



# 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 (if equipped)		
Make sure that the engine shutdown switch is in the ON position		
Adjust seat, adjust mirrors, fasten seat belt		
Move hydraulic lockout control to the LOCKED position		
Ensure all implements are grounded		
Move the joysticks to HOLD		
Ensure all personnel are clear of machine		
Sound horn		
Turn the key start switch to ON		
Observe monitoring system, add fluids if necessary		
In cold-weather conditions, wait until the indicator light for the starting aid equipment is in the OFF position (refer to O&MM)		
Turn the key start switch to START and crank engine		

### MACHINE WARM-UP

Allow machine to warm up (per time required in O&MM)		
Engage and disengage joystick controls to help speed warm-up of hydraulic components		
Turn engine speed dial to medium, run engine for 5 minutes, continuously move joystick from BUCKET DUMP to HOLD		
Turn the engine speed dial to the maximum engine speed and move joystick from BUCKET DUMP to HOLD to attain relief pressure		
Cycle all controls to allow warm oil to circulate through all cylinders & lines		
Check gauge, indicators, and action light frequently		



Was procedure step completed properly?	√	Evaluator Comments
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**MOVING THE MACHINE**

Make sure area is clear		
Turn the engine speed dial to the operating range		
Move hydraulic lockout control to UNLOCKED position		
Raise boom		
Depress service brake pedal		
Disengage parking brake		
Select desired transmission gear		
Release service brake pedal		
Move travel speed pedal to the desired direction and to the desired speed		

**MACHINE SHUT DOWN**

Park machine on smooth, level area		
To slow the machine, release travel pedal and depress service brake pedal		
Lower all hydraulic implements		
Move hydraulic lockout control to the LOCKED position		
Run engine at low idle for 5 minutes to allow engine to cool		
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 Use for emergency situations only		
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		
If parking for extended period: block tires, remove disconnect switch key and install vandalism guards (if equipped)		
Conduct post-operation walk-around inspection		

**NOTES:**

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

