# Steel, Tubular Products and Steel Wire

November 2011



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# November 2011

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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
- \* significantly different from reference category (p < 0.05)

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# **Highlights**

# November 2011

- Monthly production of primary steel and pig iron decreased 14.2% in November 2011 to 937,233 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products decreased 7.3% to 909,475 metric tonnes.
- Between October 2011 and November 2011, production of steel pipe and tubing decreased 2.5% to 210,650 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 4.6% to 51,566 metric tonnes in November 2011.

# **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 2011

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			
November								
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	4 72 0 0 0	2,522 0	6,419 191  898 0 0 2 15 	6,385 9  3,562 0  163 0 0 0	4,290 0 55,788 0 983 1,165 0	x 3,604 82	0 0 0	
Total domestic shipments	76	2,851	7,611	10,119	62,226	37,266	x	0
Total domestic alloy shipments	0		-			5,744	x	
81 Exports to the United States 82 Exports to other countries (excluding United States)	X X	911 0	2,890 176	3,583 0	0	18,832 14,352	x x	0
Total disposition	26,844	3,762	10,677	13,702	62,226	70,450	x	0
Total alloy shipments	0					8,737	x	
Producers interchange, for sale	x		0			449	72	
Exports for conversion and return						0		
Imports by producers (including conversion)	0	ė	•		·	•	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 2011

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			
November							
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 747  x  0 13 50 49 0   0 x	22,252 0 907 4,813 136 0 0 525 231	149,932 27,962 0 0 5,001 0 0 1,361 3,724 0 0 346 61 0 93,877 246 130 0	12,475 7,744  0 1,592 3,249 0 0 0 545 4,795 621 63 635 1,830	1,167 0    0  1,273	22,798 44,969 0 2,738 2,096 20,319 19,581 2 0 1,474 0 1,101 112 . 859	242,418 85,298 82 907 0 x 2,096 25,385 26,816 12,077 846 9,292 2,080 4,795 95,599 x 2,038 2,689 222
Total domestic shipments	x	28,864	282,640	33,549	2,440	116,049	604,211
Total domestic alloy shipments	225	0	-	0			x
81 Exports to the United States 82 Exports to other countries (excluding United States)	1,429 0	14,351 6,776	x x	14,026 1,550	12,372 757	36,899 12,953	254,019 51,245
Total disposition	x	49,991	389,915	49,125	15,569	165,901	909,475
Total alloy shipments	827	0		0			x
Producers interchange, for sale	0		0	0		0	х
Exports for conversion and return			0	0		0	0
Imports by producers (including conversion)	٠	0	3,357	826	÷	0	4,183

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

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 2011

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 31 Steel fabrication	31 1,904 0 0	17,588 7 0 711	64,751 1,989	61,409 168	34,314 0 414.972	x 60,056 524	0 0 0	
32 Metal building systems 33 Contractors'products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries 51 Agricultural equipment	0	0 0 16 1,749	11,327 0 0 2,956 79 2	3,055 14	14,972 827 10,555 14,085	81 4,172 6,061 117,068 2,678	1,542 0	59
52 Non electrical machinery 53 Electrical machinery 54 Industrial packaging material 61 Pipes and tubes		0	17,041	58		87,928 222 0 0	0	
62 Wire and wire products 63 Containers and closures 64 Appliances and utensils industries 70 Miscellaneous industries	385 0	0	· · ·	· · ·	0 0	5,744 0	X	· · ·
Total domestic shipments	2,320	20,071	98,145	90,189	474,753	391,302	x	59
Total domestic alloy shipments	0		-	•	-	61,148	x	•
81 Exports to the United States 82 Exports to other countries (excluding United States)	X X	9,957 0	40,673 1,093	51,343 22	35 0	245,468 226,137	x x	0
Total disposition	920,855	30,028	139,911	141,554	474,788	862,907	x	59
Total alloy shipments	0					105,144	x	
Producers interchange, for sale	х	-	0			5,420	528	
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 1 of rolled steel products, by product, year-to-date 2011

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 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 7,723         	190,180 0 0 7,627 45,600 593 0 17 4,847 775 0 0	2,198,871 325,225 0 0 35,689 0 51,508 57,618 3 0 8,040 1,564 231 1,062,592 1,678 934 0	212,138 76,517  0 21,188 39,391 0 0 0 15,835 49,850 6,116 883 8,359 17,633	17,446 0 	340,095 393,281 0 21,834 24,560 229,043 184,855 27 0 0 17,949 0 13,586 792 12,184	3,256,561 866,870 524 7,627 0 x 25,468 318,601 294,236 133,643 8,181 113,962 35,570 50,081 1,082,294 x 15,514 29,817 1,868
Total domestic shipments	x	249,639	3,743,953	447,910	23,667	1,238,206	7,007,482
Total domestic alloy shipments	2,750	0		0			x
Exports <sup>2</sup> (for final sale)							
81 Exports to the United States 82 Exports to other countries (excluding United States)	13,783 14	143,299 36,382	X X		174,881 7,484	375,516 109,719	3,389,276 715,866
Total disposition	x	429,320	4,924,272	626,862	206,032	1,723,441	11,112,624
Total alloy shipments	8,035	0		0			х
Producers interchange, for sale	0		177	0		0	х
Exports for conversion and return <sup>2</sup>			0	0		73	73
Imports by producers (including conversion)		17,331	23,462	10,223		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

	November		Year-to-date				
	2010	2011	2010	2011			
	metric tonnes						
Production of pig iron	571,804	534,284	6,985,053	6,685,689			

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

	November		Year-to-date	
	2010	2011	2010	2011
		metric tonne	s	
Pig iron including pre-reduced iron	598,324	520,733	6,920,243	6,953,224
Scrap Own make Purchased	106,797 409,495	117,852 415,945	1,311,962 5,126,895	1,300,854 5,071,204
Total, pig iron and scrap products	1,114,616	1,054,529	13,359,100	13,325,281

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

	Production		Shipments	
	2010	2011	2010	2011
		metric tonnes		
November				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	433,865	413,038	X	Х
Basic oxygen furnace	562,627	600,151	x	Х
Steel, primary forms - Total	996,492	937,233	189,117	124,427
Included in "Steel primary forms total" above Continuous cast steel	983,764	844,523	179,829	110,876

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

<u> </u>	Production		Shipments	
	2010	2011	2010	2011
		metric tonnes	3	
Steel, primary forms (carbon and alloy including continuous cast steel) Electric furnace Basic oxygen furnace	4,937,027 6,941,270	5,032,228 6,890,235	x x	x x
Steel, primary forms - Total	11,878,297	11,846,507	2,972,619	1,754,382
Included in "Steel primary forms total" above Continuous cast steel	11,762,126	11,605,913	2,872,670	1,631,286

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2011

	Production Shipments for sale			
		Domestic shipments <sup>1</sup>	Exports	Total shipments
_	metric tonnes			
November				
Total, pipe and tubing	210,650	156,250	66,598	222,849
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	2,663 x x	3,113 x x	0 x x	3,113 18,389 x
Hollow structural sections up to and including 16" (40.64 cm) periphery over 16" (40.64 cm) periphery	x x	x x	X X	11,809 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	3,283 x	1,616 424	939 x	2,555 x
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	526 2,530 x	1,119 x x	25 445 0	1,144 x x
Mechanical tubing Mechanical tubing, welded, produced from hot rolled Mechanical tubing, welded, produced from cold rolled	19,226 5,501	14,609 5,256	7,007 1,442	21,616 6,698
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)	63,905 18,016	39,297 9,882	x x	x x
Other tubular products	x	1,461	551	2,011

<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 2011

	Production	Shipments for sale		
		Domestic shipments <sup>1</sup>	Exports	Total shipments
_	metric tonnes			
Year-to-date				
Total, pipe and tubing	2,126,883	1,468,709	859,675	2,328,383
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 x	x x x	x x x	31,486 177,866 x
Hollow structural sections up to and including 16" (40.64 cm) periphery over 16" (40.64 cm) periphery	x x	x x	x x	118,416 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	25,884 x	x x	x x	x x
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 21,359 x	x x x	x x x	x x x
Mechanical tubing Mechanical tubing, welded, produced from hot rolled Mechanical tubing, welded, produced from cold rolled	190,120 76,447	140,049 50,518	71,001 16,667	211,051 67,185
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)	x x	405,332 104,023	X X	x x
Other tubular products	х	16,826	7,250	24,076

<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	
_	2010	2010 2011			
		Total shipments	Domestic shipments	Exports	
<u> </u>			metric tonnes		
November					
Barbed wire	299	x	x	х	
Uncoated steel wire	18,838	16,645	7,766	8,879	
Galvanized steel wire	14,957	14,969	8,472	6,497	
Other coated steel wire	Х	Х	Х	0	
Farm fencing and wire chain link fabric	Х	Х	Х	X	3,407
Wire mesh, bright or uncoated and galvanized	3,891	Х	2,864	X	3,215
Wire rope	Х	Х	Х	X	х
Nails and staples	Х	Х	Х	X	X
Wire roofing nails of a length of 25 mm or more, iron or steel	1,732	1,817	679	1,138	3,505
Staples of iron or steel	Х	Х	Х	X	х
All other wire products	Х	х	Х	1	Х
Grand total	53,887	51,566	30,062	21,504	

<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	
_	2010 2011				
		Total shipments	Domestic shipments	Exports	
_			metric tonnes		
Barbed wire	x	х	x	x	
Uncoated steel wire	204,932	204,145	89,242	114,903	
Galvanized steel wire	121,200	163,932	88,779	75,153	
Other coated steel wire	Х	X	Х	X	
Farm fencing and wire chain link fabric	X	X	Х	Х	Х
Wire mesh, bright or uncoated and galvanized	38,293	X	X	X	46,849
Wire rope	X	X	x	X	X
Nails and staples	X	X	X	X	Х
Wire roofing nails of a length of 25 mm or more, iron or steel	28,904	X	X	X	Х
Staples of iron or steel	X	Х	Х	X	х
All other wire products	x	х	х	x	x
Grand total	511,651	621,942	352,544	269,398	

<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* ).