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Steel, tubular products and steel wire



February 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

February

- Between January and February, 2005, production of primary steel forms dropped 3.1% to 1.3 million metric tonnes due to plant shutdowns for some producers. Shipments of primary steel forms, however, rose by 2.9% to 81.6 million metric tonnes as producers depleted their inventories. (Table 1-5)
- Shipments of total rolled steel products in February were unchanged from previous month at 1.1 million metric tonnes. Declines in shipments of rolled steel products to Canadian and U.S. markets of 1.5% were offset by a 46.0% increase of shipments destined for non-U.S. foreign countries (which rose to 50 968 metric tonnes). (Table 1-1)
- Shipments of steel wire and specified wire products reached 51 608 metric tonnes in February, up 5.8% from the 48 790 metric tonnes shipped in January. However, February shipments are 20.2% below the 64 674 metric tonnes shipped in the same month a year ago.
- The February shipment level for steel pipe and tubing was 217 423 metric tonnes, down 2.1% from the previous month and 8.2% below the 236 951 metric tonnes shipped in February 2004.

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								
February								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	3	2,164	6,378	7,165	4,038	19,256	0	.
21 Motor vehicles and parts	.	.	.	.	.	26,117	37	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	317	.	.	.	.	.	.
24 Shipbuilding	.	.	.	.	.	.	.	.
31 Steel fabrication	0	278	477	1,366	21,201	14,035	0	.
32 Metal building systems	.	.	.	.	.	6	.	.
33 Contractors' products	.	.	.	.	327	398	0	.
34 Miscellaneous stamping and coating	.	0	431	259	.	1,013	.	.
41 Natural resources and extractive industries	.	.	0	.	613	14,940	.	.
51 Agricultural equipment	.	0	0	5	.	431	.	.
52 Non electrical machinery	.	0	0	0	.	774	0	.
53 Electrical machinery	.	.	.	.	.	172	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	5,660	28,950	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	.	.	.	.
Total domestic shipments	3	2,759	7,286	8,795	26,179	82,802	28,987	.
Total domestic alloy shipments	.	.	.	.	.	20,913	0	.
Exports ² (for final sale)								
Exports to the United States	34,058	1,085	9,918	8,272	0	43,893	24,486	.
Exports to other countries (excluding United States)	8,277	.	47	.	.	27,725	0	.
81 Total disposition	42,338	3,844	17,251	17,067	26,179	154,420	53,473	.
82 Total alloy shipments	.	.	.	.	.	55,779	0	.
Producers interchange, for sale	x	.	.	.	.	1,663	0	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	5,501	.	.	.	.	.	0	.

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							
February							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	2,834	25,396	132,104	34,534	2,560	40,589	277,021
21 Motor vehicles and parts	2,446	0	90,363	20,694	.	62,342	201,999
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	2,120	0	.	.	.	2,437
24 Shipbuilding	.	.	.	.	.	.	.
31 Steel fabrication	118	4,267	4,512	609	.	343	47,206
32 Metal building systems	.	.	.	.	.	5,162	5,168
33 Contractors' products	63	63	3,804	1,609	.	25,906	32,170
34 Miscellaneous stamping and coating	339	36	7,725	6,893	.	14,700	31,396
41 Natural resources and extractive industries	112	.	.	.	.	18	15,683
51 Agricultural equipment	230	63	614	.	.	.	1,343
52 Non electrical machinery	57	401	.	.	.	.	1,232
53 Electrical machinery	.	.	.	2,543	.	754	3,469
54 Industrial packaging material	.	.	899	13,142	175	15	14,231
61 Pipes and tubes	59	0	127,621	2,809	.	2,301	132,790
62 Wire and wire products	483	.	0	149	.	0	35,242
63 Containers and closures	.	.	0	196	13,053	.	13,249
64 Appliances and utensils industries	.	.	.	5,247	.	2,473	7,720
70 Miscellaneous industries	176	.	.	.	.	.	176
Total domestic shipments	6,917	32,346	367,642	88,425	15,788	154,603	822,532
Total domestic alloy shipments	136	0	.	0	.	.	21,049
Exports² (for final sale)							
Exports to the United States	8,399	15,217	52,707	10,055	7,179	38,930	254,199
Exports to other countries (excluding United States)	.	887	4,321	1,262	931	7,518	50,968
81 Total disposition	15,316	48,450	424,670	99,742	23,898	201,051	1,127,699
82 Total alloy shipments	136	0	.	0	.	.	55,915
Producers interchange, for sale	.	.	581	x	.	.	50,823
Exports for conversion and return ²	.	.	506	.	.	.	506
Imports by producers (including conversion)	.	644	16,626	330	.	.	23,101

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	5,842	13,149	16,440	6,329	45,335	0	.
21 Motor vehicles and parts	.	.	.	.	.	47,719	113	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	641	.	.	.	.	.	.
24 Shipbuilding	.	.	.	.	.	.	.	.
31 Steel fabrication	0	982	1,930	4,762	38,293	28,178	0	.
32 Metal building systems	.	.	.	.	.	74	.	.
33 Contractors' products	.	.	.	.	565	1,199	129	.
34 Miscellaneous stamping and coating	.	0	670	426	.	4,062	.	.
41 Natural resources and extractive industries	.	.	0	.	1,404	28,279	.	.
51 Agricultural equipment	.	0	5	21	.	887	.	.
52 Non electrical machinery	.	0	0	0	.	1,627	0	.
53 Electrical machinery	.	.	.	.	.	172	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	11,105	52,253	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	.	.	.	.
Total domestic shipments	3	7,465	15,754	21,649	46,591	168,637	52,495	.
Total domestic alloy shipments	.	.	.	.	.	36,859	0	.
Exports ² (for final sale)								
Exports to the United States	60,440	2,727	20,971	18,939	0	91,450	54,400	.
Exports to other countries (excluding United States)	16,604	.	174	.	.	37,482	777	.
81 Total disposition	77,047	10,192	36,899	40,588	46,591	297,569	107,672	.
82 Total alloy shipments	.	.	.	.	.	91,597	0	.
Producers interchange, for sale	x	.	.	.	.	4,209	33	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	47,433	.	.	.	.	.	0	.

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	5,108	51,595	264,237	69,544	4,410	81,636	563,628
21 Motor vehicles and parts	4,877	0	190,004	41,958	.	127,999	412,670
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	4,447	0	.	.	.	5,088
24 Shipbuilding	.	.	.	.	.	.	.
31 Steel fabrication	225	9,557	10,645	854	.	889	96,315
32 Metal building systems	.	.	.	.	.	8,394	8,468
33 Contractors' products	83	253	8,114	3,766	.	48,048	62,157
34 Miscellaneous stamping and coating	676	986	14,424	15,059	.	28,726	65,029
41 Natural resources and extractive industries	214	.	.	.	.	82	29,979
51 Agricultural equipment	425	594	708	.	.	.	2,640
52 Non electrical machinery	138	550	.	.	.	.	2,315
53 Electrical machinery	.	.	.	3,215	.	1,609	4,996
54 Industrial packaging material	.	.	3,534	25,023	175	15	28,747
61 Pipes and tubes	178	0	248,800	6,350	.	4,889	260,217
62 Wire and wire products	1,124	.	0	267	.	68	64,817
63 Containers and closures	.	.	0	361	26,484	.	26,845
64 Appliances and utensils industries	.	.	.	9,418	.	4,564	13,982
70 Miscellaneous industries	507	.	.	.	.	.	507
Total domestic shipments	13,555	67,982	740,466	175,815	31,069	306,919	1,648,400
Total domestic alloy shipments	319	0	.	0	.	.	37,178
Exports² (for final sale)							
Exports to the United States	16,731	30,948	108,394	19,809	15,568	80,765	521,142
Exports to other countries (excluding United States)	.	2,796	8,017	2,780	2,825	14,433	85,888
81 Total disposition	30,286	101,726	856,877	198,404	49,462	402,117	2,255,430
82 Total alloy shipments	319	0	.	0	.	.	91,916
Producers interchange, for sale	.	.	2,046	x	.	.	113,610
Exports for conversion and return ²	.	.	1,471	.	.	.	1,471
Imports by producers (including conversion)	.	2,279	29,648	330	.	.	79,690

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

	February		Year-to-date	
	2004	2005	2004	2005
metric tonnes				
Production of pig iron	726,713	680,423	1,437,496	1,394,646

Table 1-4

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

	February		Year-to-date	
	2004	2005	2004	2005
	metric tonnes			
Pig iron including pre-reduced iron	761,275	731,269	1,502,365	1,499,976
Scrap				
Own make	192,829	181,715	399,232	386,996
Purchased	523,574	516,450	1,076,927	1,036,975
Total, pig iron and scrap products	1,477,678	1,429,434	2,978,524	2,923,947

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			
February				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	522,296	537,778	x	79,811
Basic oxygen furnace	815,344	757,027	2,132	1,823
Steel, primary forms - Total	1,337,640	1,294,805	x	81,634
Included in "Steel primary forms total" above				
Continuous cast steel	1,324,189	1,279,412	x	77,788

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	1,091,477	1,107,844	x	143,811
Basic oxygen furnace	1,600,553	1,523,320	5,433	17,118
Steel, primary forms - Total	2,692,030	2,631,164	x	160,929
Included in "Steel primary forms total" above				
Continuous cast steel	2,665,267	2,600,726	x	152,744

Table 2-1

Steel pipe and tubing — Production and shipments, monthly 2005

	Production	Shipments for sale		Total shipments
		Domestic shipments ¹	Exports ²	
metric tonnes				
February				
Total, pipe and tubing	217,851	143,123	74,300	217,423
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	11,110	7,878	143	8,021
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	8,236	11,756	0	11,756
over 16" (40.64 cm) outside diameter	11,023	12	11,031	11,043
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	26,521	15,109	12,797	27,906
over 16" (40.64 cm) periphery	43,189	14,812	28,853	43,665
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	5,212	2,253	2,303	4,556
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	300	375	195	570
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,920	1,719	147	1,866
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,150	2,180	x	x
over 16" (40.64 cm) outside diameter	937	607	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	28,927	21,514	8,046	29,560
Mechanical tubing, welded, produced from cold rolled	13,912	6,982	2,391	9,373
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	43,505	45,709	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	16,007	9,480	x	x
Other tubular products	1,902	2,737	1,948	4,685

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		
		Domestic ¹ shipments	Exports ²	Total shipments
Year-to-date	metric tonnes			
Total, pipe and tubing	457,841	297,468	142,126	439,594
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	19,103	16,372	245	16,617
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	34,862	33,359	0	33,359
over 16" (40.64 cm) outside diameter	12,808	23	11,319	11,342
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	54,921	29,997	27,313	57,310
over 16" (40.64 cm) periphery	89,667	29,815	55,999	85,814
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	9,049	3,649	5,818	9,467
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	748	716	467	1,183
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	6,911	x	243	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	4,639	4,963	x	x
over 16" (40.64 cm) outside diameter	2,724	x	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	63,314	41,415	19,400	60,815
Mechanical tubing, welded, produced from cold rolled	29,869	13,936	5,272	19,208
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	99,138	96,709	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	26,303	17,421	x	x
Other tubular products	3,785	5,406	4,341	9,747

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			
February				
Barbed wire	x	x	x	.
Uncoated steel wire	26,002	21,514	11,683	9,831
Galvanized steel wire	15,925	13,069	5,179	7,890
Other coated steel wire	x	x	x	x
Farm fencing and wire chain link fabric	896	846	x	x
Wire mesh, bright or uncoated and galvanized	4,497	3,341	x	x
Wire rope	3,667	3,118	x	x
Nails and staples	x	5,152	2,229	2,923
Wire roofing nails of a length of 25 mm or more, iron or steel	8,785	x	x	x
Staples of iron or steel	x	x	x	x
All other wire products	x	x	x	x
Grand total	64,674	51,608	29,141	22,467

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	.
Uncoated steel wire	51,979	44,049	23,944	20,105
Galvanized steel wire	31,453	25,976	10,060	15,916
Other coated steel wire	x	x	x	x
Farm fencing and wire chain link fabric	1,333	1,536	x	x
Wire mesh, bright or uncoated and galvanized	7,310	5,820	x	x
Wire rope	7,238	5,881	x	x
Nails and staples	x	10,559	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	15,142	x	x	x
Staples of iron or steel	x	x	x	x
All other wire products	x	x	x	x
Grand total	121,550	100,398	54,705	45,693

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) reporting these products to the Annual Survey of Manufactures (Survey ID 2103). This methodology does not necessarily mean that the estimates from the monthly surveys cover the entire universe because the ASM does not survey all manufacturers. Rather, the ASM uses either administrative data or will impute for the small- and medium-sized manufacturers. In either case, 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 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, 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) .