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Steel, tubular products and steel wire



June 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

June 2005

- Shipments of rolled steel products dropped by 5.5% to 1,155,128 metric tonnes in June (the lowest level since February) as a result of a decline in shipments to foreign countries, including the United States. Total domestic shipments were relatively unchanged at 867,551 tonnes.
- Steel pipe and tube production increased 2.3% reaching 244,105 metric tones, after having experienced a 2.2% decline in May 2005. The increase in June was due to an increase in the production of oilwell tubing (including coupling) and hollow structural sections despite a continued decline in the production of oil country casing (including coupling).

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								
June								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	0	3,454	6,796	6,121	4,824	19,293	0	.
21 Motor vehicles and parts	.	.	.	.	.	28,772	189	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	647	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	904	845	3,421	25,213	13,216	27	.
32 Metal building systems	.	.	.	.	.	20	.	.
33 Contractors' products	.	.	.	.	412	467	174	.
34 Miscellaneous stamping and coating	.	5	331	197	.	1,951	.	.
41 Natural resources and extractive industries	.	.	19	.	8,122	15,483	4	.
51 Agricultural equipment	.	0	0	0	.	251	.	.
52 Non electrical machinery	.	0	0	0	.	1,716	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	5,194	19,263	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	.	.	.	.
Total domestic shipments	0	5,010	7,991	9,739	38,571	86,363	19,657	0
Total domestic alloy shipments	.	.	.	.	.	19,453	0	.
Exports ² (for final sale)								
81 Exports to the United States	x	1,663	10,114	7,612	119	43,624	33,111	.
82 Exports to other countries (excluding United States)	0	0	0	.	.	18,995	395	.
Total disposition	x	6,673	18,105	17,351	38,690	148,982	53,163	0
Total alloy shipments	.	.	.	.	.	44,309	0	.
Producers interchange, for sale	x	.	.	.	.	2,479	37	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	119,694	.	.	.	.	.	0	.

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							
June							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	3,410	23,625	129,220	36,449	2,516	28,312	264,020
21 Motor vehicles and parts	2,560	0	93,454	20,690	.	69,359	215,024
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	3,354	311	.	.	.	4,312
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	196	4,453	6,135	117	.	1,312	55,839
32 Metal building systems	.	.	0	.	.	4,321	4,341
33 Contractors' products	16	8	3,440	1,810	.	33,065	39,392
34 Miscellaneous stamping and coating	276	1,289	6,816	6,879	.	24,507	42,251
41 Natural resources and extractive industries	89	.	3	.	.	1	23,721
51 Agricultural equipment	204	124	307	.	.	.	886
52 Non electrical machinery	89	632	.	.	.	.	2,437
53 Electrical machinery	.	.	.	5,075	.	1,055	6,130
54 Industrial packaging material	.	.	2,709	11,467	73	0	14,249
61 Pipes and tubes	80	0	136,643	3,745	.	3,402	143,870
62 Wire and wire products	477	.	0	98	.	35	25,067
63 Containers and closures	.	.	41	190	17,263	.	17,494
64 Appliances and utensils industries	.	.	.	5,408	.	2,903	8,311
70 Miscellaneous industries	207	.	.	.	.	.	207
Total domestic shipments	7,604	33,485	379,079	91,928	19,852	168,272	867,551
Total domestic alloy shipments	113	0	.	0	.	.	19,566
Exports² (for final sale)							
81 Exports to the United States	x	15,165	51,178	13,227	10,052	42,037	248,797
82 Exports to other countries (excluding United States)	.	2,078	3,527	861	1,305	11,619	38,780
Total disposition	x	50,728	433,784	106,016	31,209	221,928	1,155,128
Total alloy shipments	113	0	.	0	.	.	44,422
Producers interchange, for sale	.	.	620	x	.	.	53,170
Exports for conversion and return ²	.	.	0	.	.	.	0
Imports by producers (including conversion)	.	4,551	2,723	0	.	.	126,968

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	3	16,635	42,140	43,564	22,332	134,381	73	.
21 Motor vehicles and parts	.	.	.	.	.	153,881	955	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	2,567	.	.	.	.	.	.
24 Shipbuilding	.	.	.	.	.	.	.	.
31 Steel fabrication	0	2,432	5,727	18,867	130,720	82,862	27	.
32 Metal building systems	.	.	.	.	.	116	.	.
33 Contractors' products	.	.	.	.	3,177	3,963	820	.
34 Miscellaneous stamping and coating	.	5	2,491	1,516	.	10,303	.	.
41 Natural resources and extractive industries	.	.	93	.	14,528	82,798	.	.
51 Agricultural equipment	.	12	13	39	.	2,592	.	.
52 Non electrical machinery	.	17	9	0	.	5,497	0	.
53 Electrical machinery	.	.	.	.	.	172	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	485	.	.	.	0	30,297	141,032	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	.	.	.	.
Total domestic shipments	699	21,668	50,473	63,986	170,757	506,862	142,911	..
Total domestic alloy shipments	.	.	.	.	.	114,632	0	.
Exports ² (for final sale)								
81 Exports to the United States	x	10,575	66,223	56,508	814	273,768	210,270	.
82 Exports to other countries (excluding United States)	120,160	..	564	.	.	115,158	3,526	.
Total disposition	x	32,287	117,260	120,494	171,571	895,788	356,707	..
Total alloy shipments	.	.	.	.	.	277,040	0	.
Producers interchange, for sale	x	.	.	.	.	13,687	326	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	378,314	.	.	.	.	.	0	.

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	17,225	150,137	817,672	214,470	15,040	227,785	1,701,457
21 Motor vehicles and parts	15,309	0	561,426	122,699	.	406,960	1,261,230
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	16,623	1,010	.	.	.	20,200
24 Shipbuilding	.	.	.	.	.	.	.
31 Steel fabrication	787	30,472	30,369	1,820	.	4,105	308,188
32 Metal building systems	.	.	.	.	.	21,415	23,375
33 Contractors' products	190	332	21,907	10,671	.	165,277	206,337
34 Miscellaneous stamping and coating	1,836	4,848	41,681	40,118	.	104,928	207,726
41 Natural resources and extractive industries	718	.	.	.	.	91	98,236
51 Agricultural equipment	1,256	1,862	2,844	.	.	.	8,618
52 Non electrical machinery	426	2,900	.	.	.	.	8,849
53 Electrical machinery	.	.	.	23,966	.	6,286	30,424
54 Industrial packaging material	.	.	13,963	75,295	332	15	89,605
61 Pipes and tubes	537	0	802,352	19,336	.	16,537	838,762
62 Wire and wire products	3,238	.	0	760	.	171	175,983
63 Containers and closures	.	.	84	1,195	95,479	.	96,758
64 Appliances and utensils industries	.	.	.	32,717	.	16,053	48,770
70 Miscellaneous industries	1,514	.	.	.	.	.	1,514
Total domestic shipments	43,036	207,174	2,295,156	543,047	110,851	969,623	5,126,243
Total domestic alloy shipments	801	0	.	0	.	.	115,433
Exports² (for final sale)							
81 Exports to the United States	x	97,731	339,361	68,615	57,663	250,665	1,636,559
82 Exports to other countries (excluding United States)	.	8,207	29,057	11,874	7,539	56,212	352,341
Total disposition	x	313,112	2,663,574	623,536	176,053	1,276,500	7,115,143
Total alloy shipments	801	0	.	0	.	.	277,841
Producers interchange, for sale	.	.	6,323	x	.	.	353,494
Exports for conversion and return ²	.	.	2,095	.	.	.	2,095
Imports by producers (including conversion)	.	8,303	45,317	28,533	.	.	460,467

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

	June		Year-to-date	
	2004	2005	2004	2005
metric tonnes				
Production of pig iron	695,050	677,887	4,372,061	4,252,569

Table 1-4

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

	June		Year-to-date	
	2004	2005	2004	2005
	metric tonnes			
Pig iron including pre-reduced iron	729,962	690,436	4,602,693	4,489,314
Scrap				
Own make	188,132	179,642	1,159,534	1,154,219
Purchased	510,168	513,069	3,195,409	3,198,267
Total, pig iron and scrap products	1,428,262	1,383,147	8,957,636	8,841,800

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			
June				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	521,943	522,568	42,685	x
Basic oxygen furnace	768,164	732,822	..	0
Steel, primary forms - Total	1,290,107	1,255,390	42,685	x
Included in "Steel primary forms total" above				
Continuous cast steel	1,278,015	1,248,351	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	3,289,059	3,344,584	x	x
Basic oxygen furnace	4,792,535	4,630,442	x	44,892
Steel, primary forms - Total	8,081,594	7,975,026	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	8,016,966	7,884,605	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				
June				
Total, pipe and tubing	244,105	143,528	99,601	243,129
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	2,630	x	x	8,533
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	6,927	5,895	0	5,895
over 16" (40.64 cm) outside diameter	19,538	96	15,922	16,018
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	33,222	17,318	16,350	33,668
over 16" (40.64 cm) periphery	45,691	15,951	27,889	43,840
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,844	2,124	2,935	5,059
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,219	1,261	1,492	2,753
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,418	1,234	75	1,309
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,536	x	x	3,353
over 16" (40.64 cm) outside diameter	3,779	851	169	1,020
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	40,851	22,832	12,847	35,679
Mechanical tubing, welded, produced from cold rolled	14,938	8,717	3,509	12,226
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	43,704	47,443	10,249	57,692
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	19,101	7,570	4,369	11,939
Other tubular products	2,707	2,308	1,837	4,145

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	1,426,347	801,086	531,509	1,332,595
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	39,506	x	x	38,473
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	59,290	49,951	42	49,993
over 16" (40.64 cm) outside diameter	93,909	616	80,533	81,149
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	171,676	89,474	86,152	175,626
over 16" (40.64 cm) periphery	265,110	91,103	168,125	259,228
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	29,567	11,630	20,037	31,667
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	6,049	4,288	4,246	8,534
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	13,312	x	749	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	19,043	x	x	x
over 16" (40.64 cm) outside diameter	15,881	x	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	204,083	127,790	62,922	190,712
Mechanical tubing, welded, produced from cold rolled	89,842	45,806	17,325	63,131
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	332,111	258,476	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	72,894	40,634	x	x
Other tubular products	14,074	15,891	11,660	27,551

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					
June					
Barbed wire	x	215	x	x	.
Uncoated steel wire	28,487	22,110	12,521	9,589	.
Galvanized steel wire	16,594	13,307	5,721	7,586	.
Other coated steel wire	x	x	x	49	.
Farm fencing and wire chain link fabric	1,370	865	x	x	997
Wire mesh, bright or uncoated and galvanized	4,242	4,985	x	x	5,392
Wire rope	3,779	3,585	x	x	3,414
Nails and staples	x	x	x	3,604	x
Wire roofing nails of a length of 25 mm or more, iron or steel	8,083	5,803	2,199	3,604	5,853
Staples of iron or steel	x	x	x	0	x
All other wire products	x	x	x	x	x
Grand total	66,875	54,177	31,298	22,879	.

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	166,277	133,083	74,423	58,660	.
Galvanized steel wire	100,116	79,766	32,937	46,829	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	7,061	6,037	x	x	5,208
Wire mesh, bright or uncoated and galvanized	24,225	x	x	x	x
Wire rope	23,399	21,065	x	x	20,497
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	49,143	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	396,807	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 0T6 (Telephone: 1-866-873-8789 or 613-951-9497; Fax line: 613-951-9499; Internet: manufact@statcan.ca) .