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Steel, Tubular Products and Steel Wire

November 2006



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Statistics Canada
Manufacturing, Construction and Energy Division

Steel, Tubular Products and Steel Wire

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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

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

November 2006

- Monthly production of primary steel and pig iron fell 20.8% to 1,028,457 metric tonnes in November.
- Between October to November 2006, disposition of shipments of rolled steel products increased 9.2% to 1,232,022 metric tonnes.
- In November steel pipe and tubing production rose 4.8% to 259,397 metric tonnes, its highest level in the last five months.
- Total shipments of steel wire and specified wire products dropped 18.8% to 38,498 metric tonnes in November.

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								
November								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	5	5,158	6,715	5,876	5,548	19,776	..	.
21 Motor vehicles and parts	236	.	.	.	.	20,507	151	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	114	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	567	726	3,479	46,290	14,954	..	.
32 Metal building systems	.	.	.	.	..	..	.	.
33 Contractors' products	.	.	.	.	674	435	115	.
34 Miscellaneous stamping and coating	..	..	40	39	.	1,137	.	.
41 Natural resources and extractive industries	.	.	..	.	1,265	8,595	..	.
51 Agricultural equipment	.	..	..	11	.	207	.	.
52 Non electrical machinery	.	..	..	..	.	676	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	51	.	.
61 Pipes and tubes	.	.	.	.	.	..	.	.
62 Wire and wire products	1,325	.	.	.	..	7,234	18,246	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	..	.	.	.
Total domestic shipments	1,566	5,839	7,481	9,405	53,777	73,572	18,512	..
Total domestic alloy shipments	.	.	.	.	.	29,534	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	3,961	10,991	6,162	421	39,599	23,675	.
82 Exports to other countries (excluding United States)	x	81	239	.	..	16,290	1,706	..
Total disposition	x	9,881	18,711	15,567	54,198	129,461	43,893	..
Total alloy shipments	.	.	.	.	.	51,250	..	.
Producers interchange, for sale	x	.	..	.	.	1,354	64	.
Exports for conversion and return ²	.	.	.	.	.	..	.	.
Imports by producers (including conversion)	36,563	.	.	.	.	.	..	.

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							
November							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	2,099	29,463	139,251	34,347	2,070	40,280	290,588
21 Motor vehicles and parts	1,112	..	74,206	17,017	.	56,192	169,421
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	681	1	.	.	.	796
24 Shipbuilding	.	..	.	.	.	.	..
31 Steel fabrication	111	7,176	5,303	..	.	13,110	91,716
32 Metal building systems	.	..	..	.	.	3,965	3,965
33 Contractors' products	19	5	6,236	5,750	.	29,307	42,541
34 Miscellaneous stamping and coating	163	1,197	6,319	7,316	.	17,809	34,020
41 Natural resources and extractive industries	26	..	..	1	.	3	9,890
51 Agricultural equipment	230	17,260	57	.	.	.	17,765
52 Non electrical machinery	51	112	..	..	.	.	839
53 Electrical machinery	.	..	.	3,596	.	1,007	4,603
54 Industrial packaging material	.	..	503	14,875	106	..	15,535
61 Pipes and tubes	..	..	162,932	2,438	.	5,243	170,613
62 Wire and wire products	339	..	614	44	.	25	27,827
63 Containers and closures	.	..	36	290	9,951	.	10,277
64 Appliances and utensils industries	.	..	.	7,591	.	3,819	11,410
70 Miscellaneous industries	260	..	.	.	.	.	260
Total domestic shipments	4,410	55,894	395,458	93,265	12,127	170,760	902,066
Total domestic alloy shipments	..	..	.	..	.	.	29,534
Exports² (for final sale)							
81 Exports to the United States	6,357	18,016	82,632	x	15,031	28,466	257,034
82 Exports to other countries (excluding United States)	.	1,038	5,146	x	1,625	17,868	72,922
Total disposition	10,767	74,948	483,236	x	28,783	217,094	1,232,022
Total alloy shipments	..	..	.	..	.	.	51,250
Producers interchange, for sale	.	..	662	x	.	.	62,457
Exports for conversion and return ²	.	..	1,187	2,218	.	6,427	9,832
Imports by producers (including conversion)	.	714	26,542	15,349	.	466	79,634

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	..	34,076	88,641	73,028	36,111	232,270	..	.
21 Motor vehicles and parts	..	.	.	.	.	243,611	1,971	.
22 Railway operating	..	.	.	.	.	..	.	.
23 Railroad cars and locomotives	..	3,486	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	7,988	19,870	46,242	363,830	170,105	..	.
32 Metal building systems	..	.	.	.	..	..	.	.
33 Contractors' products	..	.	..	.	..	6,885	2,668	.
34 Miscellaneous stamping and coating	..	..	3,522	3,166	.	15,549	.	.
41 Natural resources and extractive industries	..	.	..	.	11,294	123,231	..	.
51 Agricultural equipment	..	..	..	..	.	3,998	.	.
52 Non electrical machinery	..	..	..	..	.	6,571	..	.
53 Electrical machinery	..	.	.	.	.	..	.	.
54 Industrial packaging material	..	.	.	.	.	..	.	.
61 Pipes and tubes	..	.	.	.	.	..	.	.
62 Wire and wire products	..	.	.	.	..	47,350	204,458	.
63 Containers and closures	..	.	.	.	.	.	.	.
64 Appliances and utensils industries	..	.	.	.	.	.	.	.
70 Miscellaneous industries	..	.	.	.	..	.	.	.
Total domestic shipments	8,390	45,592	112,309	122,531	414,077	849,886	209,170	..
Total domestic alloy shipments	.	.	.	.	.	276,913	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	31,134	140,964	101,974	35,095	482,023	x	.
82 Exports to other countries (excluding United States)	x	..	3,397	.	..	203,547	x	..
Total disposition	x	77,456	256,670	224,505	449,172	1,535,456	x	..
Total alloy shipments	.	.	.	.	.	446,966	..	.
Producers interchange, for sale	x	.	..	.	.	23,488	692	.
Exports for conversion and return ²	.	.	.	.	.	..	.	.
Imports by producers (including conversion)	630,915	.	.	.	.	.	..	.

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	30,550	354,204	1,754,274	365,035	24,912	452,816	3,446,020
21 Motor vehicles and parts	22,188	..	1,023,802	199,984	.	651,388	2,147,188
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	19,944	4,827	.	.	.	28,257
24 Shipbuilding	.	..	.	.	.	.	..
31 Steel fabrication	1,796	72,115	65,215	..	.	20,250	767,630
32 Metal building systems	.	..	..	.	.	38,631	38,810
33 Contractors' products	530	1,648	57,091	26,231	.	371,098	468,990
34 Miscellaneous stamping and coating	2,456	..	73,361	61,441	.	214,654	385,959
41 Natural resources and extractive industries	677	..	..	..	.	..	135,382
51 Agricultural equipment	1,818	20,136	..	..	.	..	28,752
52 Non electrical machinery	701	3,582	..	..	.	..	10,975
53 Electrical machinery	.	.	.	50,021	.	13,322	63,343
54 Industrial packaging material	.	..	5,714	138,758	..	..	145,156
61 Pipes and tubes	..	..	1,815,779	24,474	.	21,982	1,862,470
62 Wire and wire products	6,983	..	..	2,424	.	500	268,413
63 Containers and closures	.	.	4,992	2,596	143,438	.	151,026
64 Appliances and utensils industries	.	.	.	69,048	.	35,718	104,766
70 Miscellaneous industries	1,757	..	..	..	.	.	1,757
Total domestic shipments	69,591	483,439	4,810,494	940,165	168,866	1,820,384	10,054,894
Total domestic alloy shipments	..	..	.	..	.	.	278,248
Exports² (for final sale)							
81 Exports to the United States	x	192,484	734,334	x	126,343	408,049	3,189,913
82 Exports to other countries (excluding United States)	.	16,561	54,838	x	16,149	138,525	519,307
Total disposition	x	692,484	5,599,666	x	311,358	2,366,958	13,764,114
Total alloy shipments	..	..	.	..	.	.	448,301
Producers interchange, for sale	.	.	22,936	x	.	.	812,144
Exports for conversion and return ²	.	.	..	..	.	..	..
Imports by producers (including conversion)	.	25,805	261,453	146,831	.	..	1,069,855

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

	November		Year-to-date	
	2005	2006	2005	2006
metric tonnes				
Production of pig iron	650,184	539,591	7,577,468	7,666,441

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

	November		Year-to-date	
	2005	2006	2005	2006
	metric tonnes			
Pig iron including pre-reduced iron	645,749	522,235	7,869,159	8,079,543
Scrap				
Own make	159,152	129,135	1,959,674	1,871,145
Purchased	543,902	469,384	5,771,014	5,655,548
Total, pig iron and scrap products	1,348,803	1,120,754	15,599,847	15,606,236

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			
November				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	529,172	477,328	x	76,598
Basic oxygen furnace	681,791	551,129	x	..
Steel, primary forms - Total	1,210,963	1,028,457	52,875	76,598
Included in "Steel primary forms total" above				
Continuous cast steel	1,194,385	1,011,597	48,790	72,930

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	5,895,121	5,900,826	x	x
Basic oxygen furnace	8,202,901	8,343,220	x	x
Steel, primary forms - Total	14,098,022	14,244,046	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	13,936,022	14,064,687	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				
November				
Total, pipe and tubing	259,397	152,525	103,513	256,038
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	8,514	9,255	..	9,255
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	4,664	7,274	..	7,274
over 16" (40.64 cm) outside diameter	49,658	22,106	30,400	52,506
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	14,324	7,967	7,589	15,556
over 16" (40.64 cm) periphery	45,856	12,713	28,488	41,201
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	5,970	2,312	2,717	5,029
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,033	463	615	1,078
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,496	799	85	884
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,582	2,012	587	2,599
over 16" (40.64 cm) outside diameter	2,466	1,088	761	1,849
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	27,245	18,789	7,599	26,388
Mechanical tubing, welded, produced from cold rolled	14,455	5,290	3,363	8,653
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	62,787	x	x	58,235
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	16,738	9,384	12,919	22,303
Other tubular products	1,609	x	x	3,228

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	2,771,811	1,669,009	1,085,856	2,754,865
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	124,909	90,976	..	91,272
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	81,171	132,465	..	132,465
over 16" (40.64 cm) outside diameter	420,612	107,034	264,997	372,031
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	231,215	110,110	123,700	233,810
over 16" (40.64 cm) periphery	536,850	163,235	359,116	522,351
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	52,676	16,817	32,976	49,793
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	12,488	3,646	9,935	13,581
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	17,900	10,943	2,555	13,498
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	31,326
over 16" (40.64 cm) outside diameter	33,354	x	x	23,646
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	335,334	220,959	98,193	319,152
Mechanical tubing, welded, produced from cold rolled	148,991	61,254	29,411	90,665
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	594,622	x	x	676,821
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	146,019	x	x	138,517
Other tubular products	x	x	x	45,937

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					
November					
Barbed wire	198	180	x	x	.
Uncoated steel wire	20,658	16,238	9,448	6,790	.
Galvanized steel wire	13,085	8,971	x	x	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	852	730	x	x	926
Wire mesh, bright or uncoated and galvanized	4,226	4,915	x	x	5,748
Wire rope	4,152	2,745	x	x	2,952
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	4,163	2,332	x	x	x
Staples of iron or steel	x	x	x	x	x
All other wire products	x	2,168	x	x	2,303
Grand total	49,895	38,498	24,087	14,411	.

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	231,449	201,573	112,140	89,433	.
Galvanized steel wire	143,892	143,023	x	x	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	10,350	10,823	x	x	11,910
Wire mesh, bright or uncoated and galvanized	x	51,369	x	x	54,942
Wire rope	38,480	x	x	x	x
Nails and staples	x	x	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	x	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	x	525,234	302,197	223,037	.

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).