

Reasoned document on comments of firm for uploaded draft Specification for Distributor Valve with Relay Valve for Air-Brake System of Passenger Stock on Indian Railways

S.No.	Clause	Description	Comment of M/s Faiveley Transport Pvt.ltd. (SI No. -)	Comment of M/s Knorr. (SI No. -)	RDSO Remarks
1.	1.1	This specification covers the technical requirements related to the performance, Inspection and testing of Distributor Valve with relay valve conforming to UIC specification No. 540, 541-1 & 547. The specification also covers adaptor with isolating cock, Pipe bracket with Control Reservoir and gasket used on Air- brake system of passenger stock and does not include other necessary provisions of the contract.	<p>NOTED & We request to remove the requirement of UIC 541-1</p> <p>Explanation: UIC 541-1 calls for Brakes - Regulation concerning the design of brake components.</p> <p>UIC 541-1 leaflet calls for key characteristics of brake system components other than Distributor valve. It also includes below parts</p> <ol style="list-style-type: none"> 1. Air Brake components – Pipe & connection, End cock, Isolating cock, Quick release valve & components for operation of change over function. 2. Alarm Signals and release mechanism for emergency braking. 3. Brake block and rigging 4. Coupling 5. Brake pipe emptying accelerators <p>Hence UIC 541-1 does not cover Distributor valve with Relay requirement and which are covered under UIC 540.</p>		Not accepted, since specification also covers adaptor with isolating cock, Pipe bracket with Control Reservoir and gasket used on Air- brake system of passenger stock so UIC 541-1 is required.
2.	3.1.1	The distributor valve design with Relay Valve will require the approval of RDSO. The design of the distributor valve should be proven and should have been obtained from a principal whose distributor valve with graduated release feature is approved by UIC. The following designs of distributor valve with relay valve are acceptable at present.	<p>Noted.</p> <p>Since M/s Stone India Ltd, Kolkata is not supplying Distributor valve anymore, so we propose to remove the supplier name.</p>		M/s Stone India Ltd, Kolkata is not supplying but their old DV are still in use.

		<ul style="list-style-type: none"> - Type KE1 of Knorr Bremse, Germany. - Type C3W with or without relay valve of M/s SAB WA8CO (Now M/s Faiveley Transport). - Type SW4 with integral relay valve of M/s Faiveley Transport, France. - Type C3W with Rel-10 relay valve of M/s Stone India Ltd., Kolkata. - Type P4a with integral relay valve of M/s Westing House, UK. 			
3.	3.1.2	Specification calls for "No change shall be done without the approval of RDSO".	Faiveley Transport reserves the right to make improvements to the product. However, we will keep RDSO posted on the improvements made, if any. Hence, request to modify the para as "Any changes done on the product has to be kept informed to RDSO".		Not acceptable, Design modification shall be prior informed and got approved by RDSO before making any changes.
4.	5.1	The distributor valve shall be graduated release type and its performance shall conform to the latest revision of UIC specification 540, 541-1 and 547 for passenger train application.	Refer comments provided in clause No 1.1 (FT Comments on 1.1) for UIC 541-1.		Not accepted, see remarks at S.No.1 above.
5.	5.4	The Distributor valve shall have fixed "P" position and shall cater for underframe mounted brake system of coaches with two 355 mm bogie dia. brake Cylinders and bogie mounted brake system of coaches used on IR with four 203 mm dia. brake cylinders.	<p>The Distributor valve shall have fixed "P" position and shall cater for underframe mounted brake system of coaches with two 355 mm bogie dia. brake Cylinders and bogie mounted brake system of coaches used on IR with four 203 mm dia. brake cylinder.</p> <p>Clarification: We would like to highlight that "for underframe mounted brake system of coaches with two 355 mm bogie dia. brake Cylinders" is not tested in the clause 8 Tests in this specification. Hence FT request to remove this line.</p> <p>We would like to highlight that "For LHB disc brake system we have eight nos. 254 mm dia. brake actuator. Hence FT request to include LHB requirement into this specification.</p>		The Para has been modified as "The Distributor valve shall have fixed "P" position and shall cater for underframe mounted brake system of coaches with two 355 mm bogie dia. brake Cylinders and / bogie mounted

					brake system of coaches used on IR with four 203 mm dia. brake cylinders / Axle mounted Disc Brake for LHB coaches with eight 254 mm dia. Brake cylinder. Maximum brake cylinder pressure of Axle mounted Disc brake system shall be as per RDSO Specification no. RDSO/2011/CG-04 (Rev.1 or latest)".
6.	8.1.1	Specification calls for Charging Time a) Time for auxiliary reservoir (AR) pressure to rise from 0 to 4.8 kg/cm ² b) Time for Control reservoir (CR) pressure to rise from 0 to 4.8 kg/cm ²	As per UIC 540 & UIC 547 the Charging Time of AR & CR pressure is only for reference. Hence FT request to mention as "Charging Time (only for Reference)"		Not accepted, Charging time of AR & CR shall be furnished by the manufacturer and approved by RDSO. It should be taken in single pipe system.
7.	8.1.2	Specification calls for Leakage from mounting of sub-assemblies during	Request to add time limit for leakage testing since some Inspectors keep seeing for more than a		Not accepted. Inspector has to

		i) Release -- "No Leakage" ii) Service Application -- "No Leakage" iii) Emergency -- "No Leakage"	minute which is not warranted. Hence, the above clause to be changed to " No Leakage for 60 Seconds " during release, service application & Emergency.		ensure no leakages.
8.	8.1.3	Specification calls for "Brake cylinder (BC) filling time from 0 to 3.6 Kg/cm ² under service and emergency application with four brake cylinders of 203 mm dia"	To facilitate correct size of choke, FT request to add stroke length of Brake cylinders and also to include the requirements for LHB coaches. Hence FT request to modify the clause as "Brake cylinder (BC) filling time from 0 to 3.6 Kg/cm ² under service and emergency application with four brake cylinders of 203 mm dia at a stroke length of 32 mm or equivalent volume of 8nos. of 254mm dia. at stroke length of 20 mm".		See remarks at S.No.5 above.
9.	8.1.4	Specification calls for "Brake Cylinder draining time from 3.8 to 0.4 kg/cm ² after service and emergency application with four brake cylinders of 203 mm dia"	To facilitate correct size of choke, FT request to add stroke length of Brake cylinders and also to include the requirements for LHB coaches. Hence FT request to modify the clause as "Brake Cylinder draining time from 3.8 to 0.4 kg/cm ² after service and emergency application with four brake cylinders of 203 mm dia at a stroke length of 32 mm or equivalent volume of 8nos. of 254mm dia. at stroke length of 20 mm".		See remarks at S.No.5 above.
10.	8.1.5	Maximum Brake Cylinder pressure under service and emergency application. "Specified Values – 3.8 ± 0.1Kg/cm ² "	FT request to include in specified values as "3.8 ± 0.1 Kg/cm ² or as set in DV". Since we try to include the LHB DV also in place.		See remarks at S.No.5 above.
11.	8.1.9	Brake Cylinder pressure attained when Brake pipe pressure is reduced in steps (at least seven steps).	As per UIC 540 & UIC 547 doesn't calls for measurement of Brake cylinder pressures during graduated brake application or release. Hence FT request to remove clause no 8.1.9.		Not accepted. Steps should be available in a close range, so that different make of DV can be used in a rake.
12.	8.1.10	Specification calls for "Maximum brake cylinder pressure at full application - 3.8 + 0.1 kg/cm ² "	We would like to highlight that "Maximum brake cylinder pressure at full application – 3.8 ± 0.1 kg/cm ² "		Typographical error corrected.

13.	RDSO Clause No. 8 Note	<p>Note: In case of any ambiguity regarding parameters above, UIC 540, 541-1 & 547 provisions shall be used for guidance.</p> <p>Note: - i) Charging of AR and CR to be done at air pressure of 5 Kg/cm² by brake pipe only.</p> <p>ii) Specified values of test Indicated at para 8.1.1(a), 8.1.1(b) & 8.1.9 shall be furnished by the manufacturer and approved by RDSO.</p>	NOTED. Refer comments provided in clause No 1.1 (FT Comments on 1.1) for UIC 541-1. And Reg. Note ii) - Since 8.1.1(a) & 8.1.1(b) is only for reference & 8.1.9 is not as per the UIC 540 & UIC 547. Hence FT request to remove this point.		Not accepted, see remarks at S.No.1 above.
14.	RDSO Clause APPENDIX - I	<p>Scheme for Conducting Endurance Test on Distributor Valve Point no. 2</p> <p>"These values should be strictly to UIC standard / manufacturer's / principals standard."</p>	FT request to modify as "These values should be strictly to UIC standard (or) manufacturer's Test specification (or) principal standard."		As the mentioned requirement provides better clarity, hence no change needed. Different make of DV is being used in a single rake, hence uniformity of timings and performance is important.
15.		<p>WARRANTY / GUARANTEE</p> <p>The warranty /guarantee period will be 60 months from the date of supply or 48 months from the date of commissioning whichever is earlier for the distributor valve. In case a distributor valve with relay valve fails within the warranty, it shall be replaced by a new distributor valve.</p>		<p>The warranty period will be 60 months from the date of supply or 48 months from the date of commissioning whichever is earlier for the distributor valve.</p> <p>a) In case a distributor valve with relay valve fails within the warranty for leakages, OEMs should be permitted to repair at Railway premises.</p> <p>b) Distributor Valves which are not repairable on the account of manufacturing</p>	Not accepted.

				<p>defects need to be replaced by OEM with new DV.</p> <p>Justification Based on our past experience we would like to submit that port leakages / relay valve leakages or other leakages are due to external factor (dust, dirt, rust etc.) which are beyond our control. We have tried to explain it to the Zonal Railways personnel that as DV manufacturers, we had accepted this warranty clause of specification C-K209, with the understanding that Distributor Valve shall qualify for warranty failure only in case there is premature failure of any component/ subassembly due to design or manufacturing deficiency and is not repairable onsite. The OEM should be permitted to repair the DV with leakages related issues onsite at Railways premises. This would be beneficial to IR as timely closure of field complaints and settlement of warranty issues is a very tedious & time consuming activity and a national loss.</p>	
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