

Open Tender No. No.PR- 18/44/2009-10/PHQ(Pt)/

Imphal, the 9th March,2010

Since the specifications of B.P. 407 vehicle occurring at the SI No. 1. Schedule of items to be supplied (Specifications) furnished by the vehicles Factory Jabalpur of this Open Tender of even number dated 23/2/2010 is not in a detailed, the following modifications has been made in the specifications of 407 vehicle as detailed below:-

TECHNICAL SPECIFICATION OF BULLET PROOF TATA 407 VEHICLE :-

Introduction:-

There is a requirement of armoring the modified/fabricated TATA 407 vehicle into bullet proof vehicle, using armor steel and composite be able to withstand specified threat perception level NIJ-III. The armoring carried out using opaque and transparent armor suitable for operation, which can carry driver+7 people along with combat load.

1. **Armored Cabin.**

a. **Front windscreen:-**

In place of wind screen glass a bullet resistant front windshield glass as per EN 1063 of full size shall be provided along with wiper. Glasses shall be fixed with suitable adhesive .

b. **Engine compartment: Fire wall**

At the rear of the engine in the engine compartment the armored firewall shall provide protection to the occupants from frontal attack.

c. **Side door**

The side door of cabin shall be provided with fixed BP on both driver and driverside. The bottom of the door shall be provided with Armor steel and composite armor protection.

2. **Troop Compartment:**

a. **Troop Compartment** shall be fabricat3ed over the rear chassis using the structural mild steel tubular section to take care of the load of the single armored steel of 6.5mm thickness mounted on that structure. There shall be three side viewing Bullet proof viewing glasses thru' which the soldier can observe while firing . Three Gun Port shall be provided below the glass for firing outside from troop compartment. Similar type of arrangement shall be done on the other side as well.

The rear entry shall be made using two doors at the end along with gun proof and bullet proof glass window.

b. Roof :-

The roof of the vehicle shall be provided with single sheet Armor steel of 5mm thickness to give protection against 45 degree angle of attack. The panel shall be integrated on to the roof with appropriate bonding agents.

c. Seat :-

Back to back bench type seat facing the side shall be provided for six persons at the troop compartment.

d. Rear door of Troop Compartment:-

The bullet proof vehicle shall have two flap rear door and foot step at the rear side of vehicle along with firing port and B.P. Glass .

e. The tubless tyres:-

The tubeless tyres fitted with Run flat system shall be supplied

f. Interior :-

The interior of troop Compartment shall be covered with embossed thermoplastic materials for the aesthetic and safety purpose.

g. Air Condition :-

Air condition for the vehicle shall be fitted for the cabin.

3. Panting :-

The vehicle duly armored shall be painted wherever required before inner panel trimming .After the painting interior trimming shall be fixed as per standard practice.

4. ARMOUR MATERIAL**a. Steel armor:-**

Suitable steel armor of 6.5 mm with required thickness shall be used in all places wherever glass is not used .

b. Bullet resistant glass:-

Suitable bullet resistance glass of 40 mm with required thickness shall be used after approval of the materials subjected to ballistic performance trails. This shall be laminated glass conforming to desire requirements.

5. IMMUNITY LEVEL:-

i) **Top** : - Withstand direct hits of 7.62mm SLR and 7.62mm AK 47 /56 rifles against 7.62x39mm AK-47 rounds with bullet configuration of bullet at an angle of 45 degrees.

ii) **All sides**:- Withstand direct hits of 7.62mm SLR and AK 47 /56 rifles at a distance of 10 m at an angle of 90 degrees.

iii) **All Glasses** :- Withstand direct hits of 7.62mm SLR and AK 47 /56 rifles at a distance of 10 m at an angle of 90 degrees.

iv) **Bottom and under carriage**:- Occupants shall be protected from the bottom against blast of hand grenade HE-36/DM 51 or equivalent. The floor ballistic carpet shall be provided with aramid carpet.

6. **INSPECTION & ACCEPTANCE** :- The bullet proof vehicle can be subjected to stage inspection & confirmation, to specification and drawing .The inspection shall be carried out as per the acceptance plan.

7. **WARRANTY** :-

The armored materials shall be replaced free of cost for 1 year in the unlikely event of any manufacturing defects . Beyond 2 years, replacement against payment upto 10 years from the delivery of the vehicle if required.

8. **VEHICLE LEVEL TEST** :-

Design validation :-

The bullet proof vehicle after completion subjected to testing as specified at VRDE to check the various functional requirements.

9. **MATERIAL LEVEL TEST** :-

The bullet proof steel armor sample is considered acceptable if. The bullet NATO ball soft (lead) when fired from 7.62mm rifle or any other threat mentioned in the threat specifications, from a distance of 10m with a single shot manual operation zero degree and perpendicular firing does not pierce through the plate . That plate shall be tested with minimum 5 rounds of fire and glass shall be tested with three rounds of fire as per EN 1063.

Sd/-
(T.Pachau),
Inspector General of Police ,
for Director General of Police,
Manipur,Imphal .

Endst No . PR-18/44/2009-10/PHQ (Pt)/
Copy to :-

Imphal, the 9th March,2010

1. The Commissioner (Home), Government of Manipur.
2. The Dy. Resident Commissioners, Govt. of Manipur-
 - i) Manipur Bhavan, Chankyapuri, Sradar Patel Marg, New Delhi
 - ii) Manipur Bhavan, 26 Rowland Road (near Ballygunge), Kolkata
 - iii) Manipur Bhavan Guwahati .
3. The Director, Information & Public Relations, Manipur, Imphal.
- He is requested for insertion in the National Newspapers (Kolkata & New Delhi Edition for 2 days consecutively).
4. The Director, MPR- He is requested to publish the Open Tender Notice with Schedule in the Manipur Police Web site- www.manipurpolice.org.
5. Approx. Tender value is Rs. 400.00 lakh only for the year of Action Plan, 2009-10

Sd/-
(T.Pachau),
Inspector General of Police ,
for Director General of Police,
Manipur, Imphal .