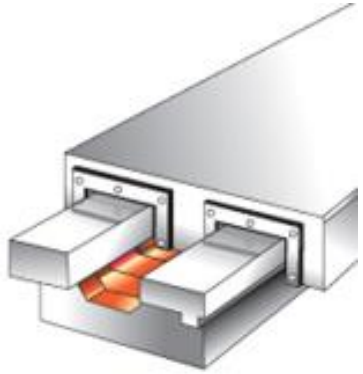
* Formerly known as Tribol 1066/220

Tribol SW 1066 Greatly Lowers Oil Usage



SMALL ENGINE (USA)

TRANSFER LINE - SLIDEWAY LUBRICATION

Castrol Tribol® SW 1066/220*

Usage Reduction of 52%

THE SITUATION

A small engine manufacturer was using a low cost slideway oil for their block transfer line. The oil had no apparent tackifier and easily washed off the ways. For this reason, the plant had to use high volumes of slideway oil to maintain proper lubrication and avoid chatter. This lead to high tramp oil in the coolant and oily chips being sent to their foundry. The foundry routinely complained of oily chips and the smoke they generated.

BEFORE

- Company M slideway oil (ISO 220) with no tackifier noticeable
- High oil usage
- High tramp oil in coolant
- Oily chips and high smoke from on-site foundry

AFTER

- Tribol SW 1066/220 high performance way oil
- Excellent tackifier level to resist high coolant wash
- **Usage reduction of 52%!**
- Reduced tramp oil and less foundry smoke

THE SOLUTION

- Castrol Engineering evaluated the situation and determined that the previous way oil had no apparent tackifier, causing it to wash off easily.
- We chose our Tribol SW 1066 due to its excellent performance in resisting coolant wash and its ability to readily separate from the coolant.
- A plan was developed to reduce the usage in stages while monitoring the ways for oil film level and proper machine tool operation.
- The lube system (Trabon single-line series progressive) was adjusted to increase the time between cycles and lower the volume output per cycle.

Tribol SW 1066 Greatly Lowers Oil Usage

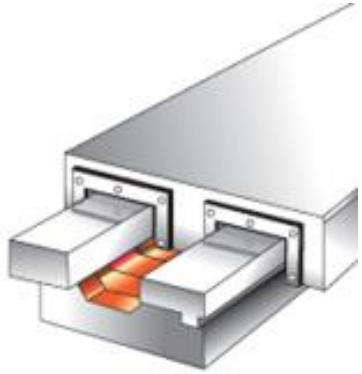
RECOMMENDATIONS

Developing a plan to slowly reduce the usage while closely monitoring the oil film and machine operation is important to prevent critical slideway issues. The plan below shows the progression in this case.

CONCLUSION

The customer had tackled their hydraulic leaks but did not know how to lower the slideway oil usage to get further improvements with their coolant and chips.

Castrol delivered the right lubricant and expertise, generating over 50% usage reduction.

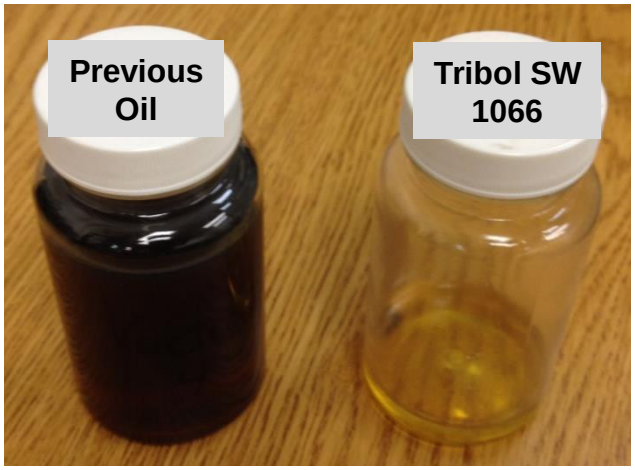


		LUBE SYS SETTINGS			
STAGE	Lubricant	Time Between Lube Cycles (in Parts)	Block Counts	% Usage Reduction	Comments
Baseline	Company M, ISO 220	50	3	-	
Stage 0 (no cutback)	Tribol SW 1066/220	50	3	0%	Ensure proper system operation. Add dye & monitor when new oil hits ways.
Stage 1 cutback	Tribol SW 1066/220	50	2	33%	Monitor for oil film on ways and for chatter.
Stage 2 cutback	Tribol SW 1066/220	60	2	44%	Monitor for oil film on ways, for chatter, and part quality issues.
Stage 3 cutback	Tribol SW 1066/220	70	2	52%	Monitor for oil film on ways, for chatter, and part quality issues.
Critical Stations to Monitor:	Piston Bore Rough, Piston Bore Smooth, Crank Bore, Cam Bore, Chamfer Boss.				

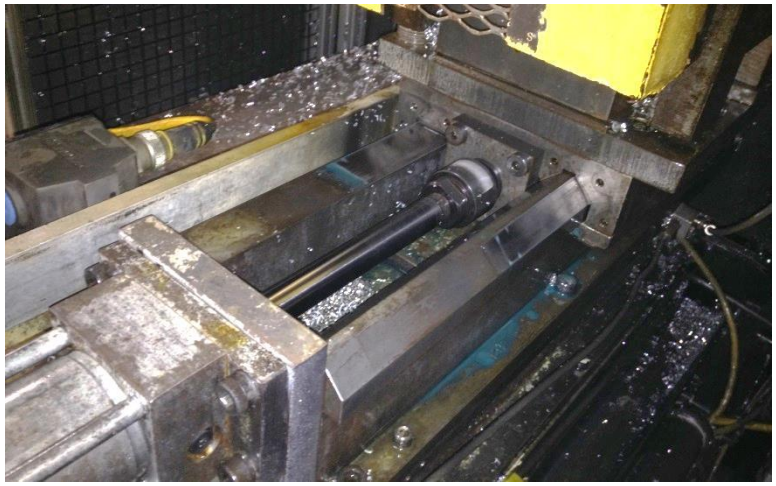
OTHER POTENTIAL APPLICATIONS

Tribol SW 1066 is Castrol's highest performing slideway oil, offering high wear protection and outstanding resistance to coolant wash-off. It will extend slideway life with less oil needed to accomplish proper lubrication.

Slideway tank being filled with Tribol SW 1066



Low cost oil is very dark due to low quality base oil & additives



Flat and Vee ways being lubricated

Previous Oil

No tackifier

Tribol SW 1066

Tackifier present