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Steel, Tubular Products and Steel Wire

November 2012



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Statistics Canada
Manufacturing and Energy Division

Steel, Tubular Products and Steel Wire

November 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	17

Highlights

November 2012

- Monthly production of primary steel and pig iron decreased 3.6% in November 2012 to 1,077,899 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products increased 0.9% to 1,015,799 metric tonnes.
- Between October 2012 and November 2012, production of steel pipe and tubing increased 0.3% to 210,154 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 9.0% to 32,438 metric tonnes in November 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							
November								
Domestic shipments								
Steel service centres and other wholesalers and warehouses	0	6,494	5,154	3,184	2,403	6,362	0	.
Motor vehicles and parts	137	0	214	9	.	6,482	0	.
Railway operating	0	.	.	.	0	0	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	772	323	x	49,095	635	0	.
Metal building systems	.	0	0	0	0	0	.	.
Contractors' products	.	0	0	.	882	253	222	.
Miscellaneous stamping and coating	0	3	49	374	.	41	.	.
Natural resources and extractive industries	.	0	0	0	2,221	10,203	0	.
Agricultural equipment	.	0	0	0	0	99	.	0
Non electrical machinery	.	0	1,054	0	.	7,407	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	1,564	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	137	7,269	6,794	x	54,601	33,046	x	0
Total domestic alloy shipments	0	.	.	.	.	5,218	0	.
Exports to the United States								
Exports to the United States	x	745	5,740	3,914	0	22,746	x	.
Exports to other countries (excluding United States)	x	0	21	0	0	21,608	x	0
Total disposition	x	8,014	12,555	x	54,601	77,400	x	0
Total alloy shipments	0	.	.	.	.	8,495	0	.
Producers interchange, for sale	x	.	0	.	.	716	45	.
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							
November							
Domestic shipments							
Steel service centres and other wholesalers and warehouses	1,543	10,022	229,900	17,491	802	35,710	319,065
Motor vehicles and parts	915	0	34,517	7,499	0	50,177	99,950
Railway operating	.	0	0	.	.	0	0
Railroad cars and locomotives	.	866	0	.	.	.	866
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	5,439	3,467	0	.	2,870	x
Metal building systems	.	.	0	.	.	2,067	2,067
Contractors' products	0	6,466	20,449	2,183	.	22,566	53,021
Miscellaneous stamping and coating	39	0	4,337	3,539	.	17,022	25,404
Natural resources and extractive industries	78	0	0	0	.	0	12,502
Agricultural equipment	71	100	0	0	.	0	270
Non electrical machinery	0	79	873	0	.	0	9,413
Electrical machinery	.	.	87	1,557	.	1,324	2,968
Industrial packaging material	.	.	17	4,018	0	0	4,035
Pipes and tubes	0	0	99,483	836	.	1,570	101,889
Wire and wire products	x	.	210	62	.	93	x
Containers and closures	0	.	297	0	1,057	.	1,354
Appliances and utensils industries	.	.	0	20	.	711	731
Miscellaneous industries	218	0	0	.	.	.	218
Total domestic shipments	x	22,972	393,637	37,205	1,859	134,110	719,873
Total domestic alloy shipments	168	0	.	0	.	.	5,386
Exports to the United States	1,169	5,015	x	18,308	14,585	55,784	232,681
Exports to other countries (excluding United States)	0	2,379	x	2,315	315	11,414	63,245
Total disposition	x	30,366	470,909	57,828	16,759	201,308	1,015,799
Total alloy shipments	630	0	.	0	.	.	9,125
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	0	211	191	.	0	402

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	9	22,329	67,874	55,299	28,380	x	0	.
Motor vehicles and parts	x	27	x	237	.	59,422	0	.
Railway operating	0	.	.	.	0	249	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	2,059	x	x	466,828	x	0	.
Metal building systems	.	0	0	0	261	326	.	.
Contractors' products	.	0	0	.	6,607	2,710	2,276	.
Miscellaneous stamping and coating	0	61	2,158	2,760	.	6,541	.	.
Natural resources and extractive industries	.	408	57	0	13,702	102,500	0	.
Agricultural equipment	.	0	24	40	0	3,814	.	0
Non electrical machinery	.	0	x	47	.	79,462	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	x	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	x	24,884	x	x	515,778	355,987	x	0
Total domestic alloy shipments	0	.	.	.	.	56,311	x	.
Exports to the United States	x	9,489	x	56,144	0	252,065	x	.
Exports to other countries (excluding United States)	x	0	860	39	0	238,162	x	0
Total disposition	x	34,373	x	x	515,778	846,214	x	0
Total alloy shipments	0	.	.	.	.	100,229	x	.
Producers interchange, for sale	x	.	0	.	.	5,539	623	.
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 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	172,311	2,091,044	177,450	12,919	368,599	3,099,893
Motor vehicles and parts	x	72	365,516	89,714	0	549,434	1,076,682
Railway operating	.	0	0	.	.	0	249
Railroad cars and locomotives	.	7,384	0	.	.	.	7,384
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	65,375	x	558	.	23,474	x
Metal building systems	.	.	0	.	.	19,379	19,966
Contractors' products	502	10,209	73,535	21,828	.	243,833	361,500
Miscellaneous stamping and coating	186	0	50,974	36,388	.	168,103	267,171
Natural resources and extractive industries	935	0	2	22	.	4,090	121,716
Agricultural equipment	385	3,669	0	0	.	0	7,932
Non electrical machinery	x	2,123	10,359	0	.	0	106,474
Electrical machinery	.	.	669	13,121	.	17,387	31,177
Industrial packaging material	.	.	650	47,765	0	0	48,415
Pipes and tubes	0	0	1,018,283	7,602	.	16,942	1,042,827
Wire and wire products	x	.	x	1,029	.	807	x
Containers and closures	0	.	524	2,700	9,705	.	12,929
Appliances and utensils industries	.	.	0	5,709	.	8,868	14,577
Miscellaneous industries	2,249	0	0	.	.	.	2,249
Total domestic shipments	x	261,143	3,664,453	403,886	22,624	1,420,916	7,072,985
Total domestic alloy shipments	1,683	0	.	0	.	.	x
Exports (for final sale)							
Exports to the United States	x	128,408	x	187,543	195,613	571,574	3,039,171
Exports to other countries (excluding United States)	61	34,743	x	17,646	7,442	142,743	839,140
Total disposition	x	424,294	4,746,883	609,075	225,679	2,135,233	10,951,296
Total alloy shipments	7,095	0	.	0	.	.	x
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	1,284	1,284
Imports by producers (including conversion)	.	0	25,892	11,469	.	0	x

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

	November		Year-to-date	
	2011	2012	2011	2012
metric tonnes				
Production of pig iron	534,284	645,113	6,685,689	7,024,767

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

	November		Year-to-date	
	2011	2012	2011	2012
	metric tonnes			
Pig iron including pre-reduced iron	520,733	651,835	6,953,224	7,319,708
Scrap				
Own make	117,785	112,279	1,300,787	1,376,975
Purchased	415,942	341,682	5,071,201	4,665,756
Total, pig iron and scrap products	1,054,460	1,105,796	13,325,212	13,362,439

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			
November				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	413,038	433,895	x	x
Basic oxygen furnace	524,195	644,004	x	x
Steel, primary forms - Total	937,233	1,077,899	122,609	164,877
Included in "Steel primary forms total" above				
Continuous cast steel	920,479	1,047,218	110,876	134,446

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	5,032,228	5,332,414	x	x
Basic oxygen furnace	6,814,279	7,153,163	x	x
Steel, primary forms - Total	11,846,507	12,485,577	1,752,564	1,906,330
Included in "Steel primary forms total" above				
Continuous cast steel	11,681,869	12,134,808	1,631,286	1,598,338

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

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
		metric tonnes		
November				
Total, pipe and tubing	210,154	149,310	79,318	228,629
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	2,063	911	166	1,077
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	20,560	x	x	28,146
over 16" (40.64 cm) outside diameter	35,212	46	19,757	19,803
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	12,713
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	25	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,922	x	x	x
over 16" (40.64 cm) outside diameter	x	246	8	254
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	12,228	16,430	6,658	23,089
Mechanical tubing, welded, produced from cold rolled	x	x	x	5,970
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	39,181	11,208	50,389
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	9,394	x	x
Other tubular products	x	997	328	1,325

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	2,166,712	1,479,797	1,008,942	2,488,740
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	22,966	166	23,132
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	218,757
over 16" (40.64 cm) outside diameter	253,995	23,477	194,279	217,758
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	137,634
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	x	172	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	121,201	172,630	73,711	246,339
Mechanical tubing, welded, produced from cold rolled	x	x	x	73,027
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	394,727	220,853	615,581
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	77,174	x	x
Other tubular products	x	15,766	8,193	23,956

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					
November					
Barbed wire	x	x	x	0	.
Uncoated steel wire	16,670	15,569	7,199	8,370	.
Galvanized steel wire	7,888	7,128	3,033	4,095	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	474	517	x	x	595
Wire mesh, bright or uncoated and galvanized	x	x	2,370	x	2,453
Wire rope	x	x	x	x	x
Nails and staples	x	1,458	404	1,054	x
Wire roofing nails of a length of 25 mm or more, iron or steel	x	1,458	404	1,054	1,646
Staples of iron or steel	1	0	0	0	x
All other wire products	x	1,036	1,030	6	1,397
Grand total	35,168	32,438	17,203	15,235	.

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	x	.
Uncoated steel wire	208,986	194,300	89,043	105,257	.
Galvanized steel wire	81,172	81,314	36,444	44,870	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	8,174	x	x	8,512
Wire mesh, bright or uncoated and galvanized	x	x	34,355	x	37,165
Wire rope	x	x	x	x	x
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	x	26,674	x	x	27,490
Staples of iron or steel	8	x	x	0	x
All other wire products	x	x	x	40	x
Grand total	420,316	412,127	223,748	188,379	.

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).