

8-Strand Plaited Inspection



8-STRAND PLAITED

ABRADED SPOT

Not all abrasion is harmful. When small surface fibers break on a rope, they create a fuzzy texture known as “mild abrasion.” This is normal and can even protect the rope from further wear. Extremely abraded spots should be addressed.

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. Inspect for excessive damage by looking closely at the inner and outer fibers.

THE REPAIR

If you encounter an abraded spot with excessive damage, you can cut out and re-splice the section.

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.



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CUT STRAND

When visually inspecting your rope, always look closely for any cut strands. Any cut strands will cause some loss of strength, and two or more that are close together may mean the rope needs to be retired.

THE CAUSE

Cut strands could be caused by abrasion, sharp edges and surfaces, or cyclic tension wear.

THE REPAIR

If possible, remove the affected section and re-splice with an end-for-end splice. If re-splicing is not possible, retire the rope.

FUTURE PREVENTION

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BRAIT LAY LENGTH CHANGE

Lay length change is normal over time, and a longer lay length in used rope can be seen due to repeated cyclic loading.

THE CAUSE

This permanent deformation is caused by repeated cyclic loading.

THE REPAIR

If permanent deformation results in a longer lay length in excess of 15 percent, retire the line.

NEW



USED



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.

