



PANTHEON TANKERS
MANAGEMENT LIMITED



ISALOS net

July 2018



Wet cargoes

- Crude oil
- Oil products
 - Petrol
 - Gasoline
 - Kerosene
- Chemicals
- LPG
- LNG



Wet cargo operations

- Loading
- Transit
- Discharging

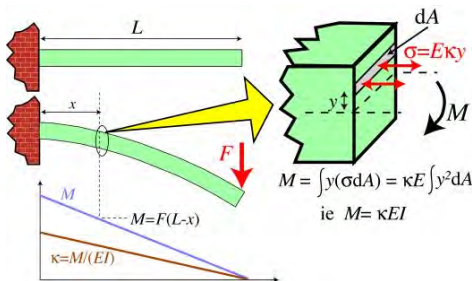
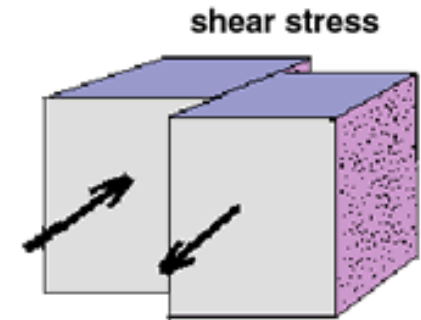


Loading operations

- By means of the terminal
- Tanks ready to receive cargo

Transit operations

- Transport with care
- Loading plan
 - Stresses
 - Shear forces
 - Bending moments
- Maintain safe atmosphere

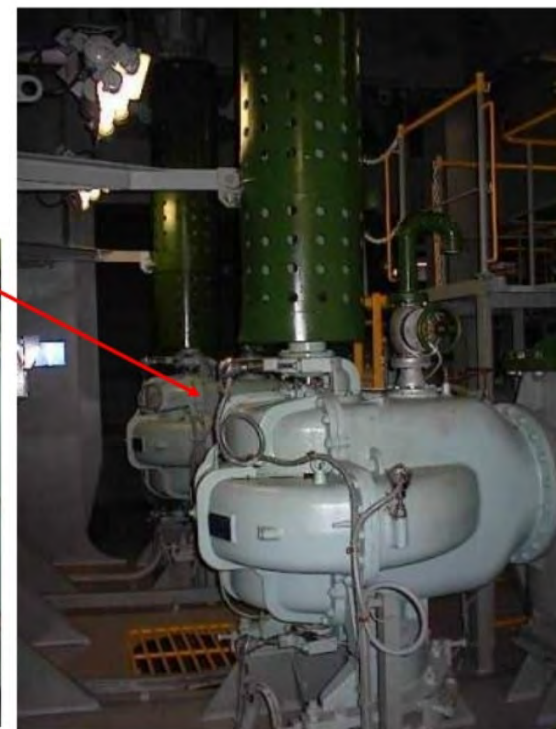
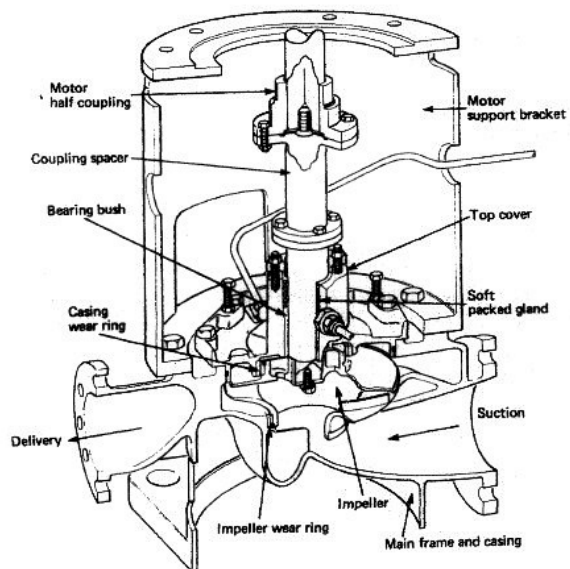


Discharging operations

- Means of discharging
 - Cargo pumps
 - Stripping pumps
- Limited time – 24 hours
- Time for next Cargo Operation preparation
- Crude oil wash - COW

Centrifugal Cargo pumps

Centrifugal Pumps in the Cargo Pump Room



Reciprocating Stripping pumps



Cargo lines

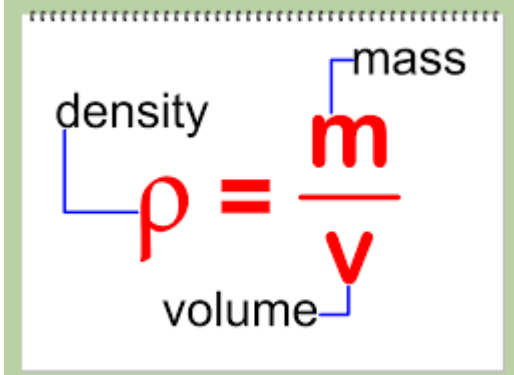


Manifolds



Liquid cargo properties

- Flash point
- Pour point
- Density
- Volume to temperature
- Pressure



The diagram shows the formula for density, $\rho = \frac{m}{v}$, enclosed in a green rectangular border. The Greek letter ρ is labeled 'density' with a blue line pointing to it. The letter 'm' is labeled 'mass' with a blue line pointing to it. The letter 'v' is labeled 'volume' with a blue line pointing to it. The equals sign and the fraction bar are in red.

Flashpoint:

The lowest temperature at which a liquid gives off sufficient gas to form a flammable gas mixture near the surface of the liquid. It is measured in a laboratory in standard apparatus using a prescribed procedure.

Pour point

The lowest temperature at which a petroleum oil will remain fluid.

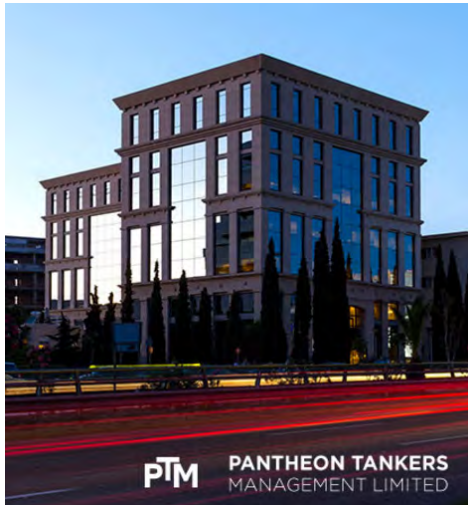
Pressure Units

	pascal (Pa)	bar (bar)	atmosphere (atm)	torr (torr)	pound-force per square inch (psi)	kilogram-force per square centimeter (kgf/cm ²)
1 Pa	$\equiv 1 \text{ N/m}^2$	10^{-5}	9.8692×10^{-6}	7.5006×10^{-3}	145.04×10^{-6}	1.01972×10^{-5}
1 bar	100,000	$\equiv 10^6 \text{ dyn/cm}^2$	0.98692	750.06	14.504	1.01972
1 atm	101,325	1.01325	$\equiv 1 \text{ atm}$	760	14.696	1.03323
1 torr	133.322	1.3332×10^{-3}	1.3158×10^{-3}	$\equiv 1 \text{ torr}$ $\approx 1 \text{ mmHg}$	19.337×10^{-3}	1.35951×10^{-3}
1 psi	6,894.76	68.948×10^{-3}	68.046×10^{-3}	51.715	$\equiv 1 \text{ lbf/in}^2$	7.03059×10^{-2}
1 kgf/cm²	98,066.5	0.980665	0.967838	735.5576	14.22357	$\equiv 1 \text{ kgf/cm}^2$

Example reading: $1 \text{ Pa} = 1 \text{ N/m}^2 = 10^{-5} \text{ bar} = 9.8692 \times 10^{-6} \text{ atm} = 7.5006 \times 10^{-3} \text{ torr}$, etc.

Note: mmHg is an abbreviation for millimetre of mercury

Contact Details



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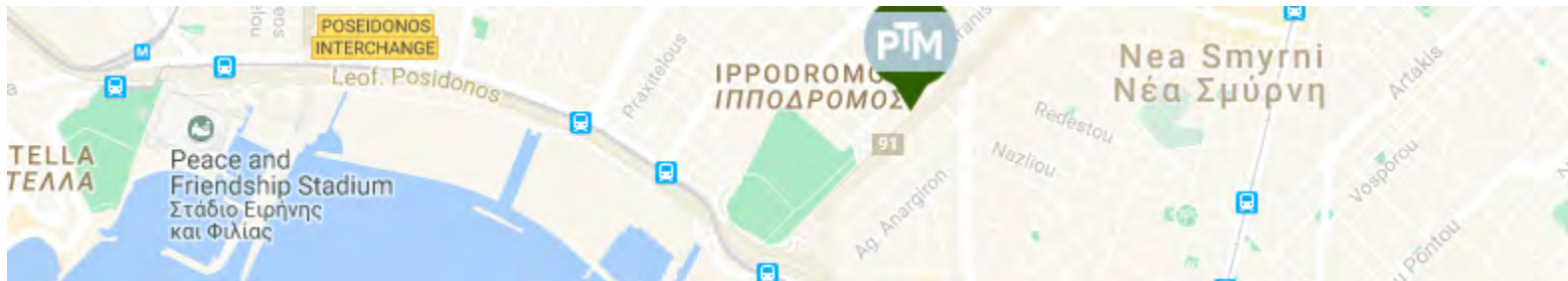
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Thank you