

*What Every Member of the  
Trade Community Should Know About:*

# **Machine Tools**



**AN INFORMED COMPLIANCE PUBLICATION**

**MARCH 2006**

**U.S. CUSTOMS and BORDER PROTECTION**

**NOTICE:**

This publication is intended to provide guidance and information to the trade community. It reflects the position on or interpretation of the applicable laws or regulations by U.S. Customs and Border Protection (CBP) as of the date of publication, which is shown on the front cover. It does not in any way replace or supersede those laws or regulations. Only the latest official version of the laws or regulations is authoritative.

Publication History

First Published November 2005  
Reviewed with No Changes March 2006

**PRINTING NOTE:**

This publication was designed for electronic distribution via the CBP website (<http://www.cbp.gov>) and is being distributed in a variety of formats. It was originally created using Microsoft® Word. Pagination and margins in downloaded versions may vary depending upon which word processor or printer you use. If you wish to maintain the original settings, you may wish to download the Portable Document Format (PDF) version, which can then be printed using Adobe® Reader® or other PDF reader.

## PREFACE

On December 8, 1993, Title VI of the North American Free Trade Agreement Implementation Act (Pub. L. 103-182, 107 Stat. 2057), also known as the Customs Modernization or “Mod” Act, became effective. These provisions amended many sections of the Tariff Act of 1930 and related laws.

Two new concepts that emerge from the Mod Act are “***informed compliance***” and “***shared responsibility***,” which are premised on the idea that in order to maximize voluntary compliance with laws and regulations of U.S. Customs and Border Protection, the trade community needs to be clearly and completely informed of its legal obligations. Accordingly, the Mod Act imposes a greater obligation on CBP to provide the public with improved information concerning the trade community’s rights and responsibilities under customs regulations and related laws. In addition, both the trade and U.S. Customs and Border Protection share responsibility for carrying out these requirements. For example, under Section 484 of the Tariff Act, as amended (19 U.S.C. 1484), the importer of record is responsible for using reasonable care to enter, classify and determine the value of imported merchandise and to provide any other information necessary to enable U.S. Customs and Border Protection to properly assess duties, collect accurate statistics, and determine whether other applicable legal requirements, if any, have been met. CBP is then responsible for fixing the final classification and value of the merchandise. An importer of record’s failure to exercise reasonable care could delay release of the merchandise and, in some cases, could result in the imposition of penalties.

The Office of Regulations and Rulings (ORR) has been given a major role in meeting the informed compliance responsibilities of U.S. Customs and Border Protection. In order to provide information to the public, CBP has issued a series of informed compliance publications on new or revised requirements, regulations or procedures, and a variety of classification and valuation issues.

This publication, prepared by the National Commodity Specialist Division, ORR, is a study in the classification of machine tools, parts and accessories under Heading 8456 through Heading 8466, Harmonized Tariff Schedule of the United States (HTS or HTSUS). “Machine Tools” provides guidance regarding the classification of imported merchandise. We sincerely hope that this material, together with seminars and increased access to rulings of U.S. Customs and Border Protection, will help the trade community to improve voluntary compliance with customs laws and to understand the relevant administrative processes.

The material in this publication is provided for general information purposes only. Because many complicated factors can be involved in customs issues, an importer may wish to obtain a ruling under Regulations of U.S. Customs and Border Protection, 19 C.F.R. Part 177, or to obtain advice from an expert who specializes in customs matters, for example, a licensed Customs broker, attorney or consultant.

Comments and suggestions are welcomed and should be addressed to the Assistant Commissioner at the Office of Regulations and Rulings, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue, NW, (Mint Annex), Washington, D.C. 20229.

Sandra L. Bell,  
Acting Assistant Commissioner  
Office of Regulations and Rulings

(This page intentionally left blank)

<b>INTRODUCTION.....</b>	<b>9</b>
<b>SECTION XVI NOTES .....</b>	<b>13</b>
Composite and Multifunction Machines.....	14
Multipurpose Machines .....	15
Functional Units .....	15
Machine Tools imported with accessories.....	16
<b>GRI 2(A) AND MACHINE TOOLS: UNFINISHED MACHINES VS. PARTS .....</b>	<b>17</b>
<b>CHAPTER 84 NOTES .....</b>	<b>19</b>
<b>THE HEADINGS.....</b>	<b>21</b>
<b>HEADING 8456.....</b>	<b>22</b>
Subheading 8456.10 .....	22
Subheading 8456.20 .....	24
Subheading 8456.30 .....	24
Subheading 8456.91 .....	25
Subheading 8456.99 .....	25
<b>HEADING 8457.....</b>	<b>27</b>
Subheading 8457.10 .....	27
Subheading 8457.20 .....	28
Subheading 8457.30 .....	28
<b>HEADING 8458.....</b>	<b>29</b>
Subheading 8458.11 .....	29
Subheading 8458.19 .....	30
Subheading 8458.91 .....	30
Subheading 8458.99 .....	31
<b>HEADING 8459.....</b>	<b>31</b>
Subheading 8459.10 .....	31
Subheadings 8459.21 and 8459.29.....	31
Subheadings 8459.31 and 8459.39.....	33
Subheading 8459.40 .....	33
Subheadings 8459.51 and 8459.59.....	33
Subheadings 8459.61 and 8459.69.....	34
Subheading 8459.70 .....	34
<b>HEADING 8460.....</b>	<b>35</b>
Subheadings 8460.11 and 8460.19.....	35

Subheadings 8460.21 and 8460.29.....	36
Subheadings 8460.31 and 8460.39.....	36
Subheading 8460.40 .....	36
Subheading 8460.90 .....	37
<b>HEADING 8461.....</b>	<b>37</b>
Subheading 8461.20 .....	38
Subheading 8461.30 .....	38
Subheading 8461.40 .....	38
Subheading 8461.50 .....	39
Subheading 8461.90 .....	40
<b>HEADING 8462.....</b>	<b>41</b>
Subheading 8462.10 .....	41
Subheadings 8462.21 and 8462.29.....	43
Subheadings 8462.31 and 8462.39.....	44
Subheadings 8462.41 and 8462.49.....	44
Subheadings 8462.91 and 8462.99.....	45
<b>HEADING 8463.....</b>	<b>45</b>
Subheading 8463.10 .....	45
Subheading 8463.20 .....	45
Subheading 8463.30 .....	46
Subheading 8463.90 .....	46
<b>HEADING 8464.....</b>	<b>47</b>
Subheading 8464.10 .....	47
Subheading 8464.20 .....	47
Subheading 8464.90 .....	48
<b>HEADING 8465.....</b>	<b>50</b>
Subheading 8465.10 .....	50
Subheading 8465.91 .....	52
Subheading 8465.92 .....	53
Subheading 8465.93 .....	54
Subheading 8465.94 .....	54
Subheading 8465.95 .....	56
Subheading 8465.96 .....	56
Subheading 8465.99 .....	57
<b>MACHINES AND APPARATUS OFTEN MISCLASSIFIED AS MACHINE TOOLS OF HEADINGS 8456 TO 8465:.....</b>	<b>58</b>
<b>HEADING 8466.....</b>	<b>58</b>
<b>ADDITIONAL U.S. RULE OF INTERPRETATION 1(C).....</b>	<b>59</b>

<b>UNASSEMBLED PARTS .....</b>	<b>61</b>
<b>PART VS. ACCESSORY .....</b>	<b>61</b>
Subheading 8466.10 .....	63
Subheading 8466.20 .....	64
Subheading 8466.30 .....	65
Subheadings 8466.91 through 8466.94 .....	67
Items often misclassified as parts or accessories of machine tools .....	69
<b>ADDITIONAL INFORMATION.....</b>	<b>71</b>
The Internet.....	71
CBP Regulations.....	71
Customs Bulletin .....	71
Importing Into the United States.....	72
Informed Compliance Publications .....	72
Value Publications.....	73
“Your Comments are Important” .....	74

(This page intentionally left blank)

## INTRODUCTION

This Informed Compliance Publication (ICP) will deal with the classification of the machine tools of heading 8456 through heading 8465, Harmonized Tariff Schedule of the United States, (HTS or HTSUS), and the parts and accessories solely or principally used with machine tools in heading 8466, HTSUS.

Machine tools for working metal date back to the late 17<sup>th</sup> century. Wood working machines go back much further. According to an old AMT (Association for Manufacturing Technology, formerly known as the National Machine Tool Builders' Association, NMTBA) publication, "Machine Tools/New Concepts for a New Day", the first real machine tool, a boring mill to make accurate cylinders for James Watt's steam engine, was invented by John Wilkinson in England in 1775. A series of machine tool inventions followed in the early 19th century including the first screw cutting lathe, the first metal planer, the first milling machine (by Eli Whitney), the first copying lathe and the first power feed drill press.

Who actively represents the machine tool industry in dealing with Customs and Border Protection (CBP)?

For metal working, it has been AMT. AMT's website, [www.mfgtech.org/](http://www.mfgtech.org/), states that AMT actively supports and promotes American manufacturers of machine tools and manufacturing technology. AMT often contacts CBP on behalf of their members to verify import statistics. Most of the current statistical breakouts for metal working machine tools were added to the tariff at the behest of AMT. They sponsor the International Manufacturing Technology Show (IMTS) which is held in September of every even numbered year at McCormack Place in Chicago. It is the largest machine tool show held in the United States.

In the 1980's, the NMTBA sought relief against foreign competition in the form of Voluntary Restraint Agreements (VRAs). It was argued that machine tools are essential to U.S. national security. High levels of imports can erode U.S. capability to produce critical machine tool product lines. While rates of duty on most other machinery have gone down over the years (many machines are now unconditionally free of duty), the rates of duty on machine tools have for the most part remained the same.

The Wood Machinery Manufacturers of America (WMMA) has also been active in requesting statistical breakouts for their industry. The International Woodworking Fair (IWF) is held every even numbered year at the Georgia World Congress Center in Atlanta, Georgia. WMMA issues an annual buyer's guide and product directory. They represent and support U.S. domestic manufacturers of equipment and tools used in the processing of wood and wood products from the forest to finished products.

How does the industry define the term "machine tool"?

AMT defines a machine tool as power driven, not portable by hand, used to shape or form metal by cutting, impact, pressure, electrical discharge, or by a combination of these processes.

Since AMT is primarily concerned with metal working, their definition obviously does not take into account machine tools for working materials other than metals.

The tariff prior to the HTSUS, the TSUSA (Tariff Schedules of the United States Annotated), provided a definition in Schedule 6, Part 4, Subpart F, headnote 1. (a). It defined a machine tool as any machine used for shaping or surface working metals ... or other hard materials, whether by cutting away or otherwise removing material or by changing its shape or form without removing any of it, but does not include rolling mills or hand-directed or hand-controlled tools.

The courts have defined shaping or surface working:

1. In *Kurt Orban Co., Inc. v. United States*, C.D. 2041, aff'd. C.A.D. 724 (1959), (the machine in question was a scrap baler) it was stated that the primary function of machine tools was to perform an operation on metal in order to improve and advance its status for further use. One witness stated that work on metal is well understood to mean fabrication and not mere haphazard cutting.
2. In *Pitney Bowes, Inc. v. United States*, C.D. 3116 (1967), the court held that there was no intention to so broaden the meaning of the term "machine tool" as to take in all machines which in any way change the shape or form of metal regardless of their capability of shaping or surface working, as those terms are understood.

Headquarters (HQ) 955395 of February 14, 1994, cited these court cases in determining that a scrap chopper is not a machine tool. The ruling stated that lacking a statutory definition of the term "machine tool", it is appropriate in ascertaining the common meaning of the term to consult the relevant trade or industry.

The industry supports the position that a machine tool must advance or improve the status or the material or workpiece it is working on. As noted earlier, the machine tool industry is primarily represented by AMT. A letter dated November 20, 1991, from AMT commented on the classification of a machine used to crush oil filters. In the letter, AMT noted that machine tools shape discrete, usable parts.

Under the HTS, the headings and related section and chapter notes do not define the term "machine tool", nor do the Explanatory Notes (ENs) to the HTS. The ENs for each machine tool heading provide the requirement for that heading followed by a listing of what types of machines are covered and what is excluded. For example, the heading 8459 through heading 8465 ENs all contain the statement that "[i]n general machine tools are power driven but similar machines, worked by hand or pedal, are covered by this heading. These latter types can be distinguished from the hand tools of heading

8205 and from the tools for working in the hand of heading 8467, by the fact that they are usually designed to be mounted on the floor, on a bench, on a wall or on another machine, and thus are usually provided with a base plate, mounting frame, stand, etc.”

Combining the guidance of the ENs, the Courts and the industry, we conclude that a machine tool is a machine that:

- improves or advances the status of a workpiece by shaping or surface working. It may do this by producing a new product or restoring an old one to its original condition;
- must work on metal or other hard materials such as those described in heading 8464 or heading 8465 (e.g., machines which work hard plastic are machine tools of heading 8465; machines which work plastics other than hard plastics fall under heading 8477);
- employs processes such as those described in heading 8456 through heading 8465. (e.g., boring, milling, drilling, forging, die-stamping, etc.);
- although usually power driven, may be manually or pedal operated; and
- may be portable (can easily be carried) but must be designed to be mounted on the floor, a bench or table, the wall or on another machine while in use.

Is a desk top pencil sharpener a machine tool? It has a base; it is power driven; it advances the status of the pencil by sharpening it; and the pencil is made of hard materials, such as wood and lead. Desktop pencil sharpeners are classified under HTSUS subheading 8472.90.40 as other office machines. The Pitney Bowes court case, as noted above, effectively indicated that there was no intention to so broaden the term "machine tool" so as to take in all machines which meet the literal definition of the term. In addition, a desktop pencil sharpener is not commonly or commercially regarded as a machine tool.

The machine tools under the HTS include the following:

1. Heading 8456 covers the non-traditional machine tools such as Laser, EDM (electro-discharge machining), Plasma Arc Cutting, etc. for working metals and non-metals. These machines must remove material;
2. Heading 8457 through heading 8461 covers those machine tools which remove metal usually in the form of chips, dust, swarf, etc. They are sometimes referred to as "chip producing" machine tools, generally employing rotating tools;
3. Heading 8462 and heading 8463 cover metal forming machine tools which change the shape of the metal without removing metal chips. Some of these

machines can cut or produce holes in metal; however, the cut is clean i.e. no chips;

4. Heading 8464 covers machine tools for working stone, ceramic, glass (in the cold), etc. Machines for hot working glass are classified in heading 8475;
5. Heading 8465 covers machine tools for working wood, hard rubber, hard plastic or similar hard materials; and
6. Heading 8466 covers parts and accessories solely or principally used with the foregoing machine tools. Heading 8456 through heading 8465 do not include separately imported or spare parts and accessories.

Machine tools are often differentiated (see heading 8456 through heading 8462) by whether or not they are numerically controlled. The term “numerically controlled” means Computer Numerically Controlled (CNC). In some cases, the distinction is made at the 10-digit or statistical level (e.g., subheading 8456.10.1010, CNC vs. subheading 8456.10.1020, non-CNC) while others are at the 6-digit or 8-digit subheading level (e.g., subheading 8458.11.00 vs. subheading 8458.19.00). (The 6-digit level is international while the 8-digit level (the 7<sup>th</sup> and 8<sup>th</sup> digits) is for U.S. subheadings.)

AMT defines numerically controlled as control systems that add fully automatic, programmable position and feed rate control of the machine’s axis movement as well as control spindle speed and other machine functions. Numerically controlled machine tools are also described in a subheading EN to subheading 8458.11 and subheading 8458.91. The note states in its last paragraph that if the control unit is not presented with the machine tool, the latter is nevertheless to be considered as a numerically controlled machine tool provided it has the specific characteristics of this type of machine. For example, machines with hand wheels to move and position machine components would not normally have the characteristics of a numerically controlled machine tool.

At the statistical suffix level, heading 8457 through heading 8463 and heading 8465 include breakouts for “used or rebuilt” machines (e.g., subheading 8457.10.0005). Heading 8458 through heading 8463 and heading 8465 include breakouts based on value (e.g., subheading 8458.19.0020 – valued under \$3,025 each). Subheading 8458.19.00 has breakouts for used or rebuilt, under \$3,025 and other (new machines valued at \$3,025 and over).

Invoicing – for many machine tools it is not sufficient for a machine to be described simply as a milling, drilling, boring, grinding or sawing machine. There should be some indication of the material upon which the machine is principally used. For example, sawing machines can be classified under subheading 8461.50 if for working metal, subheading 8464.10 if for stone, ceramics, etc., or subheading 8465.91 if for wood, hard plastics, etc. It should also be noted if a machine is “used or rebuilt” or if it is numerically controlled.

Manufacturers often offer machine tools with choices of options. Invoices should indicate what is included with the machine. Spares should be specifically identified as such. If a machine tool is being imported in more than one shipment it should be identified as first part shipment, second part shipment, etc.

## **Section and Chapter Notes**

Before proceeding to discuss the headings, it is necessary to examine the relevant section and chapter notes and to read the General Rules of Interpretation (GRIs) and the Additional U. S. Rules of Interpretation (ARIs). GRI 1 provides that for legal purposes, classification shall be determined according to the terms of the headings (in the case of this ICP, heading 8456 through heading 8466) and any relative section or chapter notes. All of the headings covered by this ICP are chapter 84 headings in Section XVI.

## **SECTION XVI NOTES**

Section XVI, Note 1 describes items not covered by the section. This does not mean that we will separately classify these items if imported as an integral part of a machine of chapter 84. For example, if a laser machine tool of heading 8456 is imported, the laser, which by itself is classified under subheading 9013.20, remains in heading 8456 although note 1(m) excludes articles of chapter 90.

Although all the notes should be read, for the purposes of this ICP, comments will only be made on those notes most likely to affect the classification of machine tools. For example, note 1(b) will not be discussed since it excludes articles of leather. If there are any parts of machine tools made of leather CBP is unaware of them. Relevant notes include:

- 1) Note 1(a) excludes transmission, conveyor, or elevator belts or belting, of plastics of chapter 39, or of vulcanized rubber (heading 4010); or other articles of a kind used in machinery or mechanical or electrical appliances or for other technical uses, of vulcanized rubber other than hard rubber (heading 4016);
- 2) Note 1(c) excludes bobbins, spools, cops, cones, cores, reels or similar supports, of any material (e.g. chapter 39, 40, 44 or 48 or section XV). In a traveling wire type EDM machine of heading 8456, the thin wire electrode travels from reel to reel. These reels if separately imported would be excluded from classification as parts under heading 8466 by this note;
- 3) Note 1(e) excludes transmission or conveyor belts of textile material (heading 5910) or other articles of textile material for technical uses (heading 5911);
- 4) Note 1(g) excludes parts of general use, as defined in note 2 to section XV, of base metal (section XV) or similar goods of plastics (chapter 39). This note

refers to items such as nuts, bolts, screws, springs, tube or pipe- fittings, chains, etc.;

- 5) Note 1(m) excludes articles of chapter 90. Items such as measuring instruments (found in various heading of chapter 90, depending on the type) and separately imported lasers (subheading 9013.20) would be excluded; and
- 6) Note 1(o) excludes interchangeable tools of heading 8207 or brushes of a kind used as parts of machines (heading 9603); similar interchangeable tools are to be classified according to the constituent material of their working part (e.g., in chapters 40, 42, 43, 45 or 59 or heading 6804 or 6809).

Section XVI, Note 2 deals with parts of machines and will be discussed in the section of this ICP dealing with heading 8466 which covers parts and accessories of machine tools.

## **Composite and Multifunction Machines**

Section XVI, note 3 states that unless the context requires otherwise, composite machines consisting of two or more machines fitted together to form a whole and other machines adapted to perform two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function.

The ENs to Section XVI indicate that a machine is taken to be “fitted together to form a whole” when incorporated one in the other or mounted one on the other, or mounted on a common base or frame or in a common housing. However, the notes point out that floors, concrete bases, walls, partitions, ceilings, etc., even if specially fitted out to accommodate machines or appliances, should not be regarded as a common base joining such machines or appliances to form a whole.

The example provided in the ENs of a multi-function machine is a machine tool for working metal using interchangeable tools, which enables it to carry out different types of machining operations (e.g., milling, boring, lapping). The ENs continue in the next paragraph to state that where it is not possible to determine the principal function, and where, as provided in note 3 to the Section, the context does not otherwise require, it is necessary to apply GRI 3 (c). Such is the case, for example, in respect to multi-function machines potentially classifiable in several of the provisions of heading 8458 to heading 8463.

GRI 3(c) requires classification in the last heading in numerical order of those which merit equal consideration. For example, a machine tool which mills (heading 8459), grinds (heading 8460) and saws (heading 8461) would be classifiable in heading 8461 if all of these functions merit equal consideration. If, for example, the sawing was incidental or only performed occasionally it may be said that it doesn't merit equal consideration with the milling and grinding resulting in classification in heading 8460.

Sometimes in considering the application of note 3, the context does otherwise require. A turning center of heading 8458 is a multifunction machine. It is essentially a lathe to which rotary tooling capability has been added to allow it to perform milling, drilling, etc. Since “turning centers” are included in heading 8458, there is no need to determine the principal function.

## **Multipurpose Machines**

In the last paragraph of the ENs under the heading of multi-function and composite machines, it is noted that multi-purpose machines (e.g., machine tools capable of working metals and other materials) are to be classified according to the provisions of note 7 to chapter 84. Note 7 requires us to determine the principal purpose. In HQ 087606 of November 23, 1990, a drill press used to drill metal (heading 8459) and to drill wood (heading 8465) was classified as a wood working machine tool because based on the design characteristics it was held that the principal purpose was to work wood. The function was the same i.e. drilling, but there was more than one purpose.

There are also machine tools which are multifunction and multipurpose. Note HQ 966621 of February 18, 2004, which classified a machine which was multipurpose since it worked plastic (heading 8465) and glass (heading 8464), and multifunction because it performed both milling and grinding.

## **Functional Units**

Section XVI, note 4 states that where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.

A common example of a functional unit in the machine tool industry could be simply a lathe of heading 8458 imported with a loading machine of heading 8428 such as a bar feeder or a robotic loader. The clearly defined function here is the cutting of the work-piece that is fed into the lathe by the loading machine. Classification would be under heading 8458. The function of the loading machine is clearly subordinate to that of the lathe.

A Headquarters ruling addressed the issue of “unfinished functional units.” HQ 965638 of July 16, 2002, determined that welding and material handling robots consisting of an articulated arm or manipulator with its configured process controller constituted functional units under the authority of GRI 2 (a), Section XVI, even if imported without welding guns, grippers or other end of arm tooling.

The Section XVI ENs discuss incomplete and unassembled machines with reference to GRI 2 (a). The Notes state that throughout the section, any reference to a machine covers not only the complete machine, but also an incomplete machine (i.e., an assembly of parts so far advanced that it already has the main essential feature of the complete machine). Examples are given of a machine lacking only a flywheel, a tool holder or a motor. Regarding unassembled machines, the notes state that many machines and apparatus are transported in an unassembled state for convenience of transport. Although in effect the goods are then a collection of parts, they are classified as being the machine in question and not in any separate heading for parts. The same applies to an incomplete machine having the features of the complete machine presented unassembled.

Machine tools or machine tool lines often are imported in a number of shipments due to size considerations. The functional unit concept cannot be applied if there is more than one shipment. For classification purposes, each shipment stands on its own. In HQ 958807 of April 30, 1996, it is stated that “[i]t is well settled that merchandise must be classified and assessed duty in its condition as imported. Components of a machine that arrive within the customs territory on different days cannot be aggregated for classification and appraisal purposes under a single HTSUS provision.” But, GRI 2(a) can be applied to each shipment.

Section XVI, Note 5 states that for the purposes of these notes, the expression “machine” means any machine, machinery, plant, equipment, apparatus or appliance cited in the headings of chapters 84 or 85.

This means, for example, that where the term “machine” is used in note 3 and note 4, these other terms may be substituted. Note 4 begins “where a machine ...” This could read “where equipment” or “where apparatus ...”

## **Machine Tools imported with accessories**

Machine tools are often imported with accessories that, while not essential to the basic operation of the machine, do implement the complete functioning of the machine. For example, a lathe of heading 8458 may be imported with a copying or surface finishing attachment such as the ones described in the ENs to heading 8466.

Machine tools with accessories cannot be regarded as composite machines. For example, a copying attachment added to a lathe does not make the combination a composite machine within the meaning of Section XVI, note 3. The ENs for GRI 3(b) indicates that composite goods do not have to be physically attached and the components must be adapted one to the other and mutually complementary. Up to this point, there’s no problem. The last part of the note says that together they form a whole which would not normally be offered for sale in separate parts. Most machine tool accessories are offered for sale separately. Although it isn’t likely that anyone would buy the accessory unless he already had the machine.

General Explanatory Note (VII), Functional Units, in discussing note 4 indicates that it covers only machines and combinations of machines essential to the performance of the function specific to the functional unit as a whole, and thus excludes machines or appliances performing auxiliary functions and which do not contribute to the function of the whole. The copying attachment and similar attachments may be said to be essential if the lathe is to perform all of its lathe functions. These attachments do contribute to the function of the whole.

Item 5 in General Explanatory Note (VII) provides an example of an item separately classified because it performed an auxiliary function. Item 5 describes brew house machinery and states that auxiliary appliances (e.g., bottling machines, label-printing machines) are not included and should be classified in their own appropriate heading. If at the end of a machine tool line there was a machine which packaged the parts that had been produced, such a machine would not be a part of the functional unit.

Accessory apparatus is discussed in General Explanatory Note (III) of the section XVI ENs. It states that accessory instruments and apparatus presented with the machine or apparatus with which they normally belong are classified with that machine or apparatus, if they are designed to measure, check, control or regulate one specific machine or apparatus, either as a multifunction or composite machine or as a functional unit.

Machine tools imported with measuring, checking or controlling instruments and apparatus as well as attachments which expand the machining functions are classified together as functional units.

There may also be instances where a small machine tool with an accessory is packaged for retail sale as a set. In all likelihood, the essential character of the set would be imparted by the machine tool.

## **GRI 2(A) AND MACHINE TOOLS: UNFINISHED MACHINES VS. PARTS**

Probably the most difficult determination to make regarding machine tools (or in fact many machines of chapter 84) is at what point does an assembly or an aggregation of parts become an unfinished machine tool rather than parts. At what point does an unfinished machine have the essential character of a complete machine? The following Headquarters rulings have addressed this issue and may prove helpful:

HQ 966681 of November 25, 2003,  
HQ 087513 of November 5, 1990,  
HQ 952404 of October 19, 1992, and  
HQ 966729 of December 17, 2003.

HQ 966681 cites the EN for Rule 2(a) which explains that the first part of GRI 2(a) extends the scope of any heading which refers to a particular article to cover not only

the complete article, but also that article incomplete or unfinished, provided that, as presented, it has the essential character of the complete or finished article.

The ruling continues "[i]n interpreting the HTSUS, we have construed the term 'essential character' to mean the attribute which strongly marks or serves to distinguish what an article is; that which is indispensable to the structure, core or condition of the article. Factors found to be relevant in other contexts are the significance of the imported components or their role in relation to the use or overall functioning of the completed article and, to the extent that it validates the comparison, the cost or value of the imported merchandise." Other rulings have stated that factors such as bulk, quantity and weight may also be considered, however, the importance of certain factors will vary between different kinds of goods.

HQ 966681 addresses the classification of a motor and a diamond abrasive saw used in the production of a tile saw, imported together but not assembled together or necessarily in the same packaging. The motor and saw were produced in different countries. These items were to be combined after importation with a thermoplastic reservoir which serves as the base of the machine, a worktable, frame support for mounting the motor, blade guard, water pump and adjustable rip guide. The importer claimed that under GRI 2(a), the motor and saw constituted an unfinished machine tool of subheading 8464.10. The ruling referenced the language of the 8464 ENs in determining that the motor and saw did not have the essential character of a complete machine tool. The EN indicates that a machine tool in heading 8464 would have a base, frame, etc., so that it could be mounted on a bench, table or floor. A tool for working in the hand (power tool) of heading 8467 may also include a motor and a saw blade. The presence of a base, frame, etc. is what distinguishes machine tools from the tools of heading 8467.

HQ 087513 of November 5, 1990, dealt with a laser machine tool imported in various stages of completion. The laser was imported by itself and was classified under subheading 9013.20 and the laser with the machining station was classified under subheading 8456.10.50. The complete machining station without the laser was classified as follows: complete including x-y table, beam delivery system and CNC were classified as unfinished machine tools working by laser; a "bare shell" without the beam system, x-y table and CNC and a unit with a beam system but no x-y table and CNC were classified as parts under subheading 8466.93.70 since it did not have the essential character of the complete machine tool.

In HQ 952404 of October 19, 1992, a manually operated horizontal lathe (engine lathe) was imported to be converted to a CNC lathe in the U.S. by adding a CNC, a double wheel apron and hand wheel assembly, two motors with servo drive and ball-screws. The lathe as imported had not been prepared to accept a CNC.

The ruling states that lathes must have at least certain basic components such as the bed, headstock, tailstock, carriage and cross slide, all referred to collectively as the machine's iron. The imported lathe has an aggregate of distinctive components that

establish the article's identity as an engine lathe. It is not classifiable as a part or accessory for a lathe. The lathe was classified under subheading 8458.19 rather than under subheading 8458.11, which covers numerically controlled horizontal lathes, since it had not been prepared to accept a CNC in its imported condition.

HQ 966729 dealt with the classification of air electric drilling units and tapping units imported by themselves and with stands and mounting bases. The units, which cannot be operated independently, incorporate electric motors to drive the spindles and also include tap or drill chucks, a quill and except for a ball screw type unit, a hydrochecker. They are designed to be mounted on a stand or on the end of a robotic arm. For the units to be operational, the customer must supply a compressor, control panel, motor starter, 4-way valve and air logic.

The ruling stated that "we believe that unfinished drilling and tapping units that are imported with the universal stands or bases will have the basic identity of machine tools for drilling or tapping". Under GRI 2(a), the unfinished drill units with stand are classified under subheading 8459.29.00 and the unfinished tapping units with stands are classified under subheading 8459.70.80. The drilling and tapping units imported without the stands are classified under subheading 8466.93.95 and the stands and bases imported by themselves are classifiable under subheading 8466.93.53.

A numerically controlled machine tool imported without the CNC is still classified as a machine tool rather than as parts. This is despite the fact that the machine in all likelihood cannot work without the CNC. Machine tools often come in without the interchangeable tools - drill bits, milling cutters, etc. - and are still classified as machine tools. Machines imported without motors are still classified as machines. The lack of an essential component does not necessarily preclude classification as an unfinished machine.

What "strongly marks or serves to distinguish" an engine lathe of heading 8458 from a knee mill of heading 8459? Is it the control, the motor, the electrics, the spindle, the hydraulics? It's the castings - the headstock, tailstock, column, knee, etc.

## **CHAPTER 84 NOTES**

Very often not all of the chapter 84 notes apply to machine tool shipments. The ones that do apply are:

- 1) Chapter 84 Note 1 (a) which indicates that the chapter does not cover millstones, grindstones, or other articles of Chapter 68. An importer of grinding machines of heading 8460, for example, may bring in a separate shipment of parts that includes grindstones. The note requires that they be classified in chapter 68 rather than as parts in heading 8466;

- 2) Note 2 (b) which excludes machinery or appliances (for example, pumps) of ceramic material and ceramic parts of machinery or appliances of any material (chapter 69);
- 3) Chapter 84, note 2 which states that “subject to note 3 to section XVI, a machine or appliance which answers to a description in one or more of the headings 8401 to 8424 and at the same time to a description in one or more of the headings 8425 to 8480 is to be classified under the appropriate heading of the former group and not the latter.” An example would be spray etching machines for silicon wafers. Bath type wet etchers for silicon wafers are classified in heading 8464. Spray type wet etchers are classified in heading 8424;
- 4) Chapter 84, note 2 which is subject to section XVI, note 3. If, in the case of a multifunction machine with functions described in headings 8401 through 8424 and headings 8425 through 8480, the principal function is in the latter group, chapter 84 note 2 does not apply. If, for example, a milling machine were equipped with a spraying appliance to spray away the metal chips, the machine would be classified as a milling machine since milling would clearly be the principal function;
- 5) Note 3 which states that “a machine tool for working any material which answers to a description in heading 8456 and at the same time to a description in headings 8457, 8458, 8459, 8460, 8461, 8464 or 8465 is to be classified in heading 8456. For example,
  - (a) a laser drilling machine for printed circuit boards is classified in heading 8456 rather than in heading 8465; and
  - (b) a laser machining center is classified in heading 8456 rather than in heading 8457.
- 6) Note 4 which defines the parameters for classification in heading 8457. It indicates that heading 8457 applies only to machine tools for working metal, other than lathes (including turning centers), which carry out different types of machining operations either:
  - (a) by automatic tool change from a magazine or the like in conformity with a machining program (machining centers);
  - (b) by the automatic use, simultaneously or sequentially, of different unit heads working on a fixed position work-piece (unit construction machines, single station); or
  - (c) by the automatic transfer of the work-piece to different unit heads (multi-station transfer machines).

- 7) Chapter 84, note 7 which states that a machine which is used for more than one purpose is, for the purposes of classification, to be treated as if its principal purpose were its sole purpose; and
- 8) Subject to note 2 to chapter 84 and note 3 to section XVI, a machine the principal purpose of which is not described in any heading or for which no one purpose is the principal purpose, unless the context otherwise requires, is to be classified in heading 8479.

Multi-purpose machine tools have never been classified under heading 8479 by chapter 84, note 7. It is highly unlikely that a drill press (machine tool) for working metal and wood, for example, would be classified under heading 8479 rather than heading 8459 or heading 8465. Most machine tools are designed primarily to work a specific material and should the machine characteristics not make this evident, the chance that such a machine would be used exactly 50% for wood and 50% for metal resulting in no principal purpose is remote.

Additional U.S. Note 3 deals with certain parts and accessories used with machine tools used in the production of semi-conductor devices. It will be dealt with in the section on heading 8466.

The Information Technology Agreement (ITA) went into effect on July 1, 1997, resulting in the creation of new duty free subheadings for machine tools and parts thereof (and other machines – see heading 8479, for example) used in the production of semiconductor wafers and devices and flat panel displays. These subheadings can be found in headings 8456, 8462, 8464, 8465 and 8466. Many importers have entered machines and parts which have absolutely nothing to do with semiconductors or flat panel displays under these subheadings in error.

Most of the equipment subject to the ITA is described in a Statistical Note to Section XVI which appears after Section XVI, Note 5. The equipment is not limited to machine tools and no classifications are provided with the descriptions.

## **THE HEADINGS**

In this section, we take a look at each heading and its subheadings. We will provide definitions and identify the main classification issues with a synopsis of significant rulings. Some subheadings will mention few or no rulings. This is generally because no rulings have been requested or issued.

Definitions for the metal working machine tools have been obtained primarily from the Tool and Manufacturing Engineer's Handbook (TMEH), definitions reprinted with permission of the Society of Manufacturing Engineers, from Tool and Manufacturing Engineer's Handbooks, Volume I, Machining, Volume II, Forming, and Volume III on

Materials, Finishing and Coating. AMT has also contributed definitions and some have been taken from the Explanatory Notes. Definitions for the woodworking machine tools have primarily been provided by the WMMA.

## **HEADING 8456**

Heading 8456 provides for machine tools for working any material by removal of material, by laser or other light or photon beam, ultrasonic, electro-discharge, electro-chemical, electron beam, ionic-beam or plasma arc process.

The Explanatory Notes to heading 8456 indicate that the machines of this heading must meet three essential requirements:

- 1) they must work by removing material;
- 2) they must carry out operations of the kind performed by machine tools equipped with conventional tools; and
- 3) they must use one of the seven processes named in the heading.

There are machine tools which do not remove material. Examples could include metal bending and straightening machines of heading 8462 and thread rolling machines of heading 8463. They change the shape of the work-piece without removing material. This explains why headings 8462 and 8463 are not mentioned in chapter 84, note 3.

There are machines which remove material but the operations performed are not of a kind performed by machine tools equipped with conventional tools. A machine which utilizes a blade of some sort to cut fabric or paper is not a machine tool. Likewise, a laser fabric cutter is not a machine tool. It is classified in subheading 8451.50 which provides for machines for reeling, unreeling, folding, cutting or pinking textile fabrics.

The heading does not include similar processes, only those named in the heading. For example, oxyfuel cutting machines may perform a function similar to plasma arc cutting machines, however, they are precluded from classification in heading 8456, hence, they are classified in subheading 8461.90 which provides for other machine tools working by removing metal or cermets, not elsewhere specified or included.

### **Subheading 8456.10**

Operated by laser or other light or photon beam processes.

Effective July 1, 1997, the subheading for lasers other than for working metal, subheading 8456.10.50, was replaced by subheading 8456.10.60, lasers for use in the production of semiconductors...and other laser machine tools in subheading 8456.10.80.

LASER is an acronym for Light Amplification by Stimulated Emission of Radiation. Laser beam machining is based on the conversion of electrical energy into light energy and then into thermal energy. The principal types of material removal lasers include CO<sub>2</sub> and Nd Yag.

In a CO<sub>2</sub> laser, electrical energy creates an ionized discharge that excites CO<sub>2</sub> molecules.

Nd Yag is a solid state laser that uses a crystal of yttrium aluminum garnet, doped with neodymium (Nd) as the lasing medium.

Not all lasers remove material. Helium neon or argon lasers are used in measuring applications. They don't remove material.

The following are some of the main classification issues concerning subheading 8456.10.

Laser machine tools which have nothing to do with the production of semiconductor wafers or devices have been erroneously entered under subheading 8456.10.60 which provides for other lasers for use in the production of semiconductor wafers; laser cutters for cutting contacting tracks in semiconductor production. These machines should be classified under subheading 8456.10.10, if principally used to work metal or subheading 8456.10.80, if for working materials other than metal.

It has been claimed that certain UV laser marking machines do not remove material and should be classified under subheading 8479.89.98, rather than subheading 8456.10. See NY R00499 of July 9, 2004. It is argued that these machines merely change the color of the material worked on without removing material. While there is no significant material removal, the process does remove material, albeit a microscopic amount. There is no language in heading 8456 or in the heading 8456 ENs which distinguishes laser machine tools based on the amount of material removed.

Lasers imported separately have been entered erroneously under subheadings of heading 8456 rather than under subheading 9013.20.

The ENs to heading 9013 indicate that the laser also includes a power supply, cooling system, control, etc. in addition to the lasing medium, the energy source (pumping system) and the resonant optical cavity (reflector system).

However, heading 9013 excludes lasers which are imported with work tables, work holders, means of feeding and positioning the work-pieces, etc. which make them identifiable as working machines. A laser machine tool of subheading 8456.10 would essentially consist of the laser with its power supply, cooling system, control, etc., plus the work-tables and holders and means of feeding and positioning the workpiece.

## **Rulings:**

HQ 087513 of November 5, 1990, dealt with the classification of a laser machinery center in various stages of completion;

HQ 961501 of July 17, 1998, classified a laser film subtitling machine entered under a subheading of heading 8456 under subheading 9010.50.40;

NY I80778 of May 15, 2002, classified a water jet guided laser cutting machine under subheading 8456.10.80. Subheading 8456.10.60 was proposed, since it was claimed but not substantiated that the machine's primary purpose is to work silicon wafers; and

NY R00499 of July 9, 2004, mentioned above, classified a UV laser marking machine under subheading 8456.10.80.

## **Subheading 8456.20**

Operated by ultrasonic processes.

The ENs to heading 8456 indicate that ultra-sonic machine tools consist of a punch subjected to ultrasonic vibrations and an abrasive in suspension in a liquid. These machines may incorporate an abrasive recycling system.

The ultrasonic process begins with a high frequency electrical signal that is converted to mechanical movement. A booster then amplifies the oscillations which transfer to the tool.

These machines have never been imported in substantial numbers.

## **Subheading 8456.30**

Operated by electro-discharge processes.

The electrical discharge machines (EDMs) for working metal of subheading 8456.30.10 have statistical breakouts identifying traveling wire (wire-cut) type (statistical breakout 20) and other than wire type (statistical breakout 50 and statistical breakout 70). The traveling wire type often has a "W" in the model number.

The EDMs for working non-metals of subheading 8456.30.50 are generally used to work materials such as polycrystalline diamond (PCD).

The removal of material in electrical discharge machining is based on the erosion effect of electric sparks occurring between two electrodes. It is applied mostly to tool and die work or difficult to machine materials. It can readily but slowly cut complex configurations in hard die steels.

The workpiece, which constitutes one of the electrodes between which the sparks occur, must be of electrically conductive material. It can't be made of glass, ceramics, plastics, etc. The cutting tool, EDM wire or a shaped electrode, also must be made of electrically conductive material. It never touches the part being machined. The sparking action gradually melts away the stock until the desired shape is formed. The machining is generally performed with the work-piece and the tool (wire or shaped electrode) submersed in a dielectric tank.

EDM wire is generally hard brass tempered wire. EDM wire imported separately is classified under heading 7408. Note HQ 561353 of September 19, 2002. The shaped electrode tools may be made of graphite, copper, brass, tungsten and carbide. Graphite is the predominant material. Since chapter 84, note 1(a) excludes articles of chapter 68, these graphite electrodes are classified in heading 6815. Although the graphite electrode is in effect an interchangeable tool for a machine tool, it doesn't meet the requirements of chapter 82, note 1 hence it cannot be classified under heading 8207.

### **Subheading 8456.91**

For dry etching patterns on semiconductor materials.

The heading 8456 ENs indicate that some of these machines use radio frequency energy while others may use microwave. Terms used to describe specific forms of dry etching include parallel plate dry etching, reactive ion etching, magnetically enhanced ion beam etching, ion beam etching and electron cyclotron resonant etching.

Wet etchers, bath type and spray type, are not included. The bath type are classified under subheading 8464.90.10 while the spray etchers are classified under subheading 8424.89.30. Note chapter 84, note 2.

### **Subheading 8456.99**

Provides for machines other than those operated by laser, ultrasonic or EDM and the dry etching machines of subheading 8456.91. Subheadings 8456.99.10 and 8456.99.30 provide for machines for working metal while subheading 8456.99.70 covers non-metal working machines. The remaining processes are electro-chemical, electron beam, ionic-beam and plasma arc. Note that the electro-chemical and the plasma arc machines are only used to work metal.

Subheading 8456.99.10 provides for focused ion beam milling machines to produce or repair masks and reticles for patterns on semiconductor devices. The glass substrate used to produce the mask or reticle has a chrome coating which this machine selectively removes.

These machines generally cost well over \$1,000,000. There are very few imported. If a machine is entered under subheading 8456.99.10 at a lower value, the classification is generally verified.

Subheading 8456.99.30 covers machines of a kind used for cutting metal.

Electro-chemical machining (ECM) removes metal without the use of mechanical or thermal energy. Electric energy is combined with a chemical to form a reaction of reverse plating. Direct current is continuously passed between the anodic work-piece and the cathodic tool (electrode) through a conductive electrolyte. The ENs state that the principle of this type of machining is the removal of **metal** by electrolysis. Since these machines have their own statistical suffixes CBP knows that there are very few imported.

Plasma arc uses electrical energy, plasma gas and a constricting nozzle to generate high temperature and a high velocity plasma jet to melt and remove any conductive material.

Electron beam machining uses electrical energy to generate thermal energy for removing material. A pulsating stream of high speed electrons produced by a generator and focused by electrostatic and electromagnetic fields to concentrate energy on a very small area of work.

Ionic beam works by continuous action, not by impulses as in the case of the laser beam.

Subheading 8456.99.70 and subheading 8456.99.90 then would be limited to electron beam (EB) and ionic beam (IB) processes. Subheading 8456.99.70 specifically provides for machines for stripping and cleaning semiconductor wafers (other than wet cleaning or stripping). A common example would be a machine known as an "asher", a machine which removes the spent photoresist from the surface of a wafer. Subheading 8456.99.90 would thus include EB and IB machines for working other non-metal products.

**Ruling:**

NY D81954 of September 25, 1998, classified an etch cleaning machine for semiconductor wafers under subheading 8456.99.7000. It is not classified under subheading 8456.91, since it lacks the precision required for the shaping of circuitry on wafers. The sputter etch cleaning process employed removes the native oxide of the wafer prior to bump metalization.

## **HEADING 8457**

Heading 8457 provides for machining centers, unit construction machines (single station) and multi-station transfer machines for working metal.

### **Subheading 8457.10**

Machining centers are essentially combination boring, milling and drilling machines which are numerically controlled (CNC) and have some form of automatic tool change, most commonly (probably 99%) an automatic tool changer (ATC). Other arrangements include indexing turrets and automatic head changers.

How does an ATC work? The tool change mechanism itself is a mechanical arm with a gripper at each end so that it can grab a tool (an end mill, for example) in the spindle, return it to the tool magazine, grab a different tool from the magazine and place it in the spindle. The tool magazine is generally mounted on the side of the machine and may contain as few as 8 and as many as over 100 tools.

The Tool & Manufacturing Engineers' Handbook (TMEH) describes machining centers as multifunction, NC or CNC machines with automatic tool changing capabilities and rotating cutting tools.

AMT defines them as multifunction machines, typically combining boring-drilling-milling tasks. Machining centers have three or more axes of motion, a contouring numerical control and an automatic tool changer.

In general, the principal operation of a machining center is milling. A CNC milling machine becomes a machining center with the addition of a tool changer as does a CNC combination boring and milling machine.

Not every machine described as a "machining center" is classified under subheading 8457.10. The machine must for working metal by removing metal. Laser machining centers would fall under heading 8456, sheet metal machining centers in heading 8462 and woodworking in heading 8465.

Statistical suffixes 15 through 70 refer to new machines with automatic tool changers.

Statistical suffix 75 covers the rare machining center without an ATC.

Statistical suffixes 15 and 25 cover vertical spindle machines which are distinguished by their y-axis travel: Statistical suffix 15 covers those with a y-axis travel not over 660mm (26") while statistical suffix 25 covers those with a y-axis over 660mm (26"). The y-axis travel on a VMC is the movement of the work-table in and out from the spindle.

Statistical suffixes 55 through 65 cover horizontal spindle machining centers which are also differentiated by their y-axis travel. The y-axis travel for a HMC is the movement of the spindle up and down.

Statistical suffix 70 provides for other than vertical or horizontal, presumably combination horizontal-vertical machines.

Machining centers are some times imported with pallet changing systems. The combination is a functional unit under subheading 8457.10. Work-pieces are set up on the pallets in advance to eliminate the need to set up after machining each piece. The pallet changing system imported separately would be classified under subheading 8428.90.00 as other lifting, handling, loading or unloading machines. The work holding pallets for these systems are classified under subheading 8466.20.80, if separately imported.

### **Rulings:**

HQ 081841 of March 9, 1989, classified a jig boring machine with an ATC under subheading 8457.10 rather than subheading 8459.31 as a CNC boring and milling machine; and

HQ 085703 of December 7, 1989, classified a machining center imported without its ATC as an unfinished machining center.

### **Subheading 8457.20**

The ENs to heading 8457 indicate that in these multifunction machines, the work-piece is held in a fixed position while the unit heads move relative to the work-piece. The machine has a single workstation and two or more unit head or machining units which perform two or more machining operation (e.g., boring, drilling, milling, grinding). The unit heads are parts of the machine on which they are mounted and are used to hold, guide and actuate (rotate, advance, retract) the interchangeable tool. Rotating heads usually incorporate an electric motor while translation heads usually incorporate a hydraulic cylinder.

An example of a unit construction machine (single station) would be the “hey facing and centering machine.”

### **Subheading 8457.30**

These machines must satisfy three conditions. They must:

- 1) carry out several machining operations;
- 2) work by automatic transfer of the work-piece to the tool; and
- 3) be equipped with various heads.

Types of multi-station transfer machines are:

- 1) Rotary Transfer – the unit heads are arranged in a circle on a common base; and
- 2) Linear or In-Line Transfer – the unit heads are arranged in line on a common base. Large In-Line transfer machines may require multiple shipments over a course of several weeks or months.

The ENs indicate that “flexible manufacturing systems” (FMS) are excluded. FMS consists of several machines, generally CNC, connected by handling equipment but not sharing a common base.

## **HEADING 8458**

Heading 8458 provides for Lathes (including turning centers) for removing metal.

In a lathe, the work-piece or part is rotated against a stationary tool. Rotation of the work-piece is accomplished by a spindle mounted in the lathe headstock. Spinning lathes, which function by deforming the metal, are excluded. They fall under subheading 8463.90.

### **Subheading 8458.11**

This subheading covers horizontal spindle lathes which are numerically controlled (CNC). The axis of rotation on a horizontal lathe is parallel to the floor. Turning centers are by definition numerically controlled: a CNC turning machine with characteristics including a “live” spindle, tool changing, work changing, ability to perform secondary operations, and tool monitoring and gauging.

Statistical suffix 10 covers multiple spindle machines. The spindles to be counted are the work-holding spindles. Turning centers have live spindles for tools in addition to work holding spindles. Regarding the work-holding spindles, machines equipped with a main spindle and a subspindle are not considered to be multiple spindle. Such a machine might have a main spindle motor of 7.5 kW and a subspindle rated at 3.7 kW. In true multispindle lathes, the spindles have the same power rating.

Statistical suffixes 30, 50 and 90 distinguish single spindle horizontal lathes by the kW rating of the main spindle motor. The continuous rather than the “30 minute” rating must be used. The continuous is the lower rating and the normal operating power of the machine. The 30 minute rating, as the name implies, is a higher rating that is generally maintained for 30 minutes or less. The problem is that many brochures now only include the 30 minute which they may refer to as the maximum power rating.

## **Subheading 8458.19**

This subheading provides for non-CNC horizontal lathes. The fact that a lathe may have a digital readout (DRO) which indicates the coordinate location of the tool in relation to the work does not necessarily indicate that a machine is numerically controlled.

Statistical suffix 30 covers engine or tool room lathes. An engine lathe essentially consists of a headstock (which contains the spindle which rotates the work-piece), tailstock, horizontal bed, saddle, apron, carriage and cross slide. In an engine lathe, the cutting tool, generally mounted in a tool post on the cross-slide, is brought in from the side. A tool room lathe is essentially a high precision engine lathe.

Special types of engine lathes include “gap bed lathes” which may have a gap cut out of the bed immediately in front of the headstock or may be equipped with removal bed blocks to create the gap and “hollow spindle” or “oil country lathes” which feature hollow spindles to enable stock to be fed from the rear. They are called “oil country lathes” because they are often used for turning and threading long components used in oil and gas drilling equipment.

Statistical suffixes 50 and 70 cover automatic bar and/or chucking machines. Those in statistical suffix 50 are single spindle while those in statistical suffix 70 are multiple spindle. Chucking machines are heavy machining lathes that only use a chuck as a work holding device and have a shorter bed and no tailstock. Automatic bar machines work bar stock which is generally fed through the spindle by a bar feeder.

“Swiss-type automatics,” machines originally designed to provide small accurate parts to the Swiss watch industry, are characterized by a sliding headstock. They are a special subclass of single spindle automatic turning machines classified under subheading 8458.19.0050.

Statistical suffix 90 includes lathes such as horizontal turret lathes, between center lathes and brake lathes.

### **Ruling:**

HQ 952404 of October 19, 2002, classified an unfinished manually operated horizontal lathe, imported with the intention of converting it into a CNC lathe, as a non-CNC lathe under subheading 8458.19.

## **Subheading 8458.91**

This subheading covers numerically controlled vertical lathes. The axis of rotation in a vertical lathe is perpendicular to the floor. The work-piece generally rests on a horizontal table rotating around a vertical axis. Subheading 8458.91.10 provides for

vertical turret lathes (VTLs). The VTL has a turret over a rotating table to which the workpiece is clamped or chucked. Subheading 8458.91.50 covers vertical lathes without a turret. These machines have ram type tooling.

### **Subheading 8458.99**

This subheading covers non-CNC vertical lathes. Subheading 8458.99.10 covers VTLs while subheading 8458.99.50 covers vertical lathes without a turret.

Vertical lathes and vertical boring machines (VMBs) are essentially the same. The machines are differentiated by their table size. Machines with a 72" or larger table are VMBs while those under 72" are vertical lathes.

## **HEADING 8459**

This heading provides for machine tools, including way or guide type unit head machines, for drilling, boring, milling, threading or tapping by removing metal, other than lathes, including turning centers, of heading 8458.

In these machines, a rotating tool is generally moved against a stationary work-piece.

### **Subheading 8459.10**

Provides for way-type unit head machines designed to perform the operations described in the heading. The heading 8459 ENs states that these machines have no attached base. They consist only of a "frame" holding a motor and a tool holder and are equipped with guides or ways and can therefore move back and forth repetitively when placed on a suitable base. The work-piece is inserted in a work holder independent of the way-type unit head machine which moves back and forth horizontally for drilling, boring, etc.

Way-type unit head machines are generally incorporated in larger special purpose machine tools such as the unit construction machine of subheading 8457.20 or the rotary transfer machines of subheading 8457.30. If imported mounted on one of those machines, they would not fall under subheading 8459.10.

The subheadings following subheading 8459.10, except for subheadings 8459.51 and 8459.59, all describe machines other than way-type. For example, a way-type drilling machine would fall under subheading 8459.10 rather than under subheading 8459.29 as a non-CNC drilling machine. Since way-type could never be "knee type", there is no need to say "other knee type".

### **Subheadings 8459.21 and 8459.29**

Drilling machines produce holes using a rotating cutting tool called a drill or a bit.

Subheading 8459.21 includes all CNC drilling machines for working metal.

For the non-CNC drilling machines of subheading 8459.29:

Statistical suffix 40 covers multiple spindle drilling machines (while statistical suffixes 50, 70 and 90 are other than multiple spindle).

Multi-spindle drilling machines have many spindles connected to one main head. A multi-spindle drill could be used to drill the holes in a cribbage board.

Gang drilling machines have several work heads positioned over one table. Each work head would perform a different drilling or tapping operation. Since each head has a spindle, these machines are multi-spindle.

Statistical suffix 50 covers radial drills which consist essentially of a column, base, arm and headstock. The headstock is mounted on the arm and can be moved horizontally on the arm. The arm can also be moved up and down.

Statistical suffix 70 covers upright, excluding sensitive (hand directed), turret and deep hole machines.

In upright drill presses (other than sensitive) the tool can be power fed or manually fed into the work-piece. It normally has a gear-drive spindle.

Statistical suffix 90 then would cover sensitive, turret and deep hole drilling machines and other drilling machines.

In sensitive drill presses, the operator hand feeds the tool into the work-piece so he or she can feel the cutting action. The machine normally has a belt-drive spindle head.

Turret drilling machines, as the name implies, are equipped with several drilling heads mounted on a turret so that the head desired can be indexed to the cutting position.

Deep hole drilling machines were first developed for the manufacture of firearms hence they are sometimes called "gun drilling" machines.

Magnetic drill presses have magnetic bases that enable them to be clamped to the work-pieces they are drilling.

### **Rulings:**

HQ 966790 of February 4, 2004, classified magnetic drilling machines under subheading 8459.29 rather than under a subheading of heading 8467 as claimed since the machines are not held in the hand during use; and

HQ 966729 of December 17, 2003, classified air electric drill unit and tap units imported with stands or bases under subheadings 8459.29.00 and 8459.70.80, respectively. Drilling and tapping units imported without a base are classified under subheading 8466.93.95, as parts.

### **Subheadings 8459.31 and 8459.39**

Subheading 8459.31 covers all numerically controlled combination boring-milling machines. They are excluded if they have an ATC – see subheading 8457.10.

Statistical suffixes 10 and 40 cover horizontal spindle machines. Statistical suffix 10 covers table type, excluding planer type. Statistical suffix 40 covers planer type and other than table type. Statistical suffix 70 is for vertical spindle machines.

Subheading 8459.39 covers non-CNC boring-milling machines, the only major distinction being whether the spindle is horizontal or other (vertical).

### **Subheading 8459.40**

Boring machines work the internal surface of an existing hole. Although similar to drilling machines, they do not create the initial hole.

Subheading 8459.40 covers boring machines other than combination boring-milling machines distinguished by vertical and other (horizontal) spindle. The distinctions regarding numerically controlled machines are at the statistical level.

Vertical boring machines are distinguished from vertical lathes by the size of the table. Under 72" is a vertical lathe – see subheadings 8458.91 and 8458.99.

The term “Jig Boring” refers to highly accurate boring machines.

### **Subheadings 8459.51 and 8459.59**

Milling is a machining process for removing material by relative motion between a work-piece and a rotating cutter having multiple cutting edges. These subheadings cover knee type milling machines. Subheading 8459.51 covers the CNC knee type while subheading 8459.59 those machines not operating under numerical control.

Knee type milling machines have a “knee” which moves up and down on a central stationary column. The spindle is mounted in the column at a fixed height. A “saddle” rests on the knee and can be moved in and out across the top of the knee. The work-holding table is then mounted on the saddle.

## **Rulings:**

NY B81784 of February 6, 1997, classified a vertical turret milling machine as “knee type”. Although not described as such in the literature, the specifications included the vertical knee travel.

## **Subheadings 8459.61 and 8459.69**

Milling machines other than knee type also have separate subheadings based on the CNC status. Subheading 8459.61 covers the CNC machines while subheading 8459.69 covers non-CNC machines.

### **For the non-CNC:**

Statistical suffix 50 covers profile, duplicating or die sinking; Statistical suffix 70 covers bed type; and, Statistical suffix 90 covers other than the above.

Profile, duplicating or die sinking machines (statistical suffix 50) include copy mills with tracing capabilities (pantograph). Many of these machines are used in the tool and die industry. They copy mill from a template or model. Also included are milling type key duplicating machines.

Bed type milling machines (statistical suffix 70) differ from the knee type in that the bed is fixed hence the work-table cannot be moved up and down. The work-table can be moved from right to left.

Other (statistical suffix 70) includes machines such as thread milling machines, key biting machines and milling type engraving machines.

## **Ruling:**

HQ 965004 of March 28, 2002, classified a milling engraver said to easily handle a wide range of materials including aluminum, brass and copper under subheading 8459.61, since it was principally used to work metal.

## **Subheading 8459.70**

This subheading covers threading or tapping machines. Tapping machines produce an internal thread in an existing hole. Threading machines produce an external thread. A threading machine is similar to a lathe and most lathes have thread cutting capabilities. Thread milling machines are regarded as milling machines.

In this subheading, the numerical control distinction occurs at the 8-digit or U.S. subheading level where subheading 8459.70.40 cover CNC while subheading 8459.70.80 covers the non-CNC.

## **Rulings:**

HQ 966729 of December 17, 2003, relates to drill and tap units, imported with stands or bases; and

HQ 087360 of September 7, 1990, classified a drilling and tapping center under subheading 8459.70, since tapping is the principal function. The multi-spindle machines do not have automatic tool changers.

## **HEADING 8460**

This heading covers machine tools for deburring, sharpening, grinding, honing, lapping, polishing or otherwise finishing metal or cermets by means of grinding stones, abrasive or polishing products, other than gear cutting, gear grinding or gear finishing machines of heading 8461.

Cermets are defined in Section XV, note 4. Throughout the HTSUS, the term “cermets” means products containing a microscopic heterogeneous combination of a metallic component and a ceramic component. The term “cermets” includes sintered metal carbides (metal carbides sintered with a metal).

The ENs indicate on page 1550 that the term “polishing products” means the following:

- (1) Polishing discs made from metal carbides, steel, soft metal, wood, belt, textile material or leather;
- (2) Wire brushes; or
- (3) Polishing pads.

## **Subheadings 8460.11 and 8460.19**

These subheadings cover flat-surface grinding machines, in which the positioning in any one axis can be set up to an accuracy of at least 0.01mm.

A CNC flat surface grinder of subheading 8460.11 will always meet this accuracy requirement. There may be some low cost non-CNC flat surface grinders that do not. This accuracy data is not likely to appear on an import invoice and most brochures do not provide this information. If a non-CNC flat surface grinder does not meet the accuracy requirements, it would be classified under subheading 8460.90.80.

For the non-CNC, statistical suffix 10 of subheading 8460.19.00 describes reciprocating table type. On these machines, the work-table moves back and forth (reciprocates) under the grinding wheel. The work-piece is generally held during grinding by a magnetic chuck.

## **Subheadings 8460.21 and 8460.29**

These subheadings cover other grinding machines, other than flat surface grinders, in which the positioning in any one axis can be set up to an accuracy of at least 0.01 mm. These other grinding machines would be primarily cylindrical grinding machines where work is performed on round or cylindrical work-pieces.

As is the case with the surface grinders, the CNC machines of subheading 8460.21 will meet this requirement. Machines of subheading 8460.29 may or may not. Any low cost non-CNC grinders that do not will be classified under subheading 8460.90.80.

For the non-CNC, statistical suffix 10 of subheading 8460.29.00 describes external cylindrical, including universal. A universal grinder is an external cylindrical grinder with an internal grinding attachment. Statistical suffix 30 covers internal grinders (no external grinding capability) and statistical suffix 50 covers other including:

With center type cylindrical grinders the work-piece is held between two centers as the grinding wheel removes stock (material).

With center-less grinding machines the work is ground while it is supported between a grinding wheel and a regulating wheel. The regulating wheel does not remove any material.

Roll grinders are a special class of extra-heavy, plain, center-type cylindrical grinders used for large work-pieces such as steel mill rolls.

## **Subheadings 8460.31 and 8460.39**

These subheadings cover sharpening (tool or cutter grinding) machines. These machines are used to grind cermet or hard metal tool tips. Subheading 8460.31 covers the CNC machines while subheading 8460.39 covers the non-CNC.

They may be known as drill grinders (sharpeners), face-mill grinders, end-mill sharpeners, etc. They may be floor or table mounted. They are typically used to grind interchangeable tools found in heading 8207 such as drill bits, milling cutters, reamers, taps, etc.

## **Subheading 8460.40**

Honing or lapping machines. The CNC status is identified at the 8-digit level in subheading 8460.40.40 whereas the non-CNC fall under subheading 8460.40.80. Super-finishing machines are also included here.

Honing is an abrasive process in which heavy stock can be removed from the wall of a bore by the shearing action of abrasive grains.

Lapping is generally a final finishing operation utilizing loose abrasives and prepared compounds.

Super-finishing, also referred to as micro-finishing, is a low temperature abrading process, closely related to honing.

### **Subheading 8460.90**

This subheading covers machines other than those described above which are numerically controlled in subheading 8460.90.40. CNC deburring or polishing machines would be classified here.

The other non-CNC of subheading 8460.90.80 would primarily include the machines of subheadings 8460.19 and 8460.29 which do not meet the accuracy requirements of those subheadings and bench type grinders.

### **Rulings:**

HQ 963324 of June 27, 2000, classified a profile grinder used on railroad tracks to smooth rough spots or burrs under subheading 8460.90.80. The importer had suggested classification in a subheading of heading 8467 as a tool for working in the hand;

HQ 957404 of May 31, 1995, classified a polishing and cooling machine for printing cylinders under subheading 8460.90 since the polishing was clearly the principal function. The machine removes chrome plating and the engraved image from the cylinder by polishing with an abrasive. In addition to cooling the cylinder after polishing, the water was used to wash away chrome particles; and

HQ 960385 of January 29, 1998, classified machines for cleaning the outer layer of a copper foil printed circuit board prior to laminating by scrubbing the surface with rotating nylon brushes sprayed with pumice in a water suspension under subheading 8460.90.80. The scrubbing removed a thin layer of oxide and copper.

### **HEADING 8461**

This heading covers machine tools for planing, shaping, slotting, broaching, gear cutting, gear grinding or gear finishing, sawing, cutting-off and other machine tools working by removing metal or cermets, not elsewhere specified or included.

### **Subheading 8461.10 (deleted January 1, 2002)**

This heading covered planing machines up until January 1, 2002, when the subheading was deleted. The goods were moved to subheading 8461.90 and identified by statistical suffixes.

### **Subheading 8461.20**

Shaping machines operate on the planing principle and differ from planing machines in that the article to be worked is held in a fixed position during the cut while the tool moves with reciprocating linear movement. Slotting machines operate on the same principle as shaping machines. However, the tool movement is in a vertical or inclined direction. Slotters are also known as vertical shapers.

Subheading 8461.20.40 covers the numerically controlled machines and subheading 8461.20.80 the non-CNCs.

### **Subheading 8461.30**

In broaching machines, the tool (broach) is pulled or pushed across the work or through a hole, for surface working or shaping.

Subheading 8461.30.40 covers the numerically controlled machines and subheading 8461.30.80 the non-CNCs.

### **Subheading 8461.40**

Subheading 8461.40.10 provides for gear cutting machines. These machines are used to cut a gear out of a gear blank. Statistical suffix 20 covers machines used to make bevel gears. Machines used to produce gears other than bevel gears fall under statistical suffix 30, gear hobbers, statistical suffix 40, gear shapers, and statistical suffix 50, other. Gears other than bevel gears include spur gears, helical gears, worm gears, rack and pinion gears, etc.

Hobbing and shaping are the most common ways of producing gears. In hobbing, the hob and the blank both rotate. The cutting action is continuous in one direction until the gear is completed.

Note that gear cutting machines have a higher rate of duty (5.8%) than all other machine tools. This is the result of a complaint by an American manufacturer, Gould & Eberhardt, against unfair German competition around 1913.

Subheading 8461.40.50 covers gear grinding or finishing machines. Statistical suffix 50 is limited to those for bevel gears while statistical suffix 70 covers other. Gear finishing operations are distinguished from gear cutting operations in that they are used for

improving the accuracy and/or uniformity of the various gear tooth elements. Methods used to finish gears include shaving, lapping, honing and grinding.

Gear shaving is a cutting type finishing operation in which small amounts of metal are removed from the gear tooth profile by a cutter resembling a gear or a rack. Each tooth of the cutting tool is serrated to provide a series of cutting edges.

**Rulings:**

NY 813517 of August 22, 1995, classified a spur gear honing machine under subheading 8461.40.5070 rather than a subheading of heading 8460 claimed by the importer; and

NY 800958 of August 30, 1994, classified a gear chamfering machine under subheading 8461.40.5070.

**Subheading 8461.50**

Provides for sawing or cutting-off machines. The numerically controlled machines are covered by subheading 8461.50.40 and the non-CNC by subheading 8461.50.80.

The ENs describe reciprocating or oscillating sawing machines in which a straight toothed blade moves with a reciprocating linear movement, circular saws which employ a circular tool, toothed on its outer edge and turning at great speed, and band sawing machines which use a very long blade, one side of which is toothed and the ends of the blade are joined to form a band.

Sawing is a machining process in which straight, band or circular blades having a series of small teeth are employed to cut various materials.

Metal working band saws can be distinguished from woodworking band saws by their cutting speed which is generally expressed in surface feet per minute (SFPM). Metal working speeds are much lower – 60, 120 and 220 feet per minute (fpm). Non-metallic applications can involve speeds ranging from 400 to 4,000 fpm. Woodworking can be in the range of 3,000 fpm.

Cutting-off machines differ from sawing machines by virtue of the tool they use. The latter can be either cutting tools analogous to lathe tools, or abrasive or metal discs.

Abrasive cutoff machines use thin, bonded abrasive wheels to sever billets, bars, castings, forgings, extrusions, or other shapes for subsequent processing.

**Ruling:**

HQ 070781 of September 27, 1983, classified band saw machines based on the speed of the cutting blade in SFPM.

## **Subheading 8461.90**

This “other” category includes metal planing machines formerly included in subheading 8461.10 which, as previously stated was deleted effective January 1, 2002. Statistical suffixes 10 through 30 now cover these machines. The ENs state that in planing machines the tool is fixed while the table holding the article to be planed moves with a reciprocating motion. The heading includes “planing and milling machines” which are planing machines with auxiliary milling carriages. However, “plano-milling” machines which appear similar to a planing machine, but are equipped only with milling carriages, are excluded.

Other machine tools included here are the Wera profilator, a profile generating machine, and oxyfuel cutting machines.

The numerically controlled machines are covered by subheading 8461.90.30 and the non-CNC by subheading 8461.90.60.

The ENs also mention filing machines, which are similar to a reciprocating sawing machine, but use a file rather than a blade and engraving machines, other than those of heading 8459 (milling) or heading 8460 (grinding).

### **Rulings:**

HQ 959656 of April 11, 1997, classified the Helio Klischograph, a machine for engraving printing cylinders with a diamond stylus, under subheading 8461.90, rather than under a subheading of heading 8442, as machinery for making or preparing or making printing cylinders, since heading 8442 excludes machine tools. The Klischograph included a scanner, control unit and engraver as a functional unit in accordance with section XVI, note 4;

HQ 950836 of June 22, 1992, classified a strand torch cutting machine (oxyfuel cutting) under subheading 8461.90 rather than under a subheading of heading 8468 as a non-electrical welding machine; and

NY 866338 of September 11, 1991, classified a scarfing machine, a gas torch on a robot arm controlled by an operator in a cab on rails, under subheading 8461.90.

This concludes the metal cutting machine tools section. As noted earlier these machines work metal for the most part by removing metal in the form of chips, dust, swarf, etc., usually by the action of a rotating cutting tool.

The next two headings cover machine tools which work metal by forming operations. In these operations no chips are produced.

## HEADING 8462

This heading covers:

- 1) machine tools, including presses, for working metal by forging, hammering or die-stamping;
- 2) machine tools, including presses, for working metal by bending, folding, straightening, flattening, shearing, punching or notching; and
- 3) presses for working metal or metal carbides, not specified above.

### Subheading 8462.10

This subheading provides for forging or die-stamping machines (including presses) and hammers with statistical breakouts for headers and upsetters, including cold headers under statistical suffix 30 and mechanical transfer presses under statistical suffix 35.

Mechanical Transfer Presses (MTPs) have multiple die stations in which the work-piece is moved from station to station by a transfer mechanism designed as an integral part of the press and synchronized with the press action. Complete MTPs are highly unlikely to import for under a million dollars and have been known to cost in excess of \$50,000,000. An entered value under a million dollars may indicate to CBP that the machine is not a mechanical transfer press or that the shipment only included parts of such a press.

MTPs from Japan have been subject to antidumping duty since 1989. The case number is A-588-810<sup>1</sup>. There have been a number of Scope Reviews since the case opened:

- 1) In March of 1992 it was determined that spare and replacement parts are not within the scope of the antidumping order;
- 2) In April of 1992, it was determined that accessories for MTPs, including a destack sheet feeder designed to be used with a MTP, are excluded. Other accessories mentioned that are not covered included die tooling, load meters and load sensors; and
- 3) Cold forging transfer presses are within the scope of the order.

---

<sup>1</sup>As published in the Federal Register of August 1, 2005, Vol. 70, No. 146, the antidumping duty order on MTPs, the subject of case number A-588-810, has been revoked, effective June 21, 2005. The suspension of liquidation of the merchandise subject to this order entered or withdrawn from warehouse on or after the effective date is terminated. Entries of the subject merchandise prior to the effective date will continue to be subject to the suspension of liquidation and antidumping duty deposit requirements until specific liquidation instructions are issued. Inquiries should be directed to the Import Administration, International Trade Administration, Department of Commerce.

Whereas transfer presses generally are used to work sheet metal, forging transfer presses process thicker work-pieces such as blooms, billets, etc. The major components of transfer presses include the bed assembly, crown assembly, slide assembly, column assembly, feeds, and controls. The bed assembly functions as a frame to support the press and houses the bolsters, cushion and lower dies which are attached to the bolster. The bolster in turn rests on the cushion which is hydraulically or pneumatically powered. The crown assembly houses the drive or drives which power the slide assembly. It also houses the brakes, gears and flywheel. The slide assembly moves up and down in the press and imparts force to the work-piece being formed. The upper dies are attached to the slide. The column assembly supports the crown and slide assemblies and gives the press stability against lateral forces. Piping, controls and monitoring equipment are housed in the column assembly.

Up until July of 2002, MTPs were classified under subheading 8462.99.80 which provide for other mechanical presses. HQ 965247 reclassified MTPs under subheading 8462.10. Die stamping presses other than MTPs were addressed in HQ 964674.

Statistical suffix 30 covers headers and upsetters, including cold headers. Upsetting is defined as working metal in such a manner that the cross sectional area of a portion or all of the stock is increased. In heading, a slug of wire is pushed into a die and a protruding end is upset in an outward direction. Cold headers are cold forming machines used to produce screw blanks, bolts, rivets, etc. from cold heading wire.

Statistical suffix 55 covers all other die-stamping and forging machines. Hot forging is defined as the controlled, plastic deformation or working of metals into predetermined shapes by means of pressure or impact blows or a combination of both. Forging has also been described as an operation that uses heat but no dies. Hammer forging machines have “rams” or “hammers” that deliver blows to a relatively small area. Stamping (or cutting out) has been described as a process for forcing metal, by impact or pressure to fill the hollows of metal molds called dies. This operation is carried out hot for hard metals and cold for soft metals. Stamping is sometimes used as a general term to cover all press-working operations on sheet metal. The metal is shaped or cut through deformation by shearing punching, drawing, stretching, bending, coining, etc.

A stamped part may be produced by one or a combination of three fundamental press operations:

- 1) cutting – blanking, punching, perforating or lancing;
- 2) drawing – bending or forming; and/or
- 3) coining – compression, squeezing or forging.

The die-stamping machines of subheading 8462.10 may employ some or all of these operations. Subheading 8462.10, however, does not cover machine tools including presses which are specifically designed for bending, folding, straightening or flattening (subheading 8462.21 or subheading 8462.29), shearing (subheading 8462.31 and

subheading 8462.39) or punching or notching (subheading 8462.31 or subheading 8462.39).

Other machines included in this heading are:

- 1) Ring rolling - a type of forging operation, and
- 2) OBI's – open back inclinable presses.

### **Rulings:**

HQ 965247 and 964674 noted above;

NY E89075 of November 19, 1999, classified a can body-maker under subheading 8462.10. The machine takes a shallow metal cup (approximately 1' high) and redraws it into the size of a soda or beer can. Redrawing reduces the bottom dimensions and increases the side-wall height of the cup; and

D89593 of April 21, 1999, classified a metal marking machine under subheading 8462.10, since it operated by die stamping.

### **Subheadings 8462.21 and 8462.29**

These subheadings provide for bending, folding, straightening or flattening machines (including presses). At the 8-digit level, subheadings were created in July of 1997 covering machines for bending, folding and straightening semiconductor leads as part of the ITA (Information Technology Agreement). See subheadings 8462.21.40 and 8462.29.40. Under the non-CNC subheading 8462.29.80 there are statistical breakouts for press brakes, statistical suffix 35, and bending rolls, statistical suffix 55.

HQ 959218 classified lead conditioning machines under subheading 8462.21 or subheading 8462.29 while NY C83448 classified trim and form machines for semiconductor leads under the same subheadings since the forming rather than trimming is the principal operation.

Press brakes are essentially sheet metal bending machines.

Bending Rolls employ a series of rolls to bend sheet or plate material.

The classification of welded tube mills has been an issue for the past few years. A welded tube mill essentially takes coiled metal strip, passes it through a series of bending rolls which gradually form it into a cylindrical tube, welds the seam to close the tube, sizes the welded tube, and cuts it off to the desired length. A welded tube mill would be another example of a functional unit described in section XVI, note 4.

It has been suggested that the welded tube is a rolling mill of heading 8455, specifically a tube mill of subheading 8455.10, or welding apparatus of heading 8515. For an explanation of the issue, see HQ 965296 of July 9, 2003, and HQ 965198 of May 1, 2002.

**Rulings:**

HQ 965398 of May 20, 2002, classified a tube forming machine claimed to be a rolling mill of heading 8455 under subheading 8462.29; and

HQ 965606 of September 11, 2002, classified a unit assembly machine under subheading 8462.21 citing section XVI, note 3. The assembly was accomplished principally by bending and folding.

**Subheadings 8462.31 and 8462.39**

These subheadings provide for shearing machines, including presses, other than combined punching and shearing machines. Subheading 8462.31 covers the numerically controlled machines while subheading 8462.39 covers the non-CNC.

Shearing is the cutting action along a straight line to separate metal by two moving blades. Slitting is lengthwise shearing in which a gang of circular blades cuts strip from a sheet.

**Subheadings 8462.41 and 8462.49**

These subheadings provide for punching or notching machines, including presses, including combined punching and shearing machines. Subheading 8462.41 covers the numerically controlled machines and subheading 8462.49 covers the non-CNC.

An "ironworker" is an example of a combined punching and shearing machine.

Blanking is the opposite of punching. In blanking, the outer portion of the sheet metal is the scrap. In punching, the part punched out is the scrap.

**Rulings:**

F85174 of May 1, 2000, classified a machine for punching flexible printed circuit boards (pcb) made of copper sheeting and plastic laminate under subheading 8462.41. Unlike the non-flexible pcbs, the laminate does not comprise the bulk of the material. Circuit board drilling machines for non-flexible boards are classified in heading 8465.

## **Subheadings 8462.91 and 8462.99**

These subheadings cover presses for working metal not specified above. Subheading 8462.91 covers hydraulic presses while subheading 8462.99 covers mechanical and pneumatic presses. Here, the numerical control distinction for each subheading occurs at the 8-digit level.

The extrusion press is one of the “other “ presses included here. Extrusion is the process by which by which a block of metal is reduced in cross section by forcing it through a die orifice under high pressure. In general, extrusion is used to produce cylindrical bars or hollow tubes, but shapes of irregular cross-sections may be produced from the more readily extrudable metals like aluminum.

In addition to extrusion presses, the heading 8462 ENs list presses for molding metallic powders by sintering and presses for compressing metal scrap into bales. The latter is not a machine tool and a proposal has been submitted to the HSC to move them to heading 8479.

In recent years, there have been many hydraulic “shop” presses entered under subheading 8462.91.80 as other hydraulic presses. These low tonnage (10 or 12 ton) presses consist essentially of a steel frame, a pump and a ram and are used to install or remove small pressure fitted parts such as gears and bearings, for motor and armature repair and for bending and straightening. They have no principal purpose. Complaints were received from AMT that entry of these machines under this subheading was distorting the import statistics. These machines are classified under subheading 8479.89.9897. See NY K87333 of July 1, 2004.

## **HEADING 8463**

This heading provides for other machine tools, other than the machine tools or presses of heading 8462, for working metal or cermets, without removing material.

### **Subheading 8463.10**

This subheading provides for draw-benches for bars, tubes, profiles, wire or the like.

A draw bench is not a continuous operation and would not include a straightener. Products over 1 ½” are generally drawn on a draw bench.

### **Subheading 8463.20**

Provides for thread rolling machines. These machines produce threads without removing material.

## **Subheading 8463.30**

Provides for machines for working wire. These machines are used to produce goods such as springs, barbed wire, chains, pins, wire nails, staples and hooks.

Combined drawing machines draw wire, bars, tubes, etc., through dies in a continuous manner resulting in an increased length and reduction in diameter. These products range in diameter from ¼" to 1 ½". A typical line may be 300' long (another example of a functional unit). The largest main drawing unit may be 20' long x 14' wide x 10' high. The line would basically include coil handling equipment, straighteners, a descaler, a pointer, the drawing unit, straighteners, surface defect detectors, a shear, recoiler, etc. If working wire these are classified under subheading 8463.30 or if working products other than wire they are classified under subheading 8463.90.

### **Ruling:**

F82152 of February 7, 2000, classified a spring coiler used to produce compression springs and shaped wire parts under subheading 8463.30.

## **Subheading 8463.90**

This subheading covers machines other than those described in subheadings 8463.10 through 8463.30. Other machines might include:

- 1) Spinning lathes which create a seamless cylindrical shape from a round, flat piece of sheet metal. The work-piece is placed between a chuck and a holding device. The metal is folded over the chuck using a blunt tool so that it takes on the exact shape of the chuck it is being folded against. A metal bowl would be an example of a product made on a spinning lathe;
- 2) Swaging machines are used to crimp fittings on to hoses by forcing tubes or bars through rotating dies to reduce the diameter;
- 3) Riveting machines (not rivet making machines) are used to assemble by deforming a rivet; and
- 4) Roll forming machines other than thread rolling.

### **Rulings:**

HQ 087746 of August 21, 1990, classified radial riveting machines under subheading 8463.90. Riveting machines are mentioned in the ENs to heading 8463 and the importer failed to produce evidence that his machines are principally used to work materials other than metals;

HQ 965190 of March 9, 2002, classified a photo impact printer under subheading 8463.90. Counsel for the importer claimed that heading 8471 or heading 8479 was more appropriate. The machine employed a diamond tipped stylus to deform the surface without removing any material. While it worked other materials, its principal purpose was to work metal;

NY D89816 of April 6, 1999, classified a swaging machine used to crimp metal fittings on to hoses and tubes by closing a circular die of variable diameter around the fitting after the hose or tube has been inserted into the fitting;

NY E89075 of November 19, 1999, classified a machine designed to emboss patterns along the length of a two piece decorated can under subheading 8463.90. Mandrel mounted can bodies are rotated against matched tools to effect the embossing. The machine is not a press;

NY I81192 of May 1, 2002, classified a flow forming machine under subheading 8463.90; and

NY R00185 of April 1, 2004, classified a ring stretcher, a hand operated, bench or table mounted machine, under subheading 8463.90.

## **HEADING 8464**

This heading provides for machine tools for working stone, ceramics, concrete, asbestos-cement or like mineral materials or for cold working glass.

### **Subheading 8464.10**

This subheading provides for sawing machines and includes a statistical breakout, statistical suffix 40, for machines designed to saw (slice) blank semiconductor wafers from crystal boules of semiconductor grade materials. Wafer dicing machines which cut the wafer into dies, are reported under statistical suffix 80, along with other saws for working stone, ceramics, etc.

### **Subheading 8464.20**

This subheading provides for grinding or polishing machines. At the 8-digit level, such machines for processing of semiconductor wafers are classified under subheading 8464.20.10 as part of the ITA.

Machines for grinding lens blanks to produce eyeglass lenses have often been misclassified in subheading 8464.20.50. Since 95% of the lenses produced in the U.S. are made of plastic, these machines fall in heading 8465.

## **Rulings:**

HQ 966621 of February 18, 2004, classified a lens generating machine used to produce plastic and glass eyeglass lenses from a blank under subheading 8465.93 rather than subheading 8464.20. This ruling deals with a multi-purpose, multi-function machine;

HQ 960753 of October 9, 1998, classified a finishing line for brake blocks under subheading 8464.20. The line included sawing and grinding units and was classified as a functional unit under subheading 8464.20, since the clearly defined function is grinding. The sawing is essential to produce the blocks from slabs, however, grinding to tight tolerances is the most critical;

HQ 966681 of November 25, 2003, ruled that an importation of a motor and a diamond saw blade for a tile saw did not constitute an unfinished saw of subheading 8464.10;

NY F88313 of June 30, 2000; classified walk behind type floor grinders on wheels for working marble, concrete, terrazo and granite floors under subheading 8464.20 rather than under a subheading of heading 8467 as tools for working in the hand. The machines are hand directed but not for working in the hand. The ENs to heading 8467 will be modified in 2007 by mentioning these machines as being excluded:

NY 811626 of July 7, 1995, classified a grinding wheel dressing device under subheading 8464.20.50. The heading 8464 ENs mention machines for cutting or dressing grinding wheels on the top of page 1559;

NY D87398 of February 25, 1999, classified a semiconductor wafer edge grinder under subheading 8464.20.10;

NY D87399 of February 8, 1999, classified a semiconductor wafer lapping machine under subheading 8464.20.10;

NY D87400 of February 25, 1999, classified a semiconductor wafer polishing machine under subheading 8464.20.10; and

NY J89540 of October 23, 2003, classified diamond working machines, a sawing machine under subheading 8464.10 and a polishing machine, utilizing a diamond impregnated tool known as a diamond "scaife", under subheading 8464.20.

## **Subheading 8464.90**

This subheading provides for machines other than sawing or grinding or polishing. At the 8-digit level, machines for scribing or scoring semiconductor wafers and for wet etching semiconductor wafers are provided for in subheading 8464.90.10, also as part

of the ITA as well as machines for wet-developing or wet-stripping semiconductor wafers and for wet-etching, wet-developing, or wet-stripping flat panel displays.

These wet processing machines dip semiconductor wafers in chemical baths to etch, strip or develop them. Machines which perform these operations by spraying are classified in heading 8424 by virtue of chapter 84, note 2. Dry etching, stripping, etc., falls under heading 8456.

Developing is the removal of the exposed photoresist.

Etching is the selective removal of the material from the exposed area on the wafer.

Stripping is the removal of the spent photoresist

Other machines classified in heading 8464.90 include:

- 1) Tile cutters other than tile saws, and
- 2) Glass cutting or scoring machines, other than saws

### **Rulings:**

HQ 962651 of September 21, 1999, classified wet benches or wet processor for cleaning and etching semiconductor wafers under subheading 8464.90.10 as composite machines in accordance with section XVI, note 3. The wet stripping line was classified under subheading 8464.90.60;

HQ 952689 of December 10, 1992, classified a graphite electrode milling machine under subheading 8464.90 since its principal purpose was to work graphite in accordance with chapter 84, note 7;

HQ 966484 of August 12, 2003; classified a plastic rock tumbler kit as a toy under subheading 9503.70, rather than as a machine tool under a subheading of heading 8464, distinguishing it from the professional/hobbyist type machines;

NY K83867 of March 5, 2004, classified a hand operated (i.e. no motor) tile cutter under subheading 8464.90. It was claimed to be a saw under subheading 8464.10; and

NY F85174 of May 1, 2000, classified scribing machines for ceramic, ferrite, barium titanate and glass pcb's under subheading 8464.90.9090.

## **HEADING 8465**

This heading provides for machine tools, including machines for nailing, stapling, glueing or otherwise assembling, for working wood, cork, bone, hard rubber, hard plastics or similar hard materials.

Under the previous tariff, the Tariff Schedules of the United States Annotated (TSUSA), machines for nailing, stapling, glueing or otherwise assembling were classified as machines, not specially provided for (nspf), not as machine tools. In the true sense of the term as it is understood in the industry, they are not machine tools.

### **Subheading 8465.10**

This subheading provides for machines which can carry out different types of machining operations without tool change between such operations. It includes statistical breakouts for tenoners in statistical suffixes 05, 25 and 35.

Examples provided in the ENs include:

- 1) Combined joinery machines having in a single unit several machines with different functions, used independently of each other. It is necessary to give manual assistance to the work-piece between each operation. These include machines for surface planing combined with one or more other operations and sawing-molding-morticing machines;
- 2) Multi-purpose machines in which no further assistance is required once the work-piece is inserted. These include single end tenoning machines with several spindles, double end tenoning machines, machines for positioning hardware, dowel holes, etc., machines for assembling using adhesives and finishing for the production of veneer strips or making panels from laths; and
- 3) Double End Tenoners are feed-through machines with two feed chains and adjustable hold-downs over the feed chains. One or both sides of the machine traverse to accommodate different length stock. Each side of the machine has one or more tool stations along side of the feed chains where powered cutting, shaping, routing or sanding functions are performed.

A Single End Tenoner is a feed-through machine with one feed chain and an adjustable hold-down over the feed chain. One or more stations are situated along the feed chain where powered cutting, shaping, routing or sanding are performed.

A Single End Tenoner with one station would not be classified under subheading 8465.10 because it doesn't meet the terms of the heading. It doesn't carry out different types of machining operations.

The word “Other” precedes all the subheadings of subheading 8465.91 through subheading 8465.99 that follow subheading 8465.10. If a machine meets the requirement of this subheading, it is precluded from classification in any of the later subheadings, regardless of the operation performed.

### **Rulings:**

HQ 963157 of February 3, 2000, classified a planing and molding machine under subheading 8465.10. This machine has from 4 to 6 cutterheads fitted with planing, profiling or molding knives. The first cutterhead generally has a planing knife which imparts a flat bottom to the workpiece. The following cutterheads are fitted either with profiling or molding cutters that impart the desired shape to the top and/or sides;

HQ 089434 of September 16, 1991, classified a veneer welder under subheading 8465.94 (not a welder of heading 8468 or heading 8515). The machine joined veneer strips into full sized sheets by glueing and also performed a trimming operation;

HQ 954590 and HQ 954601, both of October 5, 1993, classified edgebanding machines under subheading 8465.94. In HQ 954590 it is stated that in the absence of a contrary legislative intent, tariff terms are to be construed in accordance with their common and commercial meanings which are presumed to be the same. In common meaning the term “machining” means “... to process by machine; specifically to reduce or finish by turning, shaping, planing, or milling by machine-operated tools.” In a different context, the ENs at page 1387 include examples of multi-function machine tools for working metal using interchangeable tools which enable them to carry out different machining operations (e.g., milling, boring, lapping). From this it was concluded that a machine which performs a glueing operation and a cutting operation does not meet the terms of subheading 8465.10 since it does not perform different types of “machining” operations. Glueing is not commonly or commercially considered to be a machining operation. For machines which meet the requirement of the first part of this subheading, “machines which can carry out different types of machining operations”, the issue remains do they meet the requirements of the second part, “without tool change between such operations”.

The subheading doesn't specify the type of tool change, manual or automatic. It is clear that the machine must perform at least two machining operations. If to perform the second operation, the first tool must be removed from the machine, the machine fails the requirement.

What about machines with various types of automatic tool changers? They would also be excluded. Whether it's an automatic tool changer, head changer or a single tool assembly that is shifted to position the tool against a stationary work-piece, they are excluded.

As can be seen from the exemplars in the heading 8465 ENs, the combined joinery machines and the tenoners noted above, the machines of subheading 8465.10 move the stock or work-piece from machining station to machining station so that there is no need change tools between operations.

## **Subheading 8465.91**

Provides for sawing machines with statistical breakouts for woodworking radial arm saws, tilting arbor table saws, rip saws, miter saws, scroll saws, panel saws, band saws, cross cut and optimizing saws. Most of the following statistical breakouts were at the request of WMMA. The statistical suffixes for new machines which fall in the "other" woodworking machines are:

Statistical suffix 27 - Sawmill machines - machines designed for use in a sawmill including portable sawmills.

Statistical suffix 32 - Radial arm saw - the motorized saw blade is suspended from an arm extending over the table from a column which can rotate;

Statistical suffix 36 - Tilt arbor table saw - the saw blade can be tilted for cutting bevels by tilting the arbor;

Statistical suffix 41 - Rip saws - make wide boards narrower, a process called ripping;

Statistical suffix 47 - Miter saws - main function is crosscutting at angles. It's a cut-off saw with a movable base allowing the saw blade to pivot up to 45 degrees;

Statistical suffix 49 - Scroll saws - generally used to cut intricate patterns in thin stock;

Statistical suffixes 53 and 58 - Panel saws - used to cut sheets (panels) of plywood;

Statistical suffixes 64 and 68 - Band saws - used to cut lines that are not straight. The blade is a thin, flexible steel strip welded into a continuous loop with saw teeth on one edge;

Statistical suffix 74 - Cross-cut saws - used to make long boards shorter, a process called crosscutting; and

Statistical suffix 74 - Optimizing saws - usually cross cut saws which include a scanner used for detecting defects in the wood for more efficient cutting.

## **Rulings:**

HQ 963653 of May 11, 2001, in which a portable crosscut saw was classified under subheading 8465.91.0074. The saw weighed approximately 350 lbs and was portable in the sense that it had wheels so it could be pushed from one location to another. The importer proposed classification under heading 8467 as a tool for working in the hand; and

NY C82076 of December 11, 1997, D89817 of April 19, 1999, and K86137 of May 18, 2004, classified hose cut-off machines under subheading 8465.91.0090. These machines are used to cut rubber hoses, including metal reinforced hose. Metal reinforced vulcanized rubber hoses are classified in heading 4009.

## **Subheading 8465.92**

Provides for planing, milling or molding machines with statistical breakouts for dovetailing machines, moulders, planers, jointers, routers, shapers and profilers.

Dovetailing machine is a machine which can make both the male and female (tenon and mortise, respectively) cut on a board edge. It is used in the manufacture of drawers. All dovetailers are multiple spindle machines.

Moulders shape work-pieces with knives or rotating cutters.

Planers work the surface of a work-piece.

Jointers are manually operated machines with a horizontally positioned multi-knife cutter-head placed between an in-feed and out-feed table. The machine is used for flat planing or end machining. It can also be called an edger.

Routers perform a type of milling operation most commonly associated with wood but is also performed on plastics, composite materials and aluminum. The CNC router is in effect a machining center for wood.

Shapers are used for cutting different profiles and are described by the size of their spindle diameter.

Profilers are machines which profile or edge shapes on a piece of wood stock.

## **Rulings:**

HQ 965000 of March 28, 2002, classified a desktop computerized engraving machine, a multi-purpose machine working plastics and metals, under subheading 8465.92 since its principal purpose was to work hard plastics. The General ENs to Section XVI regarding multipurpose machines and chapter 84, note 7 were referenced;

NY E83623 of June 28, 1999, classified a pcb router under subheading 8465.92. The machine featured an automatic tool changer for 10 end mill tools and manual exchange for disk cutters;

NY C80446 of October 21, 1997, classified a multi-function CNC wood working center with an 8 (standard) or 15 (optional) tool ATC under subheading 8465.92. Sawing and routing were the principal functions hence GRI 3(c) resulted in classification based on the routing function; and

NY I89166 of January 21, 2003, classified a pcb separator, a machine used to depanel pcb's using a programmable router, under subheading 8465.92. It takes a multiple module pcb and cuts out (depanels) individual pcbs leaving a scrap frame. The machine is imported with one or two jigs which are not alike and ten identical router bits. The machine with one or two jigs and one of the ten router bits are classified under subheading 8465.92. The nine spare router bits are classified separately under subheading 8207.70.

### **Subheading 8465.93**

Provides for grinding, sanding or polishing machines with statistical breakouts for edge belt sanders and belt sanders for a belt width 60 cm or wider.

An edge belt sander is a machine utilizing an abrasive belt 12 inches wide or less that is stretched over pulleys (drive and idle) that are fixed to a fabricated base.

#### **Ruling:**

HQ 966621 of February 18, 2004, classified lens generating machines under heading 8465 rather than heading 8464, since the principal purpose is to work plastic.

### **Subheading 8465.94**

Provides for bending or assembling machines with statistical breakouts for doweling machines, statistical suffix 15, edge-banding machines, statistical suffix 25, laminating machines, statistical suffix 35, and presses: cold, statistical suffix 45 and other, statistical suffix 55.

The heading 8465 ENs describe bending and assembling machines, items (5) and (6). The assembling machines include machines which assemble two or more parts by means of binding agents, adhesives or gummed paper. This group includes veneer splicing machines, plank glueing machines, panel forming machines, frame clamps, carcass clamps, plywood and laminating wood presses, veneering presses. These machines may incorporate devices for spreading glue on the surface of the wood. Machines which join using nails, staples, wire, etc. and machines joining without binding agents or fasteners such as squeeze presses are also included.

The doweling machines under statistical suffix 15 manually or automatically shoots glue and inserts dowels at a prescribed depth into a pre-drilled hole.

The edge-banding machines under statistical suffix 25 essentially coat the edges of panels with hot glue, apply edging material fed from a magazine, and finish the edges by trimming. They may work on veneer, melamine, plastics, solid wood in strip form, etc.

The laminating machines under statistical suffix 35 work from the topside, bottom side or both top/bottom sides at the same time, equipped with one or more rotating rolls arranged horizontally and parallel to the floor, with feed through conveyor system either belt type or rolls. The laminating roll is often rubber coated with a special high temperature elastomer and it presses the continuous foil coming from a preceding unwind delivery system onto a wood based flat product passing between the laminating roll and the conveyor.

The cold presses under statistical suffix 45 are presses for use with ambient set adhesives in the bonding of board products to various types of substrate. Clamp time under pressure can range from 30 to 75 minutes. A cold press, as the name implies, does not introduce heat to the process. The other hot presses under statistical suffix 55 obviously do.

Statistical suffix 65 covers other bending or assembling machines for woodworking such as veneer splicers, glue spreaders, frame clamps,

Statistical suffix 90 covers bending or assembling machines for materials described in the heading other than wood.

This heading does not include presses for the manufacturing of particle- board. See subheading 8479.30.

**Rulings:**

HQ 954590 and 954601, both of October 5, 1993, classified edge-banders under subheading 8465.94 rather than subheading 8465.10, since the common meaning of the term “machining” does not include glueing;

HQ 089434 of September 16, 1991, classified a veneer welder also known as a veneer splicer;

HQ 965894 of January 23, 2003, classified a laminated veneer lumber (LVL) press line under subheading 8465.94.0035. The importer proposed classification under subheading 8479.30.00, which provides for presses for the manufacture of particle board or fiber building board of wood or other ligneous materials; and

NY H88718 of March 5, 2002, classified a laminating press consisting of an in-feed station, glue applicator, lay-up station and a pressing and heating station under subheading 8465.94.0035. The press is used to produce edge glued solid timber panels.

## **Subheading 8465.95**

Provides for drilling or mortising machines with statistical breakouts for boring machines, statistical suffixes 05, 20, 30 and 45). In woodworking, boring and drilling machines are essentially the same.

Mortising machines are machines used to cut non-cylindrical holes.

In addition to woodworking machines, the subheading also covers circuit board drilling machines since circuit boards are primarily composed of hard plastic.

### **Rulings:**

HQ 087606 of November 23, 1990, classified drill presses for working metal and wood under subheading 8465.95 because, based on design characteristics, it was held that the principal purpose is to work wood; and

NY I80663 of April 22, 2002, classified circuit board drilling machines under subheading 8465.95.0090. One model included an x-ray vision system, hence, subheading 9022.19 as other apparatus based on the use of x-rays was claimed. However, the principal function was drilling.

## **Subheading 8465.96**

Provides for splitting, slicing or paring machines with statistical breakouts for log splitters, statistical suffixes 15, chippers, statistical suffix 25, and hogs, statistical suffix 30.

Traditional wood hogs utilize a high-speed cutter bar or hammer to reduce wood waste products into marketable chips for fuel or reconstituted wood products.

In addition to splitting, slicing and paring, the ENs also mention stamping and fragmenting. Splitting machines split the fiber bond by wedge action and includes log splitters and fire wood splitters. Stamping machines shape by impact. Fragmenting machines such as the wood hog produce small pieces of wood of similar size and shape.

Paring or slicing machines use a straight cutting edge to produce thin sheets either by slicing (machines for making thin boards) or paring (machines for producing veneer or thin sheets for plywood production). Veneer shearing machines are included.

## **Rulings:**

HQ 951440 of July 17, 1992, classified a mobile processing plant designed to grind up and break down large amounts of organic materials (logs, branches, vegetation, etc.) for large scale composting. The issue was whether classification should be under subheading 8436.80 as other agricultural, horticultural or forestry machines or as a machine tool under subheading 8465.96. Since the machine itself does not produce compost and does satisfy the description of a machine tool for working wood, the latter classification prevailed;

NY I94789 of August 12, 2002, classified a log flaker/strander under subheading 8465.96.0040. Whole logs fed into the machine are reduced to small flakes or strands by a rotating knife ring. The resulting flakes or strands are used in the production of waferboard, strand board, particle board, etc;

NY E81924 of June 1, 1999, classified a hose skiving machine under subheading 8465.96. The process involves thinning out either the inner or outer diameter of the end of a hose by removal of layers to facilitate the attachment of ferrules or other fittings; and

NY E85833 of September 2, 1999, classified a mobile (mounted on a wheeled chassis) wood shredding machine under subheading 8465.96.

## **Subheading 8465.99**

At the 8-digit level, subheading 8465.99.40 provides for deflash machines for cleaning and removing contaminants from the metal leads of semiconductor packages prior to the electroplating process (e.g., deflash by chemical bath).

Other than all of the above, subheading 8465.99.80 includes statistical breakouts for debarkers, statistical suffix 05, veneer lathes, statistical suffix 10, other lathes, statistical suffixes 20, 40 and 60, other woodworking, statistical suffix 70 and other machines for working materials other than wood, statistical suffix 95.

In a basic woodworking lathe the operator holds a hand tool (chisel) against the rotating work-piece. A typical product made on such a machine would be a table leg or a wooden baseball bat. Industrial wood lathes are somewhat similar in appearance to metal working lathes.

Statistical suffix 70, other woodworking, would include wood embossing presses.

The ENs indicate that tree delimiting or bucking machines are also included, however, barking drums are classified under heading 8479.

Machines for chipping branches, twigs, etc. are described in heading 8436 of the ENs under Forestry machines (page 1484, EN).

## **MACHINES AND APPARATUS OFTEN MISCLASSIFIED AS MACHINE TOOLS OF HEADINGS 8456 TO 8465:**

Laser fabric cutters	8451.50;
Arbor and shop presses	8479.89 (see NY K87333);
Scrap shears	8479.89 (note HQ ruling 955395);
Scrap balers	8479.89;
Toy rock tumbler	9503.70 (note HQ ruling 966484);
Particle-board presses	8479.30; and
Sign Makers	8477 (if working soft plastic, see HQ 951366).

## **HEADING 8466**

Heading 8466 provides for:

- 1) Parts and accessories suitable for use solely or principally with the machines of headings 8456 to 8465, including work or tool holders, self-opening die heads, dividing heads and other special attachments for machine tools; and
- 2) Tool holders for any type of tool for working in the hand.

Earlier in this ICP Section XVI, notes 1 and 3 through 5 were discussed. Now that we have reached heading 8466, it is appropriate to discuss note 2.

### **Note 2**

Note 2 states that subject to note 1 to this section, note 1 to chapter 84 and to note 1 to chapter 85, parts of machines (not being parts of the articles of the articles of headings 8484, 8544, 8545, 8546 or 8547) are to be classified according to the following rules:

- a) parts which are goods included in any of the headings of chapter 84 or 85 (other than headings 8409, 8431, 8448, **8466**, 8473, 8485, 8503, 8522, 8529, 8538 and 8548) are in all cases to be classified in their respective headings;
- b) other parts, if suitable for use solely or principally with a particular machine, or with a number of machines of the same heading (including a machine of heading 8479 or heading 8543) are to be classified with the machines of that kind or in headings 8409, 8431, 8448, **8466**, 8473, 8485, 8503, 8522, 8529 or 8538, as appropriate. ...

- c) All other parts are to be classified in headings 8409, 8431, 8448, **8466**, 8473, 8503, 8522, 8529 or 8538, as appropriate, or failing that, in heading 8485 or 8548. [Emphasis added]

The headings in parenthesis in note 2(a) are all separate parts and in some cases, headings 8448, 8466, parts and accessory headings. Note 2(a) essentially deals with parts which are specifically provided for elsewhere in chapters 84 or 85 such as pumps of heading 8413, lifting and handling machinery of heading 8428, valves of heading 8481, motors of heading 8501, controls of heading 8537. The General ENs, (II), Parts, state that these are in all cases to be classified in their own appropriate heading **even if specially designed to work as part of a specific machine. [Emphasis added]**

The ENs explain further on page 1386 that other parts which are recognizable as such but not suitable for use with a particular machine are classified in heading 8485, if not electrical, or in heading 8548, if electrical.

Section XVI, note 2(b) as noted above deals with parts other than those specifically provided for in chapters 84 or 85 and suitable for use solely or principally with a particular machine or with a number of machines of the same heading. Such parts are classified (1) with the machines of that kind classified in the same heading as the machine or (2) in headings 8409 ... 8466 ... or 8538 as appropriate.

Example (1): a segment for a continuous casting machine of a subheading of heading 8454 is classified under subheading 8454.90 as parts of casting machines.

Example (2) a column for a milling machine of heading 8459 is appropriately classifiable under heading 8466, specifically under subheading 8466.93.53 as parts for machines of headings 8456 to 8461.

Both examples are classified in accordance with Section XVI, note 2(b).

## **ADDITIONAL U.S. RULE OF INTERPRETATION 1(C)**

What about machine tool parts that are not excluded from classification in heading 8466 by virtue of any of the notes of section XVI, note 1 or 2(a) or by any chapter 84 legal note but are specifically described elsewhere in the tariff? Does note 2(b) still apply?

Additional U.S. Rule of Interpretation (AUSRI) 1(c) addresses this issue. AUSRI 1(c) states that in the absence of special language or context which requires otherwise, ... a provision for parts of an article covers products solely used as parts of such article but a provision for 'parts' or 'parts and accessories' does not prevail over a specific provision for such part or accessory.

This note applies in the absence of special language or context which otherwise requires. Section XVI, note 2 is such special language or context, but only where the competing provisions at issue are within Section XVI.

### **Rulings:**

The following rulings addressed the classification of parts of machines of chapter 84 which are specifically described outside of Section XVI and AUSRI 1(c):

In HQ 561353 of September 19, 2002, EDM wire was classified as wire under heading 7408 rather than as parts of EDM machines under subheading 8466.93. The ruling stated that section XVI, note 2 appears to direct the classification of parts of machines of chapters 84 and 85. However, in this case we also have unrestricted language as to the classification of the named product, copper wire. We believe that in such cases AUSRI 1(c) provides us with the necessary guidance.

In HQ 966041 of April 29, 2003, a sewing machine lamp was classified as a lamp under subheading 9405.40.60 rather than as parts of a sewing machine. The ENs to heading 9405 indicate that the heading covers specialized lamps, e.g.: ... machine lamps (presented separately). The lamp could be specialized for a machine tool as well as for a sewing machine or other machine. Just as the copper wire in HQ 561353 was provided for as a good outside of Section XVI, so too is the sewing lamp provided for outside of Section XVI. The ruling concluded in classifying the lamp under heading 9405 and that AUSRI 1(c), which applies to the entire HTSUS, not just a particular section, remains the guiding rule of interpretation when a part can also be classified in a specific provision not in chapters 84 or 85.

In HQ 966854 of January 16, 2004, seats for fork-lift trucks were classified under subheading 9401.80.40 rather than as parts of machines under a subheading of headings 8425 to 8430 in heading 8431. Until revoked by HQ 866854, HQ 954853 had classified these seats under subheading 8431.20. It was stated as above that Note 2 to section XVI does not provide special language or context which supersedes AUSRI 1(c) when one of the competing heading is outside section XVI.

In HQ 966963 of April 30, 2004, a plastic screw cap specially designed for use with an oil filter was classified under HTS subheading 3923.50 as stoppers, lids, caps, and other closures rather than as parts of filtering or purifying apparatus under subheading 8421.99. This ruling addressed the situation where the competing heading outside of section XVI is included in a section or chapter that excludes "articles of section XVI". Does an exclusionary note that excludes "articles" of another section or chapter automatically exclude parts of those articles? Chapter 39, note 2(p) excludes articles of section XVI (machines and mechanical or electrical appliances)." The parenthetical language of note 2(p)

specifically mentions machines and appliances but there is no reference to parts. In HQ 561353 it was pointed out that that in exclusionary note 3(k) to chapter 71, the exclusionary language specifically identifies “machinery, mechanical appliances or electrical goods, or parts thereof, of section XVI.” Since one exclusionary note specifically identifies parts and the other doesn’t, it is clear that a distinction was intended. Since parts of articles of section XVI are not excluded, the crew caps were classified under subheading 3923.50 based on AUSRI 1(c).

## **UNASSEMBLED PARTS**

The second part of GRI 2(a) deals with “articles” presented unassembled or disassembled. They are to be classified in the same heading as the assembled article.

For the purposes of GRI 2(a) can we have an unassembled “part”? Does the term “articles” in the context of GRI 2(a) include parts?

There is no reference to “parts” in GRI 2(a) and there is no reference to or indication that parts are covered anywhere in the ENs to GRI 2(a).

Subheading 8466.93 includes parts for machines of headings 8456 to 8461. At the 8-digit level, subheading 8466.93.15 includes “headstocks” among other items. A headstock for an engine lathe, in addition to the headstock casting, will generally include a motor, gears, bearings, etc. In the unlikely event that these components were to be shipped together but unassembled, the headstock casting would be classified as parts under subheading 8466.93.15, however, the motor would be classified in heading 8501, the bearings in heading 8482, the gears in heading 8483.

There are instances where large machines are imported in multiple shipments in which no single shipment has the essential character of the complete machine. Where the parts provision is duty free (for example, subheading 8466.93.47) importers have claimed that each shipment is an unassembled part. In addition to saving the duty, this relieves the importer of the burden of classifying these parts under a multitude of headings, some of which may be dutiable.

## **PART VS. ACCESSORY**

Before proceeding, we need to decide what criteria should be used to determine whether an item is a part or an accessory or is neither a part nor an accessory.

Factors that have been considered in determining that an item is a part include:

- 1) dedicated for use, even if optional, and the article will function without it;
- 2) if once installed, the article won’t operate without it,

- 3) essential to the machine's operation, necessary to the completion of the article without which the article could not function;
- 4) essential for the safe operation;
- 5) standard equipment, i.e., not essential but always sold with the machine.

Accessories are generally not essential and often described as options. They enhance the operation of the machine but play a subordinate role.

Accessory apparatus is discussed in the General Explanatory Note to Section XVI. Accessory instruments and apparatus presented with the machine or apparatus with which they normally belong are classified with that machine or apparatus, if they are designed to measure, check, control or regulate one specific machine or apparatus (which may be a combination of machines or a functional unit). However, accessory apparatus designed to measure, check, regulate several machines fall in their own appropriate headings.

HQ 966441 of June 12, 2003, dealt with the classification of sewing machine accessories which were claimed to be classified as parts. In the ruling it is stated that "[b]ecause certain headings include accessories and others do not within the same section or chapter, we conclude that the drafters of the HTSUS intended a distinction between parts and accessories."

In applying this analysis, CBP generally will consider an article to be a part if:

- 1) it is combined with other articles to be used;
- 2) it is an integral, constituent or component part, without which the article to which it is joined could not function;
- 3) it aids in the safe and efficient operation of the main article;
- 4) it is identifiable by shape or other characteristics as an article solely or principally used as a part.

In contrast, CBP generally will consider an article to be an accessory if:

- 1) it facilitates use or handling;
- 2) it widens the range of uses of the main article;
- 3) it improves the operation of the main article;
- 4) it is not needed to enable the goods with which it is used to fulfill its intended function;

- 5) it is identifiable as being intended solely or principally for use with a specific article. See HQ 962634, dated October 25, 2001.

Generally speaking, accessories are articles that are not needed to enable the goods with which they are used to fulfill their intended function. However, they must somehow contribute to the effectiveness of the principal article (e.g., facilitate the use or handling of the principal article, widen the range of uses, or improve its operation). See HQ 082976 dated March 20, 1990.

### **Subheading 8466.10**

Subheading 8466.10 provides for tool holders and self-opening die heads. At the 8-digit level, subheading 8466.10.40 provides for tool holders for the machines described in additional U.S. note 3 to chapter 84 (ITA) while subheading 8466.10.80 provides for all other tool holders. Statistical suffix 10 covers tool holders for forming type or cutting type dies, statistical suffix 30 covers holders for replaceable cutting or drill inserts, and statistical suffix 75 for all other.

As stated in the heading, subheading 8466.10 covers tool holders solely or principally used with the machines of headings 8456 to 8465. They would hold tools that are primarily covered by heading 8207.

This subheading also covers tool holders for any type of tool for working in the hand. Tools for working in the hand includes the power tools of heading 8467 and manual tools of headings 8201 to 8205.

Most of the tool holders currently being entered under subheading 8466.10.40 are not correctly classified since they are not solely or principally used with the ITA machines of headings 8456, 8462 or 8464.

The tool holders of subheading 8466.10.80 include:

Statistical suffix 10 - Tool holders for forming-type or cutting-type dies. This would include the self-opening die heads described in subheading 8466.10 which are primarily used to hold dies or chasers in thread cutting operations. The dies themselves would be classified in heading 8207. Die "shoes" would also be included here.

Statistical suffix 30 - Holders for replaceable cutting or drill inserts are often erroneously classified in heading 8207 as interchangeable tools for machine tools or hand tools, manual or power operated. (If presented with the inserts attached, which is usually not the case, such a tool would be classified under 8207.)

Statistical suffix 75 - Other. This suffix would include drill chucks, collets, lathe tool posts, self-opening die heads, grinding wheel holders, honing bodies for honing machines, boring bars, turrets for turret lathes, etc.

Tool holders can also hold other tool holders. Under the TSUSA, Customs Service Decision (CSD) 73-71 of April 8, 1971, TD 68-67(19) followed, classified tap chuck holders and tap chucks as tool holders.

An automatic tool change magazine for a machining center is not a tool holder. It stores the tools that are not in use, but does not hold a tool during the cutting process.

### **Rulings:**

NY E87544 of October 7, 1999, classified quick change tool holders including tool posts and boring bars under subheading 8466.10.8075;

NY C83444 of January 23, 1998, classified a modular tool holding system including arbors, extensions, reductions, also known as adaptor sleeves, drill and tap chucks and boring bars under subheading 8466.10.8075; and

NY C80745 of October 22, 1997, classified tap chucks, reducers and tap holders under subheading 8466.10.8075. The tap chucks hold the tap holders which hold the tap. Smaller diameter tap holders may require a reducer between the chuck and holder.

### **Subheading 8466.20**

Subheading 8466.20 provides for work holders. At the 8-digit level, subheading 8466.20.10 provides for work holders for machine tools used in cutting gears (machines of subheading 8461.40). Subheading 8466.20.40 provides for tool holders for the (ITA) machines described in additional U.S. note 3 to chapter 84, while subheading 8466.20.80 covers all other work holders.

There are statistical suffixes for jigs and fixtures under subheadings 8466.20.10 and 8466.20.80. Jigs and fixtures are devices used to maintain the correct positional relationship between the tool and the work-piece. Fixtures are sometimes referred to as “tooling” which could lead to their misclassification.

Most of the work holders entered under subheading 8466.20.40 are incorrectly classified. Electrostatic chucks used on plasma etchers and other semiconductor processing machines are classified here. They electrostatically clamp on to a silicon wafer. This action is not magnetic.

The ENs indicate that work holders other than jigs and fixtures typically include lathe centers, lathe chucks, work holding plates and tables, clamps and angle plates, chocks and wedges, machine vices and steady rests, which are ring shaped devices used to support long pieces during turning.

A lathe faceplate, which mounts to the spindle of the lathe, would be an example of a work holding plate.

A rotary t-slot table allows a part to be clamped and indexed to the proper position. T-nuts, bolts and washers are used to secure the part to the table. The nuts, bolts and washers by themselves would not be classified in heading 8466 since they are parts of general use excluded by section XVI, note 1(g).

A center may be a "dead" center or a "live" center. They are used to hold or support a work-piece, often between the headstock and tailstock. The center has a pointed end which rests in a hole that has been center drilled in the end of a work-piece. Live centers revolve with the work while dead centers remain stationary.

Magnetic chucks are work holders. However, noting section XVI, note 2(a), they are provided for under subheading 8505.90.40.

Vices other than machine tool vices are classified under subheading 8205.70 which provides for vices, clamps, and the like.

### **Rulings:**

NY I82732 of June 11, 2002, H80833 of May 16, 2001 and B88176 of August 12, 1997, all classified rotary tables under subheading 8466.20.8035;

NY I80138 of April 6, 2002, classified a clamp for a miter saw under subheading 8466.20.8065;

NY B88176 of August 13, 1997, classified a rotary table for an EDM machine under subheading 8466.20.80;

NY I80231 of April 15, 2002, classified wheel chucks designed to hold cast-metal, unworked automotive wheels in place to be worked on a lathe under subheading 8466.20.8035;

NY R00175 of April 6, 2004, classified a bull nose live center and a drill bit sharpener under subheading 8466.20.80. The latter item does not sharpen a tool. It holds the tool so that it can be sharpened; and

NY I89166 of January 21, 2003, classified separately imported jigs for a routing machine under subheading 8466.20.8040.

### **Subheading 8466.30**

Subheading 8466.30 provides for dividing heads and other special attachments for machine tools. These are the accessories suitable for use solely or principally with machine tools.

Under the TSUSA, item 674.55 provided for accessories which are machines and item 674.56 covered accessories which were not machines. These provisions were carried

over to the HTS at the 8-digit level as U.S. subheadings. The rates of duty were also a carry over from the TSUSA resulting in the high rate of duty by today's standards for other accessories.

How do we distinguish accessories from parts? Since not all headings in chapter 84 include accessories, there is obviously an intention to make such distinctions. Accessories appear in headings 8448 and 8466. As noted earlier, a part is generally essential for the safe and efficient use of the machine, integral, dedicated for use, standard equipment. An accessory is generally an auxiliary device, often dedicated, but not essential. It may expand the use of the host machine.

Example: a chuck guard for a lathe is classified as a part rather than an accessory because it is a safety feature. It is not essential to the machine's operation, however, it prevents any flying metal chips from striking the lathe operator.

At the 8-digit level, subheading 8466.30.10 covers the dividing heads. Dividing heads are devices for accurately indexing or positioning a work-piece. They are most commonly used with milling machines.

Other special attachments are covered by subheadings 8466.30.45, 8466.30.60 and 8466.30.80. The special attachments in subheading 8466.30.45 are for the ITA machines. Again, they are almost always incorrectly classified since most of the products that have been entered in this provision are for use with machines that have nothing to do with the production of semiconductors.

Subheading 8466.30.60 covers special attachments or accessories which are machines.

Subheading 8466.30.80 covers special attachments or accessories which are not machines.

Again, these last two 8-digit or U.S. subheadings were carried over directly from the TSUSA.

### **Rulings:**

HQ 955755 of January 24, 1996, classified die change consoles, which are a series of metal rollers mounted in a frame used to support the die while it moves in or out of a press, and spring type roll blocks or die lifters, which operate with spring-loaded balls or rollers and function by holding the die above the bolster and absorbing its weight as it is clamped down on to the bed of the press, under subheading 8466.30.50 (currently subheading 8466.30.80). The ruling also classified hydraulic die lifters under subheading 8428.90;

NY C83458 of February 4, 1998, classified a notch pad conditioner under subheading 8466.30.20, currently subheading 8466.30.45. It is a freestanding machine used with a wafer edge polishing machine;

NY E85660 of August 25, 1999, classified a drill stop used on a drilling machine to reduce drill bit breakage under subheading 8466.30.80;

NY I85743 of August 29, 2002, classified a belt lift, an attachment for a belt sander, under subheading 8466.30.8000. It in effect converts a stationary belt sander into a slack belt sander, making it easier to sand curved surfaces;

NY 899270 of July 1, 1994, classified a power feeder for a table saw under subheading 8466.30.60. The unit consisted essentially of a motor, feed rollers and a support stand mounted on the table of a planer or moulder;

NY R00185 of April 1, 2004, classified a copy lathe attachment under subheading 8466.30.80. See heading 8466 ENs page 1565; and

## **Subheadings 8466.91 through 8466.94**

These subheadings cover parts of machine tools, items other than tool holders, work holders and special attachments or accessories.

Each of these subheadings includes an 8-digit subheading for cast iron parts not advanced beyond cleaning, and machined only for the removal of fins, gates, sprues and risers or to permit location in finishing machinery. (See subheadings 8466.91.10, 8466.92.10, 8466.93.15, 8466.93.60, 8466.20.40 and 8466.94.40). These duty-free provisions are also misused on a regular basis as even fully machined parts are often misclassified here.

Subheadings 8466.93 and 8464.94 also distinguish certain castings, weldments or fabrications from other parts.

Subheadings 8466.93.15, 8466.93.30, 8466.93.47 and 8466.93.53 provide for such parts including the following: bed, base, table, head, tail, saddle, cradle, cross slide, column, arm, saw arm, wheelhead, tailstock, headstock, ram, frame work-arbor support and c-frame castings, weldments or fabrications.

Subheadings 8466.94.20, 8466.94.55 and 8466.94.65 provide for such parts including: bed, base, table, column, cradle, frame, bolster, crown, slide, rod, tailstock and headstock castings, weldments or fabrications.

There are also ITA subheadings including subheadings 8466.93.47 and 8466.93.85 which cover parts of the ITA duty-free machine tools of heading 8456 and subheadings 8466.94.55 and 8466.94.75 which cover parts of semiconductor lead bending machines of subheadings 8462.21.40 and 8462.29.40. There was no need to create a special ITA

parts subheading for the ITA machines of heading 8464 since all of the parts in subheading 8466.91 are duty free.

Subheading 8466.93 also includes 8-digit subheadings for parts of metal working machine tools for cutting gears. See subheadings 8466.93.30 and 8466.93.75.

Subheading 8466.94 includes statistical breakouts for parts of mechanical transfer presses, subheading 8466.94.6540, which covers the column, bolster, crown, etc. and subheading 8466.94.8540, which covers parts other than castings, weldments or fabrications. These parts of Japanese origin are subject to dumping duties if they are not spare or replacement parts.

A “weldment” is an assembly whose component parts are joined by welding.

All parts other these special groupings are classified respectively in subheadings 8466.91.50, 8466.92.50, 8466.93.95 and 8466.94.8585.

There is no provision for parts of tool holders and work holders hence these items will be classified in the parts heading appropriate to the machine tool they are principally used with. For example, a jaw for a metal working lathe chuck is a part of a work holder classified under subheading 8466.93.95. A jaw by itself is not a work holder. Lathe chucks typically have 3 jaws or 4 jaws.

There is also no provision for parts of accessories. These components most likely will be classified based on their constituent material.

Part of a part (unless classified elsewhere by virtue of a section or chapter note) is classified as part of the whole.

Of course, parts of items which are parts of machine tools that are classified elsewhere are classified with that part, not as part of the machine tool. For example, we know from the ENs that a motor specially designed to work as part of a specific machine tool is still classified as a motor under heading 8501. A part of that motor is classified under heading 8503, not as part of the machine tool.

Subheading 8466.91 covers parts for machines of heading 8464.

### **Rulings:**

HQ 089556 of July 1, 1991, classified polishing pads for polishing machines under subheading 8466.91.50. The pads are used with double-sided polishing machines of subheading 8464.20. The pads can be used for an estimated 8 to 48 hours depending on what material the pads are polishing. Since they are essential to the operation of the machine they were classified as parts. The period of time that they are useful is not relevant. The importer had claimed classification under heading 3920.

Subheading 8466.92 covers parts for machines of heading 8465

**Rulings:**

NY B87305 of September 25, 1997, classified a work center under subheading 8466.92. This work center is a work table that converts the user's hand directed power tools, primarily saws and routers, into machine tools. The table features a double-sided miter gauge, adjustable saw mounting chassis, quick release clamps, adjustable safety guard and dual lock rip fence;

NY R00185 of April 1, 2004, classified a similar work center.

Subheading 8466.93 covers parts for machines of headings 8456 to 8461

**Rulings:**

NY E86982 of September 23, 1999, classified an ATC (Automatic Tool Changer) featuring a 24 standard tool magazine and the double ended changing arm under subheading 8466.93.9585;

NY G80858 of August 17, 2000, classified ion sources principally used in the plasma etching of semiconductor devices under subheadings 8466.93.8500; and

NY J83763 of May 20, 2003, classified a silicon insert ring which protects the outer edge of a wafer from etch out by electrons and ions during the plasma etching process under subheading 8466.93.8500.

Subheading 8466.94 covers parts of machines of headings 8462 or 8463

**Rulings:**

NY F84651 of April 11, 2000, classified press frames under subheading 8466.94.6585

**Items often misclassified as parts or accessories of machine tools**

Many machine tool components are classified elsewhere throughout the HTS:

- Interchangeable tools of heading 8207 – drill bits, milling cutters, dies, etc.;
- Knives and blades of heading 8208;
- Grinding wheels and other abrasive products of heading 6804;

- CNC's (computer numerical controls) of subheading 8537.10;
- Spindle shafts of heading 8483 - note NY H87835 of February 22, 2002;
- Jigs and fixtures not principally used with machine tools such as welding jigs and checking jigs;
- Broken Tool Sensor Kit – subheading 9031.80, see NY ruling K87908 of August 2, 2004;
- Dust collection systems – subheading 8421.39.8005;
- Tool presetters of subheading 9031.40, note HQ 087699 of November 26, 1990; and
- Parts of general use as defined in note 2 to section XV – nuts, bolts, screws, springs, etc.

## **ADDITIONAL INFORMATION**

### **The Internet**

The home page of U.S. Customs and Border Protection on the Internet's World Wide Web, provides the trade community with current, relevant information regarding CBP operations and items of special interest. The site posts information -- which includes proposed regulations, news releases, publications and notices, etc. -- that can be searched, read on-line, printed or downloaded to your personal computer. The web site was established as a trade-friendly mechanism to assist the importing and exporting community. The web site also links to the home pages of many other agencies whose importing or exporting regulations that U.S. Customs and Border Protection helps to enforce. The web site also contains a wealth of information of interest to a broader public than the trade community. For instance, on June 20, 2001, CBP launched the "Know Before You Go" publication and traveler awareness campaign designed to help educate international travelers.

The web address of U.S. Customs and Border Protection is <http://www.cbp.gov>

### **CBP Regulations**

The current edition of *CBP Regulations of the United States* is a loose-leaf, subscription publication available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 512-1800. A bound, 2003 edition of Title 19, *Code of Federal Regulations*, which incorporates all changes to the Regulations as of April 1, 2003, is also available for sale from the same address. All proposed and final regulations are published in the *Federal Register*, which is published daily by the Office of the Federal Register, National Archives and Records Administration, and distributed by the Superintendent of Documents. Information about on-line access to the *Federal Register* may be obtained by calling (202) 512-1530 between 7 a.m. and 5 p.m. Eastern time. These notices are also published in the weekly *Customs Bulletin* described below.

### **Customs Bulletin**

The *Customs Bulletin and Decisions* ("Customs Bulletin") is a weekly publication that contains decisions, rulings, regulatory proposals, notices and other information of interest to the trade community. It also contains decisions issued by the U.S. Court of International Trade, as well as customs-related decisions of the U.S. Court of Appeals for the Federal Circuit. Each year, the Government Printing Office publishes bound volumes of the *Customs Bulletin*. Subscriptions may be purchased from the Superintendent of Documents at the address and phone number listed above.

## **Importing Into the United States**

This publication provides an overview of the importing process and contains general information about import requirements. The February 2002 edition of *Importing Into the United States* contains much new and revised material brought about pursuant to the Customs Modernization Act ("Mod Act"). The Mod Act has fundamentally altered the relationship between importers and U.S. Customs and Border Protection by shifting to the importer the legal responsibility for declaring the value, classification, and rate of duty applicable to entered merchandise.

The February 2002 edition contains a section entitled "Informed Compliance." A key component of informed compliance is the shared responsibility between U.S. Customs and Border Protection and the import community, wherein CBP communicates its requirements to the importer, and the importer, in turn, uses reasonable care to assure that CBP is provided accurate and timely data pertaining to his or her importation.

Single copies may be obtained from local offices of U.S. Customs and Border Protection, or from the Office of Public Affairs, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue NW, Washington, DC 20229. An on-line version is available at the CBP web site. *Importing Into the United States* is also available for sale, in single copies or bulk orders, from the Superintendent of Documents by calling (202) 512-1800, or by mail from the Superintendent of Documents, Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7054.

## **Informed Compliance Publications**

U.S. Customs and Border Protection has prepared a number of Informed Compliance publications in the "*What Every Member of the Trade Community Should Know About:...*" series. Check the Internet web site <http://www.cbp.gov> for current publications.

## Value Publications

*Customs Valuation under the Trade Agreements Act of 1979* is a 96-page book containing a detailed narrative description of the customs valuation system, the customs valuation title of the Trade Agreements Act (§402 of the Tariff Act of 1930, as amended by the Trade Agreements Act of 1979 (19 U.S.C. §1401a)), the Statement of Administrative Action which was sent to the U.S. Congress in conjunction with the TAA, regulations (19 C.F.R. §§152.000-152.108) implementing the valuation system (a few sections of the regulations have been amended subsequent to the publication of the book) and questions and answers concerning the valuation system. A copy may be obtained from U.S. Customs and Border Protection, Office of Regulations and Rulings, Value Branch, 1300 Pennsylvania Avenue, NW, (Mint Annex), Washington, D.C. 20229.

*Customs Valuation Encyclopedia* (with updates) is comprised of relevant statutory provisions, CBP Regulations implementing the statute, portions of the Customs Valuation Code, judicial precedent, and administrative rulings involving application of valuation law. A copy may be purchased for a nominal charge from the Superintendent of Documents, Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7054. This publication is also available on the Internet web site of U.S. Customs and Border Protection.

The information provided in this publication is for general information purposes only. Recognizing that many complicated factors may be involved in customs issues, an importer may wish to obtain a ruling under CBP Regulations, 19 C.F.R. Part 177, or obtain advice from an expert (such as a licensed Customs Broker, attorney or consultant) who specializes in customs matters. Reliance solely on the general information in this pamphlet may not be considered reasonable care.

Additional information may also be obtained from U.S. Customs and Border Protection ports of entry. Please consult your telephone directory for an office near you. The listing will be found under U.S. Government, Department of Homeland Security.

## **“Your Comments are Important”**

The Small Business and Regulatory Enforcement Ombudsman and 10 regional Fairness Boards were established to receive comments from small businesses about Federal agency enforcement activities and rate each agency’s responsiveness to small business. If you wish to comment on the enforcement actions of U.S. Customs and Border Protection, call 1-888-REG-FAIR (1-888-734-3247).

**REPORT SMUGGLING 1-800-BE-ALERT OR 1-800-NO-DROGA**



**Visit our Internet web site: <http://www.cbp.gov>**