



# Shell Gadinia

## *Medium-speed marine diesel engine oil*

Shell Gadinia are premium quality diesel engine lubricants, specially designed for the most severe service main propulsion and auxiliary marine trunk piston engines burning distillate fuels having sulphur content up to 1%. They also perform satisfactorily in smaller high speed engine units in fishing fleets which normally operate under arduous conditions, often with small sump capacity.

### Applications

- Highly rated, medium speed, main propulsion & auxiliary trunk-piston marine diesel engines
- Geared transmissions, turbochargers and variable pitch propellers
- Oil lubricated stern tubes, deck machinery & other applications requiring an SAE 30 or 40 viscosity oil

### Benefits

#### **Improved engine reliability :**

- Greater tolerance to conditions of overload or poor combustion, because of improved piston cleanliness and cleaner engines.
- Reduced deposits in piston cooling spaces, good resistance to top ring groove deposits and cleaner crankcases.

#### **Lower maintenance costs :**

- Extended diesel engine life through reduced risk of ring sticking and breakage.
- Longer oil life, especially in high stress engines, because of Shell Gadinia's improved oxidation resistance and good resistance to thermal degradation under severe operating conditions.
- Superior protection against corrosion for all engine components, due to Shell Gadinia's unique formulation giving excellent alkalinity availability.

#### **Re-assurance :**

- Greater safety margin to protect highly loaded bearings, in the event of water contamination, because of Shell Gadinia's improved water tolerance and separation in separators.
- OEM endorsement by leading diesel engine manufacturers following extensive field approval

trials, means that Shell Gadinia is suitable for the widest range of modern diesel engines.

### Performance Specifications

API Classification - CF

Shell Gadinia Oils are approved by most leading trunk piston diesel engine manufacturers.

### Health & Safety

Shell Gadinia Oils are unlikely to present any significant health or safety hazard when properly used in the recommended application, and good standards of industrial and personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

For further guidance on Product Health & Safety refer to the appropriate Shell Product Safety Data Sheet.

### Other Services

**Condition Monitoring** - Shell RLA engine condition monitoring service is ideal for users of Shell Gadinia Oils. Use of this service enables the ship operator and Shell, to monitor the condition of the oil and equipment, and take remedial action when necessary. This helps to avoid breakdowns and costly downtime. To fully benefit from this service, samples should be taken at regular intervals.

**Shell RLA Opica** is an integrated software system enabling RLA data to be received electronically in the office and/or on the vessel. It contains powerful data management and graphics, enabling efficiency gains in report handling and machine condition monitoring.

**Maintaining oil cleanliness** - Normal purification &/or filtration equipment and practices for heavy duty crankcase lubricants, should be used to ensure that Shell Gadinia Oils do not become over burdened with solid contaminants and water. With centrifugal purification, 'water-washing' to remove strong acids is unnecessary.

## Advice

Advice on applications not covered in this leaflet may be obtained from your Shell Representative. For contact details see page ii in the front of this binder.

## Typical Physical Characteristics

Shell Gadinia Oil	30	40
<b>SAE Viscosity Grade (J 300)</b>	30	40
<b>Kinematic Viscosity mm<sup>2</sup>/s</b> @ 40°C mm <sup>2</sup> /s 100°C mm <sup>2</sup> /s (IP 71)	104.0 11.8	139.0 14.4
<b>Density @ 15°C</b> kg/l (IP 365)	0.897	0.900
<b>Flash Point</b> °C (Pensky-Martens Closed Cup) (IP 34)	>200	>225
<b>Flash Point</b> °C (Cleveland Open Cup) (IP 36)	241	246
<b>Pour Point</b> °C (IP 15)	-18	-18
<b>Load Carrying Capacity</b> FZG Gear Machine A/8.3/90 Failure load stage (IP 334)	12	11
<b>TBN-E</b> mg KOH/g (IP 276)	12	12
<b>Sulphated Ash</b> % wt (IP 163)	1.35	1.35

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.