

Parallel Core Inspection



PARALLEL CORE

PROTRUDING STRAND

Often, a strand will get snagged or pulled out from the rest of the rope.

THE CAUSE

Protruding strands are generally caused by pulling or snagging on equipment or surfaces.

THE REPAIR

To repair a protruding strand on a parallel core rope, you'll need to cut off excess strand, execute a careful heat seal and whip with twine.



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ABRASION

Not all abrasion is harmful. It's important to evaluate the level of abrasion to ensure proper repair.

THE CAUSE

Excessive abrasion can be caused by repeated contact with sharp edges or rough surfaces. While you should expect mild abrasion as you break in your rope, abrasion that doesn't stabilize after the first few uses might mean you're losing strength.

THE REPAIR

To repair an abraded spot, evaluate the depth of the abrasion. If the rubber jacket is not compromised, whip and return to service. If you notice deep abrasions through the rubber but not into the core, you can repair the rubber layer and then whip the area. Abrasions and cuts through the rubber layer and damaging the core should be cut out and repaired with a TechJoin.

FUTURE PREVENTION

Always use slings when lifting, and avoid abrasive situations whenever possible, including rough surfaces and sharp edges. Keep your chocks, bits, winches, drums and other surfaces in good condition and free of burrs and rust. Make sure sheaves are the right size and are free to rotate. Don't drag the rope over rough ground. Be sure to use clamps and similar devices with extreme caution.

See pictures on page 25.

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Abraded spot



Deep abrasions through the rubber but not into the core



Deep abrasions through the rubber and damaging the core



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ELECTRICAL DAMAGE

Should a rope come into contact with an energized line in such a way that a current enters the line, your rope will display surface damage indicative of electrical damage.

THE CAUSE

Electrical damage is caused by currents entering and exiting the line. The exit damage may appear hundreds or even thousands of feet from the entry damage. You may have to section the rope to see internal melting, an indication that the rope was acting as a conductor.

THE REPAIR

To repair a rope with electrical damage, you will have to cut out all affected areas and re-splice or use a TechJoin. If you cannot find any exit damage, break test or proof load areas adjacent to the entry to make sure the line has not been compromised.

FUTURE PREVENTION

Always have adequate protection for the underbuilds and avoid direct contact with an energized line.



Contact



When in doubt, ask for help. We would be happy to help you understand the rope's life cycle in your application.

Contact:

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Disclaimer: This document is intended to be used for general rope inspection guidance and cannot cover all possible conditions, applications, products or use. For additional details, please reference the Cordage Institute Guideline 1401-15. When in doubt, do not use the rope.

