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Steel, tubular products and steel wire



August 2005



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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

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Highlights

August 2005

- In August 2005, total dispositions of rolled steel products rebounded strongly rising 36.2% to 1,281,118 metric tonnes from the 940,707 metric tonnes reported the previous month. Domestic shipments of hot rolled sheet and coil, as well as galvanized sheets, were primarily responsible for the increase.
- Production of steel primary forms (carbon and alloy including continuous cast steel) increased 10.5% between July and August 2005 to reach 1,197,263 metric tonnes. However, this level of production remains the second-lowest recorded for 2004 and 2005.
- Following the usual production slowdowns during the summer, monthly steel pipe and tube production rose 33.5% to 236,362 metric tonnes in August 2005. The increase was primarily fuelled by higher production of hollow structural sections and welded mechanical tubing.
- Total shipments (including exports) of steel pipe and tube products grew significantly (20.8%) between July and August, reflecting increased sales of hollow structural sections and welded mechanical tubing.

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 2005

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								
August								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	..	2,292	8,459	8,231	3,187	24,149	..	.
21 Motor vehicles and parts	.	.	.	.	.	28,084	187	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	470	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	99	2,484	7,452	41,024	12,773	..	.
32 Metal building systems	.	.	.	.	.	44	.	.
33 Contractors' products	.	.	36	.	1,058	607	377	.
34 Miscellaneous stamping and coating	5,586	..	275	388	.	1,152	.	.
41 Natural resources and extractive industries	.	.	..	.	3,079	10,936	..	.
51 Agricultural equipment	.	..	..	3	.	363	.	.
52 Non electrical machinery	.	.	..	..	.	1,136	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	..	.	.
62 Wire and wire products	..	.	.	.	114	3,491	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	38	.	.	.
Total domestic shipments	5,586	2,861	11,254	16,074	48,500	82,735	x	..
Total domestic alloy shipments	.	.	.	.	.	18,412	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	1,513	13,907	11,459	1,583	40,460	x	.
82 Exports to other countries (excluding United States)	..	..	217	.	1,911	20,090	x	.
Total disposition	x	4,374	25,378	27,533	51,994	143,285	x	..
Total alloy shipments	.	.	.	.	.	46,770	..	.
Producers interchange, for sale	x	.	.	.	.	2,946	107	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	41,513	.	.	.	.	.	..	.

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 2005

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							
August							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	3,624	30,156	149,009	44,940	2,248	38,432	314,727
21 Motor vehicles and parts	2,749	..	98,057	22,344	.	75,301	226,722
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	2,992	195	.	.	.	3,657
24 Shipbuilding	.	.	.	.	.	.	..
31 Steel fabrication	174	3,653	8,050	205	.	982	76,896
32 Metal building systems	.	.	..	.	.	3,920	3,964
33 Contractors' products	76	138	3,279	1,280	.	32,796	39,647
34 Miscellaneous stamping and coating	275	1,051	8,114	7,018	.	18,807	42,666
41 Natural resources and extractive industries	112	.	..	.	.	8	14,135
51 Agricultural equipment	42	345	63	.	.	.	816
52 Non electrical machinery	78	863	.	30	.	.	2,107
53 Electrical machinery	.	.	.	7,750	.	1,419	9,169
54 Industrial packaging material	.	.	340	12,211	..	..	12,551
61 Pipes and tubes	41	..	156,264	4,542	.	2,230	163,077
62 Wire and wire products	446	..	..	x	.	38	31,211
63 Containers and closures	.	.	..	157	16,205	.	16,362
64 Appliances and utensils industries	.	.	.	6,487	.	3,046	9,533
70 Miscellaneous industries	182	.	.	.	.	.	220
Total domestic shipments	7,799	39,198	423,371	x	18,453	176,979	967,460
Total domestic alloy shipments	155	..	.	..	.	.	18,567
Exports² (for final sale)							
81 Exports to the United States	8,764	18,875	49,897	15,103	11,742	47,203	266,676
82 Exports to other countries (excluding United States)	.	2,885	5,069	x	1,852	12,179	46,982
Total disposition	16,563	60,958	478,337	123,881	32,047	236,361	1,281,118
Total alloy shipments	155	..	.	..	.	.	46,925
Producers interchange, for sale	.	.	1,486	x	.	.	37,382
Exports for conversion and return ²	.	.	..	.	.	.	..
Imports by producers (including conversion)	.	2,157	4,550	..	.	.	48,220

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 2005

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	..	20,594	56,787	57,109	28,119	178,911	..	.
21 Motor vehicles and parts	203,581	1,406	.
22 Railway operating
23 Railroad cars and locomotives	.	3,435	.	.	.	.	.	.
24 Shipbuilding
31 Steel fabrication	..	2,785	9,452	28,468	200,374	107,532	..	.
32 Metal building systems	184	.	.
33 Contractors' products	4,390	4,976	1,546	.
34 Miscellaneous stamping and coating	2,966	2,277	.	12,011	.	.
41 Natural resources and extractive industries	21,228	108,323	..	.
51 Agricultural equipment	3,031	.	.
52 Non electrical machinery	7,065	..	.
53 Electrical machinery
54 Industrial packaging material
61 Pipes and tubes
62 Wire and wire products	37,897	x	.
63 Containers and closures
64 Appliances and utensils industries
70 Miscellaneous industries
Total domestic shipments	6,454	26,848	69,356	87,896	254,263	663,683	x	..
Total domestic alloy shipments	146,223	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	13,561	90,948	75,253	8,568	348,809	x	.
82 Exports to other countries (excluding United States)	906	.	..	141,653	x	.
Total disposition	x	40,453	161,210	163,149	269,845	1,154,145	x	..
Total alloy shipments	347,693	..	.
Producers interchange, for sale	x	.	.	.	.	17,844	..	.
Exports for conversion and return ²
Imports by producers (including conversion)	477,822	.	.	.	.	.	..	.

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 2005

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	23,115	204,763	1,076,116	288,030	19,402	294,046	2,247,074
21 Motor vehicles and parts	19,669	..	718,757	157,447	.	520,884	1,621,744
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	21,966	1,291	.	.	.	26,692
24 Shipbuilding	.	.	.	.	.	.	..
31 Steel fabrication	1,083	36,331	42,041	2,472	.	6,571	437,166
32 Metal building systems	.	.	..	.	.	27,988	30,016
33 Contractors' products	290	..	27,767	12,543	.	222,207	274,225
34 Miscellaneous stamping and coating	2,320	7,084	52,579	51,686	.	141,116	277,630
41 Natural resources and extractive industries	921	.	..	.	.	123	130,697
51 Agricultural equipment	1,420	2,529	2,912	.	.	.	9,959
52 Non electrical machinery	549	4,175	.	..	.	.	11,845
53 Electrical machinery	.	.	.	35,387	.	9,190	44,749
54 Industrial packaging material	.	.	14,536	96,512	..	..	111,448
61 Pipes and tubes	654	..	1,070,997	26,376	.	20,685	1,118,712
62 Wire and wire products	4,090	..	..	x	.	213	227,201
63 Containers and closures	.	..	..	1,425	126,026	.	127,593
64 Appliances and utensils industries	.	.	.	44,323	.	21,470	65,793
70 Miscellaneous industries	1,832	.	.	.	.	.	1,870
Total domestic shipments	55,943	277,318	3,008,987	x	145,813	1,264,508	6,764,625
Total domestic alloy shipments	1,031	..	.	..	.	.	147,254
Exports² (for final sale)							
81 Exports to the United States	x	130,496	444,484	95,735	75,665	329,808	2,136,239
82 Exports to other countries (excluding United States)	.	13,088	38,567	x	11,522	77,964	436,104
Total disposition	x	420,902	3,492,038	827,752	233,000	1,672,280	9,336,968
Total alloy shipments	1,031	..	.	..	.	.	348,724
Producers interchange, for sale	.	.	7,978	x	.	.	427,200
Exports for conversion and return ²	.	.	..	.	.	.	..
Imports by producers (including conversion)	.	11,612	53,983	..	.	.	586,094

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

	August		Year-to-date	
	2004	2005	2004	2005
metric tonnes				
Production of pig iron	757,168	633,734	5,876,790	5,535,677

Table 1-4

Steel primary forms and pig iron — Pig iron and scrap charged to steel furnaces

	August		Year-to-date	
	2004	2005	2004	2005
	metric tonnes			
Pig iron including pre-reduced iron	807,758	644,308	6,176,073	5,764,368
Scrap				
Own make	202,303	157,912	1,551,074	1,460,103
Purchased	507,596	523,894	4,196,305	4,130,014
Total, pig iron and scrap products	1,517,657	1,326,114	11,923,452	11,354,485

Table 1-5

Steel primary forms and pig iron — Production and shipments of steel, primary forms, monthly

	Production		Shipments	
	2004	2005	2004	2005
	metric tonnes			
August				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	535,114	531,818	x	x
Basic oxygen furnace	842,759	665,445	..	..
Steel, primary forms - Total	1,377,873	1,197,263	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	1,364,265	1,190,600	x	x

Table 1-6

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

	Production		Shipments	
	2004	2005	2004	2005
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	4,351,619	4,263,596	x	x
Basic oxygen furnace	6,418,339	5,991,777	x	..
Steel, primary forms - Total	10,769,958	10,255,373	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	10,683,239	10,142,164	x	x

Table 2-1

Steel pipe and tubing — Production and shipments, monthly 2005

	Production	Shipments for sale		Total shipments
		Domestic ¹ shipments	Exports ²	
metric tonnes				
August				
Total, pipe and tubing	236,362	170,536	84,509	255,045
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	3,644	x	x	6,654
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	10,877	20,048	..	20,048
over 16" (40.64 cm) outside diameter	18,943	840	2,845	3,685
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	26,427	14,745	16,460	31,205
over 16" (40.64 cm) periphery	47,771	17,304	33,547	50,851
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,255	2,907	4,213	7,120
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,186	782	1,070	1,852
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	2,737	1,367	203	1,570
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	4,684	4,571	496	5,067
over 16" (40.64 cm) outside diameter	1,112	859	282	1,141
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	38,221	26,011	11,446	37,457
Mechanical tubing, welded, produced from cold rolled	14,101	8,182	2,989	11,171
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	51,617	53,936	5,600	59,536
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	8,858	9,390	3,138	12,528
Other tubular products	1,929	3,093	2,067	5,160

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 2005

	Production	Shipments for sale		Total shipments
		Domestic ¹ shipments	Exports ²	
metric tonnes				
Year-to-date				
Total, pipe and tubing	1,839,789	1,106,872	691,824	1,798,696
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	47,495	x	x	51,723
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	73,220	76,267	..	76,458
over 16" (40.64 cm) outside diameter	128,659	1,554	93,252	94,806
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	221,753	118,232	116,740	234,972
over 16" (40.64 cm) periphery	348,734	120,733	226,179	346,912
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	36,708	16,929	27,077	44,006
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	7,543	5,988	5,771	11,759
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	17,056	x	1,078	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	26,227	x	x	x
over 16" (40.64 cm) outside diameter	18,175	x	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	266,999	167,771	81,853	249,624
Mechanical tubing, welded, produced from cold rolled	114,655	60,243	23,520	83,763
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	429,945	372,339	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	86,223	57,881	x	x
Other tubular products	16,397	20,116	14,807	34,923

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	
	2004	2005			
		Total shipments	Domestic shipments	Exports ²	
metric tonnes					
August					
Barbed wire	x	122	122	..	.
Uncoated steel wire	26,809	18,698	11,046	7,652	.
Galvanized steel wire	16,331	12,314	5,195	7,119	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	898	847	x	x	736
Wire mesh, bright or uncoated and galvanized	4,069	5,018	x	x	5,220
Wire rope	3,504	2,946	x	x	3,021
Nails and staples	6,115	x	x	3,288	x
Wire roofing nails of a length of 25 mm or more, iron or steel	5,972	5,340	2,052	3,288	4,620
Staples of iron or steel	x	x	x	..	x
All other wire products	x	x	x	x	x
Grand total	61,329	48,276	28,096	20,180	.

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	
	2004	2005			
		Total shipments	Domestic shipments	Exports ²	
metric tonnes					
Barbed wire	x	x	x	x	.
Uncoated steel wire	214,249	167,584	93,972	73,612	.
Galvanized steel wire	129,936	103,932	42,809	61,123	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	9,023	7,660	x	x	6,723
Wire mesh, bright or uncoated and galvanized	32,016	x	x	x	x
Wire rope	30,764	27,157	x	x	26,609
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	61,692	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	511,567	x	x	x	.

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 or ASM (Survey ID 2103). This means that estimates from the monthly surveys do not cover the entire universe of steel production in Canada because the ASM does not survey all manufacturers. Instead, the ASM uses administrative data to cover the small and medium-sized manufacturers. These manufacturers are not part of the four monthly surveys.

General methodology

Data are collected monthly using a mail-out / mail-back process. Respondents are mailed a questionnaire but given the option of electronic data reporting (EDR) in a common format. Received data are subject to manual and automated editing to detect errors and inconsistencies as well as to follow-up with respondents by phone or fax if necessary. Follow-up is also carried out for missing reports after a pre-specified period of time. Data are imputed when they are missing. 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 direct or residual disclosure of identifiable data.

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 year-to-date totals in this publication.

Data accuracy

The methodology for these surveys has been designed to promote data accuracy. Since data are collected from all Canadian producers of primary steel, steel product, pig iron, steel pipe and tubing, and steel wire in the target population (see description above), 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, the data are analyzed for consistency and compared with general economic conditions and industry trends using surveys such as the Steel Primary Forms Weekly survey (Survey ID 2131) and the Monthly Survey of Manufacturing (Survey ID 2101).

Coverage errors

The list of businesses included in the four steel surveys is derived from the Annual Survey of Manufactures (ASM). This leads to some under-coverage in the sub-annual surveys since it takes 15 months to compile and publish ASM survey results. This under-coverage is however, kept at a minimum by using advance information from the ASM frame, feedback from the Monthly Survey of Manufactures (MSM) and other sources such as the Steel producers association, trade journals and newspaper articles.

Non-response

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

This error 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 because of definitional difficulties. To reduce such errors the format and wording in the questionnaire is 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 accuracy of reported information.

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. (see text table 1)

Text table 1

Coverage ratio and non-response rate by survey

	Coverage ratio	Non-response rate
	%	
Steel, Primary forms steel castings and Pig iron	91	11
Ingots and Rolled steel products	98	18
Steel pipe and tubing	82	2
Steel wire	92	2

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 during a reference period. These 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, 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 OT6 (Telephone: 1-866-873-8789 or 613-951-9497; Fax line: 613-951-9499; Internet: manufact@statcan.ca) .