

**CASE 580L
BOBCAT 843B AND 863
BACKHOE/LOADERS OPERATIONAL SAFETY
OPERATING PROCEDURE**

APPLICATION

Safe inspection and use of the Case 580L and Bobcat 843B backhoe/loaders. This procedure is intended for experienced backhoe/loader operators only; it is not a training document.

Also applies to rental equipment.

SPECIAL INSTRUCTIONS

- To avoid injury or fatality, always read the safety decals on the equipment, follow all instructions in the operator's manual for the vehicle you are operating.
- Operator must have a California Driver License.
- **Personal Protective Equipment (PPE) requirements:** Hard hat, safety shoes, safety glasses, goggles or face shield, heavy gloves, hearing protection, reflective vest. Respirator and/or filter mask maybe required, contact the EH&S Industrial Hygiene Group (IH).
- **CAUTION:** Do not wear loose-fitting clothing, extra-long cuffs, shirt tails, dangling necktie, scarf, rings, or wristwatch that could catch in moving parts or controls.
- **CAUTION: Before You Dig** anywhere on LBNL property, read and become familiar with the most current version of ADMN-053, "Permit to Penetrate Ground or Existing Surfaces," follow all instructions and obtain a "Permit to Penetrate or Excavate Ground Surface of LBL Property." Accidents involving electrical cables, gas and water pipes, sewers, and other underground objects can cause injury or death.
- **CAUTION:** Be aware of the equipment gross vehicle weight and be sure that all attachments are properly stowed on the vehicle.

WORK STEPS A: Daily Backhoe/Loader Inspection

1. **Case 580L and Bobcat 843B/863.** Inspect the backhoe/loader **daily** (or before each use, if not used daily). Record inspection on the Login sheet binder located inside the equipment. Make sure all parts are clean and all systems function fully. Report defects as needed to the Labor Shop Supervisor. Notify Maintenance Office/Work Request Center if repair or maintenance is necessary.
2. Look for broken, missing, or damaged parts.
3. Look for leaks under the machine.
 - **Never** go under the Case loader bucket without first installing a strut.
 - **Never** go under the Bobcat loader bucket without first installing a lift-arm stop.
4. Remove debris from the hydraulics. **Do not** allow anything (concrete or other debris) to scratch or damage hydraulic pistons.
5. Remove debris from the engine compartment.
6. Remove debris from the radiator.

CAUTION: Allow the radiator to cool before checking coolant.

7. Check radiator coolant level and condition. Refer to specific instructions for the backhoe/loader you will operate for coolant type, amount, and changing frequency.
8. Check the tires for proper inflation; look for cuts, bulges, and other damage.

9. Check engine oil level and condition. Refer to specific instructions for the backhoe/loader you will operate for oil type, amount, and changing frequency.
10. Check operating brakes and parking brake.

CAUTION: Diesel and hydraulic fluids under pressure can penetrate the skin or eyes and cause serious injury, blindness, or death. Fluid leaks under pressure may not be visible. Use a piece of cardboard or wood to find leaks; **do not** use bare hands. Wear a face shield or safety goggles for eye protection. If fluid is injected into the skin, **call ext. 7911**; the fluid must be removed within a few hours by a doctor familiar with this type of injury.

11. Look for hydraulic system leaks.
12. Check fuel level with the engine off only.
13. Check brake lights, turn signals, headlights, horn, and backup alarm.
 - If any of these components are not fully functional, **do not operate the equipment**.
 - The equipment may be operated without properly functioning headlights only during daylight hours.
 - Report needed repairs to the Maintenance Office/Work Request Center.
14. Ensure all guards and covers are installed correctly.
15. Ensure handrails and steps are clean and free of grease and debris.

CAUTION: Do not jump off steps to the ground. Make sure a non-skid material is in place at all times where it is needed.

16. Remove loose objects and oily rags from the cab area.
 - Dispose of oily rags properly.
17. Clean the windows and make sure windshield wipers function fully.

WORK STEPS B: Daily Safety Equipment Inspection

1. **Case 580L and Bobcat 843B/863.** Inspect the safety equipment **daily** (or before each use, if not used daily). Make sure that each item listed is securely in place and in good operating condition.
2. Inspect the Falling Object Protective Structure (FOPS). If damaged, do not attempt to repair the FOPS. Replace it.
3. Inspect the Roll-Over Protective Structure (ROPS). If damaged, do not attempt to repair the ROPS. Replace it.
4. Check seat belts and restraints.
5. The "Slow-Moving Vehicle" sign needs to be in place when the equipment is in use.
6. Clean and adjust mirrors.
7. Locate the fire extinguisher and check charge condition.

WORK STEPS C: General Safety Precautions

1. **Case 580L and Bobcat 843B/863.** Never modify or remove any part of the machine. All repairs shall be performed by the maintenance personnel only.
2. Set up cones at a distance to allow for sufficient, safe clearance according to OPER-043, "Barricade Use," and be aware of persons in the area while operating the equipment.

CAUTION: Be aware of the potential for arcing from high voltage lines, which can cause severe electrical burns or electrocution even without direct physical contact. Electricity can jump from power lines and cause severe injury or death..

3. Check clearance between any adjacent power lines and the top of buckets at full extension.

4. Do not operate a backhoe/loader where exhaust, electrical arcs, sparks, or hot components can contact flammable material, explosive dust, or gases.
5. Do not operate equipment near building air-intake systems.
6. Be aware of all potential hazards in the area—overhangs, ditches, bad road conditions, etc., especially when working on hills, ramps, or rough ground.
7. With EH&S approval, vent exhaust when operating in an enclosed area.
8. Know the meaning of, and use of signs, flags and markings.
9. Understand and use hand, flag, horn, whistle, siren, and bell signals.
10. Use lights, turn signals, flashers, and horn.

WORK STEPS D: Traveling

1. **Case 580L and Bobcat 843B/863.** Carry loads as low to the ground as possible.
2. Do not transport a load with the backhoe end of the machine.
3. Turn on flat ground only.
4. **Case 580L only.** Can be shifted during operation.
5. Lock brake pedals with the brake pedal locks before operating. In first or second gear, press the right unlocked brake pedal to help the vehicle turn right and press the left unlocked brake pedal to help the vehicle turn left. However, when in motion, operating either pedal without the brake-pedal locks engaged could cause the machine to veer and the operator to lose control of the vehicle.

WORK STEPS E: Parking

1. **Case 580L and Bobcat 843B/863.** Park on level ground only.
2. Lower a loader bucket to the ground.
3. Put backhoe in the transport lock position or lower backhoe bucket to the ground.
4. Engage a parking brake.
5. Stop the engine—put throttle in off position and turn off key.
6. Cycle hydraulics.
7. **Never** leave the machine running without an operator inside.
8. Always face the machine and use handrails and steps when exiting the cab. Do not jump from the cab or exit hastily.

WORK STEPS F: Bobcat—All Attachments

1. **Bobcat 843B only.** See *Attachments Operator's Manual* for detailed attachment installation information.
2. Use extreme caution when connecting hydraulic lines (high pressure). Use personal protective equipment (PPE) at all times.
3. Use extreme caution when unlocking hydraulic lines. Use PPE at all times.
4. Hold Bob-Tach spring-tension levers tightly and release slowly. Levers are under high tension. Failure to obey this warning can cause injury.
5. Do not hit Bob-Tach levers on the bucket.
6. Extend Bob-Tach wedges completely through the holes in attachment. Levers must be **fully down and locked**. Failure to secure the wedges can allow the attachment to come off and cause injury or death.

WORK STEPS G: Transporting the Bobcat

Bobcat 843B only. To safely transport with trailer:

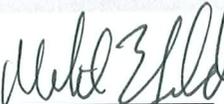
1. Always use steel ramps, never wood, to load and unload the Bobcat.
 - Load backward onto the trailer, with empty bucket or attachment removed.
 - After driving onto the trailer, lower lift arms.
 - Stop engine.
 - Engage a parking brake.
 - Secure the Bobcat with chains at front and rear.
2. To safely tow:
 - Never attempt to start the Bobcat by towing.
 - Tow only after installing the Bobcat towing tool.
 - Do not tow at more than 2 mph.
 - Do not tow for a distance of greater than 25 feet.

REFERENCES

1. OPER-170, "Locating Underground Utility Lines."
2. ADMN-053 "Permit to Penetrate or Excavate Ground Surface of LBL Property."
3. J.I. Case Company. 580K OPERATIONAL SAFETY. Instructional videocassette, VTR 10265, February, 1990. J.I. Case Company, 700 State Street, Racine, WI 53404.
4. Equipment Manufacturers Institute. "Backhoe/Loader safety manual for operators and mechanics," 1985, Revised 4/82, rev. 2.89. EMI Equipment Manufacturers Institute, 10 S. Riverside Plaza, Chicago, IL.
5. Melroe Company. 843B Bobcat Operation and Maintenance.
6. Melroe Company. 843B Bobcat Attachments Operator's Manual.
7. PUB-3000.
8. Facilities Labor Shop Heavy Equipment Policies and Procedures.

RESPONSIBILITIES AND CONTROLS

Provide signature lines as follows:

REV NO.	SME/Title	REV/Title	APPROVED/Title	DATE	EFFECTIVE DATE
1	 Jean Myers EH&S Construction Safety	 Michael Elizalde Facilities CSG Laborers Services Supervisor	 Dennis Nielsen Facilities SP Department Head		