

Remarks on comments on draft specification of spare part kits for maintenance of M/s Stone India Ltd. make air dryer used in rolling stock on Indian Railways, submitted by firms.

Clause No.	Description of Draft Specification	Firm's/ Railway comments			Remarks																																																						
		M/s Recon	M/s Girivar	SE Rly																																																							
1.	Objective: Air dryer is used in ALCo, HHP & Electric Locomotives and EMUs/MEMUs/DEMUs. M/s Stone India Limited/Kolkata was one of the approved source of air dryer who has supplied appx. 3000 Air dryers to Zonal Railways. Now, SIL is not being supply Air dryers and has been deleted from RDSO vendor directory. Hence, IR facing the acute problem of maintenance of SIL makes Air dryers working in field. The objective is to develop of spare part kits for maintenance of M/s SIL makes Air dryers used in rolling stock on Indian Railways	Acceptable	---	---	No changes desired by any firm/Rly. Existing para as mentioned in the draft is to be retained.																																																						
2.	Scope: This specification covers the purpose of use, desired characteristics, functional and technical requirements of the spare kits for maintenance of SIL makes Air dryers used in rolling stock on Indian Railways	Acceptable	---	---	No changes desired by any firm/Rly. Existing para as mentioned in the draft is to be retained.																																																						
3.	Desired Characteristics																																																										
3.1	<div>The firm shall develop spare part kit for maintenance of M/s SIL makes Air dryers used in rolling stock on IR. The details of overhauling kits are as under:<table><tr><td>S.N</td><td>Item</td><td>Qty</td></tr><tr><td>1.</td><td>Filter Coalescing</td><td>1</td></tr><tr><td>2.</td><td>Nut 3/8" 16 Hex Lock</td><td>1</td></tr><tr><td>3.</td><td>Washer 3/8" lock Self Sealing</td><td>1</td></tr><tr><td>4.</td><td>O Ring 4.237 I.D</td><td>1</td></tr><tr><td>5.</td><td>Kit Humidity Indicator Rebuild</td><td>2</td></tr><tr><td>6.</td><td>O Ring 2" OD</td><td>4</td></tr><tr><td>7.</td><td>O Ring 1/2" OD</td><td>8</td></tr><tr><td>8.</td><td>Check Valve Seal</td><td>4</td></tr><tr><td>9.</td><td>O Ring 1.739 I D</td><td>4</td></tr><tr><td>10.</td><td>Gasket Flange 1"</td><td>6</td></tr><tr><td>11.</td><td>Gasket Flange 3/8"</td><td>3</td></tr><tr><td>12.</td><td>O Ring 4.487 I.D</td><td>2</td></tr><tr><td>13.</td><td>O Ring 6" O.D</td><td>4</td></tr><tr><td>14.</td><td>Desiccant Element</td><td>2</td></tr><tr><td>15.</td><td>Solenoid Valve</td><td>2</td></tr><tr><td>16.</td><td>Repair Kit Drain Valve</td><td>1</td></tr><tr><td>17.</td><td>Repair Kit Purge Valve</td><td>2</td></tr></table></div>	S.N	Item	Qty	1.	Filter Coalescing	1	2.	Nut 3/8" 16 Hex Lock	1	3.	Washer 3/8" lock Self Sealing	1	4.	O Ring 4.237 I.D	1	5.	Kit Humidity Indicator Rebuild	2	6.	O Ring 2" OD	4	7.	O Ring 1/2" OD	8	8.	Check Valve Seal	4	9.	O Ring 1.739 I D	4	10.	Gasket Flange 1"	6	11.	Gasket Flange 3/8"	3	12.	O Ring 4.487 I.D	2	13.	O Ring 6" O.D	4	14.	Desiccant Element	2	15.	Solenoid Valve	2	16.	Repair Kit Drain Valve	1	17.	Repair Kit Purge Valve	2	Acceptable	---	Following items to be include: i Pressure switch. ii Plug point iii Electronic control module	In reference to SE Rly's comment, it is informed that these spares are not part of overhauling kit. However, for development of these spares, it is covered in the para 3.4 & 3.5 of the draft specification. Hence, existing para as mentioned in the draft is to be retained.
S.N	Item	Qty																																																									
1.	Filter Coalescing	1																																																									
2.	Nut 3/8" 16 Hex Lock	1																																																									
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17.	Repair Kit Purge Valve	2																																																									
3.2	The firm shall also submit their drawings and specifications for the spare Kits developed for SIL make Air dryers.	Acceptable	Some parts are being imported so only	---	Ms/ Girivar has not mentioned the detail of																																																						

			pictorial view drawing can be given for those components. Rest is ok.		parts. Change may be not required as the other firm i.e. M/s Recon is agreed.
3.3	The life of spare kit of should not be less than as per their respective replacement schedule as given in RDSO air dryer maintenance instruction MP.MI-18, Rev.-02.	Acceptable	---	---	No changes desired by any firm/Rly. Existing para as mentioned in the draft is to be retained.
3.4	Firm may also offer Electronic control Module (PCB) for SIL make air dryer This PCB shall be tested in accordance with IEC-60571. These tests as per relevant clause of IEC-60571 shall be carried out for prototype only. A certificate from recognised testing laboratory shall be considered satisfactory for this purpose. The tests required to be conducted as per the para 5.1.2.3 of RDSO spec no.MP.0.01.00.06 Rev-05.	Acceptable	GG has developed this PCB and supplied more than 200 nos. of these PCB till date. All major tests as per IEC-60571, we have done from ERTL Lab, Okhla New Delhi which is a GOI recognized test lab. Few tests are very costly so not done. RDSO may include in specification that those Firms will also be qualified who have supply performance experience of min. 200 nos. of these Electronic Control Module (PCB) in last 3 years.	---	The PCB is important spare part of air dryer & the other firm i.e. M/s Recon is also agreed. Hence, para as mentioned in the draft is to be retained.
3.5	Firm may also offer other parts of SIL make air dryer which are not covered in the above spare part list like Purge valve, Drain valve, Inlet check valve, outlet check valve etc. The firm shall submit their drawings and specifications.	Acceptable	----	---	No changes desired by any firm/Rly . Existing para as mentioned in the draft is to be retained.
3.6	The overhauling kit shall have markings for identification in respect of make, date of manufacturing etc. for facilitating failure investigation and compilation of life cycle data.	Acceptable	-----	---	No changes desired by any firm/Rly. Existing para as mentioned in the draft is to be retained.
4.	Requirement				
4.1	SIL make air dryer fitted with above developed kit shall work satisfactory on ALCo, HHP & Electric Locomotives and EMUs/MEMUs/DEMU as applicable. One set of complete Kit for overhauling SIL make air dryer shall be develop.	Acceptable		---	No changes desired by any firm/Rly . Existing para as mentioned in the draft is to be retained.
4.1.1	Internal test: Firm shall conduct the stepwise following test on SIL make air dryer fitted with new developed overhauling kit and submit the result to RDSO: <ul style="list-style-type: none"> Conduct tests on Air dryer as per Annexure -3 (copy attached as Annexure-A) of RDSO spec no.MP.0.01.00.06 Rev-05. 	Acceptable	GG has already supplied thousands of kits to all over Indian Railways and all are	---	The firm M/s Recon is agreed. However, vide S. No. 73, M/s Recon had earlier informed that

	<ul style="list-style-type: none"> Conduct endurance test for 50 hours duration followed by tests on Air dryer as per Annexure- 3 of RDSO spec no.MP.0.01.00.06 Rev-05. 		<p>working satisfactorily. We have received performance reports in writing and can be submitted the same. <u>Since we don't have any SIL air dryer so in house testing is not possible.</u> All testing have been done at customer end itself. Some kits are now more than 2 years old. So this clause may be amended like that : Suppliers those who are already supplying these spares for last 1 year will be exempted from these tests and all new suppliers will follow the testing. Or those who have supplied min. 500 air dryers kits are also exempted from this clause.</p>	<p>they are manufacturing only the spares of SIL make air dryer & they do not have complete air dryer, hence, internal test results cannot be provided.</p> <p>It is understood that the availability of SIL air dryer cannot be ensured in firm premises. Hence, the testing of overhauling kit fitted in SIL air dryer in firm premises may not be possible.</p> <p>However, the testing of air dryer fitted with kit to be tested in Brake laboratory of RDSO as per para 4.1.3 of this specification.</p> <p>In view of the above, the para may be revised as under:</p> <p>“The firm should submit the detail of internal test result which is conducted on spare parts like dimension, hardness, chemical testing etc. as applicable. The detail of test procedure, acceptance criteria, equipment used etc, should be clearly mentioned in the approved QAP against respective spare parts. Those test which are not conducted at firm premises should also be mentioned in the approved QAP. The test result certificates of these tests from recognized testing laboratory should be submitted to RDSO.”</p>
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4.1.2	Fitment Trial: If internal test results found satisfactory(acceptance criteria as given in RDSO spec no.MP.0.01.00.06 Rev-05), firm shall submitted one set kit of air dryer for fitment trial at Diesel loco/Electric loco/ EMU/MEMU/DEMU shed and shall be jointly checked by Railway, RDSO and firm.	Acceptable	Though GG has supplied thousands of such kits but in good faith GG is ready to submit one set of kits for fitment on Rolling stock.	---	Para change, in view of remarks against para 4.1.1. The para may be revised as under: “Fitment Trial: If internal test results found satisfactory, firm shall submitted one set kit of air dryer for fitment trial at Diesel loco/Electric loco/ EMU/MEMU/DEMU shed and shall be jointly checked by Railway, RDSO and firm.”
4.1.3	Lab Trial: After fitment trial at shed, firm shall submit one set kit of air dryer for testing in RDSO. The air dryer fitted with above kit will be tested in Brake laboratory as per Annexure -2(copy attached as Annexure-B) of RDSO spec no.MP.0.01.00.06 Rev-05. The above referred test scheme is a general guideline. Slight changes if required, may be there during actual testing of prototype. The firm shall supply necessary equipment and fittings as required during testing in Brake Lab.	Acceptable	Though GG has supplied thousands of such kits but in good faith GG is ready to submit one set of kits for fitment on Rolling stock.	---	No changes desired by any firm/Rly. Existing para as mentioned in the draft is to be retained.
4.1.4	Field Trial: After successful completion of testing in RDSO, 10 air dryer sets of overhauling kit shall be subjected to the field trials for 12 months. The overhauling kit will be supplied for field trial after inspection by RDSO. Supplier shall offer for inspection after complete checking by them. The testing to be carried out in accordance with Group A & Group B tests of Annexure A of this specification.	Acceptable	Suppliers those who are supplying these kits for last more than 01 year, should be exempted from field trial. A performance report from railways will be considered in this regard. GG is supplying these kits since last two years to all over Indian Railways.	---	Para change, in view of remarks against para 4.1.1. The para may be revised as under: “After successful completion of testing in RDSO, 10 air dryer sets of overhauling kit shall be subjected to the field trials for 12 months. Field performance feedback format is given in Annexure B. The overhauling kit will be supplied for field trial after inspection by RDSO. Supplier shall offer for inspection after complete checking by them. The testing to be carried out in accordance with approved QAP.”
4.2	The supplier shall have adequate facilities for testing of air dryer (test specified in mentioned in Annexure A & B) fitted with overhauling kit.	Acceptable	GG is not an Air dryer manufacturer so testing facility of air dryer is not possible. Though all	---	Para change, in view of remarks against para 4.1.1. The para may be revised as under:

			physical inspection of all components is being done by RITES/ New Delhi and other tests normally get conducted at Rites approved Test Laboratories. Since these are just spares so same should be continued.		"The supplier shall have adequate facilities for testing of overhauling kit/spare parts of SIL make air dryer and same shall be mentioned in the approved QAP."
4.3	In regular inspection, inspecting authority shall carry out all tests necessary, covered in Annexure A of this specification. However, Group A tests of Annexure A are mandatory.	Acceptable	Annexure A tests are again for testing of air dryer mainly. Since air dryer spares suppliers are not manufacturing air dryers so dimensional check, chemical composition check etc. should only be a part of specification.	---	Para change, in view of remarks against para 4.1.1. The para may be revised as under: " In regular inspection, inspecting authority shall carry out all tests necessary, mentioned in the approved QAP."
5.	Packing: The spare parts kit shall be securely packed so that there is no damage during transit and handling.	Acceptable	Noted and will be complied.	---	No changes desired by any firm/Rly. Existing para as mentioned in the draft is to be retained.
6.	Warranty/Guarantee: The equipment manufacturer shall provide warranty/guarantee as per IRS Terms & Condition.	Acceptable	Noted	---	No changes desired by any firm/Rly. Existing para as mentioned in the draft is to be retained.
7.	PREFERENCE TO MAKE IN INDIA The Govt. of India policy on 'Make in India' shall apply.	-	-	-	In compliance of directives issued by GOI for promotion of Make in India policy.
8.	VENDOR CHANGES IN APPROVED STATUS All the provisions contained in RDSO's ISO procedures laid down in document no. QO-D-8.1-11, dated 01.07.2020 (Titled Vendor - changes in approved status) and subsequent versions/amendments thereof, shall be binding and applicable on the successful vendor/vendors in the contracts floated by Railways to maintain quality of products supplied to Railways.	-	-	-	In compliance to Vigilance cell note no. 13/Vig/Policy dated 08.09.2016.
Annexure B	Field performance feedback format	-	-	-	Adding field trial performance feedback format in compliance of MOM of the VC meeting on Specification/ STRs held on 29.08.2020.