OMB No. 0607-0395: Approval expires 08-31-07

REPORT FOR 4th QUARTER 2006

U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS FORM MO333W

CURRENT INDUSTRIAL REPORTS

METALWORKING MACHINERY (SHIPMENTS AND UNFILLED ORDERS)

If you have questions regarding this report form please contact:

LARRY BLUMBERG EXT4 1(800)201-4647

EMPLOYER IDENTIFICATION (EI) NUMBER. Identification number used on Employer's Quarterly Federal Tax Return (U.S. Treasury Department Form 941) (Enter if not shown, correct if wrong.)

CONTACT PERSON (Enter information if not shown, correct if wrong.)

Name I . R . DUMMY

Area code

Number

Fax number

The 8-digit number that appears above indicates that the Office of Management and Budget has approved this survey. If that number is not displayed, do not complete this form. YOUR RESPONSE IS REQUIRED BY LAW {Title 13, United States Code}. By section 9 of the same law, YOUR REPORT IS CONFIDENTIAL. It may be seen only by persons sworn to uphold the confidentiality of Census Bureau information and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this establishment's report, please refer to the 11 digit Identification Number (ID)

(Please correct any error in name and address including ZIP Code)

Enter or correct email address:[

TOTAL MACHINES, DOMESTIC AND EXPORT Unfilled Shipments of Shipments numerically con-Export Shipments orders Report Item Item End of trolled machines only (Product code - Description) code period Quarter ----only-----No. of Value No. of Value Value Value {\\$1,000} {\$1,000} {\$1,000} units **{\$1,000**} units PLEASE REFER TO INSTRUC-TION MANUAL FOR COMPLETE ITEM DESCRIPTIONS 333512A103-Horiz. boring, 1125 4 QTR drilling & milling mach., \$3.025 ea. or more: incl. 3 QTR floor, table & rail mounted 2 QTR 333512A105-Precision and jig 4 QTR boring mach.incl. horiz. & 1140 vert. boring machines \$3,025 3 QTR each or more 2 QTR 333512A111-All drilling machines valued under \$3,025 1205 4 QTR each, excl. machining

FOR EACH ITEM LISTED BELOW, ENTER FIGURES OR "0" for current period. (The figures shown in the shaded areas were reported for the previous two periods.) PLEASE REFER TO THE INSTRUCTIONS BEFORE COMPLETING THIS REPORT FORM.

Figures not received when form was prepared. PLEASE ENTER, if not previously submitted.

3 QTR

2 QTR

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CURRENT INDUSTRIA	AL RE	PORTS	– Continue	ed				2
PART I - Continued						5 445 54505	·	
ltem (Product code – Description)	ltem code	Report period	Shipm	ents 	Unfilled orders End of Quarter	C AND EXPORED Shipments numerically trolled madeonly	s of Sh ^a y con- I chines 	pments Export only
			No. of units	Value {\$1,000}	{\$1,000}	units {\$	1,000} {	Value \$1,000}
333512A113-Vert. upright drilling mach.,incl. plain-	1215	4 QTR	1	2	3	4	5	6
upright & heavy duty, \$3,025 ea. or more	:	3 QTR						
		2 QTR						
333512A117-Deep hole drilling machines, \$3,025 each or	1235	4 QTR				A AND AND AND AND AND AND AND AND AND AN		vana-
more		3 QTR					- 3 3	
		2 QTR						
333512A120-Multiple spindle-drilling mach., {cluster of	1250	4 QTR	,	Annual Control of the		Name of the state		
<pre>spindles driven from one central power unit}</pre>		3 QTR						
		2 QTR						
333512A123-All other drilling mach.n.e.c. incl.sensitive,	1265	4 QTR				was a second sec		
vert,radial, \$3,025 ea. or more		3 QTR						
		2 QTR						
X X X -Total boring and drilling machines {sum of codes 1125-1265}	1295	4 QTR	west two newsconses			3 42 24 32 AS 3 AS	V 100 1 100 1 100 100 100 100 100 100 10	
codes 1125-1200}		3 QTR	- 数2支配 3 支配 (A)					
0005101100	<u> </u>	2 QTR						
3335121100-Gear cutting machines {see manual for inclusions}	1991	4 QTR	POWER TO THE					
in the fuelency of		3 QTR						
2225122101 Chinding holich		2 QTR						
3335122101-Grinding, polish- ing, buffing, honing, & lap- ing machines, ex. gear-tooth	2010	4 QTR						
type, under \$3,025 each		3 QTR	3 7 7 7 7 7 7					
3335122110-External cylindri-		2 QTR						
cal grinding machines	2050	<u> </u>	25 A 3 A 6 A 6					
		3 QTF						
3335122120-Internal	01.00	2 QTF						
cylindrical grinding machines	2100	4 QTF						
		2 QTF						
3335122122-Surface grinding machines	2146	1			to description of the second s			
, indefinited		3 QTI						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	***************************************	2 QTI	γ					

U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS Identification Number (ID) (Enter if not shown, correct if wrong)

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CURRENT INDUSTRIAL REPORTS – Continued

PART I - Continued					<u></u>			<u> </u>
PANTI - Continued			TOTA	L MACHINE	S, DOMESTI	C AND EXPO	RT	
ltem (Product code – Description)	Item code	Report period	Shipm	ents	Unfilled orders End of	Shipment numericall trolled ma	y con- chines	ipments Export only
			No. of units		Quarter Value {\$1,000}	units {\$	Value 1,000} {	Value \$1,000}
3335122136-All other disc grinders,bench,floor,snag,	2225	4 QTR	1	2	3	4	5	6
double spindle,abrasive belt		3 QTR					03	
grinders, \$3,025 ea or more		2 QTR	-		and the second			-
3335122142-Tool, cutter, and		4 070			no management of the second	770000000000000000000000000000000000000		5
<pre>drill point grinding machines {incl. universal &</pre>	2328	4 QTR						
special} \$3,025 ea or more		3 QTR						
3335122151-All other grinding		2 QTR			***************************************	entered and a second a second and a second a		
mach. n.e.c. {see manual for inclusions}, \$3,025 ea or	2430	4 QTR				-		
more		3 QTR						
		2 QTR						
3335122156-Honing & lapping mach. exc. gear type-intern-	2530	4 QTR			**************************************	**************************************	999	
al incl. comb. bore-hone & external,\$3,025 each or more	-	3 QTR						
		2 QTR						
3335122161-Flat surface lapping machines, excl.gear lapping, valued at \$3,025	2579	4 QTR			south the same of	300000000000000000000000000000000000000		
ea. or more		3 QTR						
		2 QTR		0791				
3335122166-Polishing & buff- ing machines {see manual} \$3.025 each or more	2740	4 QTR				ACCOUNTY OF THE PROPERTY OF TH		
, 023 Cucii oi morc		3 QTR						
		2 QTR						
X X X -Total grind.,pol- ishing,buffing,honing &	2790	4 QTR		***************************************				
<pre>lapping mach.exc. gear-tooth type{sum of codes 2010-2740}</pre>		3 QTR						***************************************
		2 QTR		according to the control of the cont				
3335123131-All lathes {turning machines} valued	2801	4 QTR		**************************************			0.0000000000000000000000000000000000000	
under \$3,025 each		3 QTR					7777	Maria de la compania
		2 QTR						
3335123107-NC turning mach		4 070					-	
ines, horizontal spindle, chuck size less than 10"	2807						and the second	
{\$3,025 ea. or more}		3 QTR			All distances		774	
3335123116-NC turning		2 QTR			ALL AND PROPERTY A		***************************************	***************************************
machines, horiz. spindle, chuck size 10" to less than	2809	4 QTR			****	***************************************	LL CONTRACTOR CONTRACT	***************************************
15" {\$3,025 ea. or more}		3 QTR				voorana na	***************************************	
	<u></u>	2 QTR						

CURRENT INDUSTRIAL REPORTS - Continued

PART I - Continued	DOVERTTO AND EVENT							
ltem (Product code – Description)	Item code	Report period	TOTA Shipm	anamanana.	Unfilled orders	C AND EXPO Shipment numericall trolled ma	s of Sh y con- chines	ipments Export only
			No. of units		Value {\$1,000}	No. of	Value	Value \$1,000}
3335123127-NC turning machines, horiz. spindle	2812	4 QTR	1	2	3	4	5	
chuck size 15" & over, multi	2012	3 QTR					23	
spindle		2 QTR		¥				
X X X -Total lathes, horiz. numerically controlled	2815	4 QTR				***************************************		
turning machines {sum of codes 2807-2811}		3 QTR						
codes 2007-2011}		2 QTR						
3335123126-NC vertical spindle lathes, boring &	2920	4 QTR				1000		
turning machines, \$3,025 ea. or more		3 QTR					1 1	
		2 QTR					18 3	
3335123134-Non-numerically controlled turning machines	3102	4 QTR		NANAN METANAN	***************************************	XXXXX	XXXXX	
valued at \$3,025 each or more		3 QTR				XXXXX	XXXXX	
		2 QTR				XXXXX	XXXXX	
3335124101-All milling machines valued under \$3,025	3309	4 QTR		***************************************		One of the second secon		
each, excluding machining centers		3 QTR						
- Control 3		2 QTR						
3335124125-All milling machines valued at \$3,025	3500	4 QTR			TOTAL PARAMETERS AND	restatement of the second of t	version of the second	
each or more, excluding		3 QTR						
machining centers		2 QTR						
X X X -Total milling	3691	4 QTR			oranna de la compania del compania de la compania del compania de la compania del la compania de la compania dela compania del la compania de la compania de la compania dela compania del la compania de			and the second s
machines excl. machine centers {sum of codes	3031	3 QTR	970 T. 154					
3309-3500}	1	2 QTR						
3335127101-Machining centers;				Control of the Contro				
drill, mill, bore-VERTICAL, Y axis travel less than 20	3721		The Alleria of the					
inches		3 QTR						
2225127106 Machining contons:	 	2 QTR						
3335127106-Machining centers drill, mill, bore-VERTICAL,	3722	4 QTR						
Y axis travel 20 - 26 inches		3 QTR						
		2 QTR						
3335127111-Machining centers; drill, mill, bore-VERTICAL,	3723	4 QTF		entere remodel deleter		***************************************	18/1/19/8	
Y axis travel over		3 QTF	13 981536					
26 inches		2 QTF			124 84			

shown, correct if wrong)

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CURRENT INDUSTRIAL REPORTS - Continued

PART I - Continued TOTAL MACHINES, DOMESTIC AND EXPORT Unfilled Shipments of Shipments Shipments orders numerically con-Export Item Report Item trolled machines only End of (Product code - Description) code period Quarter ----only-----Value Value Value No. of Value No. of units {\$1,000} {\$1,000} units \$1,000} \$1,000} 2 3335127112-Machining centers; drill. mill. bore - HORIZ. 3724 4 QTR Under 500mm pallet and 3 QTR smaller 2 OTR 3335127113-Machining centers; drill, mill, bore - HORIZ. 3725 4 QTR 500mm - 800mm pallet 3 QTR 2 OTR 3335127114-Machining centers; 3726 4 QTR drill, mill, bore - HORIZ. Over 800mm pallet 3 QTR 2 QTR 3335127146-All other machining centers {see 3736 4 QTR manual for inclusions} 3 QTR 2 QTR -Total machining $X \quad X \quad X$ 4 QTR centers {sum of codes 3721-3737 3736} 3 QTR 2 QTR 3335128101-Station type 3821 4 QTR machines dial or rotary, trunnion & center column 3 QTR 2 QTR 3335128106-Station type 3823 4 QTR machines transfer {free, palletized, shuttle} 3 QTR 2 QTR 3335128111-Other station 3825 4 QTR type metal cutting machine tools n.e.c. 3 QTR 2 QTR -Total station type $X \quad X \quad X$ machines {sum of codes 3831 4 QTR 3821-3825} 3 QTR 2 QTR 3335129101-Other metal 3840 4 QTR cutting machine tools, n.e.c..valued under \$3.025 3 QTR 2 QTR

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CURRENT INDUSTRIAL REPORTS - Continued

PART I - Continued	T		TOTA	L MACHINES	, DOMESTI	C AND EXPO	RT	
ltem_	ltem	Report	Shipm		Unfilled orders	Shipment numericall trolled ma	s of Sh v con-	pments Export only
(Product code – Description)	code	period	No. of units	Value {\$1,000}	Ouarter	No. of	Value 1,000} {	Value \$1,000}
335129106-Broaching mach-	3850	4 OTR	1	2	3	4	5	6
ines, incl.internal & surface, \$3,025 each or more	3030	3 QTR						
		2 QTR						
3335129122-Sawing & cut-off				***************************************				
machines: vertical band saws valued at \$3,025 each or	4181	4 QTR			* * * * * * * * * * * * * * * * * * *			
more		3 QTR	:					
2225122122 Cardina & out off		2 QTR	1	2 to 2 to 2				
3335129123-Sawing & cut-off machines: horizontal band	4183	4 QTR						
saws valued at \$3,025 each or more		3 QTR						
		2 QTR		\$ \$ 8.5				
3335129126-All other sawing & cut-off machines {include contour sawing & filing},	4196	4 QTR					7	
\$3,025 ea or more		3 QTR	1					
	ļ	2 QTR						
3335129131-Spark erosion, ultrasonic & electrolytic	4619	4 QTR						
mach., \$3,025 ea or more		3 QTR						
		2 QTR						
3335129136-Misc. metal cutting machine tools {see	4630	4 QTR					www.	***************************************
manual for inclusions}, \$3,025 ea or more		3 QTR						
		2 QTR						
X X X -Total other metal cutting machine tools {sum	4691	4 QTR		***************************************	OMOCHANISTICA	and the second s		, constant
of codes 3840-4630}		3 QTR	\$5.6KY 5 . 12 s.c.					
	ļ	2 QTF						
3335126111-Remanufactured	4700	1 075			***************************************			***************************************
metal cutting machine tools	4700	3 QTF	AND SERVICE.					7 44 1 4 1 W.
		2 QTF						
3335131101-All punching and				4.00				V. COZZEGO PORTA P
shearing machines valued under \$3,025 each	5009	.,	G TELEVISION RECOVER					
under 40,020 eden		3 QTI						
2007101106	<u> </u>	2 QTI	R Prince Table					
3335131106-Punches, incl. comb. punching & shearing	501	9 4 QT	R	***************************************	and the state of t			
mach., power operated, \$3,025 ea or more		3 QT	R					
		2 QT	R Common				- 1	W

CURRENT INDUSTRIAL REPORTS – Continued

PART I - Continued	-							
- FART 1 - Continued	I		TOTA	L MACHINE	S, DOMESTI	C AND EXPO	RT	
ltem (Product code – Description)	Item code	Report period	Shipm	ents	Unfilled orders End of Quarter	Shipment numericall trolled ma	y con- chines	ipments Export only
			No. of units	Value {\$1,000}	Value {\$1,000}	No. of	Value	Value \$1,000}
3335131111-Punching mach. fixed position & 2-axes	5025	4 QTR	1	2	3	4	D	0
positioning table, power operated, \$3,025 ea or more		3 QTR				-		
operated, \$3,025 ea or more		2 QTR						
3335131116-Mechan. plate shearing machines {squaring,	5031	4 QTR		No.	virana referencieros		anamondasyldateideide	The state of the s
slitting etc}, power operated, \$3,025 ea or more		3 QTR						
		2 QTR				ounourohoono		
3335131121-Hydraulic plate shearing mach.{squaring,	5032	4 QTR				000000000000000000000000000000000000000		THE COLUMN TO TH
slitting etc}, power operated, \$3,025 ea or more		3 QTR					***************************************	
		2 QTR					nove de la constanta de la con	
3335131126-Other power operated punching and	5085	4 QTR		2000	son constraint to the constrai	0.0000000000000000000000000000000000000		
shearing machines, \$3,025 ea or more		3 QTR						
		2 QTR						
3335131131-All bending and forming machines valued under \$3,025 each	5109	4 QTR				de constante de co		
under \$3,025 each		3 QTR						
		2 QTR						
3335131136-Bending and forming machines, press brakes, \$3,025 ea or more	5112	4 QTR		98000 ·		**************************************		
prakes, \$3,025 ea or more		3 QTR						
		2 QTR						
3335131145-Roll bending mach. incl. sheet, plate, angles,	5222	4 QTR						www.
<pre>bars, shapes, & tubes {see manual}</pre>		3 QTR						
		2 QTR			330		averation wood	
3335131161-Other bending & forming machines including	5270	4 QTR		are a second				SAMAN MANAGEMENT AND
folders valued at \$3,025 ea or more		3 QTR						
,		2 QTR						
X X X -Total punching, shearing, bending & forming	5291	4 QTR		***************************************	and a second sec	***************************************	77	***************************************
mach. {sum of 5009-5270}		3 QTR					bilionado de la companiona della companiona de la companiona della companiona della compani	
		2 QTR		***************************************				
3335133101-All presses valued under \$3,025 each	5409	4 QTR		101111111111111111111111111111111111111	volunt and the second	A0000000000000000000000000000000000000		100.00 to 100.00
		3 QTR						
	<u> </u>	2 QTR				***************************************		

CURRENT INDUSTRIAL REPORTS - Continued

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2 QTR

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CURRENT INDUSTRIAL REPORTS – Continued

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PART I - Continued	*****		***************************************] 9
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ltem (Product code – Description)	Item code	Report period	Shipm	ents	Unfilled orders End of Quarter	Shipment numericall trolled ma	y con- chines	ipments Export only
			No. of units	Value {\$1,000}	Value {\$1,000}	No. of units {\$	Value 1,000} {	Value \$1,000}
3335135101-All other metal forming type machine tools	6540	4 QTR	1	2	3	. 4	5	6
valued under \$3,025 each	0340	3 QTR	:					
		2 QTR				The second secon	age of the second	
3335135118-Forging machines		2 QTK				****	1000	
<pre>{including forging presses & die stamping presses},</pre>	6625	4 QTR	·		<u> </u>			
& die casting machines		3 QTR	:					
		2 QTR						
3335135121-Riveting machines, except hand held portable	6779	4 QTR		2000		***************************************		
types, \$3,025 ea or more		3 QTR						
		2 QTR		oution and the second			on annual recognition of the second	
3335135126-All other metal forming type machine tools	7173	4 QTR		and the second				
n.e.c. val. at \$3,025 ea or more		3 QTR						***************************************
		2 QTR			0.500			***************************************
X X X -Total all other metal forming type machine	7191	4 QTR						Westernament of the Control of the C
tools {sum of codes 6540-7173}		3 QTR			***************************************	200		
		2 QTR						
3335137121-Remanufactured metal forming machine tools	7200	4 QTR				-		WARRANGO CONTRACTOR CO
		3 QTR						
		2 QTR				***		
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(Product code – Description)	code	period		usessaver+er+er+	and an analysis of the second	accent company acceptance		**************************************
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f all your items are not listed, p PART II Has there been any	change in	the own	<i>al lines or a b</i> ership or ope	lank sheet of pration of this e	<i>saper.</i> establishment (during this peri	od?	
PART II Has there been any Yes - Indicate	type of cha	nge belov	v. 🗆 No -	· Skip to Part III.				ate of change
	Name of	company		Address (Nur	nber and street,	city, State, ZIP C	oae) L	ate of change
A. Purchased from			,					
	·		Ì				i	
I. ☐ Sold to								
C. Plant discontinued all operat			ate					
C. Plant discontinued all operat				"Remarks" the p	products currenti	y produced.		
C. Plant discontinued all operators. Plant operations no longer c E. Reorganized - Describe in "F	overed by t	his survey	/ – Describe in ership change c	or change in cor	porate status.			
Plant discontinued all operators. Plant operations no longer of the lon	overed by t	his survey	y – Describe in ership change c	or change in cor st report cove	porate status.	establishments	?	
Plant discontinued all operators. Plant operations no longer of the second of the sec	overed by t	his survey	y – Describe in ership change c	or change in cor st report cove	porate status.	establishments	?	
Plant discontinued all operators. Plant operations no longer of the Reorganized - Describe in "I PART III Do the figures sho	overed by t	his survey	y – Describe in ership change c	or change in cor st report cove	porate status.	establishments	?	
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C. Plant discontinued all operators. Plant operations no longer of the companies of the co	overed by t Remarks;" e wn on this	his survey	y - Describe in ership change c nd on your la: \[\] No itially accurate	or change in cor st report cover – Indicate reaso	porate status. • the identical of the state	establishments in "Remarks."		

2007

MQ333W — METALWORKING MACHINERY

DEFINITIONS AND SPECIAL INSTRUCTIONS

1. Scope of survey

This survey covers all United States companies engaged in the manufacture of new and remanufactured industrial type metal cutting and metal forming types of metalworking machinery, including numerical control type (Sections I and II). Rebuilt machines are not collected on this survey.

2. Figures to be reported

Companies with more than one establishment manufacturing the products covered by this survey are requested to complete a separate report form for each location. If you have not received a separate form for each of your establishments, call the contact shown on the report form or write to the U.S. Census Bureau for additional forms.

QUANTITY AND VALUE OF SHIPMENTS

The figures on quantity and value of shipment should include the physical shipments of all products sold, transferred to other establishments within your company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Assign shipments to your own branches the same value as comparable sales to unaffiliated customers, i.e., the value includes an appropriate allocation of company overhead and profit. Do not include in shipments products bought and resold without further manufacture.

VALUE OF EXPORT SHIPMENTS

For purposes of this report, domestic includes shipments to destinations within the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands, as well as to the U.S. Armed Forces abroad for their own use. All other shipments are exports. Report the value of export shipments by type of machine.

VALUE OF UNFILLED ORDERS

Report the dollar value of orders received (for domestic and export) which have not passed through your sales accounts at the end of each quarter. Unfilled orders at the end of the quarter are equal to unfilled orders at the beginning of the quarter, plus net new orders received during the quarter, minus net sales.

BY VALUE OF MACHINE

Separate machines which are valued at less than \$3,025 each from machines valued at \$3,025 or more.

EXAMPLE:

Report all drilling machines valued at less than \$3,025 each with item code 1205, "All drilling machines valued under \$3,025 each."

Report drilling machines valued at \$3,025 or more each by the specific type of machine designated under item codes 1215 through 1265.

See Reference List, page 3. Do not combine machines valued at less than \$3,025 with machines valued at \$3,025 or more.

SHIPMENTS OF MACHINES EQUIPPED WITH NUMERICAL CONTROLS (NC)

In addition to including the shipments of metalworking machines equipped with numerical controls with total machines shipped, also report data on numerical control type machines separately in columns 4 and 5 immediately following the total for each type of machine. The value of machine tools equipped with numerical controls should include the value of the controls.

LEASED MACHINES

For products leased or rented by your company, report the number and estimated values. The estimate should approximate the value of the products sold outright. If no such prices exist, base the value on the assessment placed on these items for tax, insurance, or similar purposes.

SUBCONTRACT WORK

Include in the report complete products manufactured for you by others on a subcontract basis. Exclude complete machines produced by you for others on a subcontract basis, unless manufactured for an affiliated company.

IMPORTED OR ASSEMBLED COMPONENTS

Do not report on this survey if:

- a. The products you shipped were imported complete or machined for assembly.
- **b.** The products you shipped were imported as subassemblies purchased and not machined further or large parts which required minimal assembly with hand tools and no metalworking.

Report on this survey if:

- a. Parts for your products were imported and the assembly and fabrication consisted of metal working or further machining.
- **b.** Your establishment possesses the complete product design and performs in-house machining.

MACHINE TYPES

Metal cutting type machine tools — These are defined as new, power driven, complete machine tools, not supported in the hands of an operator when in use. They are used for removing metal in the form of chips, vapor, or slag. Also

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DEFINITIONS AND SPECIAL INSTRUCTIONS — Continued

3. Definitions

MACHINE TYPES - Continued

included are honing machines, lapping machines, grinders, and machines which cut using electrical, laser, or waterjet techniques.

Exclude small, low-priced, machine tools of light construction such as lathes; drilling, grinding, and milling machines; and polishing and buffing machines designed primarily for home workshops, etc. Also exclude all woodworking or primarily woodworking type machines.

Metal forming type machine tools — These are defined as new, power driven, complete machine tools, not supported in the hands of an operator when in use. They are used to press, forge, emboss, hammer, extrude, blank, spin, shear, die cast, or bend metal.

ALL OTHER" CLASSIFICATIONS

The last item of most major product categories is an "all other" or "miscellaneous" group. Whenever possible, classify your products under the more specific heading which most nearly describes them. Classify them as "all other" only when a more specific description does not apply. Describe the products that you classify as "all other" in sufficient detail to permit identification. This may be done on a separate sheet of paper.

TYPES OF NUMERICALLY CONTROLLED MACHINES

Positioning — These are defined as machines equipped with "positioning" numerical control systems activated by direct data input (DNC) or manual data input (MDI).

Report in this group all machines that have been equipped with control systems in which point-to-point positioning and cutting or forming (regardless of the number of movement "axes" or auxiliary functions) are controlled automatically by means of numerical programs inserted into the systems.

Classify as "continuous path," machines equipped with a control system that permits "positioning" and "continuous path" operations.

Continuous path or computer numerical control — These are defined as machines equipped with "continuous path" numerical program control systems activated by direct data input (CNC) or manual data input (MDI).

Report in this group all machines equipped with control systems in which, in addition to point-to-point positioning, the path of cutting is also automatically controlled by means of numerical programs inserted into the systems.

Classify as "continuous path," machines equipped with a control system that permits "positioning" and "continuous path" operations.

Digital readout systems including dial or plugboard — These are defined as machines equipped with digital readout systems or dial or plugboard type of prerecorded motion programs control systems.

Report in this group all machines equipped with control systems in which "positioning" or continuous path" are automatically commanded by numerical programs fed into the system by an operator through dials, plugs, switches, or any other numerical method.

REMANUFACTURED MACHINE TOOLS

The basic machine carcass is reused with most of the iron retained. All possible modern improvements are incorporated. Ball screws and servo drives replace gear boxes and lead screws. Headstocks are driven by AC vector drive motors, and gears and range changes are reduced or eliminated. Position feedback may be added, as may CNC or PC controls. All of the electrics are replaced. The end product is superior to the original product when it left the factory as new.

DEFINITIONS AND SPECIAL INSTRUCTIONS — Continued

4. Comparability

If you also report in the Annual Survey of Manufactures (Form MA-10000), the sum of values for item codes shown in column (a) should correspond to the dollar values reported under product class codes indicated in column (b) below:

Current Industrial Reports (Form MQ333W)	Annual Survey of Manufactures
Item code (a)	Product class code (b)
1125 through 1265	333512A pt
1991	3335121 pt
2010 through 2740	3335122
2801 through 2812	3335123
2920 through 3102	
3309 through 3500	3335124
3721 through 3736	3335127
3820	3335128
3840 through 4630	3335129
5009 through 5270	3335131
5409 through 6305	3335133
6625 through 7173	3335135
4700	3335126
7200	3335137

pt = part

CURRENT INDUSTRIAL REPORTS SERIES REFERENCE LIST

FORM MQ333W		METALWORKING MACHINERY
Product code	Item code	Item description
1 Todact code	code	SECTION I – METAL CUTTING TYPE MACHINE TOOLS
		BORING MACHINES (excluding Machining Centers) and DRILLING MACHINES (excluding Machining Centers)
		Machines valued at \$3,025 each or more (including laser type)
333512A103	1125	Horizontal boring, drilling, and milling machines. Includes floor, table and rail mounted, and all other boring machines (excluding boring lathes)
333512A105	1140	Precision and jig boring machines (including horizontal and vertical boring machines)
333512A111	1205	All drilling machines valued under \$3,025 each
		Machines valued at \$3,025 each or more (including laser type)
333512A113	1215	Vertical – (upright) drilling machines (including plain-upright and heavy duty)
333512A117	1235	Deep hole drilling machines
333512A120	1250	Multiple spindle drilling machines (cluster of spindles driven from one central power unit)
333512A123	1265	All other drilling machines (including sensitive, vertical and radial)
XXX	1295	Total boring and drilling machines (Sum of item codes 1125–1265)
		GEAR CUTTING MACHINES (including laser type)
3335121200	1991	Gear cutting machines includes: gear hobbers, shapers, teeth finishing, bevel gear generators, and all other gear cutting machines
		GRINDING, POLISHING, BUFFING, HONING, AND LAPPING MACHINERY (excluding gear-tooth grinding, lapping, polishing, honing, and buffing machines)
3335122101	2010	All grinding, polishing, buffing, honing, and lapping machines valued under \$3,025 each
		Machines valued at \$3,025 each or more
3335122110	2050	External cylindrical grinding machines
3335122120	2100	Internal cylindrical grinding machines
3335122122	2146	Surface grinding machines
3335122136	2225	All other disc grinders, bench, floor, snag, double spindle grinders, and abrasive belt grinders
3335122142	2328	Tool, cutter, and drill point grinding machines (including universal and special)

CURRENT INDUSTRIAL REPORTS SERIES REFERENCE LIST — Continued

		REPERENCE LIST — Continued
FORM MQ333W	1	
Product code	Item code	Item description
		Section I — METAL CUTTING TYPE MACHINE TOOLS — Continued
		GRINDING, POLISHING, BUFFING, HONING, AND LAPPING MACHINERY (excluding gear-tooth grinding, lapping, polishing, honing, and buffing machines)– Continued
		Machines valued at \$3,025 each or more – Continued
3335122151	2430	All other grinding machines (including planer type, thread grinding, and deburring machines)
		Honing and lapping machines except gear-tooth honing and lapping
3335122156	2530	Internal (including combination bore-hone and external) (excluding flat surface lapping machines)
3335122161	2579	Flat surface lapping machines (excluding gear lapping)
3335122166	2740	Polishing and buffing machines including speed lathes and multi-station type
XXX	2790	Total grinding, polishing, buffing, honing, and lapping machines (excluding gear-tooth, grinding, lapping, polishing, and buffing machines) (Sum of item codes 2010–2740)
		LATHES (TURNING MACHINES)
3335123131	2801	All lathes valued under \$3,025 each
		Machines valued at \$3,025 each or more
		NUMERICALLY CONTROLLED TURNING MACHINES:
		Horizontal Spindle
		Single spindle:
		PLEASE NOTE: Each machine may not conform to all the criteria of any one subgroup. The criteria are ranked in order of importance to help indicate the proper subgroup classification. Determine horsepower by name plate listing.
3335123107	2807	Chuck size: Less than 10" Horsepower: 25 and under Swing: 18" and under Spindle nose: A-8" and under
3335123116	2809	Chuck size: 10" to less than 15" Horsepower: 25–50 Swing: 18"–25" Spindle nose: A-8"–11"
3335123127	2812	Chuck size: 15" and over Horsepower: 50 and over Swing: 25" and over Spindle nose: 15" and over And all multiple spindle NC turning machines (excluding those with opposing powered subspindles) (classified as single spindle)

REFERENCE LIST — Continued

FORM MQ333W		REFERENCE LIST — Continued
Product code	Item code	Item description
		Section I — METAL CUTTING TYPE MACHINE TOOLS — Continued
		Machines valued at \$3,025 each or more–Continued
		NUMERICALLY CONTROLLED TURNING MACHINES-Continued:
		Horizontal Spindle-Continued
XXX	2815	Total horizontal NC turning machines (Sum of item codes 2807–2812)
		Vertical Spindle
3335123126	2920	Vertical spindle lathes, boring, and turning machines
3335123134	3102	NON-NUMERICALLY CONTROLLED TURNING MACHINES VALUED AT \$3,025 EACH OR MORE
		MILLING MACHINES (excluding "Machining Centers")
3335124101 3335124125	3309 3500	All milling machines valued under \$3,025 each All milling machines valued at \$3,025 each or more
XXX	3691	Total milling machines (Sum of item codes 3309–3500)
		OTHER METAL CUTTING MACHINE TOOLS
		Machining Centers (Multi-function NC Machines)
3335127101 3335127106 3335127111	3721 3722 3723	Drill, Mill, Bore — VERTICAL (Automatic Tool Change) "Y" axis travel less than 20" "Y" axis travel 20" through 26" "Y" axis travel over 26"
3335127112 3335127113 3335127114	3724 3725 3726	Drill, Mill, Bore — HORIZONTAL (Automatic Tool Change) Under 500mm pallet 500mm-800mm pallet Over 800mm pallet
3335127146	3736	All other machining centers (including special machining centers, special adapting of standard machining centers, and machining centers with indexing turret)
XXX	3737	Total machining centers (Sum of item codes 3721–3736)
		Station Type Machines
3335128101 3335128106 3335128111	3821 3823 3825	Dial or rotary, trunnion, and center column Transfer (free, palletized, shuttle) Other station type
XXX	3831	Total station type machines (Sum of item codes 3821–3825)

CURRENT INDUSTRIAL REPORTS SERIES REFERENCE LIST — Continued

FORM MQ333W		
Product code	Item code	Item description
		Section I — METAL CUTTING TYPE MACHINE TOOLS-Continued
		OTHER METAL CUTTING MACHINE TOOLS-Continued
3335129101	3840	Other metal cutting machine tools valued under \$3,025
		Machines valued at \$3,025 each or more
3335129106	3850	Broaching machines (including internal surface and all other broaching machines)
3335129122 3335129123 3335129126	4181 4183 4196	Sawing and cut-off machines Band saws Vertical Horizontal All other sawing and cut-off machines (including contour sawing and filing)
3335129131	4619	Spark erosion, ultrasonic, and electrolytic machines
3335129136	4630	Miscellaneous metal cutting machine tools (including rifling, centering, key-seating, pointing, chamfering, facing, shaving, grooving, counter-sinking, skiving, reaming, screw and nut slotting machines, threading, tapping, planers, shapers, plasma cutting machines, and laser cutting machines)
xxx	4691	Total other metal cutting machine tools (excluding station type and machining centers) (Sum of item codes 3840–4630)
3335126111	4700	REMANUFACTURED METAL CUTTING MACHINE TOOLS
		Section II — METAL FORMING TYPE MACHINE TOOLS
		PUNCHING AND SHEARING MACHINES
3335131101	5009	All punching and shearing machines valued under \$3,025 each
		Machines valued at \$3,025 each or more
		POWER OPERATED ONLY
3335131106	5019	Punches (including combination punching and shearing machines)
3335131111	5025	Punching machines (fixed position and two axes positioning table)
		Plate shearing machines (squaring, slitting, etc.)
3335131116	5031	Mechanical
3335131121	5032	Hydraulic
3335131126	5085	Other power operated punching and shearing machines

REFERENCE LIST — Continued

FORM MQ333W						
Product code	Item code	Item description				
		Section II — METAL FORMING TYPE MACHINE TOOLS-Continued				
		BENDING AND FORMING MACHINES — Power operated				
3335131131	5109	All bending and forming machines valued under \$3,025 each				
		Machines valued at \$3,025 each or more				
3335131136	5112	Press brakes				
3335131145	5222	Roll bending machines (including sheet, plate, angles, bars, shapes, and tubes) rotary bending and forming machines				
3335131161	5270	Other bending and forming machines (including folders and slide bending machines)				
XXX	5291	Total punching, shearing, bending, and forming machines (Sum of item codes 5009–5270)				
		PRESSES (excluding forging presses and die stamping presses)				
3335133101	5409	All presses valued under \$3,025 each				
		Machines valued at \$3,025 each or more				
		MECHANICAL PRESSES				
3335133109	5427	Gap or C-frame				
3335133136	5830	Presses, strip or coil fed				
3335133143	5865	Vertical, automatic, and other mechanical presses (including end wheel ty bulldozer, double and triple action, and transfer fed presses, four point anknuckle joint) (excluding automated lines of standard equipment)				
		HYDRAULIC PRESSES (metalworking only)				
		Vertical single action, all tonnages				
3335133146	5961	Housing or straight side type				
3335133151	5962	Column type (open rod)				
		Gap or C-frame				
3335133156	6131	15 tons and under				
3335133161	6132	16 tons–35 tons				
3335133166	6133	Over 35 tons				
3335133171	6305	Other hydraulic and pneumatic presses (including horizontal)				
XXX	6321	Total presses, excluding forging (Sum of item codes 5409–6305)				
		ALL OTHER METAL FORMING TYPE MACHINE TOOLS				

CURRENT INDUSTRIAL REPORTS SERIES REFERENCE LIST — Continued

FORM MQ333W						
Product code	Item code	Item description				
		Section II – METAL FORMING TYPE MACHINE TOOLS — Continued				
		Machines valued at \$3,025 each or more				
3335135118	6625	Forging machines (including forging presses and die stamping presses), and die casting machines				
3335135121	6779	Riveting machines (excluding hand held portable types)				
3335135126	7173	All other metal forming type machine tools (including spin forming, stretch forming and extrusion)				
xxx	7191	Total all other metal forming type machine tools (Sum of item codes 6540–7173)				
3335137121	7200	REMANUFACTURED METAL FORMING MACHINE TOOLS				

1/18/07