

**CUSTOMS, EXCISE AND SERVICE TAX APPELLATE TRIBUNAL  
CHENNAI**

REGIONAL BENCH – COURT NO. III

**Customs Miscellaneous Application No.40995 of 2025  
&  
Customs Appeal No.40403 of 2016**

(Arising out of Order-in-Appeal C. Cus II No.870/2015 dated 03.09.2015 passed by Commissioner of Customs (Appeals-II), 60, Rajaji Salai, Custom House, Chennai-600 001.)

**M/s. Hyundai Motor India Limited**

**....Appellant**

Plot No.H-1, SIPCOT Industrial Park,  
Irungattukottai, Sriperumbudur Taluk,  
Kancheepuram District  
Tamil Nadu 602 117.

***Versus***

**Commissioner of Customs  
(Seaport-Import)**

**... Respondent**

60, Rajaji Salai,  
Custom House,  
Chennai-600 001.

**APPEARANCE:**

Shri T. Viswanathan, Advocate  
Shri D. Santhana Gopalan, Advocate  
Shri S. Ganesh Arvinth, Advocate  
for the Appellant

Shri Sanjay Kakkar, Authorized Representative for the Respondent

**CORAM:**

**HON'BLE MR. P. DINESHA, MEMBER (JUDICIAL)**  
**HON'BLE MR. VASA SESHAGIRI RAO, MEMBER (TECHNICAL)**

**FINAL ORDER No.40163/2026**

**DATE OF HEARING: 31.10.2025**  
**DATE OF DECISION: 29.01.2026**

**Per: Shri P. Dinesha**

This Appeal is filed by the Appellant against Order-in-Appeal No. C. Cus II No.870/2015 dated 03.09.2015 passed by Commissioner of Customs (Appeals), Chennai. The prayer of the Appellant in MA for filing additional documents in Appeal record is allowed.

2. Brief and relevant facts as could be gathered from impugned Order-in-Appeal are that Appellant is engaged, *inter alia*, in the manufacture of motor vehicles. They filed a Bill of Entry No.5057284 dated 31.03.2024 through their Customs Broker M/s. Sun Global Logistics Private Ltd., Chennai for clearance of one consignment declared to contain "Manifold Absolute Pressure and Air Temperature Sensors (MAP & AT Sensor)" imported by them from their

related supplier M/s.Hyundai Motor Company, Korea. The importer classified the goods under CTH 90262000 for the purpose of assessment of duty. The Department was of the view that the goods are correctly classifiable under CTH 90319000 as part of measuring and checking instrument.

3. The Appellant-Importer manufactures motor vehicles, most of which run on internal combustion engines. Internal combustion engines operate by mixing air and fuel at a specified pressure to cause the combustion of the fuel. The combustion causes heat and expansion, propelling the pistons resulting in kinetic energy. Airflow into cylinders of engines is controlled by valves. When these valves open is termed "timing". The proportion of air and fuel in the cylinder/combustion chamber is the "richness" or "enrichment" of the fuel. The Electronic Control Unit (ECU) is an electronic device that, *inter alia*, calculates air density, determines the engine's air mass flow rate, adjusts timing and fuel enrichment, etc., so as to facilitate some automatic control to secure optimal engine performance. The ECU requires information as to the pressure and air temperature in the intake manifold of the engine. The intake manifold is that portion of an engine which, *inter alia*, permits and

regulates the inflow of air and fuel into the combustion chamber.

4. The imported goods are "Manifold Absolute Pressure and Air Temperature" sensors (MAP and AT sensors). These sensors sense (i.e., continuously measure) the intake manifold air temperature and pressure and send signals to the ECU. This sensor has a silicon chip mounted inside it. On one side of the chip, there is a reference pressure which is either a perfect vacuum or a pre-calibrated pressure. The other side is exposed to the pressure that is actually to be measured. The flexion in the silicon chip consequent to the pressure to be measured causes its resistance to vary which in turn alters the voltage of the electrical signal sent to the ECU. The ECU detects this change in the voltage signal as a pressure variation. A broadly similar process is followed for the measurement of temperature by the MAP and AT sensor too.

5. The Appellant imported these sensors and declared them under CTH 90262000. Heading 9026 is "**Instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases**

**(for example, flow meters, level gauges, manometers, heat meters), excluding instruments and apparatus of Heading 9014, 9015, 9028 or 9032."** and item under CTH 90262000 is called **"for measuring or checking pressure."** All this is in Chapter 90 titled *"Optical, Photographic, Cinematographic, Measuring, Checking, Precision, Medical or Surgical Instruments and Apparatus; Parts and Accessories Thereof."*

6. The Appellant sought a speaking order under Section 17(5) of the Customs Act, 1962 which was passed on 30.06.2015 vide Order-in-Original No.39384/2015. The findings in that order may be summarised as follows:

a) The contention of the Appellant that the duty had been paid by it under protest was not true as the Bill of Entry in question had not been assessed at all.

b) There is a contradiction in the stance of the Appellant in as much as it contends on the one hand that the MAP and AT sensor provides input information to the ECU and is therefore a 'pressure instrument' under CTH 9026, while on the other hand, the Appellant contended that it is a part of the ECU.

c) Reliance has been placed on data from websites such as Wikipedia, aa1car.com, fulepumpu.com, etc. [cite: 79]

d) The MAP and AT sensor is not a part of the ECU classifiable under CTH 9032. [cite: 80]

e) The MAP and AT sensor is not a measuring device classifiable under CTH 9026. [cite: 81]

f) The MAP and AT sensor is a part of a motor vehicle which has its own independent function of sensing the load of the engine and giving the required information to the ECU. [cite: 82]

g) It is an essential part of a motor vehicle required for the smooth running of the vehicle and is therefore classifiable under CTH 8708. [cite: 83]

Aggrieved by the aforesaid order of the Adjudicating Authority, Appellant preferred an Appeal before First Appellate Authority who *vide* impugned Order-in-Appeal C.Cus.II No.870/2015 dated 03.09.2015 upheld the Order-in-Original. Hence, the present Appeal has been filed before us.

7. At the outset, we disapprove of the use of internet material in view of the judgement of the Hon'ble Supreme Court in **Hewlett Packard India Sales P. Ltd. v. CC** (Civil Appeal No. 5373/2019 dt. 17.01.2023) as followed by a co-ordinate Chennai bench in **Daebu Automotive Seat India P. Ltd. v. CC** *vide* Final Order Nos. 40785-40790/2025 (in Customs Appeal Nos. 40314/2024 dt. 01.08.2025 etc.). Be that as it may.

8. In first Appeal, the Commissioner (Appeals) finds that the MAP and AT sensors do not carry out any measurement themselves, in as much as they work in conjunction with the ECU. It was also held that the goods are merely sensors and not instruments or apparatus. It was therefore held that the goods could not be classified under Headings 9025/9026.

9. The Commissioner (Appeals) also held that the sensors could not also be treated as "part of the ECU". It was held that the ECU could perform its intended function without the MAP and AT sensor, and that the sensor only performs its functions in co-ordination with the ECU. It was therefore held that the sensor could not be treated as "a part of the fuel delivery system alone" but that they were intended for use in

automobiles. Therefore, it was held that the "sensor" was classifiable under CTH 87089900.

10. We have heard Shri T. Viswanathan, Ld. Advocate assisted by Shri D. Santhana Gopalan, Shri S. Ganesh Arvinth, Ld. Advocates for the Appellants and Shri Sanjay Kakkar, Ld. Deputy Commissioner for the Respondent.

11. On behalf of the Appellant, besides reiterating the contentions before the authorities, below, it was submitted as follows :

a) Reliance was placed on a report of the **ARAI**. However, we find that this report merely describes the function of the goods and therefore is of no assistance either to the importer or the Revenue. On the issue of classification of imported goods.

b) Reliance has been placed on the **Explanatory Notes** to Heading 9026 to contend that since the imported goods "generally incorporates an element sensitive to variations in the quantity to be measured" and "the variations are converted into electrical signals" the sensors are measuring apparatus.

c) Reliance is also placed on **Commissioner of Customs, Bangalore Vs N.I. Systems (India) P. Ltd.** - 2010 (256) ELT 173 (SC) for an explanation of the term "sensor." We note that that judgement specifically incorporates 'pressure sensors' as an illustration of a sensor.

d) Even though there are many sensors which feed information to the ECU, the fact that the imported goods measures pressure and temperature is not disputed.

e) Even if the MAP and AT sensors are parts of the ECU, they are classifiable under CTH 9026 by virtue of Note 2(a) to Chapter 90. Reliance is placed on **Hyundai Motors India Ltd. Vs CC Chennai** - 2025 (6) TMI 608 CESTAT CHENNAI to contend that ECUs themselves are classifiable under CTH 9032.

It is submitted that Note 2(a) stipulates that parts of instruments in Chapter 90 which are themselves classifiable under Chapter 90 are to be classified under the Heading under which the parts will fit. In this context, it is also contended that the MAP and AT

sensor is classifiable under the Heading 9032 as a 'measuring device' being a sensing device.

f) By virtue of Note 2(g) to Section XVII of the Tariff, since the MAP and AT sensor fall under Chapter 90 and Note 2(g) specifically excludes goods falling under Chapter 90 from the scope of the term "parts" in Chapter 87.

12. The Appellant also places reliance on the following cases:-

- a. **Commissioner of Customs, Bangalore Vs SPM India Ltd.** – 2007 (211) ELT 573 (Tri.-Bang.)
- b. **Bosch India Ltd. Vs Commissioner of Customs, Bangalore** - 2021 (3750 ELT 227 (Tri.-Bang.)

13. *Per contra*, Shri Sanjay Kakkar, Id. Deputy Commissioner submitted that no measurement or checking of pressure is involved to justify the classification under CTH 90262000. It was also submitted that the MAP and AT sensor was not "a part of the ECU" as it has its own independent function. Reliance is placed on **Westinghouse Saxby Farmer Ltd. Vs Union of India** - 2021 (376) ELT 14 (SC).

14. The competing entries are thus **90262000** and **87089900**. CTH 90262000 has already been described above. CTH 87089900 may thus be noted. Chapter 87 is titled "*Vehicles other than Railway or Tramway Rolling-stock, and Parts and Accessories thereof.*" Heading 8708 is "*Parts and accessories of the motor vehicles of headings 8701 to 8705.*" And item 87089900 is "*Other.*" Therefore, 87089900 is a residuary entry for parts of automobiles.

15. A co-ordinate Bench, in **CC Bangalore Vs SPM India Ltd.** (*supra*) has held as follows:

“6. We have gone through the records of the case carefully. From the product literature, we noticed that the Air Leak Tester is a high precision measuring and checking instruments incorporating different pressure sensor which measures and checks the volume or pressure of air/gas and determines the existence of leakage of air/gas and the rate of leak. The leakage is determined only based on measurement of pressure. In view of the actual position, the impugned item can definitely be classified an instrument for measuring or checking pressure. When there is a specific entry, there is no need to come to residual entry preferred by the Revenue. Moreover, the Commissioner (Appeals) has given a very detailed finding after going through the literature and HSN Explanatory Notes. The case laws relied on by the Respondents are also relevant. In these circumstances, we do not find any merit in the Revenue’s appeal and the same is rejected.”

16. Another co-ordinate Bench, in **Bosch India Ltd. Vs CC, Bangalore** (*supra*) held as follows:

“13. On going through the above literature, it is not categorically stated anywhere that the impugned instruments are capable of controlling the main machines; it is stated that the measurement is accurate and improves the engine performance. It is not coming forth from the literature that these are capable of triggering the stop or start of the engines. Thus, we find that the Revenue could not establish the controlling feature of the instruments. Therefore, we find that Revenue has not discharged its final responsibility to establish the correctness of the classification proposed by them. It was open to the Department to investigate the matter further to establish with cogent evidence to substantiate their contention. Revenue was within their rights to obtain any technical opinion to establish the classification of the instruments under Heading 9032 and to counter the claim of the appellants about the classification under Heading 9036. The same having not been done, we find that there is no evidence to contradict the claim of the appellants. Therefore, the appellants should be eligible to classify the goods under [Heading] 9026. We find that the appellants have rightly relied upon the cases cited above to drive home the point that the onus to disprove the classification claimed by the appellants is squarely under the Department.

14. The Learned Counsel for the appellant also submits that the Department has not challenged the assessment in individual Bills of Entry and therefore, a demand issued under Section 28 of the Customs Act, 1962 is not tenable. Appellants have also relied upon *SPM India Ltd.* (supra) wherein ‘air leak tester’ was classifiable under Heading 9026. However, we find that the facts of the case are different inasmuch as the classifications claimed by the rival parties therein are different. However, as per our discussion above, we find that as it is not evidenced that the instruments do not have any mechanism to control or trigger, start or stop of the engine, in view of the HSN Explanatory Notes, they cannot be classified under [Heading] 9032. Therefore, we do not find any reason to interfere with the classifications claimed by the appellants. In view of the above, we find that the appeal succeeds.”

17. In **SPM India Ltd.** (supra) the goods under consideration were ‘air leak testers’ which were high precision measuring and checking instruments incorporating pressure sensors. The co-ordinate Bench observed that the existence of leakage by those goods are determined only on the basis of the measurement of pressure. It therefore upheld the classification under CTH 90262000.

18. In **Bosch India Ltd.** (*supra*) the goods were 'water signal sensors'. The findings of the co-ordinate Bench have already been noted above.

19. From these two orders, we find that though in that case no contention was raised that the goods were classifiable under CTH 8708, there are findings sufficiently supporting their classification under CTH 9026. We further find that while the goods are not identical in those cases to the present case, the essential characteristic, i.e., the goods being precision measuring equipment, is a common factor. We therefore consider ourselves bound by the orders of those two co-ordinate Benches. In any case, CTH 9026 is the more specific heading than CTH 8708. We are thus satisfied that the imported goods are covered by CTH 9026.

20. Having held so, we are supported (though not bound) by the reasoning of the Authority for Advance Rulings In Re: **Mahindra and Mahindra Ltd.** - 2024 (388) ELT 662 (A.A.R. Cus. Mum.) There too, there were pressure sensors, although not for the same purposes, but in automobiles. The findings of the Authority are as follows:

“7. It is also necessary to Take note of the case laws that has dealt with similar questions, *i.e.* whether to classify a particular device as

a part and accessory of a vehicle or as a separate article. In the case of *Premier Instruments & Controls Ltd.* 2005 (101) ECC 566, [2005 \(183\) E.L.T. 65](#) (Tri. - Chennai). as upheld by the Apex Court, the Chennai Bench of the Hon'ble Tribunal ruled that the automotive dashboard cluster consisting of pressure gauge, temperature gauge, fuel gauge, ammeter and speedometer are classifiable as parts and accessories of vehicles. The Hon'ble Tribunal observed that these devices containing multiple instruments were cleared as a single device, *i.e.*, as an instrument cluster. Although the components of the instrument are classifiable under Chapter 90. the instrument cluster does not find a place in Chapter 90. Therefore, the instrument cluster is classifiable as a part, principally and solely meant for use in motor vehicles, under Heading 8708. However, in the present case both DPS and TPMS answer to a specific sub-heading *i.e.* 9026 20 00 as instruments for measuring or checking the pressure. Therefore, although, they are principally and solely used in vehicles, they appear to be excluded from Heading 8708.

**7.1** I have also studied the case laws relied upon by the applicant. In the case of *SPM India* [[2007 \(211\) E.L.T. 573](#) (Tri. - Bang.)], the issue of classification of air leak tester was under consideration. It was observed by the Hon'ble Tribunal that the air leak tester is a high precision measuring instrument and can be classified under Heading 9026, and that when there is a specific entry, there is no need to choose a residual entry under Heading 9031. Accordingly, the Hon'ble Tribunal ruled that the Heading 9026 as an appropriate heading for air leak tester. The issue of classification of water sensors used for monitoring and detecting the presence of water in the fuel feed system under consideration. The Hon'ble Tribunal, observed that as the device does not have controlling and operating functionalities, they are not classifiable under sub-heading 9032 as an automatic controlling instrument and is eligible for classification under Tariff Item 9026 80 90 of the Tariff Act, 1975. Taking into account the preceding discussions, it is my considered opinion that Heading 9026 and more specifically sub-heading 9026 20 00 is the appropriate classification for the devices under consideration.

**7.2** I have also gone through a ruling of this Authority in *Re : Tata Motors* (Ruling No. CAAR/Mum/ARC/07/2022) wherein the classification of identical systems was analysed.

**8.** In view of my aforesaid discussions, I rule that the Tire Pressure Monitoring System (TPMS) and Differential Pressure Sensor (DPS) merit classification under sub-heading 9026 20 00 of the first schedule of the Customs Tariff Act, 1975.”

21. In view of the above decision, and in the light of the decided cases, we are of the view that the impugned order cannot sustain for which reason we set aside the same. In the result, Appeal is allowed with consequential benefits, if any, as per law.

(Order pronounced in open court on 29.01.2026)

sd/-

**(VASA SESHAGIRI RAO)**  
Member (Technical)

sd/-

**(P. DINESHA)**  
Member (Judicial)