

HANDOUT: Flowchart: Backhoe Operation (2 pages)
Skill Builder: Flowcharts

IN THE WORKPLACE: A common use for flowcharts is to display processes at a glance and identify steps in those processes where decisions may be required.





Use the information on backhoe operation to create a flowchart about starting a backhoe. Use the symbols on the next page to help you.

- Make sure the chart is logical and that you can explain why you ordered the steps as you did.
- You must include at least 3 decision points showing YES and NO options
- The flowchart must have a start and a finish
- Use the appropriate shapes for each step in the flowchart
- Label the flowchart

Backhoe Operation: Backhoes are designed to do one thing: dig. But that does not mean that anyone can just jump in and safely start digging. There are a number of steps that need to be completed to ensure safe operation. Many of the steps are related to the condition of the machine itself. Others have to do with ensuring that the controls are set to the appropriate task.

1. Walk around backhoe and check for damaged or worn parts. Replace as needed.
2. Check all fluids (fuel, oil, hydraulic fluid, DEF, and coolant/anti-freeze). Top up as needed.
3. Ensure the boom is locked and swing lock is in place before driving the machine
4. Get in.
5. Confirm correct digging control pattern is selected: backhoe or excavator digging. Adjust controls to suit task if required.
6. Crank engine and allow to warm up.
7. Engage controls.
8. Honk the horn prior to moving the machine to alert those nearby and then move to dig site.
9. Engage the stabilizers to prevent the machine from rocking or tipping. If unable to stabilize adjust location.
10. Reengage stabilizers.
11. Dig

Common flowchart symbols:

Symbol	Name	What it means
	Start/Stop	A circle, oval or rounded rectangle starts or ends the process.
	Step/Task	A rectangle means a step in the process or a task. Slanted rectangles usually mean sub-steps or sub-processes.
	Process Direction	Arrows and lines indicate the order of the steps.
	Decision Point	A diamond shape means that you need to make a choice or decision.