



Start-Up & Shutdown Procedures (QM) 631K-657G

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 TRACTOR ENGINE

Turn the TRACTOR battery disconnect switch ON (if equipped)		
Turn the SCRAPER battery disconnect switch ON (if equipped)		
Adjust seat for proper height and pedal reach		
Inspect, adjust, and fasten seat belt		
Inspect, adjust mirrors		
Move transmission control to NEUTRAL position		
Unlock steering column, move to desired position, lock steering column		
Engage the parking brake control, verify parking brake is engaged		
Move joystick control to HOLD position		
Move all implement controls to NEUTRAL or OFF position		
Ensure all personnel are clear of machine, sound horn		
If temperature of the intake air is below 0 °C (32 °F), the coolant temperature switch will cause ether to be automatically injected into the engine		
Turn engine start switch to the ON position		
Observe monitoring system self test to determine if modules and outputs are operating properly		
Turn the key start switch to START, crank engine and release when engine starts		

STARTING THE SCRAPER ENGINE

To start the scraper engine from the operator compartment:		
Follow steps above for "STARTING THE TRACTOR ENGINE"		
Press the scraper engine start button		
To start the scraper engine from the scraper control:		
Follow steps above for "STARTING THE TRACTOR ENGINE"		
Press the scraper engine start button in the operator compartment		
While the key is in the ON position push unlock/start button (from scraper control) prior to or along with scraper engine start button, release button when engine starts		



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Was procedure step completed properly?	√	Evaluator Comments
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MACHINE WARM-UP

When engine is cold, operate at low idle for at least 5 minutes (per O&MM)		
Cycle all controls to allow warm oil to circulate through all hydraulic cylinders and lines		
Run engine at less than one-third throttle, and slowly move the control lever to lift attachment		
Initially, lift the control lever for a few centimeters (inches), lower the attachment slowly		
Continue the sequence: raising, lowering, extending, and retracting		
Release brake, move equipment forward/backward for several meters (yards) for several minutes		
To reduce total warm up time, start exercising entire machine before completing hydraulic warm up time		
Operate under a light load until the systems reach normal operating temperatures		
Check gauges and indicators frequently		

MOVING THE MACHINE

Make sure area is clear by sounding horn and waiting 3-5 seconds before moving machine		
Raise bowl to pass over any obstacles		
Depress the service brake pedal		
Release the parking brake		
Move the transmission control to desired direction and appropriate gear speed		
Activate cushion hitch		
Release the service brake control		
Depress throttle pedal(s) to achieve desired engine speed		



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MACHINE SHUT DOWN

Park machine on smooth, level area		
Apply service brakes to stop machine		
Move transmission to NEUTRAL position		
Move throttle control to LOW IDLE position		
Turn off cushion-hitch and lower bail (if equipped)		
Engage the parking brake		
Lower all hydraulic implements, apply slight downward pressure		
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 remove battery disconnect key and lock all vandalism covers and compartments (if equipped)		
Conduct post-operation walk-around inspection		

NOTES:

Inspected by: _____ Date: _____ Time: _____

