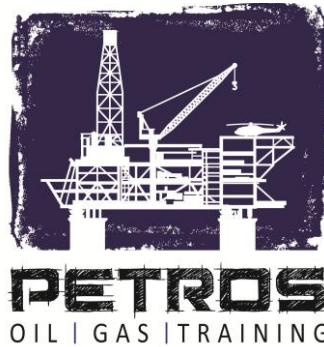


Certificate No : 2026-PTR-EC-DNVGL-0127

Date : July 14th , 2026



CERTIFICATE OF ACCOMPLISHMENT

This certificate is granted to

ANDREE YUDI WICAKSONO

ID NUMBER : PTR-EC-DNVGL-0127

For successfully completing 16 hours of lesson & finished Final Project of our E-Course

LIFTING PLAN CALCULATION AS PER DNVGL-ST-N001

Held by **Petros Oil Gas Training** – Jakarta
covering the subjects as listed on the back page



Certificate Validation

A stylized handwritten signature in black ink, belonging to Heru Prasadja, ST. The signature is fluid and cursive, written above the printed name and title.

Heru Prasadja, ST

Director

LIFTING PLAN CALCULATION AS PER DNVGL-ST-N001

Load factors

- Weight contingency and center of gravity factors (Section 16.2.2)
- Dynamic amplification factors (DAF) (Section 16.2.5)
- Centre of gravity Factor (COG) (Section 5.6.2.3)
- Skew load factor (SKL) (Section 16.2.6)
- Consequence factor (Section 16.8.3)
- Yaw Factor (Section 16.4.2.5)
- Tilt Factor (Section 16.2.3.2)

Derivation of hook, lift point and rigging loads

- Hook loads (Section 16.3.2)
 - Static Hook Load (SHL)
 - Dynamic Hook Load (DHL)
- Lift point loads (Section 16.3.3)
- Dynamic Sling loads (Section 16.3.4)

Sling and grommet Safety Factor

- Sling or grommet nominal safety factors for design Y_f (Section 16.4.3)
- Consequence factor, Y_c (Section 16.4.5)
- Sling or grommet reduction factor, Y_r (Section 16.4.6)
- Termination factor, Y_t (Section 16.4.7)
- Bending factor, Y_b (Section 16.4.8)
- Wear and application Factor, Y_w

Sling Tension Calculation

- Case 1 : 1 Hook + 4 Sling
- Case 2 : 1 Hook + 1 Level Spreader Bar
- Case 3 : 1 Hook + 2 Level Spreader Bar
- Case 4 : Tandem Crane Lifting
- Trunion

Sling & Shackle Selection

Padeye Design

Crane Selection, Utilization & Safety Factor

Ground Bearing Pressure

FINAL PROJECT :

- Lifting Plan Calculation for 50 Ton Modular Bridge Structure as per DNVGL-ST-N001
- Lifting Plan Drawing