

**Annex 1 to Invitation to Bid and Sale Specifications
No. EMSA/SALE/02/2014**

**Public Sale of equipment operated on board of Response Vessels
contracted by EMSA**

Technical Report

Disclaimer

Any specifications and/or graphic material must not be understood as a commercial endorsement by the Agency of any given piece of equipment and/or manufacturer/supplier.

If there is a contradiction between the Report and the manufacturers' manuals, the manufacturers' manuals take precedence.

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1. LOT 1: SOFREBA Rigid Sweeping Arm System

This lot comprises a rigid sweeping arm set consisting of two arms and ancillary equipment. It does not include a power source for the operation of the system.

1.1 Technical description of the main components

a) Sweeping arm structure

Manufacturer:

SOFREBA

G2B SOFREBA ATLANTIQUE

470 Rue Alain Colas / ZIP St Marc

29200 Brest

FRANCE

Tel: 02 98 44 28 60

Fax: 02 98 44 33 57

e-mail: sofreba.brest@wanadoo.fr

Purchase year: 2006

Technical details:

Length: 13.2 m

Weight (equipped): 4.6 t

Type of skimmer: weir

Skimmer pumps: Changeable Desmi DOP Dual PDAS 125m³/h or Framo TK 150 300m³/h at 6 bar



Picture 1 Sweeping arm on a stand



Picture 2 Sweeping arm deployed

Additional information is available in the Operational Manual.

b) Pump DESMI DOP-250 DUAL

Manufacturer:

RO-CLEAN DESMI A/S

Hestehaven 21 B

DK-5260 Odense S

DENMARK

Phone: +45 6591 0201

Fax: +45 6590 8877

e-mail: info@ro-cleandesmi.com

Purchase year: 2006



Picture 3 Pump DESMI DOP-250 DUAL

Technical details:

Pumps certified:	2006
Weight:	80 kg
L x W x H:	0.55 x 0.36 x 0.59 m
Min. manhole diameter:	0.58 m
Pump outlet:	6" cam-locking type male outlet
Max. pressure:	10 bar
Max. capacity:	125 m ³ /h
Viscosity range:	1 to > 1 million cSt
Prime mover:	DANFOSS hydraulic motor, type OMTS 160
Max. speed:	1000 rpm continuously
Max. input power:	47 kW continuously
Max. output power:	38 kW continuously
Max. oil flow:	160 l/min. continuously
Max. inlet pressure:	210 bar continuously
Pressure line:	3/4" - 1" quick coupling male
Return line:	3/4" - 1" quick coupling male
Drain line:	3/8" quick coupling male

Additional information is available in the Operational Manual.

c) Spares Kit for the Pump DOP-250 DUAL

Manufacturer:

RO-CLEAN DESMI A/S

Hestehaven 21 B

DK-5260 Odense S

DENMARK

Phone: +45 6591 0201

Fax: +45 6590 8877

e-mail: info@ro-cleandesmi.com

Purchase year: 2006

Technical details:

Sectional disc for plate wheel DS 250:	10
Screw for sectional disc:	10
Sealing ring:	1
Plate wheel shaft for DOP-250 dual:	1
Stop plate for DOP-250:	1
Wear plate for DOP DUAL 250:	2
Right sealing / bearing disc:	1
Left sealing / bearing disc:	1
Shaft sealing ring, Simrit:	3
V-seal ring Teflon incl. pins:	1
O-ring – ø40 x 2 mm, nitrile, DOP Dual:	2
Stator cutting knife:	1
Washer M6:	2
CH-Screw M6 x 20:	2



Pictures 4 and 5 Spare parts for Pump DESMI DOP -250 DUAL

Additional information is available in the Operational Manual.

d) Water Injection Flanges DOP-250 - 6" inlet / outlet

Manufacturer:

RO-CLEAN DESMI A/S

Hestehaven 21 B

DK-5260 Odense S

DENMARK

Phone: +45 6591 0201

Fax: +45 6590 8877

e-mail: info@ro-cleandesmi.com

Purchase year: 2006



Picture 6 Water Injection Flanges DOP

Technical details:

Intermediate flange 5":	1
6" Camlock flange:	1
6" BSP flange:	1
Bushing for flange:	1
O-ring 144.5x3 NBR:	1
O-ring 125x2.5 NBR:	2
Allen screw M12x40:	8
Pipe plug RG 3/8":	1

Fitting for non-return valve:	1
Disc M8:	2
Allen screw M8x16:	2
Union elbow:	1
Nipple 3/4x3/4 BSP:	1
Bonded seal 3/8":	1
3/4" Camlock type – male:	1
Non-return valve 3/4" st.:	1
6" Camlock female:	1
SK screw M16x75:	8
Washer M16:	8
Nut M16:	16
O-ring 174.5x3 NBR:	1

Additional information is available in the Installation Manual.

e) Control Panel

Manufacturer:

TRANS IROISE HYDRAULIQUE

170, rue Fresnel

ZAC Kergaradec – 29490 Guipavas

FRANCE

Tel. 02 98 42 47 47

e-mail: tihh-guipavas@trans-iroise-hydro.fr

Purchase year: 2006

Technical details:

Function: Control panel for the Sweeping Arm's hydraulic system



Picture 7 Sweeping Arm Control Cabinet

The Operational Manual is not available.

f) Hydraulic Hoses

Manufacturer:

TRANS IROISE HYDRAULIQUE

170, rue Fresnel

ZAC Kergaradec – 29490 Guipavas

FRANCE

Tel: 02 98 42 47 47

e-mail: tihh-guipavas@trans-iroise-hydro.fr

Purchase year: 2006

Technical details:

Certified: 2006

Function: Hydraulic hoses and connections for Sweeping Arm

Length: 100m

Hydraulic connections: Pressure 1" Suptite V71-2

Return: 1 1/2" Suptite

Material: Neoprene rubber



Pictures 8 Hydraulic connections to Sweeping Arm



Pictures 9 Control Box

g) Oil Transfer Hoses

Manufacturer:

TRANS IROISE HYDRAULIQUE

170, rue Fresnel

ZAC Kergaradec – 29490 Guipavas

FRANCE

Tel: 02 98 42 47 47

e-mail: tihh-guipavas@trans-iroise-hydro.fr

Purchase year: 2006

Technical details:

Certified: 2006

Size: 6"

Length: 100 m (5 x 20)

Operational temperature: -40 - +90°C

Inner diameter: 152 mm

Outer diameter: 170 mm

Working pressure: 60 bar

Bending diameter: 1220 mm

Weight: 5.2 kg/m

Connectors: Camlock (male/female) 6"



Picture 10 Oil transfer hoses

1.2 Equipment status assessment

The Rigid Sweeping Arm System was never used during oil recovery operations. This equipment was regularly maintained and is reported to be functional. Originally the Sweeping Arms were of a length of 15 meters. Due to operational reasons they were cut by 1.8 meters therefore the actual length is of 13.2 meters.

The main components of the system are listed in the table below:

N°	Category	Description of the component
1	Frame	SOFREBA RIGID SWEEPING ARM WITH WEIR SKIMMER
2	Frame	SOFREBA RIGID SWEEPING ARM WITH WEIR SKIMMER
3	Pump	DESMI DOP 250 DUAL
4	Pump	DESMI DOP 250 DUAL
5	Spare parts	SPARES KIT DESMI DOP 250 Dual
6	Ancillaries	PUMP WATER INJECTION FLANGE / OUTLET
7	Ancillaries	PUMP WATER INJECTION FLANGE / OUTLET
8	Ancillaries	PUMP RADIAL WATER INJECTION / INLET
9	Ancillaries	PUMP RADIAL WATER INJECTION / INLET
11	Control desk	CONTROL PANEL 3 VALVES
12	Control desk	CONTROL PANEL 3 VALVES
13	Control desk	HYDRAULIC SYSTEM
14	Control desk	HYDRAULIC SYSTEM
15	Oil hose(s)	6" SEMI RIGID OIL TRANSFER HOSES 100m

2. LOT 2: HELIA crane

2.1 Technical description

Manufacturer:

HEILA GRU SRL

Via Della Costituzione 43, Poviglio (RE)

ITALY

Tel: +39 0522 966 352

Fax: +39 0522 960 391

e-mail: sales@heila.com

Purchase year: 2006

Technical details:

Certified: 2006

Type: Hydraulic crane HLRM 80/3S 3^Serie

Weight: 7.0 t

Lifting capacity: Dynamic at 12 m-5T090, static at 12 m-6T610

Rotation: 360°

Features: Operator seat, Control panel



Picture 14 Crane HLRM 80/3S

Additional information is available in the Operational Manual.

2.2 Equipment status assessment

The crane was regularly maintained and is reported to be functional.

3. LOT 3: SEADARQ slick detection system

3.1 Technical description of the main components

Manufacturer:

SEADARQ B.V.
Nijverheidsstraat 66
3371 XE Hardinxveld-Giessendam
THE NETHERLANDS
Phone: +31 (0)184 616699
Fax: +31 (0)184 615451
e-mail: info@seadarq.com

Purchase year: 2006

Technical details:

Type:	SEADARQ Spill Master™
Elements of the system:	SEADARQ hardware and software, interface kit, junction box and 19"rack for processing and display purposes,
Image Presentation:	Logarithmic display of amplitude, zooming, panning, scrolling Overlay of geocode information Software STC correction
Image sampling grid:	Cartesian
Detection Range:	0.1-3.5 km distance
Detection Resolution:	better than 3.75 m (short pulse mode)
Operational wind speed:	>2 m/s
Vessel Movement Compensation:	Real-time
Static Object Enhancement:	Up to detection resolution in real-time
Operator controls:	Keyboard and Mouse
Video Input:	0-1 Volt Analog, 75 Ohm
Trigger Input:	TTL
Azimuth Input:	TTL/RS422 pulses, up to 4096 pulses/revolution
North Reset Input:	TTL/RS422
Data Communications:	RS232/RS422
Size (HxWxD):	180 x 430 x 515 mm (4U 19"-chassis)

SEADARQ Software:

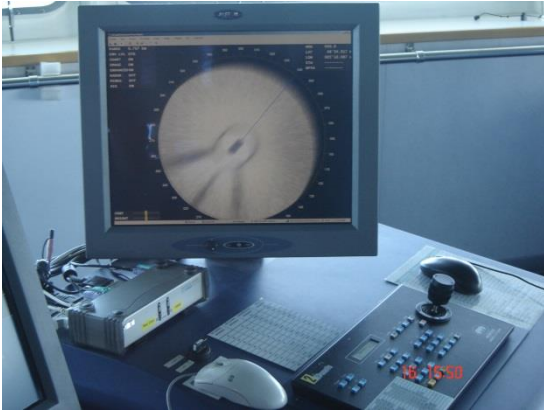
A back up copy of the software installed on the SEADARQ system is stored on a CD.

Hardware & Software – Interface Kit:

Video Input:	0-1 Volt Analog, 75 Ohm
Trigger Input:	TTL
Azimuth Input:	TTL/RS422 pulses, up to 4096 pulses/revolution
North Reset Input:	TTL/RS422
Data Communications:	RS232/RS422

Monitor:

The SEADARQ Spill Master™ processor is mounted in a 19" rack and will not take up bridge space. The display is mounted on a collapsible arm for optimal operator viewing and handling of the system.



Picture 1 SEADARQ display

Junction Box

Technical parameters

Detection Range:	0.1-3.5 km distance
Detection Resolution:	better than 3.75 m (short pulse mode)
Operational wind speed:	>2 m/s
Application:	Oil slick detection in bad visibility conditions
Weather limitations:	The equipment is not effective when the surface of the sea is flat.
Crew skills:	Specialised skills, training by the Manufacturer necessary, Radar operating skills
Maintenance:	To be conducted by the manufacturer.
Dimensions:	Size (H x W x D) 180 x 430 x 515 mm (4U 19"-chassis).



Picture 2 SEADARQ Junction Box

3.2 Equipment status assessment

The slick detection system was regularly maintained and is functional. However an upgrade of the software and of the hardware might be required.

The main components of the system are listed in the table below:

N°	Category	Description
1	Software	Software CD
2	Interface box	INTERFACE KIT
3	Monitor	DISPLAY 19" RACK AND KEYBOARD
4	Junction box	JUNCTION BOX