### Start-Up and Shut Down Procedures: Pipelayers

**Operator/Inspector________________________ Date________________ Time________________**

Serial Number____________________________ Machine Hours_________________

<table>
<thead>
<tr>
<th>Was procedure step completed properly?</th>
<th>✓</th>
<th>Evaluator Comments</th>
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</table>

For more information, please refer to the Operation and Maintenance Manual or any other applicable manuals and instructions for this product. If you have questions, please contact your local Caterpillar dealer.

**STARTING THE MACHINE...**

- Conduct pre-shift walk around inspection
- Mount the machine using 3-point contact
- Turn the battery disconnect switch to ON
- Engage the parking brake.
- Adjust seat, fasten seat belt.
- Sound the horn
- Make sure all implements are grounded.
- Move transmission control lever into neutral.
- Move the attachment control levers into HOLD.
- Make sure all personnel are clear of machine.
- Set the throttle control to LOW IDLE.
- Turn the key start switch to ON
- Perform start-up test on EMS or CMS
- Turn the key start switch to START. Crank engine.

**MACHINE WARM-UP...**

- Allow machine to warm-up for 5 minutes at low idle.
- Cycle all controls to allow warm oil to circulate through all cylinders and lines.
- Check gauges and action lights frequently.
- If the machine has an EMS, perform second part of start-up test.

**MOVING THE MACHINE...**

- Make sure area is clear.
- Raise all lowered implements.
- Depress brake pedal.
- Release parking brake.
- Move transmission control to desired direction.
- Release brake pedal and check for proper operation.

**MACHINE SHUT DOWN...**

- Park machine on smooth, level area.
- Set the parking brake.
- Lower boom to the ground
- Lower all implements, hydraulic or mechanical.
- Retract the counterweight
- Move throttle control to LOW IDLE and run 5 minutes
- Turn key start switch to OFF and remove key.
- Turn battery disconnect switch to OFF
- Dismount machine using 3-point contact.
- Conduct post-operation walk around inspection.

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