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Steel, Tubular Products and Steel Wire

December 2006



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Statistics Canada
Manufacturing, Construction and Energy Division

Steel, Tubular Products and Steel Wire

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User information

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

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Highlights

December 2006

- Monthly production of primary steel and pig iron increased 12.3% to 1,155,326 metric tonnes in December.
- Between November and December 2006, disposition of rolled steel product shipments fell 26.6% to 904,032 metric tonnes.
- In December steel pipe and tubing production fell 31.9% to 176,669 metric tonnes.
- Total shipments of steel wire and specified wire products dropped 20.3% to 30,682 metric tonnes in December.

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 shipments¹ of rolled steel products, by product, monthly 2006

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 tonnes								
December								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	55	1,101	2,989	2,841	902	16,000	..	.
21 Motor vehicles and parts	418	.	.	.	.	15,429	190	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	58	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	1,279	994	3,815	20,300	12,649	..	.
32 Metal building systems	.	.	.	.	..	..	.	.
33 Contractors' products	.	.	.	.	37	398	76	.
34 Miscellaneous stamping and coating	..	..	47	200	.	535	.	.
41 Natural resources and extractive industries	.	.	.	.	1,079	12,196	..	.
51 Agricultural equipment	.	..	5	..	.	105	.	.
52 Non electrical machinery	.	..	..	..	.	859	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	52	.	.
61 Pipes and tubes	.	.	.	.	.	..	.	.
62 Wire and wire products	290	.	.	.	..	2,777	21,807	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	..	.	.	.
Total domestic shipments	763	2,438	4,035	6,856	22,318	61,000	22,073	..
Total domestic alloy shipments	.	.	.	.	.	23,266	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	1,834	10,194	6,084	495	31,333	x	.
82 Exports to other countries (excluding United States)	x	..	93	.	..	15,424	x	..
Total disposition	x	4,272	14,322	12,940	22,813	107,757	53,331	..
Total alloy shipments	.	.	.	.	.	36,626	..	.
Producers interchange, for sale	x	.	..	.	.	214	..	.
Exports for conversion and return ²	.	.	.	.	.	..	.	.
Imports by producers (including conversion)	..	.	.	.	.	.	..	.

See footnotes at the end of the table.

Table 1-1 – continued

Steel primary forms and pig iron — Disposition of net shipments¹ of rolled steel products, by product, monthly 2006

SDC No.	Cold finished bars	Plates ³	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							
December							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	1,362	25,099	124,247	x	1,368	x	230,774
21 Motor vehicles and parts	858	..	48,488	10,850	.	40,709	116,942
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	538	4	.	.	.	600
24 Shipbuilding	.	.	.	.	.	.	..
31 Steel fabrication	66	7,007	4,237	..	.	284	50,631
32 Metal building systems	.	.	..	.	.	2,341	2,341
33 Contractors' products	15	12	1,805	x	.	x	28,634
34 Miscellaneous stamping and coating	118	500	5,931	6,479	.	6,596	20,406
41 Natural resources and extractive industries	..	.	..	..	.	..	13,275
51 Agricultural equipment	130	1,167	66	37	.	.	1,510
52 Non electrical machinery	38	169	..	..	.	.	1,066
53 Electrical machinery	.	.	.	4,016	.	1,141	5,157
54 Industrial packaging material	.	.	42	11,185	51	20	11,350
61 Pipes and tubes	..	..	90,493	804	.	1,174	92,471
62 Wire and wire products	238	.	992	70	.	6	26,180
63 Containers and closures	.	.	36	341	15,116	.	15,493
64 Appliances and utensils industries	.	.	.	4,353	.	2,058	6,411
70 Miscellaneous industries	140	.	.	.	.	.	140
Total domestic shipments	2,965	34,492	276,341	69,280	16,535	104,285	623,381
Total domestic alloy shipments	..	..	.	..	.	.	23,266
Exports² (for final sale)							
81 Exports to the United States	4,497	15,515	83,897	11,821	10,423	22,160	231,476
82 Exports to other countries (excluding United States)	.	972	3,595	1,367	1,290	9,808	49,175
Total disposition	7,462	50,979	363,833	82,468	28,248	136,253	904,032
Total alloy shipments	..	..	.	..	.	.	36,626
Producers interchange, for sale	.	.	1,173	x	.	.	62,039
Exports for conversion and return ²	.	.	..	..	.	..	..
Imports by producers (including conversion)	.	315	7,873	13,398	.	..	21,586

1. Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.
2. These data include exports reported by steel producers only and are not the same as published in the Exports by commodities, catalogue number 65-004-XPB.
3. 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 shipments¹ of rolled steel products, by product, year-to-date 2006

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 tonnes								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	..	35,177	91,630	75,869	37,013	248,270	..	.
21 Motor vehicles and parts	259,040	2,161	.
22 Railway operating
23 Railroad cars and locomotives	..	3,544	.	.	.	.	.	.
24 Shipbuilding
31 Steel fabrication	..	9,267	20,864	50,057	384,130	182,754	..	.
32 Metal building systems
33 Contractors' products	7,283	2,744	.
34 Miscellaneous stamping and coating	3,569	3,366	.	16,084	.	.
41 Natural resources and extractive industries	12,373	135,427	..	.
51 Agricultural equipment	4,103	.	.
52 Non electrical machinery	7,430	..	.
53 Electrical machinery
54 Industrial packaging material
61 Pipes and tubes
62 Wire and wire products	50,127	226,265	.
63 Containers and closures
64 Appliances and utensils industries
70 Miscellaneous industries
Total domestic shipments	9,153	48,030	116,344	129,387	436,395	910,886	231,243	..
Total domestic alloy shipments	300,179	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	32,968	151,158	108,058	35,590	513,356	x	.
82 Exports to other countries (excluding United States)	x	..	3,490	.	..	218,971	x	..
Total disposition	x	81,728	270,992	237,445	471,985	1,643,213	x	..
Total alloy shipments	483,592	..	.
Producers interchange, for sale	x	.	..	.	.	23,702	..	.
Exports for conversion and return ²
Imports by producers (including conversion)

See footnotes at the end of the table.

Table 1-2 – continued

Steel primary forms and pig iron — Disposition of net shipments¹ of rolled steel products, by product, year-to-date 2006

SDC No.	Cold finished bars	Plates ³	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	31,912	379,303	1,878,521	x	26,280	x	3,676,794
21 Motor vehicles and parts	23,046	..	1,072,290	210,834	.	692,097	2,264,130
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	20,482	4,831	.	.	.	28,857
24 Shipbuilding	.	..	.	.	.	.	..
31 Steel fabrication	1,862	79,122	69,452	..	.	20,534	818,261
32 Metal building systems	.	..	..	.	.	40,972	41,151
33 Contractors' products	545	1,660	58,896	x	.	x	497,624
34 Miscellaneous stamping and coating	2,574	..	79,292	67,920	.	221,250	406,365
41 Natural resources and extractive industries	..	..	..	..	.	..	148,657
51 Agricultural equipment	1,948	21,303	..	..	.	.	30,262
52 Non electrical machinery	739	3,751	..	..	.	.	12,041
53 Electrical machinery	.	.	.	54,037	.	14,463	68,500
54 Industrial packaging material	.	.	5,756	149,943	..	..	156,506
61 Pipes and tubes	..	..	1,906,272	25,278	.	23,156	1,954,941
62 Wire and wire products	7,221	..	..	2,494	.	506	294,593
63 Containers and closures	.	.	5,028	2,937	158,554	.	166,519
64 Appliances and utensils industries	.	.	.	73,401	.	37,776	111,177
70 Miscellaneous industries	1,897	..	.	.	.	.	1,897
Total domestic shipments	72,556	517,931	5,086,835	1,009,445	185,401	1,924,669	10,678,275
Total domestic alloy shipments	..	..	.	..	.	.	301,514
Exports² (for final sale)							
81 Exports to the United States	x	207,999	818,231	x	136,766	430,209	3,421,389
82 Exports to other countries (excluding United States)	.	17,533	58,433	x	17,439	148,333	568,482
Total disposition	x	743,463	5,963,499	x	339,606	2,503,211	14,668,146
Total alloy shipments	..	..	.	..	.	.	484,927
Producers interchange, for sale	.	.	24,109	x	.	.	874,183
Exports for conversion and return ²	.	.	..	..	.	..	..
Imports by producers (including conversion)	.	26,120	269,326	160,229	.	..	1,091,441

1. Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.
2. These data include exports reported by steel producers only and are not the same as published in the Exports by commodities, catalogue number 65-004-XPB.
3. 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 1-3
Steel primary forms and pig iron — Production of pig iron

	December		Year-to-date	
	2005	2006	2005	2006
	metric tonnes			
Production of pig iron	696,583	638,813	8,274,051	8,305,254

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

	December		Year-to-date	
	2005	2006	2005	2006
	metric tonnes			
Pig iron including pre-reduced iron	707,073	646,079	8,576,232	8,725,622
Scrap				
Own make	161,809	163,205	2,121,483	2,034,350
Purchased	473,803	461,865	6,244,817	6,117,413
Total, pig iron and scrap products	1,342,685	1,271,149	16,942,532	16,877,385

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

	Production		Shipments	
	2005	2006	2005	2006
	metric tonnes			
December				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	465,730	470,882	38,886	62,261
Basic oxygen furnace	763,665	684,444	21,010	..
Steel, primary forms - Total	1,229,395	1,155,326	59,896	62,261
Included in "Steel primary forms total" above				
Continuous cast steel	1,213,456	1,142,543	56,130	59,097

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

	Production		Shipments	
	2005	2006	2005	2006
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	6,360,851	6,371,708	x	x
Basic oxygen furnace	8,966,566	9,027,664	x	x
Steel, primary forms - Total	15,327,417	15,399,372	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	15,149,478	15,207,230	x	x

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2006

	Production	Shipments for sale		Total shipments
		Domestic ¹ shipments	Exports ²	
metric tonnes				
December				
Total, pipe and tubing	176,669	108,855	81,736	190,591
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	9,024	4,170	136	4,306
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	8,431	8,996	..	8,996
over 16" (40.64 cm) outside diameter	30,825	5,712	30,829	36,541
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	10,854	6,879	6,010	12,889
over 16" (40.64 cm) periphery	27,796	9,071	19,482	28,553
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,955	1,973	2,578	4,551
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,872	1,012	434	1,446
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	830	423	273	696
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,147	3,570	137	3,707
over 16" (40.64 cm) outside diameter	2,294	605	887	1,492
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	17,172	13,349	6,272	19,621
Mechanical tubing, welded, produced from cold rolled	9,354	4,171	1,870	6,041
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	36,654	x	x	51,809
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	13,996	6,959	416	7,375
Other tubular products	465	x	x	2,568

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

2. As reported by respondents to this survey. For total exports see Exports by commodity, catalogue number 65-004-XPB.

Table 2-2
Steel pipe and tubing — Production and shipments, year-to-date 2006

	Production	Shipments for sale		Total shipments
		Domestic ¹ shipments	Exports ²	
metric tonnes				
Year-to-date				
Total, pipe and tubing	2,948,480	1,777,864	1,167,592	2,945,456
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	133,933	95,146	..	95,578
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	89,602	141,461	..	141,461
over 16" (40.64 cm) outside diameter	451,437	112,746	295,826	408,572
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	242,069	116,989	129,710	246,699
over 16" (40.64 cm) periphery	564,646	172,306	378,598	550,904
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	57,631	18,790	35,554	54,344
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	14,360	4,658	10,369	15,027
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	18,730	11,366	2,828	14,194
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	35,033
over 16" (40.64 cm) outside diameter	35,648	x	x	25,138
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	352,506	234,308	104,465	338,773
Mechanical tubing, welded, produced from cold rolled	158,345	65,425	31,281	96,706
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	631,276	x	x	728,630
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	160,015	x	x	145,892
Other tubular products	x	x	x	48,505

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

2. As reported by respondents to this survey. For total exports see Exports by commodity, catalogue number 65-004-XPB.

Table 3-1
Steel and specified wire products — Factory shipments¹, monthly

	Shipments				Production
	2005	2006			
		Total shipments	Domestic shipments	Exports ²	
metric tonnes					
December					
Barbed wire	43	x	x	x	.
Uncoated steel wire	15,526	11,235	6,491	4,744	.
Galvanized steel wire	10,301	9,066	4,333	4,733	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	596	464	x	x	479
Wire mesh, bright or uncoated and galvanized	3,331	3,628	x	x	3,289
Wire rope	2,756	1,880	x	x	1,803
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	2,769	2,405	x	x	2,032
Staples of iron or steel	x	x	x	..	x
All other wire products	x	x	x	x	x
Grand total	36,793	30,682	18,295	12,387	.

1. Totals may not add due to rounding.

2. As reported by respondents to this survey. For total exports see Exports by commodity, catalogue number 65-004-XPB.

Table 3-2
Steel and specified wire products — Factory shipments¹, year-to-date

	Shipments				Production
	2005	2006			
		Total shipments	Domestic shipments	Exports ²	
metric tonnes					
Barbed wire	x	x	x	x	.
Uncoated steel wire	246,975	212,808	118,631	94,177	.
Galvanized steel wire	154,193	152,089	x	x	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	10,946	11,287	x	x	12,389
Wire mesh, bright or uncoated and galvanized	x	54,997	x	x	58,231
Wire rope	41,236	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	x	x	x	x
Staples of iron or steel	x	x	x	x	x
All other wire products	x	x	x	x	x
Grand total	x	555,925	320,465	235,460	.

1. Totals may not add due to rounding.

2. As reported by respondents to this survey. For total exports see Exports by commodity, catalogue number 65-004-XPB.

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
	percentage	
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 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.

More detailed information is available from the Annual Survey of Manufactures and Logging, CANSIM Table 301-0003. Specific enquiries should be directed to: The Marketing and Dissemination Section, Manufacturing, Construction and Energy Division, Statistics Canada, Ottawa, Ontario, K1A 0T6 (Telephone: 1-866-873-8789 or (613) 951-9497; Fax: (613) 951-9499; Internet: manufact@statcan.ca).