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S.N-409

No:SV.FIAT Spring

Dated:- 08.02.2017

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to

M/s PAN India Consultant Pvt. Ltd.,
105, Phase-IV, Udyog Vihar
Gurgaon-15 ,HARYANA

Sub:- Consultancy work for Audit of spring manufacturing facility at Rail Spring Karkhana, Gwalior, India.

Rail Spring Karkhana, Gwalior was established in 1980s in consultation with M/s GRUEBER for production of Hot coiled cylindrical springs for ICF design railway coaches. The plant has since been engaged in production of the springs and in recent times additional facilities have been created for production of Hot coiled cylindrical springs for FIAT design bogies used in LHB design coaches. These springs are having different design than ICF Hot coiled cylindrical springs. It is felt that the facilities created by RSK may be Audited by an expert agency engaged in production of these springs in order to streamline the manufacturing process and deliver the best possible quality.

It is therefore, proposed that M/s GRUEBER who are the OEMs for the springs of FIAT design bogies and who were engaged in the initial setup of plant for production of Hot coiled springs at RSK may do an audit of the plant and suggest course of action for overall improvement of RSK plant. The Audit may include the following:

1. Quality verification of the incoming raw material in the form of bars.
2. The facilities available for achieving the required qualities in the finished product i.e springs.
3. Adequacy of in-process inspection and the final inspection being undertaken by the RSK for achieving the desired quality.
4. The process of manufacture and various control parameters like time, temperature etc. and their suitability for achieving the desired quality of the springs.
5. The quality of the paint used and its suitability for achieving the minimum life of three years.
6. The material handling process employed during various stages of verification and their suitability for achieving good quality levels.
7. Final acceptance process, packing and transportation of the springs from the point of view its adequacy for achieving the desired quality.
8. The firm shall suggest the additional plant and machinery required to be installed, process parameters or the processes to be changed/altered and any other requirement to achieve the best possible quality of the springs.
9. Any other suggestion to improve the quality to make it world class.

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The original design of springs used in FIAT bogies is in compliance to the EN 13298 which has made stipulations for end turns as : "The length of contact line (on both ends) shall be at least 0.33 of mean diameter while the spring is subjected to an axial load F_v (1.1 x Tare load)." Based on the experience we have gained, we intend to revise the requirement as "There shall be no contact between first inactive and active coil upto a load F_v (1.1 x Tare load). The required changes in the process to achieve this may also be suggested.

It is requested that above proposal may be considered by your principals and a quotation to undertake the above work may be forwarded to this office at the earliest.

DA: NIL

09-02-17
(Indrajit Singh)
Executive Director/Carriage

Copy to:

1. CME/NCR, Allahabad
2. EDME/Coaching, Railway Board, New Delhi
3. M/s Federnwerke J.P Grueber GmbH & Coy., Hagen, Germany

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