

## Lubrication

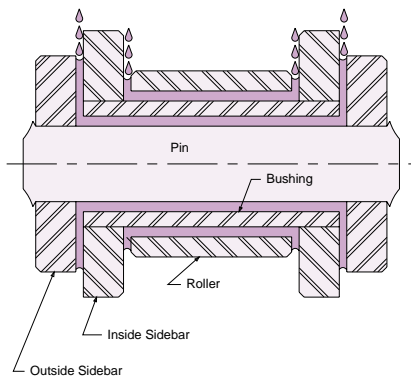
### Lubrication Increases the Service Life

One of the most important factors in getting the best possible performance out of your drive chain is proper lubrication. No matter how well a transmission system is designed, if it is not properly lubricated, its service life will be shortened.

### Lubrication

Wear between the pin and bushing causes drive chain to elongate. These parts should, therefore, be well lubricated, as shown in Figure 7. The gap between the inside sidebar and the outside sidebar on the slack side of the chain should be filled with oil. This oil forms a film which minimizes wear on the pin and bushing, thus increasing the chain's service life. It also reduces noise and acts as a coolant when the chain runs at high speeds.

**Figure 7**



### Suggested Lubricants

Only high quality oil should be used to lubricate the drive chain. Neither heavy oil nor grease is suitable. The viscosity of the oil used will depend on the chain size, chain speed, and ambient temperature. The lubricants suggested for specific temperature ranges are shown in Table 1.

**Table 1 — Lubrication Table**

Temperature (F)	Suggested Lubricant
20° - 40°	SAE 20
40° - 100°	SAE 30
100° - 120°	SAE 40
120° - 140°	SAE 50

### Lubrication Systems

The following lubricating systems are suggested:

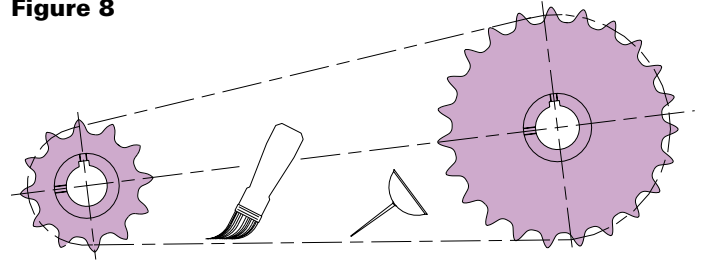
#### Drip Lubrication

Use a simple casing and supply oil by drip feed. Each strand of chain should receive 15 to 120 drops of oil per minute depending on the chain speed.

### Manual Lubrication

On the slack side of the chain apply oil with an oil filler or brush in the gap between the pin link sidebar and roller link sidebar. (See Figure 8.) Reapply every eight hours or as often as necessary to prevent the bearing area of the chain from becoming dry.

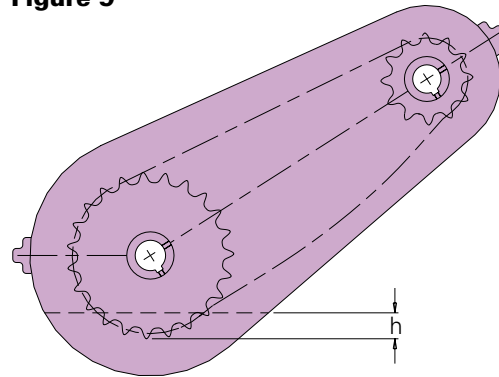
**Figure 8**



### Oil Bath Lubrication

Install the chain in a leak-free casing (Figure 9). The oil depth (h) should extend only to the middle point of the pin end. The oil will be adversely affected by the generated heat if the oil depth is too great.

**Figure 9**



### Lubrication Using a Pump (Oil Stream)

Use a leak-free casing. Circulate the oil with a pump. The number of supply holes should be one more than the number of strands of chain. Supply a constant amount of oil to each hole (Figure 10). The oil should also be cooled in this process.

**Figure 10**

