

Technical Sheet

TM-5 Lubricator Replacement

General & Background

TM-5 lubricator is a motor-driven piston pump, spring-discharge type. Pump cycle time is controlled by an integral gear reduction in the motor; the lubricator will deliver a measured shot of oil on a preset interval, determined by the gearset in the motor. The lubricator can also be actuated manually by raising and releasing the instant feed button.

TM-5 is used with Meter Units in Single-Line Resistance (SLR) systems, on a wide variety of industrial machinery, delivering measured volumes of oil to lubrication points.

These lubricators have been in production since the 1970's, and are gradually being replaced by other lubricators that have more flexibility. While the integral gearset sets the lubrication interval without the need for external control, the interval is fixed, hence the only option for adjusting the volume of oil is to adjust the lubricator stroke; this adjustment varies from a maximum of 5.0 cc per cycle to a minimum of 2.5 cc per cycle.

This document offers suggestions on replacing certain obsolete TM-5 lubricators with a special SureFire II lubricator.

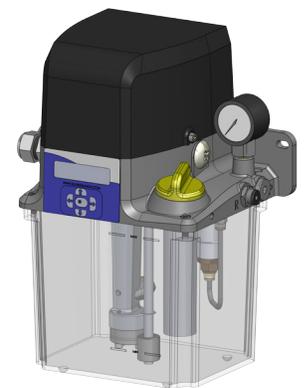
Replacing TM-5 with Special SureFire II Lubricator

SureFire II is an electric motor-driven gear pump that can adapt to a broad range of production machinery. Although it is not a direct drop-in replacement for TM-5, this special SureFire II delivers a measured shot of 2.5 cc per cycle, and the integral timer can be adjusted to vary the delivery of oil as needed by the equipment it is servicing.

The discharge volume feeds the existing network of SLR Meter Units to deliver oil to the lubrication points. Because the delivered volume is fixed for this special SureFire II lubricator, pressure in the SLR circuit may be less than it was with the original TM-5 lubricator. Hence, if the existing SLR system is fitted with a pressure switch tied to the machine controls, please verify that the new lubricator can activate the pressure switch; if not, adjust the pressure switch accordingly (if applicable) or replace the pressure switch with one that is suitable for the new operating pressure.



TM-5 Lubricator



SureFire II Lubricator

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Technical Sheet

TM-5 Lubricator Replacement

Replacing TM-5 with Special SureFire II Lubricator (Cont.)

Surefire II Models:

Voltage	SureFire II Pump Part Number
110/220 VAC 50/60 Hz	SFX71322-RK
24 VDC	SFX71322-BK

Timer Settings for SureFire II Lubricator SFX71322-RK

Cycle Time		Pumps to be Obsoleted		Surefire II Pump Settings			
50Hz	60Hz	TM-5 with Level Switch	TM-5 without Level Switch	If TM-5 was set @ 5cc/Cycle		If TM-5 was set @ 2.5cc/Cycle	
				on time	off time	on time	off time
6.4 min	5.3 min	D2986	D2994	15 sec	2.5 min	15 sec	5 min
10.6 min	8.8 min	D2988	D2996		4 min		8 min
32 min	27.7 min	D2990	D2998		15 min		30 min
64 min	53.5 min	D3187	D3189		27 min		54 min
128 min	107 min	D2992	D3000		53.5 min		107 min

T1 = Pump On Time (hours: minutes: seconds), set at 15 seconds

T2 = Pump Off Time (hours: minutes: seconds), set at one-half of the cycle time of the original TM-5 lubricator. If the stroke of original TM-5 lubricator has been reduced, adjust Pump Off Time accordingly.



Timer Controller Screen

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For more information on these TM-5 lubricators, refer to Data Sheet 21836.
 For more information on SureFire II lubricator, refer to Operator Manual 36412.