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# Steel, Tubular Products and Steel Wire

April 2012



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Statistics Canada  
Manufacturing and Energy Division

# Steel, Tubular Products and Steel Wire

April 2012

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## Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0<sup>s</sup> value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published
- \* significantly different from reference category ( $p < 0.05$ )

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## Highlights

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### April 2012

- Monthly production of primary steel and pig iron decreased 3.6% in April 2012 to 1,165,495 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products increased 0.2% to 990,674 metric tonnes.
- Between March 2012 and April 2012, production of steel pipe and tubing decreased 14.1% to 179,024 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 5.5% to 40,388 metric tonnes in April 2012.

## Related products

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### Selected CANSIM tables from Statistics Canada

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303-0046	Production and shipments of steel pipe and tubing
303-0047	Production and shipments of steel wire and specified wire products
303-0048	Production and shipments of pig iron
303-0049	Pig iron and scrap products charged to furnace, by the primary metal industry
303-0050	Production and shipments of steel casting and primary forms steel products
303-0051	Destination of net shipments of rolled steel products to consuming industries

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### Selected surveys from Statistics Canada

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2105	Steel Pipe and Tubing
2106	Steel Wire and Specified Wire Products
2116	Steel Primary Forms, Steel Castings and Pig Iron
2184	Disposition of Shipments of Ingots and Rolled Steel Products

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# Statistical tables

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Table 1-1

**Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry monthly 2012**

	Steel primary forms	Rails and heavy structural sections	Intermediate structural sections	Light structural sections	Concrete reinforcing bars	Other hot rolled bars	Wire rods	Railway track material
metric tonnes								
April								
Domestic shipments								
Steel service centres and other wholesalers and warehouses	5	1,913	5,929	6,163	5,204	7,131	0	.
Motor vehicles and parts	x	0	275	12	.	5,235	0	.
Railway operating	0	.	.	.	0	49	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	67	1,111	1,736	40,749	343	0	.
Metal building systems	.	0	0	0	77	83	.	.
Contractors' products	.	0	0	.	791	109	120	.
Miscellaneous stamping and coating	0	31	104	265	.	1,825	.	.
Natural resources and extractive industries	.	37	0	0	1,423	8,018	0	.
Agricultural equipment	.	0	10	9	0	458	.	0
Non electrical machinery	.	0	1,439	0	.	6,897	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	279	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	x	2,048	8,868	8,185	48,244	30,427	x	0
Total domestic alloy shipments	0	.	.	.	.	4,671	x	.
Exports to the United States	x	890	5,067	6,440	0	25,527	x	.
Exports to other countries (excluding United States)	x	0	79	0	0	23,551	x	0
Total disposition	38,915	2,938	14,014	14,625	48,244	79,505	x	0
Total alloy shipments	0	.	.	.	.	9,212	x	.
Producers interchange, for sale	x	.	0	.	.	539	109	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	x	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-1 – continued

**Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry monthly 2012**

	Cold finished bars	Plates <sup>1</sup>	Hot rolled sheets and coils	Cold reduced sheets and strip and other cold rolled and coated	Tin plate and tin free steel (T.F.S.)	Galvanized sheets including galvalume	Total, rolled steel products
metric tonnes							
<b>April</b>							
<b>Domestic shipments</b>							
Steel service centres and other wholesalers and warehouses	1,683	16,094	177,412	14,655	1,071	28,033	265,293
Motor vehicles and parts	x	0	32,176	8,105	0	51,098	97,778
Railway operating	.	0	0	.	.	0	49
Railroad cars and locomotives	.	448	0	.	.	.	448
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	7,275	x	0	.	1,701	x
Metal building systems	.	.	0	.	.	1,412	1,572
Contractors' products	54	23	3,085	1,346	.	25,953	31,481
Miscellaneous stamping and coating	7	0	5,095	2,395	.	12,491	22,213
Natural resources and extractive industries	73	0	0	0	.	2	9,553
Agricultural equipment	0	754	0	0	.	0	1,231
Non electrical machinery	0	0	1,217	0	.	0	9,553
Electrical machinery	.	.	60	1,120	.	1,886	3,066
Industrial packaging material	.	.	195	4,641	0	0	4,836
Pipes and tubes	0	0	80,702	493	.	1,803	82,998
Wire and wire products	x	.	x	126	.	108	x
Containers and closures	0	.	227	386	505	.	1,118
Appliances and utensils industries	.	.	0	1,370	.	1,054	2,424
Miscellaneous industries	323	0	0	.	.	.	323
<b>Total domestic shipments</b>	<b>x</b>	<b>24,594</b>	<b>304,911</b>	<b>34,637</b>	<b>1,576</b>	<b>125,541</b>	<b>608,209</b>
<b>Total domestic alloy shipments</b>	<b>127</b>	<b>0</b>	<b>.</b>	<b>0</b>	<b>.</b>	<b>.</b>	<b>x</b>
Exports to the United States	1,353	17,171	x	16,588	17,087	49,699	320,137
Exports to other countries (excluding United States)	0	6,349	x	1,181	934	12,118	62,328
<b>Total disposition</b>	<b>x</b>	<b>48,114</b>	<b>425,742</b>	<b>52,406</b>	<b>19,597</b>	<b>187,358</b>	<b>990,674</b>
<b>Total alloy shipments</b>	<b>615</b>	<b>0</b>	<b>.</b>	<b>0</b>	<b>.</b>	<b>.</b>	<b>x</b>
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	0	2,943	1,544	.	0	x

1. Effective January 2000, producers have changed the way they report hot rolled products. The result is a change in definitions. Plates including plates for pipes and tubes becomes plates. Hot rolled sheet and strip becomes hot rolled sheets and coils and now includes all hot rolled flat products in coils, regardless of thickness.

**Note(s):** Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

Table 1-2

**Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry, year-to-date 2012**

	Steel primary forms	Rails and heavy structural sections	Intermediate structural sections	Light structural sections	Concrete reinforcing bars	Other hot rolled bars	Wire rods	Railway track material
	metric tonnes							
<b>Domestic shipments</b>								
Steel service centres and other wholesalers and warehouses	9	7,096	28,677	24,822	15,811	x	0	.
Motor vehicles and parts	x	0	1,017	105	.	19,327	0	.
Railway operating	0	.	.	.	0	130	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	496	5,791	6,888	135,056	x	0	.
Metal building systems	.	0	0	0	152	243	.	.
Contractors' products	.	0	0	.	1,837	1,560	397	.
Miscellaneous stamping and coating	0	39	1,120	1,127	.	2,557	.	.
Natural resources and extractive industries	.	366	38	0	4,676	41,138	0	.
Agricultural equipment	.	0	19	40	0	1,924	.	0
Non electrical machinery	.	0	5,078	6	.	31,184	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	1,147	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
<b>Total domestic shipments</b>	<b>x</b>	<b>7,997</b>	<b>41,740</b>	<b>32,988</b>	<b>157,532</b>	<b>140,596</b>	<b>x</b>	<b>0</b>
<b>Total domestic alloy shipments</b>	<b>0</b>	<b>.</b>	<b>.</b>	<b>.</b>	<b>.</b>	<b>21,712</b>	<b>x</b>	<b>.</b>
Exports to the United States	x	3,823	17,462	23,446	0	100,779	x	.
Exports to other countries (excluding United States)	x	0	287	10	0	95,982	x	0
<b>Total disposition</b>	<b>x</b>	<b>11,820</b>	<b>59,489</b>	<b>56,444</b>	<b>157,532</b>	<b>337,357</b>	<b>x</b>	<b>0</b>
<b>Total alloy shipments</b>	<b>0</b>	<b>.</b>	<b>.</b>	<b>.</b>	<b>.</b>	<b>39,395</b>	<b>x</b>	<b>.</b>
Producers interchange, for sale	x	.	0	.	.	1,865	397	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	x	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-2 – continued

**Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry, year-to-date 2012**

	Cold finished bars	Plates <sup>1</sup>	Hot rolled sheets and coils	Cold reduced sheets and strip and other cold rolled and coated	Tin plate and tin free steel (T.F.S.)	Galvanized sheets including galvalume	Total, rolled steel products
metric tonnes							
<b>Domestic shipments</b>							
Steel service centres and other wholesalers and warehouses	x	78,200	789,320	66,314	4,701	142,179	1,203,305
Motor vehicles and parts	x	0	129,427	33,486	0	191,937	379,047
Railway operating	.	0	0	.	.	0	130
Railroad cars and locomotives	.	2,061	0	.	.	.	2,061
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	25,156	x	0	.	6,272	x
Metal building systems	.	.	0	.	.	8,184	8,579
Contractors' products	54	1,302	20,772	6,274	.	84,582	116,778
Miscellaneous stamping and coating	54	0	18,109	12,560	.	52,961	88,527
Natural resources and extractive industries	257	0	0	0	.	8	46,483
Agricultural equipment	149	1,968	0	0	.	0	4,100
Non electrical machinery	0	162	4,395	0	.	0	40,825
Electrical machinery	.	.	244	4,420	.	6,774	11,438
Industrial packaging material	.	.	195	17,470	0	0	17,665
Pipes and tubes	0	0	335,017	2,534	.	9,088	346,639
Wire and wire products	x	.	x	415	.	237	x
Containers and closures	0	.	227	1,663	3,289	.	5,179
Appliances and utensils industries	.	.	0	5,321	.	3,375	8,696
Miscellaneous industries	797	0	0	.	.	.	797
<b>Total domestic shipments</b>	<b>x</b>	<b>108,849</b>	<b>1,313,427</b>	<b>150,457</b>	<b>7,990</b>	<b>505,597</b>	<b>2,549,842</b>
<b>Total domestic alloy shipments</b>	<b>679</b>	<b>0</b>	<b>.</b>	<b>0</b>	<b>.</b>	<b>.</b>	<b>x</b>
<b>Exports (for final sale)</b>							
Exports to the United States	x	53,736	x	70,314	71,534	174,840	1,170,250
Exports to other countries (excluding United States)	25	19,640	x	6,863	3,265	46,760	266,300
<b>Total disposition</b>	<b>x</b>	<b>182,225</b>	<b>1,752,560</b>	<b>227,634</b>	<b>82,789</b>	<b>727,197</b>	<b>3,986,392</b>
<b>Total alloy shipments</b>	<b>2,666</b>	<b>0</b>	<b>.</b>	<b>0</b>	<b>.</b>	<b>.</b>	<b>x</b>
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	0	12,574	2,844	.	0	x

1. Effective January 2000, producers have changed the way they report hot rolled products. The result is a change in definitions. Plates including plates for pipes and tubes becomes plates. Hot rolled sheet and strip becomes hot rolled sheets and coils and now includes all hot rolled flat products in coils, regardless of thickness.

**Note(s):** Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

Table 1-3

**Steel primary forms and pig iron — Production of pig iron**

	April		Year-to-date	
	2011	2012	2011	2012
metric tonnes				
Production of pig iron	641,523	641,259	2,361,856	2,626,138

Table 1-4

## Steel primary forms and pig iron — Pig iron and scrap charged to steel furnaces

	April		Year-to-date	
	2011	2012	2011	2012
	metric tonnes			
Pig iron including pre-reduced iron	680,661	667,087	2,501,064	2,724,550
<b>Scrap</b>				
Own make	125,385	134,433	450,378	558,304
Purchased	507,874	488,731	1,889,796	1,920,535
<b>Total, pig iron and scrap products</b>	<b>1,313,920</b>	<b>1,290,251</b>	<b>4,841,238</b>	<b>5,203,389</b>

Table 1-5

## Steel primary forms and pig iron — Production and shipments of steel, primary forms, monthly

	Production		Shipments	
	2011	2012	2011	2012
	metric tonnes			
<b>April</b>				
<b>Steel, primary forms (carbon and alloy including continuous cast steel)</b>				
Electric furnace	490,828	492,386	x	x
Basic oxygen furnace	676,775	673,109	x	x
<b>Steel, primary forms - Total</b>	<b>1,167,603</b>	<b>1,165,495</b>	<b>166,773</b>	<b>153,715</b>
<b>Included in "Steel primary forms total" above</b>				
Continuous cast steel	1,152,432	1,130,980	156,328	124,856

Table 1-6

## Steel primary forms and pig iron — Production and shipments of steel, primary forms, year-to-date

	Production		Shipments	
	2011	2012	2011	2012
	metric tonnes			
<b>Steel, primary forms (carbon and alloy including continuous cast steel)</b>				
Electric furnace	1,905,760	1,978,429	x	x
Basic oxygen furnace	2,419,317	2,729,011	x	x
<b>Steel, primary forms - Total</b>	<b>4,325,077</b>	<b>4,707,440</b>	<b>713,362</b>	<b>690,210</b>
<b>Included in "Steel primary forms total" above</b>				
Continuous cast steel	4,265,894	4,574,013	670,616	576,755

**Table 2-1**  
**Steel pipe and tubing — Production and shipments, monthly 2012**

	Production	Shipments for sale		Total shipments
		Domestic shipments <sup>1</sup>	Exports	
metric tonnes				
April				
Total, pipe and tubing	179,024	105,026	93,265	198,293
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,046	1,226	0	1,226
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	12,800	x	x	16,036
over 16" (40.64 cm) outside diameter	24,497	579	13,640	14,219
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	6,719	7,004	5,023	12,026
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	60	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,927	1,420	x	x
over 16" (40.64 cm) outside diameter	x	963	33	996
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	10,467	13,960	7,407	21,367
Mechanical tubing, welded, produced from cold rolled	x	4,500	1,745	6,246
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	45,980	22,689	19,521	42,210
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	7,107	5,025	x	x
Other tubular products	x	1,339	698	2,036

1. Including for own use by the steel pipe and tubing industries.

**Table 2-2**  
**Steel pipe and tubing — Production and shipments, year-to-date 2012**

	Production	Shipments for sale		
		Domestic shipments <sup>1</sup>	Exports	Total shipments
		metric tonnes		
<b>Total, pipe and tubing</b>	<b>796,253</b>	<b>545,598</b>	<b>355,985</b>	<b>901,583</b>
<b>Pipe welded and seamless</b>				
<b>Line pipe</b>				
up to and including 4 1/2" (11.43 cm) outside diameter	9,842	9,257	0	9,257
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	64,232
over 16" (40.64 cm) outside diameter	80,478	3,743	48,189	51,933
<b>Hollow structural sections</b>				
up to and including 16" (40.64 cm) periphery	x	x	x	54,440
over 16" (40.64 cm) periphery	x	x	x	x
<b>Standard pipe</b>				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
<b>Other pipe</b>				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	8,472	x	x	x
over 16" (40.64 cm) outside diameter	x	x	60	x
<b>Mechanical tubing</b>				
Mechanical tubing, welded, produced from hot rolled	44,653	58,119	27,735	85,855
Mechanical tubing, welded, produced from cold rolled	x	18,531	7,598	26,128
<b>Oil country tubular goods</b>				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	159,308	78,516	237,823
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	30,078	x	x
Other tubular products	x	5,781	2,756	8,536

1. Including for own use by the steel pipe and tubing industries.

**Table 3-1**  
**Steel and specified wire products — Factory shipments, monthly**

	Shipments				Production
	2011	2012			
		Total	Domestic	Exports	
		shipments	shipments		
metric tonnes					
April					
Barbed wire	x	x	x	0	.
Uncoated steel wire	18,423	18,352	8,755	9,597	.
Galvanized steel wire	6,604	7,215	2,514	4,701	.
Other coated steel wire	63	x	x	x	.
Farm fencing and wire chain link fabric	776	821	x	x	832
Wire mesh, bright or uncoated and galvanized	4,702	x	5,341	x	5,559
Wire rope	x	x	x	x	x
Nails and staples	2,290	x	821	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	2,290	2,584	x	x	2,708
Staples of iron or steel	0	x	x	0	x
All other wire products	x	x	x	1	x
Grand total	36,629	40,388	22,217	18,171	.

**Note(s):** Data has been revised from March 2010 to November 2011. These revised data are available at: [www.statcan.gc.ca/cansim](http://www.statcan.gc.ca/cansim), table 303-0047. Totals may not add due to rounding.

**Table 3-2**  
**Steel and specified wire products — Factory shipments, year-to-date**

	Shipments				Production
	2011	2012			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
Barbed wire	x	x	x	0	.
Uncoated steel wire	79,528	75,756	34,606	41,150	.
Galvanized steel wire	31,063	30,859	14,075	16,784	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	3,611	3,192	x	x	3,196
Wire mesh, bright or uncoated and galvanized	17,429	x	14,218	x	15,114
Wire rope	x	x	x	x	x
Nails and staples	9,567	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	9,567	11,381	x	x	10,592
Staples of iron or steel	0	x	x	0	x
All other wire products	x	x	x	4	x
Grand total	162,998	162,283	89,265	73,018	.

**Note(s):** Data has been revised from March 2010 to November 2011. These revised data are available at: [www.statcan.gc.ca/cansim](http://www.statcan.gc.ca/cansim), table 303-0047. Totals may not add due to rounding.



## Concepts, methodology and data quality

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This publication presents the results of four monthly surveys: Steel Primary Forms, Steel Castings and Pig Iron; Ingots and Rolled Steel Products; Steel Pipe and Tubing; and Steel Wire and Specified Wire Products. These surveys measure, on a monthly basis, the quantities of selected steel products that are produced and shipped by Canadian manufacturers. The target population for these surveys includes manufacturers in Canada of primary steel, steel products, pig iron, steel pipe and tubing as well as, steel wire as defined in the Standard Classification of Goods (SCG) that report these products to the Annual Survey of Manufactures and Logging (ASML) (Survey ID 2103). This means that estimates from the monthly surveys do not cover the entire universe of steel producers in Canada because the ASML does not survey all businesses. Instead, the ASML uses administrative data to cover the small and medium-sized establishments. These manufacturers are not part of the four monthly surveys.

### General methodology

Data are collected each month, directly from survey respondents using a mail-out / mail-back process. Data capture and preliminary editing are performed simultaneously to ensure validity of the data. Businesses from whom no response has been received or whose data may contain errors are followed-up by telephone or fax.

Missing data for the current month are imputed automatically by applying to the previous month's value, the month-to-month change observed for the same period in the previous year, for the unit in question. However, an option exists for analysts to manually override this imputation with a better estimate based on pertinent knowledge about the industry or the business.

Various confidentiality rules are applied to all data before they are released to prevent the publication or disclosure of any information deemed confidential. If necessary, data are suppressed to prevent the direct or residual disclosure of identifiable data.

Direct disclosure could occur when the value in a tabulation cell is composed of a few respondents or when the cell is dominated by a few companies. Residual disclosure could occur when confidential information can be derived indirectly by piecing together information from different sources or data series.

Under normal circumstances, data are collected, captured, edited, tabulated and published within 6-8 weeks after the reference month.

### Revisions

Data may be revised to include amended information or reports from respondents that are received after the end of a collection cycle. Revisions are disseminated in subsequent periods and reflected in the CANSIM series and in the tables of this publication.

### Data accuracy

The methodology of these surveys has been designed to promote data accuracy. Since data are collected from all Canadian producers of primary steel, steel products, pig iron, steel pipe and tubing and steel wire within the target population, the resulting estimates are not subject to sampling error. However, the results are still subject to the non-sampling errors associated with coverage, non-response, inaccurate reporting, and processing. Errors relating to coverage and non-response can be measured and are summarized in text table 1. All attempts are made to control inaccurate reporting and processing errors.

Moreover, survey results are analyzed to ensure comparability with patterns observed in historical data series and the economic condition of the industry. Information available from other sources such as the Steel Primary Forms Weekly Survey (Survey ID 2131) and the Monthly Survey of Manufacturing (MSM) (Survey ID 2101) are also used in the validation process.

## Coverage error

There is a degree of under coverage (referred to as coverage error) in the survey results as there is generally a lag between the time a new business comes into existence and when it is included in the universe of these sub-annual surveys. This occurs because the list of businesses surveyed is derived from the latest available survey results for the ASML which are not available until 15 months after the reference period.

This error is kept at a minimum by also using advance information from the ASML frame, feedback from the MSM and other sources such as the Canadian Steel Producer's Association, trade journals and newspaper articles, to identify new survey units.

## Non-response error

Some respondents may be unable to provide data for numerous reasons (i.e. fire, theft, strike, economic hardship, etc.), while others may be late in responding. To minimize non-response, delinquent respondents are followed up rigorously by phone or fax. Data for non-responding units are imputed using industry trend and other related information. Data are revised at a later date, if completed questionnaires are received after the end of a collection cycle.

## Inaccurate response

Inaccuracy may result from poor questionnaire design or an inability on the part of respondents to provide the requested information or from misinterpretation of the survey questions. To reduce such errors the format and wording in the questionnaire are reviewed from time to time and modified based on feedback from survey respondents and data users. Respondents are also reminded of the importance of their contribution and of the need for accurate data reporting.

## Processing errors

These errors may occur at various stages in the processing of survey data such as data entry, verification, editing and tabulation. Data are examined for such errors using automated edits along with an analytical review by subject matter experts. Several checks are performed on the collected data to verify internal consistency and comparability over time.

**Text table 1**

### Coverage and non-response errors

	Coverage error based on the Annual Survey of Manufactures and Logging (ASML) 2004	Non-response error- annual average 2005
	percent	
Steel primary forms steel castings and pig iron	0	6
Ingots and rolled steel products	3	0
Steel pipe and tubing	0	0
Steel wire	0	0

## Definitions

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### **Shipments:**

Shipments refer to the quantity of manufactured goods that are shipped, during the reference period from the plant to customers in domestic or export markets.

### **Production:**

Production refers to the quantity of goods manufactured in Canada during a reference period including intermediate products. The final goods may be shipped or retained in inventory.

### **Exports:**

Shipments of goods destined for customers outside of Canada.

### **Disposition of shipments:**

Disposition of shipments refers to the distribution of shipped quantities of manufactured goods by end use (market).

### **Coverage ratio:**

The share of total Annual Survey of Manufactures (ASM) shipment values for products included in a given sub-annual survey from businesses surveyed by the same sub-annual survey.

### **Non-response rate:**

Number of non-responses in the year, divided by the number of total expected responses in the year.

Number of non-responses in the year, divided by the number of total expected responses in the year. More detailed information is available from the Annual Survey of Manufactures and Logging, CANSIM Table 301-0006. Specific enquiries should be directed to: The Dissemination and Frame Services section, Manufacturing and Energy Division, Statistics Canada, Ottawa, Ontario, K1A 0T6 (Telephone: 1-866-873-8789 or 613-951-9497; Fax line: 613-951-3877; Internet: [manufact@statcan.gc.ca](mailto:manufact@statcan.gc.ca) ).