Lifting of Fabrication Hall Roof

Client: Moss Rosenberg Verft
Main Contractor: Nimare Verkstads AB
Engineering Company: PPA Konsult

CIVIL 09

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The Norwegian offshore fabrication company, Moss Rosenberg Verft had a need to extend the capacity of their main fabrication hall to enable their facilities to cope with the future production platforms and modules for the offshore industry.

The main restriction with the existing facilities was the height of the fabrication shop which needed to be increased by 10 metres. The concept of jacking the roof the required distance was considered and Fagioli PSC were contracted to engineer and undertake the jacking works. The overall specification of the roof to be lifted was 100 metres length x 20 metres wide with a weight of 250 tonnes.

Above: roof at start of lift, single jacks mounted on each column extension. Two power packs, one on each side of the roof, controls the eighteen jacks split into two sets of nine.

To complete the modifications to the roof, the existing permanent column supports were extended by 10 metres and adapted to act as a support structure for the Fagioli PSC lifting jacks.

L50 lifting jacks were mounted on each of the eighteen columns, nine along each side of the 100 metres roof truss and the jacks were controlled by two L9/7.5/D power packs positioned on the roof structure.

The 10 metres lift was completed in less than 1.5 hours and the roof held in position for approx. 5 days whilst permanent connections were made.