



# Start-Up & Shutdown Procedures

Inspector \_\_\_\_\_ Evaluator \_\_\_\_\_

## MOUNTING AND DISMOUNTING

- Mount or dismount the machine only at locations that have steps and/or handholds. Before you mount the machine, clean and inspect the steps and handholds. Make all necessary repairs.
- Always face the machine whenever you get on or off the machine.
- Maintain three-point contact with the steps and with the handholds. (Three-point contact can be 2 feet and 1 hand or 1 foot and 2 hands).
- DO NOT mount or dismount a moving machine. Never jump off the machine. Do not carry tools or supplies when you try to mount the machine or when you try to dismount the machine.

Was procedure step completed properly?	✓	Evaluator Comments
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### BEFORE STARTING THE MACHINE

Inspect the condition of the seat belt and mounting hardware Regardless of appearance, replace the seat belt after three years of use		
Adjust the seat so that full pedal travel can be achieved with the operator's back against the back of the seat		
Make sure the machine is equipped with a lighting system that is adequate for the job conditions Make sure all machine lights are working properly		
Before you start the engine and before you move the machine, make sure that no one is underneath the machine, around the machine, or on the machine		

### STARTING THE MACHINE

Turn the battery disconnect switch ON		
Engage the parking brake, verify parking brake is engaged		
Adjust seat, fasten seat belt		
Make sure all implements are grounded		
Move transmission control lever into NEUTRAL, verify transmission is in NEUTRAL		
Move the attachment control levers into HOLD, verify implement control is in HOLD		
Make sure all personnel are clear of machine		
Set the throttle control to LOW IDLE		
Sound the horn before starting the machine		
Turn the key start switch to ON		
Perform start-up test on monitoring system		
Turn the key start switch to START and crank engine		

### MACHINE WARM-UP

Allow machine to warm up for 5 minutes at low idle		
Engage and disengage attachment controls to help speed warm-up of hydraulic components		
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		
Perform brake test per O&MM before moving machine		



Was procedure step completed properly?	√	Evaluator Comments
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**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		
Perform service brake test per O&MM		

**MACHINE SHUT DOWN**

Park machine on smooth, level area		
Set the parking brake		
Lower all hydraulic implements		
Move throttle control to LOW IDLE and run 5 minutes		
Turn key start switch to OFF and remove key		
Utilize correct delayed engine shutdown procedure if equipped Note: Overriding delayed engine shutdown may reduce engine & machine system component life <b>Use for emergency situations only</b>		
Turn battery disconnect switch to OFF		
Do not turn off the battery disconnect switch until the "wait to disconnect" lamp has turned off. If the switch is turned off when the indicator lamp is illuminated the Diesel Exhaust Fluid (DEF) system will not purge the DEF. If the DEF does not purge, DEF could freeze and damage the pump and lines (if equipped).		
Dismount machine using 3-point contact		
Conduct post-operation walk-around inspection		

**NOTES:**

Inspected by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

