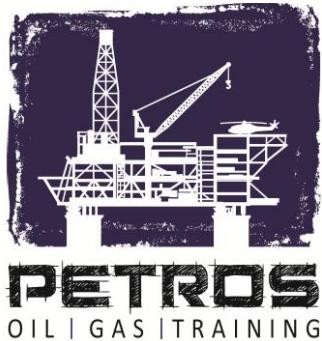


Certificate No : PTR-OFS-LF-WSC-02  
Date : December 18<sup>th</sup> , 2025



# CERTIFICATE OF ACCOMPLISHMENT

This certificate is granted to

**AMRI SYAHRUL RAMADHAN**  
ID NUMBER : OFS-WSC-02

For successfully completing  
& finished the Final Project of our Training

## SACS TRAINING - LIFTING ANALYSIS

Held at **Wasco Engineering Indonesia** – Batam, Indonesia,  
22 & 23 November 2025, covering the subjects as listed on the back page



Certificate Validation



**Heru Prasadja, ST**  
Director

# SACS TRAINING – LIFTING ANALYSIS

## SUBJECTS

### THEORY

- Design Premises
- Reference Documents
- Method Of Analysis
- Boundary Conditions
- Allowable Stress
- Contingency Factor
- Dynamic Amplification Factor
- Consequence Factor
- Skew Effect
- Rigging Arrangement
- CoG Variation (envelope method)
- Hook Point
- Slings

### LOADING

- Dry Lifting Load
- CoG Shift Force

### LOADING COMBINATION

- Loading Combination Without Consequence Factor
- Loading Combination For Member Connecting To Lifting Point
- Loading Combination For Member Not Connecting To Lifting Point

### LIFTING ANALYSIS COMPUTER MODELLING

### ANALYSIS RESULT

- Weight Summary
- Centre Of Gravity
- Maximum Sling Load
- API/AISC Member Stress Ratios
- Joint Deflection

### LIFTING ANALYSIS REPORT PREPARATION

## FINAL PROJECT : LIFTING ANALYSIS OF 103 TONS DECK PLATFORM