

भारतसरकार-रेलमंत्रालय  
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सत्यमेवजयते

Government of India  
Ministry of Railways  
Research, Designs &  
Standards Organization,  
LUCKNOW - 226011



No. EL/3.2.15/3-phase

Dated: 01.08.2018

Principal Chief Electrical Engineer,  
All Zonal Railways & CLW.

**Sub:** Minutes of Performance Review Meeting of oil free and oil lubricated compressor  
having capacity 1000 & 1750 lpm.

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The minutes of review of performance meeting of oil free and oil lubricated compressor  
having capacity 1000 & 1750 lpm held at RDSO on 31.07.2018 is enclosed herewith for  
kind information and necessary action.

*Uz 01/08/2018*  
(Aseem Kumar)

Encl: As above

for Director General/Elect.

Copy to:

- M/s. ELGI Equipments Ltd., ELGI Industrial Complex, Singanallur, COIMBATORE - 641 005
- M/s Faiveley Transport Rail Technologies India Ltd., P. B. No -39, Harita, Hosur- 635109
- M/s Knorr-Bremse India Pvt. Ltd., 51j4 KM Stone, Village & P.O. Bhagola, Delhi Mathura Road (NH-2), Palwal-121102
- M/s Anest Iwata Motherson Pvt. Limited, B -5, Site C, Surajpur Industrial Estate, Greater Noida-201306
- M/s. Saber Dais Compression Ltd, 389/13, street no.1 Amargarh Colony, Kaithal- 136027

- for kind information and necessary action please.

*Uz 01/08/2018*  
(Aseem Kumar)

Encl: As above

for Director General/Elect

Minutes of Meeting held at RDSO on 31.07.2018 to discuss the performance of 1000 lpm oil lubricated, oil free & 1750 lpm oil lubricated compressors in Electric locomotives.

<b>Presence:</b>			
<b>S.N Name (Shri)</b>	<b>Designation</b>	<b>S.N Name (Shri)</b>	<b>Designation</b>
<b>RDSO</b>		M/s FTRTIL	DGM Enqs.
1. O P Kesari	PEDSE	1. S.Kali	Marketing
2. Aseem Kumar	DSE/PS&SC	<b>M/s KBIL</b>	
3. Mahendra Pal	JE/D	1. Yogesh Kumar	Divisional Manager
4. V.K. Gupta	JE/D	2. P.Das	Manager
<b>Railways</b>			
1. Ratnesh kumar Sriwastwa	ADEE/RS/CNB		
2. ShisKumarhu	SSE/ELS/CNB	<b>M/s AIML</b>	
<b>M/s ELGI</b>		1. Pramod K.Singh	AGM
1. P.Ravi	GM-Sale & Service	2. Rakesh Rai	Enqr.
2. G.Venkatesh	Head service	3. Manoj Kumar	AIML
3. Vinodan	Sr.Engineer	4. Dileep Singh	AIML
4. Abhinav Gupta	Sr.Manager	<b>M/s Saber Dais</b>	Not present

Failures of 2017-18 and 18-19 (Up to June) and the performance reports were received from SECR, WCR, NCR, SCR, BNDM/SER, GMO/ ECR and HWH/ER only. Zonal Railways are again requested to send the performance reports in the same format to RDSO on quarterly basis. It is also requested that for " Other defects", details of failures should be mentioned.

(1) 1000 LPM compressors

The major failures in 1000 lpm compressor are due to valve defect , crank shaft broken, motor earth, disc valve carbonized, coupling failure, oil ingress, cylinder head broken, bearings and moisture ingress.

(i) M/s ELGI

- It is noticed that ELS/ET has maximum failures on valve and coupling. M/s ELGI is advised to carry out Quality audit along with RDSO official within fortnight at ELS/ET.
- Cases of Compressor Motor failures are found more in ELS/BIA. M/s ELGI is advised to investigate the cause of failures and send the failure analysis to RDSO.
- ELS/CNB reported that they are cleaning the disc valve in every 2nd IC. This is not in order, sheds should clean disc valve in every IC as per recommendation.
- M/s ELGI pointed out that failures of disc valve carbonized can be reduced if they are cleaned in every IC. Zonal Railways are requested to follow the OEM's recommendation.
- ELS/CNB reported moisture ingress problem and even MDV's are not able to rectify the problem. M/s ELGI is advised to study the problem and make improvement in the MDV.



(ii) M/s AIML

- ELS/CNB reported there are cases of brakeage of gauge glass and copper delivery pipe. ELS/ NKJ also reported 3 cases of breaking of copper delivery pipe. ELS/ANGUL reported one case of motor earth & one case of crank shaft broken and 2 cases of abnormal bearing sound.
- M/s. AIML is advised to investigate the root causes of above failures and draw out the action plan. They are also advised to carry out Quality audit with RDSO official at ELS/ANGUL.

(2) 1750 LPM Oil Lubricated Compressors

1750 lpm compressor failures due to valve defect, cylinder head, crank shaft broken , motor earth, disk valve carbonized, coupling failure, oil ingress, cylinder head broken, bearing, safety valve, oil seal broken, fan blade broken & Viton 'O' ring have been reported by Railways..

(i) M/s ELGI

- M/s ELGI apprised that they have proposed modification in fan guard to prevent fan blade breakage due to hitting of ballast. They have also taken trial in ELS/ GZB & ELS/ WAT. ELS/GZB & ELS/WAT sheds are requested to provide feedback of the above modified fan guard.
- M/s ELGI has also agreed to supply this modified fan guard to all sheds on free of cost basis against both the models RR20100 & RR 20100 CGM.
- Failures are more in ELS/BIA and ELS/GMO. M/s ELGI is advised to visit these sheds and submit their feedback.

(ii) M/s FTRTIL

- ELS GMO reported very high failure of Viton 'O'ring and ELS /TKD reported high failure of Valves.
- M/s FTIL is advised to carry out investigation and draw out action plan to prevent these kind of failures and give feedback to RDSO.

(3) Oil Free Compressors

- M/s FTRTIL have supplied one oil free compressor in the year 2016 and it is in service at Western Railway, Baroda and no failure is reported by Railway till date.
- M/s ELGI have supplied 3 no. of oil free compressor model RR20100 OF (M) to ELS/TKD, ELS/LGD and ELS CNB which are under trial. Firm is advised to submit the fitment trial report.
- The failures in M/s KBIL supplied oil free VV270T compressor are due to valve defect, fan broken, Gasket failure, bearing HP piston seizure & coupling failure as reported by Railways. Most of the failures are in ELS/ET. Therefore, firm is being advised to carry out quality audit within fortnight at ELS/ET.
- All the firms are advised to provide maintenance schedule activities as per the existing loco maintenance schedule to RDSO as well as Railways.