



Report Number: QA26CR1LAAY41

中国认可
国际互认
检测
TESTING
CNAS L1635

TEST REPORT

PRODUCT NAME Motor Vehicle Hydraulic Brake Hose Assembly

PRODUCT MODEL $\Phi 3.2 \times 7.5 \text{mm}$

Hengshui Laint Motor Vehicle Braking

CLIENT System Co., Ltd.

TEST CATEGORY Commission Test

CATARC Automotive Research and Inspection Center
(Tianjin) Co., Ltd.



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6. Sample inspection is responsible for samples only.
7. The entrusting party (client) is responsible for samples and the authenticity of the data and information provided.

Inspection organization:

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Client Organization:

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Test Conclusion

Sample Name	Motor Vehicle Hydraulic Brake Hose Assembly	Trade Mark	HSDRS
Model and Specification	Φ3.2*7.5mm	Test Category	Commission
Client	Hengshui Laient Motor Vehicle Braking System Co., Ltd.		
Manufacturer	Hengshui Laient Motor Vehicle Braking System Co., Ltd.		
Deliverer	Sang Jianbao	Delivery Date	2026.04.15
Sample Quantity	44 sets	Production Date	2026.04.10
Test Basis	GB 16897-2022 <i>Structure, Performance Requirements and Test Methods of Brake Hose</i>	Test Items	See “Table 1”
Test Conclusion	According to the test result, the product meets the requirements of GB 16897-2022 <i>Structure, Performance Requirements and Test Methods of Brake Hose</i>. Approval date: 06/08/2026 		
Remarks	The report is translated from the QA26841LEBL01 report, and if there is any objection, the QA26841LEBL01 report shall prevail.		

Approved by: 刘伟 Verified by: 刘振国 Tested by: 邓德军

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1. Source and Purpose

CATARC Automotive Research and Inspection Center (Tianjin) Co., Ltd. is entrusted by Hengshui Laient Motor Vehicle Braking System Co., Ltd. to conduct test for Φ3.2*7.5mm Motor Vehicle Hydraulic Brake Hose Assembly to check whether the sample meets the requirements of GB 16897-2022 *Structure, Performance Requirements and Test Methods of Brake Hose*.

2. Test Basis

2.1 Method Basis:Test according to the provision of GB 16897-2022 *Structure, Performance Requirements and Test Methods of Brake Hose*.

2.2 Judging Basis:Determine according to the provision of GB 16897-2022 *Structure, Performance Requirements and Test Methods of Brake Hose*.

3. Sample Information

3.1 Sample Source: Delivered by client company.

3.2 Sample Quantity: 44 sets.

4. Test Item

Table 1 Test Item

Test item	Sample Number
Constriction	TS26EBL0A-01～TS26EBL0A-08
Expansion	TS26EBL0A-09～TS26EBL0A-12
Burst strength	TS26EBL0A-09～TS26EBL0A-12
Brake fluid compatibility	TS26EBL0A-13～TS26EBL0A-16
Whip resistance	----
Tensile strength	TS26EBL0A-17～TS26EBL0A-24
Water absorption	TS26EBL0A-25～TS26EBL0A-36
Low temperature resistance test	TS26EBL0A-37
Ozone resistance	TS26EBL0A-38
Dynamic ozone test	TS26EBL0A-39
High temperature impulse test	TS26EBL0A-40～TS26EBL0A-43
End fitting corrosion resistance	TS26EBL0A-44
Labeling	TS26EBL0A-01～TS26EBL0A-44

5. Date and location of test

Test Date: 2026.04.17 to 2026.05.25

Test Location: CATARC Automotive Research and Inspection Center (Tianjin) Co., Ltd. Component Center.

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6. Test result

SN	Test items	Sample No.	Criterion requirement	Test result	Conformity
1	Constriction	TS26EB L0A-01 ~ TS26EB L0A-08	The $\Phi 2.03\text{mm}$ gauge is inserted into a total length of 76mm within 3 seconds under the action of its own weight.	Every inside diameter is more than 64 percent of the nominal inside diameter of the brake hose.	Pass
2	Expansion	TS26EB L0A-09	The maximum expansion of a hydraulic brake hose assembly at 6.9MPa, 10.3MPa and 20MPa shall not exceed 1.08mL/m, 1.38mL/m, 2.00mL/m.	6.9MPa: 0.24mL/m; 10.3MPa: 0.37mL/m; 20.0MPa: 0.66mL/m.	Pass
		TS26EB L0A-10		6.9MPa: 0.23mL/m; 10.3MPa: 0.37mL/m; 20.0MPa: 0.65mL/m.	
		TS26EB L0A-11		6.9MPa: 0.23mL/m; 10.3MPa: 0.37mL/m; 20.0MPa: 0.65mL/m.	
		TS26EB L0A-12		6.9MPa: 0.23mL/m; 10.3MPa: 0.37mL/m; 20.0MPa: 0.65mL/m.	
3	Burst strength	TS26EB L0A-09	The hydraulic brake hose assembly shall withstand water pressure of $28\text{MPa} \pm 1\text{MPa}$ for $120\text{s} \pm 10\text{s}$ at a rate of 100MPa per minute without rupture, and then shall not rupture at less than 49MPa.	The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	Pass
		TS26EB L0A-10		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	
		TS26EB L0A-11		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	
		TS26EB L0A-12		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	

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Test result (continued)

SN	Test items	Sample No.	Criterion requirement	Test result	Conformity
4	Brake fluid compatibility constriction and burst strength	TS26EB L0A-13	The hydraulic brake hose assembly shall meet the constriction requirement after having been subjected to a temperature of 120°C for 70h±2h while filled with Brake fluid. It shall then withstand water pressure of 28MPa±1MPa for 120s±10s at a rate of 100MPa per minute without rupture, and then shall not rupture at less than 49MPa.	The hose meets the constriction requirement, can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	Pass
		TS26EB L0A-14		The hose meets the constriction requirement, can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	
		TS26EB L0A-15		The hose meets the constriction requirement, can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	
		TS26EB L0A-16		The hose meets the constriction requirement, can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	
5	Whip resistance	----	A hydraulic brake hose assembly shall not rupture when run continuously on a flexing machine for 35 hours.	This test item is not applicable.	N/A
		----		This test item is not applicable.	
		----		This test item is not applicable.	
		----		This test item is not applicable.	

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Test result (continued)

SN	Test items		Sample No.	Criterion requirement	Test result	Conformity
6	Tensile strength	slow	TS26EB L0A-17	A hydraulic brake hose assembly shall withstand a pull of 1446N without separation of the hose from its end fittings during a slow pull test (25mm/min $\pm$ 3mm/min).	2230N.	Pass
			TS26EB L0A-18		2216N.	
			TS26EB L0A-19		2293N.	
			TS26EB L0A-20		2227N.	
		fast	TS26EB L0A-21	A hydraulic brake hose assembly shall withstand a pull of 1646N without separation of the hose from its end fittings during a fast pull test (50mm/min $\pm$ 3mm/min).	2382N.	
			TS26EB L0A-22		2431N.	
			TS26EB L0A-23		2420N.	
			TS26EB L0A-24		2455N.	
7	Water absorption	Burst	TS26EB L0A-25	A hydraulic brake hose assembly, after immersion in water at 85°C for 70h $\pm$ 2h, shall withstand water pressure of 28MPa $\pm$ 1MPa for 120s $\pm$ 10s at a rate of 100MPa per minute without rupture, and then shall not rupture at less than 49MPa.	The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	Pass
			TS26EB L0A-26		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	
			TS26EB L0A-27		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	
			TS26EB L0A-28		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa.	

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Test result (continued)

SN	Test items		Sample No.	Criterion requirement	Test result	Conformity
7	Water absorption	Whip	----	A hydraulic brake hose assembly, after immersion in water at 85°C for 70h±2h, shall not rupture when run continuously on a flexing machine for 35 hours.	This test item is not applicable.	N/A
			----		This test item is not applicable.	
			----		This test item is not applicable.	
			----		This test item is not applicable.	
		Tensile	TS26EB L0A-29	A hydraulic brake hose assembly, after immersion in water at 85°C for 70h±2h, shall withstand a pull of 1446N without separation of the hose from its end fittings during a slow pull test (25mm/min ±3mm/min) .	1904N.	Pass
			TS26EB L0A-30		1881N.	
			TS26EB L0A-31		1822N.	
			TS26EB L0A-32		1974N.	
			TS26EB L0A-33	A hydraulic brake hose assembly, after immersion in water at 85°C for 70h±2h, shall withstand a pull of 1646N without separation of the hose from its end fittings during a fast pull test (50mm/min ±3mm/min).	2013N.	
			TS26EB L0A-34		1973N.	
			TS26EB L0A-35		2065N.	
			TS26EB L0A-36		2002N.	

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Test result (continued)

SN	Test items	Sample No.	Criterion requirement	Test result	Conformity
8	Low temperature resistance test	TS26E BL0A-37	Place the assembly in a free state together with a mandrel with an outer diameter of 76 mm in an environmental chamber set at (-48~-45)°C for a duration of 70h±2h. Without removing the assembly, bend the sample around the mandrel at least 180° within 5 seconds. After the test, there should be no visible cracks on the inner and outer surfaces of the hose.	Show no cracks visible.	Pass
9	Ozone resistance	TS26E BL0A-38	The assembly is bundled around the mandrel 360°, and then placed in an ozone box with an ozone concentration of $(100\pm10)\times10^{-8}$ and a temperature of $(40\pm2)^{\circ}\text{C}$, kept for 70h±2h, and after the test, the outer surface of the hose shall not show cracks visible under 7-power magnification.	Show no cracks visible under 7-power magnification.	Pass
10	Dynamic ozone test	TS26E BL0A-39	Take a sample of $(218\pm3)\text{mm}$, stand at room temperature for 24h, install it on the test fixture of dynamic ozone resistance, and then place it in an ozone box with an ozone concentration of $(100\pm10)\times10^{-8}$ and a temperature of $(40\pm2)^{\circ}\text{C}$, keep it for 48h±2h. After the test, the outer surface of the hose shall not show cracks visible without magnification.	Show no cracks visible without magnification.	Pass

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Test result (continued)

SN	Test items	Sample No.	Criterion requirement	Test result	Conformity
11	High temperature impulse test	TS26EB L0A-40	Maintain the environmental temperature at $143^{\circ}\text{C}\pm 3^{\circ}\text{C}$, apply a pressure of $11\text{MPa}\pm 0.1\text{MPa}$ to the brake hose assembly and hold for $60\text{s}\pm 6\text{s}$, then reduce to 0MPa and hold for another $60\text{s}\pm 6\text{s}$. The required pressure (from 0MPa to $11\text{MPa}\pm 0.1\text{MPa}$, and from $11\text{MPa}\pm 0.1\text{MPa}$ to 0MPa) should be reached within 2 seconds. The pressure cycling of the brake hose assembly should be performed 150 times. After high temperature impulse test, the specimen shall then withstand water pressure of $28\text{MPa}\pm 1\text{MPa}$ for $120\text{s}\pm 10\text{s}$ at a rate of 100MPa per minute without rupture, and then shall not rupture at less than 49MPa .	The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa .	Pass
		TS26EB L0A-41		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa .	
		TS26EB L0A-42		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa .	
		TS26EB L0A-43		The hose can withstand pressure of 28MPa for 120s without rupture, and no rupture at the pressure of 60MPa .	
12	End fitting corrosion resistance	TS26EB L0A-44	Conduct the neutral salt spray test according to GB/T 10125-2012 standard, with a test duration of 24 hours, and no corrosion products of the metal substrate should appear on the end fitting surface.	Show no base metal corrosion on the end fitting surface.	Pass

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Test result (continued)

SN	Test items	Sample No.	Criterion requirement	Test result	Conformity
13	Labeling	TS26EB LOA-01 ~ TS26EB LOA-44	Brake hoses 1. Identification strip: It should be located on the outer surface of the brake hose and parallel to the longitudinal axis of the brake hose, and its width should not be less than 1.6mm and be clearly visible. The identification strip shall be marked with the identification content, and its identification requirements shall comply with the regulations. 2. Logo requirements: The interval from the end of one logo to the first end of another logo should be less than 152mm, and the content of the logo should be represented by printed English letters or numbers, and the font height should be greater than 3.2mm. 3. Identification content: a) Standard number "GB 16897"; b) date of manufacture; c) the manufacturer or its abbreviation; d) Nominal dimensions; e) "HR" for standard expansion hydraulic hose and "HL" for low expansion hydraulic hose; Brake hose fittings At least one of the brake hose fittings should have a designation on it that is corroded, embossed, or pasted. The logo shall be represented by printed English letters or numbers, with a word height of not less than 1.6mm, and the content of the logo shall be the manufacturer's abbreviation or traceable manufacturer's logo. Brake hose assembly The brake hose assembly that installs the joint by crumpling, cold extrusion, thermal bonding, and press-fitting process shall be identified according to one of the following provisions: 1. According to the position recommended by the assembly manufacturer, add a ring on the hose assembly with a mark. The method of corrosion, embossing or pasting shall be indicated by English letters or numbers in printed fonts with a character height of not less than 3.2mm: a) Standard number "GB 16897"; b) date of manufacture; c) the manufacturer or its abbreviation; 2. At least there should be a mark on the joint at one end of the brake hose assembly, and the logo should be corroded, embossed or pasted, and the printed English letters or numbers with a word height of not less than 1.6mm should indicate the abbreviation of the manufacturer of the brake hose assembly or the traceable manufacturer logo.	Brake hoses Identification content: a) Standard number "GB 16897"; b) date of manufacture; c) the manufacturer or its abbreviation; d) Nominal dimensions; e) "HL" for low expansion hydraulic hose; Brake hose fittings There is a logo which is represented by an embossing method. The height of the logo is greater than 1.6mm, and the content of the logo is: "N". Brake hose assembly There is a marking on the hose assembly body, indicated by printed uppercase English letters and numbers with a height greater than 3.2mm: Standard number "GB 16897"; Date of manufacture; The manufacturer or its abbreviation;	Pass



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7.Photo



Fig.1 Test photo

8.Samples Information

Table 2 Samples Information

Item		Parameter
Vehicle Name, Model, Trademark		----
Vehicle Category		----
Vehicle Manufacturer		----
Brake Hose Assembly Manufacturer		Hengshui Laient Motor Vehicle Braking System Co., Ltd.
Hose	Hose Manufacturer	Hengshui Laient Motor Vehicle Braking System Co., Ltd.
	Hose Material	Nylon
	Nominal Inner Diameter	Φ 3.2mm
	Nominal Outer Diameter	Φ 7.5mm
Fitting	Fitting Manufacturer	----
	Fitting Structure	----
	Fitting Material	Metal
Connection Method		Crimped
Hydraulic Hose Type		Low expansion hose; No relative movement between frame and axle
Remark		All above information provided by the Client

----THE END----