

SCOPE OF WORK FOR LEAF SPRING AND C YOKE SUB ASSEMBLY

1. Scope of Work for vendor:

1. Assemble the Components as per Assembly Procedure mentioned in S.No 4 of this document.
2. Accessories like coveralls and safety kits etc. are to be arranged by the Vendor.
3. The firms shall arrange their chipping & grinding tools required to carry out the above activity.
4. Vendor has to make own arrangements and ensure workers are wearing necessary safety items (i.e. Nose mask, Rubber Gloves, and shoes).
5. Vendor has to ensure optimum utilization of material provided by BEML.
6. Keeping the place clean & orderly is also the responsibility of Vendor.
7. Work has to be carried out inside BEML Ltd, EMD Complex factory premises.
8. The completed work / stage have to be offered after work completion to BEML QC for clearance.
9. Vendor has to fulfill other statutory requirement as per procedure of the company.
10. Activities to be carried out on two shift basis. If required on 3rd shift and on Sundays / Holidays also.
11. Adequate man power should be deployed to have an average output of 40 equipments per month (Considering peak production). The contractor should also deploy additional man power in case of exigency and Sundays / Holidays / Leaves / Absenteeism.
12. If there is any change in production plan / dispatch plan, accordingly sufficient additional man power should be deployed by the contractor as directed by shop in – charge.
13. One supervisor with good writing and communication skills must be deployed in each shift to maintain records of works to be carried out on priority given by BEML representative. He should update the progress & maintain certified data sheets. Vendor supervisor should co- ordinate with shop- in - charge or Quality Inspector to fulfill the BEML process requirements.
14. After Assembly activity, the waste materials such as packing materials etc. should be collected & dumped at identified place for easy disposal.
15. It is the responsibility of the contractor to keep the work area clean & tidy.
Contractor should take necessary measures to avoid wastage of consumables such as grease, compressed air, water and other items.

2. BEML Scope:

1. BEML will provide a space at Defence Hangar/ Hull Shop for keeping materials and consumables.
2. BEML will provide the facilities like welding set, crane, compressed air, electricity and lighting.
3. All material required for assembly will be provided by BEML.
4. The necessary movements of material/ vehicles to facilitate activities will be assisted by BEML.

3. Inspection / Clearance:

1. All Assemblies/ Sub Assemblies will be certified by BEML quality inspector and production in-charge (at sub structure level, assembly level).
2. BEML reserves the right to ask the vendor to reverse the assembly activity and carry out the same operation afresh if the subject sub assembly or assembly gives a problem during the equipment assembly or testing. In that case if the problem is attributed to the improper assembly by the vendor then the vendor cannot claim any charges for subsequent disassemblies and assemblies.

3. Any rework carried out based on inspection feedback should be as per rework procedure mutually agreed between vendor, BEML Quality and BEML R&D.
4. The firm shall provide adequate supervisors (minimum one person) to carry out the assigned jobs flawlessly and co- ordinate with BEML officials for the day to day operation.
5. Vendor should maintain record of raw material collected from BEML Reps for making assemblies and also the finished assembly handed over back to BEML Rep with necessary signature.
Any loss of items, damages caused by vendor, issued from BEML, will be subjected to deduction of equivalent cost from the vendor payment.

4.SCOPE OF WORK FOR ASSEMBLY OF LEAF SPRING

A) LEAF SPRING ASSEMBLY Scope per assembly:

Technical Details as per Drawing No: 442075990244

Place spring leaves or a new leaf spring into the leaf spring clip 1 and set into a centre.

Note:

A new leaf spring is delivered being clamped with a clip. When the leaf spring is installed into a clamp, partially compress the leaf spring under a press and remove the clip.

Carry out the inspection of the leaf springs position so that you measure the distance from the spring leaf end to the spring clamp centre on last two longest spring leaves. Measure it on both ends of the leaf spring. The difference of the measured values must not exceed 10 mm. If need be, check the position of all spring leaves.

Compress the Spring Leaves in the Leaf Spring Clip, by manually tightening the bolts Item no (3) along with Clamping Washer (2) and Washer (4).

Tighten bolts 3 to the torque of 280 ± 30 Nm.

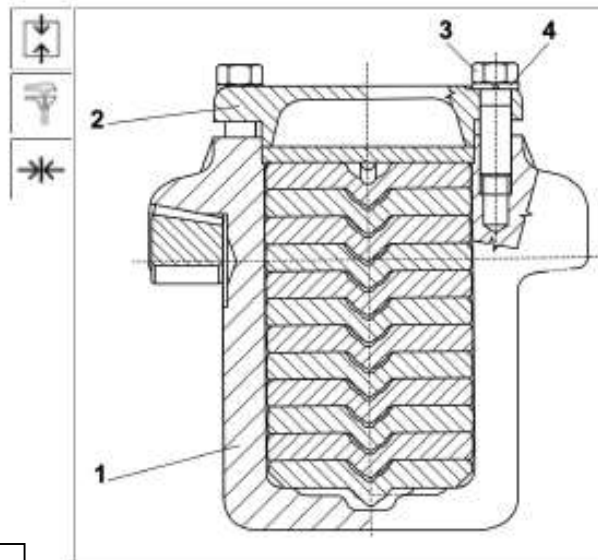


Fig. 8.35 Leaf spring in the clip - installation

Quantity as per Scope:

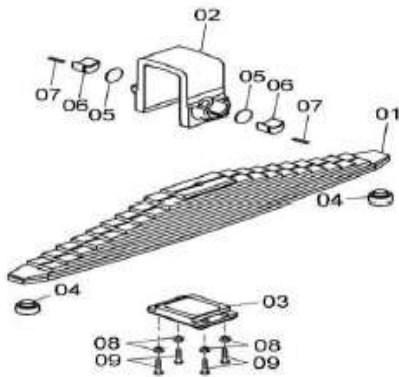
1 nos of Leaf Spring Assy

Leaf Spring is part of suspension system of BEML TATRA vehicles :



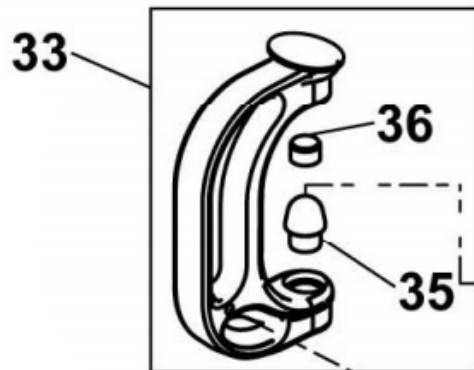
ASSEMBLED VIEW

Components of Leaf Spring



B) C -YOKE ASSEMBLY Scope per Assembly:

1. Welding of Stop Flanges has to be carried out on to C-Yoke as per drawing 130075720834 and 130075720824, the consumables for welding will be provided by BEML.
2. Press the Items 36 and 35 on to C Yoke Item no 33 without making any damage to the assembly during Pressing.





Quantity as per Scope:

2 nos of C yoke assy

5. Assembly Tools required:

- Hammer / mallet
- Pneumatic gun
- Spanners/ socket set/any other tools
- Crane for positioning items - Will be provided by M/s., BEML.
- Torque wrench - Will be provided by M/s. BEML.

6. Production Rate:

1. One Equipment consists of 4 nos of C-Yoke Assy and 2 nos of Leaf Spring Assy,
2. Vendor has to supply the assemblies to suit a minimum of 3 Equipment per day (12 - C-Yoke Assembly & 6 - Leaf Spring Assemblies).

7. Indicative Manpower Apart from One Supervisor:

- 1st Shift – 2 Fitters and One Welder – Total – 3 Man Power
- 2nd Shift - 2 Fitters and One Welder – Total – 3 Man Power