Slip Op. 13- 144

UNITED STATES COURT OF INTERNATIONAL TRADE

BELIMO AUTOMATION A.G.,	:	
Plaintiff,	:	
v.	:	**PUBLIC VERSION**
	:	Before: Mark A. Barnett, Judge
UNITED STATES,	:	
	:	Court No. 10-00113
Defendant.	:	

OPINION

[The court finds that the subject imports were properly classified as "electric motors" under HTSUS 8501.10.40 and that they are not classified under HTSUS 9032.89.60. Accordingly, the court denies Plaintiff's motion for summary judgment and grants Defendant's cross motion for summary judgment.]

Dated: November 26, 2013

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Stuart F. Delery, Assistant Attorney General, Civil Division, Department of Justice, Commercial Litigation Branch, New York, New York, for Defendant United States. With him on the brief were Barbara S. Williams, Attorney-in-Charge, and Amy M. Rubin, Acting Assistant Director. Of Counsel was Michael W. Heydrich, Office of Assistant Chief Counsel, International Trade Litigation, U.S. Customs and Border Protection, of New York, NY.

Barnett, Judge: The case is before the court on cross-motions for summary judgment. Belimo Automation A.G. ("Belimo") contests the denial of its protest in which U.S. Customs and Border Protection ("Customs") classified the subject imports under subheading 8501.10.40 of the

Harmonized Tariff Schedule of the United States ("HTSUS") (2007) as electric motors. Belimo contends in its motion for summary judgment that Customs should have classified the subject imports under HTSUS 9032.89.60 as automatic regulating or controlling apparatuses because each incorporates an application specific integrated circuit (ASIC). Defendant United States asserts in its cross-motion that Customs correctly classified the subject imports under HTSUS 8501.

No genuine issues of material fact exist regarding properties of the subject imports and how they operate. Thus, the sole issue before the court is whether, as a matter of law, the subject imports were properly classified under HTSUS 8501 as "electric motors" or whether they should be classified under HTSUS 9032 as "automatic regulating and controlling instruments and apparatus."[1] For the reasons below, the court holds that Customs correctly classified the subject imports as "electric motors" subject to HTSUS 8501 and, therefore, denies Belimo's motion for summary judgment and grants Defendant's cross-motion for summary judgment.

BACKGROUND AND PROCEDURAL HISTORY

A. Overview of the Subject Imports

The subject imports are principally used in HVAC systems, which heat and cool spaces within buildings. (Def.'s Cross Mot. Summ. J. (hereinafter "Def.'s Cross Mot.") 2-3; Pl.'s Statement of Material Facts Not in Issue (hereinafter "Pl.'s Statement of Facts") ¶¶ 12-13.) Each consists of an electric motor, gears, and two printed circuit boards (PCBs), one of which is an ASIC, within a plastic or metal housing unit.[2] (Def.'s Cross Mot. 2; Pl.'s Statement of Facts ¶

[1] If the court determines that neither proposed heading applies to the subject imports, the court must identify the appropriate heading. *EOS of N. Am., Inc. v. United States*, 37 CIT __, __, 911 F. Supp. 2d 1311, 1317 (2013) (quoting *Jarvis Clark Co. v. United States*, 733 F.2d 873, 878 (Fed. Cir. 1984)); *see also Latitudes Int'l Fragrance, Inc. v. United States*, 37 CIT __, __, 931 F. Supp. 2d 1247, 1252 (2013).

[2] Certain models of the subject imports also incorporate a spring mechanism. (Def.'s Cross Mot. 1 (accepting

(footnote continued)

9.) The ASIC connects to and monitors the electric motor. (Def.'s Cross Mot. 5-6; Pl.'s Statement of Facts ¶¶ 31-32.) The motor, in turn, connects to and moves the gears. (Def.'s Cross Mot. 7; Pl.'s Statement of Facts ¶ 27.) The gears link the subject imports to an external mechanism that opens or closes a damper or a valve when the gears turn. (Def.'s Cross Mot. 1, 3, 7; Pl.'s Statement of Facts ¶¶ 26, 36, 41; Fairfax Dep. 30:14-25, June 5, 2012; Martinelli Dep. 83:17-22, 84:10-22, June 5, 2012.)

B. Operation of an HVAC System

An HVAC system typically includes sensors that measure the ambient air temperature of spaces in a building. (Def.'s Cross Mot. 3; Pl.'s Statement of Facts ¶ 15; Martinelli Dep. 24:15-24:23.) A central controller[3] receives and processes signals from temperature sensors and compares those signals to a pre-set, desired temperature for a given space. (Def.'s Cross Mot. 3; Pl.'s Statement of Facts ¶¶ 14(a)-(f), 16; Fairfax Dep. 108:19-109:2; Martinelli Dep. 24:15-26:4, 29:23-30:5.) The central controller then signals to a motor[4] to reposition an attached valve to change the amount of heated or cooled water that can flow through a water handling unit that serves that space. (Def.'s Cross Mot. 1-3; Pl.'s Mot. Summ. J. (hereinafter "Pl.'s Mot.") 1-4; Pl.'s Statement of Facts ¶¶ 16-17, 21-23, Fairfax Dep. 30:15-25, 62:18-63:17; Martinelli Dep. 20:4-23:21, 25:20-26:8, 40:3-18.) The temperature of the water in the water handling units affects the air temperature within air handling units that also serve that space. (Def.'s Cross Mot.

Plaintiff's Statement of Facts unless otherwise noted); Pl.'s Statement of Facts ¶ 10.) This fact is not material to the analysis. In addition, Belimo claims that the subject imports contain a hollow shaft connecting it to an external damper or valve, while Defendant claims the hollow shaft is a gear. (Def.'s Cross Mot. 1; Pl.'s Statement of Facts ¶ 27 n.1.) This difference is also not material to resolution of this case.

[3] An HVAC system typically has multiple central controllers, usually one per floor. (*See* Def.'s Cross Mot. 1-3; Pl.'s Statement of Facts ¶ 14(a)-(f); Fairfax Dep. 61:10-62:15; Martinelli Dep. 25:8-15; 94:18-95:9, 96:4-7.)

[4] A single central controller often controls multiple motors. (*See* Def.'s Cross Mot. 1-3; Pl.'s Statement of Facts ¶¶ 14(e)-(f), 16, 31-32; Fairfax Dep. 61:16-22; Martinelli Dep. 25:8-15; 94:18-95:9, 96:4-7.) In an HVAC system that incorporates the subject imports, the subject imports take the place of the simple electric motors and receive the central controller's signals. (Def.'s Cross Mot. 5; Pl.'s Statement of Facts ¶¶ 32, 39-40.)

1-3; Pl.'s Mot. 1-4; Pl.'s Statement of Facts ¶¶ 14b and c, 17-20; Martinelli Dep. 20:4-23:21, 25:20-27:7, 40:3-18.) Meanwhile, the central controller signals to a motor to reposition an attached damper to change the amount of heated or cooled air that can flow through the ductwork into the space that the air handling units serve. (Def.'s Cross Mot. 1-4; Pl.'s Mot. 1-4; Fairfax Dep. 62:7-63:17; Martinelli Dep. 26:25-27:18, 29:23-30:23.)

C. Operation of a Traditional HVAC System as Compared to One that Incorporates the Subject Imports

Compared to traditional HVAC systems, an HVAC system that incorporates the subject imports can more precisely and consistently control the motor used to position dampers or valves. (Def.'s Cross Mot. 4; Fairfax Dep. 30:14-25, 113:2-9.) In a traditional HVAC system, the central controller conveys the position signal directly to the motor, which turns until it triggers a switch that indicates the requested position has been reached. (Def.'s Cross Mot. 5; Martinelli Dep. 32:2-8.) In a system incorporating the subject imports, the central controller sends the position signal to the ASIC, which serves as a sophisticated version of the switch in the traditional HVAC system. (Def.'s Cross Mot. 5; Pl.'s Statement of Facts ¶¶ 29-32; *see* Martinelli Dep. 29:23-30:23.) The ASIC connects to and monitors the position of the motor.[5] (Def.'s Cross Mot. 5-6; Pl.'s Statement of Facts ¶¶ 31-32; Pl's Mot. 9.) By monitoring the motor's position, the ASIC can calculate the position of the gears in the subject merchandise, which corresponds to the position of the attached valve or damper. (Def.'s Cross Mot. 7; Pl.'s

[5] Different models of the subject imports employ different methods to monitor the electric motor. (Def.'s Cross Mot. 1 (accepting statements of fact on pages 8-15 of Belimo's motion for summary judgment unless otherwise noted); Pl.'s Mot. 9; Fairfax Dep. 45:7-46:10; 58:18-60:9; 86:13-87:22; 101:6-115:15.) The ASIC in most models detects "back electromotive force," which enables it to count the motor's electrical signals. Other models of the subject merchandise use a potentiometer, a position sensor located outside the ASIC that measures electrical resistance as a function of motor rotation and sends that measurement to the ASIC. Other models incorporate a "Hall Sensor" that monitors the motor's magnetic field. (Def.'s Cross Mot. 1; Pl.'s Mot. 8-9.) In all models, the ASIC translates a measurement of the motor into the "percent opening" of the attached damper or valve. (Def.'s Cross Mot. 1; Pl.'s Mot. 8-9, n.12.) The differences in the subject imports' motor monitoring methods are not material to the court's analysis.

Statement of Facts ¶¶ 37-38; Martinelli Dep. 29:15-23; Martinelli Affirm ¶¶ 7-8, July 9, 2012 (correcting statements in deposition testimony).) The ASIC compares the calculated gear position with the desired position that it received from the central controller. (Def.'s Cross Mot. 5-6; Pl.'s Statement of Facts ¶ 39; Martinelli Dep. 62:11-63:10; Martinelli Affirm ¶¶ 7-8.) It then calculates the motor operation required to rotate the gears so that the damper or valve will move to the desired position. (Def.'s Cross Mot. 7; Pl.'s Statement of Facts ¶¶ 39-40.) The ASIC then activates the motor, thereby turning the gears in the subject imports and repositioning the damper or valve until it reaches the desired position. (Def.'s Cross Mot. 5-7; Pl.'s Statement of Facts ¶¶ 32-33, 38-40; *see* Martinelli Dep. 30:6-30:14.)

D. The ASIC's Independent Control Functions

The ASIC also performs certain functions independently. For example, it monitors the subject imports' motor periodically and continuously, even absent a signal from the central controller. (Def.'s Cross Mot. 5-6; Pl.'s Statement of Facts ¶¶ 37, 42; Martinelli Dep. 51:6-19; Martinelli Affirm ¶¶ 5, 7, 10.) Using the inputs from this monitoring, the ASIC can independently prevent and reverse unintended movement from the desired position. (Def.'s Cross Mot. 5-7; Pl.'s Statement of Facts ¶¶ 42, 45.) Additional examples of the ASIC's independent functions include its ability to adapt to receive an AC or DC signal from the controller, filter out unintended electric signals, and use stored energy to prevent the motor from spinning out of control when the power fails. (Def.'s Cross Mot. 1 (accepting statements of fact in Pl.'s Mot. 8-15 unless otherwise noted); Pl.'s Mot. 12-15.)

E. The Subject Imports Do Not Measure or Calculate External Variables

Despite these independent control functions, the subject imports can only monitor the position of the motor and calculate the position of the incorporated gears. (Def.'s Cross Mot. 7;

Pl.'s Statement of Facts ¶¶ 31-32, 36-39; Fairfax Dep. 67:2-8, 93:12-25.) The subject imports do not incorporate a temperature sensor, measure temperature or any variable of airflow or of a liquid, or compare such an external measurement to a predetermined value. (Def.'s Cross Mot. 7; Fairfax Dep. 51:6-14, 55:11-56:4; Martinelli Dep. 52:20-53:13, 77:21-78:3.) Instead, the subject imports position their incorporated motor and gears in response to a signal received from the central controller, thereby affecting the position of an attached damper or valve. (Def.'s Cross Mot. 13; Martinelli Dep. 84:10-22, 86:4-87:22.)

F. Procedural History

The subject imports entered the United States between February 9, 2007 and February 26, 2007. Customs liquidated them between December 21, 2007 and January 11, 2008 under HTSUS 8501. Belimo timely filed a protest of this classification decision on June 17, 2008. On September 18, 2009, Customs confirmed that the subject imports fall under HTSUS 8501 as electric motors. HQ H044560 (Sept. 18, 2009). Belimo now challenges the denial of its protest. The parties have fully briefed the issues, and the court now rules on their respective motions for summary judgment.

JURISDICTION AND STANDARD OF REVIEW

The court has subject matter jurisdiction over this case pursuant to 28 U.S.C. § 1581(a). The court may grant summary judgment when "there is no genuine issue as to any material fact." USCIT R. 56(c). Summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." USCIT R. 56(a); *see, e.g.*, *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986); *Mingus Constructors, Inc. v. United States*, 812 F.2d 1387, 1390 (Fed. Cir. 1987).

The court's review of a classification decision involves two steps. First, it must determine the meaning of the relevant tariff provisions, which is a question of law. *See Bausch & Lomb, Inc. v. United States*, 148 F.3d 1363, 1365-66 (Fed. Cir. 1998). Second, it must determine whether the merchandise at issue falls within a particular tariff provision as construed, which is a question of fact. *Id.* When no factual dispute exists regarding the import, resolution of the classification turns solely on the first step. *See id.*; *see also Carl Zeiss, Inc. v. United States*, 195 F.3d 1375, 1378 (Fed. Cir. 1999).

While the court accords deference to Customs classification rulings relative to their "power to persuade," *United States v. Mead Corp.*, 533 U.S. 218, 235 (2001) (citing *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944)), the court has "an independent responsibility to decide the legal issue of the proper meaning and scope of HTSUS terms." *Warner-Lambert Co. v. United States*, 407 F.3d 1207, 1209 (Fed. Cir. 2005) (citing *Rocknel Fastener, Inc. v. United States*, 267 F.3d 1354, 1358 (Fed. Cir. 2001)).

DISCUSSION

The General Rules of Interpretation ("GRIs") provide the analytical framework for the court's classification of goods. *See N. Am. Processing Co. v. United States*, 236 F.3d 695, 698 (Fed. Cir. 2001). "The HTSUS is designed so that most classification questions can be answered by GRI 1 . . . ." *Telebrands Corp. v. United States*, 36 CIT __, __, 865 F. Supp. 2d 1277, 1280 (2012). GRI 1 states that "for legal purposes, classification shall be determined according to the terms of the headings and any relative section or chapter notes." HTSUS, GRI 1. The court must consider chapter and section notes of the HTSUS in resolving classification disputes because they are statutory law, not interpretive rules. *See Libas, Ltd. v. United States*, 193 F.3d 1361, 1364 (Fed. Cir. 1999).

"Absent contrary legislative intent, HTSUS terms are to be 'construed (according) to their common and popular meaning.'" *Baxter Healthcare Corp. v. United States*, 182 F.3d 1333, 1337 (Fed. Cir. 1999). "Courts may rely upon their own understanding of terms and/or consult dictionaries, encyclopedias, scientific authorities, and other reliable information." *Brookside Veneers, Ltd. v. United States*, 847 F.2d 786, 789 (Fed. Cir. 1988); *BASF Corp. v. United States*, 35 CIT __, __, 798 F. Supp. 2d 1353, 1357 (2011). For additional guidance on the scope and meaning of tariff headings and notes, the court also may consider the Explanatory Notes ("ENs") to the Harmonized Commodity Description and Coding System, developed by the World Customs Organization. *Lynteq, Inc. v. United States*, 976 F.2d 693, 699 (Fed. Cir. 1992). Although ENs do not bind the court's analysis, they are "indicative of proper interpretation" of the tariff schedule. *Id.* (quoting H.R. Rep. No. 100-576, at 549 (1988) (Conf. Rep.), *reprinted in*, 1988 U.S.C.C.A.N. 1547, 1582) (internal quotation marks omitted); *see also E.T. Horn Co. v. United States*, 367 F.3d 1326, 1329 (Fed. Cir. 2004) (citing *Len-Ron Mfg. Co. v. United States*, 334 F.3d 1304, 1309 (Fed. Cir. 2003)).

A. Competing Tariff Headings

Customs determined that the subject imports fall under HTSUS 8501.10.40 while Belimo asserts that they fall under HTSUS 9032.89.60. These provisions state as follows:

8501 Electric motors and generators (excluding generating sets):
8501.10 Motors of an output not exceeding 37.5 W:
Of under 18.65 W:
8501.10.40 Other

9032 Automatic regulating and controlling instruments and apparatus; parts and accessories thereof:
9032.89 Other:
9032.89.60 Other

Belimo alleges that the subject imports are not "simple motors" of the type covered by HTSUS 8501. (Pl.'s Mot. 1.) Rather, Belimo argues that the subject imports should be categorized under HTSUS 9032 because each incorporates an ASIC, which allows the subject imports to automatically control air flow by controlling motor operation and thus the opening and closing of attached dampers and valves. (Pl.'s Mot. 1.) Defendant responds that the subject imports are classified under HTSUS 8501 because they are electric motors. (Def.'s Cross Mot. 11.) Defendant further argues that the ASIC does not remove the subject imports from this provision because HTSUS 8501 covers electric motors that incorporate additional components and because the principal function of the subject imports is to serve as electric motors. (Def.'s Cross Mot. 11.)

B. HTSUS 9032.89.60

HTSUS 9032 covers "(a)utomatic regulating and controlling instruments and apparatus." According to Chapter 90 Note 7(a), Heading 9032 applies to:

> Instruments and apparatus for automatically controlling the flow, level, pressure or other variables of liquids or gases, or for automatically controlling temperature, whether or not their operation depends on an electrical phenomenon which varies according to the factor to be automatically controlled, which are designed to bring this factor to, and maintain it at, a desired value, stabilized against disturbances, by constantly or periodically measuring actual value . . . .

Belimo interprets this Note as requiring an apparatus to control two distinct things, a "variable" of liquids, gases, or temperature, and a "factor" that impacts that variable. Belimo argues that the "factor" cannot refer to flow, temperature, or another variable of liquid or gas because a variable of liquid or gas cannot vary in direct relation to an electrical phenomena, as the Note requires. (Pl.'s Mot. 21-22.) In contrast, the subject imports can automatically control the position of an attached damper or valve through an "electrical phenomenon," which it identifies as the operation of the electric motor and the corresponding rotation of the gears. (Pl.'s

Mot. 22.) Belimo further urges that the definition of "factor" is "a fact or situation that influences a result," not the result itself.[6] (Pl.'s Mot. 22 (citing Cambridge Dictionary, *available at* www.dictionary.cambridge.org/dictionary/american-english (last visited Oct. 30, 2013).) It reasons that the subject imports' control over the position of a damper or valve influences the flow of liquid or gas, thereby satisfying the terms of the Note. Thus, under Belimo's interpretation, the subject imports satisfy the Note's terms by automatically controlling air flow (the "variable") through their automatic control of an attached damper or valve (the "factor"). (Pl.'s Mot. 21-22.)

Defendant responds that "the factor to be automatically controlled" is simply shorthand for "flow, level, pressure or other variables of liquids or gases, or . . . temperature." (Def.'s Cross Mot. 18-19.) Because "factor" and "variable" refer to the same thing, Defendant contends that the subject imports cannot satisfy HTSUS 9032 because they do not automatically control a variable of liquids, gases, or temperature. (Def.'s Cross Mot. 18-19.)

The plain language of the Note conforms to Defendant's interpretation – that the terms "variable" and "factor" are synonymous. The word "factor" is modified by a definite article, which indicates that "factor" refers to something identified earlier in the passage. *Warner-Lambert*, 316 F.3d at 1356 ("[I]t is a rule of law well established that the definite article 'the' particularizes the subject which it precedes. It is a word of limitation as opposed to the indefinite or generalizing force of 'a' or 'an.'") (internal quotation marks omitted); Merriam-Webster Dictionary, *available at* http://www.merriam-webster.com/dictionary (defining "the" as "used to

[6] Belimo also offers expert testimony that "factor" cannot be synonymous with "variable" in scientific usage. (*See, e.g.*, Fairfax Dep. 70:15-71:22, 73:13-20; 77:15-20.) However, the definitions of "factor" and "variable" in the context of this Note speak to statutory interpretation, which is a question of law for the court, and the court is not persuaded by the expert's technical view of this statutory language. *Goldhofer Trailers USA, Inc. v. United States*, 7 CIT 141, 142 (1984) (citing *Am. Express Co. v. United States*, 39 C.C.P.A. 8, 10 (1951)); *EOS*, 37 CIT at __, 911 F. Supp. 2d at 1322.

indicate a person or thing that has already been mentioned or seen or is clearly understood from the situation"). In this case, the only syntactically plausible antecedent for "factor" is "variable."

Further, identical language modifies the two terms. The instrument is "for automatically controlling the . . . variables," and the "factor" is "automatically controlled." The language surrounding the terms thus suggests that the drafters intended "factor" to be shorthand for the previously specified variables. Indeed, the definitions of "variable" and "factor" overlap. The American Heritage Science Dictionary defines "variable" as a "*factor* or condition that is subject to change." American Heritage Science Dictionary, The American Heritage® Science Dictionary (2010), *available at* http://science.yourdictionary.com (last visited Oct. 30, 2013) (emphasis added). Similarly, a non-science dictionary defines "variable" as "something that may or does vary; a variable feature or *factor*." Dictionary.com, *available at* http://dictionary.com (last visited Oct. 30, 2013) (emphasis added). While Belimo offers definitions in which "factor" does not define "variable," the range of definitions demonstrates that the terms may be used synonymously or, as in this case, one may be used as a shorthand for the other, when that other is extensively modified. Thus, the court finds that "factor," as used in Chapter 90, Note 7(a), necessarily refers to a variable of liquid, gas, or temperature, not to damper or valve position, as Belimo contends.

The cases that Belimo cites do not support its interpretation of Note 7(a). Neither case discusses the definitions of "variable" or "factor." In *Applied Biosystems v. United States*, the court evaluated whether HTSUS 9032 fully described a product that combined equipment that heated and cooled, a sensor for measuring temperature, and a controller that directed heating and cooling. 34 CIT __, __, 715 F. Supp. 2d 1327, 1330 (2010). The court concluded that HTSUS 9032 does not cover the equipment that heated and cooled. *Id.* at __, 715 F. Supp. 2d at 1334-36.

Likewise, in *Whirlpool Corp. v. United States*, the court considered whether the presence of a defrost timer removed a refrigerator subassembly that also included a thermometer from HTSUS 9032. 31 C.I.T. 1147, 1150-51 (2007). The court never discussed whether there is a distinction between a "variable" and a "factor." *See generally id.* It simply concluded that the subassembly automatically regulated temperature because it included a thermometer to measure temperature and a defrost timer that powered a heater when a compressor had run for a predetermined time. *Id.* at 1151-53.

The EN accompanying HTSUS 9032 reinforces the conclusion that the subject imports do not fall under HTSUS 9032 because they do not measure any variable of air flow, a liquid, or temperature. EN 9032(1) states that a product falling under HTSUS 9032 should consist of:

> (a) A device for measuring the variable to be controlled (pressure or level in a tank, temperature in a room, etc.); in some cases, a simple device which is sensitive to changes in the variable (metal or bi-metal rod) may be used instead of a measuring device.
>
> (b) A control device which compares the measured value with the desired value and actuates the device in (c) below accordingly.
>
> (c) A starting, stopping or operating device.

Explanatory Note to 9032, HTSUS. Belimo argues that the subject imports satisfy all three criteria. However, the subject imports do not include a device for measuring temperature or any other variable of liquid or gas. (Def.'s Cross Mot. 7; Fairfax Dep. 51:6-14, 55:11-56:4; Martinelli Dep. 77:21-25, 78:2-3.)

The error in Belimo's reasoning is most clear when considering EN 9032(1) subsection (a) in conjunction with subsection (b), which requires an import to include a control device that compares the measured value with the desired value. Together, the language of these subsections indicates that a product meeting the criteria of HTSUS 9032 must measure the value of the temperature or the flow, level, pressure, or other variable of a liquid or gas. Here,

however, the subject imports do not measure one of these variables. (Def.'s Cross Mot. 7; Fairfax Dep. 51:6-14, 55:11-56:4; Martinelli Dep. 77:21-78:3.) Instead, they receive a signal which they interpret to determine a setting for the damper or valve, control a motor to move the damper or valve to that setting, and monitor the motor to ensure that the damper or valve remains at that setting. (Def.'s Cross Mot. 4-7; Pl.'s Statement of Facts ¶¶ 29-33, 37-40, 42, 45; Pl's Mot. 9; Fairfax Dep. 92:23-93:8, 113:2-9; Martinelli Dep. 29:15-30:23, 51:6-19, 62:11-63:10; Martinelli Affirm ¶¶ 5, 7-8, 10.) While the internal monitoring of the motor position may ensure more reliable positioning of the damper or valve being controlled by the subject imports, at no point do the subject imports measure the variable (i.e., the temperature, flow, pressure or otherwise) sought to be controlled and make adjustments as a result of comparing such external measurements to the desired temperature, flow, pressure or otherwise. (Def.'s Cross Mot. 5-7, 13-14; Pl.'s Statement of Facts ¶¶ 37-39, 42; Martinelli Dep. 77:21-78:3; Fairfax Dep. 51:6-14, 55:11-56:4.)[7]

Accordingly, the subject imports are not classifiable as "automatic regulating and controlling instruments and apparatus" under HTSUS 9032.

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[7] Because the subject imports fail to meet the criteria of EN 9032(1)(a) and (b), the court need not determine whether they satisfy the requirement in EN 9032(1)(c) that they include a starting, stopping, or operating device.

Belimo also asserts that the subject imports are also known as HVAC "draft regulators" or "oven draught regulators" when they are used to regulate or control the operation of a furnace or boiler by automatically measuring and regulating the position of the moveable mechanism of a valve or damper that affects the flow of air or fluid (e.g., water or liquid fuel to the boiler) "by reference to the temperature, pressure, etc." (Pl.'s Statement of Facts ¶ 46; Pl.'s Mot. 27-28 (citing EN 9032(1)(F).) The EN to HTSUS 9032 indicates that oven draft regulators are an example of an automatic control instrument that satisfies Note 7(a) and thus fall under Heading 9032. Explanatory Note to 9032, HTSUS ("This group includes . . . (F) Oven-draught regulators are used, for example, in central heating or air conditioning plants to control automatically the air intake by reference to the temperature, pressure, etc."). However, the subject imports do not meet the criteria for EN 9032(a) or (b) and do not qualify as "oven draft regulators."

C. HTSUS 8501.10.40

In contrast, the subject imports are properly classified under HTSUS 8501, covering "electric motors." According to the related EN, "electric motors" are "machines for transforming electrical energy into mechanical power."[8] Explanatory Note to 8501, HTSUS. Here, the subject imports receive an electronic signal from the central controller and use the mechanical power from the incorporated motor and gears to move an attached damper or valve. (Def.'s Cross Mot. 1, 3, 5-7; Pl.'s Statement of Facts ¶¶ 26-27, 29-33, 36, 38-41; Fairfax Dep. 30:14-25; Martinelli Dep. 29:23-30:14, 83:17-22, 84:10-22.) The subject imports thus satisfy the definition of an "electric motor" to be classified under Heading 8501.

The fact that the subject imports incorporate an ASIC does not remove them from the provision. Heading 8501 is an *eo nomine* provision, meaning that it includes "all forms" of "electric motors," even those equipped with additional components, absent limiting language or contrary legislative intent. *Nidec Corp. v. United States*, 68 F.3d 1333, 1336-37 (Fed. Cir. 1995); *see also Nat'l Advanced Sys. v. United States*, 26 F.3d 1107, 1111 (Fed. Cir. 1994). As discussed below, an electric motor remains classifiable under HTSUS 8501 even if it incorporates additional parts and components. For example, an EN to Heading 8501 indicates that "(m)otors remain classified here even where they are equipped with pulleys, with gear boxes, or with a flexible shaft for operating hand tools" and specifically mentions that the heading encompasses "'outboard motors,' for the propulsion of boats, in the form of a unit comprising an electric motor, shaft, propeller and a rudder." Explanatory Note to 8501, HTSUS.

[8] The parties agree that the subject imports would be classified as electric motors under HTSUS 8501 if each did not include an ASIC (Def.'s Cross Mot. 26; *see* Pl.'s Mot. 29-31 (stating that ASIC removes subject imports from HTSUS 8501 covering electric motors); *see also* Belimo's Legal Basis of Protest and Application for Further Review, Martinelli Dep. Ex. C at 16 (conceding that "without the ASIC electronics [the subject imports] likely would be classifiable as electric motors under HTSUS heading 8501").)

The relevant chapter and section Notes reinforce that an import remains classifiable as an electric motor even when it includes additional functionalities, like those that the ASIC provides to the electric motor in the subject imports, so long as the principal function remains the same. Note 3 to Section XVI, which encompasses Heading 8501, states that "[u]nless the context otherwise requires . . . machines designed for the purpose of performing two or more complementary or alternative functions are to be classified as . . . that machine which performs the *principal function*." Note 3, Section XVI HTSUS (emphasis added); *see also* Explanatory Note to Section XVI, Part (VI) Multi-Function Machines and Composite Machines, HTSUS ("Composite machines consisting of two or more machines or appliances of different kinds, fitted together to form a whole, consecutively or simultaneously performing separate functions, which are generally complimentary and are described in different headings of Section XVI, are also classified according to the *principal function* of the composite machine . . . .") (emphasis added).

The subject imports include two types of machines: an electric motor and two printed circuit boards, including the ASIC.[9] Certainly, the ASIC contributes additional functionalities beyond those that a basic electric motor offers, including continuous monitoring of the motor absent a signal from the central controller, adapting to AC or DC electrical signals, and storing energy for use in the event of a power failure. (Def.'s Cross Mot. 1, 4, 7, 32; Pl.'s Statement of Facts ¶¶ 11, 29, 37-40, 42, 45; Pl.'s Mot. 8-15.) However, these functions are complementary to

[9] A "machine" includes "any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of Chapter 84 or 85." Note 5 to Section XVI, HTSUS. On its own, the electric motor in the subject imports would likely be classified under HTSUS 8501. (Def.'s Cross Mot. 26; *see* Pl.'s Mot. 29-31 (stating that ASIC removes subject imports from HTSUS 8501 covering electric motors); *see also* Belimo's Legal Basis of Protest and Application for Further Review, Martinelli Dep. Ex. C at 16 (conceding that "without the ASIC electronics [the subject imports] likely would be classifiable as electric motors under HTSUS heading 8501"); Fairfax Dep. 111:17-113:9.) If imported separately, the printed circuit boards would likely fall under HTSUS 8537 covering "boards and panels . . . equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity." (Def.'s Cross Mot. 30; Pollichino Decl. ¶ 8, Apr. 18, 2013 (citing Chapter 85, HTSUS 8537).)

the functions of the electric motor such that, even with the ASIC, the subject imports serve the same principal function of using mechanical power to position an attached damper or valve as a traditional electric motor would in an HVAC system. (Def.'s Cross Mot. 4-5; Pl.'s Statement of Facts ¶¶ 12, 23, 25, 28, 31-33; Martinelli Dep. 29:10-15, 37:20-38:9; Fairfax Dep. 47:4-16.) The additional functionalities that the ASIC provides all relate to improving the precision and reliability of the motor's operation so that the motor can better do its job of positioning the attached dampers and valves in accordance with the signal received from the central controller. Thus, the ASIC does not change the principal function of the subject imports as electric motors. *See Nidec*, 68 F.3d at 1337 (affirming that import remained classifiable as electric motor even though it incorporated a "precision spindle and other components" because "(t)he basic character of (the) product as an electric motor is not changed because it is custom designed . . . or because it includes the precision spindle") (internal citations omitted). Customs therefore correctly classified the subject imports under HTSUS 8501 based on their principal function as electric motors.

CONCLUSION

For the reasons stated above, the subject imports are properly classified in subheading 8501.10.40 HTSUS, subject to duty at 4.4 percent *ad valorem*. The court thus denies Plaintiff's motion for summary judgment and grants Defendant's cross motion for summary judgment. Judgment will be entered accordingly.

/s/ Mark A. Barnett
Judge

Dated: November 26, 2013
New York, New York