

Suggested digging practices for shovels

The primary principle to remember is very simple: always dig as near the optimum position as possible.

You should locate the shovel to permit the majority of the digging directly under the boom point as shown here. By making a vertical lift, you achieve optimum hoist efficiency and place less load on your hoist rope. This helps maximize the service life of your hoist ropes.

Digging at a more horizontal angle can be harmful to your rope. The greater the digging angle, the more stress and load you put on your rope to lift the same amount of weight. By lifting at a 60° angle, for example, it takes twice the power than you need to lift the same load vertically.

Here are two other tips to remember: The bucket should fill in one-half the cut height. In addition, overcrowding can result in boom jacking and can oppose hoist motion, increasing the rope tension.

**THE GREATER THE ANGLE OF LIFT,
THE GREATER THE POWER IT TAKES
TO LIFT THE SAME LOAD**

