1/59801/2024

Check sheet for Air Spring 180 KN capacity supplied by M/s Resistoflex Dynamics Pvt. Ltd. (OEM-Contitech)

Drawing No.: 05012077 Rev 10 (or Latest)
As per inspection and testing Clause no. 10.0

1. Dimensional and visual check (10% of the Lot Qty or minimum 10 whichever is maximum)

1.1 Visual Inspection:

SN	Particulars	Specified	Observation				
			Air spring 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 Specification					
8.	"O" Ring	OK/ Not OK					
9.	Marking	As per Para 11 of 'Section-A' of specification					
9.1	Top Plate	OK/ Not OK					
9.2	Bottom Plate	OK/ Not OK					
9.3	Emergency Spring	OK/ Not OK					
9.4	Identification plate	OK/ Not OK					
10	Colour & shade	Grey (RAL no. 7042)					
Stat	us: Accepted/No	t Accepted					

1.2 Dimensional test:

SN Particular		r	Specified	Observation			
				Air spring No.			
1.	Base	Length	As per				
	Plate	Width	Firm's				
		Thickness	RDSO				
		Mounting hole dia.	Approved				
		Centre distance of mounting holes (single /both side)	Drg. / RDSO STR				
		PCD (in case of 180 kN capacity air spring)					
2.	Тор	Spigot Dia.					
	Plate	Spigot Height					
		Top plate dia.					
		Cross section diameter of "O" ring					
3.	Air Bellow diameter	Diameter of air bellow at 6Kg/cm ² under design height.					

File No.RDSO-CARR0VDG(AS)/3/2020-O/o ED/CARRIAGE/RDSO

1/59801/2024

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4.	Min.	Min. height of air	215						
	height	spring under full							
	of air	load with no air and							
	spring	without spigot (mm)							
Statu	Status: Accepted/Not Accepted								

- 2. <u>Leak Test of Air Spring</u>: Inflate and stabilize the Air Spring: As per Clause 10.2.2 of section A.
 - (i) at 9 kg/cm², hold for 60 minutes.
 - (ii) at 6kg/cm², hold for 15 minutes.

Pressure drop is required to be within 1 % of test pressure.

SN	Air Springs Number	Pressure Test of inflated spring for 60 minutes @ 9 Kg/cm ²		Pressur inflated s minutes @	Pressure drop within specified		
	Trumbol .	Pressure before test	Pressur e after test	Pressure Pressur before e after test test		limit (Yes / No.)	

3. Pressure v/s Load test of Air Spring assembly: As per Clause 10.2.3.1 of Section - A.

Pressure v/s Load Test: Test should be carried out as per the formats as below:

S.N.	Pressure in kg/cm ² or bar	•	Vertical Load (kN)	Measured Vertical Load(kN)			
	•	(As per Typ	pe Test Report)	Air spring No.			
		Min	Max				
1.	1	29.1	32.1				
2.	2	57.9	63.9				
3.	3	86.2	95.2				
4.	4	114.9	126.9				
5.	5	144.0	159.2				
6.	6	172.3	190.5				
Status	· Accented/Not Accen	tod	•				

Status: Accepted/Not Accepted

4. Test for Emergency Spring:

4.1 Vertical load v/s deflection Test: As per Clause 10.2.3.2 of Section - A.Test should be carried out as per the formats as below:

S.N.	Specified Load (vertical)in KN	Specified Deflect	Measured Deflection in mm Emergency Spring no.			
	(As per Type Test Report)	(As per Type Te				
		Min	Max			
1.	60	3.70	4.50			
2.	120	7.40	9.00			
3.	180	10.70	13.00			
4.	235	13.00	15.90			
Statu	s: Accepted/Not Ac	cepted		•		

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4.2 Bonding strength test (for metal bonded emergency spring design)

Bonding strength test of 02 samples from each batch to be done as per para 5.0 of "SECTION – B" of RDSO Specification no. RDSO/CG/S/23002, Rev. nil during the purchase inspection. The test piece shall be taken from the same batch used for the manufacturing of the emergency spring.

Sample size for the tests at S. No. 2, 3 & 4 above are given as under:

Lot Size upto	10	25	50	75	100	Above 100
(nos.)						
Number of	2	3	4	5	6	6% of Lot
Samples						
Check						

Note: "For firms, outsourcing emergency springs, Bond Strength Test report given by supplying source should be verified."