



Project Background and Description

1 Introduction

Forsvarsbygg is the process of building a new service plant for submarines at Haakonsværn, Bergen, Norway. The purpose of this document is to give background information to contractors interesting in participating in the prequalification following delivery:

A shiplift platform and a rail transfer system to dock the vessels and transport the vessels to the workshops and parking positions.

2 Progress plan

A preliminary progress plan for the project is presented in the document “(U) Invitation to prequalification”.

3 Description of the delivery

3.1 General

The contractor to be able to offer a complete delivery incorporating the design, engineering, construction, installation, commissioning and testing.

Scope of delivery:

- A complete shiplift platform.
- A system for hauling the vessel between the adjacent quay side and the shiplift recess
- A system for positioning the vessel above the shiplift platform
- Trestles for docking, transfer and support of vessels
- Hydraulic bilge supports on the trestles
- A monitoring – and control system for the shiplift
- A rail transfer system for bringing the vessels from the shiplift to different workshops and parking positions.
- A hydraulic power pack including monitoring- and control system for the transfer system
- Installation, commissioning and testing of the whole system
- Training and authorization of personnel for operation and maintenance
- Operation- and service manuals
- Recommended spare part

The dockside structures, shore transfer pits and rail system ashore is part of another delivery.

3.2 Lifting capacity

The shiplift and transfer system to be designed for vessels in the range of 3000 tons.

The vessels to be docked along the keel block centerline of the platform. The vessels have an approx. weight distribution according to diagram shown in item 5 below.

3.3 Shiplift platform

The shiplift platform to be raised and lowered by electrical wire rope winches.

Platform Dimensions:

- Total length approx. 70 meter
- Breadth approx. 13 meter
- Effective keel docking length approx. 45 meter
- The shiplift platform to have integrated rails for the transfer system.

3.4 Transfer system

A rail transfer system for longitudinal and transverse transfer to be delivered. See sketch Item 4.

The transfer system to be self-propelled and not based on tractors or winches.

The transfer system to be equipped with a fluid bed system for load distribution.

A hydraulic power pack and a control system for the transfer system to be part of the delivery.

3.5 Trestles

Three sets with longitudinal keel supports suitable for the actual vessel.

One set suitable for a vessel with lower weight.

3.6 Bilge supports.

A number of trestles with hydraulic operated bilge supports.

3.7 Monitoring- and control system

A complete monitoring- and control system for the shiplift.

The control system to be incorporated in a separate control room which is to be included in the delivery.

The monitoring- and control system will be a local system. No outside connections.

3.8 Arrangement for hauling the vessels from adjacent quay to shiplift recess.

An arrangement for hauling the vessels from the adjacent quay to the shiplift recess. (See sketch Item 4 below)

An arrangement for safe positioning of the vessels above the docking blocks to be included.

3.9 Installation, commissioning and testing

The contractor to offer the assembly and installation of the delivery at the site.

The contractor to be responsible for commissioning and testing.

3.10 Training and authorisation of personnel for operation and maintenance.

The contractor to include training and authorisation of personnel for operation and maintenance in the delivery.

3.11 Standard components

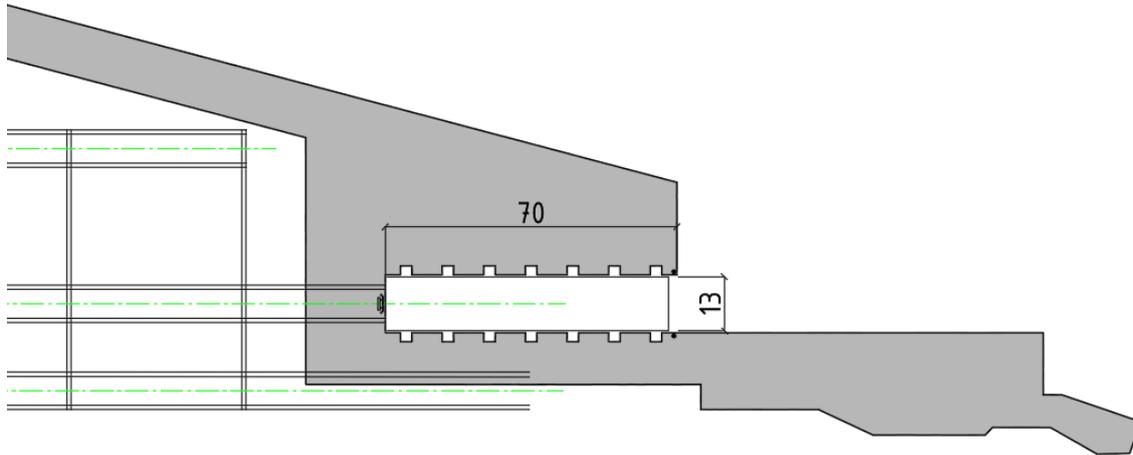
The delivery to include standardized components where possible.

3.12 Classification

The shiplift and transfer system to be designed, constructed, installed and tested according to rules and regulations from a first class classification society such as:

- Lloyds Register Code for Lifting Appliances in a Marine Environment, July 2020, Chapter 5.
- DnV «Rules for certification of Lifts in ships and mobile offshore units and offshore installations 2008 edition

4 Preliminary sketch showing operation area



5 Preliminary weight distribution diagram from actual vessels

