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Steel, Tubular Products and Steel Wire

April 2007



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Statistics Canada
Manufacturing, Construction and Energy Division

Steel, Tubular Products and Steel Wire

April 2007

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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
- 0s 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 2007	7
1-2 Disposition of net shipments of rolled steel products, by product, year-to-date 2007	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 2007	12
2-2 Production and shipments, year-to-date 2007	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 2007

- Monthly production of primary steel and pig iron fell 3.9% in April 2007 to 1,375,464 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products dropped 9.6% to 1,261,974 metric tonnes. However, monthly disposition of these products was up 4.8% compared with April 2006.
- Between March 2007 and April 2007, production of steel pipe and tubing decreased 9.1% to 225,080 metric tonnes.
- Total shipments of steel wire and specified wire products edged down 1.3% to 49,280 metric tonnes in April 2007.

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 2007

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	146	1,186	9,076	3,886	6,156	19,046	34	.
21 Motor vehicles and parts	90	.	.	.	.	20,940	178	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	469	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	1,284	2,581	2,854	33,601	16,214	0	.
32 Metal building systems	.	.	.	.	0	0	.	.
33 Contractors' products	.	.	0	.	150	388	148	.
34 Miscellaneous stamping and coating	0	0	180	240	.	2,622	.	.
41 Natural resources and extractive industries	.	.	0	.	978	10,781	0	.
51 Agricultural equipment	.	0	0	11	.	169	.	.
52 Non electrical machinery	.	0	0	0	.	981	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	323	.	.	.	0	2,718	21,306	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	0	.	.	.
Total domestic shipments	559	2,939	11,837	6,991	40,885	73,859	21,666	0
Total domestic alloy shipments	0	.	.	.	.	24,411	0	.
Exports ² (for final sale)								
81 Exports to the United States	x	907	12,751	5,487	5,818	41,220	35,444	.
82 Exports to other countries (excluding United States)	x	0	143	.	0	17,313	269	0
Total disposition	21,606	3,846	24,731	12,478	46,703	132,392	57,379	0
Total alloy shipments	0	.	.	.	.	39,361	0	.
Producers interchange, for sale	x	.	0	.	.	1,192	64	.
Exports for conversion and return ²	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	3,012	.	.	.	.	.	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 2007

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	2,706	33,367	169,168	43,081	1,841	47,972	337,665
21 Motor vehicles and parts	2,213	0	73,849	15,064	.	57,898	170,232
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	577	0	.	.	.	1,046
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	87	6,776	5,498	32	.	557	69,484
32 Metal building systems	.	.	0	.	.	2,742	2,742
33 Contractors' products	45	41	5,041	3,211	.	31,871	40,895
34 Miscellaneous stamping and coating	251	0	7,206	4,986	.	17,961	33,446
41 Natural resources and extractive industries	72	0	11,012	119	.	1,138	24,100
51 Agricultural equipment	138	231	685	54	.	.	1,288
52 Non electrical machinery	50	291	622	0	.	.	1,944
53 Electrical machinery	.	.	.	3,019	.	1,493	4,512
54 Industrial packaging material	.	.	1,704	10,666	0	0	12,370
61 Pipes and tubes	105	0	148,953	2,405	.	1,609	153,072
62 Wire and wire products	356	.	1,997	97	.	18	26,815
63 Containers and closures	.	.	815	218	7,610	.	8,643
64 Appliances and utensils industries	.	.	.	6,328	.	2,740	9,068
70 Miscellaneous industries	223	.	.	.	.	.	223
Total domestic shipments	6,246	41,283	426,550	89,280	9,451	165,999	897,545
Total domestic alloy shipments	199	0	.	0	.	.	24,610
Exports ² (for final sale)							
81 Exports to the United States	7,182	20,207	102,642	13,723	17,692	x	310,460
82 Exports to other countries (excluding United States)	.	3,125	6,987	1,921	1,071	x	53,969
Total disposition	13,428	64,615	536,179	104,924	28,214	215,479	1,261,974
Total alloy shipments	199	0	.	0	.	.	39,560
Producers interchange, for sale	.	.	3,262	x	.	.	97,182
Exports for conversion and return ²	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	2,476	11,909	9,686	.	0	27,083

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 2007

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	713	12,817	39,624	29,324	16,831	85,352	5,137	.
21 Motor vehicles and parts	623	.	.	.	.	74,771	835	.
22 Railway operating	.	.	.	.	.	0	.	.
23 Railroad cars and locomotives	.	2,079	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	63	3,520	7,942	15,290	118,869	65,850	0	.
32 Metal building systems	.	.	.	.	0	0	.	.
33 Contractors' products	.	.	0	.	457	1,267	356	.
34 Miscellaneous stamping and coating	0	0	2,279	1,323	.	8,402	.	.
41 Natural resources and extractive industries	.	.	0	.	4,707	45,097	0	.
51 Agricultural equipment	.	0	0	82	.	1,294	.	.
52 Non electrical machinery	.	36	0	0	.	2,333	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	696	.	.	.	0	9,282	88,282	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	0	.	.	.
Total domestic shipments	2,095	18,452	49,845	46,019	140,864	293,648	94,610	0
Total domestic alloy shipments	63	.	.	.	.	97,192	0	.
Exports ² (for final sale)								
81 Exports to the United States	x	9,553	53,600	34,466	11,687	164,032	154,327	.
82 Exports to other countries (excluding United States)	x	0	569	.	0	66,340	2,662	0
Total disposition	x	28,005	104,014	80,485	152,551	524,020	251,599	0
Total alloy shipments	63	.	.	.	.	154,668	0	.
Producers interchange, for sale	x	.	0	.	.	8,419	178	.
Exports for conversion and return ²	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	5,937	.	.	.	.	.	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 2007

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	11,982	137,244	692,821	185,466	10,164	188,860	1,416,335
21 Motor vehicles and parts	8,675	0	292,476	60,394	.	213,132	650,906
22 Railway operating	.	0	.	.	.	.	0
23 Railroad cars and locomotives	.	4,937	0	.	.	.	7,016
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	346	21,322	16,559	32	.	1,665	251,458
32 Metal building systems	.	.	0	.	.	10,296	10,296
33 Contractors' products	297	147	18,357	9,939	.	119,668	150,488
34 Miscellaneous stamping and coating	1,000	1,372	30,691	16,830	.	67,593	129,490
41 Natural resources and extractive industries	273	12	23,709	347	.	2,260	76,405
51 Agricultural equipment	454	1,222	2,725	412	.	.	6,189
52 Non electrical machinery	152	538	1,392	0	.	.	4,451
53 Electrical machinery	.	.	.	15,186	.	6,188	21,374
54 Industrial packaging material	.	.	7,663	42,466	135	0	50,264
61 Pipes and tubes	160	0	620,413	11,182	.	6,024	637,779
62 Wire and wire products	1,914	.	3,717	410	.	35	104,336
63 Containers and closures	.	.	2,676	784	28,968	.	32,428
64 Appliances and utensils industries	.	.	.	23,569	.	10,882	34,451
70 Miscellaneous industries	1,057	.	.	.	.	.	1,057
Total domestic shipments	26,310	166,794	1,713,199	367,017	39,267	626,603	3,584,723
Total domestic alloy shipments	627	0	.	0	.	.	97,882
Exports ² (for final sale)							
81 Exports to the United States	31,289	84,782	402,402	x	47,186	x	1,289,390
82 Exports to other countries (excluding United States)	.	5,766	22,321	x	5,448	x	210,824
Total disposition	57,599	257,342	2,137,922	x	91,901	809,196	5,084,937
Total alloy shipments	627	0	.	0	.	.	155,358
Producers interchange, for sale	.	.	7,864	x	.	.	281,714
Exports for conversion and return ²	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	8,731	27,157	11,030	.	0	52,855

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	
	2006	2007	2006	2007
metric tonnes				
Production of pig iron	740,959	748,650	2,874,934	2,929,796

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

	April		Year-to-date	
	2006	2007	2006	2007
	metric tonnes			
Pig iron including pre-reduced iron	786,050	784,870	3,007,635	3,065,440
Scrap				
Own make	171,927	169,962	681,177	654,860
Purchased	503,277	544,934	2,030,657	2,240,334
Total, pig iron and scrap products	1,461,254	1,499,766	5,719,469	5,960,634

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

	Production		Shipments	
	2006	2007	2006	2007
	metric tonnes			
April				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	529,283	565,366	59,714	102,818
Basic oxygen furnace	819,332	810,098	6,712	38,060
Steel, primary forms - Total	1,348,615	1,375,464	66,426	140,878
Included in "Steel primary forms total" above				
Continuous cast steel	1,330,685	1,357,489	62,843	136,504

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

	Production		Shipments	
	2006	2007	2006	2007
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	2,139,245	2,232,456	x	355,966
Basic oxygen furnace	3,118,865	3,194,653	x	102,993
Steel, primary forms - Total	5,258,110	5,427,109	x	458,959
Included in "Steel primary forms total" above				
Continuous cast steel	5,191,561	5,368,739	x	441,210

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2007

	Production	Shipments for sale		Total shipments
		Domestic ¹ shipments	Exports ²	
		metric tonnes		
April				
Total, pipe and tubing	225,080	156,005	123,240	279,245
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	205	1,386	21	1,407
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,845	1,399	0	1,399
over 16" (40.64 cm) outside diameter	56,324	32,499	52,591	85,090
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	21,392	13,545	10,134	23,679
over 16" (40.64 cm) periphery	53,092	18,827	32,738	51,565
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	3,198	4,161	3,344	7,505
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,443	5,438	1,606	7,044
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	766	872	61	933
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	915	2,154	43	2,197
over 16" (40.64 cm) outside diameter	2,111	1,537	249	1,786
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	30,279	18,695	8,143	26,838
Mechanical tubing, welded, produced from cold rolled	15,041	5,981	3,458	9,439
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	32,209	x	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	3,169	7,941	x	x
Other tubular products	1,091	x	x	x

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 2007

	Production	Shipments for sale		Total shipments
		Domestic ¹ shipments	Exports ²	
metric tonnes				
Year-to-date				
Total, pipe and tubing	926,985	663,897	423,903	1,087,800
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	13,749	14,241	83	14,324
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	15,954	20,689	2,727	23,416
over 16" (40.64 cm) outside diameter	205,589	113,335	139,133	252,468
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	83,111	50,345	40,327	90,672
over 16" (40.64 cm) periphery	197,858	66,033	130,024	196,057
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	17,738	13,715	11,376	25,091
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	4,974	13,813	4,616	18,429
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	4,443	3,221	478	3,699
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	3,400	7,495	121	7,616
over 16" (40.64 cm) outside diameter	9,060	5,530	1,113	6,643
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	111,929	74,579	32,669	107,248
Mechanical tubing, welded, produced from cold rolled	60,526	24,229	13,977	38,206
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	174,390	x	x	x
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	20,836	37,247	x	x
Other tubular products	3,428	x	x	x

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
	2006	2007			
		Total shipments	Domestic shipments	Exports ²	
	metric tonnes				
April					
Barbed wire	x	x	x	x	.
Uncoated steel wire	18,514	17,582	9,488	8,094	.
Galvanized steel wire	12,997	14,433	6,144	8,289	.
Other coated steel wire	x	x	x	30	.
Farm fencing and wire chain link fabric	1,128	1,120	x	x	962
Wire mesh, bright or uncoated and galvanized	4,245	6,308	x	x	5,959
Wire rope	3,368	3,043	x	x	1,983
Nails and staples	x	4,239	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	3,836	4,154	x	x	x
Staples of iron or steel	x	x	x	0	x
All other wire products	1,693	x	x	3	x
Grand total	46,511	49,280	28,730	20,550	.

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
	2006	2007			
		Total shipments	Domestic shipments	Exports ²	
	metric tonnes				
Barbed wire	x	x	x	x	.
Uncoated steel wire	79,723	69,340	38,678	30,662	.
Galvanized steel wire	52,770	52,300	21,725	30,575	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	4,070	x	x	x	x
Wire mesh, bright or uncoated and galvanized	14,476	17,865	x	x	18,194
Wire rope	x	13,613	x	x	12,667
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	19,234	16,749	x	x	x
Staples of iron or steel	x	x	x	x	x
All other wire products	x	x	x	x	x
Grand total	196,622	185,968	107,319	78,649	.

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 and Logging or ASML (Survey ID 2103). This means that estimates from the monthly surveys do not cover the entire universe of steel producers in Canada because the ASML does not survey all businesses. Instead, the ASML uses administrative data to cover the small and medium-sized establishments. These manufacturers are not part of the four monthly surveys.

General methodology

Data are collected each month, directly from survey respondents using a mail-out / mail-back process. Data capture and preliminary editing are performed simultaneously to ensure validity of the data. Businesses from whom no response has been received or whose data may contain errors are followed-up by telephone or fax.

Missing data for the current month are imputed automatically by applying to the previous month's value, the month-to-month change observed for the same period in the previous year, for the unit in question. However, an option exists for analysts to manually override this imputation with a better estimate based on pertinent knowledge about the industry or the business.

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 the direct or residual disclosure of identifiable data.

Direct disclosure could occur when the value in a tabulation cell is composed of a few respondents or when the cell is dominated by a few companies. Residual disclosure could occur when confidential information can be derived indirectly by piecing together information from different sources or data series.

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 tables of 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 within the target population, 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, survey results are analyzed to ensure comparability with patterns observed in historical data series and the economic condition of the industry. Information available from other sources such as the Steel Primary Forms Weekly Survey (Survey ID 2131) and the Monthly Survey of Manufacturing or MSM (Survey ID 2101) are also used in the validation process.

Coverage error

There is a degree of under coverage (referred to as coverage error) in the survey results as there is generally a lag between the time a new business comes into existence and when it is included in the universe of these sub-annual surveys. This occurs because the list of businesses surveyed is derived from the latest available survey results for the ASML which are not available until 15 months after the reference period.

This error is kept at a minimum by also using advance information from the ASML frame, feedback from the MSM and other sources such as the Canadian Steel Producer's Association, trade journals and newspaper articles, to identify new survey units.

Non-response error

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

Inaccuracy 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. To reduce such errors the format and wording in the questionnaire are 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 need for accurate data reporting.

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.

Text table 1
Coverage and non-response errors

	Coverage error based on ASML 2004	Non-response error- annual average 2005
	percentage	
Steel primary forms steel castings and pig iron	0	6
Ingots and rolled steel products	3	0
Steel pipe and tubing	0	0
Steel wire	0	0

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 in Canada during a reference period including intermediate products. The final 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 and Logging, 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: (613) 951-9499; Internet: manufact@statcan.ca).