

Call for Purchase Proposals No. EMSA/SA/1/2025

Sale of Assets: Oil pollution response equipment

Appendix I.D Description of the Assets located in Tolkkinen, Finland – Lot 4

Type of equipment	Item	No. of items	First delivery	Description	EMSA ID
1.Lamor LFF 100 Skimmer	Frame with brush module	1	14/07/2010	Frame with LFF100 Brush Skimmer, Thrusters, 2v*4 Chain	ALDI310701
	Pump	1	14/07/2010	PDAS GTA 140	ALDI283201
	Storage reel	1	14/07/2010	Reel with hydraulic and cargo hoses	ALDI353401
	Remote control	1	14/07/2010	Radio remote control	ALDI291301
	Storage flatrack	1	14/07/2010	Flat rack container 20 ft	2863
2. Lamor LPP 109 Power Pack	Power pack	1	14/07/2010	Diesel LPP 109 D	ALDM272201

Equipment description

1. Lamor LFF 100 Skimmer

Manufacturer:

Lamor Corporation Ab

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Year of purchase: 2010

The skimmer set consists of:

- Skimmer frame and Brush Module
- Oil Transfer Pumps: Lamor PDAS GT A 140
- Storage Reel: Hydraulic and Oil Transfer Hoses
- Remote Control
- 20 ft. flat rack Container

1.1. Skimmer Frame and Brush Module

The Lamor free floating offshore Skimmer LFF 100 2C is a skimmer designed for open ocean oil recovery operations.



Brush Module LFF 100 2C

The LFF 100 2C is fitted with two V-chain-pocket- brush type conveyors for efficient collection of all types of floating oil from light to high viscosity oils and emulsion. Each brush chain conveyor consists of four brush chains. The Danfoss 5xPVG-32 Hydraulic valves are located in one skimmer float. The Lamor V-Chain-Pocket type conveyor Skimmer is a powerful skimming unit designed for recovery of extremely high viscosity oil, emulsion, and bitumen as well as debris in the collected oil.

The skimmer is hydraulically operated and fitted with two thrusters to allow the operator to manoeuvre the skimmer to where oil is most heavily concentrated. The skimmer is designed to collect these heavy

materials floating on the water surface or submerged below the surface and feed the oil into a Lamor Archimedes screw pump.



Skimmer deployment

A mechanical feeder skimmer lifts or drags - by means of more than just adhesion – the oil out of the water to a position above the water surface, and feeds or drops it into a collection tank and to the oil transfer pump. The mechanical feeder principle results in a significantly increased performance regarding high viscosity oils, debris, and low water recovered content.

A hydraulic motor handles the rotation of the belts via a set of V-belt wheels, one for each belt section. To improve the flow to the skimmer unit, it is equipped with a flow impeller behind the brush conveyors. Recovered oil is offloaded by a high-volume Positive Displacement Archimedes Screw type pump with capacity 115 m³/hr with more than 1,000.000 cSt oil.

Technical specifications

Length	2740 mm
Width	2280 mm
Height	1950 mm
Draft	870 mm
Weight	820 kg
Weight with pump(GTA115)	895 kg
Capacity	115 m ³ /h - IFO 40 105 m ³ /h - bitumen 1 mil sCt
Hydraulic flow	200 l/min (at max capacity)
Hydraulic pressure	210 bar
Power req.	70 kW
Speed	2 knots

The skimmer is hydraulically operated, and it is fitted with two Hydraulic driven stern tunnel thrusters to allow the operator to manoeuvre the skimmer to where oil is most heavily concentrated.

The skimmer operation requires a crane with enough lifting capacity and range to place the unit in the water from the storage position.

The skimmer is fitted with a “sea catch” quick-release hook to facilitate the deployment. In addition, an especial hook facilitates the retrieval of the unit.



Skimmer retrieving operation

1.2. Oil Transfer Pump: Lamor PDAS GT A 140

The Lamor GT A 140 pump is a multi - purpose submersible Archimedes screw pump with a pumping capacity of 140 m³/h. This pump has been designed for use in skimmers and transfer or offloading pump applications and is able to pump a wide range of liquids ranging from water to the heaviest debris-laden viscous oils.

The GT A 140 pump can deliver a maximum of 12 bar outlet pressure, benefits from water/steam annular injection on the inlet as standard and debris cutting knife to handle solids such as seaweed, plastics and ropes.



Technical specifications

Length:	500 mm
Width:	300 mm
Height:	598 mm
Weight:	71 kg
Capacity:	140 m ³ /h
Hydraulic flow:	160 max l/min
Hydraulic pressure:	210 max bar
Power req.:	56 max kW
Discharge pressure:	12 bar
Standard hydraulic couplings:	Pressure 3/4" TEMA, female Return 1" TEMA, male

Drain 3/8" TEMA, male
Hydraulic motor OMTS 160

1.3. Storage Reel hose winder

The Lamor Hose Reel winder 1514 SVIWEL is designed to store hydraulic and oil transfer hoses. The frame is produced is steel protected with marine grade painting.

The reels are sea water resistant aluminium. The construction allows the transfer hoses and the hydraulic hoses to be winded and locked separately.

The frame is equipped with 4-point lifting points and forklift channels.

Technical specifications

Max. Capacity	60 m hydraulic hoses and 60 m oil transfer hose
Length	900 mm
Diameter	750 mm
Height	860 mm
Weight	34 Kg

The equipment is supplied with all necessary hydraulic hoses. The hoses are manufactured in a durable material for long service and supplied with reliable stainless steel "Tema" connectors for secure linkages. It should be noted that the hydraulic hoses are old and show signs of wear and tear, and they may need to be replaced.

The hydraulic hoses connect the skimmer to the vessel through a 60 meters long umbilical cord.

Three 20 meter sections of Lay Flat 5" oil transfer hose fitted with Kamlock connections link the skimmer to the vessel through the umbilical cord.

1.4. Remote Control

The LFF 100 2C is designed for deployment from a vessel into an area where oil has been contained. The LFF 100 2C is fitted with two hydraulic thrusters, allowing the operator to manoeuvre the system to where oil is most heavily concentrated.

The remote control system includes a control box, a supply voltage 24 VDC, fuses 0,5 A and a radio module located in the skimmer float ISM 433-443 MHz.

The remote control allows the operator to control all the different elements of the skimmer.



LFF 100 2C remote control

1.5. 20 ft. flat rack container

The 20 ft. Flat rack container comes equipped with lifting hooks and forklift channels as standard.

The flat rack container is fitted with anti-slip floor for safety and brackets for equipment to be safely secured.



Skimmer and winder storage on the flat rack

2. Lamor LPP 109 Power Pack

The Lamor Power Pack LPP 109 D is powered by a 4-cylinder water cooled Deutz 109 kW diesel engine and serves as a multipurpose power pack designated for the flexible operation of many types of hydraulically operated clean-up equipment.

Equipped with 2x3 hydraulic circuits the Lamor LPP 109 D can be used to power multiple users such as a skimmer and boom winder consecutively. The Lamor LPP 109 D is containerized within a steel frame designated to ensure a good circulation for the air-cooled diesel engine.

The Lamor LPP 109 D is equipped with electric start and incorporates an easily accessible control panel and hydraulic oil cooler into the framework. The Lamor LPP 109 D utilizes a Sauer-Danfoss Proportional Hydraulic Valve System (PVG 32/100) making it possible to easily adjust the flow of oil to the supplied components.

The Lamor LPP 109 D is equipped with 4-point lifting rings and forklift channels making it easy to handle on land or offshore. For safety the hydraulic pump is equipped with an automatic shutdown system, also the LPP 109 D is standard equipped with a spark arrestor and Chalwyn safety shut down valve.

Technical Specifications:

Length:	2300 mm
Width:	1300 mm
Height:	1900 mm
Weight:	2500 kg
Hy circuits:	2x3 pcs
Hydraulic flow:	330 l/min
Hydraulic pressure:	210/280 bar
Power:	109 kW
Oil tank capacity:	400 l
Fuel tank capacity:	200 l



LPP 109 Power-pack