

Hook maintenance

The rotary hook is an extremely complex kinematic device. It requires great accuracy in every stage of its manufacture and by bestowing care and attention on it during its use you will ensure its best performance, full efficiency and a greatly prolonged life.

The rotary hook is the most important component in lockstitch sewing machines. The person responsible for its purchase should always demand a product of the highest quality, as the use of hook that is not of first quality, will substantially reduce the efficiency of the whole machine. Consideration should also be given to the fact that the increased productivity and superior stitching quality of a high quality product, long term, will more than offset the savings realized by buying cheaper hooks tools.

Cerliani's hooks are manufactured to the highest quality, using the finest materials, and by production techniques, that are state of the art, each one, guaranteed by over sixty years of experience.

The new hooks are normally coated by rust-fighting oil which dries with time. Therefore, prior to their use, it is necessary to wash them thoroughly with petrol/gasoline or mineral oil and then provide an abundant lubrication. The same procedure has to be followed every time one plans to reuse a hook that has not been used for some time.

In order to maintain the rotary hook in good working order it is advisable to check and service the hook at regular intervals. This will also help to avoid possible irreparable damage caused by deficiencies of the lubrication system or incorrect regulation of the oil flow. Preventive maintenance has to be executed scrupulously and systematically and it would be considered good practice to follow the time table as shown below. Obviously, each company can adapt these guidelines to the needs of their own machinery.

Standard time-table for the preventive hook maintenance		
Description of operation	Frequency	Remarks
Remove sewing debris to avoid them becoming abrasive. Check oil level.	Daily	Use a brush or compressed air.
Check the oil feed to the hook and adjust if necessary.	Weekly	For adjustments always follow manufacturers instructions.
Wash the hook, without dismantling it, with naphta or mineral oil, while turning the machine by hand to avoid seizing; afterwards lubricate while continuing to turn the machine.	Every two weeks	For this operation only use a brush, never an air gun, as this may cause solvents to be blown into neraby bearings, degreasing them and causing seizure.
Remove the hook from the machine. Take out the base. Carefully clean and wash all the components, making sure that the lubrication channels are not clogged. Check that there are no signs of needle stabs, scrapes or burrs on the hook point and all areas over which the thread passes. Light damage can be removed by using fine grain sanding paper or emery cloth. Polish the area, using a soft cotton polishing wheel in conjunction with a fine grain polishing compound. Carefully reassemble the hook, lubricate it liberaly and re-install it in the machine. Retime the hook and check that the lubrication system is correctly adjusted. Perform a stitching test on suitable materials.	Monthly	For correct regulation of the hook lubrication system, see note at the bottom table.

Lubrication flow test (with horizontal axis hooks); remove the needle plate and the feed dog. Fix a sheet of paper to the bed of the machine, over the exposed hook. Run the machine at maximum speed for approximately 10 seconds.

Lubrication is considered correct when 2 parallel rows of oil dots show on the paper after this period. To increase or decrease the amount of oil flowing to the hook, adjust the flow regulator, that should be incorporated into the machine. It should also be noted that if too much oil flows to the hook, the excess will be thrown by centrifugal force against the needle plate with the risk of it staining the material. If on the other hand, too little oil reaches the hook, this will cause undue wear, thus shortening the life of the hook.