

SCOPE OF WORK

MANUFACTURE AND SUPPLY OF FABRICATED BOGIE SUB ASSEMBLIES WITH ROZ PRIMER PAINTING FOR DMC CAR – MEMU-3PH PROJECT:

I. Brief Scope of Work & Quantity:

SI. NO	PART NO	DESCRIPTION	QTY/ DMC (Nos)	QTY TO BE OUTSOURCED FOR 24 DMC CARS (12 Rakes)	SCOPE OF WORK
1	EMUM01020C1	Lower Spring Seat Assembly.	16	384	Manufacturing of Components, Fabrication, Machining and Supply of Sub Assembly with ROZ Primer Painting.

Note:

- Firm to supply Sub-Assemblies for one DMC Car to ascertain the fitment/ installation aspects before bulk supply.
- Manufacture & Supply of above Assembly should conform to Latest drawings and to the material specification/Standards/Test, indicated in the respective drawings is to be adhered/ ensured.

II. Detailed Scope of Work :

Scope of Work for Manufacture of Detailed Components:

- Cutting of Tube to be done by Saw Cutting only. Vendor shall submit a nesting plan to BEML for Approval before taking up for manufacturing.
- Dress, Grind and Debur cut edges of all detailed components and all edge preparation to be carried out by Machining only.
- Machining of Tube and Spring Seat (Forged) to be carried out as per drawing requirement. All machined surfaces to be protected from rusting by applying rust preventive oils and physical damages if any.

Scope of Work for Fabrication:

- Pressing of Tube and spring seat Using Hydraulic/Pneumatic Press as shown in drawing.
- Tack & Full welding to be carried out using appropriate fixtures during assembly stage as shown in drawing
- Leak test to be carried out for all sub assembly as specified in Drawing.
- Machining Viz., Facing, Turning, Boring, Chamfering and Honing etc., has to be carried out wherever required as per drawings.
- The assemblies shall be checked for its Dimensions & Inspected.
- All other dimensions / standards / specifications to be maintained / followed for all Subassemblies as per respective Drawings with latest alterations. Before starting the production, vendor should ensure to manufacture as per the latest drawing as and when it is updated.

Shot Blasting:

- Cleaning of the Surface of Components and Sub Assemblies with Pressurized Air/Emery paper to remove dust & Debris.
- Apply Rust Preventive Oil on the Machined Surfaces/Tapped Holes and Mask.
- Holes, Machined Surfaces to be masked to avoid entry of Paint or Shots.
- Shot/Abrasive blasting of Sub Assemblies to grade SA 2.5 of ISO 8501-1-1988.

ROZ Primer Painting:

- Check the Condition of Masked Areas and the Painting Equipment.
- Apply One Coats of Red Oxide Primer (ROZ - IS:2074-92) Primer Painting within 4 Hrs of Shot Blasting to arrest Rusting and Corrosion

III. Inspection & Clearance:

1. Any minor scope changes/Modifications if any, to be taken up by vendor.
2. Offer the Sub Assembly to BEML inspection/SIT and should carry out any modifications suggested by inspection/quality team.
3. The Vendor should maintain & provide Reports & Dimensional Check sheets to BEML/SIT.

IV. Delivery Schedule:

1. Above sub assemblies for 1 Car to be supplied as a set (One DMC Car) to BEML Bangalore Complex, after Inspection Clearance.
2. After Successful Installation of above Sub Assembly at BEML, Bulk Production to be taken up after obtaining Clearance from BEML Inspection Team & supplies to be made car wise.
 - DMC Sub Assemblies- 4 Cars/Month

V. SCOPE OF SUPPLY OF MATERIALS:

1. BEML Scope:

- a) Raw materials (Rounds/Tubes) in full Lengths.
- b) List of Bought out Items as per Annexure-A
- c) Applicable Drawings.
- d) Inspection Check Sheet

2. Vendor Scope:

- a) All welding consumables, Paint Materials, Oils, Lubricants, Grease etc
- b) Shots for Shot Blasting to grade SA 2.5 of ISO 8501-1-1988
- c) Material Specification for Welding consumables; Heat Resistant, Rust Preventive Oils & paints and its expiry details shall be furnished to BEML for approval before manufacturing of the first proto Sub Assemblies.

VI. General Notes to Comply:

1. Proper Fixture should be used for clamping & ensure proper seating, bed during Machining operation.
2. Self-Inspect the M/s BEML supplied materials before taking for transit damages, dents, distortions etc in detail and report should be submitted.
3. Ensure Material supplied by BEML are stored properly and damages due to poor & improper storage, workmanship etc. should be the responsibility of Vendor.
4. The Completed Assemblies should be returned back to BEML with proper packing.

LIST OF BOUGHT OUT ITEMS UNDER BEML SCOPE

Annexure-A

SI.NO	PART NO	DESCRIPTION	QTY/DMC
1	ICFSKFORGE01219P1	LOWER SPRING SEAT AS FORGED	16