

Technical specification for supply of chassis & MMU body fabrication & fitment/installation of equipment:-

1. The vehicle chassis model specification should be of current be of current DGS&D rate contract of DGS&D rate contract in between 2010-2012 whichever is latest.
2. Vehicle chassis model should be of standard chassis manufacture & engine & gear box of reputed make & capacity & should be suitable for complete MMU & also confirm to BS II/III specification fitted with power steering. Vehicle engine's power should not less than 80 BHP & gear box should have synchromesh gears (5 gears minimum) & the GVW should not be less than 6000kg. the vehicle should have aerodynamic design for better operation.
3. Vehicle should have suitable vehicle engine operated compressor Air conditioning system with inbuilt heating system & A.C. (Split type) should be of reputed manufacturer like Carrier, Voltas, Lloyd, etc. Air conditioning system should maintain the temperature suitable for MMU & insulation material (theromocal) should be used of density 14-16 kg/m³. Air conditioner should be properly placed in MMU. So that complete MMU maintains the uniform temperature i.e. up 25^o± 3^oC.
4. Vehicle wheel base should be between 3800mm to 4400mm so that after fabrication work, the working space (Excluding cabin) should be available in be between 17' to 22' in length & height should not be less than 6.5'.
5. MMU vehicle should have enough space for all equipments/gadgets installed in the vehicle & necessary platform to be provided for installation-fixing of equipments & movement of patient & staff. MMU should have capacity to accommodate 09 persons.
6. A separate dark room to be provided in the vehicle & lead lining as per AERB guidelines (Equipment Accessories for the dark room will be supplied by deptt.)
7. All structures to be fabricated with proper size of M.S. sheet, Angles, Channel etc. Outer paneling of the body should be of galvanized steel with minimum joints. Suitable insulation to be provided between outer & inner panel & roof Flooring should be done by marine water proof plywood with vinyl flooring. Fabrication work should be of standard quality & with proper finishing. All equipment to be fixed properly & concealed when not in use. Body of the vehicle to be fabricated by tubular structure of 40x40 or 60x40mm & confirm to IS & floor's structure should be of minimum channel size 75x40mm & outer paneling should be done with galvanized steel sheet of 18 or 20 SWG or Imm thick & inner paneling to be M:S. cold rolled sheet or laminated aluminum sheet of 18/20 S.W.G. Vinyl flooring to be done (1.6 to 2.00mm size) on 12mm plywood floor. Provide air exhaust system (vents) for proper air circulation & overhead shelves for proper storage.
8. Minimum 2 nos. doors are to be provided, one at rear side & another at one side, having good quality heavy duty hinges. Foldable ramps are to be provided for rear door & foldable steps for side door & door for D.G. Set with sliding mechanism. Suitable size of windows are to be provided with toughened dark tinted glasses. Door sizes should be of approx 6'. Length & 2^{1/2}, Approx. width. Front wide shield glass should be of 5.5 mm approx. laminated (single piece) & straight & curved glass for windows of 5.00 mm size toughened. Curtains & Curtain rods are to be provided. Tents & poles are to be supplied with hooks on top of body for waiting space. Lights to be provided in 3 sides of vehicle.
9. Complete vehicle should be water proof & there should be no leakage & anti corrosion treatment is to be provided & best quality paint is to be used.
10. Portable D.G. Set of 5.5 KV A capacity to be supplied of standard manufactures & fitted properly in vehicle with sliding mechanism for taking it out if required. Good quality of switch boards, switches are to be provided. Additional wire loom to be provided for external use of electricity. Vehicle should be capable to bear the load capacity of all equipments. Electrical system should have 12v/24v battery & alternator not less, than 55 amp. A control

panel with. MCCB, changeover switch is to be provided for electric system for D.G. set & direct supply. Separate switchboard & connection are to be provided for main A.C. & D.C. supply. Lights should provide better visibility & elect. Fitting should confirm to CE standards. A suitable invertors system to be provided. One small fridge to be provided below the table of equipments. Space to be provided for another D.G. set for future (5.5 KVA capacity).

11. Vehicle should be complete in all respect for registration purpose like lights, number plates etc.
12. Following equipments are to be fitted in the vehicle, so necessary out line of the plan to be provided by the bidder. Equipments will be supplied by the Department for their fitments in MMU. Tentative plan of equipments to be fitted is enclosed, which can be changed according to the size of chassis & size of equipments by taking approval for committee.
 - (a) X-ray machine, X-ray view screen, dark room accessories & Automatic Film Processor
 - (b) Semi auto analyzer
 - (c) Centrifuge machine
 - (d) Binocular Microscope
 - (e) Portable 3 channel ECG.
 - (f) Folding scoop stretcher etc.
13. Firm should provided wash basin, suitable water tank 100 liter approx, ward robes for storage purpose towel/stand, mirror soap stand, waster system, fans 4-6 nos., bell, siren, light/blue on top, roof lights as per requirement, public address system, fire extinguisher 02 nos., first aid box, needle cutter, Dr. Chair 02 nos., stool revolving (02 nos.), one wheel chair, one oxygen cylinder, chair 08 nos. plastic etc.
14. The roof top have facility to install V-set antenna in future.
15. Fabrication work will be checked by a committee during the fabrication work thrice. Modification in arrangement of equipments installation will be allowed by the technical committee. Equipments to be installed properly so that no damage occur during the traveling.
16. Deptt. name should be mentioned on both side of vehicle & also name of fabricator to be mentioned on body of vehicle. NRHM monogram to be written on vehicle.

Terms & Conditions:-

1. Firm will submit the same literature/leaf lets brochures, of models of the manufacturer, which they have quote their offers.
2. Firm should submit the experience certificate of fabrication work of vehicle/MMU/ Ambulance etc. Firm/bidders should have experience of A.C. vehicles fabrication.
3. The firm should submit the list of clients to whom they have supplied such vehicle & also performance report for clients if received any.
4. ISO certificate to be provided for fabrication work of vehicle MMU.
5. **Inspection** : During fabrication, inspection will be done at 3 stages by a committee and at final stage shower test has to be conducted for any leakage.
6. **Sample**: Lowest bidder has to supply first MMU as sample for approval & if required by a committee, suitable changes may be allowed.
7. All welding joints should be of mig welded. Length of welding should be not less then 25mm at equal pitch.
8. Wherever painting is required is P U paint of good quality has to be use for example Asian paint, SD or equivalent.
9. Stick ring approximately 100sq. feet as per the requirement and direction of NRHM has to be done.