DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

Notice of Issuance of Final Determination Concerning

Certain Videoscopes


ACTION: Notice of final determination.

SUMMARY: This document provides notice that U.S. Customs and Border Protection (“CBP”) has issued a final determination concerning the country of origin of certain videoscopes (or remote visual inspection equipment). Based upon the facts presented, CBP has concluded that the country of origin of the videoscopes in question is Japan, for purposes of U.S. Government procurement.

DATES: The final determination was issued on January 14, 2020. A copy of the final determination is attached. Any party-at-interest, as defined in 19 CFR 177.22(d), may seek judicial review of this final determination within [insert 30 days from date of publication in the Federal Register].

FOR FURTHER INFORMATION CONTACT: Joy Marie Virga, Valuation and Special Programs Branch, Regulations and Rulings, Office of Trade, at (202) 325-1511.

SUPPLEMENTARY INFORMATION: Notice is hereby given that on January 14, 2020, pursuant to subpart B of part 177, U.S. Customs and Border Protection Regulations (19 CFR part 177, subpart B), CBP issued a final determination concerning the country of origin of certain videoscopes (IPLEX GT and GX Videoscopes), imported by Olympus Scientific Solutions Technologies Inc. (“OSST”), which may be offered to the U.S. Government under an
undesignated government procurement contract. This final determination, Headquarters Ruling Letter (‘‘HQ’’) H303139, was issued under procedures set forth at 19 CFR part 177, subpart B, which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. 2511-18). In the final determination, CBP concluded that the country of origin of the videoscopes is Japan for purposes of U.S. Government procurement.

Section 177.29, CBP Regulations (19 CFR 177.29), provides that a notice of final determination shall be published in the *Federal Register* within 60 days of the date the final determination is issued. Section 177.30, CBP Regulations (19 CFR 177.30), provides that any party-at-interest, as defined in 19 CFR 177.22(d), may seek judicial review of a final determination within 30 days of publication of such determination in the *Federal Register*.


Alice A. Kipel,  
Executive Director,  
Regulations and Rulings,  
Office of Trade.
January 14, 2020

OT:RR:CTF:VS H303139 YAG/JMV

CATEGORY: Origin

Mr. Daniel Shapiro
Olympus Scientific Solutions Americas
48 Woerd Avenue
Waltham, MA 02453


Dear Mr. Shapiro:

This is in response to your correspondence, dated March 12, 2019, requesting a final determination, on behalf of Olympus Scientific Solutions Technologies Inc. (“OSST”), concerning the country of origin of certain videoscopes, pursuant to subpart B of Part 177 of the U.S. Customs and Border Protection (“CBP”) Regulations (19 C.F.R. § 177.21 et seq.).

We note that OSST is a party-at-interest within the meaning of 19 C.F.R. § 177.22(d)(1) and is entitled to request this final determination.

FACTS:

OSST imports the IPLEX GT and GX Videoscope (remote visual inspection equipment), from Japan. This equipment allows for the non-destructive inspection of turbines, heat exchangers, pipes, boiler tubes, and other products. According to OSST’s submission, the videoscopes feature three main components: (1) an 8-inch touch screen or computer control unit (“CCU”); (2) a scope unit with a light source (“scope”); and, (3) a tip adapter. OSST states that the overall manufacturing process involves Olympus Japan, a parent company of OSST, designing the CCU and the scope, and assembling these components into an operational unit in Japan.

The CCU base unit, which streams live images captured by the scope, has a wide video graphics array with a 5-step adjustable LCD backlight, a 100V to 240V AC power supply, 10.8V battery, HDMI video input, and a headset microphone CTIA plug. A third-party supplier manufactures the main components of the CCU in Thailand. The following steps of the CCU manufacturing process are performed in Thailand: printed circuit board (“PCB”) mounting, and
assembling the LCD panel to the PCB assembly. The software for the CCU is wholly designed in Japan, but the core of the Japanese software (firmware) is installed in Thailand. In Japan, the latest version of the software and configurations are installed, and the CCU is inspected and tested. Final assembly and packaging of the CCU and scope are completed in Japan and shipped.

The scope includes LED illumination, a 2-stage indicator for high temperature warning, and a handle with a true feel electronic scope tip articulation/fine mode articulation control using the touch screen menu. OSST claims that the scope represents the essence of the videoscope. According to the submission, a third-party Thai supplier assembles the handset of the scope unit by screwing the plastic handset, handset PCB, button and joystick together, and ships these components to Japan. Olympus Japan then connects the handset to the insertion tube, to create the scope unit subassembly.

In addition to the handset, the scope unit subassembly includes the insertion tube and an optics assembly. The insertion tube is made of four layers: a stainless steel cord, a stainless steel braid, a Viton waterproof layer, and a tungsten braid. All four layers are created and assembled in Japan through wire braiding using a microscope, braiding of high durability tungsten, and soldering. At the end of the insertion tube is the optics assembly. Manufacturing of the optics assembly includes the creation and testing of micro lenses, and small parts assembly in a clean room. The optics assembly is essentially a small camera completely manufactured in Japan. The scope unit then undergoes software installation, calibration and product testing. The insertion tube and optics assembly, controlled by the handset, are what enable the videoscope to move around tight spaces and capture images.

According to OSST, once Olympus Japan completes the manufacturing process for the CCU and the scope, it combines both units to make a functional videoscope in Japan by fitting a connector into both the CCU and the scope, centering the cable gasket to assure ingress protection (“IP”) rating and screwing the doors shut to complete the physical mating. OSST states that these steps allow the CCU and scope to communicate without which the scope and CCU as separate units would not have much practical application. Olympus Japan assembles all scope and CCU models together to make 12 different versions, which will then be imported into the United States.

Tip adapters are necessary for the function of the scope but will be separately shipped to the United States due to the number of tip adapter models and variations that may apply. The tip adapters are wholly designed, manufactured and assembled in Japan to accommodate different field, and direction of view and depths of field. In a phone call with this office, OSST likened the tip adapter to an interchangeable lens on a camera. OSST claims that the tip adapter does not change the videoscope’s ability to function, but it does enhance the videoscope’s ability to focus or take clear pictures. Once imported into the United States, the videoscope will then be paired with the tip adapter per customer order by screwing the tip adapter to the scope.  

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1 The IPLEX GT and GX Videoscopes operate by attaching the scope (with the light source) to the CCU and then inserting a tip adapter to the end of the scope to enhance focus. While the GT and GX models share the same
You have provided charts and cost figures to show that over 80 percent of the total cost of the combined unit represents the portion of the cost incurred in Japan to develop and produce the CCU and scope units for the IPLEX GT and GX Videoscopes.

ISSUE:

What is the country of origin of the videoscopes for purposes of U.S. Government procurement?

LAW AND ANALYSIS:

CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain “Buy American” restrictions in U.S. law or practice for products offered for sale to the U.S. Government, pursuant to subpart B of Part 177, 19 C.F.R. § 177.21 et seq., which implements Title III of the Trade Agreements Act of 1979 (“TAA”), as amended (19 U.S.C. § 2511 et seq.).


An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

See also 19 C.F.R. § 177.22(a).

In rendering advisory rulings and final determinations for purposes of U.S. Government procurement, CBP applies the provisions of subpart B of Part 177 consistent with the Federal Procurement Regulations. See 19 C.F.R. § 177.21. In this regard, CBP recognizes that the Federal Acquisition Regulations restrict the U.S. Government’s purchase of products to U.S.-made or designated country end products for acquisitions subject to the TAA. The regulations define a “designated country end product” as:

WTO GPA [World Trade Organization Government Procurement Agreement] country end product, an FTA [Free Trade Agreement] country end product, a least developed country end product, or a Caribbean Basin country end product.

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hardware, the GX has enhanced software features to gain control, dynamic noise reduction, sharpness, saturation display, and note text options.
A “WTO GPA country end product” is defined as an article that:

(1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

See 48 C.F.R. § 25.003.

Japan is a WTO GPA country; however, Thailand is not.

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item’s components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative. In Texas Instruments v. United States, 681 F.2d 778, 782 (CCPA 1982), the court observed that the substantial transformation issue is a “mixed question of technology and customs law.”

The Court of International Trade has looked at the essential character of an article to determine whether its identity has been substantially transformed through assembly or processing. “The term ‘character’ is defined as ‘one of the essentials of structure, form, materials, or function that together make up and usually distinguish the individual.’” Uniden America Corporation v. United States, 24 C.I.T. 1191, 1195 (2000), citing National Hand Tool Corp. v. United States, 16 C.I.T. 308, 311 (1992). In Uniden, concerning whether the assembly of cordless telephones and the installation of their detachable A/C (alternating current) adapters constituted instances of substantial transformation, the Court of International Trade applied the “essence test” and found that “[t]he essence of the telephone is housed in the base and the handset.” In Uniroyal, Inc. v. United States, 3 C.I.T. 220, 225, 542 F. Supp. 1026, 1031, aff’d, 702 F.2d 1022 (Fed. Cir. 1983), the court held that imported shoe uppers added to an outer sole in the United States were the “very essence of the finished shoe” and thus the character of the product remained unchanged and did not undergo substantial transformation in the United States.

CBP has applied the Court of International Trade’s analysis in Uniden to determine whether other minor components when combined with a larger and a more complex system.
would lose their separate identities to become part of that larger system. In Headquarters Ruling Letter (“HQ”) H100055 dated May 28, 2010, CBP ruled on the country of origin of a lift unit for an overhead patient lift system. Among the issues we considered was whether a battery charger, when inserted into the hand control unit inside the lift unit, was substantially transformed. Relying on the *Uniden* decision, we noted that the substantial transformation test should be applied to the product as a whole and not to each of the parts. We determined that the lift unit conveyed the essential character to the system and because the detachable hand control and the battery charger were parts of that system, they were substantially transformed when attached to the lift unit. Thus, we held that the country of origin of the hand control unit and battery charger when packaged with the lift unit was Sweden. *See also* HQ H112725, dated October 6, 2010, (inclusion of a battery charger did not alter the essential character of the Adflo™ respiration system which was designed to provide respiratory protection in a welding environment).

While software is often essential to the function of a product, CBP generally does not find the downloading of software to be a substantial transformation. However, CBP may find a substantial transformation when the software is downloaded in the country where it was written and developed. CBP considered a scenario in HQ H241177, dated December 3, 2013, in which a device was manufactured in one country, the software used to permit that device to operate was written in another country, and the installation of that software occurred in a third country. In that case, switches were assembled to completion in Malaysia and then shipped to Singapore, where software developed in the United States was downloaded. It was claimed that the U.S.-origin software enabled the imported switches to interact with other network switches and without this software, the imported devices could not function as Ethernet switches. CBP found that the software downloading performed in Singapore did not amount to programming. We explained that programming involves writing, testing and implementing code necessary to make a computer function in a certain way. *See Data General v. United States, 4 C.I.T. 182 (1982); see also* “computer program,” Encyclopedia Britannica (2013), (Nov. 26, 2019) http://www.britannica.com/EBchecked/topic/130654/computer-program, which explains, in part, that “a program is prepared by first formulating a task and then expressing it in an appropriate computer language, presumably one suited to the application.” While the programming occurred in the United States, the downloading occurred in Singapore; therefore, CBP found that the country where the last substantial transformation occurred was Malaysia, where the major assembly processes were performed. *See also* HQ H290670, dated January 29, 2019 (finding that fully assembled Ethernet Switches were substantially transformed when U.S.-origin firmware and software were downloaded onto the switches).

When there are multiple manufacturing locations, the country of origin is the country where the last substantial transformation occurs. HQ H203555 dated April 23, 2012, concerned the country of origin of certain oscilloscopes under five distinct manufacturing scenarios. In the various scenarios, the motherboard and the power controller of either Malaysian or Singaporean origin were assembled in Singapore with subassemblies of Singaporean origin into oscilloscopes. CBP found that under the various scenarios, there were three countries under consideration where programming and/or assembly operations took place, the last of which was Singapore. CBP noted that no one country’s operations dominated the manufacturing operations of the
oscilloscopes. As a result, while the boards assembled in Malaysia were important to the function of the oscilloscopes, and the U.S. firmware and software were used to program the oscilloscopes in Singapore, the final programming and assembly of the oscilloscopes was in Singapore; hence, Singapore imparted the last substantial transformation, and the country of origin of the oscilloscopes was Singapore.

Based on the information provided in your letter and consistent with the CBP rulings cited above, we find the country of origin of the videoscopes to be Japan. We note that while many important components of the videoscopes are of Thai origin, and many processing operations occur in Thailand (specifically, with respect to the initial assembly of the CCU and the scope handset), the Japanese operations require more skill and precision, and impart the final product with its essential character. Many of the critical operations involved in completing the product, such as developing and installing the software; manufacturing the insertion tube, the optics assembly and the tip adapter; and assembling the components, are performed in Japan. The assembly of the scope in Japan includes assembling the optics, the stainless steel cord, the stainless steel braid, waterproof layer and the tungsten braid into the scope tube, which enable the scope to see and navigate small spaces. The scope imparts the videoscope with its identifying functionality, meaning it is a scope unit with the light source that enables the videoscope to nondestructively see, move, and video small areas of a product such as turbines or pipes. The videoscope’s identifying function is further enhanced by the inclusion of the Japanese originating tip adapter. Additionally, while the CCU is assembled in Thailand, it is the software completely developed and largely installed in Japan that allows the user to control the scope and view the image the scope captures on the CCU. Finally, the assembly of components in Japan allows the CCU and the scope to communicate.

We note that the software installed in Japan is also completely developed and programmed in Japan and the portion of the costs incurred in Japan to develop and produce the CCU and scope units for the videoscopes represents over 80% of the total cost of the combined unit. Consequently, we find that the imported videoscopes are substantially transformed because of the assembly operations performed in Japan to produce the fully functional and operational videoscopes. Based on the information presented, it is our opinion that the country of origin of videoscopes is Japan.

**HOLDING:**

Based on the facts provided, the finished videoscopes will be considered a product of Japan for purposes of U.S. Government procurement.

Notice of this final determination will be given in the Federal Register, as required by 19 C.F.R. § 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 C.F.R. § 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 C.F.R. § 177.30, any party-at-interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the Court of International Trade.
Sincerely,

Alice A. Kipel, Executive Director
Regulations and Rulings
Office of Trade

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