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# Steel, Tubular Products and Steel Wire

December 2012



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Statistics Canada  
Manufacturing and Energy Division

# Steel, Tubular Products and Steel Wire

December 2012

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- . 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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## December 2012

- Monthly production of primary steel and pig iron decreased 5.2% in December 2012 to 1,021,547 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products decreased 4.1% to 974,078 metric tonnes.
- Between November 2012 and December 2012, production of steel pipe and tubing decreased 12.3% to 184,252 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 27.9% to 23,392 metric tonnes in December 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							
December								
Domestic shipments								
Steel service centres and other wholesalers and warehouses	0	2,214	4,473	3,166	2,562	4,856	0	.
Motor vehicles and parts	0	0	82	7	.	5,479	0	.
Railway operating	0	.	.	.	0	85	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	276	417	x	34,211	389	0	.
Metal building systems	.	0	0	0	0	0	.	.
Contractors' products	.	0	0	.	1,369	223	0	.
Miscellaneous stamping and coating	0	3	34	138	.	10	.	.
Natural resources and extractive industries	.	0	0	0	1,584	7,543	0	.
Agricultural equipment	.	0	0	0	0	338	.	0
Non electrical machinery	.	0	2,640	0	.	5,918	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	1,791	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	0	2,493	7,646	x	39,726	26,632	x	0
Total domestic alloy shipments	0	.	.	.	.	4,305	0	.
Exports to the United States	x	768	3,336	3,438	0	17,295	x	.
Exports to other countries (excluding United States)	x	0	98	0	0	20,102	x	0
Total disposition	x	3,261	11,080	x	39,726	64,029	x	0
Total alloy shipments	0	.	.	.	.	6,444	0	.
Producers interchange, for sale	x	.	0	.	.	28	19	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	0	.	.	.	.	.	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>December</b>							
<b>Domestic shipments</b>							
Steel service centres and other wholesalers and warehouses	651	11,599	213,723	17,757	1,000	37,087	299,088
Motor vehicles and parts	489	75	28,527	4,870	0	38,642	78,171
Railway operating	.	0	0	.	.	0	85
Railroad cars and locomotives	.	430	0	.	.	.	430
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	3,446	1,815	19	.	2,722	x
Metal building systems	.	.	0	.	.	1,484	1,484
Contractors' products	0	2,595	4,843	1,594	.	23,256	33,880
Miscellaneous stamping and coating	23	0	1,923	4,672	.	12,264	19,067
Natural resources and extractive industries	35	0	0	0	.	0	9,162
Agricultural equipment	15	540	0	0	.	0	893
Non electrical machinery	0	117	244	0	.	0	8,919
Electrical machinery	.	.	36	1,450	.	1,579	3,065
Industrial packaging material	.	.	0	2,464	0	0	2,464
Pipes and tubes	0	0	155,313	409	.	1,161	156,883
Wire and wire products	x	.	73	149	.	47	x
Containers and closures	0	.	342	0	345	.	687
Appliances and utensils industries	.	.	0	0	.	953	953
Miscellaneous industries	110	0	0	.	.	.	110
<b>Total domestic shipments</b>	<b>x</b>	<b>18,802</b>	<b>406,839</b>	<b>33,384</b>	<b>1,345</b>	<b>119,195</b>	<b>673,725</b>
<b>Total domestic alloy shipments</b>	<b>62</b>	<b>0</b>	<b>.</b>	<b>0</b>	<b>.</b>	<b>.</b>	<b>4,367</b>
Exports to the United States	1,056	7,295	x	14,643	11,709	52,299	217,616
Exports to other countries (excluding United States)	0	865	x	1,343	225	11,467	82,737
<b>Total disposition</b>	<b>x</b>	<b>26,962</b>	<b>487,382</b>	<b>49,370</b>	<b>13,279</b>	<b>182,961</b>	<b>974,078</b>
<b>Total alloy shipments</b>	<b>448</b>	<b>0</b>	<b>.</b>	<b>0</b>	<b>.</b>	<b>.</b>	<b>6,892</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	2,037	5,331	.	0	7,368

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	24,543	72,347	58,465	30,942	x	0	.
Motor vehicles and parts	x	27	x	244	.	64,901	0	.
Railway operating	0	.	.	.	0	334	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	2,335	x	x	501,039	x	0	.
Metal building systems	.	0	0	0	261	326	.	.
Contractors' products	.	0	0	.	7,976	2,933	2,276	.
Miscellaneous stamping and coating	0	64	2,192	2,898	.	6,551	.	.
Natural resources and extractive industries	.	408	57	0	15,286	110,043	0	.
Agricultural equipment	.	0	24	40	0	4,152	.	0
Non electrical machinery	.	0	x	47	.	85,380	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	x	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
<b>Total domestic shipments</b>	<b>x</b>	<b>27,377</b>	<b>x</b>	<b>x</b>	<b>555,504</b>	<b>382,619</b>	<b>x</b>	<b>0</b>
<b>Total domestic alloy shipments</b>	<b>0</b>	.	.	.	.	<b>60,616</b>	<b>x</b>	.
Exports to the United States	x	10,257	x	59,582	0	269,360	x	.
Exports to other countries (excluding United States)	x	0	958	39	0	258,264	x	0
<b>Total disposition</b>	<b>x</b>	<b>37,634</b>	<b>x</b>	<b>x</b>	<b>555,504</b>	<b>910,243</b>	<b>x</b>	<b>0</b>
<b>Total alloy shipments</b>	<b>0</b>	.	.	.	.	<b>106,673</b>	<b>x</b>	.
Producers interchange, for sale	x	.	0	.	.	5,567	642	.
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	183,910	2,304,767	195,207	13,919	405,686	3,398,981
Motor vehicles and parts	x	147	394,043	94,584	0	588,076	1,154,853
Railway operating	.	0	0	.	.	0	334
Railroad cars and locomotives	.	7,814	0	.	.	.	7,814
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	68,821	x	577	.	26,196	x
Metal building systems	.	.	0	.	.	20,863	21,450
Contractors' products	502	12,804	78,378	23,422	.	267,089	395,380
Miscellaneous stamping and coating	209	0	52,897	41,060	.	180,367	286,238
Natural resources and extractive industries	970	0	2	22	.	4,090	130,878
Agricultural equipment	400	4,209	0	0	.	0	8,825
Non electrical machinery	x	2,240	10,603	0	.	0	115,393
Electrical machinery	.	.	705	14,571	.	18,966	34,242
Industrial packaging material	.	.	650	50,229	0	0	50,879
Pipes and tubes	0	0	1,173,596	8,011	.	18,103	1,199,710
Wire and wire products	x	.	x	1,178	.	854	x
Containers and closures	0	.	866	2,700	10,050	.	13,616
Appliances and utensils industries	.	.	0	5,709	.	9,821	15,530
Miscellaneous industries	2,359	0	0	.	.	.	2,359
<b>Total domestic shipments</b>	<b>x</b>	<b>279,945</b>	<b>4,071,292</b>	<b>437,270</b>	<b>23,969</b>	<b>1,540,111</b>	<b>7,746,710</b>
<b>Total domestic alloy shipments</b>	<b>1,745</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	135,703	x	202,186	207,322	623,873	3,256,787
Exports to other countries (excluding United States)	61	35,608	x	18,989	7,667	154,210	921,877
<b>Total disposition</b>	<b>x</b>	<b>451,256</b>	<b>5,234,265</b>	<b>658,445</b>	<b>238,958</b>	<b>2,318,194</b>	<b>11,925,374</b>
<b>Total alloy shipments</b>	<b>7,543</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	.	1,284	1,284
Imports by producers (including conversion)	.	0	27,929	16,800	.	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

	December		Year-to-date	
	2011	2012	2011	2012
metric tonnes				
Production of pig iron	636,935	629,413	7,322,624	7,654,180

Table 1-4

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

	December		Year-to-date	
	2011	2012	2011	2012
	metric tonnes			
Pig iron including pre-reduced iron	631,118	653,267	7,584,342	7,972,975
<b>Scrap</b>				
Own make	126,666	119,347	1,427,453	1,496,322
Purchased	411,544	264,912	5,482,745	4,930,668
<b>Total, pig iron and scrap products</b>	<b>1,169,328</b>	<b>1,037,526</b>	<b>14,494,540</b>	<b>14,399,965</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>December</b>				
<b>Steel, primary forms (carbon and alloy including continuous cast steel)</b>				
Electric furnace	380,130	364,586	x	x
Basic oxygen furnace	664,117	656,961	x	x
<b>Steel, primary forms - Total</b>	<b>1,044,247</b>	<b>1,021,547</b>	<b>119,326</b>	<b>165,238</b>
<b>Included in "Steel primary forms total" above</b>				
Continuous cast steel	1,016,162	996,618	94,814	141,411

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	5,412,358	5,697,000	x	x
Basic oxygen furnace	7,478,396	7,810,124	x	x
<b>Steel, primary forms - Total</b>	<b>12,890,754</b>	<b>13,507,124</b>	<b>1,871,890</b>	<b>2,071,568</b>
<b>Included in "Steel primary forms total" above</b>				
Continuous cast steel	12,698,031	13,131,426	1,726,100	1,739,749

**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			
December				
Total, pipe and tubing	184,252	140,584	90,437	231,020
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	2,882	2,444	29	2,473
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	11,996	x	x	15,864
over 16" (40.64 cm) outside diameter	36,621	1,173	45,176	46,349
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	11,749
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	347	32	379
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,469	x	x	x
over 16" (40.64 cm) outside diameter	x	2,213	82	2,296
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	15,331	11,709	4,894	16,603
Mechanical tubing, welded, produced from cold rolled	4,795	x	x	4,440
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	35,798	7,238	43,036
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	x	x	x
Other tubular products	x	1,116	585	1,701

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>2,350,964</b>	<b>1,620,381</b>	<b>1,099,379</b>	<b>2,719,760</b>
<b>Pipe welded and seamless</b>				
<b>Line pipe</b>				
up to and including 4 1/2" (11.43 cm) outside diameter	x	25,410	195	25,605
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	234,621
over 16" (40.64 cm) outside diameter	290,616	24,650	239,455	264,107
<b>Hollow structural sections</b>				
up to and including 16" (40.64 cm) periphery	x	x	x	149,383
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	x	x	x	x
over 16" (40.64 cm) outside diameter	x	x	254	x
<b>Mechanical tubing</b>				
Mechanical tubing, welded, produced from hot rolled	136,532	184,339	78,605	262,942
Mechanical tubing, welded, produced from cold rolled	x	x	x	77,467
<b>Oil country tubular goods</b>				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	430,525	228,091	658,617
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	x	x	x
Other tubular products	x	16,882	8,778	25,657

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					
December					
Barbed wire	x	x	x	0	.
Uncoated steel wire	13,835	11,060	5,382	5,678	.
Galvanized steel wire	6,408	5,615	2,186	3,429	.
Other coated steel wire	x	x	x	0	.
Farm fencing and wire chain link fabric	438	387	x	x	245
Wire mesh, bright or uncoated and galvanized	x	x	1,333	x	1,633
Wire rope	x	x	x	x	x
Nails and staples	1,664	1,041	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	1,663	1,041	x	x	1,068
Staples of iron or steel	1	0	0	0	x
All other wire products	x	945	945	0	1,091
Grand total	28,202	23,392	12,109	11,283	.

**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	x	.
Uncoated steel wire	222,821	205,360	94,425	110,935	.
Galvanized steel wire	87,580	86,929	38,630	48,299	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	8,561	x	x	8,757
Wire mesh, bright or uncoated and galvanized	x	x	35,688	x	38,798
Wire rope	x	x	x	x	x
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	x	27,715	x	x	28,558
Staples of iron or steel	9	x	x	0	x
All other wire products	x	x	x	40	x
Grand total	448,518	435,519	235,857	199,662	.

**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)).