

FOR IMMEDIATE RELEASE

Notice of Inappropriate Conduct for Certain Products, Including Unperformed Periodic Tests

Tokyo, December 22, 2021 – Hitachi Astemo, Ltd. has discovered inappropriate conduct regarding some of the brake components manufactured at its Yamanashi Plant (Minami-Alps City, Yamanashi Prefecture) and suspension components manufactured at its Fukushima Plant (Koori Town, Date District, Fukushima Prefecture), such as periodic tests*¹ not being conducted.

*1 Periodic tests: Sample tests that are separate from production process inspections and shipping inspections, which are determined by the customer.

We sincerely apologize for the significant inconvenience we may have caused our customers and concerned parties.

We have taken corrective measures to address the currently known inappropriate conduct and are now correctly implementing testing and inspections. Regarding affected products produced in the past, we are conducting internal verification tests, and have assessed there are no issues with product safety. To date, we have not confirmed any performance or safety issues regarding the pertinent products.

To ensure such incidents do not occur again and to fully regain trust of our partners and customers, our company established a special investigation committee through external legal counsel to investigate the facts and root causes of the matter independently and objectively. In addition, the committee is fundamentally reevaluating our quality assurance system and enhancing our compliance framework.

The details of the inappropriate conduct and the findings to date are as follow:

1. Yamanashi plant

Inappropriate conduct in periodic tests

Affected product No. of customers	Description	Number of tests	Time period^{*2}
Brake components 5 products for 9 customers	Data from periodic tests that weren't performed were included in reports to customers	~57,000	Oct 2003 to Mar 2021

*2 Currently confirmed time period

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1.1 Affected brake components

Five products—brake calipers^{*2}, master cylinders^{*3}, master cylinders and boosters^{*4}, electronically controlled brakes^{*5} and separate reservoir tanks^{*6}— delivered to nine customers.

*3 Brake caliper: Disc brake system component that applies pressure to a rotating rotor to stop a vehicle.

*4 Master Cylinder: Cylinder mechanism that converts brake pedal force into hydraulic force.

*5 Booster: A device that increases the applied pedal force from the driver.

*6 Electrically controlled brake: An electronic intelligent brake control unit.

*7 Separate reservoir tank: Stores brake fluid separately from the master cylinder to conform to vehicle layout, with a fluid-level warning function.

1.2 Discovery of inappropriate conduct and subsequent corrective measures

In December 2020, an internal QA-related audit was implemented by the QA department of parent company Hitachi, Ltd., in which a Hitachi Astemo employee shared information pertaining to inappropriate conduct to their department. Hitachi, Ltd. gave guidance to Hitachi Astemo's QA department to look into the matter, which started investigating from January 2021. As a result, we confirmed that inappropriate conduct of reporting data occurred in the Yamanashi plant, in which data from unperformed tests were included in the periodic test reports submitted to customers.

In response, from January 2021 we began implementing test items for periodic testing and while coordinating with customers, implementing countermeasures such as increasing staff. By March 2021, the inappropriate conduct was addressed. In addition, we will invest in new testing equipment to ensure the storage of test data and prevent tampering.

1.3 Safety of affected parts

Regarding past affected products, the production process inspections and shipping inspections that verify product safety and functionality are conducted separately from the periodic tests on sample products. These inspections have been appropriately implemented.

In addition, after uncovering the inappropriate conduct, we have taken numerous countermeasures to verify product performance. This includes reevaluating product endurance and strength through the analysis of management data logs, confirming the performance of affected products' components, and assembling the parts to reproduce

tests with completed products. As a result, we have found no safety or performance issues, and believe there are no issues with the past affected products.

In addition, Hitachi Astemo develops and produces products with sufficient performance margin, and to date have had no reports of safety or functionality issues.

2. Fukushima Plant

Inappropriate conduct during shipping inspection

Affected product No. of customers	Description	Number of units ^{*12}	Time period ^{*13}
Suspension components 4 suspension products for 14 customers	During damping force ^{*8} measurements, the evaluation temperature settings were revised ^{*9}	2018–10/2021 ~4.2 million units	~2000–10/2021
	Revising acceptable output threshold ^{*10} of damping force measurements	4/2018–7/2021 ~1.1 million units	~2000–7/2021
	Shipping products with damping force outside of specifications ^{*11}	4/2018–10/2021 ~4.8 million units	~2000–10/2021

*8 The shock absorber contains oil and a piston, and a small hole in the piston allows oil to pass through. The resistance of the oil generates the damping force, which is affected by temperature.

*9 Temperature was revised to an inappropriate number.

*10 Threshold set to a number exceeding customer specification.

*11 According to damping force measurements

*12 Figures are according to damper force measurement data that still remain from April 2018. Data prior to this is being investigated, and the number of cases is still being confirmed

*13 Currently confirmed time period

Inappropriate conduct in periodic inspections

Affected product No. of customers	Description	Number of reports ^{*15}	Duration ^{*16}
Suspension components 2 suspension products for 5 customers	Rewriting damping force values in periodic tests ^{*14}	259 1/2019–10/2021	~2000–10/2021

*14 Damping force measurements that were outside of customer specifications were rewritten to be in-spec and submitted.

*15 At this time, data is available from January 2019 for the measured and actual damping force values. Data prior to 2019 remains under investigation.

*16 Currently confirmed time period

2.1 Affected suspension components

The suspension absorbs vibrations from the road surface and stabilizes the vehicle. Four suspension products—front struts, rear shock absorbers^{*17}, steering dampers^{*18}, semi-active shock absorbers^{*19}—delivered to 14 customers had inappropriate conduct during shipping inspections. Two products—front strut, rear shock absorbers—delivered to five customers had inappropriate conduct with periodic testing.

*17 Front strut, rear shock absorber: Device that absorbs or limits the impacts/vibrations to the vehicle from road undulations.

*18 Steering damper: Device that limits or absorbs the impacts or vibrations to the steering wheel.

*19 Semi-active shock absorbers: Device that detects the body motions of the car and electronically controls how to limit or absorb the impacts/vibrations from road undulations.

2.2 Discovery of inappropriate conduct and subsequent countermeasures

Quality Assurance Department staff became aware of inappropriate conduct regarding the suspension damping force measurements during shipping inspection, and in July 2021 the information was shared with the Hitachi Ltd., Quality Assurance Department and Hitachi Astemo Compliance Department. Based on the information available at the time, and following our QA department's investigation, we confirmed inappropriate conduct for shipping inspections. Subsequent investigations uncovered inappropriate conduct with the periodic tests in October 2021.

The inappropriate conduct for both the shipping inspections and periodic testing were addressed by October 2021.

2.3 Safety of affected parts

For past affected products, we have found no issues with the safety and functionality of the products. This was validated through measures that include reevaluating product endurance and strength through the analysis of management data logs, and confirming the performance of affected products' components. In addition, Hitachi Astemo develops and produces products with sufficient performance margin, and at this time we have no reports of issues with safety or functionality.

3. Status of other plants

After uncovering the conduct, we implemented self-audits for all sites around the globe to verify that similar incidents were not happening elsewhere. In addition, we are implementing cross audits between different departments to maintain objectivity, and to date have not found any other inappropriate conduct.

4. Measures we are taking

We have individually informed our customers and other concerned parties of these issues, with ongoing dialog. We are committed to implementing the necessary measures to make good-faith efforts and continually make improvements.

Furthermore, we have established a special investigation committee through external legal counsel on December 6, 2021 to investigate the facts and root causes of the matter objectively and independently. The committee has no vested interest in our company and come with a wealth of experience in similar investigations. In addition to a thorough inquiry, we are fundamentally reevaluating our quality assurance system and enhancing our compliance framework, in order prevent similar incidents from occurring in the future and to fully regain the trust of our partners and customers.

We plan to announce the complete findings and specific preventative countermeasures once the investigation is complete.

Special investigation committee members

Committee Chairperson: Mr. Makoto Kaiami (Otemachi Law Office)

Committee Member: Ms. Haruka Matsuyama (Hibiya Park Law Office)

Committee Member: Mr. Koki Yamada (Tokyo International Law Office)

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.
