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Steel, Tubular Products and Steel Wire



April 2006



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Statistics Canada
Manufacturing, Construction and Energy Division

Steel, Tubular Products and Steel Wire

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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

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 2006	7
1-2 Disposition of net shipments of rolled steel products, by product, year-to-date 2006	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 2006	12
2-2 Production and shipments, year-to-date 2006	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

April 2006

- In April 2006, total production of primary steel and pig iron fell 1.9% to 1,349,637 metric tonnes.
- Total monthly disposition of rolled steel products decreased 16.1% to 1,204,648, metric tonnes in April 2006. However, monthly disposition of these products was up 2.5% compared to April 2005.
- In April 2006, total production of steel pipe and tubing declined 9.1% to 260,473 metric tonnes led by a reduction in the production of oil country tubular goods and mechanical tubing.
- For the reference month, total shipments of steel wire and specified wire products dipped 16.7% to 46,511 metric tonnes.

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 2006

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								
April								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	5	5,043	9,946	9,852	5,345	21,813	..	.
21 Motor vehicles and parts	553	.	.	.	.	23,275	220	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	396	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	764	1,116	3,794	30,655	13,942	..	.
32 Metal building systems	.	.	.	.	..	..	..	.
33 Contractors' products	.	.	..	.	.	578	375	.
34 Miscellaneous stamping and coating	..	..	464	272	.	1,328	.	.
41 Natural resources and extractive industries	.	.	..	.	1,015	8,625	..	.
51 Agricultural equipment	.	12	..	3	.	355	..	.
52 Non electrical machinery	.	..	..	..	.	485	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	.	.	.
61 Pipes and tubes	.	.	.	.	.	100	.	.
62 Wire and wire products	..	.	.	.	3	6,695	14,648	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	..	.	.	.
Total domestic shipments	558	6,215	11,526	13,921	37,018	77,196	15,243	..
Total domestic alloy shipments	.	.	.	.	.	23,000	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	3,985	12,613	11,200	3,512	42,844	35,673	.
82 Exports to other countries (excluding United States)	..	81	99	.	..	24,572	..	..
Total disposition	x	10,281	24,238	25,121	40,530	144,612	50,916	..
Total alloy shipments	.	.	.	.	.	35,524	..	.
Producers interchange, for sale	x	.	..	.	.	2,751	36	.
Exports for conversion and return ²	.	.	.	.	.	542	.	.
Imports by producers (including conversion)	96,613	.	.	.	.	.	..	.

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 2006

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							
April							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	2,861	30,556	146,505	36,445	2,140	36,465	306,976
21 Motor vehicles and parts	2,000	..	91,756	18,175	.	59,233	195,212
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	2,830	439	.	.	.	3,665
24 Shipbuilding	.	..	.	.	.	.	..
31 Steel fabrication	153	6,902	3,937	12	.	579	61,854
32 Metal building systems	.	..	.	.	.	4,499	4,499
33 Contractors' products	106	273	4,993	1,585	.	36,523	44,433
34 Miscellaneous stamping and coating	224	2,541	5,584	5,638	.	21,185	37,236
41 Natural resources and extractive industries	49	..	..	..	.	7	9,696
51 Agricultural equipment	157	115	363	.	.	.	1,005
52 Non electrical machinery	37	222	.	..	.	.	744
53 Electrical machinery	.	.	.	5,288	.	1,136	6,424
54 Industrial packaging material	.	..	370	11,798	48	..	12,216
61 Pipes and tubes	..	..	161,133	2,681	.	1,795	165,709
62 Wire and wire products	644	.	..	130	.	45	22,165
63 Containers and closures	.	..	952	272	9,524	.	10,748
64 Appliances and utensils industries	.	..	.	4,888	.	3,075	7,963
70 Miscellaneous industries	189	.	.	.	.	.	189
Total domestic shipments	6,420	43,439	416,032	86,912	11,712	164,542	890,734
Total domestic alloy shipments	105	..	.	..	.	.	23,105
Exports² (for final sale)							
81 Exports to the United States	x	20,754	53,716	13,514	11,049	34,199	269,513
82 Exports to other countries (excluding United States)	.	855	5,079	901	1,108	11,706	44,401
Total disposition	x	65,048	474,827	101,327	23,869	210,447	1,204,648
Total alloy shipments	105	..	.	..	.	.	35,629
Producers interchange, for sale	.	.	2,034	x	.	.	65,001
Exports for conversion and return ²	.	.	2,533	.	.	.	3,075
Imports by producers (including conversion)	.	1,506	45,092	15,855	.	.	159,066

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 2006

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	25	13,384	36,665	33,238	12,814	93,586	..	.
21 Motor vehicles and parts	..	.	.	.	.	98,016	620	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	1,325	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	3,563	7,201	15,619	125,422	62,355	..	.
32 Metal building systems	.	.	.	.	..	..	.	.
33 Contractors' products	.	.	..	.	..	3,866	1,137	.
34 Miscellaneous stamping and coating	..	..	1,904	1,729	.	5,798	.	.
41 Natural resources and extractive industries	.	.	..	.	4,549	45,931	..	.
51 Agricultural equipment	.	..	..	26	.	1,545	.	.
52 Non electrical machinery	.	..	..	..	.	2,966	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	..	.	.
61 Pipes and tubes	.	.	.	.	.	..	.	.
62 Wire and wire products	..	.	.	.	..	18,793	75,265	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	..	.	.	.
Total domestic shipments	852	18,284	45,915	50,612	143,349	333,004	77,022	..
Total domestic alloy shipments	.	.	.	.	.	97,415	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	9,967	52,643	44,196	14,891	184,262	140,187	.
82 Exports to other countries (excluding United States)	..	..	404	.	..	79,009	..	..
Total disposition	x	28,497	98,962	94,808	158,240	596,275	218,572	..
Total alloy shipments	.	.	.	.	.	161,957	..	.
Producers interchange, for sale	x	.	..	.	.	10,218	195	.
Exports for conversion and return ²	.	.	.	.	.	..	.	.
Imports by producers (including conversion)	142,990	.	.	.	.	.	..	.

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 2006

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	13,369	133,032	639,056	142,807	11,170	150,715	1,279,861
21 Motor vehicles and parts	8,905	..	423,082	76,764	.	258,035	866,249
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	7,836	1,888	.	.	.	11,049
24 Shipbuilding	.	.	.	.	.	.	..
31 Steel fabrication	678	24,476	18,709	..	.	3,260	261,435
32 Metal building systems	.	.	..	.	.	12,007	12,055
33 Contractors' products	210	463	14,301	6,597	.	124,992	152,127
34 Miscellaneous stamping and coating	1,092	6,232	24,373	22,060	.	77,500	140,688
41 Natural resources and extractive industries	455	.	..	..	.	..	50,985
51 Agricultural equipment	783	472	1,809	.	.	.	4,674
52 Non electrical machinery	279	2,052	.	..	.	.	5,377
53 Electrical machinery	.	.	.	22,510	.	5,438	27,948
54 Industrial packaging material	.	.	1,733	52,259	260	..	54,252
61 Pipes and tubes	..	..	671,208	10,001	.	6,906	688,255
62 Wire and wire products	2,929	.	..	610	.	143	97,743
63 Containers and closures	.	.	1,142	914	47,974	.	50,030
64 Appliances and utensils industries	.	.	.	23,859	.	12,412	36,271
70 Miscellaneous industries	558	.	.	.	.	.	558
Total domestic shipments	29,298	174,563	1,797,305	358,533	59,404	651,416	3,739,557
Total domestic alloy shipments	531	..	.	..	.	.	97,946
Exports² (for final sale)							
81 Exports to the United States	x	70,348	240,196	65,614	43,195	170,765	1,176,612
82 Exports to other countries (excluding United States)	.	4,912	18,423	3,762	5,976	48,466	162,582
Total disposition	x	249,823	2,055,924	427,909	108,575	870,647	5,078,751
Total alloy shipments	531	..	.	..	.	.	162,488
Producers interchange, for sale	.	.	10,211	x	.	.	282,603
Exports for conversion and return ²	.	.	10,345	.	.	.	10,887
Imports by producers (including conversion)	.	7,221	92,419	74,298	.	.	316,928

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

	April		Year-to-date	
	2005	2006	2005	2006
metric tonnes				
Production of pig iron	724,992	740,959	2,835,763	2,874,934

Table 1-4
Steel primary forms and pig iron — Pig iron and scrap charged to steel furnaces

	April		Year-to-date	
	2005	2006	2005	2006
	metric tonnes			
Pig iron including pre-reduced iron	778,660	786,050	3,048,189	3,007,635
Scrap				
Own make	184,123	171,927	788,419	681,177
Purchased	560,964	512,986	2,134,736	2,047,101
Total, pig iron and scrap products	1,523,747	1,470,963	5,971,344	5,735,913

Table 1-5
Steel primary forms and pig iron — Production and shipments of steel, primary forms, monthly

	Production		Shipments	
	2005	2006	2005	2006
	metric tonnes			
April				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	571,084	530,305	x	60,340
Basic oxygen furnace	805,074	819,332	4,397	6,712
Steel, primary forms - Total	1,376,158	1,349,637	x	67,052
Included in "Steel primary forms total" above				
Continuous cast steel	1,359,206	1,331,707	x	63,469

Table 1-6
Steel primary forms and pig iron — Production and shipments of steel, primary forms, year-to-date

	Production		Shipments	
	2005	2006	2005	2006
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	2,260,341	2,142,240	x	x
Basic oxygen furnace	3,116,479	3,118,865	30,801	x
Steel, primary forms - Total	5,376,820	5,261,105	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	5,312,523	5,194,556	x	x

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2006

	Production	Shipments for sale		Total shipments
		Domestic ¹ shipments	Exports ²	
metric tonnes				
April				
Total, pipe and tubing	260,473	103,719	105,892	209,611
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	9,617	4,467	34	4,501
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,925	3,081	..	3,081
over 16" (40.64 cm) outside diameter	46,386	4,156	26,909	31,065
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	21,715	9,310	13,408	22,718
over 16" (40.64 cm) periphery	49,656	15,412	36,353	51,765
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	3,664	1,360	2,581	3,941
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,535	380	1,436	1,816
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,785	976	334	1,310
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,830	x	x	4,163
over 16" (40.64 cm) outside diameter	2,835	x	x	1,419
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	28,419	19,500	8,966	28,466
Mechanical tubing, welded, produced from cold rolled	13,097	5,788	2,677	8,465
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	66,141	27,868	9,555	37,423
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	9,450	4,081	1,433	5,514
Other tubular products	1,418	2,422	1,542	3,964

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 2006

	Production	Shipments for sale		Total shipments
		Domestic ¹ shipments	Exports ²	
metric tonnes				
Year-to-date				
Total, pipe and tubing	1,037,477	672,531	389,066	1,061,597
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	59,841	41,716	158	41,874
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	18,168	51,527	..	51,527
over 16" (40.64 cm) outside diameter	147,984	39,630	89,362	128,992
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	88,631	43,186	49,728	92,914
over 16" (40.64 cm) periphery	196,179	60,451	134,766	195,217
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	19,815	5,664	12,482	18,146
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	4,326	1,274	4,040	5,314
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	7,236	5,104	1,044	6,148
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	7,616	x	x	13,071
over 16" (40.64 cm) outside diameter	11,073	x	x	8,052
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	127,762	84,172	35,805	119,977
Mechanical tubing, welded, produced from cold rolled	53,122	24,651	10,605	35,256
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	249,853	x	x	271,332
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	40,215	x	x	54,974
Other tubular products	5,656	x	x	18,803

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	
	2005	2006			
		Total shipments	Domestic shipments		Exports ²
metric tonnes					
April					
Barbed wire	x	x	x	x	.
Uncoated steel wire	22,448	18,514	10,101	8,413	.
Galvanized steel wire	14,369	12,997	5,201	7,796	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	1,245	1,128	x	x	1,021
Wire mesh, bright or uncoated and galvanized	4,736	4,245	x	x	4,423
Wire rope	3,652	3,368	x	x	3,486
Nails and staples	5,581	x	x	2,123	4,090
Wire roofing nails of a length of 25 mm or more, iron or steel	5,452	3,836	1,713	2,123	x
Staples of iron or steel	x	x	x	..	x
All other wire products	x	1,693	x	x	x
Grand total	55,316	46,511	25,937	20,574	.

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	
	2005	2006			
		Total shipments	Domestic shipments		Exports ²
metric tonnes					
Barbed wire	x	x	x	x	.
Uncoated steel wire	89,197	79,723	44,995	34,728	.
Galvanized steel wire	52,422	52,770	22,154	30,616	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	4,037	4,070	x	x	4,601
Wire mesh, bright or uncoated and galvanized	14,489	14,476	x	x	15,196
Wire rope	13,358	x	x	x	x
Nails and staples	22,580	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	x	19,234	x	x	x
Staples of iron or steel	x	x	x	..	x
All other wire products	x	x	x	x	x
Grand total	211,538	196,622	111,805	84,817	.

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) .