



सत्यमेव जयते

Govt. of India  
Ministry of Railway  
Research Design & Standard Organization  
Manak Nagar- Lucknow-226011

## QM-C-8.1/Air Spring/001/Ashika/406

### Inspection Plan (Check Sheet)

**Item:** Air Spring 180 KN for High Capacity EMU/DMUs  
**Specn.:** CK-406, Rev.-3  
**Amd.:** 1 of May 2019  
**Drg. No. & Alt.:**

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Name of manufacture	M/s Ashika Commercial Pvt. Ltd., Kolkata (OEM- Trelleborg, U.K.)
Date of offer	
RDSO File No.	
Purchase Order No.	
Total Quantity Ordered	
Quantity earlier passed	
Quantity now offered	
Quantity Passed	
Consignee	
D.P. Date	
Date of Inspection	
Qty. accepted	
Qty. rejected	
Balance order	

Lot Size	10	25	50	75	100	Above 100
No of sample	2	3	4	5	6	6%

Signature of Firm's Rep.

Signature of RDSO Inspecting Authority



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1. Visual Inspection			Observed					Remarks
SN	Particulars	Specified	Sample No.					
1.	Finish	Smooth						
2.	Cut	Nil						
3.	Burrs/Flash	Nil						
4.	Rust/Corrosion	Not Allowed						
5.	Weld/Paint Marks	Not Allowed						
6.	Flatness/ Parallelism	OK/Not OK						
7.	Identification	As per STR						
8.	“O” Ring	OK/Not OK						
<b>2. Dimensional Inspection (Dimensions in mm)</b>								
SN	Particulars	Specified in Firm's Drawing approved by RDSO						
1.	Base Plate	L: $600 \pm 2$ W: $400 \pm 2$ t: $12 \pm 0.20$						
2.	Fixing hole dia.	$32 \pm 0.8/22 \pm 0.5$						
3.	Spigot Dia.	$\varnothing 85^{+0.036}_{-0.071}$						
4.	Spigot Height	$35 \pm 0.5$						
5.	Top plate dia.	Max. 750						
6.	Fixing hole centre distance	$250 \pm 1.2$						
7.	Diameter of Air bellow at 6 bar under design height of $255^{+5}_{-0}$ mm	$\varnothing 740$ mm (Max.)						
<b>Status: Accepted/ Not Accepted</b>								

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**PRESSURE vs LOAD TEST REPORT**

**SPECIFIED VALUE (As per approved type- test report)**

Pressure in Kg/cm <sup>2</sup>	Load in KN.	
	Min	Max
1.0	30.40	33.60
2.0	61.75	68.25
3.0	93.10	102.90
4.0	125.40	138.60
5.0	155.80	172.2
6.0	193.80	214.20

**ACTUAL VALUES OBSERVED**

Values as per Pressure Gauge	Load (KN.)	Load (KN.)	Load (KN.)	Load (KN.)	Load (KN.)
	Sample No.				
1.0 Kg/Cm <sup>2</sup>					
2.0 Kg/Cm <sup>2</sup>					
3.0 Kg/Cm <sup>2</sup>					
4.0 Kg/Cm <sup>2</sup>					
5.0 Kg/Cm <sup>2</sup>					
6.0 Kg/Cm <sup>2</sup>					
Status: Accepted/ Not Accepted					

**BUMPER LOAD VS DEFLECTION TEST REPORT**

**SPECIFIED VALUE**

SPECIFIED VALUE (As per approved type-test report)

SN	Load (KN)	Deflection (mm)	
		Min.	Max.
1	62.0	9.0	11.0
2	94.0	13.5	16.5
3	126.0	18.0	22.0
4	180.0	23.4	28.6

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**ACTUAL VALUES OBSERVED**

S No.	Load (KN)	Deflection (mm)					Remark
		Emergency spring S. No.					
1							
2							
3							
4							
5							
6							
Status : Accepted/ Not Accepted							

**AIR SPRING ASSEMBLY LEAK TEST (As per para 10.3 of STR C –K406 Rev.3)**

1. Parameter : Air Spring Assembly shall be checked for pressure drop at the following pressure and time intervals:
- After one hour at internal pressure  $9.0 \text{ kg/cm}^2$
  - After 15 minutes at internal pressure  $6.0 \text{ kg/cm}^2$
- Drop of pressure at the completion of test shall be measured. The pressure drop is required to be within 1% of the test pressure i.e.  $9.0 \text{ kg/cm}^2$  or  $6.0 \text{ kg/cm}^2$  as applicable.

**2. Sample Quantity:**

SL. No.	Air Spring Number	Remarks
1		
2		
3		
4		
5		

**Status: Accepted/ Not Accepted**

Signature of Firm's Rep.

Signature of RDSO Inspecting Authority