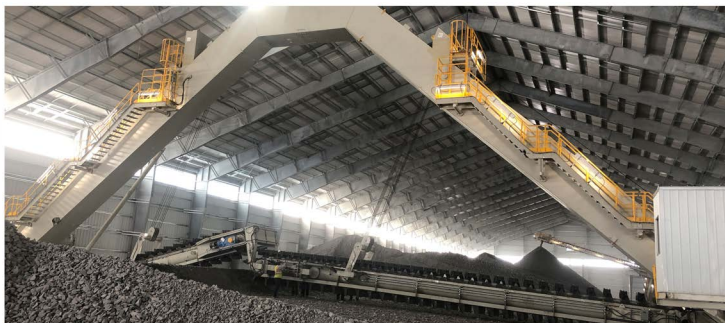


AUTOMATIC CHAIN OILING SYSTEM

Stacker Reclaimer units are subject to harsh environmental conditions and formidable production schedules. These circumstances present many maintenance-related challenges and often lead to neglect in relation to lubrication tasks.

Lubrication Technologies was asked to upgrade a pre-existing lubrication system

that was responsible for oiling multiple chains on a large Stacker Reclaimer unit. This system was unreliable and known to waste expensive lubricant due to poor system design.



Lubrication Technologies designed and built (7) separate identical stand-alone lubrication systems, each complete with an after-blow feature to keep spray nozzles clean when chain lubrication has concluded. The driver for separate systems was to simplify system design. Each rake assembly on the reclaimer has a dedicated panel, complete with all necessary lubrication system hardware located on the travelling bridge. There are (6) chain lubrication systems in service simultaneously which leaves one complete panel assembly as a spare. If there is a major problem with any of the lubrication systems, the complete panel assembly can be changed in a matter of minutes. By mounting all essential components on the traveling bridge, any lubrication system maintenance can be performed while the stacker reclaimer is in operation. Only spray nozzles are mounted down at the chain level.

As it was explained to LTI, two situations would commonly occur when the old lubrication system would malfunction: the whole assembly would start to shake due to lack of lubrication or conversely lubricant consumption could be as high as (1) 55-gallon drum per week. With the implementation of the new lubrication systems, uniform lubrication has been achieved and lubricant consumption has been reduced to (1) 55-gallon drum every 5 weeks. At a cost of approximately \$1,100 per drum, an average cost savings of \$4,400 per month can be assigned to the new lubrication systems. Production has been increased due to not having to stop the reclaimer for manual lubrication and employee safety has been enhanced as there is no longer the need for employees to climb on material to manually lubricate the chains.

