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Steel, Tubular Products and Steel Wire

January 2012



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Statistics Canada
Manufacturing and Energy Division

Steel, Tubular Products and Steel Wire

January 2012

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Symbols

The following standard symbols are used in Statistics Canada publications:

- . 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 ($p < 0.05$)

Table of contents

Highlights	4
Related products	5
Statistical tables	
1 Steel primary forms and pig iron	7
1-1 Disposition of net shipments of rolled steel products, by product and industry monthly 2012	7
1-2 Disposition of net shipments of rolled steel products, by product and industry, year-to-date 2012	9
1-3 Production of pig iron	10
1-4 Pig iron and scrap charged to steel furnaces	11
1-5 Production and shipments of steel, primary forms, monthly	11
1-6 Production and shipments of steel, primary forms, year-to-date	11
2 Steel pipe and tubing	12
2-1 Production and shipments, monthly 2012	12
2-2 Production and shipments, year-to-date 2012	13
3 Steel and specified wire products	13
3-1 Factory shipments, monthly	13
3-2 Factory shipments, year-to-date	14
Data quality, concepts and methodology	
Concepts, methodology and data quality	15
Definitions	18

Highlights

January 2012

- Monthly production of primary steel and pig iron increased 13.8% in January 2012 to 1,188,140 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products increased 6.1% to 1,020,003 metric tonnes.
- Between December 2011 and January 2012, production of steel pipe and tubing increased 7.2% to 202,099 metric tonnes.
- Total shipments of steel wire and specified wire products increased 36.2% to 38,420 metric tonnes in January 2012.

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 2012

	Steel primary forms	Rails and heavy structural sections	Intermediate structural sections	Light structural sections	Concrete reinforcing bars	Other hot rolled bars	Wire rods	Railway track material
	metric tonnes							
January								
Domestic shipments								
Steel service centres and other wholesalers and warehouses	4	2,414	8,971	7,558	5,014	x	0	.
Motor vehicles and parts	146	0	247	33	.	4,562	0	.
Railway operating	0	.	.	.	0	0	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	81	1,488	2,557	30,243	x	0	.
Metal building systems	.	0	0	0	75	0	.	.
Contractors' products	.	0	0	.	636	517	115	.
Miscellaneous stamping and coating	0	8	218	362	.	0	.	.
Natural resources and extractive industries	.	26	0	0	1,266	9,295	0	.
Agricultural equipment	.	0	0	5	0	471	.	0
Non electrical machinery	.	0	861	0	.	8,928	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	511	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	150	2,529	11,785	10,515	37,234	34,567	x	0
Total domestic alloy shipments	0	.	.	.	.	6,353	x	.
Exports to the United States	x	841	3,923	6,834	0	27,732	x	.
Exports to other countries (excluding United States)	x	0	148	10	0	19,012	162	0
Total disposition	x	3,370	15,856	17,359	37,234	81,311	x	0
Total alloy shipments	0	.	.	.	.	12,034	x	.
Producers interchange, for sale	x	.	0	.	.	347	103	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	0	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-1 – continued

Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry monthly 2012

	Cold finished bars	Plates 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							
January							
Domestic shipments							
Steel service centres and other wholesalers and warehouses	x	23,399	235,628	24,942	1,169	42,637	363,407
Motor vehicles and parts	863	0	29,793	8,171	0	44,576	88,391
Railway operating	.	0	0	.	.	0	0
Railroad cars and locomotives	.	438	0	.	.	.	438
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	5,492	2,779	0	.	1,266	x
Metal building systems	.	.	0	.	.	2,450	2,525
Contractors' products	0	1,236	7,063	1,843	.	21,577	32,987
Miscellaneous stamping and coating	21	0	3,058	4,917	.	14,646	23,230
Natural resources and extractive industries	49	0	0	0	.	5	10,641
Agricultural equipment	35	391	0	0	.	0	902
Non electrical machinery	0	3	883	0	.	0	10,675
Electrical machinery	.	.	34	1,054	.	1,684	2,772
Industrial packaging material	.	.	0	4,657	0	0	4,657
Pipes and tubes	0	0	83,015	259	.	3,416	86,690
Wire and wire products	x	.	315	33	.	34	x
Containers and closures	0	.	0	434	1,015	.	1,449
Appliances and utensils industries	.	.	0	987	.	615	1,602
Miscellaneous industries	147	0	0	.	.	.	147
Total domestic shipments	x	30,959	362,568	47,297	2,184	132,906	693,252
Total domestic alloy shipments	213	0	.	0	.	.	x
Exports to the United States	1,621	13,771	x	17,368	18,597	38,499	271,009
Exports to other countries (excluding United States)	0	4,230	x	1,666	853	12,273	55,742
Total disposition	x	48,960	464,085	66,331	21,634	183,678	1,020,003
Total alloy shipments	782	0	.	0	.	.	x
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	0	3,185	298	.	0	3,483

1. Effective January 2000, producers have changed the way they report hot rolled products. The result is a change in definitions. Plates including plates for pipes and tubes becomes plates. Hot rolled sheet and strip becomes hot rolled sheets and coils and now includes all hot rolled flat products in coils, regardless of thickness.

Note(s): Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

Table 1-2

Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry, year-to-date 2012

	Steel primary forms	Rails and heavy structural sections	Intermediate structural sections	Light structural sections	Concrete reinforcing bars	Other hot rolled bars	Wire rods	Railway track material
	metric tonnes							
Domestic shipments								
Steel service centres and other wholesalers and warehouses	4	2,414	8,971	7,558	5,014	x	0	.
Motor vehicles and parts	146	0	247	33	.	4,562	0	.
Railway operating	0	.	.	.	0	0	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	81	1,488	2,557	30,243	x	0	.
Metal building systems	.	0	0	0	75	0	.	.
Contractors' products	.	0	0	.	636	517	115	.
Miscellaneous stamping and coating	0	8	218	362	.	0	.	.
Natural resources and extractive industries	.	26	0	0	1,266	9,295	0	.
Agricultural equipment	.	0	0	5	0	471	.	0
Non electrical machinery	.	0	861	0	.	8,928	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	511	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	150	2,529	11,785	10,515	37,234	34,567	x	0
Total domestic alloy shipments	0	.	.	.	.	6,353	x	.
Exports to the United States	x	841	3,923	6,834	0	27,732	x	.
Exports to other countries (excluding United States)	x	0	148	10	0	19,012	162	0
Total disposition	x	3,370	15,856	17,359	37,234	81,311	x	0
Total alloy shipments	0	.	.	.	.	12,034	x	.
Producers interchange, for sale	x	.	0	.	.	347	103	.
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 2012

	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	x	23,399	235,628	24,942	1,169	42,637	363,407
Motor vehicles and parts	863	0	29,793	8,171	0	44,576	88,391
Railway operating	.	0	0	.	.	0	0
Railroad cars and locomotives	.	438	0	.	.	.	438
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	5,492	2,779	0	.	1,266	x
Metal building systems	.	.	0	.	.	2,450	2,525
Contractors' products	0	1,236	7,063	1,843	.	21,577	32,987
Miscellaneous stamping and coating	21	0	3,058	4,917	.	14,646	23,230
Natural resources and extractive industries	49	0	0	0	.	5	10,641
Agricultural equipment	35	391	0	0	.	0	902
Non electrical machinery	0	3	883	0	.	0	10,675
Electrical machinery	.	.	34	1,054	.	1,684	2,772
Industrial packaging material	.	.	0	4,657	0	0	4,657
Pipes and tubes	0	0	83,015	259	.	3,416	86,690
Wire and wire products	x	.	315	33	.	34	x
Containers and closures	0	.	0	434	1,015	.	1,449
Appliances and utensils industries	.	.	0	987	.	615	1,602
Miscellaneous industries	147	0	0	.	.	.	147
Total domestic shipments	x	30,959	362,568	47,297	2,184	132,906	693,252
Total domestic alloy shipments	213	0	.	0	.	.	x
Exports (for final sale)							
Exports to the United States	1,621	13,771	x	17,368	18,597	38,499	271,009
Exports to other countries (excluding United States)	0	4,230	x	1,666	853	12,273	55,742
Total disposition	x	48,960	464,085	66,331	21,634	183,678	1,020,003
Total alloy shipments	782	0	.	0	.	.	x
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	0	3,185	298	.	0	3,483

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

	January		Year-to-date	
	2011	2012	2011	2012
metric tonnes				
Production of pig iron	579,775	676,713	579,775	676,713

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

	January		Year-to-date	
	2011	2012	2011	2012
	metric tonnes			
Pig iron including pre-reduced iron	615,931	700,392	615,931	700,392
Scrap				
Own make	105,381	143,910	105,381	143,910
Purchased	455,041	471,409	455,041	471,409
Total, pig iron and scrap products	1,176,353	1,315,711	1,176,353	1,315,711

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

	Production		Shipments	
	2011	2012	2011	2012
	metric tonnes			
January				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	451,979	489,669	x	x
Basic oxygen furnace	599,148	698,471	x	x
Steel, primary forms - Total	1,051,127	1,188,140	237,253	177,563
Included in "Steel primary forms total" above				
Continuous cast steel	1,036,514	1,155,545	225,941	151,545

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

	Production		Shipments	
	2011	2012	2011	2012
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	451,979	489,669	x	x
Basic oxygen furnace	599,148	698,471	x	x
Steel, primary forms - Total	1,051,127	1,188,140	237,253	177,563
Included in "Steel primary forms total" above				
Continuous cast steel	1,036,514	1,155,545	225,941	151,545

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2012

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
		metric tonnes		
January				
Total, pipe and tubing	202,099	165,917	71,729	237,646
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,844	4,547	0	4,547
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	20,757
over 16" (40.64 cm) outside diameter	9,746	2,030	3,721	5,752
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	13,667
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	488	64	553
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,106	x	x	x
over 16" (40.64 cm) outside diameter	2,603	2,465	20	2,485
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	9,579	14,543	6,543	21,086
Mechanical tubing, welded, produced from cold rolled	x	5,190	2,022	7,212
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	55,097	51,157	14,134	65,290
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	16,662	7,407	x	x
Other tubular products	x	1,639	626	2,265

1. Including for own use by the steel pipe and tubing industries.

Table 2-2
Steel pipe and tubing — Production and shipments, year-to-date 2012

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
	metric tonnes			
Total, pipe and tubing	202,099	165,917	71,729	237,646
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,844	4,547	0	4,547
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	20,757
over 16" (40.64 cm) outside diameter	9,746	2,030	3,721	5,752
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	13,667
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	488	64	553
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,106	x	x	x
over 16" (40.64 cm) outside diameter	2,603	2,465	20	2,485
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	9,579	14,543	6,543	21,086
Mechanical tubing, welded, produced from cold rolled	x	5,190	2,022	7,212
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	55,097	51,157	14,134	65,290
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	16,662	7,407	x	x
Other tubular products	x	1,639	626	2,265

1. Including for own use by the steel pipe and tubing industries.

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

	Shipments				Production
	2011	2012			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
January					
Barbed wire	x	x	x	0	.
Uncoated steel wire	19,605	18,596	8,153	10,443	.
Galvanized steel wire	8,641	8,722	4,319	4,403	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	672	404	x	x	557
Wire mesh, bright or uncoated and galvanized	4,114	x	2,335	x	2,639
Wire rope	x	x	x	x	x
Nails and staples	1,763	2,764	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	1,763	2,763	x	x	2,289
Staples of iron or steel	0	1	1	0	x
All other wire products	x	x	x	1	x
Grand total	39,403	38,420	19,920	18,500	.

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
	2011	2012			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
Barbed wire	x	x	x	0	.
Uncoated steel wire	19,605	18,596	8,153	10,443	.
Galvanized steel wire	8,641	8,722	4,319	4,403	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	672	404	x	x	557
Wire mesh, bright or uncoated and galvanized	4,114	x	2,335	x	2,639
Wire rope	x	x	x	x	x
Nails and staples	1,763	2,764	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	1,763	2,763	x	x	2,289
Staples of iron or steel	0	1	1	0	x
All other wire products	x	x	x	1	x
Grand total	39,403	38,420	19,920	18,500	.

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).