



# BARUNA EXTENDS OIL-DRAIN INTERVAL AND SAVES MONEY THROUGH SWITCHING TO SHELL RIMULA R3 X

TOTAL REPORTED ANNUAL CUSTOMER SAVING

## US\$155,453



**COMPANY:** Baruna Tiga Berlian PT

**COUNTRY:** Indonesia

**APPLICATION:** Heavy-duty diesel engines

**SAVING:** US\$155,453 total reported annual customer saving

**KEY EDGE:** Shell Rimula R3 X, Shell LubeAnalyst

**Baruna Tiga Berlian PT (Baruna Group) in Bekasi, Indonesia, is a freight company running 200 short-haul diesel trucks. The trucks were having engine reliability problems that meant they required up to 20 overhauls a year and were achieving oil-drain intervals of only 5,000 km.**

The Shell Lubricants technical team suggested the high-quality Shell Rimula R3 X 15W-40 oil to increase the oil-drain interval and help to improve reliability. The Shell experts also recommended the Shell LubeAnalyst service to help determine the optimal oil-drain interval.

Since changing to Shell Rimula R3 X, Baruna Group has found that the engines in its trucks are much more reliable and it has been able to extend the oil-drain interval by three times to 15,000 km. This has resulted in less downtime, lower maintenance costs, savings in lubricant consumption and better productivity. The company reports annual savings of US\$155,453.



# 1

## CHALLENGE

Baruna Group's 200 short-haul diesel trucks were having engine reliability problems that meant they required up to 20 overhauls each a year and had oil-drain intervals of only 5,000 km.

# 2

## SOLUTION

The Shell Lubricants technical team suggested changing to Shell Rimula R3 X 15W-40 to increase the oil-drain interval and improve reliability. They also recommended the Shell LubeAnalyst service to help determine the optimal oil-drain interval.

# 3

## OUTCOME

Since changing to Shell Rimula R3 X, Baruna Group has found that the engines in its trucks are much more reliable and it has been able to extend the oil-drain interval by three times to 15,000 km.

# 4

## VALUE

The company reports annual savings of US\$155,453<sup>1</sup> as a consequence of less downtime, lower maintenance costs, savings in lubricant consumption and improved productivity.

<sup>1</sup>The 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, for example, on the application, the operating conditions, the current products being used, the condition of the equipment and the maintenance practices.



## SHELL RIMULA R3 X

HEAVY-DUTY DIESEL ENGINE OIL

Shell Rimula R3 X Energised Protection oils provide triple action protection against wear, deposits and heat to continuously adapt to the needs of engine for protection in on- and off-highway applications. Shell Rimula R3 X gives all-round protection for turbo- and non-turbocharged engines alike.

### Applications

Shell Rimula R3 X is particularly suitable for use in Japanese heavy-duty bus, coach and truck applications, including modern turbocharged engines. It has also been proven in rugged off-highway applications ranging from remote mining and quarrying operations to various types of agricultural machinery.

### Performance features and benefits

- Improved wear resistance. Shell Rimula R3 X technology has demonstrated outstanding performance in very severe tests of valve train wear on Cummins engines, where protection is critical for engine durability.
- Exceptional deposit control. Shell Rimula R3 X has been shown to keep engines cleaner than previous generation oils.
- Increased heat resistance. Shell Rimula R3 X has been developed to resist breakdown by heat to help to ensure continuing protection under heavy-duty service. The oil exceeds the requirements of key industry high-temperature oxidation tests by up to 40%, which provides an ample safety margin for all but the most severe operations.



### Specification and approvals (15W-40)

API CH-4, CG-4, CF-4 and CF; ACEA E5 and E3; JASO DH-1; Cummins CES 20077, 20076, 20075, 20072 and 20071; MACK EO-M and EO-M+; MAN M3275; MB Approval 228.3; MTU Category 2; Renault Trucks RD-2; and Volvo VDS-2. Meets the requirements of Allison C-4.

### Complementary products

Application	Lubricants
Gear oils	Shell Spirax S2 G, Shell Spirax S3 G, Shell Spirax S6 GXME
Axle oils	Shell Spirax S2 A, Shell Spirax S3 AX, Shell Spirax S6 AXME
Transmission oils	Shell Spirax S4 ATF HDX, Shell Spirax S6 ATF VM, Shell Spirax S6 ATF UM
Greases	Shell Gadus S2 V220, Shell Gadus S2 V220AC, Shell Gadus S3 V220C, Shell Gadus S3 V460D, Shell Gadus S4 V45AC