



Project Method Statement (PMS)

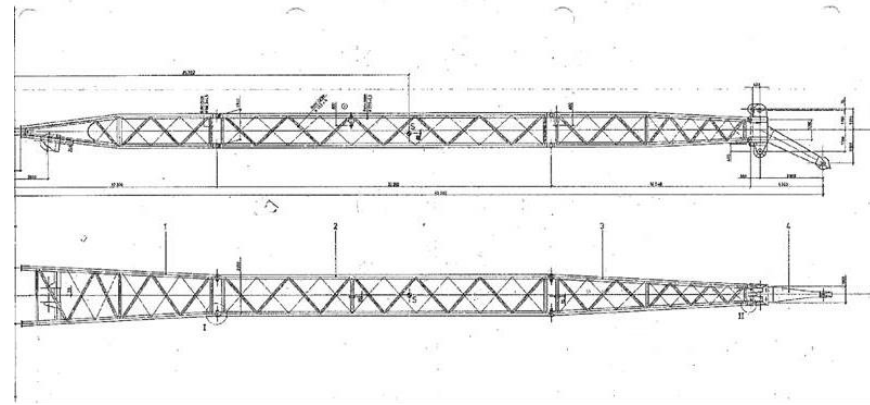
ORGANISATION DETAILS			
Company completing project	Liebherr-Werk Nenzing GmbH and Medserv Operations Ltd Malta (collaboration)	Contact number:	+43 50809 41042
Contractor Project Manager or Supervisor:	Patrick Koeb, Project Manager Modifications, Liebherr-Werk GmbH	Contact number:	+43 690 500 44042 (M)
Medserv Project Manager or Supervisor:	Thomas Gauci, technical Manager, Medserv Operations Ltd Malta	Contact number:	+356 9901 2504
Other Persons Involved:	Bluhull Group will be providing additional manpower for activities SSL will be providing scaffolding for allowing access to height where required	Contact number:	+356 2144 5807 (Bluhull Group) +356 7944 5749 (SSL Scaffolding)
Person completing the PMS:	George Douglas, Medserv Operations Ltd	Contact number:	9938 7814
Position:	HSSEQ Manager	Reviewed by:	Thomas Gauci, Technical Manager
Date prepared:	18/04/2018	Review date:	23/04/2018

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PROJECT DETAILS

What is the scope of the work

Inspection and repairs to a 40m crane structure from an Oil Rig (DP4) currently located off the coast of Libya within the Bouri Field. A picture of the rig in location can be viewed below and the Crane Jib indicated within the red circle. This project is a collaboration between Liebherr and Medserv Malta. Liebherr will be undertaking the quality inspection requirements and welding of the equipment and Medserv will be providing the facilities and additional resources and other activities required to undertake such a project.



The work on the crane will be carried out by Liebherr-Werk Nenzing who are based in Austria and specialize in construction and lifting equipment. This includes refurbishment of cranes designed and constructed by Liebherr Germany. A link to the company's website is below.

<https://www.liebherr.com/en/sau/about-liebherr/liebherr-worldwide/austria/nenzing/nenzing-gmbh.html>

Medserv Operations will be supporting the project by providing facilities for the Liebherr Technicians to undertake the project as well as additional support such as resources and man power.

This project has been requested by the Rig Operator Mellitah Oil and Gas and they have selected Liebherr and Medserv through a tendering process.

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Main Project Method Statement for Malta Activities:

Summary:

Crane Jib will arrive via vessel onto the Medserv quay and be lifted by Medserv Crane from Vessel to pre-prepared area on quay.

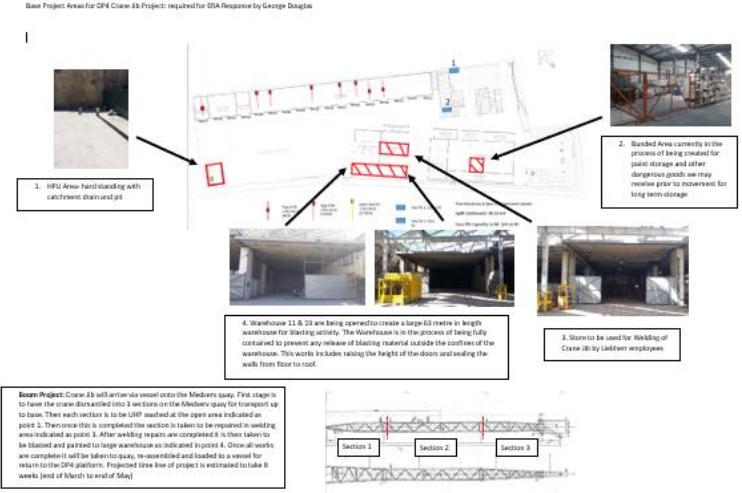
First stage is to have the crane dismantled into 3 sections on the Medserv quay for transport up to base. The dismantling will be carried out by the Liebherr Operators.

Then each section is to be UHP washed at the open area indicated as point 1 in document referenced as **Base Plan DP4 Jib Project Ver2**.

Once this is completed the section is taken to be repaired in welding area indicated as point 3 in document **Base Plan DP4 Jib Project Ver2**.

After welding repairs are completed it is then taken to be blasted and painted to large warehouse (blasting chamber) as indicated in point 4 in document **Base Plan DP4 Jib Project Ver1**. This activity may repeat until the quality specifications have been achieved.

Once all works are complete, each section it will be taken to quay, re-assembled and loaded to a vessel for return to the DP4 platform. Projected time line of project is estimated to take 6 weeks; end of April to the beginning of June 2018.



Base Plan DP4 Jib Project Ver1 image



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	<u>Step Description</u>	<u>Scheduled duration</u>
1.	Establishing documents for the job detailed time line and planning repair works	2.5 weeks
2.	Procurement of tools and materials.	2 weeks
3.	Mobilisation of engineers.	2days
4.	Preparations of equipment and mobilisation	1 weeks
5.	Dismantle Boom on rig. (1 week ahead of schedule as of 23.04.18)	1 week
6.	Lift Boom to Barge	1 day
7.	Mobilise engineers to Medserv Malta Base.	2days
8.	Preparation and inductions at Medserv.	1day
9.	Offload Boom from Barge to Medserv Quay side.	1day
10.	Dismantle Boom into agreed sections	5 days
11.	Transfer Boom section from Quay to UHP area for Washing.	1 day
12.	Transfer and positioning into welding work shop for repairs	1day
13.	Repairs on boom section (Hot works)	1.5 weeks per section
14.	Transfer and positioning into blasting and painting area	1 day
15.	Blasting and painting of boom section.	3 days per section



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	16.	Repeat step 11 to 15 till all boom sections are complete	6 Weeks in total
	17.	Transfer of all painted boom sections onto Medserv quay for mounting.	1 to 2 days
	18.	Installing mounting of Boom.	1 weeks
	19.	Connecting Boom sections.	1 day
	20.	Loading of Boom onto to the ship.	1 day
	21.	De-mobilisation of equipment and personnel	3 days
	22.	Clean up and housekeeping of work areas.	2days
	Activities	<p>Activities associated with the project are:</p> <ul style="list-style-type: none"> • Lifting Operations from Vessel to quay • Hot Works and working at Height on Quay • Transport of crane sections from quay to yard • High Water Pressure Jetting of crane jib on base • Grit blasting of crane jib on base- working at height • Welding of crane jib on base- working at height • Painting by brush and roller of crane jib on base- working at height • Lifting operations form base to quay • Lifting operations from quay to vessel <p>HAZID for the project contains details of hazards identified and the controls in place.</p>	



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Environmental Controls

Current Environmental Permit requires variation request to ERA as Grit Blasting not currently listed on current permit for Medserv Operations.

Environmental Controls are as follows:

High Pressure Water Jetting

Pressure washing of the structure will be done to remove dirt and loose paint flake from the structure prior to inspection, welding, grit blasting and painting.

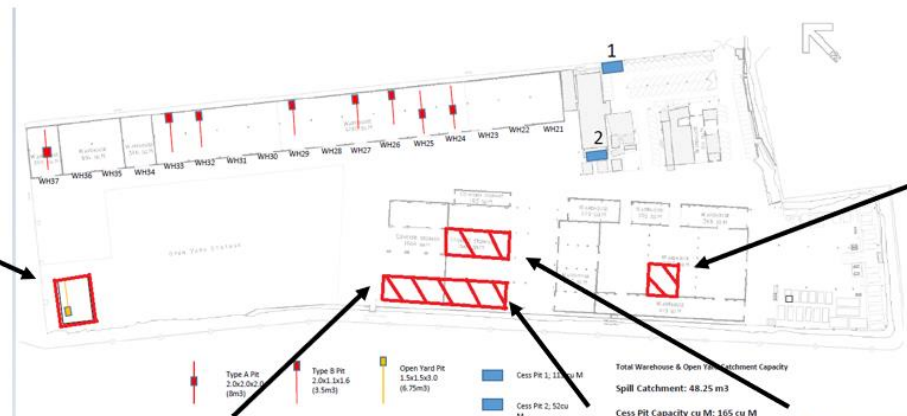
Waste from this activity will be contained in the water jetting area. The pressure of UHP is 2300 Bar (pot water only) The collection Pit is filled via the drain that runs the whole length of the area. The cover to pit from the gutter will be closed to allow the debris and waste to dry by evaporation in the sun. If the catchment pit does contain any residue this will be collected by pump and silo and disposed via the consignment permit process using PT Matic. The catchment pit has been leak tested to ensure no release of contents to environment for ensuring any waste fluids that may enter are contained.

When dry the rust flakes and paint flakes will be swept up into bags around the gutter channel and will be disposed of by PT Matic via the Consignment Permit Process. EWC code that will be used is 08 01 17* wastes from paint or varnish removal containing organic solvents or other hazardous substances.

This area location can be seen on image below



1. HPU Area- hard standing with catchment drain and pit



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Grit Blasting

After UHP the crane Boom sections will be moved to warehouse 19 (blasting chamber) for Dry Grit blasting to expose the structure to determine what parts require replacement and welding. This warehouse is sealed and contained to prevent release of blast materials and other contaminants into the atmosphere. Operators will be using air fed hoods and protective clothing as well as dust extraction in situ with filters to reduce dust accumulation in the blasting chamber. The dust extraction filters are in-line filter cartridges rated to 10 microns.

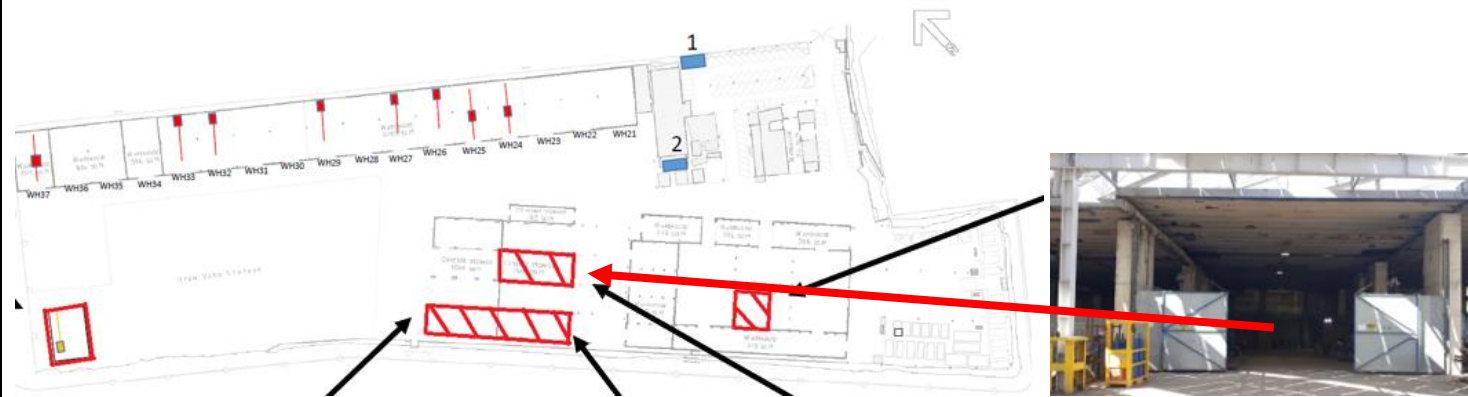
Grit Blasting Material is Star Grit and SDS can be viewed in project documentation file and Warehouse 5 is the dedicated storage area for the blasting materials. Grit blasting will be Dry blast at 8 bar – nozzles 6 to 8 venturi type and grit material will be used once and collected in jumbo bags. This will be done manually by using brush and shovels with appropriate PPE and extraction in place. The blasting material will not be waste as it will be re-used by AA Blast as it can be used multiple times. When the project is over this material will be collected by AA Blast, weighed by weigh bridge and all recorded upon an internal material transfer note. Grit will be stored inside half height baskets packed within jumbo bags for transfer to owner AA Blasting when the project is completed.



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Welding

Welding of the structure will take place in the Welding Workshop. This part of the task will be undertaken by the Liebherr Team and follow Medserv Permit to Work procedure.



Working at Height

Scaffolding will be erected at various stages throughout the project by the contractor SSL. This is to allow operators access to areas for washing, blasting and painting and mitigate against fall from height hazards.

Painting

Method of application will be by roller & brush (no spray/ airless painting)

Storage of paints and associated materials will be within a bunded area located in Warehouse 5 but also more storage available within the Technical Store bunded area. Materials will also be stored with SDS records and spill response kits will be located in each work storage and area.



VOC's will be calculated when the type of paint to be used has been confirmed but will not be greater than the stipulated threshold in within Industrial Emissions (Limitation of Emissions of Volatile Organic Compounds) Regulations.

Current Medserv Environmental Permit is referenced as EP0017/12/B



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	<p>Other activities NDT testing by a contractor and quality assurance checks by inspectors will be undertaken. There are no foreseen environmental issues from the quality checks on the painted structure and weld testing. NDT Testing consists of MPI and Ultra Sonic testing and if the Liebherr quality procedures potentially require further NDT this will require X-ray.</p> <p>Please refer to attachment referenced as Base Plan DP4 Jib Project Ver2 for further information on the location and layout of the project activities.</p>
<p>References: Associated documents with project</p>	<p>Please refer to the Project Plan for associated Medserv documents.</p>
<p>Plant and equipment involved in the scope of work</p>	<p>Please refer to the Project Plan for associated equipment with this project</p>
<p>Competencies required for the persons involved with this project</p>	<p>Please refer to the project Plan for the associated Training Matrix for this project.</p>

Project Method Statement Confirmation		
Print Names:	Signatures:	Dates:
Thomas Gauci, Technical Manager, Medserv		23/04/2018
George Douglas, HSSEQ Manager, Medserv		23/04/2018