

Open Roller Chain Lubrication

Effective lubrication of chains operating in a harsh, abrasive atmosphere can be challenging. The objective with chain lubrication is to place a small quantity of lubricant between the pin and the barrel in each link. Because it is impossible to directly inject the lubricant to the correct locations, practitioners try other methods, including running the chain through a bath, spraying, pouring and painting lubricant on the chains outer surfaces.

For slow turning chains, the oil bath is a practical, useful approach. Some attention is required to maintain an appropriate sump level and clean any excess lubricant off of machine surfaces.

Chains tend to be lubricated with whatever is handy. Slow-turning, heavily loaded chains require a heavy body of oil. A medium gear or heavy circulation oil is a common choice.

For intermittent relubrication practices, any lubricant coating on the exterior of the chain creates an opportunity for airborne debris to build up and choke off oil flow to the internal components. Additionally, depending on the hardness of the airborne contaminant, this wetted material may act like a grinding compound working against the sprocket and barrel of the chain. These applications are good candidates for lubricants with solid film additives mixed with a light, evaporating carrier. The light oil penetrates, carrying the solid additives to the contact point. The solid additives remain behind to provide "dry film" protection after the carrier has been displaced. Additionally, the exterior of the chain does not accumulate as much atmospheric contaminant.

Join us in Las Vegas for [Machinery Lubrication Level I](#) training on September 20-22 followed by [ICML Level I MLT certification](#) on September 23.