# Steel, Tubular Products and Steel Wire

November 2010



Statistics Canada Statistique Canada



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### November 2010

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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**

#### November 2010

- Monthly production of primary steel and pig iron decreased 1.5% in November 2010 to 996,492 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products decreased 3.8% to 991,724 metric tonnes.
- Between October 2010 and November 2010, production of steel pipe and tubing increased 6.5% to 228,835 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 0.8% to 53,862 metric tonnes in November 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			
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	5 109 0	2,521 0 732 227 0 0 0 361 0	7,966 238	5,569 39 2,331 0 147 0 0 0	2,572 0 39,122 0 337 1,272 0  0	x 4,796 100 	0 0 0 0	0
Total domestic shipments	114	3,841	9,394	8,086	43,303	33,644	x	0
Total domestic alloy shipments	0					1,928	0	
81 Exports to the United States 82 Exports to other countries (excluding United States)	X X	679 0	2,829 83	4,451 0	0	23,960 16,112	x x	0
Total disposition	83,238	4,520	12,306	12,537	43,303	73,716	x	0
Total alloy shipments	0					3,426	0	
Producers interchange, for sale	х	-	0			866	113	
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 <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			
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 902	20,235 0 190 2,948 0 0 20 173 55  1,156	181,523 20,272 0 0 3,498 0 2,355 4,298 0 0 680 69 0 108,134 173 0 0	20,000 7,171  0 2,221 3,449 0 0 0 1,826 4,871 609 76 690 2,712	2,142 0	25,894 34,369 0 1,905 2,229 18,003 15,495 1 0 0 1,429 0 2,153 4	277,804 67,896 100 922 0 x 2,229 23,202 24,275 12,056 434 9,106 3,324 4,871 112,052 x 980 5,036
Total domestic shipments	x	24,777	321,002	43,625	2,432	103,806	612,079
Total domestic alloy shipments	324	0		0			2,252
81 Exports to the United States 82 Exports to other countries (excluding United States)	1,051 0	8,400 841	X X	15,910 5,787	16,708 591	30,489 6,870	276,168 103,477
Total disposition	X	34,018	446,710	65,322	19,731	141,165	991,724
Total alloy shipments	324	0	4 4 4 7	0			3,750
Producers interchange, for sale	0	•	1,117	0		0	X
Exports for conversion and return Imports by producers (including conversion)		24	0 3,691	0 265		209	209 3,980

<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	14 1,253 0	17,237 0 1,984	65,324 1,499	54,696 174	38,068 0	49,767 342	47 0 0	
31 Steel fabrication 32 Metal building systems 33 Contractors'products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries	0	5,546 0 0 0 1,539	10,849 0 0 1,901 100	24,554 14 1,006	418,647 522 7,313	x 152 x 5,424 121,907	0 x	
51 Agricultural equipment 52 Non electrical machinery 53 Electrical machinery 54 Industrial packaging material 61 Pipes and tubes		0 0	0 16,606	31 0	0	1,616 80,149 0 0		0
62 Wire and wire products 63 Containers and closures 64 Appliances and utensils industries 70 Miscellaneous industries	0	0	· · ·	· · ·	0	7,402 0	x	
Total domestic shipments	1,267	26,306	96,279	80,475	475,297	351,884	x	0
Total domestic alloy shipments	0					46,839	х	
81 Exports to the United States 82 Exports to other countries (excluding United States)	x x	6,651 0	33,726 331	44,942 60	0	227,644 184,586	x x	0
Total disposition	x	32,957	130,336	125,477	475,297	764,114	x	0
Total alloy shipments	0					75,538	0	
Producers interchange, for sale	х		0			8,270	1,154	
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 1 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 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 11,003	197,603 0 1,436 36,082 150 0 305 3,306 398 1,156 	2,013,680 293,872 0 0 37,532 37,106 37,904 1,121 0 6,958 515 560 1,194,810 1,722 382 21	202,878 72,330 0 0 x x x 0 0 17,862 46,263 9,291 1,043 8,851 30,477	15,514 0     0  14,754	308,953 370,220 0 22,108 22,001 236,941 186,188 669  0 18,201 0 16,125 958 24,070	800,118 342 3,420 0 x 22,689 311,469 x 136,836 5,670 104,111 36,578 46,823
Total domestic shipments	x	240,436	3,626,183	453,344	30,268	1,206,434	6,828,168
Total domestic alloy shipments	3,385	0		0			x
Exports <sup>2</sup> (for final sale)							
81 Exports to the United States 82 Exports to other countries (excluding United States)	12,779 0	117,639 29,939	X X		176,903 11,305	377,394 x	
Total disposition	x	388,014	4,710,736	636,040	218,476	х	11,380,640
Total alloy shipments	3,534	0		0			79,072
Producers interchange, for sale	0		2,227	0		0	х
Exports for conversion and return <sup>2</sup>	-		0	0		1,248	1,248
Imports by producers (including conversion)		4,030	х	23,661		0	x

<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			
	2009 2010		2009	2010		
	metric tonnes					
Production of pig iron	555,384	571,804	х	6,985,053		

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	<b>:</b>
	2009	2010	2009	2010
		metric tonnes	<b>:</b>	
Pig iron including pre-reduced iron	583,912	598,324	х	6,920,243
Scrap Own make Purchased	112,544 438,830	106,797 409,495	1,123,400 x	1,311,962 5,126,895
Total, pig iron and scrap products	1,135,286	1,114,616	9,358,613	13,359,100

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				
November					
Steel, primary forms (carbon and alloy including continuous cast steel)					
Electric furnace Basic oxygen furnace	459,207 556,895	433,865 562,627	x x	X X	
Steel, primary forms - Total	1,016,102	996,492	214,665	189,117	
Included in "Steel primary forms total" above Continuous cast steel	1,005,790	983,764	205,089	179,829	

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) Electric furnace Basic oxygen furnace	x x	4,937,027 6,941,270	x x	X X	
Steel, primary forms - Total	8,302,300	11,878,297	x	2,972,619	
Included in "Steel primary forms total" above Continuous cast steel	8,065,660	11,762,126	x	2,872,670	

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

	Production	Shipments for sale		
		Domestic shipments <sup>1</sup>	Exports	Total shipments
_		metric tonne	es	
November				
Total, pipe and tubing	228,835	173,135	66,127	239,262
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	3,471 15,312 36,307	3,301 x x	0 x 3,188	3,301 19,287 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	11,262 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	3,457 830	2,623 498	730 217	3,353 715
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 1,781 1,493	389 2,867 991	17 17 0	406 2,884 991
Mechanical tubing Mechanical tubing, welded, produced from hot rolled Mechanical tubing, welded, produced from cold rolled	15,247 9,699	16,586 4,689	x 1,527	x 6,216
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)	64,792 17,875	51,194 11,846	20,347 6,944	71,541 18,790
Other tubular products	x	2,105	904	3,009

<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	2,104,042	1,366,398	837,377	2,203,774
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 283,432	18,722 x x	4 x x	18,726 113,631 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	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	25,852 x	18,468 8,919	10,067 1,564	28,535 10,483
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 18,433 x	7,241 x x	970 x x	8,211 22,946 7,671
Mechanical tubing Mechanical tubing, welded, produced from hot rolled Mechanical tubing, welded, produced from cold rolled	x 111,144	x 52,942	x 16,649	x 69,591
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)	579,674 187,409	400,823 90,319	206,816 88,400	607,639 178,718
Other tubular products	x	x	x	25,698

<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 2010				
		Total shipments	Domestic shipments	Exports	
<u> </u>			metric tonnes		
November					
Barbed wire	х	299	x	х	
Uncoated steel wire	14,715	18,737	9,005	9,732	
Galvanized steel wire	5,958	14,966	8,141	6,825	
Other coated steel wire	Х	Х	Х	1	
Farm fencing and wire chain link fabric	623	Х	Х	X	Х
Wire mesh, bright or uncoated and galvanized	3,170	3,898	Х	X	3,977
Wire rope	Х	Х	Х	X	Х
Nails and staples	1,859	Х	Х	X	Х
Wire roofing nails of a length of 25 mm or more, iron or steel	Х	1,732	871	861	1,939
Staples of iron or steel	Х	Х	Х	X	Х
All other wire products	Х	1,149	1,148	1	х
Grand total	30,649	53,862	31,367	22,495	

<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	
			metric tonnes		
Barbed wire Uncoated steel wire Galvanized steel wire	x 151,693 87,706	x 204,836 121,216	x 101,753 60,710	x 103,083 60,506	
Other coated steel wire Farm fencing and wire chain link fabric	X X	X X	X X	x x	X
Wire mesh, bright or uncoated and galvanized Wire rope	38,132 x	38,327 x	X X	X X	41,317 x
Nails and staples Wire roofing nails of a length of 25 mm or more, iron or steel	X X	28,904	X	X	X X
Staples of iron or steel All other wire products	X X	X X	X X	х 37	X X
Grand total	395,496	511,733	292,828	218,905	

<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).