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Steel, Tubular Products and Steel Wire



October 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

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Highlights

October 2006

- Monthly production of primary steel and pig iron decreased by 1.0% to 1,297,808 metric tonnes in October.
- Between September and October 2006, total dispositions of rolled steel products fell 5.7% to 1,128,252 metric tonnes.
- In October, steel pipe and tubing production climbed 8.7% to 247,584 metric tonnes.
- Monthly shipments of steel wire products increased 5.5% to 47,383 metric tonnes in October.

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								
October								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	..	997	7,396	3,758	2,786	17,962	..	.
21 Motor vehicles and parts	415	.	.	.	.	18,874	228	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	147	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	595	3,250	3,764	37,277	16,992	..	.
32 Metal building systems	.	.	.	.	..	..	.	.
33 Contractors' products	.	.	..	.	495	174	231	.
34 Miscellaneous stamping and coating	..	..	24	296	.	997	.	.
41 Natural resources and extractive industries	.	.	72	.	836	11,610	..	.
51 Agricultural equipment	.	..	5	9	.	423	.	.
52 Non electrical machinery	.	..	..	9	.	547	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	39	.	.
61 Pipes and tubes	.	.	.	.	.	..	.	.
62 Wire and wire products	1,325	.	.	.	..	4,700	22,224	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	..	.	.	.
Total domestic shipments	1,740	1,739	10,747	7,836	41,394	72,318	22,683	..
Total domestic alloy shipments	.	.	.	.	.	25,647	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	2,317	12,552	7,385	376	40,096	x	.
82 Exports to other countries (excluding United States)	38	242	121	.	..	14,799	418	..
Total disposition	14,610	4,298	23,420	15,221	41,770	127,213	50,261	..
Total alloy shipments	.	.	.	.	.	40,128	..	.
Producers interchange, for sale	x	.	..	.	.	1,997	78	.
Exports for conversion and return ²	.	.	.	.	.	..	.	.
Imports by producers (including conversion)	70,031	.	.	.	.	.	..	.

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						
October							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	2,205	27,911	131,623	30,938	1,584	37,890	265,050
21 Motor vehicles and parts	1,053	..	80,086	16,973	.	52,142	169,771
22 Railway operating	.	..	.	.	.	.	..
23 Railroad cars and locomotives	.	933	30	.	.	.	1,110
24 Shipbuilding	.	.	.	.	.	.	..
31 Steel fabrication	109	6,757	8,835	..	.	554	78,133
32 Metal building systems	.	.	..	.	.	3,734	3,734
33 Contractors' products	57	81	5,946	2,420	.	30,461	39,865
34 Miscellaneous stamping and coating	109	339	4,921	6,147	.	21,277	34,110
41 Natural resources and extractive industries	24	.	..	..	.	1	12,543
51 Agricultural equipment	130	672	448	.	.	.	1,687
52 Non electrical machinery	62	198	32	..	.	.	848
53 Electrical machinery	.	.	.	4,346	.	1,345	5,691
54 Industrial packaging material	.	.	834	11,837	..	..	12,710
61 Pipes and tubes	..	..	153,699	1,563	.	1,622	156,884
62 Wire and wire products	318	.	614	226	.	73	29,480
63 Containers and closures	.	.	36	385	12,800	.	13,221
64 Appliances and utensils industries	.	.	.	6,902	.	3,423	10,325
70 Miscellaneous industries	109	.	.	.	.	.	109
Total domestic shipments	4,176	36,891	387,104	81,737	14,384	152,522	835,271
Total domestic alloy shipments	..	..	.	..	.	.	25,647
Exports ² (for final sale)							
81 Exports to the United States	6,924	16,164	64,215	15,802	15,514	29,160	250,497
82 Exports to other countries (excluding United States)	.	1,209	5,945	4,058	1,106	14,548	42,484
Total disposition	11,100	54,264	457,264	101,597	31,004	196,230	1,128,252
Total alloy shipments	..	..	.	..	.	.	40,128
Producers interchange, for sale	.	.	738	x	.	.	59,690
Exports for conversion and return ²	.	.	..	.	.	.	..
Imports by producers (including conversion)	.	959	20,949	635	.	1,085	93,659

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	..	28,918	81,926	67,152	30,563	212,494	..	.
21 Motor vehicles and parts	..	.	.	.	.	223,104	1,820	.
22 Railway operating	.	.	.	.	.	..	.	.
23 Railroad cars and locomotives	.	3,372	.	.	.	.	.	.
24 Shipbuilding	..	.	.	.	.	.	.	.
31 Steel fabrication	..	7,421	19,144	42,763	317,540	155,151	..	.
32 Metal building systems	.	.	.	.	..	..	.	.
33 Contractors' products	.	.	..	.	..	6,450	2,553	.
34 Miscellaneous stamping and coating	..	..	3,482	3,127	.	14,412	.	.
41 Natural resources and extractive industries	.	.	..	.	10,029	114,636	..	.
51 Agricultural equipment	.	..	..	..	.	3,791	.	.
52 Non electrical machinery	.	..	..	..	.	5,895	..	.
53 Electrical machinery	.	.	.	.	.	..	.	.
54 Industrial packaging material	.	.	.	.	.	..	.	.
61 Pipes and tubes	.	.	.	.	.	..	.	.
62 Wire and wire products	..	.	.	.	..	40,116	186,212	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	.	.	.	..	.	.	.
Total domestic shipments	6,824	39,753	104,828	113,126	360,300	776,314	190,658	..
Total domestic alloy shipments	.	.	.	.	.	247,379	..	.
Exports ² (for final sale)								
81 Exports to the United States	x	27,173	129,973	95,812	34,674	442,424	x	.
82 Exports to other countries (excluding United States)	x	..	3,158	.	..	187,257	x	..
Total disposition	x	67,575	237,959	208,938	394,974	1,405,995	x	..
Total alloy shipments	.	.	.	.	.	395,716	..	.
Producers interchange, for sale	x	.	..	.	.	22,134	628	.
Exports for conversion and return ²	.	.	.	.	.	..	.	.
Imports by producers (including conversion)	594,352	.	.	.	.	.	..	.

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	28,451	324,741	1,615,023	330,688	22,842	412,536	3,155,432
21 Motor vehicles and parts	21,076	..	949,596	182,967	.	595,196	1,977,767
22 Railway operating	.	..	..	..	.	.	..
23 Railroad cars and locomotives	.	19,263	4,826	.	.	.	27,461
24 Shipbuilding	.	..	..	..	.	.	..
31 Steel fabrication	1,685	64,939	59,912	..	.	7,140	675,914
32 Metal building systems	.	..	..	..	.	34,666	34,845
33 Contractors' products	511	1,643	50,855	20,481	.	341,791	426,449
34 Miscellaneous stamping and coating	2,293	..	67,042	54,125	.	196,845	351,939
41 Natural resources and extractive industries	651	..	..	..	.	..	125,492
51 Agricultural equipment	1,588	2,876	..	..	.	.	10,987
52 Non electrical machinery	650	3,470	..	..	.	.	10,136
53 Electrical machinery	.	..	..	46,425	.	12,315	58,740
54 Industrial packaging material	.	..	5,211	123,883	..	..	129,621
61 Pipes and tubes	..	..	1,652,847	22,036	.	16,739	1,691,857
62 Wire and wire products	6,644	..	..	2,380	.	475	240,586
63 Containers and closures	.	..	4,956	2,306	133,487	.	140,749
64 Appliances and utensils industries	.	..	..	61,457	.	31,899	93,356
70 Miscellaneous industries	1,497	..	..	..	.	.	1,497
Total domestic shipments	65,181	427,545	4,415,036	846,900	156,739	1,649,624	9,152,828
Total domestic alloy shipments	..	..	.	..	.	.	248,714
Exports² (for final sale)							
81 Exports to the United States	x	174,468	651,702	187,438	111,312	379,583	2,932,879
82 Exports to other countries (excluding United States)	.	15,523	49,692	17,811	14,524	120,657	446,385
Total disposition	x	617,536	5,116,430	1,052,149	282,575	2,149,864	12,532,092
Total alloy shipments	..	..	.	..	.	.	397,051
Producers interchange, for sale	.	..	22,274	x	.	.	749,687
Exports for conversion and return ²	.	..	..	..	.	.	..
Imports by producers (including conversion)	.	25,091	234,911	131,482	.	..	990,221

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

	October		Year-to-date	
	2005	2006	2005	2006
metric tonnes				
Production of pig iron	698,664	691,976	6,927,284	7,126,850

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

	October		Year-to-date	
	2005	2006	2005	2006
	metric tonnes			
Pig iron including pre-reduced iron	744,963	715,253	7,223,410	7,557,308
Scrap				
Own make	180,524	160,828	1,800,522	1,742,010
Purchased	529,477	544,000	5,227,112	5,186,164
Total, pig iron and scrap products	1,454,964	1,420,081	14,251,044	14,485,482

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			
October				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	529,966	551,674	45,065	x
Basic oxygen furnace	782,486	746,134	10,213	14,553
Steel, primary forms - Total	1,312,452	1,297,808	55,278	67,476
Included in "Steel primary forms total" above				
Continuous cast steel	1,295,675	1,280,687	51,435	63,312

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	5,365,949	5,423,498	x	x
Basic oxygen furnace	7,521,110	7,792,091	..	x
Steel, primary forms - Total	12,887,059	13,215,589	x	x
Included in "Steel primary forms total" above				
Continuous cast steel	12,741,637	13,053,090	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				
October				
Total, pipe and tubing	247,584	146,857	92,207	239,064
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	13,261	8,217	..	8,217
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	7,786	11,164	..	11,164
over 16" (40.64 cm) outside diameter	36,099	11,538	25,937	37,475
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	18,422	9,175	9,245	18,420
over 16" (40.64 cm) periphery	44,569	14,532	30,577	45,109
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	5,560	2,173	3,299	5,472
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	437	162	242	404
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,644	891	171	1,062
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	2,629	2,568	428	2,996
over 16" (40.64 cm) outside diameter	2,526	1,359	959	2,318
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	26,965	18,351	8,035	26,386
Mechanical tubing, welded, produced from cold rolled	14,482	5,646	2,685	8,331
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	60,450	50,112	6,956	57,068
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	11,097	8,276	2,197	10,473
Other tubular products	1,657	2,693	1,476	4,169

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	2,512,414	1,516,484	982,343	2,498,827
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	116,395	81,721	..	82,017
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	76,507	125,191	..	125,191
over 16" (40.64 cm) outside diameter	370,954	84,928	234,597	319,525
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	216,891	102,143	116,111	218,254
over 16" (40.64 cm) periphery	490,994	150,522	330,628	481,150
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	46,706	14,505	30,259	44,764
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	11,455	3,183	9,320	12,503
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	16,404	10,144	2,470	12,614
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	28,727
over 16" (40.64 cm) outside diameter	30,888	x	x	21,797
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	308,089	202,170	90,594	292,764
Mechanical tubing, welded, produced from cold rolled	134,536	55,964	26,048	82,012
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	531,835	x	x	618,586
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	129,281	x	x	116,214
Other tubular products	x	x	x	42,709

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					
October					
Barbed wire	288	x	x	x	.
Uncoated steel wire	21,750	17,595	9,866	7,729	.
Galvanized steel wire	12,943	11,608	5,178	6,430	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	879	937	x	x	1,191
Wire mesh, bright or uncoated and galvanized	4,922	7,112	x	x	7,333
Wire rope	3,669	3,974	x	x	3,716
Nails and staples	x	3,706	x	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	4,668	x	x	x	x
Staples of iron or steel	x	x	x	x	x
All other wire products	x	1,980	x	x	1,967
Grand total	51,733	47,383	29,164	18,219	.

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	210,791	185,335	102,692	82,643	.
Galvanized steel wire	130,807	134,052	55,162	78,890	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	9,498	10,093	x	x	10,984
Wire mesh, bright or uncoated and galvanized	x	46,454	x	x	49,194
Wire rope	34,328	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	486,736	278,110	208,626	.

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).