

Floor strippers

Type of Equipment: Floor Scrubber

Make: Clarke Model: Encore S20/L20 Year: 2006

Instructions to use the Equipment Safely:

OPERATOR SAFETY INSTRUCTIONS

 WARNING

 AVERTISSEMENT

 ADVERTENCIA

 DANGER:

Failure to read and observe all DANGER statements could result in severe bodily injury or death. Read and observe all DANGER statements found in your Owner's Manual and on your machine.

 WARNING:

Failure to read and observe all WARNING statements could result in injury to you or to other personnel; property damage could occur as well. Read and observe all WARNING statements found in your Owner's Manual and on your machine.

 CAUTION:

Failure to read and observe all CAUTION statements could result in damage to the machine or to other property. Read and observe all CAUTION statements found in our Owner's Manual and on your machine.

 DANGER:

Failure to read the Owner's Manual prior to operating or attempting any service or maintenance procedure to your Clarke machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.

 DANGER:

Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation.

 DANGER:

Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials. This machine is not suitable for picking up hazardous dust.

 DANGER:

Lead acid batteries generate gases which can cause an explosion. Keep sparks and flames away from batteries. Do not smoke around the machine. Charge the batteries only in an area with good ventilation. Make sure that the AC charger plug is unplugged from the wall receptacle before connecting or disconnecting the DC plug to or from the battery pack.

 DANGER:









Working with batteries can be dangerous! Always wear eye protection and protective clothing when working near batteries. Remove all jewelry. Do not put tools or other metal objects across the battery terminals, or the tops of the batteries.

 DANGER:

Using a charger with a damaged power cord could result in an electrocution. Do not use the charger if the power cord is damaged.

 WARNING:

Operating this machine from anywhere other than the back of the machine could result in injury or damage. Operate this machine only from the rear.

-  **WARNING:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be performed by authorized Clarke personnel only.
-  **WARNING:** Any alterations or modifications of this machine could result in damage to the machine or injury to the operator or other bystanders. Alterations or modifications not authorized by the manufacturer voids any and all warranties and liabilities.
-  **WARNING:** Electrical components of this machine can "short-out" if exposed to water or moisture. Keep the electrical components of the machine dry. Wipe the machine down after each use. For storage, keep the machine in a dry building.
-  **WARNING:** Operating a machine without observing all labels and instructional information could result in injury or damage. Read all machine labels before attempting to operate. Make sure all of the labels and instructional information are attached or fastened to the machine. Get replacement labels and decals from your Clarke distributor.
-  **WARNING:** Wet floor surfaces can be slippery. Water solutions or cleaning materials used with this type of machine can leave wet areas on the floor surface. These areas can cause a dangerous condition for the operator or other persons. Always put "Caution" signs around/near the area you are cleaning.
-  **WARNING:** Improper discharge of waste water may damage the environment and be illegal. The United States Environmental Protection Agency has established certain regulations regarding discharge of waste water. Also, city and state regulations regarding this discharge may be in effect in your area. Understand and follow the regulations in your area. Be aware of the environment hazards of chemicals that you dispose.
-  **CAUTION:** Use of this machine to move other objects or to climb on could result in injury or damage. Do not use this machine as a step or furniture. Do not ride on this machine.
-  **CAUTION:** Your machine warranty will be voided if anything other than genuine Clarke parts are used on your machine. Always use Clarke parts for replacement.

Inspection (pre-use) check list

Do not operate machine:

- With flammable liquids or near flammable vapours as an explosion or flash fire may occur.

Pre-Use inspection Log

PRE-USE INSPECTION LOG			
Date:		Time:	
Weather conditions:	n/a		
Ground conditions:	n/a		
	Yes	No	
Read the Operating Manual			
Area inspected and obstacles removed			
Wear proper clothing, including long pants			
Is machine in proper operating condition?			
Are all safety devices in place and operating properly?			

Inspector's Signature: _____

Type of Equipment: Floor Scrubber

Make: Numatic **Model:** Twintec 455

Instructions to Use the Equipment Safely

TTB 455 OPERATION - DO'S AND DON'TS

- DO** ensure only competent persons unpack and assemble the machine
- DO** keep the machine clean
- DO** keep the brushes in good condition
- DO** replace any worn or damaged parts immediately
- DO** ensure that the working area is clear of obstructions
- DO** ensure that the working area is well illuminated
- DO** follow all the instructions supplied
- DO** ensure that if using a pad, it is washed after each use

- DON'T** use steam cleaners or pressure washers to clean the machine
- DON'T** use the machine outdoors in the rain
- DON'T** attempt machine maintenance or cleaning with the isolator pin intact
- DON'T** allow any inexperienced repairs
- DON'T** leave the brush or pad on the machine when not in use
- DON'T** allow the machine to be used by inexperienced or unauthorised personnel
- DON'T** lift or pull the machine by any of the operating triggers
- DON'T** leave the machine running in one spot, turn off if not being used
- DON'T** leave the brush or pad on the machine overnight, they will flatten

WARNING

It is essential that the equipment is correctly assembled and operated in accordance with current safety regulations. When using the equipment always ensure that all necessary precautions are taken to guarantee the safety of the operator and any other persons who may be affected. Wear non-slip footwear when scrubbing. Always use a respiratory mask in dusty environments. The use of other accessories may affect the safety of the scrubber dryer. A full range of brushes and other accessories are available from Numatic International.

Pre-Use inspection Log

PRE-USE INSPECTION LOG		
Date:		Time:
Weather conditions:	n/a	
Ground conditions:	n/a	
	Yes	No
Ensure that charging lead has been disconnected		
Ensure that the isolator pins is in place		
Fit pad and drive board / scrubbing brush		
Unclip deck so that the pad / brush is positioned flat to the floor		
Lower the squeegee blade so that it is positioned flat to the floor		
Fill bottom tank with clean water and detergent		
Ensure that water on/off control is set at appropriate position		
Ensure that top tank(s) are empty		
Ensure that separator is fitted correctly		
Adjust handle height to suit		
Stand behind the machine		
Press both of the black rubber buttons on the handle display		
Press and hold in the yellow button on the rear of the handle and at the same time squeeze the triggers on the handle. Release the yellow button		
Push the machine in the direction in which you want to clean, holding in the black triggers		
When you want the machine to stop, release triggers		

Inspector's Signature: _____

Type of Equipment: Floor Scrubber

Make: Advenger

Model: BR600S,650S,700S, 800S

Instructions to Use the Equipment Safely

OPERATING THE MACHINE

WARNING !

Be sure you understand the operator controls and their functions.

While on ramps or inclines, avoid sudden stops when loaded. Avoid abrupt sharp turns. Use low speed down hills. Clean only while ascending (driving up) the ramp.

To Scrub...

Follow the instructions in preparing the machine for use section of this manual.

- 1 While seated on the machine, adjust the steering wheel to a comfortable operating position using the adjustment knob (5).
- 2 Turn the Master Key Switch (J) ON (I). This will display the control panel indicator lights, reference the Battery Condition Indicator (K) and Hour Meter (G).
- 3 Release the Parking Brake (6). To transport the machine to the work area, apply even pressure with your foot on the front of the Drive Pedal (8) to go forward or the rear of the pedal for reverse. Vary the pressure on the foot pedal to obtain the desired speed.
- 4 Adjust the Solution Flow Control Valve Lever (7) to about 1/4 to 1/3 open position. Note the adjustment can be changed to allow variable solution flow for different types of floors to be scrubbed. Example: A rough or absorbent floor surface, such as unfinished concrete, well require more solution than a smooth finished floor.
- 5 Press the Solution Switch (R) and hold for 5 seconds. This is done to pre-wet the floor. Note: This will help prevent scarring of the floor surface when starting to scrub with dry brushes.
- 6 Press the Scrub Pressure Decrease Switch (D) or the Scrub Pressure Increase Switch (F) to activate the scrub system. Note: refer to the Functional Description of Control Switches section for a more detailed explanation of these and other control panel functions.
- 7 When the Scrub Pressure Decrease Switch (D) or the Scrub Pressure Increase Switch (F) are selected, the brushes and squeegee are automatically lowered to the floor. The machine's scrub brush rotation, solution system flow and vacuum starts when the Drive Pedal (8) is activated. Note: When operating the machine in reverse, only the brushes will rotate, the solution is automatically shut off to conserve the solution usage.
- 8 Begin scrubbing by driving the machine forward in a straight line at a normal walking speed and overlap each path by 2-3 inches (50-75 mm). Adjust when necessary the machine speed and solution flow according to the condition of the floor.

CAUTION !

To avoid damaging the floor, keep the machine moving while the brushes are turning.

- 9 When scrubbing, check behind the machine occasionally to see that all of the waste water is being picked up. If there is water trailing the machine, you may be dispensing too much solution, the recovery tank may be full, or the squeegee tool may require adjustment.
- 10 For extremely dirty floors, a one-pass scrubbing operation may not be satisfactory and a "double-scrub" operation may be required. This operation is the same as a one-pass scrubbing except on the first pass the squeegee is in the up position (press the Vacuum Switch (O) to raise the squeegee). This allows the cleaning solution to remain on the floor to work longer. The final pass is made over the same area, with the squeegee lowered to pick up the accumulated solution.
- 11 The recovery tank has an automatic float shut-off to prevent solution from entering the vacuum system when the recovery tank is full. When the float shut-off is activated, the control system will shut down the scrub, vacuum and solution systems. The Scrub Pressure / Hourmeter Display (G) will display "FULL". To clear the display, press the Scrub OFF Switch (B), Scrub Pressure Decrease Switch (D), Scrub Pressure Increase Switch (F) or the Vacuum Switch (O). When the float closes, the recovery tank must be emptied. The machine will not pick up water with the float closed. **NOTE:** If the control repeatedly gives a full indication when the tank is not full, the automatic shut-off feature can be disabled, have a qualified service technician refer to the service manual to perform this function.
- 12 When the operator wants to stop scrubbing or the recovery tank is full, press the Scrub OFF Switch (B) once. This will automatically stop the scrub brushes and solution flow and the scrub deck will raise UP. **NOTE:** the vacuum/squeegee system will not be turned off when the switch is only pressed once, this is to allow any remaining water to be picked up without turning the vacuum back on. Press the switch a second time and the squeegee will raise and the vacuum will stop after a 10 second delay.
- 13 Drive the machine to a designated waste water "DISPOSAL SITE" and empty the recovery tank. To empty, pull the Drain Hose (21) from its rear storage area, then remove the plug (hold the end of the hose above the water level in the tank to avoid sudden, uncontrolled flow of waste water). Refill the solution tank and continue scrubbing.

WET VACUUMING

Steps to follow in fitting the machine with optional attachments for wet vacuuming.

- 1 Disconnect the recovery hose from the squeegee. Connect the coupler and hose from the wand kit to the recovery hose.
- 2 Attach suitable wet pick-up tools to the hose. (An optional Wand Kit PN56314307 is available from Nilfisk-Advance).
- 3 Turn the Master Key Switch (J) ON, next press the Wand Switch (I). The vacuum motor and pump will run continuously until the switch is pressed again to turn them OFF. **NOTE:** If the control repeatedly gives a full indication when the tank is not full, the automatic shut-off feature can be disabled, have a qualified service technician perform this function.

AFTER USE

- 1 When finished scrubbing, press the Scrub Off Switch (B) twice, this will automatically raise, retract and stop all the machine systems (brush, squeegee, vacuum & solution). Then drive the machine to a service area for daily maintenance and review of other needed service up keep.
- 2 To empty the solution tank, remove the Solution Drain Hose (4) from its storage clamp. Direct the hose to a designated "DISPOSAL SITE" and remove the plug. Rinse the tank with clean water.
- 3 To empty the recovery tank, pull the Recovery Tank Drain Hose (21) from its storage area. Direct the hose to a designated "DISPOSAL SITE" and remove the plug (hold the end of the hose above the water level in the tank to avoid sudden, uncontrolled flow of waste water). Rinse the tank with clean water.
- 4 Remove the brushes or pad holders. Rinse the brushes or pads in warm water and hang up to dry.
- 5 Remove the squeegee, rinse it with warm water and re-install on mount.
- 6 Remove the hopper on cylindrical systems and clean thoroughly. Remove from either side of the machine by opening the skirt and tilting the hopper up and away from housing, then pull out.
- 7 Check the maintenance schedule below and perform any required maintenance before storage

MAINTENANCE SCHEDULE

MAINTENANCE ITEM	Daily	Weekly	Monthly	Yearly
Charge Batteries	•			
Check/Clean Tanks & Hoses	•			
Check/Clean/Rotate the Brushes/Pads	•			
Check/Clean the Squeegee	•			
Check/Clean Vacuum Shut-Off Float	•			
Check/Clean the vacuum motor foam filter(s)	•			
Clean Hopper on Cylindrical System	•			
Check Each Battery Cell(s) Water Level		•		
Inspect Scrub Housing Skirts		•		
Inspect and clean Solution Filter		•		
Check Foot/ Parking Brake For Wear & Adjustment		•		
Clean Solution Trough on Cylindrical System		•		
Lubrication - Grease Fittings			•	
* Check Carbon Brushes				•

* Have Nilfisk-Advance check the vacuum motor carbon motor brushes once a year or after 300 operating hours. The brush and drive motor carbon brushes check every 500 hours or once a year.

NOTE: Refer to the Service Manual for more detail on maintenance and service repairs.

- 8 Store the machine indoors in a clean dry place. Keep from freezing. Leave the tanks open to air them out.
- 9 Turn the Master Key Switch (J) OFF (O) and remove the key.

LUBRICATING THE MACHINE

Once a month, pump a small amount of grease into each grease fitting on the machine until grease seeps out around the bearings

Grease fitting locations are:

- Squeegee Caster Wheel Axle
- Steering Wheel Shaft Universal joint

Once a month, apply light machine oil to lubricate the:

- Steering Chain
- General Pivot Points For the Squeegee, Brush Linkage and Side Skirts
- Squeegee mount angle adjustment knob threads