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Steel, tubular products and steel wire



December 2005



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Note of appreciation

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User information

Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
- p preliminary
- r revised
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published

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Highlights

December 2005

- Between November and December 2005, total production of primary steel and pig iron inched up a modest 1.5% to reach 1,229,395 metric tonnes. Over the same period, total shipments rose significantly (+13.3%) to 59,896 metric tonnes.
- Total monthly dispositions of rolled steel products dropped 20.2% to 1,026,294 metric tonnes in December 2005. This is their lowest level in five consecutive months and primarily reflects decreased dispositions of hot-rolled sheets and coils as well as, galvanized sheets.
- Plant shut downs for holidays and maintenance account for much of the decline in the monthly production and shipments of steel pipe and tube. Between November and December 2005, steel pipe and tubing production fell 18.8% to 217,625 metric tonnes and total shipments fell 19.1%. These drops were led by lower production and shipments of hollow structural sections.
- Total shipments of steel wire products sank 26.3% to 36,793 metric tonnes in December. Three consecutive monthly declines bring total monthly shipments of steel wire products to their lowest level in twelve months, although December is typically the slowest month for producers of steel wire.

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								
December								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	2	3,464	6,172	4,087	1,033	16,286	0	.
21 Motor vehicles and parts	.	.	.	.	.	18,688	0	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	213	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	559	1,166	2,021	15,126	12,092	0	.
32 Metal building systems	.	.	.	.	35	0	.	.
33 Contractors' products	.	.	0	.	181	455	292	.
34 Miscellaneous stamping and coating	0	0	865	244	.	1,329	.	.
41 Natural resources and extractive industries	.	.	0	.	794	9,246	0	.
51 Agricultural equipment	.	0	5	9	.	406	.	.
52 Non electrical machinery	.	0	0	0	.	1,122	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	4,092	13,688	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	0	.	.	.
Total domestic shipments	2	4,236	8,208	6,361	17,169	63,716	13,980	0
Total domestic alloy shipments	.	.	.	.	.	13,840	0	.
Exports ² (for final sale)								
81 Exports to the United States	x	2,725	10,451	5,674	2,345	39,827	24,008	.
82 Exports to other countries (excluding United States)	x	0	122	.	0	12,412	62	.
Total disposition	x	6,961	18,781	12,035	19,514	115,955	38,050	0
Total alloy shipments	.	.	.	.	.	34,772	0	.
Producers interchange, for sale	x	.	.	.	.	1,235	53	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	81,889	.	.	.	.	.	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							
December							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	2,107	27,668	106,390	31,421	1,707	25,187	225,524
21 Motor vehicles and parts	1,809	0	63,541	15,562	.	52,883	152,483
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	3,535	249	.	.	.	3,997
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	134	3,229	4,262	499	.	749	39,837
32 Metal building systems	.	.	0	.	.	2,673	2,708
33 Contractors' products	49	117	2,347	963	.	24,064	28,468
34 Miscellaneous stamping and coating	177	122	1,092	4,270	.	12,397	20,496
41 Natural resources and extractive industries	48	.	0	2	.	0	10,090
51 Agricultural equipment	144	33	50	.	.	.	647
52 Non electrical machinery	74	625	.	0	.	.	1,821
53 Electrical machinery	.	.	.	2,554	.	724	3,278
54 Industrial packaging material	.	.	189	10,083	40	0	10,312
61 Pipes and tubes	0	0	124,553	1,763	.	1,391	127,707
62 Wire and wire products	487	.	0	96	.	0	18,363
63 Containers and closures	.	.	0	283	24,305	.	24,588
64 Appliances and utensils industries	.	.	.	4,692	.	2,434	7,126
70 Miscellaneous industries	64	.	.	.	.	.	64
Total domestic shipments	5,093	35,329	302,673	72,188	26,052	122,502	677,509
Total domestic alloy shipments	61	0	.	0	.	.	13,901
Exports ² (for final sale)							
81 Exports to the United States	5,571	x	53,634	11,616	x	34,989	319,587
82 Exports to other countries (excluding United States)	.	x	2,424	998	x	9,708	29,198
Total disposition	10,664	x	358,731	84,802	35,546	167,199	1,026,294
Total alloy shipments	61	0	.	0	.	.	34,833
Producers interchange, for sale	.	.	1,009	x	.	.	57,344
Exports for conversion and return ²	.	.	7,667	.	.	.	7,667
Imports by producers (including conversion)	.	1,414	5,753	52,068	.	.	141,124

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	..	31,641	88,581	84,184	43,764	253,954	..	.
21 Motor vehicles and parts	.	.	.	.	.	303,546	2,012	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	5,113	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	4,170	15,393	43,649	329,097	166,213	..	.
32 Metal building systems	.	.	.	.	..	..	.	.
33 Contractors' products	.	.	..	.	7,673	6,788	2,309	.
34 Miscellaneous stamping and coating	..	..	4,752	3,325	.	21,065	.	.
41 Natural resources and extractive industries	.	.	..	.	23,678	140,646	..	.
51 Agricultural equipment	.	..	..	..	.	4,503	..	.
52 Non electrical machinery	.	..	..	..	.	10,949	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	..	.	.
62 Wire and wire products	..	.	.	.	..	x	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	..	.	.	.
Total domestic shipments	6,908	40,958	108,919	131,254	404,462	x	x	..
Total domestic alloy shipments	.	.	.	.	.	221,539	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	22,933	137,516	109,545	20,975	509,164	x	.
82 Exports to other countries (excluding United States)	x	..	1,357	.	..	218,173	x	.
Total disposition	x	63,935	247,792	240,799	432,451	x	x	..
Total alloy shipments	.	.	.	.	.	520,057	..	.
Producers interchange, for sale	x	.	.	.	.	25,626	..	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	663,575	.	.	.	.	.	..	.

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	34,695	317,688	1,632,024	453,842	28,824	449,577	3,419,380
21 Motor vehicles and parts	29,417	..	1,072,273	235,695	.	789,100	2,432,043
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	39,372	3,209	.	.	.	47,694
24 Shipbuilding	.	.	.	.	.	.	..
31 Steel fabrication	1,725	47,934	65,522	4,057	.	9,774	687,591
32 Metal building systems	.	.	..	.	.	39,390	41,496
33 Contractors' products	463	..	43,883	17,016	.	343,711	422,810
34 Miscellaneous stamping and coating	3,377	10,131	66,862	75,132	.	215,188	405,423
41 Natural resources and extractive industries	1,271	..	..	..	.	146	165,883
51 Agricultural equipment	1,893	3,195	3,322	.	.	.	13,039
52 Non electrical machinery	882	6,481	.	..	.	.	18,383
53 Electrical machinery	.	.	.	53,664	.	14,817	68,707
54 Industrial packaging material	.	.	20,906	140,743	..	.	162,140
61 Pipes and tubes	807	..	1,665,216	41,147	.	27,588	1,734,758
62 Wire and wire products	6,214	..	..	x	.	298	325,126
63 Containers and closures	.	..	..	2,569	195,579	.	198,374
64 Appliances and utensils industries	.	.	.	68,433	.	34,189	102,622
70 Miscellaneous industries	2,400	.	.	.	.	.	2,474
Total domestic shipments	83,144	425,732	4,575,293	x	224,879	1,923,793	10,248,154
Total domestic alloy shipments	1,531	..	.	..	.	.	223,070
Exports² (for final sale)							
81 Exports to the United States	x	x	639,208	152,525	x	493,223	3,325,804
82 Exports to other countries (excluding United States)	.	x	56,353	x	x	124,998	623,516
Total disposition	x	x	5,270,854	1,266,319	350,417	2,542,014	14,197,474
Total alloy shipments	1,531	..	.	..	.	.	521,588
Producers interchange, for sale	.	.	12,745	x	.	.	623,660
Exports for conversion and return ²	.	.	..	.	.	.	..
Imports by producers (including conversion)	.	21,998	83,990	..	.	.	945,760

1. Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

2. These data include exports reported by steel producers only and are not the same as published in the Exports by commodities, catalogue number 65-004-XPB.

3. Effective January 2000, producers have changed the way they report hot rolled products. The result is a change in definitions. Plates including plates for pipes and tubes becomes plates. Hot rolled sheet and strip becomes hot rolled sheets and coils and now includes all hot rolled flat products in coils, regardless of thickness.

Table 1-3

Steel primary forms and pig iron — Production of pig iron

	December		Year-to-date	
	2004	2005	2004	2005
metric tonnes				
Production of pig iron	734,976	696,583	8,827,623	8,274,051

Table 1-4

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

	December		Year-to-date	
	2004	2005	2004	2005
	metric tonnes			
Pig iron including pre-reduced iron	776,970	707,073	9,351,370	8,576,232
Scrap				
Own make	195,355	161,809	2,322,934	2,121,483
Purchased	453,101	473,803	6,261,665	6,244,817
Total, pig iron and scrap products	1,425,426	1,342,685	17,935,961	16,942,532

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			
December				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	472,475	465,730	71,512	38,886
Basic oxygen furnace	811,418	763,665	13,276	21,010
Steel, primary forms - Total	1,283,893	1,229,395	84,788	59,896
Included in "Steel primary forms total" above				
Continuous cast steel	1,271,779	1,213,456	81,127	56,130

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	6,550,732	6,360,851	x	x
Basic oxygen furnace	9,651,053	8,966,566	x	x
Steel, primary forms - Total	16,201,785	15,327,417	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	16,059,434	15,149,478	x	x

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				
December				
Total, pipe and tubing	217,625	150,658	80,424	231,082
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	11,272	9,686	22	9,708
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	9,757	15,728	0	15,728
over 16" (40.64 cm) outside diameter	29,601	10,603	26,624	37,227
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	16,309	6,738	8,209	14,947
over 16" (40.64 cm) periphery	36,968	11,419	22,714	34,133
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,030	1,131	2,349	3,480
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,318	487	1,367	1,854
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,849	1,126	161	1,287
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,039	x	x	2,463
over 16" (40.64 cm) outside diameter	2,132	995	235	1,230
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	24,547	17,491	6,200	23,691
Mechanical tubing, welded, produced from cold rolled	8,486	4,905	1,877	6,782
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	55,214	x	x	64,816
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	12,612	x	x	10,183
Other tubular products	491	x	x	3,553

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 shipments ¹	Exports ²	
metric tonnes				
Year-to-date				
Total, pipe and tubing	2,837,051	1,780,031	1,052,044	2,832,075
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	80,411	x	x	87,479
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	121,736	148,121	..	148,378
over 16" (40.64 cm) outside diameter	227,054	..	168,623	191,972
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	307,813	164,188	162,784	326,972
over 16" (40.64 cm) periphery	538,763	186,210	348,271	534,481
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	55,552	24,438	39,274	63,712
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	13,944	8,333	10,939	19,272
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	24,827	x	1,996	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	37,716	x	x	x
over 16" (40.64 cm) outside diameter	29,697	x	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	409,191	264,128	116,738	380,866
Mechanical tubing, welded, produced from cold rolled	163,933	86,707	33,395	120,102
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	652,178	x	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	150,732	x	x	x
Other tubular products	23,504	x	x	53,827

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					
December					
Barbed wire	x	43	x	x	.
Uncoated steel wire	15,756	15,526	8,281	7,245	.
Galvanized steel wire	10,174	10,301	4,367	5,934	.
Other coated steel wire	x	x	x	55	.
Farm fencing and wire chain link fabric	441	596	x	x	620
Wire mesh, bright or uncoated and galvanized	2,251	3,331	x	x	3,758
Wire rope	2,939	2,756	x	x	2,599
Nails and staples	2,775	x	x	1,861	x
Wire roofing nails of a length of 25 mm or more, iron or steel	2,720	2,769	908	1,861	2,852
Staples of iron or steel	x	x	x	0	x
All other wire products	x	x	x	x	x
Grand total	36,301	36,793	19,811	16,982	.

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	300,666	246,975	139,962	107,013	.
Galvanized steel wire	180,176	154,193	63,443	90,750	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	11,624	10,946	x	x	9,876
Wire mesh, bright or uncoated and galvanized	46,241	x	x	x	x
Wire rope	44,997	41,236	x	x	40,481
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	77,622	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	709,583	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) .