

**F/No-27/1357(CV)/2013/TPT/BSF/MHA/Prov-I**  
**Bharat Sarkar/Government of India**  
**GrihaMantralaya/Ministry of Home Affairs**  
**PM Division/Prov.I Desk**

**26, Man Singh Road, Jaisalmer House**  
**New Delhi, Dated 12<sup>th</sup> May, 2015**

To,

DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

**Subject: QRs and Trial Directive for Camel Van.**

Sir,

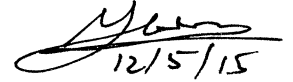
The QRs and Trial Directives in respect of Camel Van as per Annexure have been accepted by the Competent Authority in MHA.

2. The CAPFs concerned will be accountable for correctness of the QRs/Trial Directives

3. Henceforth, all the CAPFs should procure the above item required by them strictly as per the laid down Technical Specifications/QRs.

Yours faithfully,

Encl: as above

  
12/5/15

(M. K. Chahar)

Under Secretary to the Govt. of India

Tel: 23381278

Copy forwarded for necessary action to :-

SO (IT), MHA : It is requested to host the QRs and Trial Directives (soft copy attached) on the MHA website (under the page of Organizational Set up- Police Modernization Division- Qualitative Requirement under Vehicle Equipments.



( R.K. Soni)

Section Officer (Prov-I)

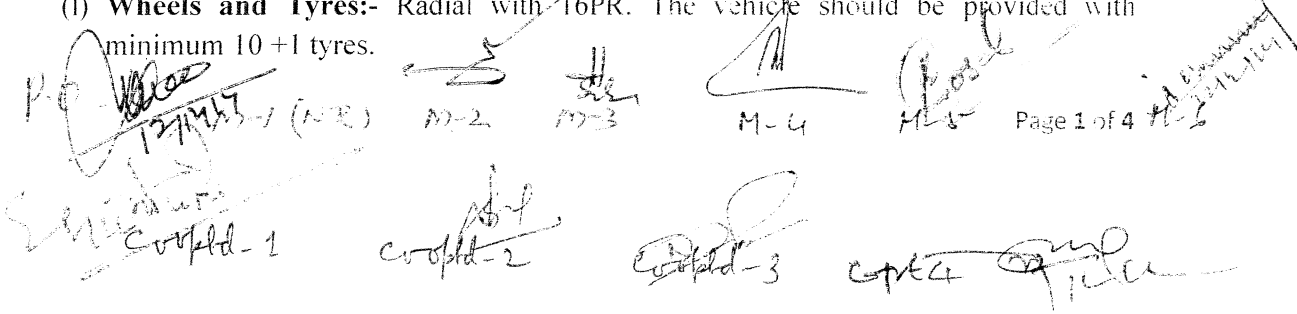
Copy to: DDG (Procurement), MHA.

TECHNICAL SPECIFICATION OF CAMEL VAN1. Performance Specification:-

- a) The camel van shall be required to carry camels from far flung border areas of state of Rajasthan and Gujarat to various places in the country including Delhi.
- b) Besides the driver, the vehicle should be able to carry 4 camels in sitting positions along with sufficient fodder, camel handlers and other accessories required for the camels.
- c) Beside the normal areas the camel van shall be able to transport camels in the cross country and sandy areas of Rajasthan and Gujarat

A. Prime Mover :-The prime mover shall have the following specifications:-

- (a) **Engine:** Intercooled ,**Turbo charged diesel engine** of ISUZU/ BEML / TATA/ Kirloskar, Cummins OR of any reputed make conforming to ARAI / BIS / BS / SAE standards. The engine should conform to BS-III or better emission norms.
- (b) **Engine HP:** Not less than 175 HP.
- (c) **Torque** : Not less than 650 Nm at 1500 rpm (+\_100 rpm)
- (d) **Clutch** :- Single dry plate, hydro pneumatically operated.
- (e) **Transmission:** - i) The camel van should have minimum 5 forward and 1 reverse gear. (Synchromesh at forward gears and constant mesh at reverse gear.)  
ii) The chassis should have minimum 3 axles with 02 Nos live rear axles.
- (f) **Brakes** :- i) **Service Brake** : Dual circuit full air with ABS  
ii) **Parking Brake:** Spring actuated on rear axle (Compatible with service brake)  
iii) **Engine Exhaust:** Compatible to the service brake
- (g) **Suspension: Front** : Semi elliptical leaf spring with heavy duty double acting shock absorbers.  
**Rear** : Semi elliptical inverted leaf spring on tandem bogie type with heavy duty double acting shock absorbers.
- (h) **Steering system** : Integral power steering with adjustable steering wheel
- (i) **Minimum ground clearance:-** Not Less than 250MM
- (j)
- (k) **Electrical system:** 24 V, with 2x12v. 100 Ah Battery. 45 A alternator. The battery should be maintenance free and of reputed make.
- (l) **Wheels and Tyres:-** Radial with 16PR. The vehicle should be provided with minimum 10 +1 tyres.

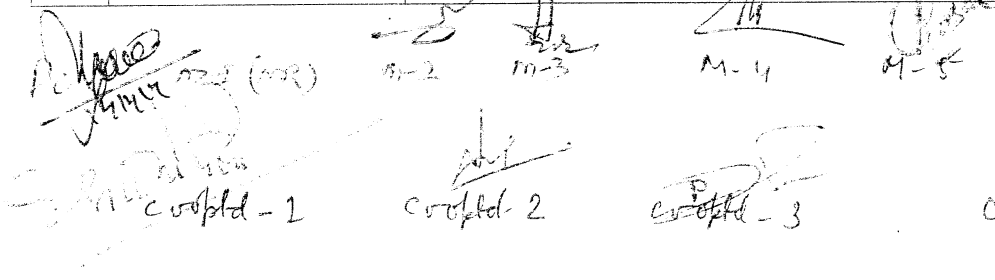

  
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- (m) **Fuel:** (i) The camel van shall be compatible to ply on Indian fuel (diesel).
- (ii) The capacity of fuel tank shall not be less than 350 liters.
- (iii) The vehicle should be able to attain a range of minimum 700 Kms without refuelling with full load once fuel tank is full
- (n) **Frame:** The chassis frame shall be heavy duty Ladder type with adequate cross members to provide strength to the frame.
- (o) **Speed:** Not less than 70 KMPH (Top gear) on black top road.
- (p) **Gradeability :** Not less than 15 %
- (q) **Cabin:** Full forward dual sleeper type cabin to accommodate 4 camel handlers, besides the driver and co-driver.
- (r) The cabin should be tilted for better access. All the seats, accessories, fitments in the cabin should be of standard / reputed make. Cabin light should be provided. One observatory glass window of suitable dimension shall be provided at an appropriate place of the cabin to supervise the camels inside their carrier.
- (s) **Instruments / Gauges/ Meters.** All the meters/ gauges/ instruments fitted in the driver's cabin should be understandable and in excellent working condition. The camel van shall be fitted with adequate lights, indicators as per traffic norms.
- (t) **Turning Circle Diameter :-** Not More than 23.5 meters

PO :	R P S Malik, DIG BSF SRO 17/1/14	M-1	Rep of CRPF not reported.
M-2	Sant Ram, DC, CISF	M-3	Hardeep Singh, AC, ITBP
M-4	Th. Binod Kr Singh, AC, SSB	M-5	Dr. M M Gosal, Dy. SP (T), BPR&D
M-6	Chetan Sanyal, Team Comdr NSG	Co-opted Member-1	Dr M R Popli, Comdt(Vet) BSF
CO- optd M-2	Jasbir Singh, DC(MT) SHQ Bhuj	CO-optd M-3	Nitish Dhiman, DC, SHQ Shillong
CO- optd M-4	B L Sankhla, DC, STC Jodhpur		

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B) SPECIFICATION OF LOAD BODY/CAMEL CARRIER		
01.	Application	To transport 04 camels in sitting position along with accessories and fodder.
02	Dimensions	a) Length -Not less than 27feet b) Width- Not less than 8 feet c) Height- Not less than 7 feet
03	Body fabrication material	a) The side wall of the camel carrier shall be fabricated with minimum 3mm MS sheet or 12 SWG. The body of the camel carrier should be of robust construction b) One Door shall be provided on front left side of the camel carrier so that a handler can attend the front camel through this door.
04	Floor	a) The floor shall be full width flat, constructed of 4mm thick SS sheet. Above the SS sheet, anti-skid wooden ply of minimum 12 mm thickness shall be laid to absorb the heat. b) 6" thick coir mat shall be provided over the floor for below belly comfort of the camel. The coir mat shall be constructed of removable sections so that the same can be washed/ cleaned as and when required. c) Minimum 02 drain nuts shall be provided to drain the water from the floor.
05	Essential Features	a) Space for storing ( Approx 150 Kgs )feed and fodder shall be provided preferably atop the driver's cabin or any other appropriate place as per the design of the manufacturer. b) Adequate space shall be provided in the camel carrier body for storing the saddlery / accessories of the camels. c) 03 windows of 2'x2' side on each side of the body shall be provided at an appropriate place to ensure proper ventilation. Adequate arrangement shall be made to open /close the window. Wire meshing shall be provided at the windows. d) 04 ring of stainless steel for camels (02 rings on right side and 02 on left side wall) shall be provided at the height of 4' from the platform to tie the reins of each camel. e) Space for animal first aid box shall be provided. f) Light Rubberised padding up to the height of 4' shall be provided on inner side walls and over sharp edges inside the carrier. g) Adequate lighting arrangement shall be made inside the camel carrier for management of camels during the night time/ journey. k) One exhaust fan on each side shall be provided. l) One Water tank of minimum 300 Litres capacity shall be provided in the camel van to store drinking water for the camels. m) All inner body finishing should be of highly antirust stainless steel and hard aluminium sheet where ever applicable.


  
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06	Roof	a) Detachable/ Removable angles at a distance of 2' to be fitted horizontally over both sides shall be provided on the roof to put the tarpaulin as and when required. The angles shall be provided angular slope to drain down the rain water from the roof.
07.	Back Door cum Ramp	Back door of the camel carrier shall be foldable so that it can be used as ramp also. The height of the door shall be 8' (i. e 2 folding sections of 4 feet each.). The ramp should be of anti-skid material.) 02 additional detachable stabilizers posts shall be provided at appropriate place to provide additional strength to the ramp.
08.	Warranty	24 Months from the date of delivery.

PO :	R P S Malik DIG BSF SRO	M-1	Rep of CRPF not reported.
M-2	Sant Ram, DC, CISF	M-3	Hardeep Singh, AC, ITBP
M-4	Th. Binod Kr Singh, AC, SSB	M-5	Dr. M M Gosal, Dy. SP (T), BPR&D
M-6	Chetan Sanyal, Team Comdr NSG	Co-opted Member-1	Dr M R Popli, Comdt(Vet) BSF
CO-optd M-2	Jasbir Singh, DC(MT) SHQ Bhuj	CO-optd M-3	Nitish Dhiman, DC, SHQ Shillong
CO-optd M-4	B L Sankhla, DC, STC Jodhpur		

~~Approved / Not Approved~~

  
 K.K. SHARMA  
 (D.K. PATHAK, IPS)

DG, BSF

**TRIAL DIRECTIVE FOR CAMEL VAN**

**APPENDIX 'D'**

Date of Trial .....  
 Time of Trial .....  
 Place of Trial .....  
 GR of Trial Area ..... (Clear/cloudy/Partially cloudy/Hot and Humid/rainy/Foggy and Humid/Soft Snow or Hard Ice)  
**(D) TECHNICAL PARAMETERS**

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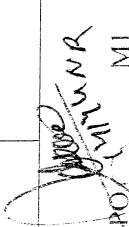
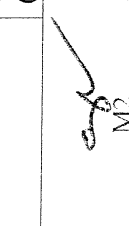
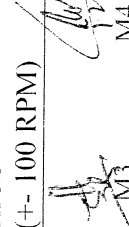

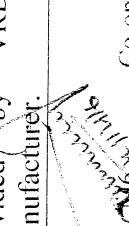
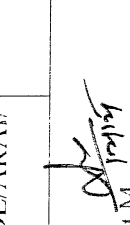
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Sr No	Specification	Parameter	Procedure Suggested for Trial	Result expected/desired
1	Performance	The camel van shall be required to carry camels from border areas of Rajasthan and Gujarat to various places of the country including Delhi.	The vehicle will be employed for the work of carrying the camels physically to a calculative distance.	The equipment should be able to perform all the specified jobs.
2	Engine Make	Intercooled, turbo charged diesel engine of ISUZU/ BEML / TATA/ Kirloskar, Cummins OR of any reputed make conforming to ARAI / BIS / BS / SAE standards. The engine should conform to BS-III or better engine norm.	Based on the certificates provided by VRDE/ARAI/Manufacturer.	It should meet the desired Parameters.
3	Engine power	Not Less than 175 HP	Based on the certificates provided by VRDE/ARAI/Manufacturer.	It should meet the desired Parameters.
4	Fuel	Diesel	The fuel at any port will be checked	It should be diesel. The vehicle should be compatible to Indian fuel.

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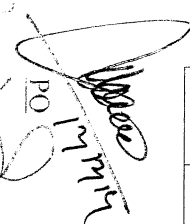
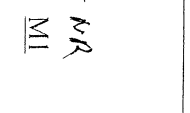
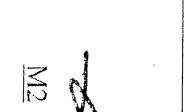

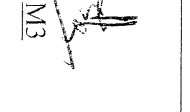



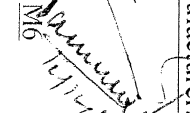


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5	Transmission	Minimum 5 FWD and 1 reverse gear with 4WD ii) The chassis should have minimum 3 axles with 02 Nos live rear axles.	The equipment will be driven in all the gears.	Should be as per the QRs.
6	Steering System	Integral Power Steering with adjustable steering wheel.	The vehicle will be driven and turned right /left.	The Operator should be able to turn the equipment with ease.
7	Brake System	1. Service brakes : dual circuit full air with ABS. 2. Parking brakes: spring actuated on rear axle. 3. Engine exhaust: compatible to the service brakes.	The brakes shall be applied on the vehicle. The parking brakes shall be applied while parking the vehicle on a slope between 5 to 10 degree.	It should be able to stop the vehicle properly and effectively
8	Suspension	<b>Front</b> : Semi elliptical leaf spring with heavy duty double acting shock absorbers. <b>Rear</b> : Semi elliptical inverted leaf spring on tandem bogie type with heavy duty double acting shock absorbers.	As per the certificates provided by the manufacturer and physical inspection by a BOO.	It should be as per the QRs/ as mentioned in the technical specification.
9	Ground Clearance	Should not be less than 250 mm	As per the certificates provided by the manufacturer and physical inspection by a BOO.	It should not be LESS than the measurement specified.
10	Torque	Not less than 650 nm at 1500 RPM (+/- 100 RPM)	Based on the certificates provided by VRDE/ARAI/Manufacturer.	It should be within the desired Parameters.

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11	Speed	Not less than 70 km ph (top gear).	The speed of the vehicle shall be physically tested with full load on it.	It should fulfil the desired parameters.
12	Wheels and tyres	10 + 1 tyre of 16 PR	As per the certificates provided by the manufacturer.	It should fulfil the desired parameters.
13	Electrical System	24 volt with 2x 12 v, 100 AH battery, 45 A alternator.	As per the certificates provided by the manufacturer.	It should be as per desired parameters
14	Instrument Panel	All devices, meters fitted on instrument panel should be in excellent working condition, readable and understandable.	The devices will be checked physically	All devices, meters fitted on instrument panel should be in excellent working condition, readable and understandable.
15	Lights	All the lights fitted on the equipment should be functional	All the lights will be switched on	All the lights will be in excellent functional condition.
16	Frame	The chassis frame shall be heavy duty ladder type with adequate cross members to provide strength to the frame.	As per the certification provided by the manufacturer.	As per the desired parameters.
17	Gradeability	Not less than 15 %	Based on the certificates provided by VRDE/ARAI/Manufacturer.	As per the desired parameters.

  
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18	Cabin	Full forward dual sleeper type cabin to accommodate 4 camel handlers, besides the driver and co-driver	Will be checked by physically accommodating the required no of persons.	As per the desired parameters.
19	Instruments/gauges/meters	All the instruments /gauges and Meters fitted in the drivers should be in excellent working condition.	All the fitments shall be physically checked for operation.	All the gauges should be in excellent working
20	Turning Circle diameter	Should not be more than 23.5 meters	The vehicle shall be driven in circle and diameter shall be taken accordingly. And also based on the certificates provided by VRDE/ARAI/Manufacturer.	It should be as per the QRs

**SPECIFICATION OF THE CAMEL COMPARTMENT**

1	APPLICATION	To transport 04 camels in sitting position along with accessories and fodder.	04 Camels shall be physically loaded in the vehicle alongwith accessories/ saddler items.	It should be able to carry 04 camels comfortably
2	DIMENSIONS	a) Length -Not less than 27feet b) Width- Not less than 8 feet c) Height- Not less than 7 feet	Shall be measured physically by the BOO	It should be as per the QRs

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3	BODY FABRICATION MATERIAL	<p>i) The side wall of the camel carrier shall be fabricated with minimum 3mm MS sheet or 12 SW/G. the body of the camel carrier should be of robust construction</p> <p>ii) One door shall be provided on front left side of the camel carrier so that a handler can attend the front camel through this door.</p>	Shall be checked physically and as per the certification of the manufacturer	It should meet the specified QRS
4	FLOOR	<p>a) The floor shall be full width flat, constructed of 4mm thick SS sheet. Above the SS sheet, anti-skid wooden ply of minimum 12 mm thickness shall be laid to absorb the heat.</p> <p>b) 6" thick coir mat shall be provided over the floor for below belly comfort of the camel. The coir mat shall be constructed of removable sections so that the same can be washed/ cleaned as and when required.</p> <p>c) Minimum 02 drain nuts shall be provided to drain the water from the floor.</p>	Shall be checked physically and as per the certification of the manufacturer	It should meet the specified QRS

*[Handwritten signatures and initials]*  
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5	ESSENTIAL FEATURES	<p>a) Space for storing ( approx 150 kgs ) feed and fodder shall be provided preferably atop the driver's cabin or any other appropriate place as per the design of the manufacturer.</p> <p>b) Adequate space shall be provided in the camel carrier body for storing the saddlery / accessories of the camels.</p> <p>c) 03 windows of 2'x2' side on each side of the body shall be provided at an appropriate place to ensure proper ventilation. Adequate arrangement shall be made to open /close the window. Wire meshing shall be provided at the windows.</p> <p>d) 04 ring of stainless steel for camels (02 rings on right side and 02 on left side wall) shall be provided at the height of 4' from the platform to tie the reins of each camel.</p> <p>e) Space for animal first aid box shall be provided.</p> <p>f) Light rubberised padding up to the height of 4' shall be provided on inner side walls and over sharp edges inside the carrier.</p>	It should meet the specified QRs	Shall be checked physically and as per the certification of the manufacturer
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	<p>g) Adequate lighting arrangement shall be made inside the camel carrier for management of camels during the night time/journey. k) One exhaust fan on each side shall be provided.</p>		
6	<p>ROOF Detachable/ Removable angles at a distance of 2' to be fitted horizontally over both sides shall be provided on the roof to put the tarpaulin as and when required. The angles shall be provided angular slope to drain down the rain water from the roof.</p>	<p>Shall be checked physically and as per the certification of the manufacturer</p>	<p>It should meet the specified QRS</p>
7	<p>BACK DOOR CUM RAMP Back door of the camel carrier shall be foldable so that it can be used as ramp also. The height of the door shall be 8' (i. e 2 folding sections of 4 feet each.). The ramp should be of anti-skid material.) 02 additional detachable stabilizers posts shall be provided at appropriate place to provide additional strength to the ramp.</p>	<p>Shall be checked physically and as per the certification of the manufacturer</p>	<p>It should meet the specified QRS</p>
8	<p>WARRANTY 24 Months from the date of delivery.</p>	<p>As per terms and conditions of separate agreement on guarantee/warranty</p>	<p>Approved / Not Approved</p>

  
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Approved / Not Approved  
 J. K. SHARMA  
 (D. K. PATIL, I.D.S)  
 DG, BSF

CAPT. P. K. ...  
 ...