

Document Title: Description	Function Group: 000	Information Type: Service Information	Date: 2015/9/29
Profile: GRD, G726B [GB]			

Description

Intended use

The machine is intended to be used under normal conditions for the operations described in the Operator's Manual. If it is used for other purposes or in potentially dangerous environments, for example, an explosive atmosphere, areas with dust containing asbestos, etc., special safety regulations must be followed and the machine must be equipped for such use. Contact the manufacturer or dealer for further information.

Engine

The engine is a four stroke cycle, in line six cylinder, turbocharged diesel with overhead valves and charge air cooler. These engines are of the low emission type and all models have VHP (Variable Horsepower).

VHP

All Volvo grader models have engines that provide 2 different power levels depending on the gear selected by the operator.

- For non-All Wheel Drive equipped graders, forward gears 1, 2, and reverse 1, have reduced power to minimize wheel slip. In forward gears 3 through 8, and reverse gears 2 through 4, engine power is automatically increased.
- For All Wheel Drive equipped models with the All Wheel Drive system turned OFF, the function of the VHP is the same as above.
- For All Wheel Drive equipped models with the All Wheel Drive turned ON, the engine power is increased for all gears.
- There is no operator selectable control over the VHP system.

Electrical system

The electrical system is a 24VDC, negative-ground system. Power is supplied by two 12VDC batteries connected in series. Battery charging is accomplished using a standard 75 amp alternator and an optional 100 amp alternator. Electrical power can be disconnected using a ground isolation switch.

Clutch

A multiple wet disc clutch is mounted to the engine flywheel and connected to the transmission with a driveshaft. The clutch must be used when starting to move or when changing direction.

Transmission

The transmission has eight forward and four reverse speeds. It is a fully sequential, direct drive, powershift unit utilizing a countershaft design.

Final drive/tandems

Final drives are single reduction in models G710B to G746B and double reduction in the G780B. Each has an operator controlled lock/unlock differential. Rear axles are case hardened, full floating design, supported on double row spherical roller bearings. Tandem wheels are chain-driven.

Brakes

Hydraulically actuated, oil disc service brakes are located at the four tandem drive wheels. The crossover dual braking circuits provide even braking on both sides of the grader.

If the engine stalls, or hydraulic boost pressure becomes unavailable, full braking capability is available through a reserve system. An electric motor supplies the power required to bring the grader to a safe stop.

The parking brake is a spring apply/hydraulic release, disc-type brake. It is driveline-mounted to the transmission output shaft. An accumulator in the circuit stores system pressure allowing the brakes to remain released in the event of system pressure loss for about 30 minutes.

Steering

The steering system is a closed-center dynamic signal load sensing system. The hydraulic steering system incorporates two steering cylinders. The leaning wheel feature and articulated frame can be used to decrease turning radius. There is no manual steering.

Cab and frame

Either the canopy or fully-enclosed cab are equipped according to the FOPS-ROPS stipulations and provided with heating and ventilation with air conditioning as an option. All controls and gauges are housed in either the fully adjustable steering pedestal or the right-hand side console. Ergonomic seating and hydraulic control lever placement ensure operator comfort and efficiency. The frame articulates 22 degrees right or left and uses anti-drift lock valves to ensure stable operation.

MBCS (Moveable Blade Control System)

Blade mobility permits steep ditch cutting angles and back sloping outside of overall machine width. The circle is held in place by adjustable clamp plates and guide shoes. Bearing surfaces are DURAMIDE™-faced to maximize service life. Hardened teeth are cut on the outside of the circle. Oil is directed to the two drive cylinders by a circle timing valve. The cylinders are arranged 90 degrees out of phase to insure consistent power. Moldboard is provided with replaceable cutting edge and end-bits. The drawbar is a narrow "T" design for optimum visibility to the work area.

Hydraulic system

The closed-center hydraulic system uses a pressure and flow compensated (load-sensing) variable displacement piston pump. The pump supplies oil to the implements, the steering and the engine cooling fan system.

The cooling fan is driven by a fixed displacement vane-type motor. Fan speed is variable and is determined by various cooling requirements. The fan operates between predetermined minimum and maximum speeds. The fan remains at its minimum speed until there is a demand for cooling. Fan speed will automatically increase with the demand for cooling.

Lock valves (counterbalance valves) are incorporated into the blade lift, moldboard tilt, circle shift, wheel lean and articulation circuits to prevent cylinder drift. The control levers are short throw, feathering type located on an adjustable steering pedestal.

All Wheel Drive - (AWD)

G726B and G746B are All Wheel Drive models. The system operates in gears 1 through 7. It is powered by two electronically controlled, variable displacement hydraulic pumps in a closed loop system. Each pump supplies one front wheel motor.

Front wheel motors are two-speed, high torque, radial piston, cam lobe type. Each wheel motor has a separate speed sensor.

Equipment and attachments

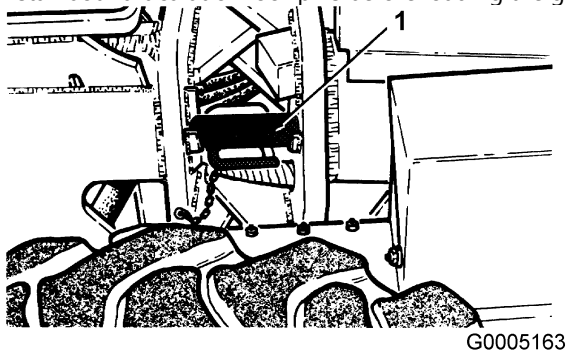
The circle, drawbar and moldboard equipment is fully maneuverable using hydraulic cylinders. Optional attachments include:

- Dozer blade
- Rear-mounted ripper-scarifier
- Mid-mounted scarifier
- Front-mounted scarifier
- Windrow eliminator
- Push block (counterweight for ripper)
- One-way plow
- V-plow
- Hydraulic snow wing (high and low bench)
- A-frame (used with V-plow and One-way plow only)

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Transporting the machine

- Use a pressure washer to remove any loose gravel, mud or debris from the grader moldboard, tires or frame.
- Install both articulation lock pins before loading the grader onto the trailer bed.

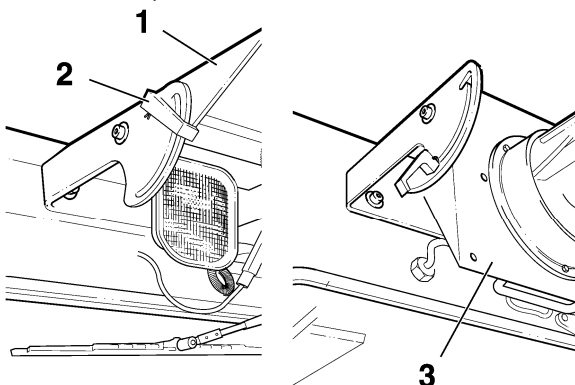


G0005163

Figure 1

1. Articulation lock pin

- Load and unload the grader on a level surface.
- Ensure the combined height of the trailer bed and the top of the grader cab is lower than local height restrictions or any bridges, overpasses or overhead obstructions expected to be encountered during transport. Refer to [030 Dimensions](#).
- Ensure the transporting equipment is adequate to hold the weight and size of the grader.
- Place chocks against the truck and trailer wheels.
- Use a ramp or loading dock. Ensure the ramp is strong enough and has a low angle of rise to the height of the trailer bed.
- Do not place tie-down cables or chains over or against hydraulic tubes, hoses, cylinders or valves, etc. Attach tie-down cables or chains securely to front attachment points.
- Obey all local laws concerning loading, unloading or transporting the grader. Wide load permits may be required for graders equipped with tires larger than 14.00.
- Keep the trailer bed clean.
- The rotating beacon can be lowered for increased clearance. Lift and release the pivot rod handle on the left-hand side of the bracket. Grasp the handle at the rear of the bracket. Slightly move the bracket upward, and then allow the bracket to pivot until it reaches the end of its travel limit. Return the pivot rod handle to the locked position.



G0005171

Figure 2

1. Rotating beacon light
2. Pivot rod handle
3. Lowered position

- When loading the grader onto a trailer bed, drive the grader straight and centered with the width of the trailer bed. The centerline of the grader must be directly over that of the trailer bed or railcar.

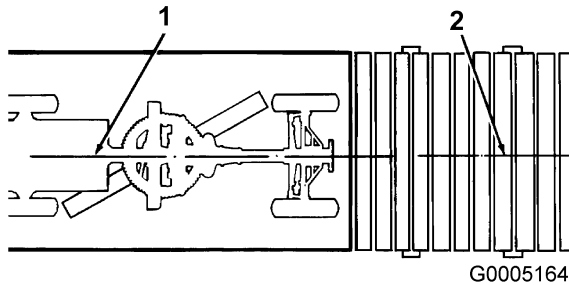


Figure 3

Before securing tie-down cables or chains, position the grader on the trailer bed as follows:

1. Place the transmission in neutral and apply the parking brake.

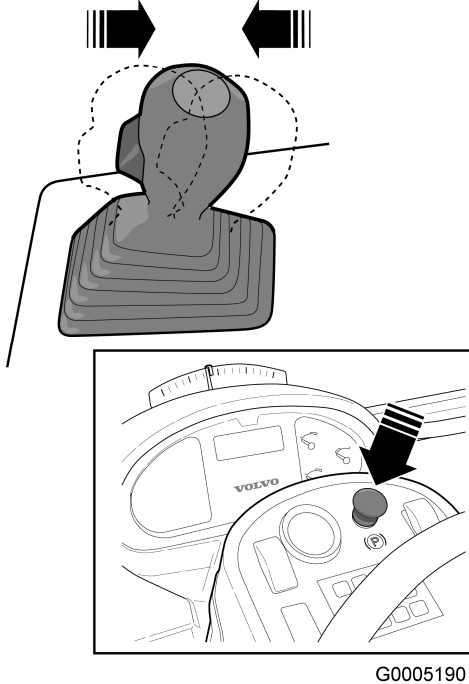
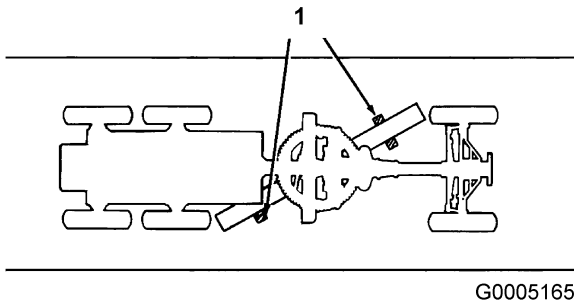


Figure 4

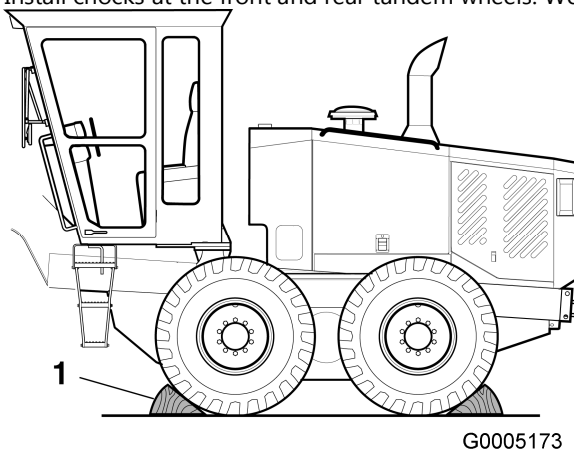
2. Lower the moldboard lengthwise under the grader onto wooden blocks to protect the trailer bed. Do not apply down pressure. Also, lower any attachments such as a scarifier or ripper.



G0005165

Figure 5

1. Wooden blocks
3. Place grader in the Service position. Refer to [191 Service positions](#)
4. Install chocks at the front and rear tandem wheels. Wedge and nail the chocks in place.



G0005173

Figure 6

1. Wheel chocks
5. Relieve residual hydraulic pressure by operating all the control levers.
6. Remove and retain the ignition key. Lock the cab doors.
7. Turn the battery isolation switch off. It is located inside the engine compartment on the left-hand side of the grader.



G0005167

Figure 7

1. Battery isolation switch
8. Cover the exhaust opening with heavy gauge plastic and secure in place to prevent dust and moisture entering the engine. Remember to remove the plastic cover before starting the grader.

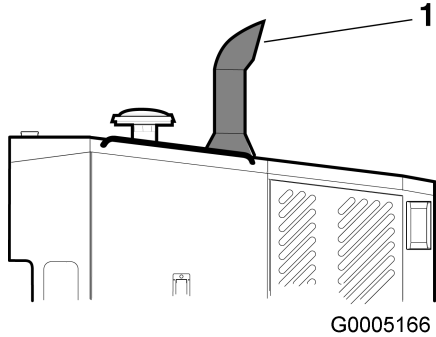


Figure 8

1. Exhaust opening

Lifting arrangement and tie-down locations

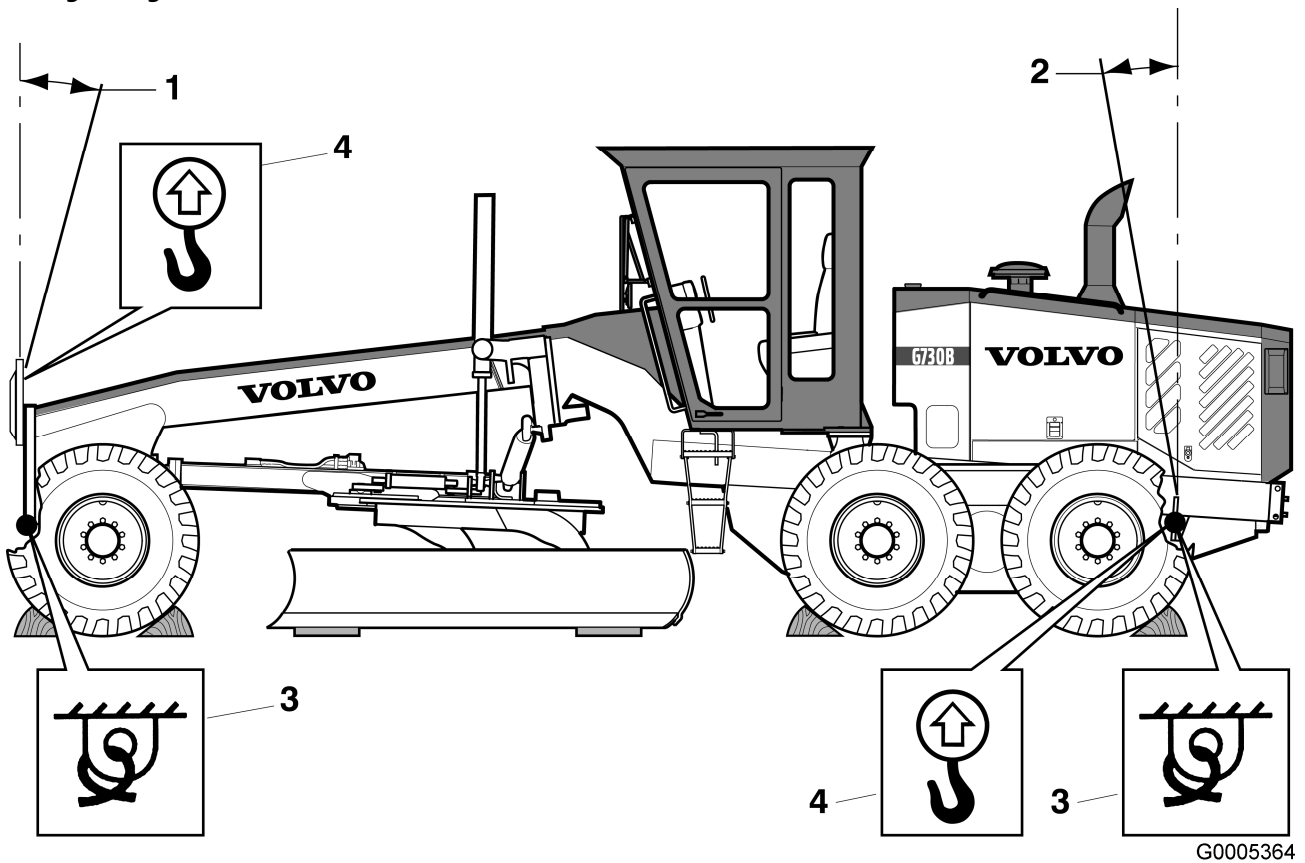


Figure 9

1. 15° maximum lifting angle
2. 10° maximum lifting angle
3. Front and rear tie-down locations (optional or EEC machines)

4. Front and rear lifting points

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Storage

Long-term parking

When a grader is taken out of service for more than 30 days, you must ensure that it is protected from exposure to the elements. An enclosed structure will protect the grader from rapid temperature changes and decrease the amount of condensation that forms in fluid reservoirs, e.g., engine oil pan, fuel tank, hydraulic oil tank, etc.

After you have parked the grader and shut down the engine, perform the following steps:

1. Inspect for leaks and other defects. Correct as necessary.
2. Thoroughly wash the grader. Be sure to rinse off any caustic residue.
3. Touch up any areas where the paint has worn away.
4. Clean or replace air filter elements.
5. Open the drain valve at the bottom of the fuel tank and drain 1 liter (approx. 1 US quart) of fuel to remove any water accumulation.
6. Replace engine fuel filters.
7. Add the recommended amount of fuel stabilizer and corrosion inhibitor to the fuel tank.
8. Start and run the engine at 1400 rpm to 1600 rpm with no load for approximately four minutes.
9. Change the engine oil and replace the engine oil filter.
10. Seal the engine exhaust and air intake openings with tape or heavy gauge plastic.
11. If tires are to be left on, raise the grader and place it on blocks to keep the tires off the ground. Deflate and cover the tires.
12. Turn off the battery isolation switch. Remove batteries and store them in a cool, clean, dry and well-ventilated area where the temperature is between 0°C and 21°C (32°F and 70°F). Be sure batteries are fully charged.
13. Remove all objects which do not belong in or on the grader.
14. Place a "Do Not Operate" or similar warning tag on the steering wheel to indicate that the Grader has been taken out of service and remove the ignition key.
15. Coat all machined and unpainted surfaces (including moldboard) with grease to prevent rust forming.
16. Coat all exposed chrome plated surfaces on hydraulic cylinder piston rods with a thin layer of grease.
17. Grease all door hinges.
18. Latch and lock the cab and compartment doors in the fully closed position and store the keys in a safe place.

Preparing for operation after long-term parking

Perform the following steps before putting the grader back into service:

1. Inspect for leaks and other defects which may have occurred during storage.
2. Thoroughly wash the grader. Remove all grease and coatings installed as Long term parking steps 13 and 14 on the previous page.
3. Remove the tape or heavy gauge plastic from the engine exhaust and air intake openings.
4. Ensure that all ports, hatches, and openings, including the engine compartment and cooling module areas of the machine, are free of animal and birds nests or other debris.
5. Lubricate all grease points. Refer to the Operator's Manual.
6. Install fully charged batteries. Turn on the battery isolation switch.
7. Inflate the tires to the correct pressure. Refer to the Operator's Manual. Lower the grader from the storage blocks.
8. Perform all appropriate pre-start checks. Refer to the Operator's Manual.
9. Start and run the engine at 1400 rpm to 1600 rpm with no load for approximately four minutes. If any warning lamps and the alarm energize or gauges show abnormal readings, shut down the engine. Report the problem and have it repaired by a qualified service technician.

Document Title: Grader setup instructions	Function Group: 050	Information Type: Service Information	Date: 2015/9/29
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Grader setup instructions

General

Volvo motor graders are prepared for export shipment in different configurations. Graders can be shipped as knock-down units in containers, roll-on/roll-off (RO-RO) machines or complete, drivable graders with a fully assembled cab. RO-RO machines are also drivable, but the upper part of the cab structure is removed and stowed on the front frame. The doors and upper cab glass are packaged in a crate attached to the grader front frame.

This section describes the reassembly procedure for a typical grader shipped as a knock-down unit in a standard container. Optional attachments may accompany the grader in the same container. The reassembly procedure depends on the local unloading facilities. General shop tools are required.

It may be necessary to drive the machine under it's own power after being unloaded. Before starting and moving the grader, perform the **General walk-around inspection**. See below. Refer to the grader Operator's Manual for complete details. The Operator's Manual is found in the manual box inside the cab behind the seat.

These instructions cover the following machine models, Serial Number 35000 and up:

G710B, G720B, G730B, G740B, G780B, G726B, and G746B.

Knock-down unit – Removal from the container

1. Remove the tarpaulin from the container. Remove the reinforcing rods from the container and swing the mainstay to one side.

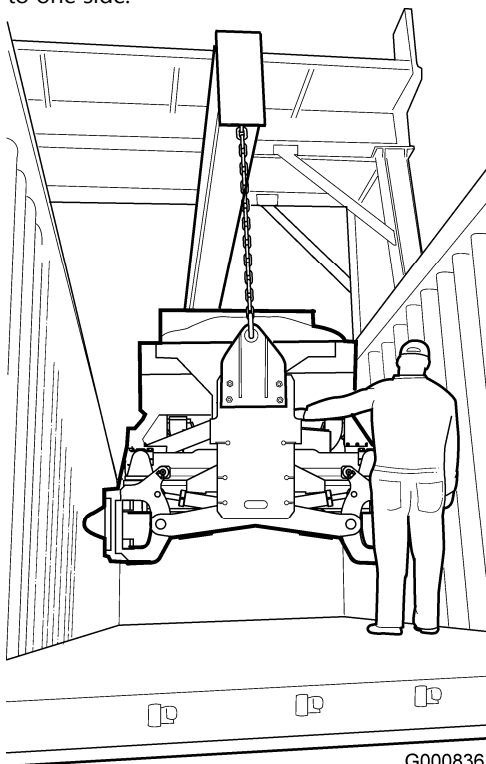


Figure 1
Removing grader from container



Only use lifting devices with adequate capacity.

2. Ensure the lifting lug nuts and bolts are tight before lifting the grader. Attach crane hooks to the lifting lugs. Install a spreader bar between the cables above the rear lifting lugs to prevent damage to the grader. Remove any retaining wooden blocks and lift the grader out of the container. If there is limited time to use the lifting device, lower the grader onto the ground. If there is full use of the lifting device, lower the grader just enough to install the rims and tires.
3. Use a safe lifting device to remove the rims and tires from the container. Install the rims and tires onto the front and rear wheel hubs. Generally, the front tires are mounted with the tread facing the opposite direction of the rear tires. This promotes self-cleaning of the tire. However, the driving front wheels of an All Wheel Drive grader must have the tire tread facing the same direction as the rear tire tread.

NOTE!

If an overhead crane or other lifting device is not available to install the wheels, refer to *Installing rims and tires without a crane*. See below.

4. Use a tire pressure gauge to check the air pressure in the tires. Adjust the air pressure to 241 kPa (35 psi). Refer to the Operator's Manual for further information.
5. Lower the grader to the ground. Torque-tighten the rim bolts to 644 – 712 N•m (66 – 73 kgf•m; 475 – 525 lbf•ft) in a diagonal pattern. Do not torque-tighten the rim bolts in series around the wheel hubs.
6. Sometimes areas of the grader are coated with a surface treatment to protect the machine from corrosion during transportation.

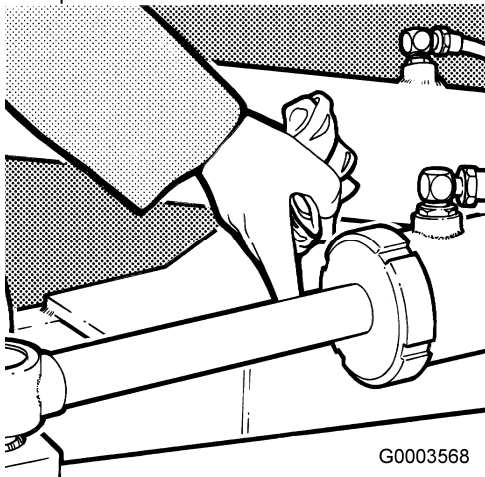


Figure 2
Removing surface treatment

- Remove the protective coating using mineral spirits or degreasing solvents.
- Spray on until the surface to be cleaned is completely wetted.
- Let stand for 15 minutes.
- Wash off with a power washer.
- Thoroughly inspect all hydraulic cylinder piston rods and seals for signs of damage or corrosion.
- Complete this procedure before operating any of the hydraulic cylinders.

7. Remove the plastic covering from the engine air intake stack and exhaust pipe.
8. Install the air cleaner rain cap or precleaner (optional).

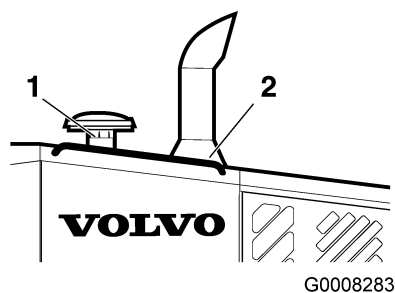


Figure 3

1. Air cleaner rain cap

2. Exhaust stack

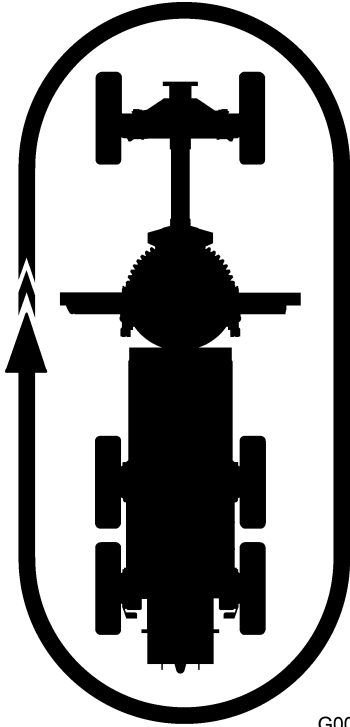
- On models G710B to G730B, torque-tighten the band clamp to 9,6 – 11 N•m (1 kgf•m; 7 – 8 lbf•ft).
- On models G740B to G780B, torque-tighten the bolts to 50 – 70 N•m (5 – 7 kgf•m; 37 – 52 lbf•ft).

9. Install the exhaust stack. Torque-tighten the bolts to 50 – 70 N•m (5 – 7 kgf•m; 37 – 52 lbf•ft).

NOTE!

If it is necessary to move the machine to another location before continuing with the rest of the assembly, perform the **General walk-around inspection**. See below.

General walk-around inspection



G0005168

Figure 4

Perform the following general walk-around inspection.

- Look for oil and coolant leaks. Check for tire damage, pinched hoses and loose bolts. Repair as necessary.
- Visually check the levels of the engine coolant, engine oil, hydraulic oil and transmission oil as outlined on the following pages. Replenish fluids as required.
- Ensure all tools and other loose objects are removed from the machine. Turn the battery isolation switch to the "I" position. Ensure the transmission is in NEUTRAL and the parking brake is engaged (control knob pushed in).
- Visually check around the machine. Ensure all personnel are clearly away from the area. Signal the intention to start the engine. Start the engine when it is safe to do so. When it is safe to do so, release the parking brake and move the grader.

Check the engine oil level

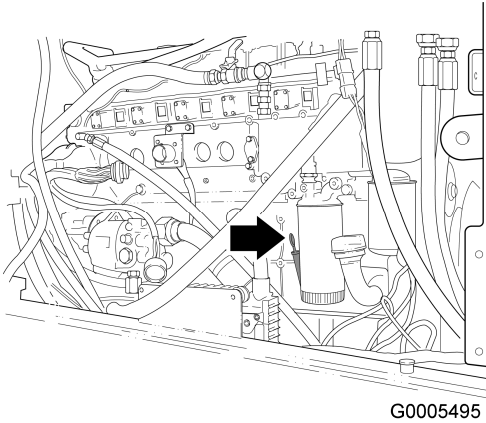


Figure 5

Check the engine oil level with the engine off.

The machine should be parked on level ground to check the engine oil. Check the oil when the engine is cold. The oil filler cap and dipstick are located on the left-hand side of the engine.

- Withdraw the dipstick and check the oil level. The oil level must be between the marks on the dipstick.
- Add engine oil as required. Refer to [160 Recommended lubricants](#) for correct oil type.

Check the oil for contaminants or water.

Checking coolant

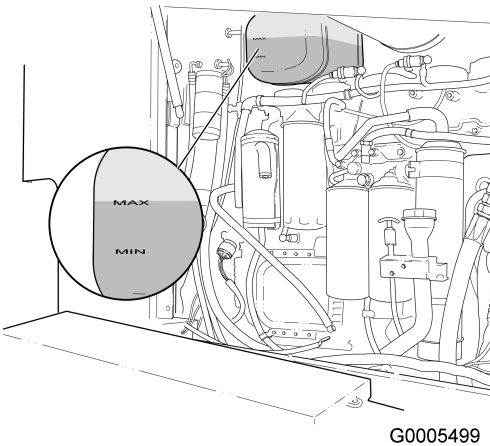


Figure 6

The expansion tank should be 2/3 full, at the MAX mark when the engine is warm. The control lamp for the coolant level lights up when the level in the expansion tank is too low. Top up when required. Refer to [160 Coolant](#) for more information.

The coolant level must never be below the minimum mark.

Transmission oil level

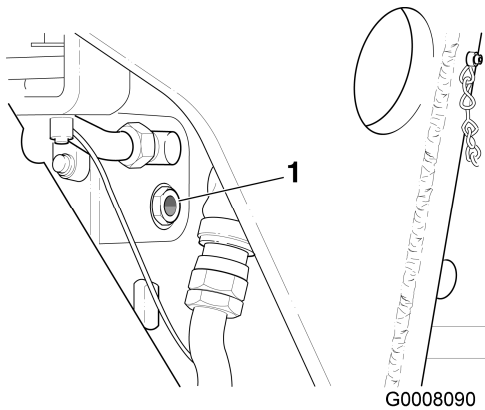


Figure 7

1. Transmission oil level sight glass

Prior to starting the machine, ensure the transmission oil level sight glass is full. (The oil level sight glass is located on the left-hand side of the transmission case.) The sight glass should be full when the engine is shut down.

Check the transmission oil level at operating temperature with the engine running.

To check the oil:

- Park the grader on level ground and place the transmission in NEUTRAL.
- Apply the parking brake and lower the moldboard and all attachments to the ground.
- With the engine speed at idle, the oil level should be at the middle of the sight glass. Refer to [160 Recommended lubricants](#) for correct oil type.

Checking the hydraulic oil fluid level

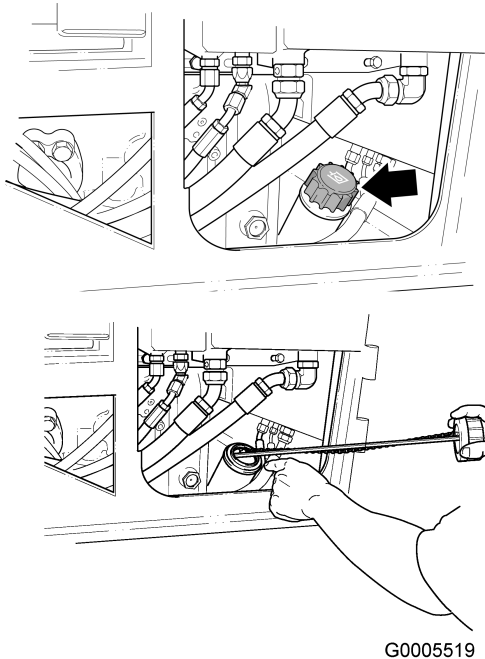


Figure 8

The hydraulic tank oil filler cap and dipstick are located at the rear of the grader on the left-hand side, inside the rear side door.

- Clean any dirt from around the filler cap.

- Remove the cap from the hydraulic tank and wipe the dipstick clean.
- Replace the cap and seat it firmly. Remove it again and check the oil level. The oil level must be at the "FULL" mark on the dipstick and not more than 1/4 in. (6 mm) down.
- Add clean hydraulic oil as necessary through the filler neck. Refer to [160 Recommended lubricants](#) for correct oil type.

Procedures before starting the machine

- Before starting the grader, turn the battery isolation switch on.
- Start and operate the grader only from the operator's seat.
- Adjust the seat and fasten the seat belt. The seat belt must fit snug and low around the hips. The holding strap must be free of slack.
- Check the transmission shift lever to ensure it is in NEUTRAL before starting the engine.
- Ensure the parking brake is applied (control knob pushed in).
- Sound the horn before starting the engine. Warn all personnel who may be servicing the grader or are in its path prior to starting. Do not start the engine until all personnel are clearly away from the grader.
- Do not operate the engine in an enclosed area without adequate ventilation.
- Do not bypass the battery isolation switch. Have the switch repaired if it is not working properly.
- Use jumper cables only in the recommended manner. Improper use can result in battery explosion or unexpected movement of the grader. Refer to [176 Jump-start procedure](#).
- After the engine has started, check all gauges and indicators for proper readings. Shut down the engine immediately if any improper readings or energized warning lamps are observed. Refer to the Operator's Manual.
- Ensure that the lights work properly.
- Check that the hydraulic controls function properly.
- Check that the parking and service brakes function properly.
- Check that the engine hand throttle and accelerator function properly.
- Listen for unusual noises.
- Look around and behind the grader before moving it.
- Check that the left-hand steering and right-hand steering function properly.

Starting the engine



Risk of crushing injuries

NOTE!

Keep clear of the articulation joint when the engine is running.

NOTE!

After starting the engine, run it at low idle speed for at least 30 seconds. This is to ensure proper lubrication pressure.

NOTE!

Do not hold the key in the starting (III) position for more than 20 seconds. This could seriously damage the starting system. Wait 2 minutes, then try to start the engine again.

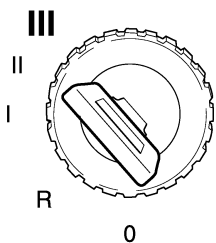


Figure 9

1. Place the hand throttle lever in the low idle position (pulled back towards the operator).
2. Insert the ignition key in the switch and rotate the key clockwise to position "III" (start position).
3. Release the key when engine starts.

NOTE!

If the engine does not start:

4. Wait until the engine has stopped completely.
5. Turn the key back to the "O" position in order to make a new attempt.

Starting a cold engine

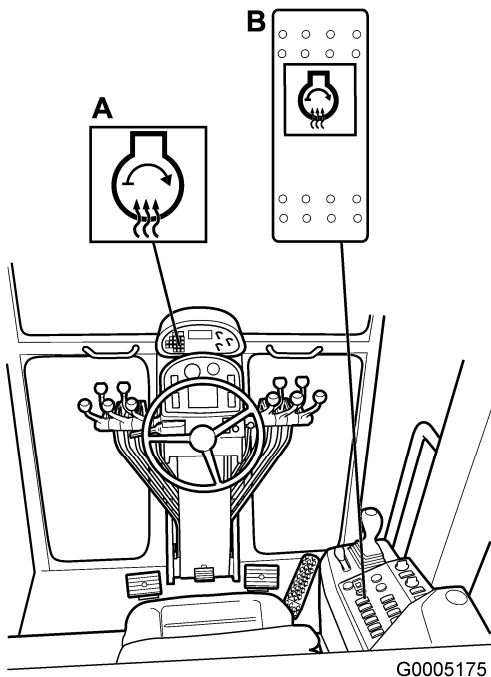


Figure 10

- A. Control lamp, preheating element
- B. Switch, preheating element

Engine preheating should be used when the engine temperature is below 0°C (32°F).

NOTICE

Do not use starting aids (ether, etc.). Serious engine damage could result.

1. Turn the ignition key to position "I" (Running position and preheat position).
2. Momentarily depress the Preheat element switch beside the ignition switch on the side console. The preheat now remains engaged for up to 50 seconds and the control lamp will illuminate.
3. When the control lamp goes out, turn the ignition key clockwise to position "III" (start position). Release the key when the engine starts. Making a starting attempt during the preheat cycle will cancel the preheat.

NOTE!

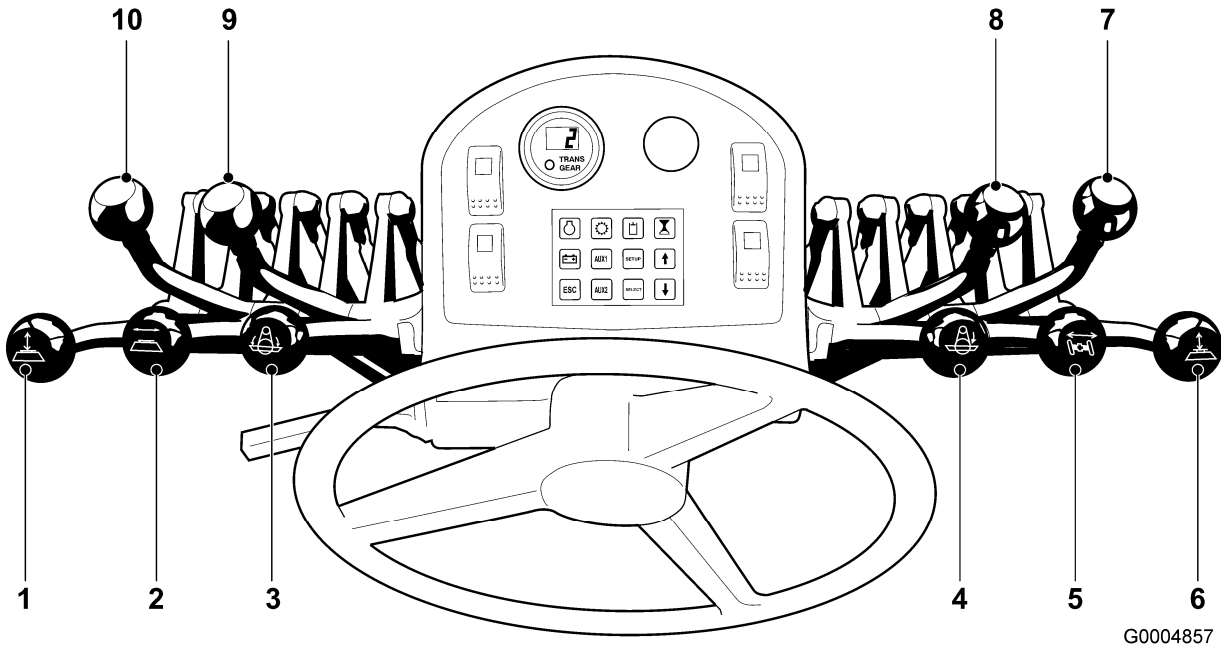
The use of an immersion heater to warm the oil in the engine is highly recommended or, if possible, store the grader inside a heated facility.

4. After starting, the lamp may come on for a short period of time indicating post heat.

NOTE!

If the control lamp stays on after a 50 second period, the preheating element is still connected. Check the function of the element as there is a risk of overheating.

Hydraulic controls

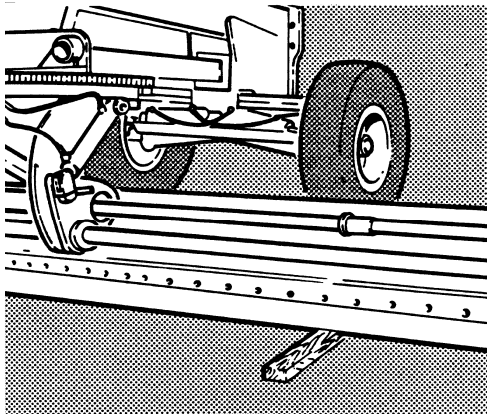


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Figure 11

1. Left-hand blade lift lever
2. Moldboard slide shift lever
3. Circle turn lever
4. Circle shift lever
5. Front wheel lean lever
6. Right-hand blade lift lever
7. Control lever for scarifier, ripper or windrow eliminator
8. Articulation lever
9. Moldboard tilt lever
10. A-frame attachments lever

Installing rims and tires without a crane



G0000999

Figure 12
Preparing to raise front axle

If a safe lifting device is not available, use this method to install the rims and tires. Before starting this procedure, perform step 6 of **Knock - down unit - Removal from the container** and all the steps in **General walk-around inspection**. See above. Also, refer to **Reassembly – Blade lift cylinders**. See below.



Never work under/on machines without using recommended support equipment.

1. Turn the battery isolation switch to the "I" position. Ensure the transmission is in NEUTRAL and the parking brake is engaged. Start the engine when it is safe to do so. Operate the blade lift cylinders and raise the moldboard off the ground.
2. Center the drawbar and tilt the moldboard fully rearward. Rotate the circle until the moldboard is parallel with the front axle. Place appropriate wooden blocks under the moldboard. Operate the blade lift cylinders and lower the moldboard onto the wooden blocks.
3. Continue operating the blade lift cylinders and carefully raise the front axle off the ground. Install the rims and tires onto the front wheel hubs.
Generally, the front tires are mounted with the tread facing the opposite direction of the rear tires. This promotes self-cleaning of the tire. However, the driving front wheels of an All Wheel Drive grader must have the tire tread facing the same direction as the rear tire tread.
4. Lower the front end of the grader to the ground. Torque-tighten the rim bolts to 644 – 712 N•m (66 – 73 kgf•m; 475 – 525 lbf•ft) in a diagonal pattern. Do not torque-tighten the rim bolts in series around the wheel hubs.
5. Raise the front axle until the tires are 1,0 m (3 feet) off the ground. To raise the rear left-hand side of the grader, operate the control lever and retract the right-hand blade lift cylinder piston rod. Now install the rims and tires onto the left-hand rear wheel hubs.
6. Extend the right-hand blade lift cylinder piston rod to exert weight on the rear left-hand tires. Torque-tighten the rim bolts to 644 – 712 N•m (66 – 73 kgf•m; 475 – 525 lbf•ft) in a diagonal pattern. Do not torque-tighten the rim bolts in series around the wheel hubs.
7. Further extend the right-hand blade lift cylinder piston rod to level the rear of the grader frame.
8. To raise the rear right-hand side of the grader, operate the control lever and retract the left-hand blade lift cylinder piston rod. Now install the rims and tires onto the right-hand rear wheel hubs.
9. Extend the left-hand blade lift cylinder piston rod to exert weight on the rear right-hand tires. Torque-tighten the rim bolts to 644 – 712 N•m (66 – 73 kgf•m; 475 – 525 lbf•ft) in a diagonal pattern. Do not torque-tighten the rim bolts in series around the wheel hubs.
10. Use a tire pressure gauge to check the air pressure in the tires. Adjust the air pressure to 241 kPa (35 psi). Refer to the Operator's Manual for further information.
11. Remove the safety blocks or stands. Lower the front tires to the ground. Shut down the engine and turn the battery isolation switch to the "O" position.

Reassembly – Cab structure

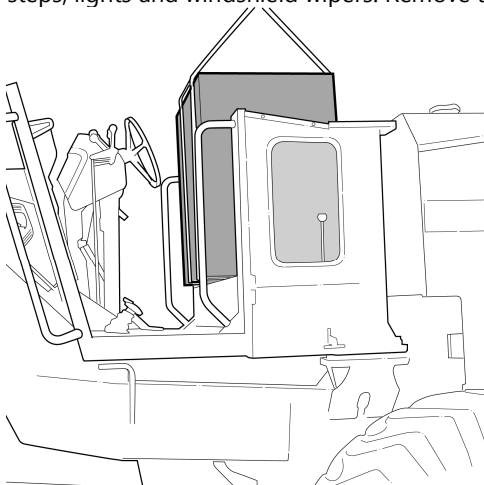


Heavy and awkward lift. Work carefully when the operator's seat is lifted out.

NOTICE

Use a safe lifting device with the proper rated capacity for the job.

1. Attach a safe lifting device to the crate installed on the cab seat deck. This crate contains the seat, cab and tandem steps, lights and windshield wipers. Remove the crate and place to one side for unpacking.



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Figure 13
Attach a safe lifting device to crate

2. Remove and discard the plastic protective covering from the cab posts.



Figure 14
Removing cab plastic protective covering

3. Cut the metal bands securing the crate installed on the upper cab structure. Carefully raise the front of the crate and install a wooden wedge between the crate and upper cab structure. This allows the attachment of a safe lifting device to both ends of the crate. Use extreme caution when lifting and handling the crate. It contains the doors, front cab posts, front and rear windshields, upper cab glass, window rubbers and locking strips, and all hardware.

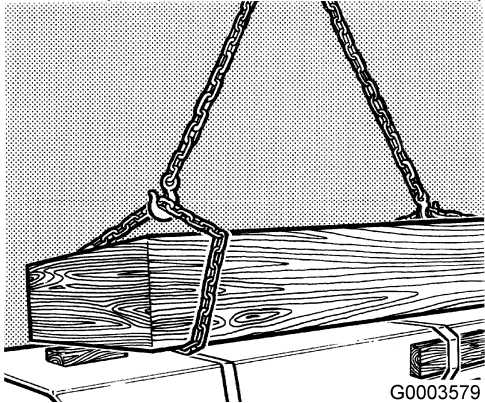


Figure 15
Removing crate containing doors and cab glass

4. Open the door crate. Remove the front cab posts and install them while the cab upper structure rests on the grader front frame.

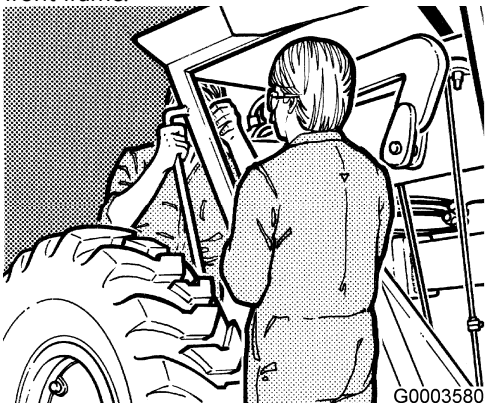


Figure 16
Installing front cab posts



The parts are heavy. Take appropriate safety precautions.

NOTICE

Use a safe lifting device with the proper rated capacity for the job.

5. Attach a safe lifting device to the cab upper structure. Carefully lift the cab upper structure and guide it into place. Install the bolts loosely until the cab upper structure is seated on the supports. When the cab upper structure is firmly in place, torque-tighten the rear post locknuts to 678 – 712 N•m (69 – 73 kgf•m; 500 – 525 lbf•ft) and tighten the remaining cab mounting plate bolts. For split ROPS cabs, install the right-hand and left-hand joiner plates between the upper and lower side window openings. The joiner plates and hardware are stored in the tool box on the right-hand tandem case.

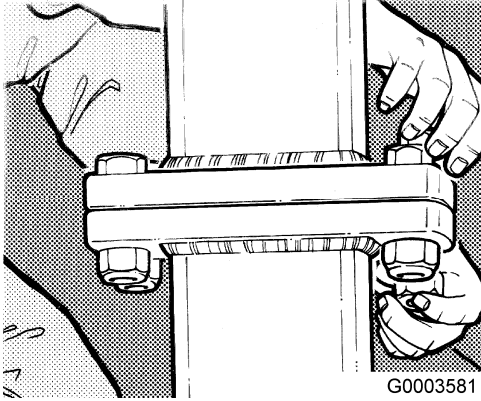


Figure 17
Installing cab rear post hardware

6. Remove and retain the self-tapping screws securing all the plastic headliner pieces. Remove the headliner pieces and place to one side to prevent them from being damaged.

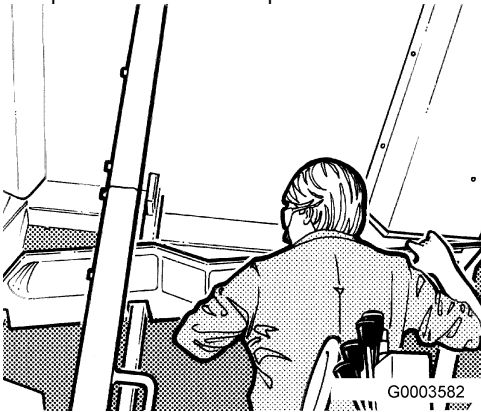


Figure 18
Temporarily removing cab plastic headliner pieces

Reassembly – Electrical, HVAC, seat Electrical system

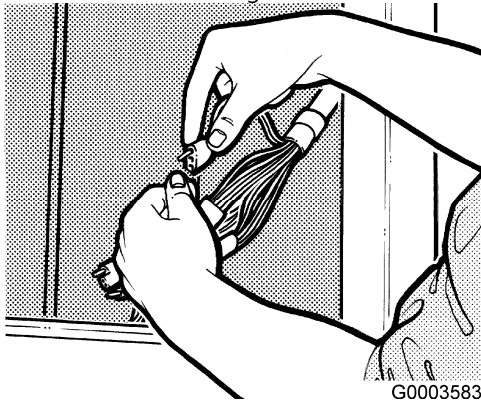


Figure 19
Battery isolation switch

NOTE!

Before working on any part of the electrical system, be sure the battery isolation switch is turned off to the “O” position. It is located in the engine compartment on the left-hand side of the machine.

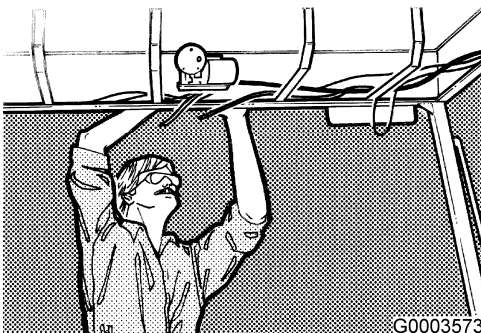
1. Connect the upper cab and lower cab wiring harnesses inside the right-hand door post at the terminals. Ensure the connections are tight. Even though grader options may vary, all wires are tagged for identification. The plug ends are coated with corrosion protective compound that does not have to be removed.
2. Install all cab mounted electrical components, e.g., headlights, horn, wiper motors and defroster fans and connect these units to the wiring harness.



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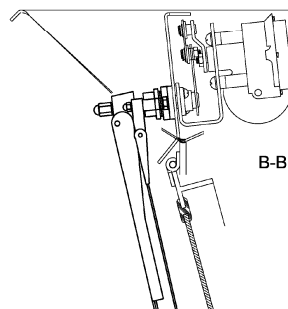
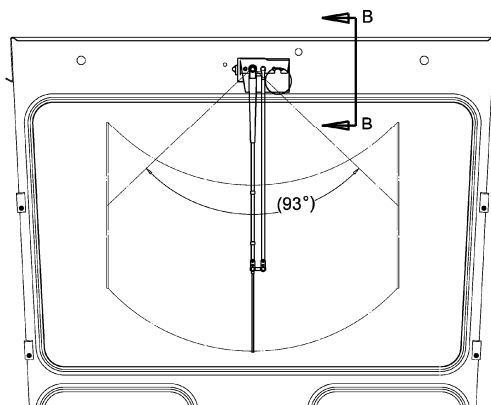
Figure 20
Connecting upper and lower cab wiring harnesses

3. Install the plastic headliner pieces and secure them with the self-tapping screws originally supplied.
4. Install the remaining electrical components, such as the rear lights, working lights and back-up alarm.
5. Install the front and rear wipers (as equipped) and reconnect the windshield washer hoses.



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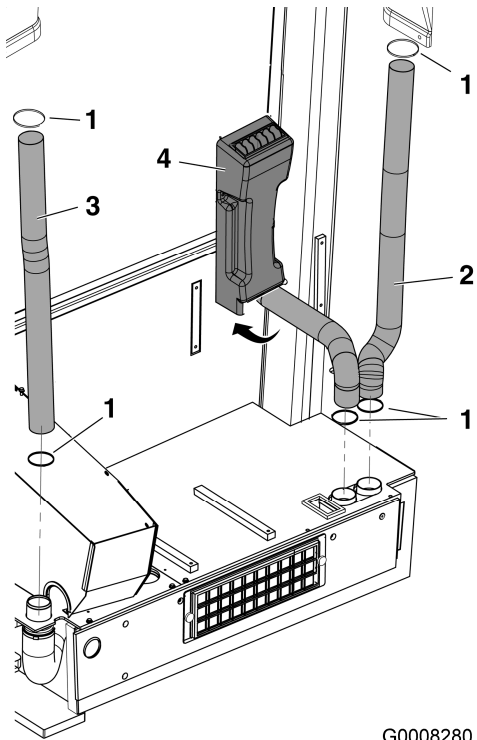
Figure 21
Installing cab mounted electrical components



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Figure 22

HVAC system

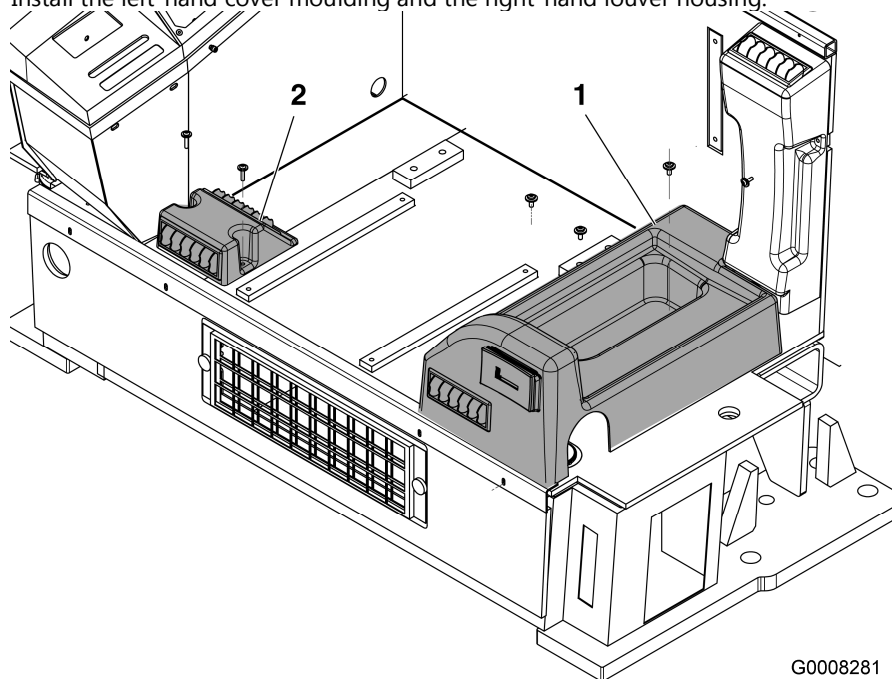


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Figure 23
Installing HVAC ducting to seat deck

- 1. Tie wraps
- 2. Left post duct
- 3. Right post duct

- 1. If equipped, install the HVAC hose ducting to the seat deck. Secure the hoses with tie-wraps included in the box. Cut off the excess ends.
- 2. Install the left-hand cover moulding and the right-hand louver housing.



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Figure 24

- 1. Left-hand cover moulding



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