



LOWERING OIL CONSUMPTION SAVES RO-RO OPERATOR US\$ 123,000¹ ANNUALLY

COMPANY: Hainan Strait Shipping Co., Ltd

APPLICATION: Main and auxiliary engines

VESSEL: Ro-ro passenger ferries

KEY EDGE: Shell Argina, Shell Gadinia, Shell LubeMonitor 4T

BETTER ENGINE RELIABILITY SAVES US\$ 123,000/y¹

¹The savings indicated are specific to the calculation date and mentioned site. These calculations may vary from site to site and from time to time, depending on, for example, the application, the operating conditions, the current products being used, the condition of the equipment and the maintenance practices.

Hainan Strait Shipping Co., Ltd is a large shipping company operating a fleet of 20 roll on-roll off (ro-ro) passenger ferries in the South China Sea. The fleet's annual engine oil consumption is 80–100 t, which is one-third of its total lubricant consumption and half of its procurement costs. Each vessel has two 2,040-kW main engines and three 600-kW auxiliary engines from MAN Diesel & Turbo.

Hainan Strait Shipping was looking to become a better advocate for the protection of the environment and ocean, and to reduce its maintenance and lubricant costs. The company wanted its ro-ro vessels' engines to run more efficiently and have longer lifespans, so turned to Shell for a solution.

Shell Marine recommended that the company should take advantage of the Shell Marine technical services offer: the Shell LubeMonitor 4T monitoring service and conduct a trial using Shell Argina S3 40 and Shell Gadinia S3 40 engine oils, which enables engines to run more efficiently. Shell Argina S3 40 is designed for engines burning heavy fuel oils. Its good oxidation resistance reduces the amount of sweetening required and its optimised detergency helps to keep engines clean. Shell Gadinia S3 40 meets the needs of engines burning distillates and liquid biofuels. Its excellent resistance to oxidation and thermal degradation provides



long oil life. Shell Gadinia S3 40 helps to extend engine life by reducing deposit formation. It also minimises lacquer formation to help reduce oil consumption.

Hainan Strait Shipping's six ro-ro vessels that switched to Shell Argina S3 40 and Shell Gadinia S3 40 now only need routine maintenance once every two years instead of requiring up to 20 days downtime for repair every year. The company reports that it is saving almost US\$123,000¹ a year on these vessels as a result of longer oil life, lower lubricant consumption, better engine reliability and the consequent lower maintenance costs.

1

CHALLENGE

Hainan Strait Shipping was looking to help protect the environment and cut costs by having its ro-ro vessels' engines run more efficiently and have longer lifespans.

2

SOLUTION

Shell Marine recommended that the company should trial Shell Argina S3 40 and Shell Gadinia S3 40 engine oils, which helps engines to run more efficiently, and take advantage of the Shell LubeMonitor 4T monitoring service.

3

OUTCOME

The six ro-ro vessels that switched to Shell Argina S3 40 and Shell Gadinia S3 40 now only need routine maintenance once every two years instead of requiring up to 20 days downtime for repair every year.

4

VALUE

Hainan Strait Shipping reports that it is **saving almost US\$123,000¹ a year** on five vessels as a result of longer oil life, lower lubricant consumption, better engine reliability and the consequent lower maintenance costs.

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SHELL SERVICE

Shell LubeMonitor

A service designed to monitor two- and four-stroke marine engine performance. It includes access to Shell tools and advice to help you strike and maintain an acceptable balance between oil costs and maintenance expenses.

Shell LubeAnalyst

A flexible used-oil laboratory analysis service designed to save you time and money on maintenance resulting from equipment failure. This early-warning system aims to give you peace of mind that your equipment and lubricants are in optimum working order.

Shell LubeAdvisor

This on-site support from a global team of field-based engineers includes lubrication surveys, vessel assessments, and in-depth technical and applications support when required. Back-up support is provided by telephone, fax or email.

SHELL ARGINA

Shell Argina

Shell Argina trunk piston engine oils have been reformulated to help give low oil consumption and good wear protection.

SHELL GADINIA

Shell Gadina

Shell Gadina trunk piston engine oils have been reformulated to help give low oil consumption and good wear protection.

