

## DEMAND NOTIFICATION

### INVITATION FOR EXPRESSION OF INTEREST FOR WEAPON LOADING TROLLEY (WLT)

BrahMos Aerospace, a joint venture between India's Defence Research and Development Organization (DRDO) and Russia's NPO Mashinostroyeniya, is a leading aerospace and defence corporation specializing in the design, development, and production of supersonic cruise missile systems.

BAPL invites Expressions of Interest (EOI) from prospective manufacturing industries for development and supply of Weapon Loading Trolleys.

**Name of Device:** Weapon Loading Trolley (WLT)

**Scope of work:**

To develop and manufacture the Weapon Loading Trolley and qualify the same as per technical requirement which will be shared with shortlisted manufacturers.

**Brief Description:**

**I. INTRODUCTION**

Weapon Loading Trolley (WLT) is intended for

- i) Transporting / loading / unloading cylindrical loads.
- ii) Transporting / loading / unloading rectangular loads.

**II. PRELIMINARY TECHNICAL REQUIREMENTS**

WLT is to be developed to meet the technical specifications given below.

S. No.	Requirement	Specification
1	Design	<ul style="list-style-type: none"> <li>a) Should be stable under loaded condition.</li> <li>b) Should have scissor mechanism to increase / decrease height of platform on trolley.</li> <li>c) Wheels to move the trolley forward / backward.</li> <li>d) Loads will rest on pre-defined positions on trolley.</li> <li>e) Provision of footrests at 4 positions.</li> </ul>
2	Operating conditions and environmental & Hazard Protection	<ul style="list-style-type: none"> <li>a) Operating Temperature Range: -40 °C to + 70°C.</li> <li>b) Storage Temperature Range: -40 °C to +70°C.</li> <li>c) Relative Humidity: 95 % RH</li> <li>d) Altitude – up to 4000 MSL.</li> <li>e) Corrosion resistance for unpainted regions of trolley except for moving surface of trolley wheels.</li> <li>f) Environmental &amp; Hazard protection for electrical components: <ul style="list-style-type: none"> <li>i. Flame proof motor Protection.</li> <li>ii. Flame proof cables and connections.</li> <li>iii. IP 67 – Dust and water proof protection class.</li> <li>iv. Over voltage / short circuit protection.</li> </ul> </li> </ul>
3	Wheels	<ul style="list-style-type: none"> <li>a) Solid rubber/ polyurethane Teflon</li> <li>b) Number of wheels - 4</li> </ul>
4	Mode of operation	<ul style="list-style-type: none"> <li>a) The system must have provision to lift the loads in both Electric mode and manual mode of operation.</li> </ul>



		<ul style="list-style-type: none"> <li>i. Electric Mode: Through a control panel using push buttons and joysticks.</li> <li>ii. Manual Mode: Provision to operate trolley manually using hydraulic pump.</li> <li>b) System must have provision to move loads in X, Y and Z direction and in roll, pitch and yaw.</li> <li>c) Steering mechanism to be provided to steer the trolley forward and backward.</li> </ul>
5	Latching and Locking	<ul style="list-style-type: none"> <li>a) Latching / lifting points for loading and unloading the trolley on trailer and latching during transportation.</li> <li>b) Provision for arresting the lateral and longitudinal motion of loads using the available hard points / latching points.</li> </ul>
6	Outrigger	<ul style="list-style-type: none"> <li>a) 4 outriggers to be provided on suitable locations.</li> </ul>
7	Power connection	<ul style="list-style-type: none"> <li>a) Power will be derived from control panel mounted on trolley using a 4 Pin detachable power connector.</li> <li>b) Power Input: 28VDC or 3Φ, 115 V, 400 Hz.</li> </ul>
8	Motor	<ul style="list-style-type: none"> <li>a) HP of motor to be as per requirements. 3 φ, 115V is preferred.</li> <li>b) Motor to be housed in flame-Proof enclosure.</li> </ul>
9	Brakes/ Emergency	<ul style="list-style-type: none"> <li>a) The trolley shall have provision of brakes / stopper to arrest movement of trolley forward / backward.</li> <li>b) Provision to stop lifting of trolley in case of emergency / fault detection.</li> <li>c) Locking provision to arrest the position of lifted platform at desired heights.</li> </ul>
10	Paint and surface treatment	<ul style="list-style-type: none"> <li>a) Painting shall be carried out after surface treatment.</li> <li>b) 2 coats of primer and 2 coats of paint to be applied.</li> <li>c) Paint shall be suitable for shore environment.</li> <li>d) Unpainted regions to be ZN-Ni plated.</li> </ul>
11	Testing / Inspection	<ul style="list-style-type: none"> <li>a) Stage inspection</li> <li>b) Fitment tests</li> <li>c) Static and dynamic load tests</li> <li>d) Acceptance tests and Qualification tests</li> </ul>
12	Deliverables	<ul style="list-style-type: none"> <li>a) WLT and its accessories as per BOM.</li> <li>b) Latching belts 3T capacity – 4 nos.</li> <li>c) Tools and spares.</li> <li>d) Drawings, models and documents as per Para III.</li> </ul>

### **III. DRAWINGS / DOCUMENTS TO BE SUBMITTED**

Following drawings, models and documents are to be generated by the supplier and shared with BAPL for review and approval.

<b>S. No.</b>	<b>Drawing / Document</b>
1	Manufacturing drawings (AutoCAD format) and Bill of Materials.
2	Detailed 3D model, Design report and FEA report.
3	User manual with Illustrated Spare Part List (ISPL).
4	Maintenance Manual
5	Manufacturer Recommended List of Spares (MRLS).



6	Components Catalogue for bought out items.
7	Draft Quality Assurance Plan (QAP) and Acceptance Test Plan (ATP) will be prepared and submitted by BAPL. Based on draft QAP and ATP, final QAP and ATP will be prepared by vendor. QAP to cover raw material checks, heat treatments checks, welding checks, surface treatment checks, painting checks, visual and dimensional checks, functionality checks, Load tests, Pre-delivery inspection.
8	Test reports as per QAP (Raw material test reports, WPS/WPQ/PQR, stage wise inspection reports, DP reports, certificates of conformance, dimensional inspection reports, Paint reports, Torque application report, Acceptance test / Qualification test report).
9	CoC and data sheet to be submitted against make and model for all electrical items. CoC of FLP panels and Motors to be submitted as part of documents.
10	Detailed list of COTS items, Imported items and Locally bought / manufactured items for full assembly is to be provided.

#### **Eligibility Criteria and EOI submission:**

The eligibility criteria and instruction for submission of EOI are available at our website [www.brahmos.com](http://www.brahmos.com). Only eligible vendors meeting the requirements specified in EOI document "BMR/WDC/EOI/WLT/01" shall be considered.

Eligible manufacturing industries may furnish their Expression of Interest in the prescribed format (Annexure A of EOI document BMR/WDC/EOI/WLT/01) in Sealed Envelope quoting our Demand Notification No. BMR/WDC/DN/WLT/01\_R1 with all essential information and supporting documents. The EOI shall reach on or before 01/02/2026 [16:00 Hrs.] to the following address:

**BrahMos Aerospace Private Limited**  
 16, Cariappa Marg, Kirby Place  
 Delhi Cantonment, Delhi – 110 010  
 Tel: +91-11 -42285217

**Note: BAPL reserves the right to accept or reject any or all responses. Mere compliance to the EOI terms does not guarantee further consideration for qualification in the procurement process.**





# Expression of Interest (EOI)

For

## Weapon Loading Trolleys (WLT)



MAY 2025



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## 1 Introduction

BrahMos Aerospace Private Limited, a joint venture between India's Defence Research and Development Organization (DRDO) and Russia's NPO Mashinostroyeniya, is a leading aerospace and defense corporation specialized in Design, Development and Production of supersonic cruise missile systems. BrahMos missile, a versatile weapon deployable from multiple platforms, the company plays a critical role in enhancing India's defense capabilities and is actively pursuing advancements in missile technologies, solidifying its position as a key player in the global defense sector.

BAPL invites Expressions of Interest (EOI) from qualified manufacturers for development and supply of Weapon Loading Trolley (WLT) involving manufacturing / mechanical integration and electrical / electronic / hydraulic units. Responses should demonstrate adherence to relevant military standards (MIL-STD), robust quality control procedures, and a proven track record in delivering reliable solutions for demanding defense applications.

Intending Manufacturing Industries are advised to read the EOI document, Terms and Conditions and other details carefully relating to the work contemplated in the procurement of intended items.

## 2 Objective

The EOI aims to develop new vendor qualifying to the technical requirements of items under consideration. The information collected will be used to identify suitable partners for subsequent phases of vendor development activity.

## 3 Eligibility Criteria

Interested Manufacturing Industries must meet the following minimum criterion in order to apply for EOI:

### Technical capabilities

- a) In-house expertise in 3D modelling, FE Analysis, generation of Auto-Cad drawings and associated sub-assemblies. The industry should have latest version of software and should share the CAD model / FE Model with assembly / manufacturing AutoCAD drawings with BAPL.
- b) Vendor should share the details of sub-vendors on whom subsequent orders of component/assembly will be placed.
- c) IPR for product / drawings / model should rest solely with BAPL.
- d) Static load testing:
  - i) Qualification testing (QT): 2X 30 ton
  - ii) Acceptance testing (AT): 1.5X 30ton



- iii) Dynamic load testing: 24-ton dummy load movement on rails during manufacturing stage.
- e) EOT crane/ Hydra and other load lifting equipment availability at vendor premises.
- f) Availability of load cell and display unit with proper calibration certificate for conducting static / dynamic load test.
- g) Packing and delivery of equipment as per applicable Defence standards.
- h) Vendors with past experience in manufacturing and implementing rail/ track load bearing arrangements should be preferred.
- i) Vendor should have following ISO certification, preferably:
  - i) • ISO 3834: Certification for welding quality system.
  - ii) • ISO 9001: Quality management systems- requirements
  - iii) • ISO 14001: Environmental management systems
  - iv) • ISO 45001: Occupational health and safety management system.
  - v) • ISO 27001: Information security management.
- j) Vendors should follow NABL accredited labs verified reports as per QA plan.
- k) Vendors should have sufficient space for assembly / testing and storage of WLT.
- l) Expertise and technical tie up with renowned organization for assembling and integrating the hydraulic, electronic systems and geared systems.
- m) Availability of experienced and qualified technical manpower
- n) Minimum experience of 10 years in manufacturing and Supply of trolleys / lifters / loading systems for Defense/Aerospace industry. Shall be supported with contract references.

#### **General Requirements**

- a) The Manufacturing Industries must be an Indian Registered Partnership / LLP / Company with a majority stake of the company held by a Resident and Citizen of India.
- b) The average annual turnover of the interested partner during the last three years shall be at least INR 10 Cr. Audited Annual Financial Statements in support of the same shall be furnished. The long-term credit rating by ICRA/CRISIL or equivalent as on date of submission of EOI shall be "A" or above.
- c) Experience on working with inspection agencies viz., MSQAA, CQA, ORDAQA etc.
- d) Obsolescence Management: Shall have a documented procedure to monitor and manage obsolescence of components/sub-systems.
- e) The manufacturer shall ensure minimum service life of 20 years for items manufactured for BAPL.
- f) Availability of in-house research & development facility and reverse engineering capability is preferred.
- g) Higher indigenous content is preferable.



#### **4 EOI Submission**

Interested Manufacturing Industries are requested to submit their response as per Format enclosed in **Annexure-A as per Demand notification**.

#### **5 Evaluation Criteria**

The evaluation of responses will be based on the Evaluation of BAPL w.r.t the following criteria:

- Technical capabilities and experience in defence applications.
- Production capacity and lead time for high-reliability products.
- Quality management system and compliance with defence/military standards.
- Financial stability and references in the defense sector.
- Infrastructure/Facility evaluation.
- Security Certifications and its compliance.

The shortlisted Industries will be called up for further processing for the items mentioned in Demand Notification.

#### **6 Confidentiality**

All information provided in response to this EOI will be treated as confidential and may be subject to non-disclosure agreements.

#### **7 Disclaimer**

This EOI does not constitute a commitment for placement of Contract / Purchase Order and BAPL reserves the right to accept or reject any or all of the responses.

#### **8 Contact Information**

For any inquiries, please contact: Refer demand notification





**Expression of Interest (EOI)**

Demand Notification Ref.: \_\_\_\_\_

Demand Notification Date: \_\_\_\_\_

S. No.	Particulars	Details to be filled up by FIRM	Supporting Document
a.	Name of the Firm & Address		
b.	Firm's Contact Person & Details		
c.	Category of Firm (Raw Material /Conversion/Standard Items/Ready to use Components/Other) *		Company Registration Document with State/ Central Government
d.	Nature of the Company (Pvt. Ltd. / Ltd./PSU/DPSU etc.)		
e.	Organizational structure		Self-attested document
f.	The average annual turnover of previous three (3) financial year.		Annual Financial Statements
g.	What is the core competence of the company?		-
h.	What are principal products(s)?		-
i.	How long has company been in business as presently organized?		-
j.	List of principal Subcontractors, along with processes subcontracted		-
k.	List of principal customers to whom the vendor supplied stores in the past two (2) years.		-
l.	List of principal companies and /or Government agencies which have surveyed and approved the firm with scope of approval.		Copy of attestation document
m.	Contract /S.O. No. from Defence/Missile complex Labs along with status of order. (Completed/Ongoing/Short closed)		-
n.	Certification - Quality (ISO/AS/SAMAR)		Copy of latest certificate
o.	Employee Strength (Design, Quality, Production, (Skilled / Semi- Skilled/Casual) Other)		-
p.	Certification of skilled manpower (IPC 610/620 Class-3)		Copy of latest certificate
q.	Attrition rate of employee		-

S. No.	Particulars	Details to be filled up by FIRM	Supporting Document
r.	Failure incidence reported by customer in last three years in PPM and percentage		
s.	Average import percentage in products manufactured and delivered in last financial year		
t.	Security compliance certification (If any). Shall specify the road map and certification plan if not existing.		Copy of latest certificate/ Road Map
u.	List of available equipment and machinery (e.g., SMT placement machines, CNC (Computer Numerical Control) machines, environmental test chambers and other test facilities.		
v.	Maximum PCB size and complexity handled		
w.	Production capacity - Lead time for prototype and production runs		
x.	Inventory Management System		
y.	Controlled Storage Facility		
z.	Cybersecurity and data security practices		Compliance Certificate/ Self certification

*Category of firm	Definition
<b>Mechanical Integration and assembly</b>	Firms having facilities for in-house integration / assembly of required items but no in-house facility to carry out manufacturing processes.
<b>Mechanical manufacturing facilities</b>	Firms having facilities for in-house manufacturing of required items.
<b>Electronic and Hydraulic control systems Manufacturer</b>	Firms having facilities for manufacturing and integration of Hydraulic and electric control systems
<b>Other</b>	Firms not falling in any of the previous types, shall specify in the form.

**Note: The firm shall enclose supporting documents as applicable**

Declaration: The details provided above are true and it is understood that BAPL reserves the right to accept or reject the EOI filed herein.

**Authorized Signature with Name & Company Stamp.**



S. No.	Requirements	Details to be furnished	Sample reply
<b>A</b>	<b>TECHNIAL CAPABILITIES</b>		
1	In-house expertise in 3D modelling, FE Analysis, generation of Auto-Cad drawings and associated sub-assemblies. The industry should have latest version of software and should share the CAD model / FE Model with assembly / manufacturing AutoCAD drawings with BAPL.	1. Manpower with knowledge of softwares 2. List of licensed softwares available with the firm. 3. Agree to share the soft copies of CAD drawings, CAD model, FE model and analysis files	1. Hydraulic design engineers - 14 nos. Mechanical design engineers - 39 nos. Electrical design engineers - 7 nos. 2. Softwares: AutoCAD, SolidWorks, Inventor, SolidEdge, Ansys, NISA, DDM-Pro, E-Plan (for electrical circuits) and PLC software. 3. Accepted
2	Vendor should share the details of sub-vendors on whom subsequent orders of component/assembly will be placed.	List of sub-vendors for Raw materials, Hydraulic systems, Electric systems	MS/SS plates - SAIL, JINDAL, TATA, ESSAR, Imported Forging - Kisaan Steel, Alka forging, C.D. Industries, GoodLuck Fasteners - TVS / LPS / Unbrako Welding consumables - Modi / Esav / D&H / Honaver / Adore / Maruti
3	IPR for product / drawings / model should rest solely with BAPL.	Accepted / Not accepted.	Accepted.
4	Static load testing: i) Qualification testing (QT): 2X 30 ton ii) Acceptance testing (AT): 1.5X 30ton	Accepted / Not accepted.	Accepted.
	Dynamic load testing: 24-ton dummy load movement on rails during manufacturing stage.	Accepted / Not accepted.	Accepted.
5	EOT crane/ Hydra and other load lifting equipment availability at vendor premises.	Capacity and qty. of in-house EOT cranes.	Available - up to 300T
6	Availability of load cell and display unit with proper calibration certificate for conducting static / dynamic load test.	List of load cells, display units available with the firm to be provided	Available load cells: 250T - 4 nos. 500T - 4 nos. 1000T - 4 nos.
7	Packing and delivery of equipment as per applicable Defence standards.	Accepted / Not accepted.	Accepted.
8	Vendors with past experience in manufacturing and implementing rail/ track load bearing arrangements should be preferred.	List of products with photos and supply orders to be provided.	1. Supplied 75T capacity two track pit traverse system to Indian Railways (photos attached) 2. Hot metal laddle transfer system used to transfer hot metal from blast furnace (photos attached)
9	Vendor should have following ISO certification, preferably: i) ISO 3834: Certification for welding quality system	Certificate to be submitted	Not available
	ii) ISO 9001: Quality management systems- requirements	Certificate to be submitted	Available (copy attached)
	iii) ISO 14001: Environmental management systems	Certificate to be submitted	Available (copy attached)
	iv) ISO 45001: Occupational health and safety management system.	Certificate to be submitted	Available (copy attached)
	v) ISO 27001: Information security management.	Certificate to be submitted	Not available
10	Vendors should follow NABL accredited labs verified reports as per QA plan.	Accepted / Not accepted.	Accepted (Own in-house testing facility is already accredited by NABL).
11	Vendors should have sufficient space for assembly / testing and storage of WLT.	Mention the total area of the firm and the covered area available with the firm for fabrication, assembly, testing and storage of trolleys at their premises at single location.	Total area: 1,00,000 sqmt. Covered area: 50,000 sqmt.
12	Expertise and technical tie up with renowned organization for assembling and integrating the hydraulic, electronic systems and geared systems.	List of firms with which tie-ups exist and MoU certificates, if available, to be provided.	Tie-ups with 4 different MNCs (MoU copies attached).

13	Availability of experienced and qualified technical manpower	Number of persons in different departments and their range of experience to be provided.	Design engineers - 10 nos. with 5-20 years experience. QA Managers - 10 nos. with 5-20 years experience. Production engineers - 30 nos. with 5-20 years experience. Planning / QA engineers - 5 nos with 5-20 years experience. Specialists in assembly and testing - 6 nos. Support staff (draftsmen / supervisors / fabricators / welders) - 35 nos. with 5-20 years experience.
14	Minimum experience of 10 years in manufacturing and Supply of trolleys / lifters / loading systems for Defense/Aerospace industry. Shall be supported with contract references.	List of products with photos and supply orders to be provided.	1. Mounting body of XXXmm dia XX caliber Gun (product photos and supply order attached) 2. Trestles for ship lifting (product photos and supply order attached) 3. Hydraulic presses from 1000-3500T (product photos and supply order attached).
<b>B</b>	<b>GENERAL REQUIREMENTS</b>		
15	The Manufacturing Industries must be an Indian Registered Partnership / LLP / Company with a majority stake of the company held by a Resident and Citizen of India.	Company incorporation certificate to be provided.	Submitted
16	The average annual turnover of the interested partner during the last three years shall be at least INR 10 Cr. Audited Annual Financial Statements in support of the same shall be furnished. The long-term credit rating by ICRA/CRISIL or equivalent as on date of submission of EOI shall be "A" or above.	Average annual turnover during last three years to be provided. ICRA / CRISIL etc rating to be provided, if available. Above shall be supported with relevant documents / certificates.	1. Average annual turnover for last 3 years- 50 cr. (FY 22-23, 23-24, 24-25) 2. Financial statements attached.
17	Experience on working with inspection agencies viz., MSQAA, CQA, ORDAQA etc.	QA agency registration / certification to be shared. Else, contracts for Defence related products to be shared.	DGQA certified from June 18 to June 2024. Renewal under progress.
18	Obsolescence Management: Shall have a documented procedure to monitor and manage obsolescence of components/sub-systems.	Practices being followed to be provided.	Well defined ISO procedure.
19	The manufacturer shall ensure minimum service life of 20 years for items manufactured for BAPL.	1. Undertaking would be sought from the firm if the order is placed on the firm. 2. Current pan India locations, where product support is being provided.	1. Accepted. 2. Onsite product support offices at 5 locations - Leh, Sikkim, Tamil Nadu, Bhuj, Kolkata.
20	Availability of in-house research & development facility and reverse engineering capability is preferred.	List of in-house developed products , patents, reverse engineered products to be shared with photos.	1. Transfer system 2. Industry 4.0 solution 3. Drag link drive technology 4. Multi-servo motor servo press
21	Higher indigenous content is preferable.	Indigenous content (%) for major existing products.	1. ABC - 95% 2. XYZ - 98% 3. PQR - 60%