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Steel, Tubular Products and Steel Wire

March 2013



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Statistics Canada
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Steel, Tubular Products and Steel Wire

March 2013

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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
- 0^s 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

March 2013

- Monthly production of primary steel and pig iron increased 7.9% in March 2013 to 1,130,870 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products increased 9.7% to 1,040,575 metric tonnes.
- Between February 2013 and March 2013, production of steel pipe and tubing increased 9.0% to 191,401 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 0.5% to 37,362 metric tonnes in March 2013.

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 of rolled steel products, by product and industry monthly 2013

	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							
March								
Domestic shipments								
Steel service centres and other wholesalers and warehouses	0	4,042	6,458	3,093	1,683	7,052	0	.
Motor vehicles and parts	0	0	228	10	.	5,463	0	.
Railway operating	0	.	.	.	0	14	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	233	587	x	43,385	363	0	.
Metal building systems	.	0	0	0	0	0	.	.
Contractors' products	.	0	0	.	688	203	295	.
Miscellaneous stamping and coating	0	3	323	670	.	10	.	.
Natural resources and extractive industries	.	0	0	0	1,816	10,263	0	.
Agricultural equipment	.	0	0	0	0	392	.	0
Non electrical machinery	.	0	1,742	0	.	8,055	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	2,035	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	0	4,278	9,338	x	47,572	33,850	x	0
Total domestic alloy shipments	0	.	.	.	.	5,207	0	.
Exports to the United States	x	3,152	5,572	5,299	0	23,396	x	.
Exports to other countries (excluding United States)	x	0	19	0	0	23,187	x	0
Total disposition	x	7,430	14,929	x	47,572	80,433	x	0
Total alloy shipments	0	.	.	.	.	9,347	0	.
Producers interchange, for sale	x	.	0	.	.	559	0	.
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 2013

	Cold finished bars	Plates ¹	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							
March							
Domestic shipments							
Steel service centres and other wholesalers and warehouses	1,635	16,029	161,356	13,244	1,594	29,852	246,038
Motor vehicles and parts	799	60	34,218	7,631	0	53,505	101,914
Railway operating	.	0	0	.	.	0	14
Railroad cars and locomotives	.	949	0	.	.	.	949
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	5,932	3,195	16	.	1,548	x
Metal building systems	.	.	0	.	.	1,307	1,307
Contractors' products	0	1,076	5,080	1,511	.	23,626	32,479
Miscellaneous stamping and coating	0	0	2,287	2,554	.	14,324	20,171
Natural resources and extractive industries	120	0	0	0	.	0	12,199
Agricultural equipment	43	81	0	0	.	0	516
Non electrical machinery	0	222	992	0	.	0	11,011
Electrical machinery	.	.	183	642	.	1,547	2,372
Industrial packaging material	.	.	0	4,292	0	0	4,292
Pipes and tubes	0	0	138,662	784	.	2,139	141,585
Wire and wire products	x	.	127	103	.	46	x
Containers and closures	0	.	0	0	979	.	979
Appliances and utensils industries	.	.	0	84	.	960	1,044
Miscellaneous industries	176	0	0	.	.	.	176
Total domestic shipments	x	24,349	346,100	30,861	2,573	128,854	659,214
Total domestic alloy shipments	181	0	.	0	.	.	5,388
Exports to the United States	1,420	10,832	87,042	x	15,503	60,550	294,394
Exports to other countries (excluding United States)	21	221	8,088	x	419	13,642	86,967
Total disposition	x	35,402	441,230	52,883	18,495	203,046	1,040,575
Total alloy shipments	794	0	.	0	.	.	10,141
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	102	102
Imports by producers (including conversion)	.	0	1,833	237	.	0	2,070

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 2013

	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							
Domestic shipments								
Steel service centres and other wholesalers and warehouses	0	13,344	17,968	10,383	7,097	23,442	0	.
Motor vehicles and parts	0	0	977	73	.	15,416	0	.
Railway operating	0	.	.	.	0	68	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	800	1,682	x	122,480	1,047	0	.
Metal building systems	.	0	0	0	0	0	.	.
Contractors' products	.	0	0	.	4,029	689	700	.
Miscellaneous stamping and coating	0	9	587	1,984	.	751	.	.
Natural resources and extractive industries	.	0	0	0	5,868	32,175	0	.
Agricultural equipment	.	0	0	0	0	976	.	0
Non electrical machinery	.	0	4,408	0	.	25,188	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	6,122	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	0	14,153	25,622	x	139,474	105,874	x	0
Total domestic alloy shipments	0	.	.	.	.	16,100	0	.
Exports to the United States	x	8,891	21,153	16,429	0	67,041	x	.
Exports to other countries (excluding United States)	x	0	193	0	0	55,316	x	0
Total disposition	x	23,044	46,968	x	139,474	228,231	x	0
Total alloy shipments	0	.	.	.	.	28,906	0	.
Producers interchange, for sale	x	.	0	.	.	1,413	38	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	0	.	.	.	.	.	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 2013

	Cold finished bars	Plates ¹	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							
Steel service centres and other wholesalers and warehouses	4,712	41,610	547,887	50,110	3,623	99,271	819,447
Motor vehicles and parts	2,469	74	111,771	24,139	0	161,271	316,190
Railway operating	.	0	0	.	.	0	68
Railroad cars and locomotives	.	2,560	0	.	.	.	2,560
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	15,490	9,624	183	.	3,796	x
Metal building systems	.	.	0	.	.	4,129	4,129
Contractors' products	0	8,948	13,766	6,519	.	66,396	101,047
Miscellaneous stamping and coating	32	0	6,817	7,785	.	39,565	57,530
Natural resources and extractive industries	316	0	0	0	.	1	38,360
Agricultural equipment	137	965	0	0	.	0	2,078
Non electrical machinery	0	483	2,454	0	.	0	32,533
Electrical machinery	.	.	323	3,296	.	4,107	7,726
Industrial packaging material	.	.	0	13,448	0	0	13,448
Pipes and tubes	0	0	432,157	2,174	.	7,801	442,132
Wire and wire products	x	.	443	224	.	127	x
Containers and closures	0	.	309	0	3,075	.	3,384
Appliances and utensils industries	.	.	0	122	.	3,618	3,740
Miscellaneous industries	426	0	0	.	.	.	426
Total domestic shipments	x	70,130	1,125,551	108,000	6,698	390,082	2,078,119
Total domestic alloy shipments	275	0	.	0	.	.	16,375
Exports (for final sale)							
Exports to the United States	4,541	x	256,782	x	52,369	192,523	845,297
Exports to other countries (excluding United States)	21	x	24,610	x	1,832	41,084	171,636
Total disposition	x	106,073	1,406,943	166,117	60,899	623,689	3,095,052
Total alloy shipments	2,046	0	.	0	.	.	30,952
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	652	652
Imports by producers (including conversion)	.	0	2,768	4,238	.	0	7,006

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

	March		Year-to-date	
	2012	2013	2012	2013
metric tonnes				
Production of pig iron	673,477	500,587	1,984,879	1,712,902

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

	March		Year-to-date	
	2012	2013	2012	2013
	metric tonnes			
Pig iron including pre-reduced iron	698,529	483,221	2,057,463	1,414,247
Scrap				
Own make	145,278	337,790	423,871	971,526
Purchased	493,752	431,553	1,431,804	1,228,640
Total, pig iron and scrap products	1,337,559	1,252,564	3,913,138	3,614,413

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

	Production		Shipments	
	2012	2013	2012	2013
	metric tonnes			
March				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	511,525	482,600	x	x
Basic oxygen furnace	697,426	648,270	x	x
Steel, primary forms - Total	1,208,951	1,130,870	176,253	189,956
Included in "Steel primary forms total" above				
Continuous cast steel	1,174,802	1,100,751	146,121	163,507

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

	Production		Shipments	
	2012	2013	2012	2013
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	1,486,043	1,360,619	x	x
Basic oxygen furnace	2,055,902	1,913,876	x	x
Steel, primary forms - Total	3,541,945	3,274,495	536,495	529,128
Included in "Steel primary forms total" above				
Continuous cast steel	3,443,033	3,175,153	451,899	446,805

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2013

	Production	Shipments for sale		Total shipments
		Domestic shipments ¹	Exports	
metric tonnes				
March				
Total, pipe and tubing	191,401	97,775	90,672	188,449
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	855	959	0	959
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,419	x	x	6,035
over 16" (40.64 cm) outside diameter	45,174	319	25,014	25,332
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	x
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	31	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,273	x	x	x
over 16" (40.64 cm) outside diameter	x	1,605	30	1,635
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	24,397	10,508	6,949	17,457
Mechanical tubing, welded, produced from cold rolled	6,994	4,563	1,855	6,418
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	22,196	14,098	36,294
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	x	x	x
Other tubular products	x	1,577	477	2,053

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 2013

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
		metric tonnes		
Total, pipe and tubing	552,735	339,667	265,455	605,125
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	3,630	0	3,630
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	23,047	x	x	26,168
over 16" (40.64 cm) outside diameter	103,840	9,402	71,463	80,863
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	x
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	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	3,489	88	3,577
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	64,353	31,354	19,869	51,222
Mechanical tubing, welded, produced from cold rolled	19,459	14,189	5,632	19,821
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	96,644	38,304	134,949
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	x	x	x
Other tubular products	x	4,579	1,465	6,044

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
	2012	2013			
		Total shipments	Domestic shipments	Exports	
metric tonnes					
March					
Barbed wire	x	x	x	0	.
Uncoated steel wire	19,861	17,932	8,022	9,910	.
Galvanized steel wire	8,130	7,793	3,629	4,164	.
Other coated steel wire	x	x	x	0	.
Farm fencing and wire chain link fabric	1,087	684	x	x	405
Wire mesh, bright or uncoated and galvanized	x	x	2,497	x	2,761
Wire rope	x	x	x	x	x
Nails and staples	x	x	990	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	3,226	2,532	x	x	2,277
Staples of iron or steel	x	x	x	0	x
All other wire products	x	1,215	1,210	5	1,135
Grand total	42,794	37,362	19,946	17,416	.

Note(s): Data has been revised from March 2010 to November 2011. These revised data are available at: 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
	2012	2013			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
Barbed wire	x	x	x	0	.
Uncoated steel wire	57,432	53,360	23,444	29,916	.
Galvanized steel wire	24,802	22,336	9,227	13,109	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	2,371	1,667	x	x	1,578
Wire mesh, bright or uncoated and galvanized	x	x	8,078	x	8,788
Wire rope	x	x	x	x	x
Nails and staples	x	x	2,612	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	8,797	6,821	x	x	5,996
Staples of iron or steel	x	x	x	0	x
All other wire products	x	x	x	13	3,781
Grand total	121,923	110,198	57,704	52,494	.

Note(s): Data has been revised from March 2010 to November 2011. These revised data are available at: www.statcan.gc.ca/cansim, table 303-0047. 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 (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

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).