

Pre-loadout move, side skidding and loadout of Amenam Kpono FSO

Client: Elf Petroleum Nigeria Ltd.

Fabricator: Hyundai Heavy Industries Co., Ltd.



www.fagiolipsc.com

OFFSHORE 26



The Amenam Kpono FSO was constructed in the Hyundai yard in Ulsan during the first half of 2002.

Due to restrictions on available fabrication space it was decided that the FSO would be constructed in two halves, forward and aft, effectively having a joint in the midships section. The two halves were constructed side by side in the yard and this left the task of positioning the halves ready for joining together.

The aft section had to be skidded longitudinally on the loadout skid tracks down towards the quay edge to allow the forward section to be skidded transversely effectively taking up the position on the loadout skid tracks previously occupied by the aft section. The two sections were then joined together and the completed FSO loaded out onto a submersible barge for deployment offshore.

Sixteen L600 strand jacks and eight power packs (One L2/70D power pack for each pair of jacks) were used to slide the two halves together. The power packs were mounted on scaffold platforms adjacent to the jacks and controlled from a single remote station, with the Fagioli PSC Computer control system, situated at a convenient ground location, from which a single operator controlled individual jacks as well as the complete system.

One central control system was used to simultaneously control the pulling systems. The control system provides comprehensive control over every function of the jacking system and displays all the signals on the status of the jacking system.



The Fagioli PSC control system uses computerised technology to control and monitor the performance of the jacking system. The control system will run in fully automatic mode (i.e. the operator will only monitor the operation) and all data will be logged. The automatic functions can be overridden if necessary (e.g. during equipment set-up and commissioning) for individual load adjustments.

Emergency stop buttons are fitted to all major components in the system. These are linked in series and therefore if any of the buttons are activated the system shuts down allowing only diagnostic and override functions for manual re-start.

Operational Statistics

	Aft section pre-loadout	Bow section side skidding	Loadout
Approximate skidding weight (tonnes)	29,172	24,000	53,172
Number / type of jacks	16 x L600's	8 x L600's	16 x L600's
Pulling cable system	37no. Ø18mm	37no. Ø18mm	37no. Ø18mm
Safe working load per jack	560 tonnes	560 tonnes	560 tonnes
maximum pulling capacity	8,960 tonnes	4,480 tonnes	8,960 tonnes
Maximum speed of movement	12 m/h	12 m/h	12 m/h