



HARMONIZED SYSTEM
REVIEW SUB-COMMITTEE

-
26th Session
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NR0314E1
(+Annexes I and II)

O. Eng.

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POSSIBLE AMENDMENTS TO THE NOMENCLATURE AND THE
EXPLANATORY NOTES REGARDING THE CLASSIFICATION OF CONTROLLER UNITS
FOR ANTI-LOCK BRAKING SYSTEMS (ABS)

(Item III.B.3 on Agenda)

Reference document :

NR0229E1

I. BACKGROUND

1. On 27 June 2002, the Secretariat received the following note from the Australian Administration.

II. NOTE FROM THE AUSTRALIAN ADMINISTRATION

2. "As part of the Harmonized System Third Review, the Australian Customs Service requests that consideration be given to specifying controller units for anti-lock braking systems (ABS) as parts of motor vehicles within the structure of the HS Nomenclature.
3. These goods are part of an emerging motor vehicle technology that will eventually control a broad range of functions central to the operation of the motor vehicle.
4. Australia is of the view that controller units for anti-lock braking systems are parts of motor vehicles, and should be classified accordingly.
5. The controller unit for an ABS is a unit which sits within the vehicle braking system to control the functions of the vehicle's brakes under given conditions.
6. Australia proposes that the Nomenclature be amended to ensure classification of these goods in heading 87.08 as parts of motor vehicles.

Note : Shaded parts will be removed when documents are placed on the WCO documentation database available to the public.

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Goods Description

7. The goods are controller units for anti-lock braking systems and form an integral part of any modern braking system in a motor vehicle. The goods may also incorporate traction and stability systems controller functions.
8. ABS controller units consist of an electronic controller unit (ECU), pump, motor and hydraulic unit. The controller unit is imported as a complete unit and not as part of a complete brake assembly.
9. The ABS controller unit functions by polling the state of the braking mechanism, which it does by means of a sensor attached to each wheel. During vehicle operation, the sensors monitor wheel speed at each of the wheels. When the ECU recognises impending lock based on the sensor signals, it responds by actuating the solenoid valves that are assigned to each wheel. This controls the wheel's rotation to avoid slippage to ensure that it makes maximum potential contribution to effective braking, regardless of conditions at the other wheels.
10. The units may also regulate the rotation of the wheels relative to each other, and the suspension of the vehicle to correct conditions of instability.
11. In short, the ABS controller unit functions to override driver input in order to bring the vehicle back into a state of controlled braking.
12. The ECU used in an ABS controller unit is what industry refers to as a closed loop controller. That is, it checks inputs, reacts to situations that are outside predefined parameters (set points) and re-adjusts – and continues to do so until the set points are restored.
13. In some vehicles the ABS function is extended to incorporate traction and stability control systems. Where these additional functions are included, the ABS controller unit will have additional functionality to enable the vehicle's brakes to play their part in these functions.
14. Traction control and stability control systems work in the following way.
15. Under acceleration, the engine and drive torque both increase, and if the road surface cannot support the increased torque at least one of the drive wheels will begin to spin. The traction control system responds by regulating drive-wheel slippage to the optimum level through the braking system.
16. The electronic stability program relies on the vehicle's braking system as a tool for "steering" the vehicle and keeping it on course. Braking intervention is directed at specific wheels, it brakes selected wheels or accelerates the driven wheels, therefore countering understeer or oversteer.
17. The ABS controller unit in addition to controlling the function of the ABS brake system also controls the function of the ABS traction and stability system when fitted to the vehicle. It should be noted that the ABS controller unit which incorporates traction and stability control only undertakes functions directly associated with the vehicle braking system. The ECU component of the ABS controller unit may also provide the intelligence control for other traction and stability control functions for example acceleration and deceleration, however

these functions are not undertaken by the controller unit but by other vehicle systems such as the engine management system.

18. The function of controller unit as a whole is limited to intervention in the braking system.
19. **Australia** will have a sample of the goods available at the 26th Session of the RSC.

Classification Issues

20. While **Australia** believes that controller units for ABS are currently classifiable within heading 90.32, Australia is of the view that a very strong case exists for these goods to be classifiable in heading 87.08 as parts of motor vehicles.
21. Controller units for ABS are specifically designed for use in motor vehicles and presented in a form that is specifically aimed at use as an integral part of the vehicle's brake system. The HSC has previously decided that components that are specifically designed to be incorporated in motor vehicles should be classified to 87.08 (for example, Classification Opinions 8708.29/1, 8708.39/1 and 8708.93/1).
22. The two relevant classifications and associated issues are discussed below.

Classification in heading 90.32

23. Heading 90.32 covers goods that are "automatic regulating or controlling instruments and apparatus".
24. Note 7 to Chapter 90 defines those goods that are included in heading 90.32 and sub-note 7 (b) directs that apparatus used to automatically regulate and/or control a variable should be classified within heading 90.32.
25. Classification in heading 90.32 is also directed by paragraph (II), on page 1858 of the Explanatory Notes, which states that the automatic regulators of heading 90.32 :

"...are intended for use in complete automatic control systems which are designed to bring a quantity, electrical or non-electrical, to, and maintain it at, a desired value, stabilised against any disturbances, by constantly or periodically measuring its actual value. They consist essentially of the following devices :

 - (A) A measuring device (sensing device...)
 - (B) An electrical control device, which compares the measured value with the desired value and gives a signal...
 - (C) A starting, stopping or operating device..."
26. An ABS controller unit fits this definition.

Consideration for reclassification in heading 87.08

27. As braking systems have evolved over the last twenty years, the ABS has become a common component of braking systems. The ABS controller unit, including the data processing unit in the ABS, is specifically designed to be used in a motor vehicle. If the ABS were imported as part of a complete braking package, **Australia**, and the motor vehicle

industry, consider the ABS controller unit would be subsumed into the overall braking function and as such would be classified in heading 87.08, as parts of motor vehicles.

28. Therefore, Australia, together with the industry, believe that there is no question that these goods are parts of motor vehicles. However, there is a view that the rules of classification prevent classification of the ABS controller unit in heading 87.08 when imported separately, and not as part of a complete vehicle braking system.
29. Note 2 (g) to Section XVII expressly excludes articles, which could be classified to Chapter 90 from being classified to Chapter 87 as "parts".

Classification Conclusions

30. Australia believes that ABS controller units are integral parts of motor vehicle braking systems, and are therefore most appropriately classified in heading 87.08, rather than heading 90.32. As such, the following amendments to the Nomenclature are proposed as part of the Third Review, to take effect from 1 January 2007." [See Annex I for the proposed amendments.]

III. SECRETARIAT COMMENTS

31. The Secretariat agrees with the Australian position, as expressed in paragraph 20, that controller units for ABS are currently classifiable within heading 90.32 but that an argument could be made that these goods should be classifiable in heading 87.08 as parts of motor vehicles. However, the legal text, as it currently exists, does not lend itself to this conclusion. Consequently, the Secretariat agrees that legal amendments would be required in order to ensure that controller units for anti-lock braking systems (ABS) are specified as parts of brakes for motor vehicles within the Harmonized System from 2007.
32. The Secretariat has reproduced the Australian proposed amendments in Annex I to this document. In addition, the Secretariat has produced, in Annex II, its own proposal based on the ideas expressed in the Australian proposal. In this connection, the Secretariat would draw the Sub-Committee's attention to the fact that the Secretariat's proposal takes into account the amendments to heading 87.08 for 2007 which the Harmonized System Committee already provisionally approved at its last session (see Annex N/2 to Doc. NC0590E2). This would include the collapsing of subheadings 8708.31 and 8708.39 from a two-dash to a one-dash subheading. The Secretariat understands that the Australian proposal is based on the current text.
33. The Secretariat would note that the Australian proposal refers to both "apparatus" and "goods" when dealing with the "braking and/or traction and/or stability of motor vehicles of heading 87.08". For the sake of consistency, the Secretariat has chosen the word "apparatus".
34. Finally, the Secretariat wonders whether a system which controls the traction or stability making use of the brakes would be classifiable as a brake of subheading 8708.3. The Secretariat has therefore deleted the references to "traction or stability" in the proposed exclusion and inclusion notes. The purpose of the proposed texts is to cover ABS controller units in heading 87.08 and not to expand the transfer of controller units beyond that idea.

35. The Secretariat has not included, in its proposal, the **Australian** amendment to the introductory phrase to Note 7 to Chapter 90. The Secretariat has some concern that this amendment could be interpreted to mean that the rest of Note 1 would not apply to heading 90.32 and, in the Secretariat's opinion, this would not be the case. Consequently, the Secretariat would be inclined not to include this in the proposed amendments.
36. The **Australian** Administration has indicated to the Secretariat that its delegate will make an overhead presentation during the meeting to assist the delegates in the understanding of the goods in question and how they fit into the overall vehicle braking system. In addition to the two photos in the document, there will also be several others available in the meeting room providing views from different vantage points, as well as the possibility of having some technical information supplied by the manufacturer.

IV. CONCLUSION

37. The Review Sub-Committee is invited to consider the **Australian** Note concerning amendments to the Nomenclature regarding the classification of controller units for anti-lock braking systems, as well as the specific proposals found in Annexes I and II to this document when it examines this agenda item.

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AUSTRALIAN PROPOSAL

Proposed amendments to the Nomenclature

“8708.3 - Brakes and servo-brakes and parts thereof :

8708.31 -- Mounted brake linings

[8708.32 -- Controller units for anti-lock braking systems (ABS), whether or not they incorporate traction and/or stability control functions]

8708.39 -- Other

Proposed amendments to the legal Notes to Chapters 87 and 90.

(1) Note 2 (g) to Section XVII.

Delete and substitute :

(g) “Articles of Chapter 90 [excluding apparatus designed for controlling the braking and/or traction and/or stability of motor vehicles of heading 87.08] ;”.

Note : This amendment will remove the present exclusion of the goods from Chapter 87.

(2) Insert the following new Note 1 (n) to Chapter 90 :

(n) “[Goods designed for controlling the braking and/or traction and/or stability of motor vehicles of heading 87.08.]”

Note : This amendment will provide direction that ABS controller units are not classifiable in Chapter 90.

(3) Note 7 to Chapter 90, first line.

Delete and substitute :

“[Subject to Note 1 (n) above] heading 90.32 applies only to :”

Note : This amendment will clarify the direction provided in Note 1(n) to Chapter 90.

Proposed amendments to the Explanatory Notes.

(1) Page 1740

Insert the following new Item (P) :

[(P) Anti-lock braking and/or traction and/or stability systems (ABS), being ABS controller units.]

Note : This amendment will provide direction that ABS controller units are classifiable in heading 87.08 as parts of motor vehicles.

(2) **Page 1859**

Heading 90.32, paragraph II.

Insert the following new exclusion (c) :

[(c) Anti-lock braking and/or traction and/or stability systems (ABS) of **heading 87.08.**]

Note : This amendment will provide direction that ABS should not be classified with other controlling devices.

Conclusion

Australia is of the view that the growing developments in motor vehicle dynamic control systems will need to be addressed as part of the Third Review of the HS. These systems should be classifiable as parts of motor vehicles and will require considerations to ensure that they are so captured by the HS.

The controller unit for an anti-lock braking system is presented to the 26th Session of the RSC for consideration to ensure its classification, as parts of motor vehicles, in heading 87.08.”

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ABS controller unit – subject of the Australian proposal



ABS controller unit – mounted in the vehicle



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