MEXICO – 12,200 TON OFFSHORE MODULES

PROJECT	EQUIPMENT	WEIGHT
OFFSHORE	88 AXLE LINES SPMTs 96 LOAD CELLS PUSH UP SYSTEM STRAND JACKS	12,200 TON

Fagioli Fagioli inc.USA and the newborn Fagioli Latin America Mexico joint forces for a demanding project for the jacking up, weighing and skidding operations of No. 2 topside modules weighing 12.200 ton each in Mexico Both decks were built on a sixteen(16) support columns (in a square path),while the lifting operation was carried out with the hoisting of eight (8) external columns. Under Fagioli requests , the Client manufactured the lifting frames and lifting columns in order to use Fagioli Push-up sytem which was composed of :

• no. 4 Lifting jack assembly (jacks, strand, and fixed anchors).

• no. 2 support beams, supporting n. 2 jacks each

• no. 1 lifting frame with moveable shear keys

• Power Pack Unit linked to the control system

• no. 1 jack up column supporting the decks directly from construction area

• no. 5 standard columns

The overall lifting system was composed by:

• no. 12 x L750 lifting Jacks • no. 20 x L600 lifting Jacks

• no. 32 stroke encoders for the jacks run control

• no. 32 pressure transducer • no. 8 L4/35 PPUs.

The Lifting Frame was made of two connected symmetrical items and by 4 Shear Keys, sliding above the frame. Each Shear-key operated by a couple of double–acting jacks, powered by a dedicated hydraulic system. The lift was carried out in five steps, 150 cm high each.

After each lift, the item was then released upon a set of 1500mm diameter columns (standard column). The subsequent columns were bolted through four connection plates and four 8-bolts sets. Overall 40 standard columns were available for the lift.

Jackup columns were lifted by lifting frames for the positioning of 5 main sections which formed the whole assembled structure. The lifting of the first module completely assembled started at a height of fabrication of approx. 3,5mts up to the final height at approx. 11mts.

At the same time Fagioli performed the weighing operation of the platform using 96 load cells between 300 and 200 tons capacity. A dedicated steel structure lodged the three cells for each jack and it was placed between the bottom of the jack and the support beam.

Once the topside module had been hoisted at the required height Fagioli, with a set of 88 axle lines SPMTs, transported the skid frame underneath.

This operation allowed the positioning of the module directly onto the skid frame hereinafter used for the skidding operations.

Skidding of the Deck fromthe fabrication area was performed by strand jacks for a distance of about 100mts directly onto a dedicated barge. Fagioli settled no. 4 jacks (L600with 30 cables each) 1 jack for each skidway as a pulling force and the others for contingency. The skidding operation lasted 36 hours.

0 - 12 hours: the platformwas pulled close to the dockover, onto the 3 mts high lower support skidway frame.

12 - 24 hours: the platform was skidded onto the barge

24 - 36 hours: the platform was placed onto its final position

Fagioli employed no. 2 x L600 strand jacks (with 17 cables each) as part of the mooring operation.