

'Expression of Interest' for Development of Pneumatic System for BEML Heavy Duty Truck (HDT)

1. Objective:

BEML Limited is a Defence PSU under the Ministry of Defence (MoD), Govt. of India. BEML HDT vehicles are mainly used for General Service and special projects carrying super structures as per MOD requirement. As part of indigenous program, the development and production of Pneumatic System. In this regard, BEML intends to identify reputed developer and supply of Pneumatic System and associate in integration and testing. Annual consumption of Pneumatic System are more than 600 numbers.

i) Pneumatic System:

Pneumatic will control and drive the vehicle brake system, Central Tire inflation system, Horn, Torque Divider and inter axle differential lock, Axle differential locks, Gear shift booster.

Pneumatic System should actuate the following components:

1. Vehicle brake system

The vehicle brake system enables to connect connecting vehicles with pneumatic brakes of single- and two hose connecting system and operating pressure of 830 ± 20 kPa (8.3 ± 0.2 kg/sq.cm).

- a. Service brake of two-circuit pneumatic type, with foot control, acting on the wheels of all axles, with single hose indirect acting or two-hose direct acting control of the brakes of connected vehicles.
 - b. Emergency brake of spring type, controlled by the manual brake valve. This brake acts only on the wheels of the second front and both rear axles with linkage to the brake system of the trailer.
 - c. Parking brake of spring type, controlled by the manual brake valve. This brake acts only on the wheels of the second front axle and both rear axles.
 - d. Auxiliary relief brake of exhaust type, controlled by the switch on instrument panel.
2. Central Tire Inflation system: The control knobs located to the right beside the driver's seat are used to change air overpressure (inflation / deflation) in tyres of the vehicle at standstill or during the driving and this either individually on each wheel.

3. Horn
4. Torque Divider and inter axle differential lock
 - a. The moment divider distributes the driving torque uniformly between the front and rear couple of axles and it should be operated pneumatically.
5. Axle differential locks: The axle differential locks are engaged to increase the vehicle mobility in difficult terrain
6. Gear shift booster: Electro-magnetic pneumatic valves are connected in circuit lines of the pressure air and serve for engagement of constant meshes in gearbox, slow and fast gear in transfer gearbox, for relief brake control, gearshift booster control, and for winch control

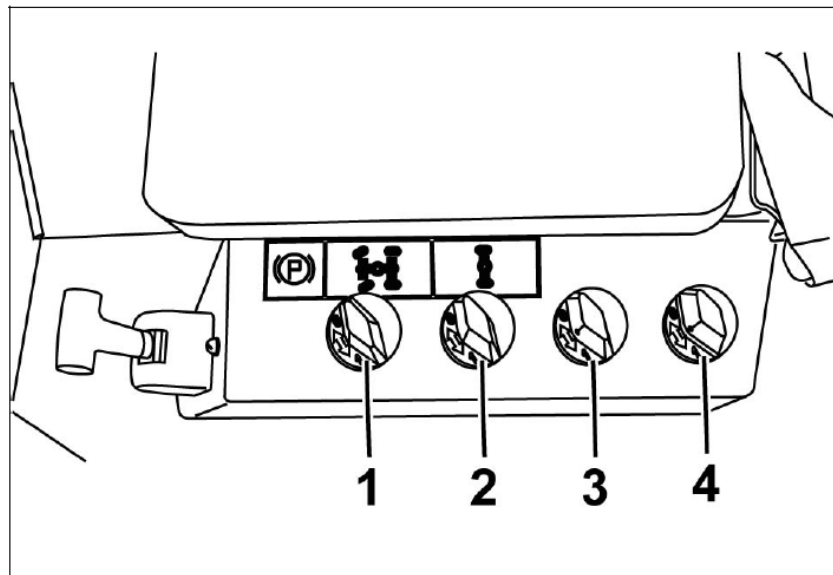


Fig 1: Controls of Pneumatic System

- 1 – torque divider and inter-axle differential lock engagement
- 2 – axle differential locks engagement
- 3 – Tyres inflation
- 4 – Tyres deflation



Fig 2: Controls of Pneumatic System in panel board

2. Scope of work:

Based on the response from Interested Firms for this EOI, Separate RFQs will be floated to shortlist one capable firm for development of Pneumatic System.

NDA and MoU will be signed with the final firm evaluated in the RFQ. BEML will issue drawing & specifications to the firm.

A. The Pneumatic System development and Production is planned in three phases

- 1) Development stage: 5 sets Pneumatic System to be developed within 1 month of contract.
- 2) Pilot Production stage: 10 sets of Pneumatic System to be produced based on feedback of prototypes within 1 month from prototype clearance.
- 3) Bulk Production stage: More than 600 numbers in the first year after pilot batch clearance by BEML/MoD.

B. The brief scope of work is,

- a. The firm has to offer the Pneumatic System assembly for inspection and clearance by BEML.
- b. Supply the Pneumatic System to BEML along with quality records for having complied for materials, processes and dimensions.
- c. Associate with BEML during integration, furnishing, internal trials and MoD performance evaluation trials.

C. Firm has to give test certificates along with Pneumatic System.

3. Pre-Qualification Criteria:

Interested firms shall fulfill the following criteria while submitting the EOI.

- i. Firm having more than 5 years of experience in design, development, and development of Pneumatic System.
- ii. Firm with sound financial status – Consistently profit making for the past 3 years.
- iii. Firm should be certified for the latest Quality Management System.
- iv. EOI may be responded by individual firm or a consortium of firms represented by a lead member. In case of consortium, lead member shall respond to the EOI and will be responsible for the success of the program.
- v. The firm shall have the following basic and essential facilities to qualify to this EOI.
 - a) Latest CAD software & hardware for handling Design & Documentation
 - b) Capability to design and development of Pneumatic System.
 - c) Possess requisite for Pneumatic System testing facilities as per CMVR.

4. Details of the firm to be provided with necessary supporting documents:

- i. Company Registration certificate indicating name of the firm, year of establishment, incorporation details, Members of the Board, URL of the firm's website.
- ii. Name of the contact person, address, Telephone, Fax & email
- iii. Number of years of experience in design and development of Pneumatic System.
- iv. Copy of the Supply Orders to brief the past and similar ongoing projects, if any.
- v. Details of IT infrastructure and certificates of quality management system of the firm.
- vi. Financial performance documents (Audited Balance sheets and Profit & Loss statements etc.) with details of turnover for last three (3) years
- vii. Details of Contract(s) or order(s) terminated before completion, if any

viii. Details of any premature termination of job/supply order/contract for Min of Defence, India or any other Government / Quasi Government organization in India.

ix. Value of largest two projects executed in last 5 years

x. Capability to furnish Bank guarantees.

xi. Details of important customers

Note: The responses from Firms/OEMs that are black listed/restricted by Government of India or its Agencies will not be considered.

5. Submission of EOI:

In this context, EOI in sealed cover, Providing manufacturing capability details, documents, similar existing product development details, covering letter and certificates (MSME, ISO etc) shall be submitted by interested reputed firms, superscribing “**Expression of Interest’ for development of Pneumatic System**” on or before 14:00 hours of 16.09.2019, to

DGM–Materials

BEML Ltd., Palakkad Complex,

Kinfra Wise Park,

Menonpara Road,

Kanjikode

Palakkad-678 621

Kerala,

India.

For any queries please contact below mentioned details:
Tel(Off):04912568178

Email: pm@beml.co.in

The last date for receipt of EOI at the above address will be as per the information published and will be opened on the same date at 1515 hrs.

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