



QM-C-7.1/AB/0018

Inspection Plan(Check Sheet)

Item: Loco Brake Equipments
Specn. : MP.0.01.00.19, Rev.01 of June'2010
Amd.:
Drg. No. & Alt.:

FOR LOCO BRAKE EQUIPMENTS

1.	Name of Manufacturer	
2.	Description of material	
3.	Purchase Order	
4.	Total Quantity ordered	
5.	Quantity Earlier passed	
6.	Quantity now offered	
7.	Consignee	
8.	D.P.	

1.	Date of Inspection	
2.	Qty. Accepted	
3.	Qty. Rejected	
4.	Balance order	

- 1.0 Pre-Inspection checks
- 1.1 Sample Plan: Single (10%) / Double
(Specify reason in case of double sampling) -----
- 1.2 Ensure availability of valid Internal Test reports YES NO
- 1.3 Ensure calibration status of equipment, test benches,
Gauges and instruments to be used in inspection. YES NO
- 1.4 Availability of adequate Air pressure on test bench. YES NO

Signature of firms Representative

RDSO Representative



- 2.0 Audit checks of the manufacturing procedure / IQA system.
- 1.1 Ensure that the QAP of the firm is approved and available.
- 1.2 Details of Audit checks on record of Internal Quality Assurance System.
- 1.3 (This shall include all the manufacturing activities, testing, inspection of bought-out items and castings).

SL. NO.	Reference to QAP check sheets	Description of manufacturing operation	Deficiencies observed
1			
2			
3			
4			

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : J1 SAFETY VALVE
 PART No. 522001000
 SWL SPEC-005-2/C

Wabco Pt.No. 558296
 WABCO TEST SPEC No. T-2463-0
 Date :

Test No.	Test Description	Result	Results Obtained									
			SI.No. of Valves									
4.7	SETTING & RANGE											
4.7.2	Observe the pressure. On G2 when the valve blows off.	Pressure observed is equal to the pr. setting reqd. (150±1.5) PSI										
4.8	RANGE											
4.8.1	Adjust the range to within the limits specified	10 to 15 PSI										
5.0	LEKAGE TESTING	10 to 15 PSI										
5.2.1	Check leak on the lower portion of the casting	No leakage										
5.2.1	Check leak on the 3 vent opening at the lower portion of the valve	The bubble must remain for 2 secs. Min.										

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : A9 AUTO BRAKE VALVE
 PART No. 502001000
 TS REF : TS 003 – 1/C

Wabco Pt.No.564140
 WABCO Ref. T-2559-0
 Date :

Test No.	Test Description	Result	Results Obtained									
			SI.No. of Valves									
7.0	Adjustment											
7.4	Adjust A.R. Gauge	Indicator pressure is 110 PSI										
7.6.2	Move handle to release position and observe AR Gauge	Indication increases to 110 PSI										
7.7.1	Move handle to Int. Redn position and observe AR Gauge	Pressure drops to between 106 and 103 PSI										
7.7.1	Release Position	AR Gauge rises to 110 PSI										
7.8	Move handle to Service Position and Observe AR Gauge	Pressure crops to between 87 and 84 PSI										
7.9	Move handle to release Position and Observe AR Gauge	Indication increases to 110 PSI										
7.10	Move handle to over reduction Position and Observe AR Gauge	Pressure drops to between 76 and 64 PSI										
7.11	Move handle to Emergency Position and Observe AR Gauge	Pressure drops to 0 PSI										
7.12	Move handle to release position and observe AR Gauge	Pressure rises to 110 PSI										
	LEAK TESTING											
8.2	O RING (ON PORT NO.5)											
8.2.2	Check leak at cock A	No Leakage										
8.3	SUPPLY CHECK VALVE & 'O' RING											
8.3.3	Open cock 14 and increase AR by 1 PSI and observe pressure drop in ER, AR and Q SER Gauges	1 PSI max drop in 10 Sec.										
8.4	EX. VALVE. EMER. VALVE & 'O' RING											
8.4.2	Move handle to service position and observe AR Gauge	Pressure drops from 87 to 84 PSI										
8.4.3	Observe pressure drop in ER, AR and Q. SER. Gauges	1 PSI max. drop in 20 sec.										
8.4.5	Move handle to over reduction position and observe AR Gauge	Pressure must drop from 75 to 65 PSI										
8.5	EMER. VALVE & 'O' RING											
8.5.1	Observe pressure drop in ER, AR and Q SER. Gauges	1 PSI Max drop in 20 Sec.										
8.6	CASTING & GASKET											
8.6.1	Check leak through entire valve	No Leakage										

Signature of firms Representative

RDSO Representative



	CAPACITY																		
9.1	PORT 1 TO EX.																		
9.2	Move handle to service position and observe AR Gauge	Pressure drops from 110 Pst to 90 PSI in 5 to 8 Sec. Max.																	
9.3	PORT 1 THRO. EMERG. TO EX. VALVE																		
9.3.1	Move handle to Emergency position and observe AR Gauge	Pressure drops from 110 PSI to 10 PSI in 5 Sec. Max.																	
9.4	PORT 30 TO PORT 1																		
9.4.2	Move handle to release position and observe AR Gauge	Pressure rises from 0 PSI to 80 PSI in 8 to 10 Sec. Max.																	
10.	SENSITIVITY																		
10.2	Move handle towards service position in several 3 PSI steps and observe pressure rise in AR Gauge.	Pressure reduces in corresponding steps of not more than 3 PSI.																	
10.3	Move handle towards release position in several 3 PSI steps and observe pressure rise in AR Gauge.	Pressure increases in corresponding steps of not more than 3 PSI.																	
10.6	Move handle towards service position and observe pressure rise in AR Gauge.	Pressure rises back to 100 PSI.																	

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : F1 SELECTOR VALVE
 PART No. 512 1010 00
 TS REF : TS 018 – 1/C

WABCAO PC No. 567995
 WABCO TEST REF No. T-2428-0
 Date :

Test No.	Test Description	Result	Results Obtained									
			Sl.No. of Valves									
7.7	LEKAGE (LEAD POSITION)											
7.7.1.1	Check leak at cock 4	No float rise										
7.7.2.1	Check leak at cock 4	No float rise										
7.7.2.2	Check leak at cock A	No float rise										
7.7.3.1	Check leak at cock 4	No float rise										
7.7.4.2	Check leak at cock B	No float rise										
7.7.5	Check leak at valve A in Ex. Port	No Leakage										
7.7.6.1	Check leak at cock B	No float rise										
7.7.6.3	Check leak at cock B	No float rise										
	SECTION B (Trail)											
7.8.4	Check leak at cock 4	No float rise										
7.8.4.2	Check leak at cock 4	No float rise										
	Check leak at valve A in Ex. Port	No Leakage										
	SECTION C (Trail)											
7.9.4	Check leak at cock 8	No float rise										
7.9.4.2	Check leak at cock 8	No float rise										
7.9.5	Check leak at valve B Ex. Port	No Leakage										
7.10	Gasket & Casting											
7.10.2	Check leak through the valve	No Leakage										
8.2	SPRINGS (SECTION A)											
8.2.2	Observe AR Gauge when QA CH.R starts to rise	Not less than 30 PSI										
8.2.6	Observe AR Gauge when air stops to Ex. From cock 15	Pressure is in between 39 and 51 PSI										
8.3	SECTION B											
8.3.4	Observe BP LINE gauge when air starts to Ex. At cock 8	Pressure is in between 44 and 56 PSI										
8.4	SECTION C											
8.4.3	Observe BP RES gauge when air stops to Ex. At cock 15	Pressure not less than 30 PSI										
8.4.5	Observe BP RES gauge when air starts to Ex. At cock 15	Pressure is in between 44 and 56 PSI										

Signature of firms Representative

RDSO Representative



CAPACITY																				
SECTION A (Lead Position)																				
9.9.1.2	Observe BC RES gauge	Pressure drops from 120 to 10 PSI in 4 to 7 secs.																		
9.9.2.2	Observe ER. Gauge	Pressure drops from 120 to 80 PSI in 4 to 7 secs.																		
SECTION B (Trail)																				
9.3.2.2	Observe Q.SER RES Gauge	Pressure drops from 120 to 20 PSI in 6 to 9 secs.																		
9.4.2.2	Observe ER. Gauge	Pressure drops from 120 to 80 PSI in 6 to 9 secs.																		
9.4.3.1	Observe ER. Gauge	Pressure drops from 60 to 25 PSI in 10 to 13 secs.																		

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : N1 REDUCING VALVE
PART No. 523 10 10 00
TS REF : TS 022 – 2

WABCO PC No. 552238
WABCO TEST SPEC No. T-1598-0
Date :

Test No.	Test Description	Result	Results Obtained									
			SI.No. of Valves									
7.0	Device conditioning											
7.5	Turn adj. Screw & observe the pr. Gauge	Clockwise – Pr. Rise-70 PSI										
		Anti Clockwise-Pr. Drop.										
7.11	Ex. Valve opening Test	Air blows out thro. Exhaust										
7.12	Ex. Valve closing Test	Blowing out stops										
8.0	LEAK TESTING											
8.2	EX. CHK.VALVE & DIAPHRAGM											
	Observe ER & AR gauges	1 PSI max drop. In 15 secs.										
8.3	IN.CHK.VALVE & DIAPHRAGM											
8.3.2	Observe ER gauge	1 PSI max drop. In 15 secs.										
8.4	CASTING & GASKET											
8.4.1	Check leak through valve	No Leakage										
9.0	CAPACITY											
9.2	Observe pressure rise in AR gauge	Pr. Rises to 50 PSI in 9 secs. Max										
10.0	FUNCTION TEST											
10.3	Check pressure drop in BP.VOL gauge	5 PSI max. drop										
11	FINAL SETTING											
11.2	Turn adj. Screw to the required pr. Setting	4 Kg./Sq Cm										

Signature of firms Representative

RDSO Representative



Govt. of India
Ministry of Railways
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226 012

TEST REPORT

PRODUCT : SA9 IND.BRAKE VALVE
 PART No. 503 00 10 00
 TS REF : TS 022 – 1

WABCO PC No. 564141
 WABCO TEST REF. T-2555-0
 Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			SI.No. of Valves									
			5205	5206	5207	5208	5209	5210	5211	5212	5213	5214
7	ADJUSTMENT											
7.5	Move handle to Full App. Position & observe AR gauge.	Pr. Rises to 40 PSI										
7.6	Move handle to release Position & observe AR gauge.	Pr. Drops to 0 PSI										
7.7	Move handle to Full App. Position & observe AR gauge.	Pr. Rises to 40 PSI										
	RESISTANCE TO HANDLE MOVEMENT											
	Release to Ind. Release	8 to 12 lbs										
	Ind. Release to release	Must return unassisted										
	Release to Full appln.	12 to 22 lbs										
	Between release and full application	Not more than 5 lbs										
	Out of full application to release	9 to 13 lbs										
8.0	LEAK TESTING											
8.4	SUP.CHK.VALVE & O RING											
8.4.1	Observe pressure drop. In ER & AR gauge	1 PSI max. drop in 10 secs.										
8.5	EX.CHK. VALVE & O RING											
8.5.3	Observe pressure drop. In ER & AR gauge	1 PSI max. drop in 10 secs.										
8.6	CASTING OR GASKET											
8.6.1	Check leak at cock 4	No float rise										
8.7.0	IND. RELEASE VAVE O RING											
8.7.1	Check leak at cock 8	No float rise										
8.8	CASTING OR GASKET											
8.8.3	Check leak through entire valve	No leakage										
8.9	IND. RELEASE VALVE O RING											
8.9.2	Observe pressure drop in BP line gauge	No pressure drops in 10 secs.										
8.9.5	Check leak at cock 8	No float rise										

Signature of firms Representative

RDSO Representative



9.0	CAPACITY TESTING												
9.2	PORT 30 TO PORT 20												
9.2.1	Observe pr. Rise in AR gauge	Pressure rises from 0 to 30 PSI in 6 sec. Max.											
9.3	PORT 20 TO EXHAUST												
9.3.2	Observe pr. Rise in AR gauge	Pressure rises from 40 to 10 PSI in 6 to 9 sec.											
9.4	PORT 7 TO PORT 1												
9.4.2	Observe pr. Rise in BP. VOL gauge	Pressure drops from 0 to 110 PSI in 9 to 13 sec.											
10.0	SENSITIVITY												
10.3	Observe pr. Drop in AR gauge	Pr. Drops to 0 PSI											
10.4	Observe pr. Rise in AR gauge	Pr. Rises in corresponding steps of not more than 3 PSI.											
10.5	Observe pr. Drop. In AR gauge	Pr. Drops in corresponding steps of not more than 3 PSI.											
10.6	Observe pr. Drop in AR gauge	Pr. Drop is not more than 5 PSI.											

Signature of firms Representative

RDSO Representative



Govt. of India
Ministry of Railways
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226 012

TEST REPORT

PRODUCT : H5 RELAY AIR VALVE
 PART No. 508 10 10 00
 TS REF : TS 014 – 1

WABCO PART No. 528561
 WABCO TEST REF. No. T-1462-0
 Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			Sl.No. of Valves									
			5701	5702	5703	5704	5705					
6.0	LEAK TESTING											
6.4	SUP. VALVE & PACKING RING											
s	Check leak at cock 4	8 cu. Inches max. float rise										
6.5	EX. VALVE & PACKING RING											
6.5.1.1	Check leak at cock 4	8 cu. Inches max. float rise										
6.6	DIAPHRAGM											
6.6.1	Check leak at vent port	No leakage										
6.7	PACKING RING IN DIA PH. FOLLOWER											
6.7.2.1	Check leak at vent port	No leakage										
6.8	CASTING & GASKET											
6.8.1	Check leak through entire valve	No leakage										
7.0	CAPACITY TESTING											
7.2	PORT 11 THROUGH EX. VALVE TO PORT 9											
7.2.4.1	Observe pr. Drop. In Q. Ser. Gauge	Pr. Drops from 80 PSI in a 8 secs. Max.										
7.3	PORT 12 THROUGH SUPP. VALVE TO PORT 11											
7.3.2.1	Observe pr. Rise in Q.Ser. Gauge	Pr. Rises from 0 PSI to 70 PSI in 5 secs. Max.										
8.0	SPRING TESTING											
8.5.1	Observe BP. VOL. gauge pr. When Q.SER. gauge pr. Starts rising	Pr. Is in between 35 & 40 PSI										
8.5.3.1	Observe BP.VOL. gauge pr. When Q.SER gauge pr. Equal to MR. Pr.	BP VOL. pr. Should not be more than 45 PSI.										
8.9.2	Observe BP.VOL. Gauge pr. When Q.SER gauge pr. starts reducing from 80 PSI.	BP VOL. pr. Should not be more than 31 PSI.										
8.9.2.1	Observe BP.VOL.gauge pr. when Q.SER gauge pr. is 0	BP VOL. pr. Should not be more than 27 PSI.										

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : C2W RELAY AIR VALVE 5MM CHOKE
 PART No. 505 0011 00A
 TS REF : TS 009 – 1

WABCO PART No. 579991
 WABCO TEST REF. No. T-3439-0
 Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			SI.No. of Valves									
7.0	LEAK TESTING											
7.6	SUP CHK.VALVE & 'O' RING											
7.6.1	Check leak at cock 8	Not more than 3 cu. In/min (max)										
7.7	EX. CHK VALVE & O RING											
7.7.3	Check leak at cock A	Not more than 3 cu. In/min (max)										
7.8	CASTING, GASKET & O RING											
	Check leak through valve	No leakage										
7.9	DIAPHRAGM											
7.9.3	Check leak at cock 8	No leakage										
8.0	CAPACITY TESTING											
8.2	SUP. PORT TO DEL. PORT											
8.2.1	Observe pr. rise in AR gauge	Pr. Rises to 100 PSI in 3 sec. Max. and continue to rise to 110 PSI										
8.3	DEL.PORT TO EX. PORT											
	Observe pr. drop. In AR gauge	110 PSI to 10 PSI in 6 Secs. Max										
9.0	SENSITIVITY TEST											
9.3	Observe pr. Rise in AR gauge	Pr. rises in corresponding steps of 1 PSI for every 1 psi rise in BP VOL gauge.										
9.5	Observe pr. Rise in AR gauge	Pr. decreases in corresponding steps of 1 PSI for every 1 psi drop in BP VOL gauge.										
9.7	Observe pr. drop in AR gauge	Pr. is maintained between 37 to 40 PSI.										

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : D1 Emergency Valve
PART No. 506 001000
TS REF : TS 013 – 1

WABCO PART No. 564786
WABCO TEST REF. No. T-3267-0
Date :

Test No.	Test Description	Result to be obtained	Results Obtained											
			Sl.No. of Valves											
1.0	LEAK TESTING													
(a)	EXHAUST VALVE AND O RING	No pressure drop in 15 secs.												
(b)	FLAPPER VALVE AND O RING													
	No pressure droop in BP line gauge	No pressure drop in 10 secs.												
2.0	CAPACITY AND FUNCTION													
	Pull valve lever to open and observe (a) BP VOL. Gauge	Pressure to drop to zero in 3 secs (max)												
	(b) Vacuum line gauge	Vacuum must drop to zero in 1 sec. (max)												

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : D1 AUTO DRAIN VALVE
PART No. 518 0013 00
TS REF : TS 030 – 1

WABCO PART No. 551116
WABCO TEST REF. No. T-2202-0
Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			Sl.No. of Valves									
			6726	6727	6728	6729	6730	6731	6732			
5.0	LEAK TESTING											
5.4	BALL CHECK VALVE											
5.4.1.1	Check leak at EX. Port.	Flow rator meter 11 Cu. In										
5.5	PUSHPER PIN AND PACKING RING											
5.5.6.1	Check leak at Ex. Prt	No Leakage										
5.6	GASKET											
5.6.4.1	Check leak through valve	No Leakage										
6	CAPACITY											
6.6	Observe pressure drop in EMER. Re. gauge	No Leakage										
		113 to 109 psi , 2 to 3 sec.										

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : 28 VB CONTROL VALVE
 PART No. 513 00 10 00
 TS REF : TS 016 – 1

WABCO PART No. 563855
 WABCO TEST REF. No. T-2630-0
 Date :

Test No.	Test Description	Result to be obtained	Results Obtained																	
			Sl.No. of Valves																	
	LEAKAGE																			
	SER.PISTON.CHK.VALVE																			
8.2.5	Check leak at cock 8	4 Cu. Inch. Max nse																		
8.2.6	Open cocks 2.9 & A & check leak at cock 8	No float rise																		
8.2.7	SER.PISTON.PSH PIN O RING																			
	Check leak at cock A	No float rise																		
8.3	SER LAP POSITION																			
8.3.6	Check leak at cock 8	No float rise																		
8.3.7	SER.PISTON CHK VLV & LARGE DIAPHRAGM																			
8.3.8	Observe BC gauge	No pr. rise in 15 secs																		
8.3.9	Observe ER gauge	No pr rise or drop in 15 sech																		
8.3.10	SER.PISTON RING & SMALL DIAPHRAGM																			
	Check leak at cock A	No float rise																		
8.4	SERVICE POSITION																			
8.4.2	Service piston o ring & small diaphragm																			
8.4.4	Check leak at cock A	No float rise																		
8.4.5	Check leak at cock 8	No float rise																		
8.4.5	SER.PISTON CHK VALVE & RING																			
8.4.6	SER.PISTON LARGE DIAPHRAGM & CONT. RES.CHK. VALVE																			
	Observe BP Line gauge	No pressure drop in 15 secs																		
8.5	Casting & Gasket																			
8.5.2	Check leak through body	No leakage																		
9.0	CAPACITY	No leakage																		
9.5	Ports 7 to 1 & check valve spring																			
9.5.1	Observe BP VOL. Gauge	Pr .rises from 0 to 60 PSI in3 secs max.																		
(b)	Observe BP line gauge	Pressure stops to charge at 108 to 109 5 PSI																		

Signature of firms Representative

RDSO Representative



9.6	Ports 30 to 16													
9.6.2	Observe BC gauge	Pressure rises from 0 to 70 PSI in 3 secs max.												
9.7	Ports 16 to 10													
9.7.2	Observe BC gauge	Pr. drops from 80 to 20 PSI in 6 to 9 secs.												
10	FUNCTION													
10.4	FUNCTION	Pressure rises 13 to 18 PSI												
10.6	Close cock 17 and observe BC gauge (Q.SER = 50PSI)	Pressure rises 44 to 50 PSI												
10.8	Close cock A and observe BC gauge (Q.SER = 20 PSI)	Pressure rises 18 to 23 PSI												
10.9	Open cock A and observe BC gauge (QSER=0 PSI)	Pr. drops to 0 PSI												
10.12	Observe BC gauge (ER= 107 PSI)	Pr. rises to 4 PSI min.												
10.13	Close cock 6 & observe BC Gauge	Pr. rises in corresponding steps of 5 to 7.5 PSI												
10.15	Close cock 9 and observe BC gauge	Pr. rises in corresponding steps of 5 to 7.5 PSI												
10.18	Close cock 17 and observe BC gauge (QSER = 50 PSI)	Pr. rises 66 to 74 PSI.												
10.19	Open cock A and observe BC gauge (QSER = 0 PSI)	Pr. drops to 28 to 22 PSI												

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : HS4 CONTROL VALVE
PART No. 511 10 10 00
TS REF : TS 008-2

WABCO PART No. 561128
WABCO TEST REF. No. T-2917
Date :

Test No.	Test Description	Result to be obtained	Results Obtained																	
			SI.No. of Valves																	
1.0	PRESSURE SETTING																			
	Turn adj. Handle to reqd. pressure setting	26 PSI																		
2.0	LEAK TESTING																			
9.3	SUP. VALVE AND EX VALVE																			
	Check leak at Ex. Opening	½" max. bubble in 10 secs																		
(b)	CASTING AND GASKET																			
	Check leak through valve	No leak except air leak at Ex. Opening																		
3.0	VALVE FUNCTION																			
	Turn adj. Handle anticlockwise and observe pressure rise in BP VOL. Gauge.	Pressure drops in steps of between 1 PSI & 5 PSI.																		
	Turn handle inward & observe pr. rise in BPVOL. Gauge	Changes immediately to 26 PSI & maintains the pressure.																		
	Observe pressure drop in BP VOL. Gauge.	Pr. is maintained with 1.5 PSI max. drop.																		
4.0	CAPACITY																			
(a)	Pr. rise in BP VOL gauge	0 to 20 PSI in 4 secs max.																		
	Pr. drop in BP VOL gauge	26 to 10 PSI in 12 secs max.																		
	Check the TP in BPV gauge	It must not exceed 10 PSI.																		

Signature of firms Representative

RDSO Representative



Govt. of India
Ministry of Railways
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226 012

TEST REPORT

PRODUCT : HB5 RELAY AIR VALVE
PART No. 509 10 10 00
TS REF : TS 012- 1

WABCO PC No. 549930
WABCO TEST REF. No. T-1976-0
Date :

Test No.	Test Description	Result to be obtained	Results Obtained																	
			SI.No. of Valves																	
7	LEAK TESTING																			
7.4	DIAPHRAGM AND DIA, FOLLOWER PACKING RING																			
	Check leak at cock 8	No float rise																		
7.4	SUP. VALVE AND PACKING RING																			
	Check leak at cock 4	6 Cu. In max. float																		
7.6	EXHAUST VALVE																			
7.6.1	Check leak at cock 4	6 Cu. In max. float																		
7.8	CASTING AND GASKET																			
	Check leak through entire valve	No leakage																		
8	CAPACITY TESTING																			
8.2	PORT 9 THROUGH SUP. VALVE PORT. 11																			
8.2.2	Observe pressure rise in Q.SER Gauge	Pressure rises from 0 PSI to 70 PSI in 5 secs max.																		
8.3	PORT 11 THRO. EX. VALVE PORT 12																			
8.3.2	Observe pressure drop in Q.SER Gauge	Pressure drops from 80 to 10 PSI in 8 secs max.																		
	SPRING TESTING																			
9.8	Observe BP.VOL. Gauge pressure when Q.SER gauge pressure starts dropping	Pressure is in between 9 and 13 PSI.																		
9.10	Reducing BP Res. Gauge Pressure to max of 4 PSI and observe Q.SER. gauge	Pressure rises to 80 PSI																		

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : MU2B VALVE
 PART No. 514 10 10 00
 TS REF : TS 016- 1

WABCO PC No. 564144
 WABCO TEST REF. No. T-2655-0
 Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			SI.No. of Valves									
1.0	LEAK TESTING (LEAD)											
A	O RING											
	Check leak at cock D	No float rise										
(b)	'O' RING											
	Check leak at cock 4	No float rise										
(c)	'O' RING											
	Check leak at Ex. Port	No leakage										
(d)	CASTING											
	Check leak through valve	No leakage										
B	LEAK TESTING (TRIAL)											
(a)	O RING											
	Check leak at cock D	No float rise										
(b)	O RING											
	Check leak at cock F	No float rise										
(c)	O RING											
	Check leak at cock E	No float rise										
(d)	'O' RING											
	Check leak at cock Ex. Port	No leakage										
(e)	CASTING											
	Check leak through valve	No leakage										

Signature of firms Representative

RDSO Representative



2.	CAPACITY (TRAIL)	No leakage												
(a)	PORT 30 TO 63 Observe pressure rise in Q.SER gauge	Pressure rises 0 to 100 PSI in 3 to 6 sec												
(b)	Port 53 to Exhaust													
	Observe pressure drop in BC RES	Pressure drops from 120 PSI to 20 PSI in 6 to 9 secs												
(B)	CAPACITY (LEAD)													
(a)	PORT 30 TO EX.													
	Observe pressure drop in Emer. Gauge	Pressure drops from 120 PSI to 100 PSI in 5 to 18 secs.												
(b)	PORT 20 TO 2													
	Observe pressure drop in AR	Pressure drops from 120 PSI to 40 PSI in 6 to 9 secs.												
(c)	PORT 13 TO 3													
	Observe pressure drop in AR	Pressure drops from 120 PSI to 40 PSI in 6 to 9 secs.												
(d)	PORT 63 TO 53													
	Observe pressure drop in Q.SER gauge	Pressure drops from 120 PSI to 20 PSI in 7 to 10 secs.												

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : VA1 RELEASE VALVE
 PART No. 515 0010 00
 TS REF : TS 017- 1

WABCO PC No. 563510
 WABCO TEST REF. No. T-2968-0
 Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			SI.No. of Valves									
1.0	LEAK TESTING											
(a)	CASTING & GASKET											
	Check leak through valve	No leakage										
(b)	O' RING & BUSH											
	Check leak at cock 6	No float rise										
(c)	CHECK VALVE SEAL											
	Check leak at cock 6	No float rise										
2.0	CHECK VALVE SPRING TEST											
(a)	OPENING											
	Observe the valve stem & BP VOL gauge	(a) Stem starts moving at 47 to 56 PSI of BPV gauge										
		(b) Stem reaches Max. Point at 57 to 68 PSI of gauge.										
(b)	CLOSING											
	Observe the valve stem & BP VOL. gauge	(c) Stem closes check valve seal at 41 to 48 PSI.										

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : VA-1B CONTROL VALVE
 PART No. 504 00 10 00
 TS REF : TS 007- 1

WABCO TEST REF. No. 564523
 WABCO TEST REF. No. T-2918-0
 Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			Sl.No. of Valves									
5.0	LEAKAGE TESTING											
5.4.0	RELEASE VALVE STEM "O" RING											
5.4.1	Check leak at port 12 opening	No leakage										
5.5	LARGE DIAPHRAGM											
5.5.1.1	Observe pr. drop in control res. Gauge	No pressure drop in 20 secs.										
5.6	SMALL DIAPHRAGM											
5.6.2.1	Observe pr. drop in B.P. line gauge	No pressure drop in 20 secs.										
5.7	RELEASE VALVE STEM "O" RING											
	Check leak at #73 drill choke opening	No leakage										
	Cap Nut											
	Check leak at #73 drill choke opening	No leakage										
	Cap Nut											
	Check leak around cap nut	No leakage										
	Casting											
	Check leak around port 12	No leakage										
	CASTING AND GASKET											
	Check leak through valve	No leakage										
	VALVE FUNCTION											
	Check vac. Drop. In gauge B (60 PSI)	Vac drops between 9" to 11"										
	Check leak in gauge B (45 PSI)	Vac drops to 0" Hg.										
	Check vac. Drop on gauge B	Between 19.5 to 20.5 Hg										
	Check vac. Drop in gauge B	Vac driops to 0" in 1 Sec max.										
	CAPACITY											
	Observe vac. Rise upto 15" Hg in gauge B	Vac should rise in 5 secs max.										
	Check rise drop upto 0" Hg in gauge B	Vac should rse in 4 secs max.										
	Check rise in appl. Res. Gauge from 0 to 20 PSI	Pressure should rise from 19 secs to 23 secs										
	Check pressure drop in QA CH gauge	Pr.should drop from 70 to 65 PSI in 8 to 10 secs.										
	SPRING											
	Check for leak at port 11	It should be between 14" to 15" of Hg in gauge B.										
	Check vac. In gauge B when air starts blowing at #73 choke	19" Max.										

Signature of firms Representative

RDSO Representative



Govt. of India
Ministry of Railways
Research Designs & Standards Organisation
Manak Nagar, Lucknow-226 012

TEST REPORT

PRODUCT : D24-B FEED VALVE
PART No. 507 01 0 00
TS REF : TS 020-1

WABCO PART No. 562008
WABCO TEST REF. No. T-2096-0
Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			Sl.No. of Valves									
			5611	5612	5613	5614	5615	5616	5617	5618	5619	5620
7.0	LEAKAGE TESTING											
7.20	Supply and Regulating Valve Leakage											
7.20.1	Close cock 1 and observe BP line gauge	Pr. dose not exceed 3 PSI in 30 secs.										
7.21	REGULATING VALVE PLUNGER, PACKING RING & BUSHING											
7.22	CASTING, GASKET & CAP NUT											
7.22.2	CLOSE COCK 8 AND OPEN COCKS 1 AND B AND CHECK LEAK THROUGH ENTIRE VALVE	NO LEAKAGE										
8.0	CAPACITY											
9.0	RANGE & OVERCHARGE TEST											
9.3	RANGE											
9.3.2	Move valve A handle to position 4 and observe pr. drop in BP Vol. gauge	Pr. drop is not more than in 1.5 PSI.										
9.5	OVER CHAGE											
	Open cock 5 and observe pr. rise in BP. VOL. gauge	Pr. does not exceed 75 PSI										

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : A1 DIFFERENTIAL PILOT VALVE
PART No. 510 00 10 00
TS REF : TS 019- 1

WABCO PART. No. 564940
WABCO TEST REF. No. T-2916-0
Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			Sl.No. of Valves									
1a	LEAK OPERATION TESTING Port 17 to #drill 73 choke and volume to atmosphere observe pressure drop in BP vol. gauge.	Reduces to 70 PSI in 14 to 18 secs.										
b	EQUALISATION Observe pressure drop in BP Vol. gauge	Pressure is in between 59 to 63 PSI.										
c	SMALL CHECK VALVE Check leak at cock 4	No leakage										
d	CASTING & GASKET Check leak through valve	No leakage										
e	Port 2 through # 73 frill choke to exhaust observe BC. Res. Gauge pressure reduces to 70 PSI.	Within 24 to 28 secs.										
f	Differential pressure in BP line gauge	Pressure is not more than 8 PSI.										

Signature of firms Representative

RDSO Representative



TEST REPORT

PRODUCT : NS-16 GOVERNOR ASSY
 PART No. 521 00 10 00
 TS REF : TS 088- 1/C

WABCO PART. No.
 WABCO TEST REF. No. T-2446-0
 Date :

Test No.	Test Description	Result to be obtained	Results Obtained									
			Sl.No. of Valves									
1(A)	MINIMUM PRESSURE SETTING											
a	CUT OUT PRESSURE	80 PSI										
b	CUT IN PRESSURE	76 PSI										
B	MAXIMUM PRESSURE SETTING											
	CUT OUT PRESSURE	150 PSI										
	CUT IN PRESSURE	144 PSI										
2	LEAKAGE TEST	No leakage is permitted										
a	CUT IN VALVE UPPER SEAT											
	LEAKAGE AT EXHAUST PORT	Flow rate should not exceed 25 cu. Inch.										
b	GASKET AND CUP NUT	No leakage is permitted										
c	CUT-OUT AND CUT-IN VALVE LOWER SEATS											
	LEAKAGE AT EXHAUST PORT	Flow rate should not exceed 25 cu. Inch.										
3	VALVE FUNCTION AND CAPACITY											
a	CUT OUT VALVE AND PORT CAPACITY											
	Charging time of brake cylinder reservoir pressure should be 100 PSI After CUT-OUT Position	Within 7 to 11 sec.										
b	RELEASE TIME OF BRAKE CYLINDER											
	RESERVOIR PRESSURE TO REDUCE FROM 100 PSI to 20 PSI AFTER CUT-IN POSITION	Within 13 to 16 sec.										
4	FINAL SETTING	Record final setting requested by the customer.										

Signature of firms Representative

RDSO Representative