## Steel, Tubular Products and Steel Wire

July 2010



Statistics Canada Statistique Canada



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## **Symbols**

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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
- 0s 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

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## **Highlights**

## **July 2010**

- Monthly production of primary steel and pig iron increased 20.0% in July 2010 to 1,238,564 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products decreased 2.8% to 986,354 metric tonnes.
- Between June 2010 and July 2010, production of steel pipe and tubing decreased 0.5% to 206,887 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 5.6% to 51,047 metric tonnes in July 2010.

## **Related products**

## **Selected CANSIM tables from Statistics Canada**

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

## **Selected surveys from Statistics Canada**

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

## **Statistical tables**

Table 1-1 Steel primary forms and pig iron — Disposition of net shipments <sup>1</sup> of rolled steel products, by product, monthly 2010

SDC No.	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 to	nnes			
July								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses 21 Motor vehicles and parts 22 Railway operating 23 Railroad cars and locomotives 24 Shipbuilding 31 Steel fabrication 32 Metal building systems 33 Contractors products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries 51 Agricultural equipment 52 Non electrical machinery 53 Electrical machinery 54 Industrial packaging material 61 Pipes and tubes 62 Wire and wire products 63 Containers and closures 64 Appliances and utensils industries 70 Miscellaneous industries	1 113 0 0 0 0 0	1,034 0  358 0 0 0 87 0 0	5,380 85  850 0 0 17 0 0 998	4,454 5	1,386 0 37,061 79 1,882 1,075 0 	x 4,405 35	0 0 0	
Total domestic shipments	114	1,515	7,330	6,919	41,483	24,027	х	0
Total domestic alloy shipments	0					4,003	x	
81 Exports to the United States 82 Exports to other countries (excluding United States)	X X	755 0	3,201 21	3,993 0	0	19,364 16,172	x x	. 0
Total disposition	211,565	2,270	10,552	10,912	41,483	59,563	x	0
Total alloy shipments	0					7,118	0	
Producers interchange, for sale	x		0			478	76	
Exports for conversion and return						0		
Imports by producers (including conversion)	х						0	

See notes at the end of the table.

Table 1-1 – continued

Steel primary forms and pig iron — Disposition of net shipments <sup>1</sup> of rolled steel products, by product, monthly 2010

SDC No.	Cold finished bars	Plates <sup>2</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
			n	netric tonnes			
July							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses 21 Motor vehicles and parts 22 Railway operating 23 Railroad cars and locomotives 24 Shipbuilding 31 Steel fabrication 32 Metal building systems 33 Contractors products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries 51 Agricultural equipment 52 Non electrical machinery 53 Electrical machinery 54 Industrial packaging material 61 Pipes and tubes 62 Wire and wire products 63 Containers and closures 64 Appliances and utensils industries 70 Miscellaneous industries	x 918  .x .0 23 47 53 0  0 x	13,326 0 0 55 2,538 0 0 28 17 0  0	135,864 24,165 0 0 3,307 0 1,902 4,234 36 0 930 0 0 101,994 99 87 0	12,491 5,496  0  x x x 0 0 0 958 3,180 708 104 796 2,450	1,324 0	18,092 26,343 0 2,186 2,367 20,926 16,459 0 0 1,735 0 1,267 210	199,542 61,530 35 91 0 48,975 2,446 26,379 x 9,155 484 7,465 2,693 3,180 103,969 x 1,090 4,526 0
Total domestic shipments	x	15,964	272,618	30,958	1,531	91,661	515,584
Total domestic alloy shipments	285	0	•	0			x
81 Exports to the United States 82 Exports to other countries (excluding United States)	982 0	15,824 5,263	x x	11,869 1,145	16,890 2,576	31,772 8,541	399,972 70,798
Total disposition	x	37,051	355,020	43,972	20,997	131,974	986,354
Total alloy shipments	285	0		0			7,403
Producers interchange, for sale	0		0	0		0	Х
Exports for conversion and return	•	-	0	0		0	0
Imports by producers (including conversion)		2,536	5,590	2,419		0	х

<sup>1.</sup> Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

<sup>2.</sup> 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.

Table 1-2 Steel primary forms and pig iron — Disposition of net shipments <sup>1</sup> of rolled steel products, by product, year-to-date 2010

SDC No.	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 to	nnes			
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses 21 Motor vehicles and parts 22 Railway operating 23 Railroad cars and locomotives 24 Shipbuilding	8 889 0	10,637 0 738	40,495 831	33,344 86	28,023 0	29,505 162	0 0 0	
31 Steel fabrication 32 Metal building systems 33 Contractors products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries	0 0	3,679 0 0 0 892	7,296 0 0 1,257 61	14,011 14 494 0	260,266 522 4,537	x 69 x 3,380 81,963	0 x	
51 Agricultural equipment 52 Non electrical machinery 53 Electrical machinery 54 Industrial packaging material		0 0	10,330	31 0	0,330	920 47,103 0 0	0	0
61 Pipes and tubes 62 Wire and wire products 63 Containers and closures 64 Appliances and utensils industries 70 Miscellaneous industries	0		· · ·	· · ·	0	3,098	X	
Total domestic shipments	897	15,946	60,270	47,980	299,884	215,674	x	0
Total domestic alloy shipments	0					30,262	x	
81 Exports to the United States 82 Exports to other countries (excluding United States)	X X	4,549 0	20,983 186	27,649 40	0	136,707 116,613	x x	0
Total disposition	x	20,495	81,439	75,669	299,884	468,994	x	0
Total alloy shipments	0					49,119	0	
Producers interchange, for sale	x		0			5,547	636	
Exports for conversion and return						0		
Imports by producers (including conversion)	х						0	

See notes at the end of the table.

Table 1-2 – continued

Steel primary forms and pig iron — Disposition of net shipments <sup>1</sup> of rolled steel products, by product, year-to-date 2010

SDC No.	Cold finished bars	Plates <sup>2</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			
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses 21 Motor vehicles and parts 22 Railway operating 23 Railroad cars and locomotives 24 Shipbuilding 31 Steel fabrication	x 7,494	125,571 0 0 756	1,172,417 181,701 0 0 25,006	121,761 43,838	9,939 0	188,928 226,690 0	1,789,192 491,034 162 1,494 0 353,463
32 Metal building systems 33 Contractors'products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries 51 Agricultural equipment 52 Non electrical machinery 53 Electrical machinery 54 Industrial packaging material 61 Pipes and tubes 62 Wire and wire products 63 Containers and closures 64 Appliances and utensils industries 70 Miscellaneous industries	0 288 288 373 0 5 x 0	25,150 62 0 279 2,157 57 	23,000 24,281 23,703 104 0 4,084 324 560 781,406 1,034 213 21	x x 0 0 0 10,882 29,498 6,560 718 5,361 20,362	13,648	14,943 156,693 120,333 9 0 11,874 0 11,318 664  15,979	30,548 207,793 x 90,132 3,481 61,574 23,080 30,058 799,289 x 19,222 36,362 1,092
Total domestic shipments	x	154,078	2,214,854	283,699	23,587	762,203	4,238,081
Total domestic alloy shipments	2,079	0		0			x
Exports <sup>2</sup> (for final sale)							
81 Exports to the United States 82 Exports to other countries (excluding United States)	8,650 0	77,192 19,178	X X		109,643 8,120	251,512 x	2,513,674 419,976
Total disposition	x	250,448	2,868,443	401,751	141,350	x	7,171,731
Total alloy shipments	2,228	0		0			51,347
Producers interchange, for sale	0	•	0	0	•	0	х
Exports for conversion and return <sup>2</sup>			0	0		0	0
Imports by producers (including conversion)		3,993	х	18,336		0	х

<sup>1.</sup> 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

	July		Year-to-date			
	2009	2010	2009	2010		
		metric tonnes				
Production of pig iron	х	727,936	x	4,430,167		

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.

Table 1-4 Steel primary forms and pig iron — Pig iron and scrap charged to steel furnaces

	July		Year-to-date		
	2009	2010	2009	2010	
	metric tonnes				
Pig iron including pre-reduced iron	х	728,316	x	4,352,781	
Scrap Own make Purchased	85,015 x	130,597 529,395	724,533 x	819,324 3,327,703	
Total, pig iron and scrap products	656,269	1,388,308	5,411,510	8,499,808	

Table 1-5 Steel primary forms and pig iron — Production and shipments of steel, primary forms, monthly

	Production		Shipments	
	2009	2010	2009	2010
		metric tonnes		
July				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	x	471,916	X	X
Basic oxygen furnace	X	766,648	x	Х
Steel, primary forms - Total	588,688	1,238,564	17,965	292,146
Included in "Steel primary forms total" above Continuous cast steel	519,631	1,223,380	x	279,396

Table 1-6 Steel primary forms and pig iron — Production and shipments of steel, primary forms, year-to-date

	Production		Shipments		
	2009	2010	2009	2010	
	metric tonnes				
Steel, primary forms (carbon and alloy including continuous cast steel)		0.405.040			
Electric furnace Basic oxygen furnace	X X	3,195,610 4,398,735	X X	X X	
Steel, primary forms - Total	4,745,999	7,594,345	x	2,042,580	
Included in "Steel primary forms total" above Continuous cast steel	4,538,926	7,528,168	x	1,981,343	

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2010

	Production Ship		ments for sale	,
		Domestic shipments <sup>1</sup>	Exports	Total shipments
_	metric tonnes			
July				
Total, pipe and tubing	206,887	134,786	67,136	201,922
Pipe welded and seamless				
Line pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter over 16" (40.64 cm) outside diameter	1,391 x 24,780	24 x x	0 x 5	24 7,023 x
Hollow structural sections up to and including 16" (40.64 cm) periphery over 16" (40.64 cm) periphery	12,988 x	18,641 x	6,215 x	24,856 x
Standard pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,574 448	1,257 583	906 105	2,163 688
Other pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter over 16" (40.64 cm) outside diameter	1,488 1,742 582	519 1,871 437	19 18 35	538 1,889 472
Mechanical tubing Mechanical tubing, welded, produced from hot rolled Mechanical tubing, welded, produced from cold rolled	9,315 8,287	8,396 4,075	4,362 1,293	12,758 5,368
Oil country tubular goods Oil country tubular goods, welded and seamless, casing (including coupling) Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	71,020 20,361	38,128 10,146	20,651 10,289	58,779 20,435
Other tubular products	811	x	x	1,647

<sup>1.</sup> Including for own use by the steel pipe and tubing industries.

Table 2-2 Steel pipe and tubing — Production and shipments, year-to-date 2010

	Production	Ship	ments for sale	
		Domestic shipments <sup>1</sup>	Exports	Total shipments
	metric tonnes			
Year-to-date				
Total, pipe and tubing	1,264,483	753,525	576,579	1,330,103
Pipe welded and seamless				
Line pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter over 16" (40.64 cm) outside diameter	x x 169,945	9,235 x x	4 x x	9,239 62,982 x
Hollow structural sections up to and including 16" (40.64 cm) periphery over 16" (40.64 cm) periphery	94,843 x	108,860 x	X X	x x
Standard pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	13,505 9,532	10,174 5,634	6,792 1,228	16,966 6,862
Other pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter over 16" (40.64 cm) outside diameter	x 10,008 x	4,092 x 3,669	852 370 421	4,944 12,106 4,090
Mechanical tubing Mechanical tubing, welded, produced from hot rolled Mechanical tubing, welded, produced from cold rolled	x 70,233	65,981 34,211	x 10,481	x 44,692
Oil country tubular goods Oil country tubular goods, welded and seamless, casing (including coupling) Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	353,674 109,238	213,766 44,647	141,607 55,366	355,373 100,012
Other tubular products	x	x	x	15,187

<sup>1.</sup> Including for own use by the steel pipe and tubing industries.

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

	Shipments			Production	
_	2009	2009 2010			
		Total shipments	Domestic shipments	Exports	
<u> </u>			metric tonnes		
July					
Barbed wire	х	314	x	х	
Uncoated steel wire	12,561	16,645	8,207	8,438	
Galvanized steel wire	5,848	13,656	7,491	6,165	
Other coated steel wire	Х	Х	Х	Х	
Farm fencing and wire chain link fabric	2,692	X	Х	X	3,383
Wire mesh, bright or uncoated and galvanized	4,105	2,638	Х	X	2,994
Wire rope	1,951	X	X	Х	Х
Nails and staples	Х	X	X	Х	Х
Wire roofing nails of a length of 25 mm or more, iron or steel	1,012	2,442	1,128	1,314	1,675
Staples of iron or steel	Х	X	Х	Х	Х
All other wire products	X	X	Х	5	x
Grand total	33,478	51,047	29,508	21,539	

<sup>1.</sup> Totals may not add due to rounding.

Table 3-2
Steel and specified wire products — Factory shipments 1, year-to-date

	Shipments				Production
_	2009 2010				
		Total shipments	Domestic shipments	Exports	
<u> </u>			metric tonnes		
Barbed wire Uncoated steel wire Galvanized steel wire	x 90,314 61,496	x 130,459 62,601	x 66,904 28,973	x 63,555 33,628	
Other coated steel wire Farm fencing and wire chain link fabric	X X	X X	X X	X X	9,433
Wire mesh, bright or uncoated and galvanized Wire rope Nails and staples	23,924 x x	22,439 x x	X X X	X X X	23,752 x x
Wire roofing nails of a length of 25 mm or more, iron or steel Staples of iron or steel All other wire products	6,483 x x	20,750 x x	X X X	x x 25	x x x
Grand total	258,232	292,748	166,664	126,084	

<sup>1.</sup> Totals may not add due to rounding.

## Concepts, methodology and data quality

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 or 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 or 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 ASML 2004	Non-response error- annual average 2005
	percent	
Steel primary forms steel castings and pig iron Ingots and rolled steel products Steel pipe and tubing Steel wire	0 3 0 0	6 0 0 0

## **Definitions**

## **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 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 OT6 (Telephone: 1-866-873-8789 or 613-951-9497; Fax line: 613-951-3877; Internet: manufact@statcan.gc.ca).