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Steel, tubular products and steel wire



May 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

Table of contents

Highlights	4
Related products	5
Statistical tables	
1 Steel primary forms and pig iron	7
1-1 Disposition of net shipments of rolled steel products, by product, monthly 2005	7
1-2 Disposition of net shipments of rolled steel products, by product, year-to-date 2005	9
1-3 Production of pig iron	10
1-4 Pig iron and scrap charged to steel furnaces	11
1-5 Production and shipments of steel, primary forms, monthly	11
1-6 Production and shipments of steel, primary forms, year-to-date	11
2 Steel pipe and tubing	12
2-1 Production and shipments, monthly 2005	12
2-2 Production and shipments, year-to-date 2005	13
3 Steel and specified wire products	14
3-1 Factory shipments, monthly	14
3-2 Factory shipments, year-to-date	14
Data quality, concepts and methodology	
Concepts, methodology and data quality	15
Definitions	17

Highlights

May 2005

- Shipments of rolled steel products climbed 4.0% in May to 1,222,275 metric tonnes from 1,175,810 in April. Increased shipments to domestic manufacturers (4.3%) as well as exports (85.0%) accounted for the recovery in total rolled steel shipments in May. The increase in domestic shipments was fuelled by rising shipments to manufacturers of steel pipe and tube (12.6%) and to motor vehicle and parts producers (9.2%).
- Steel pipe and tube production declined 2.2% to 238,698 metric tonnes in May, as producers of oil country tubular goods (casing, including coupling) slowed output.

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								
May								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	0	3,007	8,119	8,556	2,238	20,516	0	.
21 Motor vehicles and parts	.	.	.	.	.	26,422	350	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	456	.	.	.	.	.	.
24 Shipbuilding	211	.	.	.	.	.	.	.
31 Steel fabrication	0	184	672	4,578	30,984	12,738	0	.
32 Metal building systems	.	.	.	.	.	16	.	.
33 Contractors' products	.	.	.	.	1,506	685	188	.
34 Miscellaneous stamping and coating	.	0	453	357	.	1,022	.	.
41 Natural resources and extractive industries	.	.	0	.	3,507	11,307	.	.
51 Agricultural equipment	.	0	0	7	.	561	.	.
52 Non electrical machinery	.	0	0	0	.	477	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	0	.	.	.	0	4,626	19,854	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	.	.	.	.
Total domestic shipments	211	3,647	9,244	13,498	38,235	78,370	20,392	0
Total domestic alloy shipments	.	.	.	.	.	20,986	0	.
Exports² (for final sale)								
81 Exports to the United States	34,037	2,183	11,424	10,017	365	41,873	36,601	.
82 Exports to other countries (excluding United States)	44,033	0	189	.	.	23,027	845	.
Total disposition	78,281	5,830	20,857	23,515	38,600	143,270	57,838	0
Total alloy shipments	.	.	.	.	.	50,693	0	.
Producers interchange, for sale	x	.	.	.	.	2,109	140	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	94,354	.	.	.	.	.	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							
May							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	2,767	23,924	126,036	36,275	2,817	34,338	268,593
21 Motor vehicles and parts	2,605	0	94,579	20,493	.	71,640	216,089
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	3,379	699	.	.	.	4,534
24 Shipbuilding	.	.	.	.	.	.	211
31 Steel fabrication	130	4,987	5,445	325	.	576	60,619
32 Metal building systems	.	.	0	.	.	3,273	3,289
33 Contractors' products	10	71	3,254	1,499	.	28,992	36,205
34 Miscellaneous stamping and coating	215	62	5,125	5,385	.	19,324	31,943
41 Natural resources and extractive industries	53	.	0	.	.	0	14,867
51 Agricultural equipment	202	324	986	.	.	.	2,080
52 Non electrical machinery	78	441	.	.	.	.	996
53 Electrical machinery	.	.	.	4,994	.	1,406	6,400
54 Industrial packaging material	.	.	2,419	13,780	28	0	16,227
61 Pipes and tubes	132	0	144,708	3,056	.	2,827	150,723
62 Wire and wire products	625	.	0	148	.	17	25,270
63 Containers and closures	.	.	0	77	18,815	.	18,892
64 Appliances and utensils industries	.	.	.	6,002	.	3,086	9,088
70 Miscellaneous industries	216	.	.	.	.	.	216
Total domestic shipments	7,033	33,188	383,251	92,034	21,660	165,479	866,242
Total domestic alloy shipments	109	0	.	0	.	.	21,095
Exports² (for final sale)							
81 Exports to the United States	8,640	15,486	46,720	12,027	8,961	40,746	269,080
82 Exports to other countries (excluding United States)	.	1,455	4,673	1,049	1,116	10,566	86,953
Total disposition	15,673	50,129	434,644	105,110	31,737	216,791	1,222,275
Total alloy shipments	109	0	.	0	.	.	50,802
Producers interchange, for sale	.	.	1,258	x	.	.	64,730
Exports for conversion and return ²	.	.	0	.	.	.	0
Imports by producers (including conversion)	.	668	2,491	14,249	.	.	111,762

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	13,181	35,344	37,443	17,508	115,088	73	.
21 Motor vehicles and parts	.	.	.	.	.	125,109	766	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	1,920	.	.	.	.	.	.
24 Shipbuilding	.	.	.	.	.	.	.	.
31 Steel fabrication	0	1,528	4,882	15,446	105,507	69,646	0	.
32 Metal building systems	.	.	.	.	.	96	.	.
33 Contractors' products	.	.	.	.	2,765	3,496	646	.
34 Miscellaneous stamping and coating	.	0	2,160	1,319	.	8,352	.	.
41 Natural resources and extractive industries	.	.	74	.	6,406	67,315	.	.
51 Agricultural equipment	.	12	13	39	.	2,341	.	.
52 Non electrical machinery	.	17	9	0	.	3,781	0	.
53 Electrical machinery	.	.	.	.	.	172	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	485	.	.	.	0	25,103	121,769	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	.	.	.	.
Total domestic shipments	699	16,658	42,482	54,247	132,186	420,499	123,254	..
Total domestic alloy shipments	.	.	.	.	.	95,179	0	.
Exports ² (for final sale)								
81 Exports to the United States	x	8,912	56,109	48,896	695	230,144	177,159	.
82 Exports to other countries (excluding United States)	120,160	..	564	.	.	96,163	3,131	.
Total disposition	x	25,614	99,155	103,143	132,881	746,806	303,544	..
Total alloy shipments	.	.	.	.	.	232,731	0	.
Producers interchange, for sale	x	.	.	.	.	11,208	289	.
Exports for conversion and return ²	.	.	.	.	.	.	.	.
Imports by producers (including conversion)	258,620	.	.	.	.	.	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	13,815	126,512	688,452	178,021	12,524	199,473	1,437,437
21 Motor vehicles and parts	12,749	0	467,972	102,009	.	337,601	1,046,206
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	13,269	699	.	.	.	15,888
24 Shipbuilding	.	.	.	.	.	.	..
31 Steel fabrication	591	26,019	24,234	1,703	.	2,793	252,349
32 Metal building systems	.	.	..	.	.	17,094	19,034
33 Contractors' products	174	324	18,467	8,861	.	132,212	166,945
34 Miscellaneous stamping and coating	1,560	3,559	34,865	33,239	.	80,421	165,475
41 Natural resources and extractive industries	629	.	..	.	.	90	74,515
51 Agricultural equipment	1,052	1,738	2,537	.	.	.	7,732
52 Non electrical machinery	337	2,268	.	.	.	.	6,412
53 Electrical machinery	.	.	.	18,891	.	5,231	24,294
54 Industrial packaging material	.	.	11,254	63,828	259	15	75,356
61 Pipes and tubes	457	0	665,709	15,591	.	13,135	694,892
62 Wire and wire products	2,761	.	0	662	.	136	150,916
63 Containers and closures	.	.	43	1,005	78,216	.	79,264
64 Appliances and utensils industries	.	.	.	27,309	.	13,150	40,459
70 Miscellaneous industries	1,307	.	.	.	.	.	1,307
Total domestic shipments	35,432	173,689	1,916,077	451,119	90,999	801,351	4,258,692
Total domestic alloy shipments	688	0	.	0	.	.	95,867
Exports² (for final sale)							
81 Exports to the United States	x	82,566	288,183	55,388	47,611	208,628	1,387,762
82 Exports to other countries (excluding United States)	.	6,129	25,530	11,013	6,234	44,593	313,561
Total disposition	x	262,384	2,229,790	517,520	144,844	1,054,572	5,960,015
Total alloy shipments	688	0	.	0	.	.	233,419
Producers interchange, for sale	.	.	5,703	x	.	.	300,324
Exports for conversion and return ²	.	.	2,095	.	.	.	2,095
Imports by producers (including conversion)	.	3,752	42,594	28,533	.	.	333,499

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

	May		Year-to-date	
	2004	2005	2004	2005
metric tonnes				
Production of pig iron	757,453	738,919	3,677,011	3,574,682

Table 1-4

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

	May		Year-to-date	
	2004	2005	2004	2005
	metric tonnes			
Pig iron including pre-reduced iron	783,193	750,689	3,872,731	3,798,878
Scrap				
Own make	191,469	186,158	971,402	974,577
Purchased	521,312	550,462	2,685,241	2,685,198
Total, pig iron and scrap products	1,495,974	1,487,309	7,529,374	7,458,653

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			
May				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	560,375	561,675	35,139	100,665
Basic oxygen furnace	799,942	781,141	..	14,091
Steel, primary forms - Total	1,360,317	1,342,816	35,139	114,756
Included in "Steel primary forms total" above				
Continuous cast steel	1,351,455	1,323,731	x	109,691

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	2,767,116	2,822,016	x	x
Basic oxygen furnace	4,024,371	3,897,620	x	44,892
Steel, primary forms - Total	6,791,487	6,719,636	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	6,738,951	6,636,254	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				
May				
Total, pipe and tubing	238,698	119,717	97,409	217,126
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,985	2,939	123	3,062
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,339	1,875	42	1,917
over 16" (40.64 cm) outside diameter	23,851	403	19,865	20,268
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	27,159	15,325	13,319	28,644
over 16" (40.64 cm) periphery	42,110	14,282	28,034	42,316
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,668	2,452	3,869	6,321
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	615	822	830	1,652
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,447	1,540	143	1,683
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,961	2,758	289	3,047
over 16" (40.64 cm) outside diameter	2,249	1,243	405	1,648
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	33,815	21,460	10,122	31,582
Mechanical tubing, welded, produced from cold rolled	15,641	8,063	2,916	10,979
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	63,188	39,079	15,162	54,241
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	8,108	5,320	474	5,794
Other tubular products	3,562	2,156	1,816	3,972

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	1,182,242	657,558	431,908	1,089,466
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	36,876	29,322	618	29,940
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	52,363	44,056	42	44,098
over 16" (40.64 cm) outside diameter	74,371	520	64,611	65,131
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	138,454	72,156	69,802	141,958
over 16" (40.64 cm) periphery	219,419	75,152	140,236	215,388
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	24,723	9,506	17,102	26,608
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	4,830	3,027	2,754	5,781
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	11,894	x	674	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	15,507	12,954	x	x
over 16" (40.64 cm) outside diameter	12,102	x	x	x
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	163,232	104,958	50,075	155,033
Mechanical tubing, welded, produced from cold rolled	74,904	37,089	13,816	50,905
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	288,407	211,033	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	53,793	33,064	x	x
Other tubular products	11,367	13,583	9,823	23,406

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					
May					
Barbed wire	x	x	x	x	.
Uncoated steel wire	27,071	21,776	12,413	9,363	.
Galvanized steel wire	16,597	14,037	6,051	7,986	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	1,316	1,135	x	x	1,070
Wire mesh, bright or uncoated and galvanized	3,756	x	4,241	x	x
Wire rope	3,839	4,122	x	x	3,953
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	7,522	4,623	1,807	2,816	5,661
Staples of iron or steel	x	x	x	x	x
All other wire products	2,914	x	x	x	x
Grand total	63,917	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.

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	137,790	110,973	61,902	49,071	.
Galvanized steel wire	83,522	66,459	27,216	39,243	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	5,691	5,172	x	x	4,211
Wire mesh, bright or uncoated and galvanized	19,983	x	x	x	x
Wire rope	19,620	17,480	x	x	17,083
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	41,060	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	329,932	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) .