

### marine lubricants

# taro ultra advanced 40 - a game-changer for *rong lin wan* vessel's engine

Taro® ultra advanced 40 is the latest addition to Chevron Marine Lubricants' range of cylinder oils meeting the highest performance standards. Taro ultra advanced 40 is a 40 base number (BN) Category II cylinder lubricant designed to provide improved marine engine protection over previous generations of low BN formulations.

#### performance

The RONG LIN WAN vessel from COSCO SHIPPING Energy Transportation, which had been alternating between 40 BN and 70 BN Category I cylinder oils, made a strategic switch to Taro Ultra Advanced 40 (TUA 40) in late 2023. This change has brought about a series of marked improvements that have significantly enhanced the vessel's engine performance and operational efficiency.

## enhanced cleanliness and reduced piston liners, rings and lands deposits

One of the most striking advantages of TUA 40 is its efficient cleaning ability even in most severe operating conditions. Inspections of the scavenging box reveal a dramatic difference in the cleanliness of the cylinder liners, piston rings and ring lands.







After







These parts are now visibly cleaner compared with the period when Category I 40 BN or 70 BN were in use. The scavenging ports also exhibit a marked reduction in dirt and debris, as clearly shown in pictures of clean scavenging ports.

### prolonged component life

Another significant benefit is that the iron content in the cylinder drip oil has dropped considerably. This indicates reduced wear on the engine components, which is a crucial factor in extending the engine's lifespan and improving equipment reliability. Moreover, the residual base number remains within the normal range, ensuring effective neutralization of acidic substances generated during the combustion process.

### optimized oil consumption

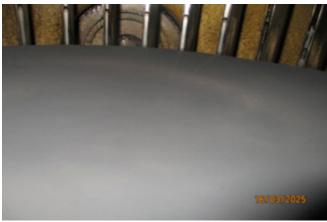
TUA 40 has also led to a decrease in cylinder oil consumption. When using CAT I 40/70, the cylinder oil feed rate required a relatively high setting to ensure proper cleaning. However, with TUA 40, based on DOT. FAST \* drip oil analysis and regular inspections, the feed rate has been gradually optimised. Currently, the feed rate on the RONG LIN WAN vessel is maintained at a level approximately 12% lower than the previous setting, while still achieving remarkable cleanliness. This reduction results in substantial cost savings without compromising the engine's operation and performance. At the same time, it reduces the complexity of alternating lube operations.

### conclusion

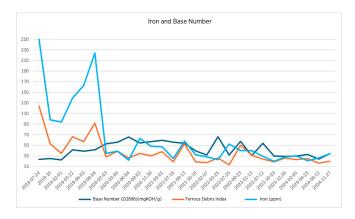
The switch to TUA 40 on the *RONG LIN WAN* vessel has proven to be a highly beneficial decision. It has provided impressive cleaning and lubrication for the engine components, ensuring the smooth operation of the ship's main engine. TUA 40 has not only extended the service life of critical engine parts such as the cylinder liner and piston rings but has also reduced the operating cost with improved equipment reliability. It is evident that TUA 40 is a reliable choice for marine engine cylinder lubrication, and other vessel operators may find it worthy of consideration for similar performance enhancements.



Before



After



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marine lubricants

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