INSTALLATION INSTRUCTIONS

FORESTRY DISC MULCHER

PISTON MOTOR UPGRADE

DOC #15-2030

WARRANTY + SERVICE 888.960.0364
PARTS 888.960.0361

Diamond MOWERS™

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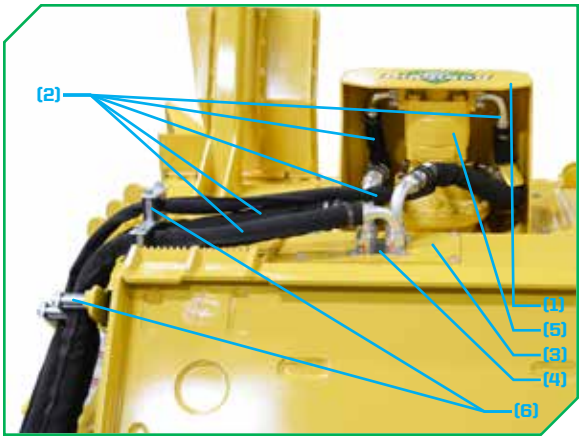
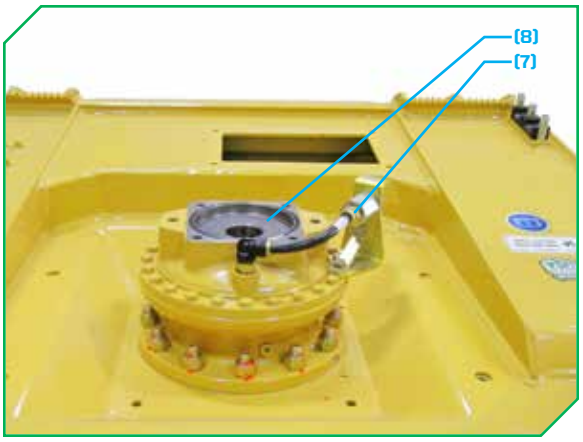
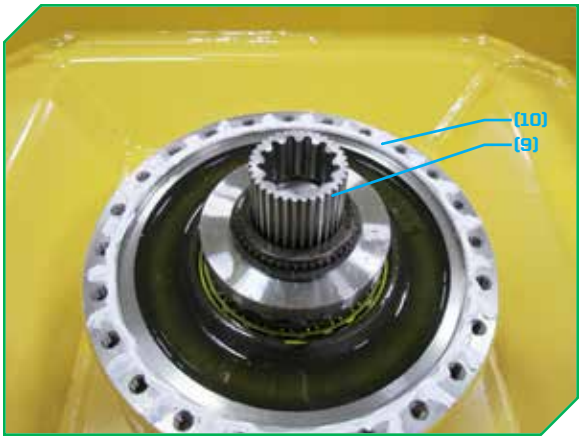
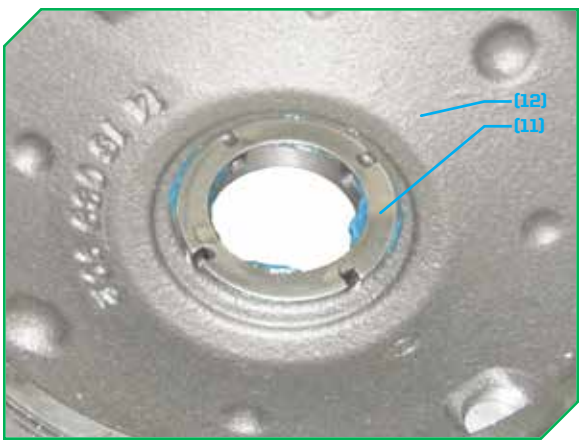
PISTON MOTOR UPGRADE





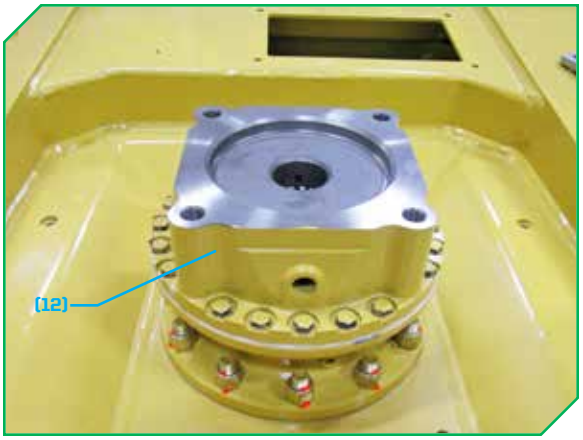




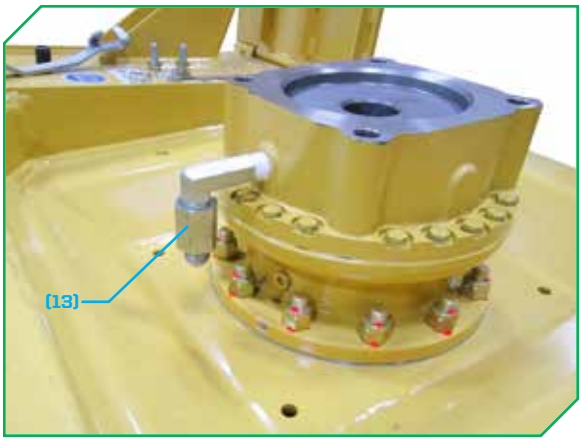
Instructions for upgrading a gear motor to an optional piston motor:

- Remove the safety shield(1) (if applicable) on the top of the deck.
  - Save the safety shield(1) hardware for reuse.
- Remove all hoses(2) and their hardware from the gear motor(5), manifold(4), and hose bracket hardware(6).
  - The hoses(2) and hose bracket hardware(6) will not be reused.
- Unbolt and remove the gear motor(5) from the spindle.
  - The gear motor(5) will not be reused.
- Unbolt and remove the manifold(4) and access plate(3) from the deck.
  - The manifold(4) and access plate(3) will not be reused.
- Remove the PRV valve assembly(7) and upper half of the spindle(8) from the lower half of the spindle.
  - Save the PRV valve(7) (silver hex shaped object) for reuse.
  - Save the spindle(8) hardware and thrust washer(11) for reuse.
  - The upper half of the spindle(8) will not be reused.
- Replace the existing splined insert(9) in the lower half of the spindle with the supplied splined insert.
  - The old splined insert(9) will not be reused.
- Clean the surface of the spindle and apply a bead of the supplied silicone sealant(10) around the perimeter as illustrated.
- Place several drops of #2 lithium based grease around the small center hole on the interior of the supplied spindle upper half(12) and press the thrust washer(11) down on the grease as illustrated.
  - The thrust washer(11) notches should be aligned with the notches on the interior of the spindle upper half(12).

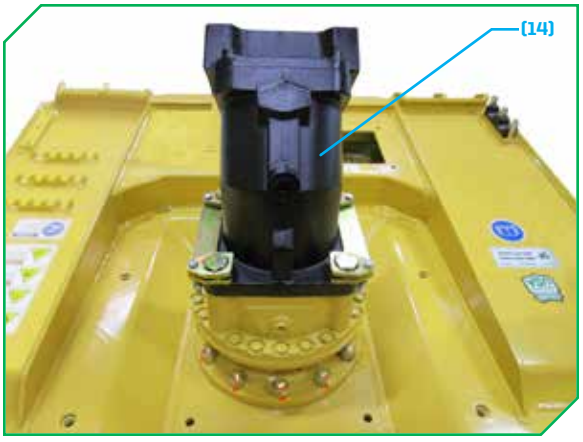
PISTON MOTOR UPGRADE



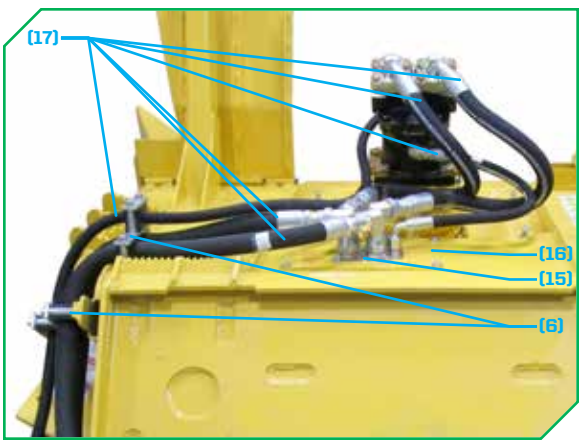
- Assemble the supplied spindle upper half(12) to the lower half of the spindle with the saved hardware as illustrated.
  - Confirm the thrust washer(11) was not disturbed or moved.
  - Confirm the supplied spindle upper half(12) is orientated on the lower half of the spindle as illustrated.
  - Torque the hardware to 45ft-lbs (60Nm) in an alternating crisscross pattern.
  - **NOTE:** There will be (4) cap bolts that will not be used with the supplied spindle upper half(12).



- Assemble the saved PRV valve(13) to the spindle upper half(12) with the supplied hardware as illustrated.
  - Use teflon tape on all pipe threads.



- Assemble the piston motor(14) to the spindle upper half(12) with the supplied hardware as illustrated.
  - Torque hardware to 107ft-lbs (145Nm).
  - Verify locking tabs are in place.
  - Assemble locking tabs to the U-shaped tab over the motor bolts with their hardware. Tighten the nylock nuts until one thread appears past the nylock nut.



- Assemble the supplied manifold(15) to the supplied access plate(16) and the access plate(16) to the deck with the supplied hardware.
  - Torque hardware to 31ft-lbs (42Nm).
- Assemble the supplied hoses(17) to the piston motor(14) and manifold(15) with the supplied hardware as illustrated.
- Assemble the hoses(17) to the deck with the supplied hose bracket hardware(6) as illustrated.
  - Torque hardware(6) to 31ft-lbs (42Nm).
  - **NOTE:** The lower hose bracket and hardware is not present on older models, but is included in your kit. Reference the **OPTIONAL LOWER BRACKET INSTALLATION** section at the end of this document if installation is desired.

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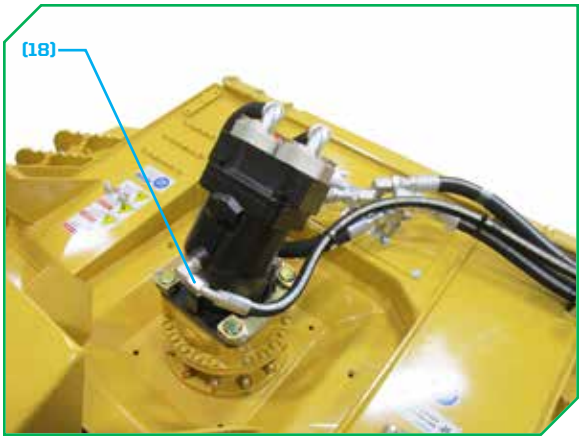
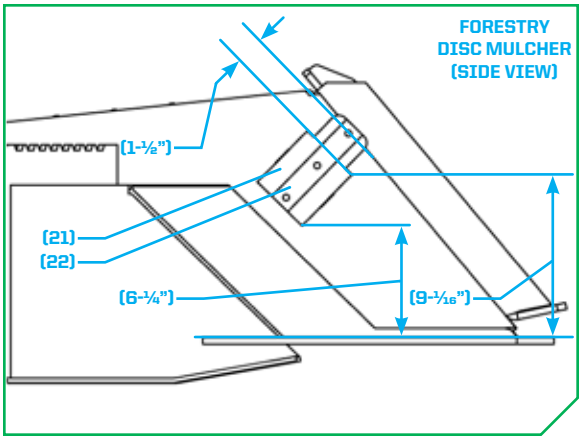


- Fill the piston motor(14) case with oil using the same port the supplied case drain hose(18) will plumb to.
  - Fill until oil is level with the port.
  - Use the same type and brand of oil as the carrier vehicle.
- Assemble the supplied case drain hose(18) to the piston motor(13) with the supplied hardware.
  - Route and secure the case drain hose(18) along the other hoses with cable ties.

- Assemble the supplied safety shield(19) (if applicable) to the deck with the saved hardware from the old safety shield.
- Apply the supplied decals(20) (if applicable) to the safety shield(19) as illustrated.



OPTIONAL LOWER HOSE BRACKET INSTALLATION:

- Position the standoff(21) on the deck side as illustrated.
  - Reference the "side view" illustrations for your machine.
- Weld the standoff(21) to the side of the deck.
  - Use a ⅜" (10mm) fillet weld on each long side.
- Center the hose clamp base(22) on the standoff(21) as illustrated.
  - Reference the "side view" illustrations for your machine.
- Weld the hose clamp base(22) onto the standoff(21).
  - Use a ⅜" (10mm) fillet weld on each long side.
- Paint the raw metal with the supplied paint after it has cooled.