

Guidelines for making drill line cuts



Service life of drilling lines can be increased dramatically by following a planned cut-off program based on work performed. This moves the rope through the system so wear can be spread uniformly along the entire length of the rope, enabling the line to be removed from the drum

end when it has reached the end of its useful service life. As the rope is cut off the drum end, new rope is fed into the system on the dead line side, extending service life. When exercising a cut-off program, follow the guidelines below closely.

A 10-STEP GUIDE TO A DRILL LINE CUT-OFF PROGRAM

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| 1. For the first few cuts, wrap the drill line at the point being cut with duct tape prior to making the cut to prevent unlaying. | 8. Short, frequent cuts will shift critical wear points caused by excessive jarring. |
| 2. When making a cut and slipping new rope into the string-up, all of the wraps should be removed from the deadline anchor. The rope should never be pulled through a loosened clamp which can put a twist in the rope. The clamp should be completely removed and inspected. If worn or damaged, replace. | 9. Long cuts are necessary when the amount of rope to be cut doesn't remove all the rope that meets removal criteria. This can be caused by failure to follow the ton-mile goal, improper calculation or recording of ton-miles. Damage at any point may require a long cut. |
| 3. After making a cut, the dead wraps should be spooled on the drum with sufficient tension to prevent excessive drum crushing or "milking" of the bottom layer. | 10. To prevent long cuts: |
| 4. Take ton-miles for drag into account. | a. Find the optimal ton-mile goal for your drill line; experience may indicate you have to change your ton-mile goal. It's important to follow the cut-off program for a new rope. The first few cuts may seem excessive, but they are necessary to move rope through the system at the proper rate. |
| 5. Drill ships and semis using a crown motion compensator may operate with a lower ton-mile goal due to additional sheaves and extra rope on the drum. | b. Ton-miles must be calculated and recorded accurately for each operation. |
| 6. Extended drilling between round trips may necessitate making a cut to avoid exceeding maximum allowable ton-miles. | c. Inspect equipment to prevent conditions that adversely affect service life. Equipment problems such as bearing failure in a sheave can cause unusual wear leading to long cuts. |
| 7. Because of the additional weight, top drives accumulate more ton-miles for each rig operation. It has not been determined if ton-mile goals should be changed to accommodate this. | |

Union provides excellent expertise in the field.

EXCLUSIVE CUT-OFF PROGRAM

While there are other cut-off programs available, contractors around the world consider the Union cut-off program as the best in the industry. Our computerized cut-off program calculates, logs, and tracks the service life of your Union drilling line. More importantly, it provides the tools to assure that you receive the maximum service life for your drill line. While the Union Cut-Off Program was originally developed more than 30 years ago to help our drill line users obtain the maximum service, we continually look for ways to expand and improve its functionality exclusively for our customers.



Our latest version of the cut-off program is available through a USB flash drive that can be plugged in directly to the USB port of any computer and is compatible with both Windows and Apple operating systems. This program is available in English, Spanish, Russian, and Portuguese, and you can choose your unit of measure as ton-miles, tonne-kilometers or megajoules. The program calculates the load and the distance lifted or lowered. You can set up a Ton-Mile goal and when that goal is reached, additional rope can be unspooled from the storage reel and slipped through the system. The used rope is then cut off and discarded. For an accurate record of the amount of work done by a drilling line, it is necessary to calculate the weight being lifted and the distance it is raised and lowered.

In order for the program to properly recommend when to make a cut and determine how much rope needs to be cut, the user must input a correct "Goal". This "Goal" should be entered as "ton-miles per foot cut", "tonne-kilometers per meter cut", or "megajoules per meter cut" depending on the units selected. Additionally, the program has

certain goal limitations that it will not allow you to exceed and also will not recognize goals in the form of "ton-miles per 100 foot cut". For example, a slip and cut program of cutting 100 feet of rope after 1800 ton-miles have been accumulated will need to be entered as a Goal of 18 ton-miles per foot cut, not 1800. The Union Wire Rope team can help you determine the recommended goal for your specific rig based on information about your rig.

Union has the most qualified and dedicated team of engineers and sales professionals in the world. Their years of field experience, unmatched depth of knowledge and expertise sets the standard for our industry.

TECHNICAL TRAINING AND SEMINARS

Our experts conduct technical training for rig managers and tool pushers throughout the globe on a wide variety of topics such as installation, usage, rope inspection and retirement, and how to use our cut-off program. We can tailor our seminars to help you maximize the service life of your wire ropes. We are there for you.

Our expertise and experience can also provide invaluable assistance in the field. Our staff is available for rope inspections, on site consultation and problem solving.

No matter where you are in the world, Union delivers hard-working products, exceptional service and unmatched support. At Union, we're with you in the field and on the rig, getting our hands dirty to supply Tested, Tough & True wire ropes that help you get the job done. Being part of the global wire rope leader, WireCo WorldGroup, ensures you can count on Union wire ropes for the toughest applications in your industry.



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