"Rusty" wire ropes

"Action of rust", mostly only a brown discoloration, on stainless steel wire ropes can depend on one or several of the following things.

1. The chemical composition of the wire terminal
To achieve maximum resistance against corrosion the minimum quality of the alloy must be BS 316 C 16 (Swedish standard SS 2343), so called acid proof steel. To contend of molybdenum (Mo) must not be less than 2.5%, preferably 3.0%. Moisty, salty and warm environment will increase the corrosion rate of material below these requirements.

2. Xenobiotic ("foreign"), corrosive particles
During manufacturing, packing, transport and use xenobiotic particles can get caught in the wire rope. Surface discoloration as well as corrosive action on the wire surface can be the consequence.

3. Other external, chemical action
Air and water pollution can cause chemical action on the wire surface.

4. Surface structure
A rough surface structure as such will not have any influence on the corrosion but will accelerate the action as per items 1 and 3.

What to do
Rub the surface using a piece of cloth and an abrasive scouring powder. If the “rust” is in spots check these carefully for xenobiotic, corrosive particles which can be jammed in between the wires.
If such particles are discovered check carefully that the surface has not achieved any local “craters”.
In most cases the “rust” vanishes when rubbed and will not return.

If you have to rub vigorously and/or for a long time to get rid of the “rust” or if it returns when the wire is kept moisty with salt water for one or two days, Selden Mast should be contacted.