

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference W6088-000000	FOR FURTHER ACTION		See item 4 below
International application No. PCT/JP2011/064055	International filing date (<i>day/month/year</i>) 20 June 2011 (20.06.2011)	Priority date (<i>day/month/year</i>) 20 July 2010 (20.07.2010)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant HITACHI AUTOMOTIVE SYSTEMS, LTD.			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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	Date of issuance of this report 12 February 2013 (12.02.2013)
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PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)	19.07.2011
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Applicant's or agent's file reference
W6088-000000

FOR FURTHER ACTION
See paragraph 2 below

International application No. PCT/JP2011/064055	International filing date (day/month/year) 20.06.2011	Priority date (day/month/year) 20.07.2010
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International Patent Classification (IPC) or both national classification and IPC
B60W30/14 (2006.01) i, B60K31/00 (2006.01) i, B60T7/12 (2006.01) i, B60W10/18 (2006.01) i

Applicant
HITACHI AUTOMOTIVE SYSTEMS, LTD.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2011/064055

Box No. I **Basis of this opinion**

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed
 - a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
 - a. (means)
 - on paper
 - in electronic form
 - b. (time)
 - in the international application as filed
 - together with the international application in electronic form
 - subsequently to this Authority for the purposes of search

4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement	Novelty (N)	Claims <u>2-9</u> Claims <u>1</u>	YES NO
	Inventive step (IS)	Claims _____ Claims <u>1-9</u>	YES NO
	Industrial applicability (IA)	Claims <u>1-9</u> Claims _____	YES NO
2. Citations and explanations:			
<p>Document 1: JP 2003-507259 A (CONTINETAL TEVES AG & CO. OHG) 25 February 2003, claim 9; paragraphs [0018], [0019] & US 6742850 B1 & WO 2001/014194 A1 & DE 10015224 A1</p> <p>Document 2: JP 11-157424 A (TOYOTA MOTOR CORP.) 15 June 1999, paragraph [0016], fig. 4 & US 5978725 A & DE 19854184 A1</p> <p>Document 3: JP 2001-171497 A (NISSAN MOTOR CO., LTD.) 26 June 2001, paragraphs [0032]-[0035] (Family: none)</p> <p>Document 4: JP 10-338110 A (HONDA MOTOR CO., LTD.) 22 December 1998, paragraph [0014] (Family: none)</p> <p>Document 5: JP 8-198075 A (MAZDA MOTOR CORP.) 06 August 1996, paragraphs [0002], [0031]-[0033] (Family: none)</p> <p style="margin-top: 20px;">The invention as in claim 1 lacks novelty and does not involve an inventive step in the light of document 1 or 2 cited in the ISR. Documents 1 and 2 each describe a travel control device which switches from braking force control by</p>			

WRITTEN OPINION OF THE
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

vehicle-speed control to braking force control by brake pedal operation when the braking force by the pedal operation exceeds the braking force by the vehicle-speed control, if the brake pedal operation is performed during speed reduction control by the vehicle-speed control.

The invention as in claim 2 does not involve an inventive step in the light of documents 1-4 cited in the ISR. Documents 3 and 4 describe a feature wherein when it is determined that pedal operation is terminated, speed-reduction control is terminated during vehicle-speed control. A feature of gradual reduction is a commonly used means.

The invention as in claim 3 does not involve an inventive step in the light of documents 1-4 cited in the ISR. The feature wherein braking force control by vehicle-speed control is turned to zero with switching to the braking force control by pedal operation could be made, as appropriate, by a person skilled in the art.

The invention as in claim 4 does not involve an inventive step in the light of documents 1-5 cited in the ISR. Document 5 describes a feature wherein, if brake pedal operation is performed during speed-reduction control by vehicle-speed control, braking force by the vehicle-speed control is maintained.

The invention as in claims 5-6 does not involve an inventive step in the light of documents 1-5 cited in the ISR. Documents 1 and 2 describe a feature wherein, if brake pedal operation is performed during speed-reduction control by vehicle-speed control, braking force by the vehicle-speed

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INTERNATIONAL SEARCHING AUTHORITY

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

control is reduced. Setting a time lag for such braking-force reduction is an addition of a commonly used means.

The invention as in claims 7-9 does not involve an inventive step in the light of documents 1-5 cited in the ISR. Executing feedback control so as to reach a target control quantity is a commonly used means.