

**MUMBAI METRO RAIL CORPORATION LIMITED**

**Mumbai Metro Line-3 Project**

**IFB No: MM3-CBS-DEQ-9-04**

**Design, Manufacture, Supply, Installation, Testing & Commissioning of Rescue Vehicle (Rail cum Road**

**Response to Bidders' Queries (SET-3)**

Sr. No.	Part No. & Section No.	Clause No.	Page No.	Bidding Document Clause Description	Bidder's Query /Clarification	MMRC Response
1	Part 2 Section VI-B	3.3.19 c) (Refer Sr. No. 8 of Addendum No. 2	20 of 21	c) The hydraulically operated cutters and spreader shall be provided with a suitable capacity power pack of 4-stroke petrol engine for the use of two rescue devices at a time with maximum operating pressure of 630 bar and weight shall not be more than 30 kg.	c) The hydraulically operated cutters and spreader shall be provided with a suitable capacity power pack of 4-stroke petrol engine capable of developing adequate hydraulic pressure and pulsation free flow to operate minimum two hydraulic rescue devices at a time at high pressure for performing rescue operations. The pump shall be two stage /three stage for low and high-pressure outputs. Working Pressure of 700Bar + 3% and Weight shall not be more than 25 Kg	<b>Please refer Sr No 1 of Addendum No 4.</b>
2	Part 2 Section VI-B,	3.3.19 (a) (Refer Sr. No. 7 of Addendum No. 2	19 of 21	a)Rescue devices shall comprise the following items: i. Hydraulically Operated Cutter of Cutting Force 1100 kN minimum. ii. Hydraulically Operated Spreader of Spreading Force ranging from 52 kN to 670 kN. These shall be suitable for working on Rolling stock of Mumbai Metro Line 3 made of Stainless Steel to specifications SS301LN. The Contractor shall interface with the Rolling Stock Contractor for details. The weight of each of these devices shall be less than 20 kgs.	a) Rescue devices shall comprise the following items: i. Hydraulically Operated Cutter of Cutting Force: 550 kN (min), Weight 10 Kg (max). ii. Hydraulically Operated Spreader of Spreading Force: 275 kN (min), Weight 15 Kg (max)..	<b>Please refer Sr No 2 of Addendum No 4.</b>
3	Part 2 Section VI-B	3.3.19 (a) (Refer Sr. No. 7 of Addendum No. 2	19 of 21	(a) Hydraulically spreader of spreading force ranging from 52kN to 670 kN	Hydraulically spreader of spreading force ranging from 52kN to 658 kN	<b>Please refer Sr No 2 of Addendum No 4.</b>
4	Part 2 Section VI-B	3.3.20 (Refer Sr. No. 9 of Addendum No. 2	20 of 21	Manually operated light weight Combination Tool for cutting & spreading: A manually operated light weight Combination Tool for cutting & spreading with integrated pump shall be supplied for emergency operation when hydraulic and or battery operated rescue equipment fails. This shall be suitable for working on Rolling stock of Mumbai Metro Line 3 made of stainless steel to specifications SS301LN. The contractor shall interface with the Rolling stock contractor for details.	Manually operated light weight Combination Tool for cutting & spreading: A manually operated light weight Combination Tool for cutting & spreading with integrated pumo shall be supplied for emergency operation when hydraulic and or battery operated rescue equipment fails shall be of following parameters: <b>1.Cutting Force of Combination Tool: 260kN 2.Spreading Force of Combination Tool: 405kN 3.Weight approx.- 12 kg</b>	<b>Please refer Sr No 3 of Addendum No 4.</b>
5	Part 2 Section VI-B	3.3.18 (Refer Sr. No. 6 of Addendum No. 2	19 of 21, Part 2 Section VI-B	a)Airbags of following size and capacity shall be supplied:  i.Size (Approx.): (530 - 650) x (620 - 690) mm, Lifting capacity : 270 - 320kN, Lifting height : 350+/-10%  ii.Size (approx.):(750-950) x (850-950)mm, Lifting capacity: 670 - 700 kN, Lifting height 500 +/- 10% mm	a) Airbags of following size and capacity shall be supplied: i. Size (Approx.) : 608 x 530 mm, Thickness: 27 mm Lifting capacity : 270 - 320kN, Lifting height : 350 +/- 10% mm Quantity :2 Nos.  ii. Size (approx.) : 827 x 750 mm, Thickness:27 mm Lifting capacity: 600 - 700 kN, Lifting height: Min 450 mm Quantity : 2 Nos.	<b>Please refer Sr No 4 of Addendum No 4.</b>

*Tejaswini*  


6	Part 2 Section VI-B	3.2.7 (f)	12 of 21	Instruments: Brake fluid level	Brake fluid level is not applicable for our vehicle. Unimog is equipped with Air brakes. The air pressure will be monitored on the instrument panel.	<b>Please refer Sr No 5 of Addendum No 4.</b>
7	Part 2 Section VI-B	3.2.19	15 of 21	Coupling System	Please provide us the design/drawing of coupling system of RS/metro car enable our principal to design the required adaptor	Please refer Clause 2.3.1 and Appendix 5, Attachment: N1, of Section VI-A Employer's requirement. <b>Bid conditions prevail.</b>
8	Part 2 Section VI-B	3.3.8 (a)	18 of 21	Roller Carriage: (a) Roller Carriage shall have 60T capacity with removable top plates. The height shall be less than 110 mm (without plate)-140 mm (with plate) and the weight less than 60 kg (without plate)-85 kg (with plate). The width shall be less than 260 mm.	Roller Carriage: (a) Roller Carriage shall have 70T capacity with removable top plates. The height shall be less than 110 mm (without plate) and less than 140 mm (with plate) and the weight less than 50 kg with our without plates. The width shall be less than 380 mm.	<b>Please refer Sr No 6 of Addendum No 4.</b>
9	Part 2 Section VI-B	3.3.12 (b)	18 of 21	b): Holding Rope	Length & diameter of the holding rope should be mentioned/included. Length of Rope : At least 3m Diameter of holding rope: 32 mm.	Being an accessory, it shall be compatible and adequate to work with 3.3.16(a), (i). <b>Bid conditions prevail.</b>
10	Part 2 Section VI-B	3.3.16 (a)	19 of 21	a) Hauling Device, capacity 25 T shall be complete with accessories including following: i. Pulling jack: capable of giving Tractive power of 250 kN: 1 No.	(a) Hauling Device Capacity 22T shall be complete with accessories include following: i. Pulling Jack: capable of giving tractive power of 220kN & Stroke- 460 mm	<b>Please refer Sr No 7 of Addendum No 4.</b>
11	Part 2 Section VI-B	3.3.16 (a)	19 of 21	b) Ropes shall be of at least 10 mm diameter.	(b) LUKAS Standard dia. of Holding rope is 32 mm and diameter of Pulling rope is 25 mm, which are designed based on capacity/factor of safety required during operation. Hence, minimum dia. 10 mm is not advisable and need to be changed to 25 to 30 mm (approx.)	Being an accessory, it shall be compatible and adequate to work with 3.3.16(a), (i). <b>Bid conditions prevail.</b>
12	Part 2 Section VI-B	3.3.17	19 of 21	Compressor: (a) Engine: 1 Cylinder, 4 stroke engine with minimum 2.2 kW capacity.	Compressor: (a) Engine: 1 Cylinder, 4 stroke engine with minimum 1.5 kW capacity.	<b>Please refer Sr No 8 of Addendum No 4.</b>

