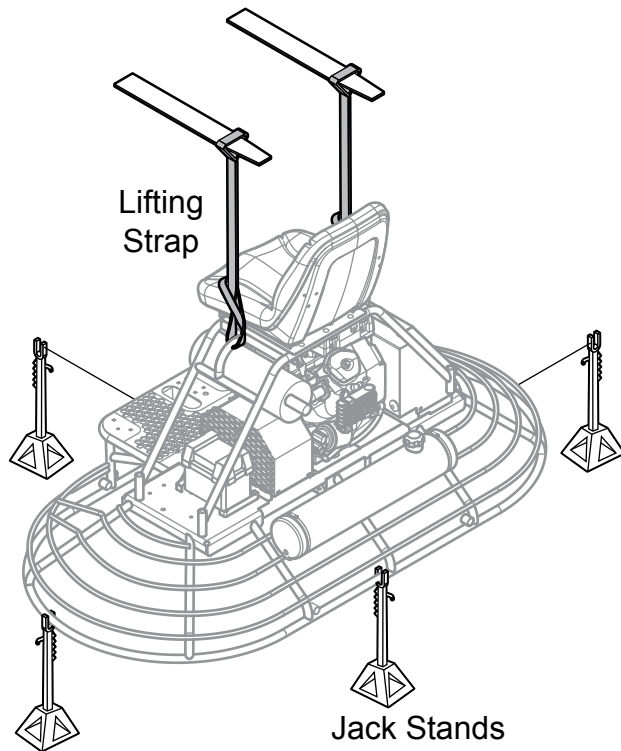


Figure 2. Lifting the Trowel

2. Next, place the trowel on heavy duty jack stands.

CAUTION

Trowel blades are sharp. Keep clear of blades while performing procedure. It is recommended that trowel blades are removed to prevent injury.

BATTERY REMOVAL

See Figure 3.

1. Remove battery cover and disconnect battery cables.
2. Remove battery. Set aside in a clean, safe place.

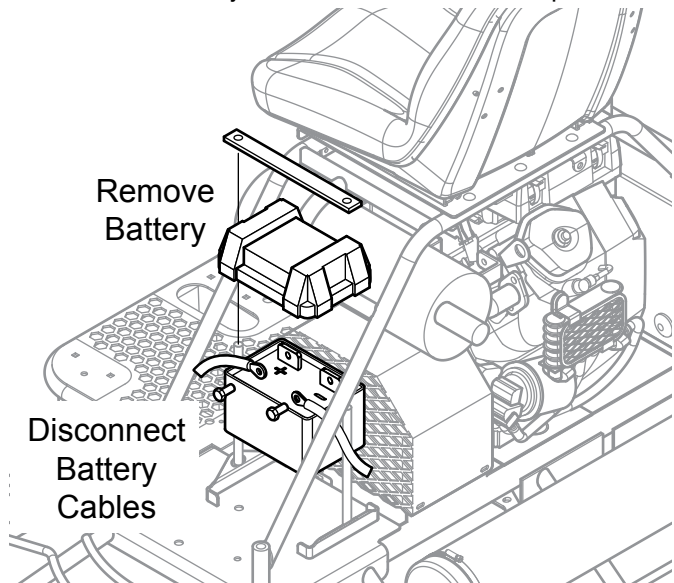


Figure 3. Remove Battery

PANEL AND GUARD REMOVAL

See Figure 4.

3. Remove the control panel mounting hardware. Set aside for later use.
4. Slide control panel out of the way enough to gain access to the front of the engine.

NOTICE

Choke cable and electrical connections may need to be disconnected to allow movement of control panel.

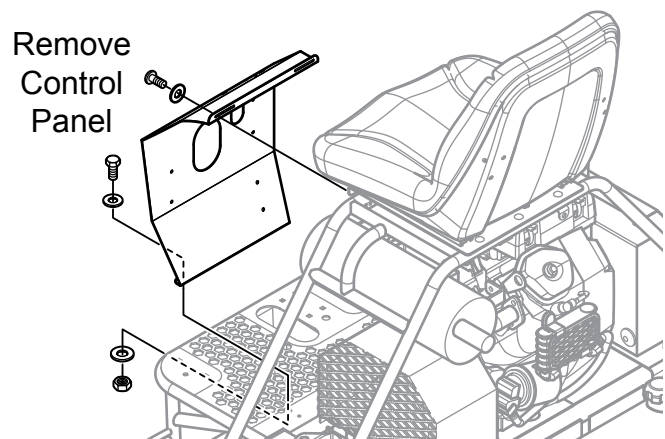


Figure 4. Remove Control Panel

- Remove the 4 mounting bolts and U-nuts that secure the belt guard to the frame (Figure 5). Discard mounting bolts and U-nuts as these will not be used in the reassembly.
- Remove and discard belt guard.

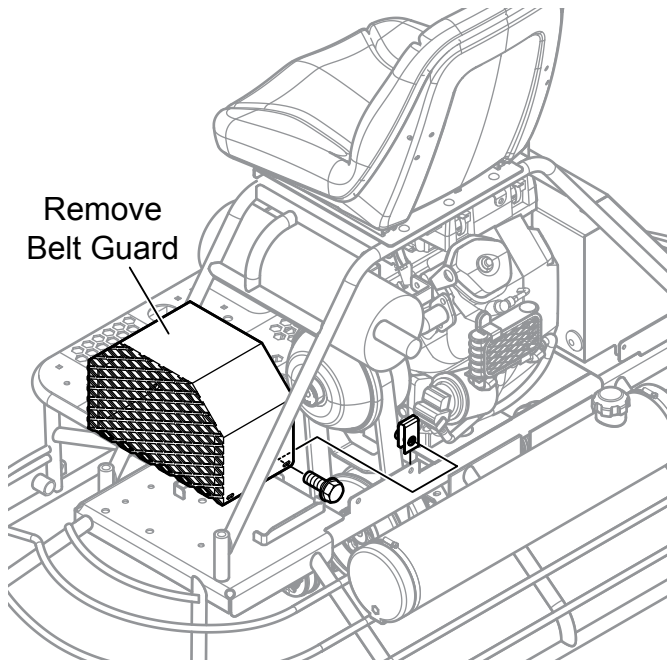


Figure 5. Remove Belt Guard

DRIVE ASSEMBLY REMOVAL

CV Axle Assembly (Left-Side) Removal

Refer to Figure 7.

NOTICE

Spider assemblies must be locked to the frame with a chain in order to prevent clutch rotation.

- Starting at the left-side gearbox, use a 1/4" allen wrench to remove the 3 bolts and lock washers that secure the CV axle to the left-side gearbox. Retain mounting hardware for later use.
- Next, use a 1/4" allen wrench to remove the 3 bolts and lock washers that secure the CV axle to the lower drive pulley coupler. Retain bolts and washers for later use.

NOTICE

Note that the 3 bolts securing the CV axle to the lower drive pulley are shorter than those securing the CV axle to the gearbox. Remember bolt orientation for reassembly.

- Remove CV axle assembly. Set aside in a clean safe place.

Disconnect/Remove CV Axle Assembly (Right-Side)

NOTICE

Disconnecting the right-side CV axle assembly from the gearbox is optional. Inspect rubber boots for damage or dirt. If CV axle is in good condition, it is not necessary to remove it from the gearbox. **Removal of the bolts securing the CV axle to the cross shaft coupler is mandatory.**

Refer to Figure 7.

- Remove the 3 bolts and lock washers that secure the CV axle to the right-side gearbox (optional).
- Remove the 3 bolts and lock washers that secure the CV axle to the cross shaft coupler.
- Remove CV axle assembly (optional). Set CV axle assembly and mounting hardware aside in a clean, safe place.

Spare Belt Removal

Reference Figure 6.

- Remove spare belt holder and mounting hardware from the left-side gearbox adapter plate. Set aside in a clean, safe place.
- Remove and discard the spare belt.

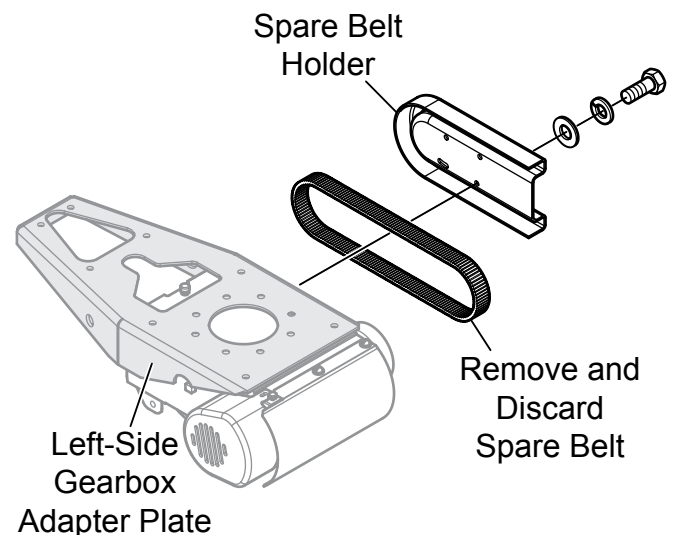


Figure 6. Remove Spare Belt

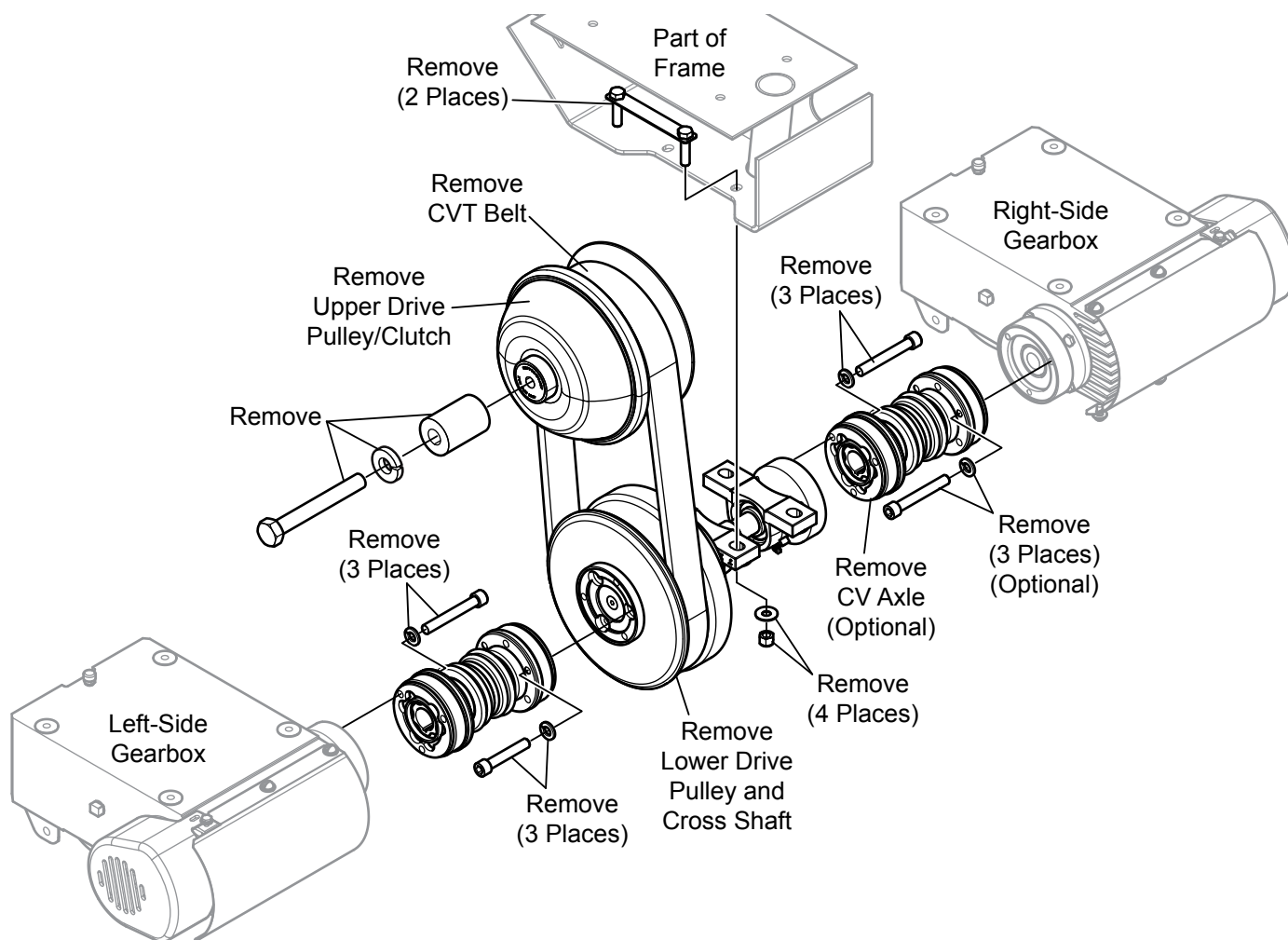


Figure 7. Remove Drive Assembly

Upper CVT Pulley Removal

Refer to Figure 7.

1. Remove the center bolt, washer and spacer that secure the existing upper Comet clutch assembly to the engine shaft
2. Pull clutch assembly off engine shaft. Puller may be required to remove clutch.
3. Discard Comet clutch. This item will not be used in the reassembly.

CVT Belt Removal

1. Remove and discard CVT belt. It will not be used in the reassembly. See Figure 7.

Cross Shaft/Lower Drive Pulley Removal

See Figure 7.

1. Remove the 4 nuts and washers that secure the cross shaft bearing blocks to the frame. Discard mounting hardware as it will not be used during reassembly.
2. Remove and discard cross shaft and lower drive pulley assemblies. These items will not be used in the reassembly.

SHIFT ENGINE POSITION

See Figure 8.

1. Remove and retain engine mounting bolts, washers and nuts (4 places).
2. Shift the engine to the right to align the engine mounting holes closest to the shaft side with the mounting holes in the frame.
3. Replace mounting hardware utilizing the engine mounting holes closest to the shaft side.

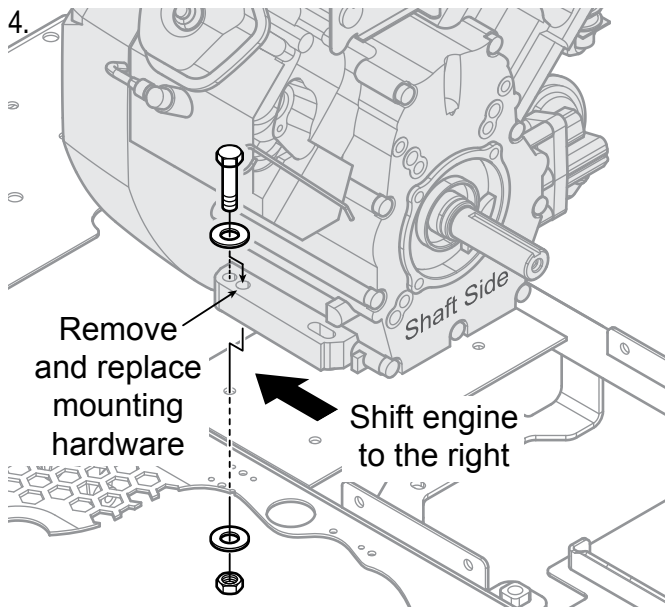


Figure 8. Shift Engine to the Right

NEW LOWER DRIVE ASSEMBLY INSTALLATION

1. Remove dust caps located on top of new cross shaft bearings (Figure 9).
2. Using a grease gun, grease both bearings. Use multi-purpose grade grease.
3. Reinstall dust caps to prevent contamination of the bearings.

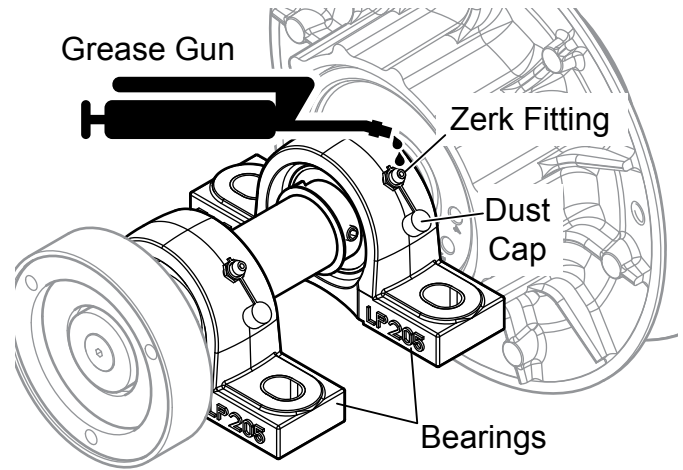


Figure 9. Lubricate Bearings

4. Mount item 7, **new** lower drive assembly, to frame using bearing mount plates (item 5) in two places. Secure with four washers (item 3) and nuts (item 1). See Figure 10.

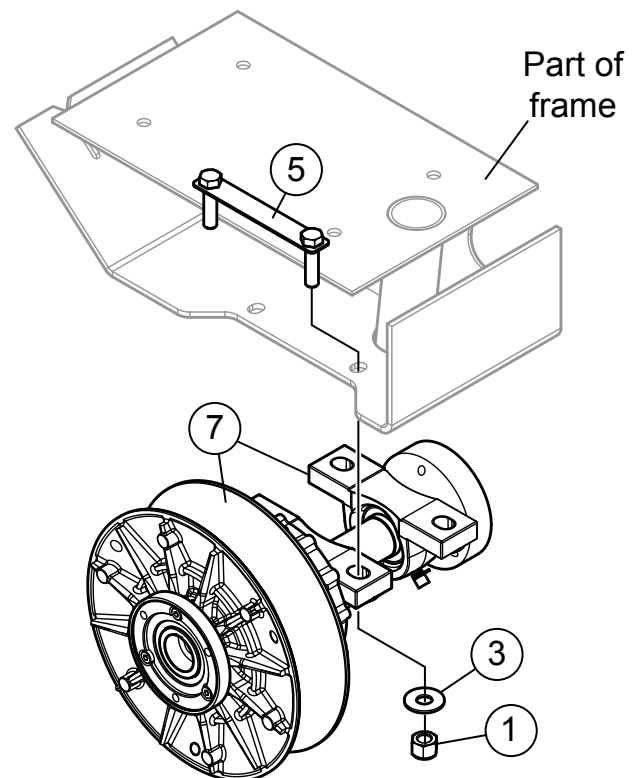


Figure 10. Install Lower Drive Assembly

5. Place new belt (Figure 1, item 9) onto lower pulley. Let belt hang freely.

RIGHT-SIDE CV AXLE REINSTALLATION / RECONNECTION

Before installing the right-side CV axle assembly (if previously removed), ensure rubber boots are not cracked or worn (Figure 11). If boots are damaged, replace immediately. If CV axle assembly is dirty or covered with debris, clean with a mild soap or solvent. If necessary, grease CV axle as required.

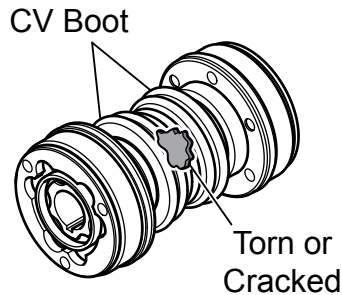


Figure 11. Inspect CV Boot

1. Apply a thin coat of RTV silicone (Figure 12) to mating surfaces of CV axle assembly and cross shaft coupler.

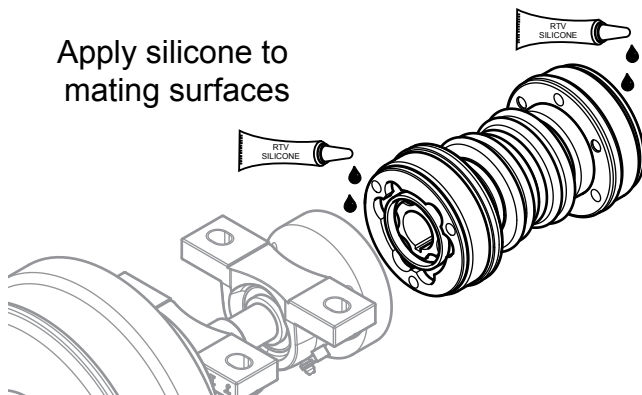


Figure 12. Apply RTV Silicone

2. Use existing mounting hardware to connect right-side CV axle assembly to right-side gearbox coupler (if applicable) and cross shaft coupler.
3. Torque all coupler mounting hardware to 12 ft-lbs.

SPARE BELT HOLDER INSTALLATION

1. Reinstall spare belt holder with existing mounting hardware and new spare belt (Figure 1, item 9). See Figure 6.

LEFT CV AXLE INSTALLATION

1. Apply a thin coat of RVT silicone to mating surfaces of lower drive pulley and CV Axle assembly.
2. Use existing mounting screws and lock washers to secure left-side CV Axle to left-side gearbox coupler and lower drive pulley coupler.

The trowel must now be lowered back to the ground in order to install the upper clutch and belt. Follow all heavy lifting safety precautions.

BELT GUARD/CLUTCH INSTALLATION

1. Install item 12, belt guard back panel, onto engine using screws (item 4) and washers (item 15) in four places. Apply Blue Loctite™ #246. See Figure 13.

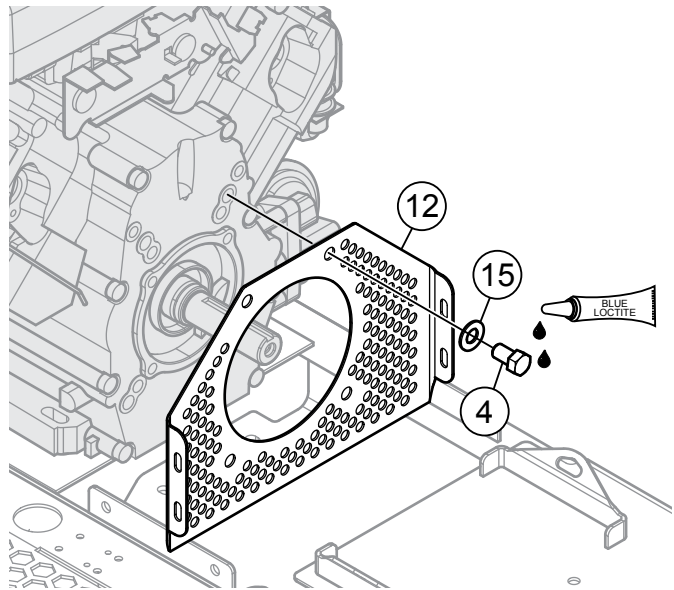


Figure 13. Install Belt Guard Back Panel

2. See Figure 14. With the CVT belt (item 9) placed over the lower pulley, squeeze the belt and pull upwards and towards the rear of the trowel. This will spread open the faces of the lower drive pulley.

Pull upwards
and towards
rear of trowel

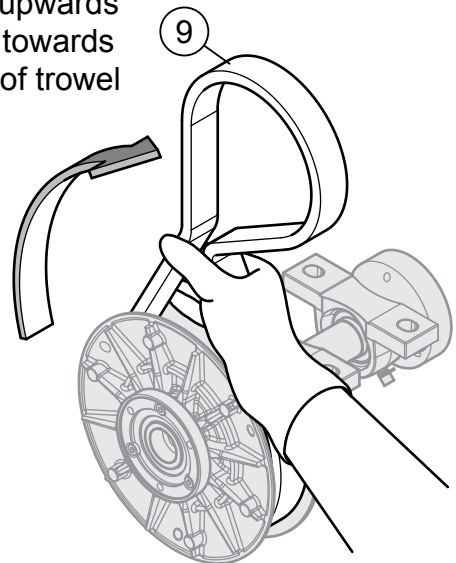


Figure 14. Hold Lower Pulley Open

3. While holding the new clutch, item 6, place free end of CVT belt into upper pulley grooves. See Figure 15.

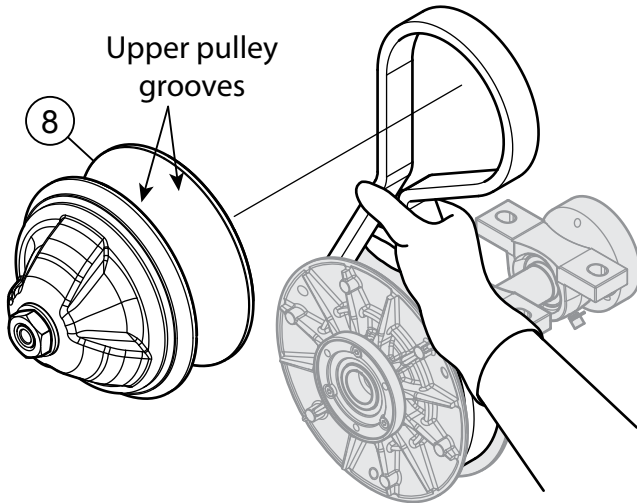


Figure 15. Install Upper Pulley Belt

4. Install clutch spacer (item 13) onto shaft with chamfer side facing the engine (Figure 16).
5. Insert steel key (item 6) into engine shaft (Figure 16).
6. Mount clutch assembly (item 8) onto engine shaft using clutch retaining screw (item 10). Apply Blue Loctite™ #246 to retaining screw and torque to 60 ft-lbs. (81.3 N·m). See Figure 16.

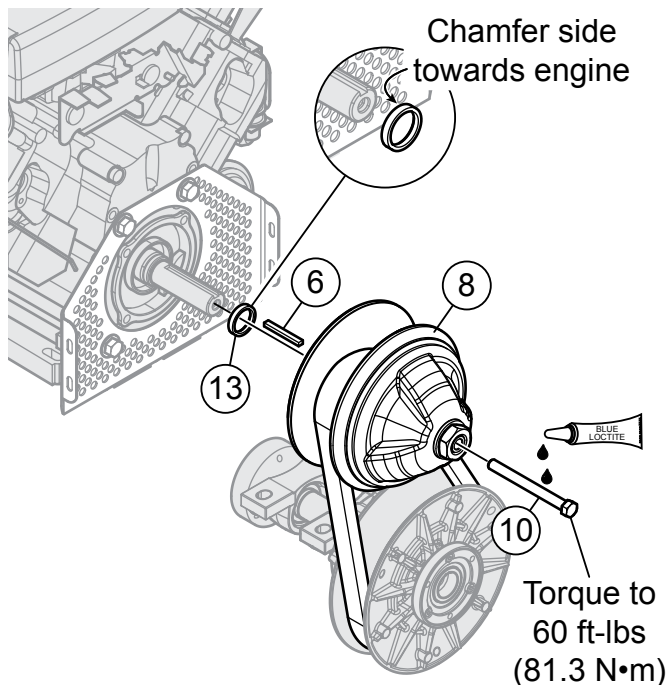


Figure 16. Install Clutch Assembly

7. Install the new belt guard, item 11, onto belt guard back plate and trowel frame using new screws (item 14) and U-nuts (item 2) in eight places. See Figure 17.

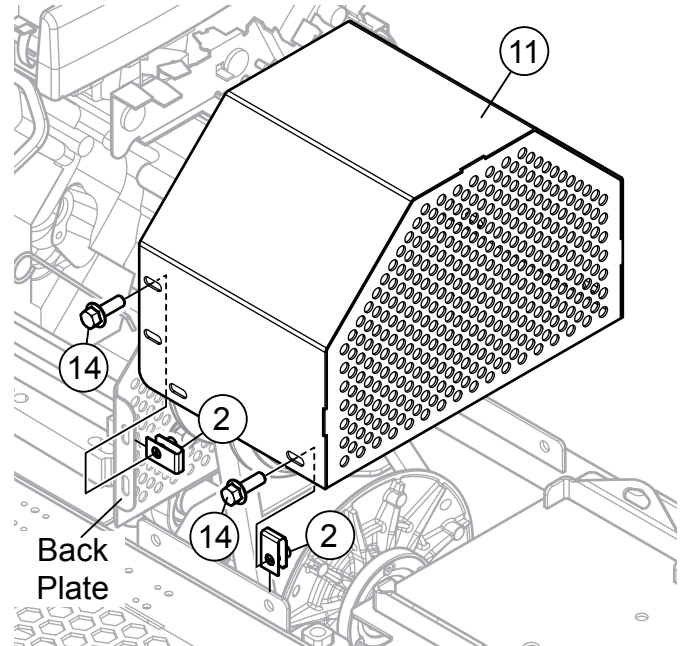


Figure 17. Install New Belt Guard

TROWEL REASSEMBLY

1. Reinstall control panel. See Figure 4.
2. Unlock spider assemblies.
3. Reconnect battery and battery cables.

STARTING THE TROWEL/TESTING

1. While sitting in the operator's position, start the trowel as referenced in the Operator's Manual. Be sure to check the engine oil level prior to starting the engine.

CAUTION

The engine's exhaust contains harmful emissions. **ALWAYS** have adequate ventilation when operating. Direct exhaust away from nearby personnel.

2. Run machine, bringing throttle up so clutch engages. Cycle the engine from idle to full throttle twice, and shut off engine. Remove key.

JWN CLUTCH RETROFIT KIT INSTALLATION INSTRUCTIONS

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

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Fax: (800) 537-3927

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Technical Assistance

800-478-1244

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MQ Parts Department

800-427-1244
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