

Petronas Urania 3000 15W-40 (CI-4) Optimizes the operational of Perkins Industrial Diesel Generator by 100%.

4 October 2019



MJM Plantation Sarawak. Palm Oil Production. Malaysia



It has a total of 3 units of industrial diesel generator and Perkins Diesel Generator is one of it. Currently the oil change service interval is 250 hours. However the mill manager is looking forward for extended service interval to 500 hours in order to minimize the mill maintenance and operational costs. A trial run was conducted using the PETRONAS Urania 3000 CI-4 15W-40 Heavy Duty Diesel Engine Oil.

Equipment Details

Perkins 2806A-E18TAG Industrial Diesel Generator was selected for the field trial test. It can deliver 514-652 kWm engine power and 591-750 kVA generator output, along with mechanically operated unit fuel injectors, electronic control and carefully matched turbocharging system. The generator runs 24 hours daily, 7 days a week. It is one of the main engine which produces electrical power for the mill. Thus it operates under severe load daily. With the currently oil change service interval of 250 hours, it requires extra maintenance downtime in a year. During peak production period, 250 hours can be as fast as 2 weeks. Short service interval leads to high maintenance cost due to frequent engine parts replacement such as the oil filter and gaskets.

Company overview

MJM (Palm Oil Mill) Sdn Bhd is in Bekenu, Miri, Sarawak. Established in 2012, the mill is designed to process 60MT/Hr of fresh fruit bunch which produce crude palm oil and palm kernel. The mill requires diesel generator to generate electrical power for the mill equipment.

Field Trial Monitoring Results



Optimum protection
from excessive wear



Excellent oxidation
and thermal stability



Maximum protection
from engine deposit

Customer Benefit



Extended oil drain interval
500 Hours
from usual practice of 250 Hours

Up to 50% reduction
of the service interval

Up to 50% saving
on total maintenance cost



"The Mill Manager was satisfied & has confidence with performance of Urania 3000 15W-40 and this is one of the solutions to reduce service interval and maintenance cost"

To discuss how PETRONAS can help
your business, please contact our
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Petronas Urania 3000 15W-40 (CI-4) Improves 50% uptime for RTG and reduce the engine oil consumption.

4 October 2019



IT-Portlink, North Port. Port Business . Malaysia



Company overview

The core business of IT-Portlink consist of provision of comprehensive maintenance services of port machinery ranging from container handling quayside crane, rubber tyre gantry (RTG), straddle carrier, reach-stacker & forklift to terminal tractor & trailer.

The lubrication consumption is about 6200L per months for RTG alone.

Challenge

IT-Portlink Sdn Bhd currently provide maintenance service to Northport Sdn Bhd for 40+ RTG unit. The RTG unit are critical for port operation and operates up to 18 Hours per day, 6 days a week. IT-Portlink are given allocation 3 hours for preventive maintenance (PM) per day on RTG, and not to exceed 40 hours of Corrective maintenance (CM) per month. The reliability of the RTG has been their performance indicator to Northport. They are seeking to reduce the frequency for PM by extending the Oil Drain interval from 250 Hours to 500 Hours for the RTG diesel generator.

Solution

In April 2019, Petronas Lubricants Marketing (M) Sdn Bhd team collaborated with IT-Portlink to conduct field trial of Petronas Urania 3000 CI-4 15W-40 on their four (4) unit of RTG for three (3) months. Two (2) unit from Komatsu RTG and two (2) units from Cummins RTG model has been selected. Oil samples has been collected at set interval up to 500 hours, and oil analysis parameter are closely monitored on Kinematic viscosity and elemental wear & tear of each sample.

Field Trial Monitoring Results



**Optimum protection
from excessive wear**



**Excellent oxidation
and thermal stability**



**Maximum protection
from engine deposit**

Customer Benefit

Extended oil drain up to
500 Hours
from usual practice of **250 Hours**



**Up to 50%
cost saving**

on lube oil consumption
and part replacement

RM900,000

on total maintenance cost per annum



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