

Advanced Friction Modifying Technology

Lofrix® Application Case Study

Sewing Hook on Industrial Sewing Machine

To protect the confidence of clients, certain information is changed or disguised.

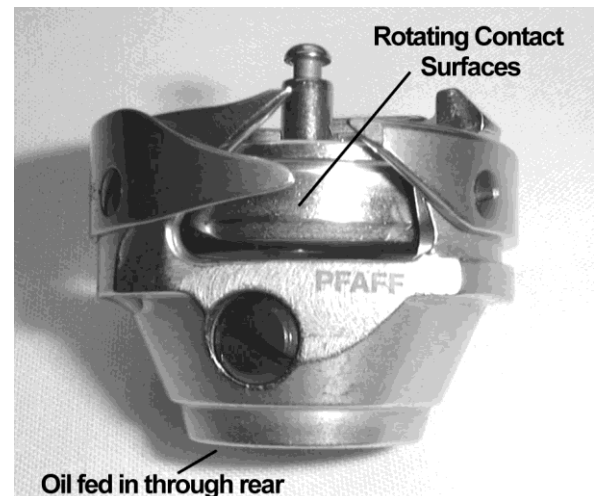
During routine garment sewing, the duration of stitching runs is insufficient to generate significant heat in the Hook. However, when large items such as bedding sheets are sewn, runs are of sufficient length to generate considerable heat in the Hook. Hooks rotate at some 10 000 rpm and heat from friction may burn the lubricating oil, cause scuffing marks on the interface between carrier and bobbin rotator and leave black deposits around the thread path. In addition the release clip becomes too hot to handle when changing a bobbin.

The picture shows a high specification all hardened steel Hook that costs around £135. Lubrication is by low pressure feed through a hole in the base of the main hook body. Oil is thrown onto the moving surfaces and soaks into a felt wiper pad. Life before the Hook surfaces become too badly scored is generally no more than approximately three months.

By adding 1% of Lofrix® to the standard sewing machine oil, friction and scuffing wear is significantly reduced. In routine use the release clip no longer becomes hot. Overall

life of the Sewing Hook is extended from an average of 3 months to in excess of 12 months, with the final improvement potentially offering very significant cost benefits for the clients' 200 machines.

A sensor in the sewing machine detects heat in the motor, switching the machine off during excessive current demand. The incidences of safety cut-out have reduced significantly since the friction benefits of Lofrix® were gained.



***Life Size Picture of a typical
fully-hardened Sewing Hook***

Power and energy conservation is of paramount importance to manufacturing and process industries. This simple performance enhancing treatment will return huge savings at low cost. Lofrix® has a cost to performance ratio warranting its introduction in almost all applications.

Lofrix Associates provide a friction optimising service to manufacturing and process industries. Lofrix® will treat most formulated and specialist lubricants.

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