

TECHNICAL CONCEPT



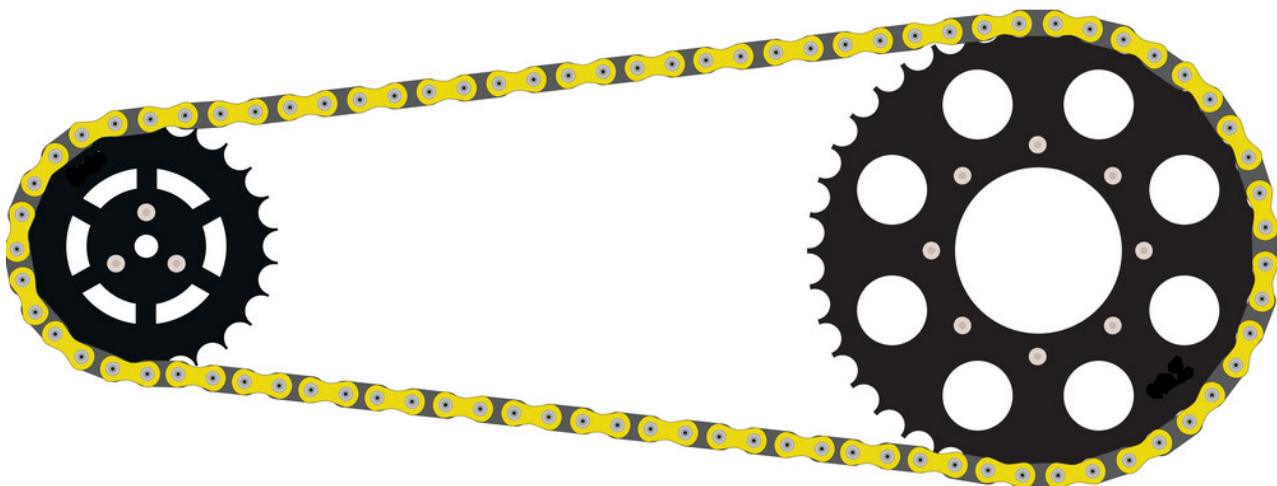
CHAIN DRIVE LUBRICATION

In different industrial skills, motors and turbines are used to produce energy. In order to convey this energy further to perform different industrial tasks, there must be a way to transmit it to other components and machines. One method of this power transmission is through the use of chain drives.

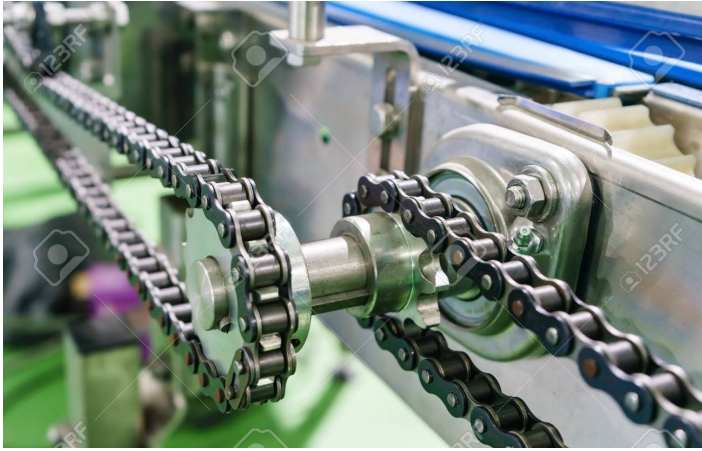
WHAT IS CHAIN DRIVE ??

Let us first understand what is a chain and basic functions of a chain? Chains are a series of links connected to one another by pin joints. They are used to perform the three basic functions: Transmitting power, Conveying materials and Timing purpose.

Chain drives are consisting of a series of chains that are wrapped around the two sprockets. They are used to transfer the power from one component to another.



APPLICATIONS OF CHAIN DRIVES:



Chain drives are mainly used for the transmission of power. They are used in different types of industries to slide, carry, push, pull or move the different materials from one end to another. They can also be used to synchronize the moments of different parts of the machine.

ADVANTAGES & DISADVANTAGES OF CHAIN DRIVES

ADVANTAGES	DISADVANTAGES
<ul style="list-style-type: none">• Chain drives can be used for short as well as long-distance applications.• It can operate effectively at high temperatures.• Easy to install than belts.• They can withstand abrasive conditions.• They are simpler and less costly than gear drives.	<ul style="list-style-type: none">• Chain drives are noisy can cause vibrations inside the machine.• Frequent lubrication is required.• Require precise alignment.• Their service life is less as compare to gear drives.• Load-carrying capacity is less as compare to gear drives.

HOW CHAIN DRIVES FAIL ??

- If a chain drive is overburdened in tension and get stretched or pulled very badly.
- Little cracks will develop in the links or in sidebars of chain drive if it is repeatedly loaded in tension or stress.
- Solid particles, debris or foreign materials can cause wear and result in the failure of chain drive. Also, abrasion and corrosion can be the root cause of failure.

NEED FOR CHAIN DRIVE LUBRICATION:



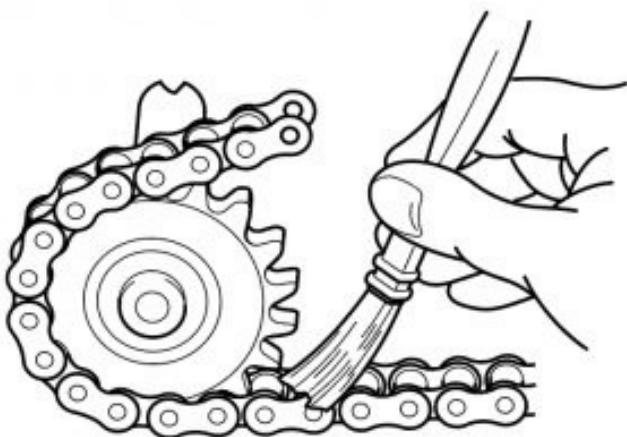
- Lubrication of chain drives is important mainly to reduce the wear between the pins and bushings of the chain joints.
- It also helps to flush out the solid particles, wear debris and foreign materials to smoothen the functioning.
- It is also needed to inhibit rust and corrosion and to carry away heat.

LET US UNDERSTAND DIFFERENT LUBRICATION METHODS FOR CHAIN LUBRICATION

The selection of perfect lubrication method is important in order to maximize both the operational life and efficiency of the chain drive.

There are different lubrication methods. One can select the best method depending on various factors such as operating temperatures, chain speed, working environment, cost and other various preferences.

1 - MANUAL CHAIN LUBRICATION



Lubrication is done manually by using a brush, oil cans, aerosol spray. The gap between inner and outer link plates of chain drives needs to get lubricate manually. It is one of the most cost-effective options for chain drive lubrication.

2 - OIL BATH LUBRICATION

In this type of lubrication, the chain drive is installed in an enclosure and then the bottom of the chain drive dips into an oil basin or tank, forcing the chain lubricant into the chain joints. This is the most effective method as the whole chain drive is being lubricated thoroughly.

3 - DRIP LUBRICATION:

This is a semi-automatic method in which the drip cup which supplies lubricating oil by drip-feeding is mounted in the manner such that the oil will drip on the chains. This is the ideal lubrication method for machinery as you can feed the chain oil to a particular part you want to lubricate.



4 - FORCE-FEED LUBRICATION:

In this method, a continuous spray of oil is supplied to the chain drives with the help of oil feeding pipes. This method is recommended for the heavily loaded, high speed, large horsepower chain drives where other lubrication methods are ineffective. Though it is the most costly method it is effective for the performance and life of the chain drives.

CONCLUSION

There are a variety of lubrication options for different applications. However, the selection of the perfect lubricant can affect the performance as well as the life of the machine. Mosil Lubricants has 40 years of excellence in the lubrication industry, we are Specialty Lubricant Manufacturers, our team recommends the best solution by studying several factors and the applications.