

No.IV-17017/13/06-Prov.I
Ministry of Home Affairs

New Delhi , Dated 07.07.2006

To

The DGs: Assam
Rifles/BSF/CISF/CRPF/ITBP/NSG/SSB/BPR&D.

Subject: Finalization of QRs/Specifications for Weaponry/Security
Equipments

The committee comprising representatives from CRPF, BSF, CISF, NSG, SSB and ITBP held meeting on 09.03.2006, 10.05.2006 & 22.05.2006 under the chairmanship of DG:BPR&D and finalized the QRs of bodies in respect of the following Bus/Trucks for medium/heavy vehicles:-

- (a) LONG CHASSIS (BUS)
- (b) SHORT CHASSIS (MINI BUS)
- (c) TRUCK CHASSIS
- (d) AMBULANCE
- (e) WATER TANKER (6 KL/9KL)
- (f) TRUCK CHASSIS ONE TONNE (WINDOW GRILLE TYPE/CANVAS TOP)

2. These recommendations have been accepted by MHA. The QRs finalized by the above said committee and accepted by MHA in respect of the above equipments are enclosed herewith.

3. Henceforth, all the CPMFs should procure the above items required by them to meet their operational needs strictly as per the laid down QRs/specifications.

Yours faithfully,


(Alok Mukhopadhyay)
Under Secretary(Prov.I)

Copy to : DD(Procurement), MHA

Copy for information to:

1. PS to JS(PM), MHA
2. Dir(Prov), MHA

ANNEXURE 12

QUALITATIVE REQUIREMENTS FOR CONSTRUCTION OF BUS LONG CHASSIS (BUS BODY)

1. **C.R.C. STRUCTURE** : The body frame construction would be done by using hollow square tubular section based on beam theory. Side structure welded with box type cross bearers to take divided load of body, which is mounted upon chassis framed by bolted plate.
2. **EXTERNAL PANELING** : **Upper side panel** would be provided with 1.00 mm thick GALVANISED IRON one piece rolled and stretched sheet prior to fitment.
Lower side panel: 3.15mm Aluminium openable flap type. Tool Box, Battery box and spare wheel doors will have gas strut balances with locks.
3. **INTERIOR TRIM** : Interior Roof and Side panels and upholstery as per user choice.
4. **INSULATION** : Suitable insulation material would be provided in both sides and roof between the exterior and interior. Special sound deadener pads will be used to reduce noise pollution.
5. **FLOORING** : Plain flooring shall be provided and the entire flooring would be in two layers i.e. in the bottom, covered by **12mm thick WATERPROOF PLYWOOD** of good quality and finally the same should be finished with **vinyl flooring 2mm thick** of pleasing color.

The floor would be fastened to the under frame members with step edge beading fixed with countersunk screws and nuts. The entire flooring would be dust, sound and leak proof.
6. **SEATS** : **GANGWAY WIDTH: 430mm** Approx.
Gas spring operated reclining type bus passenger latest designed seats would be provided, folding arms rest for comfortable movement of passengers in and out of the seats. Seating arrangements would be 2x2. The total number of seats should be 37+1 driver.
Seat pitch, as per layout attached.
The seats would be ergonomically designed to blend comfort with efficiency.
7. **DOORS** : A swing type Pneumatic operated passenger door shall be provided. The driver's door will be conventional hinged type door in the foremost front bay (left side).
Pneumatic/ Power door operated by the driver through push button. (as per layout enclosed)
8. **LUGGAGE BOOTH** : The rear dickey box would be provided at the rear end of the body using maximum available space of length and width which will be dust and leak proof. Vinyl mat to be provided inside the luggage boot.

9. **HATRACK** : A light luggage hat rack would be provided inside the passengers' saloon both sides. This would be very modern and convenient to keep the hand baggage
10. **DRIVER'S CABIN** : Original factory built driver's cabin with standard fitments.
11. **WINDSCREEN GLASS** : The front windscreen would be a one-piece laminated curved glass with a height of 1470mm and would provide a neat ground clearance.
12. **WIPERS** : Heavy duty pneumatic parallel movement with twin long blades on each side to be operated electrically.
13. **CURTAINS** : A new style curtain fitment provisions would be made. The inside of the passenger saloon would exude a sober ambience. Wooden touch material should be used for curtain pelmets.
14. **AERO-DYNAMIC FEATURES** : The coach would have aerodynamic design so as to reduce air drag and to improve fuel economy.
15. **WINDOW GLASSES** : Good quality fully fixed approved glasses; with a total height of 1150 mm either light green/black/clear tinted toughened glass of reputed make.
16. **FANS** : Coach fans would be provided in driver's cabin.
17. **PAINTING** :
 f) Complete structure is given protection coating to withstand corrosion.
 g) All sheet metal component joints with structure would be sealed with forced drying non-cracking POLY VINYL CHLORIDE (PVC) sealants.
 h) Special PU Paints (Dupont) should be used. Basic coating of itching priming to Galvanized and aluminium components to be given before painting.
 i) Colour scheme as per user approvals.
 j) Poly urethane baked paint system would be used.
18. **LUGGAGE CARRIER** : Luggage carrier would be provided on the roof and most modern detachable staircase will be fitted.
19. **VENTILATORS** : One ventilators each in saloon and driver cabin would be provided.
20. **BONNET INSULATION** : The bonnet will be insulated with sound deadener pads to reduce noise pollution in the driver cabin. It should be carved out of fibre reinforced plastic (FRP).
21. **FRONT AND REAR BUMPER** : The bumpers should be carved out of 3mm to 4mm thick fibre reinforced plastic and should be of most modern design.
22. **EXTERNAL ROOF** : This is to be of 1mm thick Galvanised Iron Sheet.
23. **SIDE BOX FOR SPARE** : The side box for spare wheel to be provided.

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| 24. DASH BOARD | : | Dash board should be in fibre reinforced plastic. |
| 25. FURNISHING | : | Special cares to be taken for interiors. Innovative type of interior with wooden furnishing should be done or some other suitable material |
| 26. FRONT SHOW | : | Elegant looking front show in Fibre Reinforced Panel material. |
| 27. CROSS BEARERS | : | Box type design for better stability and lower Centre of Gravity. of the vehicle should be done. |

Construction details on long chassis:

- | | | |
|------------------------|---|---|
| Structure
Hat | : | Pre-Treated Cold Rolled Cast (CRC) tubular & Rolled Sections. |
| External paneling | : | Upper Stretched panel 1.0 mm thick Galvanized Sheet & 2.0mm thick Aluminium Skirt panels. |
| Front and rear bumpers | : | 3mm to 4mm thick Fibre Reinforced Panel. |
| External roof | : | 1mm thick GALVANISED IRON sheet |

Interior:

- | | | |
|-------------------------|---|---|
| Internal side panelling | : | 6.0 mm Ply wood & 0.7mm G.I. POLY VINYL CHLORIDE (PVC) Laminated Sheet. |
| Roof paneling | : | Ply. Wood & Galvanised Iron. laminated sheet. |
| Floor | : | Aluminium Chequered plate 1.6mm, 12mm Thick Waterproof plywood. |
| Passenger door | : | Center door JK (Jack Knife) Pneumatic/ Power operated by the driver through push button. |

Standard features:

1. Curtains.
2. Fully adjustable driver seat.
3. Heavy duty wash & wipe system.
4. Fire extinguisher.
5. Fog lamps.
6. Wheel caps.
7. Sunvisor.
8. Fans.
9. Hat racks.
10. Emergency exit door – manually operated.
11. First Aid box.
12. Toilet (inlieu of 4 seats in 2x2)
(inlieu of 6 seats in 3x2)

Optional features:

1. Driver partition.
2. A.C. provision.
3. Luggage carrier.
4. Tinted glass.
5. TV VCR provision
6. Power passenger door.
7. Toilet
8. Reading lights above each twin seat, speakers, call bell switches.

Additional Fitment

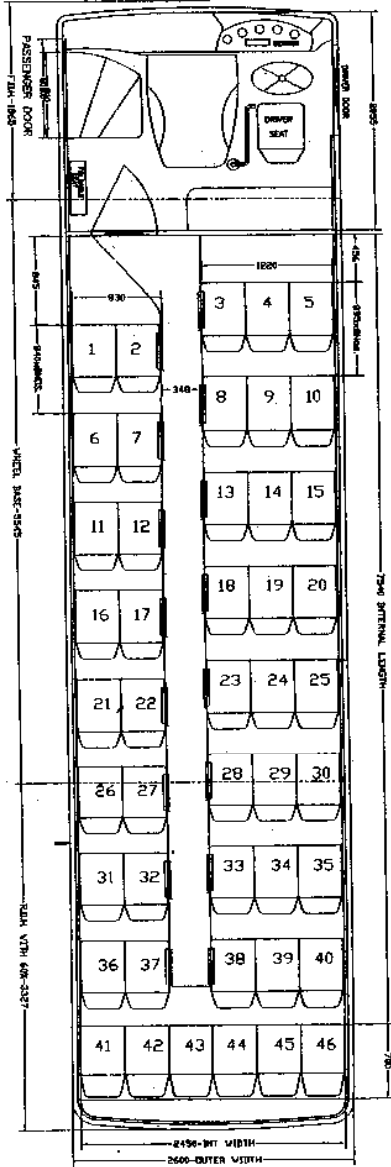
1. **Music** : One music system with FM facility with 4x2 speakers located in front and rear of bus body should be provided.
2. **Electric Buzzer**: One electric Buzzer located near the seat of driver and operated by at least four push buttons placed at suitable locations in passenger compartments should be provided.
3. **Drinking water**: A stainless steel drinking water of capacity 25 litres with tap and tumbler.
4. **Indicator space**: Prominent indicator space above the windshield should be provided to indicate destination or name of the Service.
5. **Bell Switch** : A bell switch positioned next to the door for prompting the driver to Stop the vehicle should be provided.
6. **Document Box**: A vehicle document box should be provided.
7. **Luggage cover**: Tarpaulin sheet to cover the roof luggage carrier.
8. **Parking**: The vehicle should have two parking chucks.

Modification for high altitude:

1. Hot air blowers for body space heating .
2. Insulated water tank.
3. Windscreen defogger blower.
4. Electrical sump heater.
5. Antiskid chains & provision for fitment.
6. Radiator thermal bypass valve.

NOTE: Construction should be as per layout enclosed for details

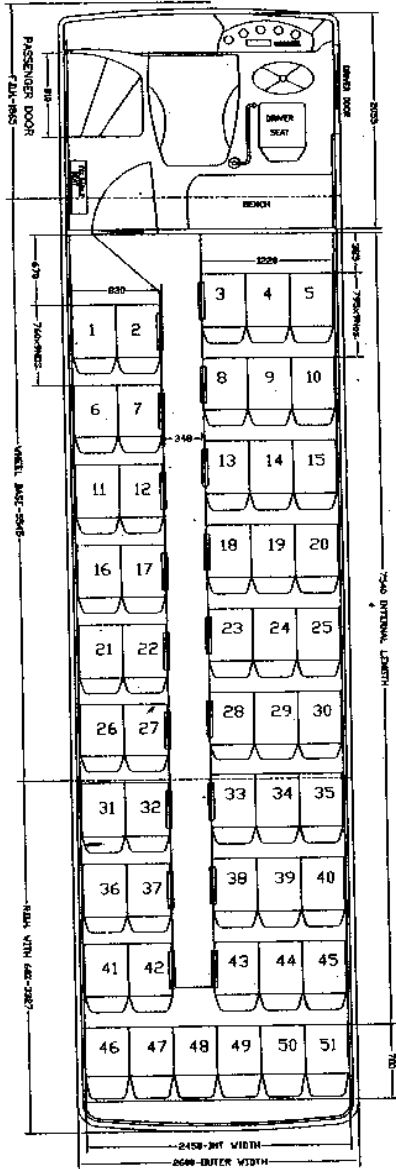
3X2 DELUXE PUSH CHAIR 4071



NOTE:-
 1) ALL DIMENSION ARE IN MM
 2) REMOVE ALL SHARP EDGES AND BURRS

S.No.	SPECIFICATIONS:	
1	LENGTH	10737MM
2	WIDTH	2600MM
3	HEIGHT	3300MM
4	WHEEL BASE	5545MM
5	R.O.H. WITH60%	3327MM

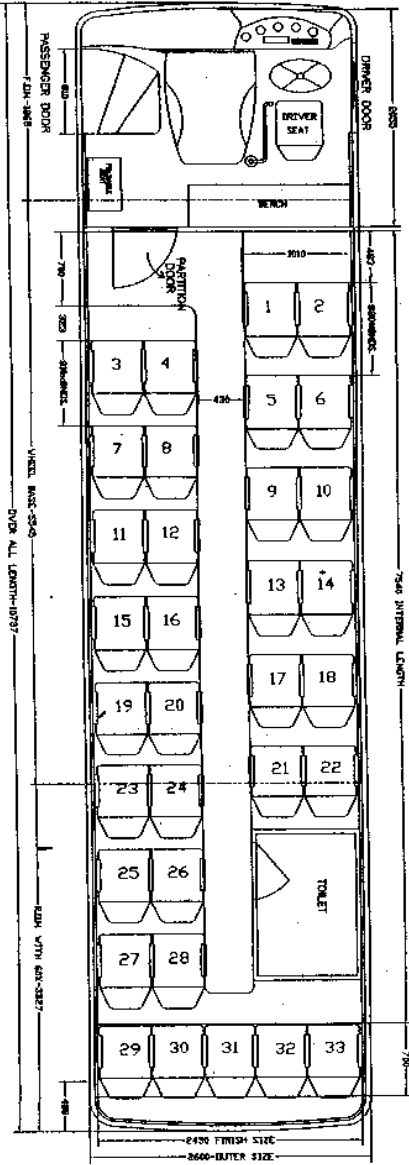
3x2 SEMI DELUXE FIXED 51+1



NOTE:-
 1) ALL DIMENSION ARE IN MM
 2) REMOVE ALL SHARP EDGES AND BURRS

S.No.	SPECIFICATIONS
1	LENGTH 10737MM
2	WIDTH 2600MM
3	HEIGHT 3300MM
4	WHEEL BASE 5545MM
5	R.O.H. WITH 60% 3327MM

ABTS PUSH BACK ZX2 33+1



NOTE:-
 1) ALL DIMENSION ARE IN MM
 2) REMOVE ALL SHARP EDGES AND BURRS

S.No.	SPECIFICATIONS
1	LENGTH 10737MM
2	WIDTH 2800MM
3	HEIGHT 3300MM
4	WHEEL BASE 5545MM
5	R.O.H WITH 60% 3327MM

MINUTES OF THE MEETING

MHA vide their U O note IV-17017/60/05-Prov.I dated 24-2-2006 has constituted a technical committee "Constitution of a Technical Committee for framing the QRs of bodies/bus/truck on medium and heavy category vehicle" of the following composition:

- | | | |
|----|-------------------------|----------|
| 1. | Director General, BPR&D | Chairman |
| 2. | ADIG(TPT), BSF. | |
| 3. | ADIG(MT), CRPF. | |
| 4. | DIG(Prov) ITBP. | |
| 5. | DIG(Adm), SSB. | |
| 6. | SSO (E), BPR&D. | Convener |

This final meeting of the committee was held in BPR&D Conference Hall on 22.5.2006 at 1100 hrs, Chaired by DG, BPR&D. The following officers/experts from CPMFs attended

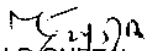
- | | |
|-----|---|
| I | Shri P. S. Sahrawat ADIG (Provisioning), CRPF, HQ |
| II | Shri L M Dabral, Dy. Comdt. BSF |
| III | Shri N G Gupta, AIG(Prov), CISF |
| III | Shri G R Marwaha, SSB |
| IV | MAJ. Sunil Kaushik, NSG |
| V | Shri Manish Kumar, Dy. Comdt, ITBP |
| VI | Mrs Vanita Yadav, SSO |

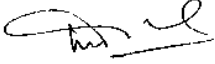
Shri R. C. Arora, Director (R&D) and Shri Sanjay Baniwal, Dy Dir (Dev) of BPR&D assisted the committee during their deliberations.

On the basis of detailed deliberations held in respect of each parameter, QRs were finalized for the following types of vehicles:-

- | | |
|----|---|
| A. | 6/9 KL WATER TANKER |
| B. | MINI BUS (SHORT CHASSIS) |
| C. | STANDARD BUS (LONG CHASSIS) |
| D. | HEAVY TRUCK |
| E. | TRUCK ONE TONNE (WINDOW GRILL TYPE/CANVAS TOP) |
| F. | AMBULANCE |

Agreed upon Qualitative Requirements are enclosed at Annexures A to F.


(N.G. GUPTA)
AIG (Prov) CISF


(L M DABRAL)
Dy. Comdt. BSF

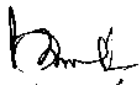

(MANISH KUMAR)
Dy. Comdt. ITBP



(P-S SAHRAWAT)
ADIGP, CRPF


(MAJ. SUNIL KAUSHIK)
NSG


(G R MARWAHA)
SSB


(R C ARORA)
IG/BPR&D


(SANJAY BANIWAL)
DIG/DD, BPR&D


(VANITA YADAV)
SSO (E)


(N C JOSHI)
DG/BPR&D
CHAIRMAN