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Steel, tubular products and steel wire



July 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

July 2005

- Total dispositions of rolled steel products dipped 18.6% to 940,707 metric tonnes in July, their lowest level since December 2001. Just over two thirds of the decline was attributable to lagging domestic shipments of hot rolled sheets and coil and galvanised sheets. Planned production shutdowns contributed to the drop.
- Production of steel primary forms fell 13.7% to 1,083,118 metric tonnes, their lowest level since August 1996. The decline was concentrated in steel production from electric furnaces.
- Steel pipe and tube production decreased 27.5%, to 177,080 metric tonnes. This decline is seasonal as every year in July some plants slow down production while others shut down for summer holidays.
- Total shipments of Steel pipe and tube declined in July (-13.2%). Both domestic shipments and exports were lower for the month but exports took more of a plunge (-23.9%).

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								
July								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	6	1,667	6,188	5,314	2,600	20,381	..	.
21 Motor vehicles and parts	.	.	.	.	.	21,616	264	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	398	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	254	1,241	2,149	28,630	11,897	30	.
32 Metal building systems	.	.	.	.	.	24	.	.
33 Contractors' products	.	.	.	.	155	406	349	.
34 Miscellaneous stamping and coating	.	..	200	373	.	556	.	.
41 Natural resources and extractive industries	.	.	..	.	3,621	14,589	..	.
51 Agricultural equipment	.	..	..	..	.	76	.	.
52 Non electrical machinery	.	.	.	.	.	432	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	.	.	.
62 Wire and wire products	163	.	.	.	..	4,109	15,226	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	.	.	.	.
Total domestic shipments	169	2,319	7,629	7,836	35,006	74,086	15,869	..
Total domestic alloy shipments	.	.	.	.	.	13,179	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	1,473	10,818	7,286	6,171	34,581	33,764	.
82 Exports to other countries (excluding United States)	5,337	..	125	.	5,103	6,405	431	.
Total disposition	x	3,792	18,572	15,122	46,280	115,072	50,064	..
Total alloy shipments	.	.	.	.	.	23,883	..	.
Producers interchange, for sale	x	.	.	.	.	1,211	..	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	57,995	.	.	.	.	.	..	.

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							
July							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	2,266	24,470	109,435	28,620	2,114	27,829	230,890
21 Motor vehicles and parts	1,611	..	59,274	12,404	.	38,623	133,792
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	2,351	86	.	.	.	2,835
24 Shipbuilding	.	..	.	.	.	.	..
31 Steel fabrication	122	2,206	3,622	447	.	1,484	52,082
32 Metal building systems	.	..	..	.	.	2,653	2,677
33 Contractors' products	24	..	2,581	592	.	24,134	28,241
34 Miscellaneous stamping and coating	209	1,185	2,784	4,550	.	17,381	27,238
41 Natural resources and extractive industries	91	.	1	.	.	24	18,326
51 Agricultural equipment	122	322	5	.	.	.	525
52 Non electrical machinery	45	412	.	.	.	.	889
53 Electrical machinery	.	..	.	3,671	.	1,485	5,156
54 Industrial packaging material	.	..	233	9,006	53	..	9,292
61 Pipes and tubes	76	..	112,381	2,498	.	1,918	116,873
62 Wire and wire products	406	..	..	99	.	4	20,007
63 Containers and closures	.	..	58	73	14,342	.	14,473
64 Appliances and utensils industries	.	..	.	5,119	.	2,371	7,490
70 Miscellaneous industries	136	.	.	.	.	.	136
Total domestic shipments	5,108	30,946	290,460	67,079	16,509	117,906	670,922
Total domestic alloy shipments	75	..	.	..	.	.	13,254
Exports² (for final sale)							
81 Exports to the United States	x	13,890	55,226	12,017	6,260	31,940	233,004
82 Exports to other countries (excluding United States)	.	1,996	4,441	1,239	2,131	9,573	36,781
Total disposition	x	46,832	350,127	80,335	24,900	159,419	940,707
Total alloy shipments	75	..	.	..	.	.	23,958
Producers interchange, for sale	.	.	169	x	.	.	36,324
Exports for conversion and return ²	.	.	18	.	.	.	18
Imports by producers (including conversion)	.	1,152	4,116	14,144	.	.	77,407

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	9	18,302	48,328	48,878	24,932	154,762	..	.
21 Motor vehicles and parts	.	.	.	.	.	175,497	1,219	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	2,965	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	2,686	6,968	21,016	159,350	94,759	57	.
32 Metal building systems	.	.	.	.	.	140	.	.
33 Contractors' products	.	.	.	.	3,332	4,369	1,169	.
34 Miscellaneous stamping and coating	.	..	2,691	1,889	.	10,859	.	.
41 Natural resources and extractive industries	.	.	..	.	18,149	97,387	..	.
51 Agricultural equipment	.	..	..	..	.	2,668	..	.
52 Non electrical machinery	.	..	..	..	.	5,929	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	..	.	.
62 Wire and wire products	648	.	.	.	..	34,406	156,258	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	.	.	.	.
Total domestic shipments	868	23,987	58,102	71,822	205,763	580,948	158,780	..
Total domestic alloy shipments	.	.	.	.	.	127,811	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	12,048	77,041	63,794	6,985	308,349	244,034	.
82 Exports to other countries (excluding United States)	125,497	..	689	.	..	121,563	3,957	.
Total disposition	x	36,079	135,832	135,616	217,851	1,010,860	406,771	..
Total alloy shipments	.	.	.	.	.	300,923	..	.
Producers interchange, for sale	x	.	.	.	.	14,898	..	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	436,309	.	.	.	.	.	..	.

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	19,491	174,607	927,107	243,090	17,154	255,614	1,932,347
21 Motor vehicles and parts	16,920	..	620,700	135,103	.	445,583	1,395,022
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	18,974	1,096	.	.	.	23,035
24 Shipbuilding	.	.	.	.	.	.	..
31 Steel fabrication	909	32,678	33,991	2,267	.	5,589	360,270
32 Metal building systems	.	.	..	.	.	24,068	26,052
33 Contractors' products	214	..	24,488	11,263	.	189,411	234,578
34 Miscellaneous stamping and coating	2,045	6,033	44,465	44,668	.	122,309	234,964
41 Natural resources and extractive industries	809	.	.	.	.	115	116,562
51 Agricultural equipment	1,378	2,184	2,849	.	.	.	9,143
52 Non electrical machinery	471	3,312	.	.	.	.	9,738
53 Electrical machinery	.	.	.	27,637	.	7,771	35,580
54 Industrial packaging material	.	.	14,196	84,301	385	..	98,897
61 Pipes and tubes	613	..	914,733	21,834	.	18,455	955,635
62 Wire and wire products	3,644	.	..	859	.	175	195,990
63 Containers and closures	.	.	142	1,268	109,821	.	111,231
64 Appliances and utensils industries	.	.	.	37,836	.	18,424	56,260
70 Miscellaneous industries	1,650	.	.	.	.	.	1,650
Total domestic shipments	48,144	238,120	2,585,616	610,126	127,360	1,087,529	5,797,165
Total domestic alloy shipments	876	..	.	..	.	.	128,687
Exports² (for final sale)							
81 Exports to the United States	x	111,621	394,587	80,632	63,923	282,605	1,869,563
82 Exports to other countries (excluding United States)	.	10,203	33,498	13,113	9,670	65,785	389,122
Total disposition	x	359,944	3,013,701	703,871	200,953	1,435,919	8,055,850
Total alloy shipments	876	..	.	..	.	.	301,799
Producers interchange, for sale	.	.	6,492	x	.	.	389,818
Exports for conversion and return ²	.	.	2,113	.	.	.	2,113
Imports by producers (including conversion)	.	9,455	49,433	42,677	.	.	537,874

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

	July		Year-to-date	
	2004	2005	2004	2005
metric tonnes				
Production of pig iron	747,561	649,374	5,119,622	4,901,943

Table 1-4

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

	July		Year-to-date	
	2004	2005	2004	2005
	metric tonnes			
Pig iron including pre-reduced iron	765,622	630,746	5,368,315	5,120,060
Scrap				
Own make	189,237	148,003	1,348,771	1,302,191
Purchased	493,300	407,858	3,688,709	3,606,120
Total, pig iron and scrap products	1,448,159	1,186,607	10,405,795	10,028,372

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			
July				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	527,446	387,228	x	x
Basic oxygen furnace	783,045	695,890	..	..
Steel, primary forms - Total	1,310,491	1,083,118	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	1,302,008	1,066,959	x	24,094

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	3,816,505	3,731,778	x	x
Basic oxygen furnace	5,575,580	5,326,332	x	..
Steel, primary forms - Total	9,392,085	9,058,110	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	9,318,974	8,951,564	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				
July				
Total, pipe and tubing	177,080	135,250	75,806	211,056
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,345	x	x	6,596
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,053	6,268	149	6,417
over 16" (40.64 cm) outside diameter	15,807	98	9,874	9,972
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	23,650	14,013	14,128	28,141
over 16" (40.64 cm) periphery	35,853	12,326	24,507	36,833
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	2,886	2,392	2,827	5,219
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	308	918	455	1,373
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,007	706	126	832
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,500	x	x	2,091
over 16" (40.64 cm) outside diameter	1,182	x	x	1,214
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	24,695	13,970	7,485	21,455
Mechanical tubing, welded, produced from cold rolled	10,712	6,255	3,206	9,461
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	46,217	59,927	7,957	67,884
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	4,471	7,857	3,499	11,356
Other tubular products	394	1,132	1,080	2,212

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	1,603,427	936,336	607,315	1,543,651
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	43,851	x	x	45,069
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	62,343	56,219	191	56,410
over 16" (40.64 cm) outside diameter	109,716	714	90,407	91,121
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	195,326	103,487	100,280	203,767
over 16" (40.64 cm) periphery	300,963	103,429	192,632	296,061
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	32,453	14,022	22,864	36,886
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	6,357	5,206	4,701	9,907
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	14,319	x	875	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	21,543	x	x	x
over 16" (40.64 cm) outside diameter	17,063	x	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	228,778	141,760	70,407	212,167
Mechanical tubing, welded, produced from cold rolled	100,554	52,061	20,531	72,592
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	378,328	318,403	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	77,365	48,491	x	x
Other tubular products	14,468	17,023	12,740	29,763

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					
July					
Barbed wire	x	160	x	x	.
Uncoated steel wire	21,163	15,803	8,503	7,300	.
Galvanized steel wire	13,489	11,852	4,677	7,175	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	1,064	776	x	x	779
Wire mesh, bright or uncoated and galvanized	3,722	4,164	x	x	4,299
Wire rope	3,861	3,146	x	x	3,091
Nails and staples	6,687	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	6,577	4,421	1,448	2,973	x
Staples of iron or steel	110	x	x	x	x
All other wire products	x	x	x	x	x
Grand total	53,431	42,237	22,691	19,546	.

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	187,440	148,886	82,926	65,960	.
Galvanized steel wire	113,605	91,618	37,614	54,004	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	8,125	6,813	x	x	5,987
Wire mesh, bright or uncoated and galvanized	27,947	x	x	x	x
Wire rope	27,260	24,211	x	x	23,588
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	55,720	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	450,238	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) .