

# SHELL ARGINA T

## MEDIUM-SPEED TRUNK-PISTON DIESEL ENGINE OIL

DESIGNED TO MEET CHALLENGES

Shell Argina T is a multi-functional crankcase lubricant for highly rated medium-speed diesel engines operating on residual fuel. Shell Argina T is designed for conditions of moderate oil stress.

### PERFORMANCE FEATURES

#### ENGINE CLEANLINESS

- n Has built a reputation over many years for very good engine cleanliness.

#### RAPID NEUTRALISATION OF ACIDIC COMBUSTION PRODUCTS

- n Gives long-term protection against corrosion of ferrous and non-ferrous metals.

#### THERMAL STABILITY AND RESISTANCE TO OXIDATION

- n Provides excellent high temperature deposit control and contributes to long oil life.

#### SUITABILITY FOR CENTRIFUGAL SEPARATORS

- n High detergency/low dispersancy formulation releases contaminants and water readily in centrifugal separators.

### APPLICATIONS

Medium-speed industrial or marine propulsion and auxiliary engines, burning residual fuel oils, which create conditions of moderate oil stress. These conditions usually occur:

- n in engine designs more than five years old;
- n where oil consumption is 1g/kWh or more;
- n in newer designs where load factors are predominantly 85% or less; or
- n where fuels with sulphur <3% are in use.
- n Some medium and high-speed engines burning distillate fuel, where a high Base Number, high ash lubricant is suitable.
- n Marine engine reduction gears and certain other ship-board applications, where specialist lubricants are not required.
- n Medium-speed engines burning residual fuel need very specialised lubricants. Heavy fuels contaminate the oil with asphaltenes, requiring special types of detergency to avoid sludges. The combustion of high sulphur fuels produces sulphur acids, which cause high wear rates of piston rings and cylinder liners unless neutralised by a high basicity reserve in the oil. The oil is in service for very long periods, so centrifugal separators are used to remove water and combustion contaminants from the oil.

### SPECIFICATIONS, APPROVALS AND RECOMMENDATIONS

MEETS THE ENGINE TEST CRITERIA FOR:

- n API CF.

### TYPICAL PHYSICAL CHARACTERISTICS

CHARACTERISTICS	30	40
Kinematic Viscosity (ASTM D 445, IP 71) @ 40°C mm <sup>2</sup> /s	110	135
@ 100°C mm <sup>2</sup> /s	12	14
Viscosity Index (ASTM D 2270, IP 226)	100	100
Density @ 15°C kg/L (ASTM D 4052, IP 365)	0.918	0.921
Flash Point °C (PMCC) (ASTM D 93, IP 34)	212	225
Pour Point °C (ASTM D 97, IP 15)	-18	-18
Total Base Number mg KOH/g (ASTM D 2896, IP 276)	30	30
Sulphated Ash % wt (ASTM D 874, IP 163)	3.7	3.7
Load Carrying Capacity (FZG) Fail Load Stage (IP 334)	11	11