



# **Technical Specification**

# **Danube River Pilot-Project**

# Offer no: RO RAM13455/02



# Date: January 10, 2020

#### LAMOR FINLAND Lamor Corporation Rihkamatori 2,

FI-06100 Porvoo Finland

Tel: +358 20 765 0100 Fax: +358 20 765 0129 info@lamor.com

LAMOR CHINA Lamor Group Beijing Hanwei Plaza Guanghua Road No 7 100004 Beijing, China

Tel: +86 10 8446 7400 Tel: +44 1983 280 185 Fax: +86 10 8446 7440 Fax: +44 1983 280 056 info@lamor.com.cn

uk.info@lamor.com

Lamor Corporation UK

Cowes, Isle of Wight, PO31 7XD, United Kingdom

3 Medina Court, Arctic Road

LAMOR UK

LAMOR USA 2 Enterprise Drive Suite 404 Shelton, CT 06484 USA

Tel: +1 203 888 7700 Fax: +1 203 888 7720 info@lamor.com



www.lamor.com



Ms. Marta Popescu MAI MULT VERDE Strada Logofăt Luca Stroici 57

020584 București

Romania

Date: 10/01/2020

| Customer's reference: | Danube River Pilot-Project         |  |
|-----------------------|------------------------------------|--|
| Seller's reference:   | River Jiu Garbage Containment Boom |  |
| Offer no:             | RO RAM13455/02                     |  |

Dear Ms.,

Thank you for your interest in Lamor Oil Spill Recovery equipment for your project.

The Technical Specifications for all the quoted equipment are presented in this document. Enclosed please also find our Commercial quotation that covers the terms and conditions.

We look forward in our continued cooperation with you and if there any questions, please do not hesitate to contact me.

Yours Sincerely,

Lamor Corporation Ab Steve Reilly

Lamor Corporation Ab Rihkamatori 2 FIN-06100 Porvoo, Finland Tel: +358 (0)20 7650 100 Fax: +358 20 765 0129 E-mail: firstname.lastname@lamor.com www.lamor.com

All pictures, images and diagrams as reference only



# Contents

| Lamor Corporation   | 4  |
|---|----|
| 1 120 m OF GARBAGE COLLECTION BOOM DEPLOYED IN ca. 45 DEG ANGLE OVER 70 m WI<br>RIVER JIU |    |
| 1.1 Solid Floatation Oil Boom SFB 500/30 TC (20in/100ft) XR-5 ASTM Z - 397791             | 5  |
| 1.2 Floated Tow Bridle SFB 460 (18") ASTM Z for Boom Connection to River Banks – 373262   | 6  |
| Appendix: Customer testimonial  | 7  |
| 1.3 Rubber Boom Light Pocket for ASTM - 398628  | 8  |
| 1.4 Flashlight w. handle and clear led light for Oil Booms w/o batteries - 242036         | 8  |
| 2 LOGISTICS   | 9  |
| 2.1 Freight cost to Craiova, Dolj county - 160100   | 9  |
| General Conditions of Supply  | 10 |



# Lamor Corporation

Lamor (Larsen Marine Oil Recovery) Corporation offers solutions for optimal oil spill response and recovery. With offices, staff and equipment strategically located around the world, Lamor is able to deploy to the scene rapidly and effectively to best serve the environmental needs of corporations, the public and ecosystems.

The company develops, manufactures, and supplies best available technology (BAT) oil spill recovery equipment and services. Included in its portfolio of solutions, Lamor offers contingency planning, risk assessments, equipment maintenance and service coupled with training.

## Quality, Health, Safety and Environment Management System

We are ISO 9001:2008, ISO 14001:2004 and ISO 18001:2007 compliant and we have efficiently established, implemented, maintained and operated the Quality, Health, Safety and Environment Management System (QHSE).

The QHSE has been developed and continuously improved in accordance with regulations and standards of

ISO 9001:2008 Certification (Quality Management Systems) ISO 14001:2004 (Environment Management Systems) OHSAS 18001: 2007 (Occupational Health and Safety Management Systems)



# LAMOR

# 1 120 m OF GARBAGE COLLECTION BOOM DEPLOYED IN ca. 45 DEG ANGLE OVER 70 m WIDE RIVER JIU

# 1.1 Solid Floatation Oil Boom SFB 500/30 TC (20in/100ft) XR-5 ASTM Z - 397791



The Lamor Solid Floatation Boom (SFB) has been developed to meet today's requirement for a quick to deploy and economical containment boom system.

The Lamor SFB produced in XR-5 fabric is extremely robust will contain oil and floating debris without damaging the boom. It is light in weight and easy to deploy.

Lamor SFB represents a cost effective way of maintaining readiness in many environments from industrial units to rivers and harbors. Manufactured from XR-5 fabric with built in foam floatation, top tension member and connectors according to the customers' requirements make for a versatile system.

The 8 mm top tension cable is enclosed in protective sheath and tuned for deployment in current.

End connectors are standard on the ends of each section. These can be universal slide or ASTM "Z" type connectors. The boom has galvanized chain in double-wall chain pocket with reinforced ends as ballast and tension member. Optionally mid-section anchor points can be provided.

Lamor SFB is available in sizes ranging from 150 mm (6 inch) to 760 mm (30 inch) total height. The closed-cell foam logs are 1800 mm (6 ft) long.

Lamor Solid Floatation Boom manufactured in XR-5 fabric is black in color.



www.lamor.com

# LAMOR

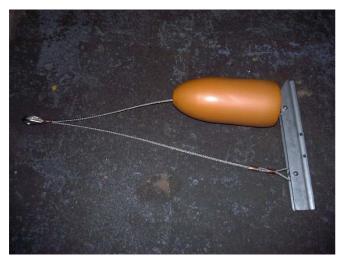


# **TECHNICAL SPECIFICATIONS**

| Section length              | 30 m                       | 100 ft            |
|-----------------------------|----------------------------|-------------------|
| Freeboard                   | 180 mm                     | 7.3 in            |
| Draft                       | 320 mm                     | 12.7 in           |
| Height                      | 500 mm                     | 20 in             |
| Weight (total operational)  | 4.5 kg/m                   | 3.0 lbs/ft        |
| Ballast weight              | 1.8 kg/m                   | 1.2 lbs/ft        |
| Temperature resistance      | -34 + 70°C                 | -30… + 158°F      |
| Base fabric                 | Polyester 7.5 oz./sq.yd.   |                   |
| Finished coating ASTM D-751 | XR-5 30.0 ± 2.0 oz./sq.yd. |                   |
| Grab Tensile ASTM D-751     | 4400/4600 N/5 cm           | 550/525 lbs./in.  |
| Strip Tensile ASTM D-751    | 1890/1780 kN min.          | 425/400 lbs. min. |
| Buoyancy/Weight ratio       | 7.8:1                      |                   |

# 1.2 Floated Tow Bridle SFB 460 (18") ASTM Z for Boom Connection to River

# Banks – 373262



www.lamor.com



# **Appendix: Customer testimonial**



Back River Restoration Committee, Inc. 1522 Galena Rd. Essex, MD 21221 443.414.4384 savebackriver@gmail.com

Thomas Ozog Lamor USA 2 Enterprise Dr, suite 404 Shelton CT 06484

June 12, 2019

Dear Tom,

The Back River Restoration Committee Inc (BRRC) is a non-profit organization dedicated to improving the water quality in the Back river watershed, which flows into the Chesapeake Bay, the largest estuary in the United States. The BRRC is working in conjunction with the Baltimore County Department of the Environment and Sustainability to stem the flow of trash and organic debris into Back River. We currently have in place 800 feet of containment boom, which catches trash, wood, plastic bottles and other debris from two tributaries of Back River. Since 2011, BRRC has prevented 2, 040 tons of debris from entering the Chesapeake Bay.

Recently, BRRC received two 100-foot containment boom sections. These boom sections will be used to replace some older sections which were damaged by past storms. Some of the current sections have been in use since 2011 when BRRC took over the maintenance of this trash boom site. The quality and the longevity of the containment booms are outstanding. Lamor representatives are always available to answer our questions concerning which products will best serve our needs. Also, response time and delivery are always prompt.

Sincerely,

Farmette

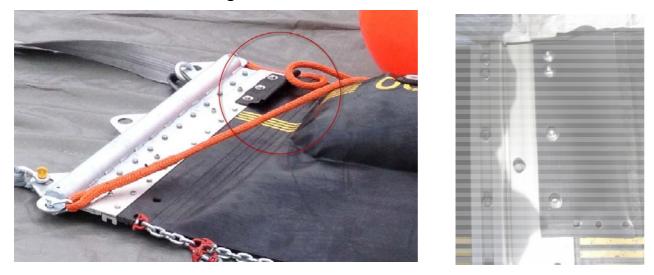
Larry Farinetti

Chairman of the Board

1522 Galena Rd. Essex, MD 443.414.4384 savebackriver@gmail.com 21221 www.savebackriver.org

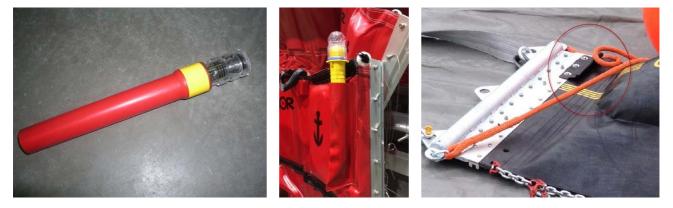


## 1.3 Rubber Boom Light Pocket for ASTM - 398628



Boom light pocket to be connected on ASTM Boom end connector of e.g. Inflatable Offshore Heavy Duty Rubber Booms HDB; Permanent Fence Booms MK-8 or AutoBooms. Suitable Flash Light to the pocket is Lamor Item ID 362609 equipped with clear light.

## 1.4 Flashlight w. handle and clear led light for Oil Booms w/o batteries - 242036



The Lamor Boom Flashing Light is useful when installing oil booms in the dark and in adverse weather conditions such as fog, heavy rain and snow.

The Boom Light is molded in a durable material, battery powered and lit with a powerful and long lasting LED Tube. It's lightweight and portable, making it an essential accessory for any boom deployment operation.

Lamor FOB booms have a light pocket on each end of the boom sections as standard. Light pocket can be added on request also to other booms.

Four (4) pcs AA 1,5V batteries LR 10 required (not included).



## SPECIFICATIONS:

| FLASHING RATE :    | 1) One flash / 1 sec.<br>2) One flash / 2 sec.<br>3) One flash / 3 sec.                   |  |
|--------------------|---|--|
| FLASHING TIME :    | One flash: 0.2 sec  |  |
| LIGHTING ELEMENT : | L.E.D. Tube   |  |
| LENS COLOR :       | White   |  |
| LED TUBE COLOR:    | White (Optional Red or Green)   |  |
| SUN SWITCH :       | 1) Light on below 50 LUX.<br>2) Light off above 50 LUX.                                   |  |
| SERVICE RANGE :    | Within 10 km (5.4 Nautical Miles)   |  |
| POWER SOURCE :     | UM-1× 4PCS (1.5V × 4PCS), batteries not included!   |  |
| BATTERY LIFE :     | Continuous used approx. 120 hrs (extended operation time with optional Lithium batteries) |  |
| LIGHT SOURCE:      | 6V, 0.5A BUBBLE   |  |
| PACKAGE SIZE :     | 500 x 395 x 260 mm (19.7" x 15.6" x 10.2")  |  |
| MATERIAL: :        | Engineering Plastics  |  |
| REMARK :           | TURN OFF AUTOMATICALLY IN THE DAY & TURN ON<br>AUTOMATICALLY IN THE NIGHT                 |  |

## DIMENSIONS

| Length                   | 380 mm | 15 in    |
|--------------------------|--------|----------|
| Diameter                 | 70 mm  | 2.75 in  |
| Weight (excl. batteries) | 0,2 kg | 0.44 lbs |

# 2 LOGISTICS

# 2.1 Freight cost to Craiova, Dolj county - 160100

Estimated freight cost according to the delivery terms in the commercial quote is included in our quotation.



# **General Conditions of Supply**

## 1. Applicability

These General Conditions of Supply shall govern all sales of products from Lamor Corporation Ab, Porvoo, Finland (hereinafter referred to "Lamor") to its customers or distributors (hereinafter referred to as "Buyer"), provided that a reference to them is made in Lamor's quotation, acceptance of order or other contract documentation, and notwithstanding anything in the Buyer's order.

These General Conditions of Supply shall not override individual terms and conditions expressly agreed in writing between the parties.

## 2. Quotations, Orders and Acceptances of Order

**2.1** Lamor submits quotations only in writing implying the offered products, their prices, technical specifications, and these general conditions of supply.

**2.2** Buyer shall place orders to Lamor in writing duly undersigned by an authorized person.

**2.3** Orders shall become binding on Lamor only upon acceptance by Lamor in writing as Order Confirmation.

#### 3. Delivery Terms

**3.1** The products shall be delivered according to INCOTERMS 2000, or the latest terms, at such times as the parties agree.

**3.2** Lamor shall be liable for delays in the delivery only if, and to the extent that, the delay exceeds four (4) weeks due to reasons attributable to Lamor.

**3.3** If Lamor anticipates not to be able to deliver the products at the time of delivery, it will forthwith notify the Buyer thereof in writing, stating the reason, and if possible, the expectable date of delivery.

**3.4** If delay in delivery is caused due to circumstances mentioned in Clause 9 or due to an act or an omission by the Buyer, including the suspension under Clause 4.5, the time for delivery shall be reasonably extended having regard to all the circumstances of the case. This provision is applicable irrespective of whether the reason for the delay occurs before or after the agreed time of delivery.

**3.5** If the delivery is delayed beyond the four (4) week period or from the date of delivery determined under 3.3 and 3.4, the Buyer shall be entitled to liquidated damages equal to 0.5% per week of the price allocable to the delayed portion of the delivery, and in no event shall the total amount of the liquidated damages exceed 6% of such price. The term "week" as used above shall mean subsequent periods of seven days immediately following the day of expiry.

**3.6** If the Buyer has become entitled to the maximum amount of liquidated damages and the delay exceeds three (3) months, the Buyer shall have the right to cancel the delivery of the delayed portion of the delivery. Apart from such cancellation and the damages specified above, the Buyer shall have no other remedy for any failure by Lamor to deliver the products.



## 4. Prices and Payments

**4.1** Unless otherwise agreed, the products shall be considered to be sold at prices stated in valid price list issued by Lamor and on terms of payment prevailing at the time of receipt of the order by Lamor. Lamor reserves the right to increase any agreed prices in the event of increases in turnover tax, value added tax, customs duties, or other public charges.

**4.2** Lamor shall always be entitled to demand payment, in Lamor's discretion, through an irrevocable, transferable Letter of Credit (L/C) confirmed by a bank acceptable to Lamor, allowing partial shipments and transshipments, and being payable at sight in Finland upon each partial shipment against the first presentation of (a) commercial invoice(s) in triplicate, (b) either (A) full set of clean on board Bills of Lading, or (B) the forwarding agent's certificate(s) of receipt or (C) one copy of waybill or consignment note, and c) packing list(s) in triplicate.

The Buyer shall comply with the separate instructions of Lamor concerning opening of a letter of credit. In case of other means of payment, Lamor shall always be entitled to demand for an on-demand guarantee given by a bank acceptable to Lamor and for the payment within thirty (30) days from the date of delivery.

**4.3** Whatever the means of payment used, a payment shall not be deemed to have effected before Lamor's account has been fully and irrevocably credited.

**4.4** Interest on overdue amounts shall accrue without notice at the rate of sixteen per cent (16%) p.a.

**4.5** Lamor reserves the right to suspend its own performance and to amend the agreed terms of payment in case of disturbances in the performance of the Buyer or in case of any amendment in the circumstances of the Buyer likely to endanger payment of Lamor's receivables.

#### 5. Retention of Title

**5.1** Title to and ownership of the products shall pass to the Buyer only upon receipt by Lamor of all payments due for the products delivered. The risk of loss, destruction and deterioration shall, however, pass to the Buyer immediately upon delivery according to Incoterms 2000, or the latest terms.

**5.2** Without prejudice to any other rights which Lamor may have or which may arise, Lamor shall be entitled to terminate any contract to sell goods not paid for and/or repossess the goods without notice to the Buyer at any time before payment in full has been received and whether or not payment has become due or any credit allowed has expired. Access shall be afforded at all reasonable times to representatives of Lamor to any premises where any goods shall be situated for the purposes of repossessing such goods and all reasonable assistance shall be given to Lamor in removing the same.

**5.3** Notwithstanding the above, until payment is made to Lamor in full the Buyer may use, sell or otherwise deal with the goods in the normal course of its business. Any such sale will constitute the sale of Lamor's property by the Buyer and the Buyer will forthwith account to Lamor for the proceeds of sale up to the total price of the goods outstanding and pending such accounting will hold the proceeds on trust for Lamor.

## 6. Liability for Defects

**6.1** Lamor shall be liable for defects in the products only if all of the following conditions are fulfilled:

**6.1.1** It is established that the product is defective either in materials or workmanship;

**6.1.2** The defect has been detected within twelve (12) months from complete commissioning or 18 months from EXW delivery, whichever is the earliest date – or – in case of spare part or component the defect has been detected within six (6) months from the date of EXW delivery from Lamor to the Buyer. EXW date is the defined date mentioned either in written Order Confirmation by Lamor or Bill of Delivery –document from workshop.

**6.1.3** The defect has been notified to Lamor in writing within 14 days from the date of delivery or, if the defect could not have been discovered in a careful inspection of the product immediately upon receipt thereof, within thirty (30) days after discovery of the defect and no later than the expiry of the period specified above in Subsection



**6.1.4** The notice shall be made by fulfilling the Warranty Claim form issued by Lamor, and by sending it to Lamor Corporation AB, by means of evidencing the receipt. If no Warranty Claim form is available, the notice shall be made otherwise in writing. The Warranty Claim form sent by Lamor upon receipt of such a notice shall be fulfilled in an appropriate way received by Lamor within thirty (30) days from the receipt of the claim form by the Buyer. The notification obligation is not fulfilled until Lamor has approved of the Warranty Claim.

**6.1.5** The defect is not due to natural wear and tear, damage in transport, or faulty use, maintenance or storage, or other circumstances beyond Lamor's immediate control.

6.2 Lamor's liability for defects shall be limited to

**6.2.1** by quickest possible means manufacturing a replacement for defected part or component and supplying the replacement to the Buyer on ex works Porvoo terms (INCOTERMS 2000), or alternatively, at Lamor's discretion, Lamor's liability for defects shall be limited to the reimbursement of the defected part or component at cost price.

## 7. General Limitation of Damages

**7.1** The liability of Lamor for any damages shall always be limited to an amount equal to the price of the product or of its part or component to which the damage relates.

**7.2** Lamor shall in no event be liable for any special, incidental or consequential losses or damages, such as loss of profits, waste of energy or time, loss of use or liabilities to third parties.

**7.3** Apart from what is expressly stated in Section 6 above, all undertakings, warranties, conditions, liabilities and remedies relating to equalities or defects in the products or any failure to remedy them, are hereby expressly excluded. In particular, the implied warranties and conditions of merchantability and fitness for particular purpose are expressly disclaimed.

**7.4** No action including without limitation actions under Sections 3 and 6 above shall be brought against Lamor more than six (6) months after the cause of action has accrued and in no case later than one (1) year after the delivery of products.

## 8. Product Liability

**8.1** Lamor shall be liable for personal injury and damage to property only if it is proved that such damage or injury was caused by Lamor's gross negligence.

**8.2** The Buyer shall save harmless indemnify Lamor from and against any liabilities exceeding those assumed above.

## 9. Force Majeure

**9.1** Lamor shall not be liable for any failure to perform caused by reason of force majeure events including, but not limited to, industrial or labour disputes, riots, mobs, fires, floods, wars, civil strife, embargoes, inadequate production capacity, machine or tool break-downs, shortage of labour, raw material, energy, power, fuels or means of transportation, whether effecting the Lamor or any sub-contractor, or for circumstances caused by laws, regulations, orders or acts of any government or authority.

**9.2** The Buyer shall not be liable for failure to take delivery of the products if the Buyer is prevented from doing so by unforeseen governmental import restrictions or similar force majeure reasons.



## 10. Intellectual Property Rights

**10.1** The Buyer acknowledges that all trademarks, trade names, patents, industrial designs, drawings, plans, know-how and other intellectual property, whether registered or not, relating to the products are and shall remain the exclusive property of Lamor and shall not be used, distributed, licensed, disclosed or registered by the Buyer or any third party without written consent from Lamor.

**10.2** The Buyer shall not alter or tamper with any markings or labels of the products without prior written consent from Lamor.

**10.3** The Buyer shall not use or disclose any of Lamor's trade secrets or know-how relating to the product.

## 11. Inspections and approvals

**11.1** The Buyer shall apply for any such approval, that the legislation or the regulations in Buyer's country may call for and, if required, submit the goods for inspection thereto at his own expense.

#### 12. Governing Law and Settlement of Disputes

**12.1** These General Conditions of Supply and all sales contracts to which Lamor is a party shall be governed by and construed in accordance with Finnish law.

**12.2** Any controversy, dispute or claim arising out of or relating to these General Conditions of Supply or any sales contract that Lamor is a party shall be exclusively and finally settled in District Court in Porvoo, Finland. All proceedings shall be conducted in English.

#### 13. Variations

**13.1** Lamor reserves the right to vary these General Conditions of Supply at any time.

Lamor Corporation Ab