



# ENERGOL THB

Industrial Turbine Oils

P/L/26

## Description

**Energol THB** range has been developed to meet the demanding lubrication requirements for turbines where a mineral-based oil is required. The additive treatment ensures good anti-corrosion and demulsification properties, and absence of foaming in service, and these characteristics are maintained over long periods.

## Main Benefits

- meets the requirements of major manufacturers of steam, gas and water turbines
- the ability of Energol THB to give trouble-free operation for extended periods has been widely proved in service.

## Applications

The grades in this range have been formulated to meet the highly demanding requirements of steam turbines, but are suitable also for the lubrication of water and gas turbines and for the crank-chambers of steam engines and air compressors.

## Typical Characteristics

	Energol THB							
	Test Method	Units	32	46	68	77*	100	150**
Density @ 15°C	ASTM D1298	Kg/l	0.874	0.877	0.881	0.882	0.884	0.893
Flash Point	ASTM D92	°C	216	216	227	240	263	269
Kin Viscosity @ 40°C	ASTM D445	cSt	32	46	65	77	96	150
Kin Viscosity @ 100°C	ASTM D445	cSt	5.4	6.8	8.4	9.4	11	15
Viscosity Index	ASTM D2270		100	100	99	98	96	95
Pour Point	ASTM D97	°C	-12	-9	-9	-9	-9	-9
Demulsification No.	IP 19	sec	130	170	220	250	<300	<300
Rusting (24 Hrs)	ASTM D665 A&B		Pass	Pass	Pass	Pass	Pass	Pass
Neutralization Value	ASTM D664	mgKOH/g	0.15	0.15	0.15	0.15	0.15	0.15

\* Principally for marine use

\*\* Primarily for water turbine

The above figures are typical of those obtained with normal production tolerances and do not constitute a specification.

Packages: 209 Litre Drum and 18 Litre Drum  
Containers are non-returnable

## Specifications and Standards

These oils can be used where the following specifications apply:

- ASTM D943/IP 157 "life" 2000 hours, to an acid value of 2.0 mgKOH/g
- CEEB/CERL
  - o Sequence 1 Total Oxidation Products 0.10 max
  - o Sequence 2 Total Oxidation Products 1.0 max
  - o Sequence 3 (IP 280) Total Oxidation Products 1.0 max
- CIGRE standard  
(soluble catalysts 20 ppm Cu, 20 ppm Fe)
- BS 489:1974  
Requirements of the major turbine builders and users
- Corrosion tests  
All the grades pass IP 135/ASTM D665 A and B procedures, and also Federal VV-L-791(a) 5311 (static water drop)

## Storage

All packages should be stored under cover. Where outside storage of drums that would trap rainwater is unavoidable, they should be horizontal to avoid the possible ingress of water and the obliteration of drum markings.

Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

## Health, Safety and Environment

Health, safety and environmental information is provided for these products in the Material Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products.

The British Petroleum Company p.l.c. or its subsidiaries will not accept liability if the products are used other than in the manner or with the precautions or for the purpose/s specified. Before the products are used other than as directed, advice should be obtained from the local BP office.