

Suggested digging practices for shovels

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

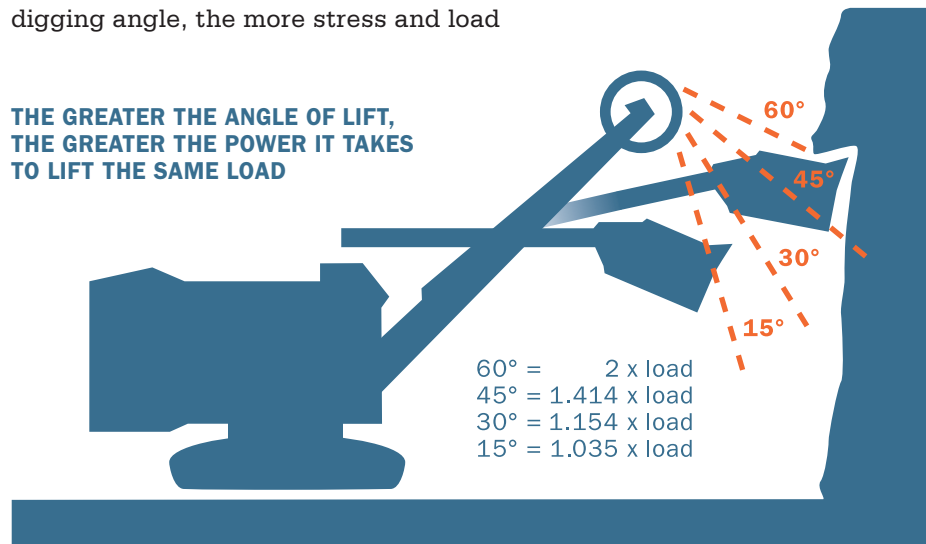
You should locate the shovel to permit the majority of the digging directly under the boom point as shown here. By making a vertical lift, you achieve optimum hoist efficiency and place less load on your hoist rope. This helps maximize the service life of your hoist ropes.

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




Warning

In a perfect world, nothing ever goes wrong with wire rope. No injuries. No damages. No problems, period. But we all know there's no such place. In the real world, accidents do happen, and

that's why you need to take special precautions. Before installing wire rope in your surface mining applications, always read and follow the warning label attached to each product.





WARNING

Wire rope **WILL FAIL** if worn-out, overloaded, misused, damaged, improperly maintained or abused.

Wire rope failure may cause serious injury or death!

Protect yourself and others:

- ALWAYS INSPECT wire rope for WEAR, DAMAGE or ABUSE BEFORE USE.
- NEVER USE wire rope that is WORN-OUT, DAMAGED or ABUSED.
- NEVER OVERLOAD a wire rope.
- INFORM YOURSELF: Read and understand manufacturer's literature or "Wire Rope and Wire Rope Sling Safety Bulletin".*
- REFER TO APPLICABLE CODES, STANDARDS and REGULATIONS for INSPECTION REQUIREMENTS and REMOVAL CRITERIA.*

* For additional information or the BULLETIN, ask your employer or wire rope supplier.

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