

Catalogue no. 41-019-XIE

Steel, Tubular Products and Steel Wire



March 2007



Statistics Canada Statistique Canada



How to obtain more information

Specific inquiries about this product and related statistics or services should be directed to: Manufacturing, Construction and Energy Division, Statistics Canada, Ottawa, Ontario, K1A 0T6 (telephone: 1-800-263-1136).

For information on the wide range of data available from Statistics Canada, you can contact us by calling one of our toll free numbers. You can also contact us by e-mail or by visiting our website at *www.statcan.ca*.

National inquiries line **1-800-263-1136**National telecommunications device for the hearing impaired **1-800-363-7629**Depository Services Program inquiries **1-800-700-1033**Fax line for Depository Services Program **1-800-889-9734**E-mail inquiries *infostats@statcan.ca*Website *www.statcan.ca*

Information to access the product

This product, catalogue no. 41-019-XIE, is available for free in electronic format. To obtain a single issue, visit our website at www.statcan.ca and select Publications.

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, the Agency has developed *standards of service* which its employees observe in serving its clients.

To obtain a copy of these service standards, please contact Statistics Canada toll free at 1-800-263-1136. The service standards are also published on *www.statcan.ca* under About us > Providing services to Canadians.



Statistics Canada

Manufacturing, Construction and Energy Division

Steel, Tubular Products and Steel Wire

March 2007

Published by authority of the Minister responsible for Statistics Canada

© Minister of Industry, 2007

All rights reserved. The content of this electronic publication may be reproduced, in whole or in part, and by any means, without further permission from Statistics Canada, subject to the following conditions: that it be done solely for the purposes of private study, research, criticism, review or newspaper summary, and/or for non-commercial purposes; and that Statistics Canada be fully acknowledged as follows: Source (or "Adapted from", if appropriate): Statistics Canada, year of publication, name of product, catalogue number, volume and issue numbers, reference period and page(s). Otherwise, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, by any means—electronic, mechanical or photocopy—or for any purposes without prior written permission of Licensing Services, Client Services Division, Statistics Canada, Ottawa, Ontario, Canada K1A 0T6.

May 2007

Catalogue no. 41-019-XIE, Vol. 3, No. 3

ISSN 1712-980X

Frequency: Monthly

Ottawa

La version française de cette publication est disponible sur demande (nº 41-019-XIF au catalogue).

Note of appreciation

Canada owes the success of its statistical system to a long standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

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

Highligh	nts	4
Related	products	5
Statistic	cal tables	
1 Ste	el 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 Ste	el pipe and tubing	12
2-1	Production and shipments, monthly 2007	12
2-2	Production and shipments, year-to-date 2007	13
3 Ste	el and specified wire products	14
3-1	Factory shipments, monthly	14
3-2	Factory shipments, year-to-date	14
Data qu	ality, concepts and methodology	
Concept	s, methodology and data quality	15
Definitio	ns	17

Highlights

March 2007

- Monthly production of primary steel and pig iron rose 14.2% in March 2007 to 1,431,814 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products jumped 18.6% to 1,419,754 metric tonnes.
- Between February 2007 and March 2007, production of steel pipe and tubing climbed 20.4% to 267,171metric tonnes, largely fuelled by increased production of line pipe and hollow structural sections.
- Total shipments of steel wire and specified wire products grew 18.0% to 49,922 metric tonnes in March 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 to	nnes			
March								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses 21 Motor vehicles and parts	225 	3,403	8,442	6,988	5,649	25,713 18,380	5,030 130	
22 Railway operating 23 Railroad cars and locomotives 24 Shipbuilding		504	•					
31 Steel fabrication 32 Metal building systems		616	2,048	3,437	31,114	18,448		
33 Contractors'products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries			432	283	170	230 2,607	33	
51 Agricultural equipment 52 Non electrical machinery	•		 	4 	1,306	10,817 793 295		
53 Electrical machinery 54 Industrial packaging material 61 Pipes and tubes							•	
62 Wire and wire products 63 Containers and closures	107		•			984	26,566	
64 Appliances and utensils industries 70 Miscellaneous industries							-	
Total domestic shipments	332	4,523	10,922	10,712	38,239	78,267	31,759	0
Total domestic alloy shipments						26,111		
Exports ² (for final sale)								
81 Exports to the United States 82 Exports to other countries (excluding United States)	x 26,092	2,853 	12,783 93	8,526	4,085 	46,667 20,265	46,048 1,667	
Total disposition	x	7,376	23,798	19,238	42,324	145,199	79,474	0
Total alloy shipments						39,339		
Producers interchange, for sale	х	ė	••		·	2,534	24	•
Exports for conversion and return 2				•			•	
Imports by producers (including conversion)								

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
			n	netric tonnes			
March							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses 21 Motor vehicles and parts 22 Railway operating	3,354 2,259	38,133 	182,710 78,033	50,916 15,300	2,155	55,773 62,576	388,491 176,678
23 Railroad cars and locomotives 24 Shipbuilding		591					1,095
31 Steel fabrication 32 Metal building systems	80 84	4,913	4,911			439 3,413	66,006 3,413
33 Contractors'products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries 51 Agricultural equipment	240 83 135	378 627	3,990 8,919 12,694 1,110	1,990 4,938 228 196	· ·	38,031 21,317 1,121	44,528 39,114 26,249 2,865
52 Non electrical machinery 53 Electrical machinery 54 Industrial packaging material 61 Pipes and tubes 62 Wire and wire products 63 Containers and closures 64 Appliances and utensils industries 70 Miscellaneous industries	27 47 487 374	123	486 1,479 177,146 454 1,328	4,139 10,850 2,137 118 456 5,289	9,429	1,360 1,333 2,863	931 5,499 12,393 180,663 28,716 11,213 8,152 374
Total domestic shipments	7,170	44,765	473,260	96,557	11,648	188,226	996,380
Total domestic alloy shipments	156						26,267
Exports ² (for final sale)							
81 Exports to the United States 82 Exports to other countries (excluding United States)	8,291	22,637 1,169	119,385 8,314	x 2,439	10,651 1,848	41,528 10,249	351,238 72,136
Total disposition	15,461	68,571	600,959	x	24,147	240,003	1,419,754
Total alloy shipments	156					•	39,495
Producers interchange, for sale	•	•	1,412	Х			72,376
Exports for conversion and return ²	•	•					0
Imports by producers (including conversion)	٠	3,812	2,322				6,134

^{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.

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 to	nnes			
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses 21 Motor vehicles and parts 22 Railway operating	567 	11,631	30,548	25,438	10,675	66,454 55,442	657	
23 Railroad cars and locomotives	•	1,610						•
24 Shipbuilding 31 Steel fabrication		2,236	5,361	12,436	84,857	50,224		
32 Metal building systems 33 Contractors'products 34 Miscellaneous stamping and coating			2,099	1,083	307	 879 5,780	208	
41 Natural resources and extractive industries			2,000	1,000	3,729	34,238		
51 Agricultural equipment	•			71	-	1,176	•	•
52 Non electrical machinery 53 Electrical machinery						1,352		
54 Industrial packaging material								
61 Pipes and tubes 62 Wire and wire products	373				-	6,564	66,976	•
63 Containers and closures	3/3					0,304	00,970	
64 Appliances and utensils industries					-			
70 Miscellaneous industries				•				•
Total domestic shipments	1,473	15,513	38,008	39,028	99,568	222,109	72,944	
Total domestic alloy shipments						74,980		
Exports ² (for final sale)								
81 Exports to the United States 82 Exports to other countries (excluding United States)	x x	8,646 	40,849 426	28,979	5,869 	121,885 48,676	118,883 2,393	
Total disposition	x	24,159	79,283	68,007	105,437	392,670	194,220	
Total alloy shipments						116,175		
Producers interchange, for sale	х					7,227	114	
Exports for conversion and return ²								
Imports by producers (including conversion)								

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 21 Motor vehicles and parts 22 Railway operating	9,276 6,462	104,415 	523,980 218,627	142,385 45,330	8,323	140,888 155,234	1,079,683 482,285
23 Railroad cars and locomotives 24 Shipbuilding		4,360					5,970
31 Steel fabrication 32 Metal building systems	259	14,546	11,061		•	1,108 7,554	182,088 7,554
33 Contractors'products 34 Miscellaneous stamping and coating 41 Natural resources and extractive industries 51 Agricultural equipment	252 749 201 316	 991	13,316 23,485 2,040	6,728 11,844 358	:	87,797 49,632 1,122	109,593 96,044 52,227 4,952
52 Non electrical machinery 53 Electrical machinery 54 Industrial packaging material	102	247	5,959	12,167 31,800		4,695 	2,507 16,862 37,894
61 Pipes and tubes 62 Wire and wire products 63 Containers and closures 64 Appliances and utensils industries	1,558		495,292 1,720 1,861	8,777 313 566 17,241	21,358	4,415 8,142	508,539 77,521 23,785 25,383
70 Miscellaneous industries	834						834
Total domestic shipments	20,064	126,049	1,310,808	277,737	29,816	460,604	2,713,721
Total domestic alloy shipments	428						75,408
Exports 2 (for final sale)							
81 Exports to the United States 82 Exports to other countries (excluding United States)	24,107	62,160 2,641	300,170 15,334	x x	29,494 4,377	102,557 30,556	975,998 156,504
Total disposition	44,171	190,850	1,626,312	x	63,687	593,717	3,846,223
Total alloy shipments	428						116,603
Producers interchange, for sale			4,602	х			184,532
Exports for conversion and return ²							
Imports by producers (including conversion)		7,505	9,705				18,554

^{1.} Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

Table 1-3
Steel primary forms and pig iron — Production of pig iron

	March		Year-to-date				
	2006	2007	2006	2007			
		metric tonnes					
Production of pig iron	731,776	767,756	2,133,975	2,181,146			

^{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.

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

	March		Year-to-date	
	2006	2007	2006	2007
		metric tonnes		
Pig iron including pre-reduced iron	781,048	813,922	2,221,585	2,280,570
Scrap Own make Purchased	172,577 524,603	168,739 592,901	509,250 1,527,380	484,898 1,695,400
Total, pig iron and scrap products	1,478,228	1,575,562	4,258,215	4,460,868

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		
March				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace Basic oxygen furnace	568,776 804,627	594,206 837,608	57,022 15,605	125,367 5,723
Steel, primary forms - Total	1,373,403	1,431,814	72,627	131,090
Included in "Steel primary forms total" above Continuous cast steel	1,356,021	1,418,016	68,276	126,660

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 Basic oxygen furnace	1,609,962 2,299,533	1,667,090 2,384,555	x x	253,148 64,933
Steel, primary forms - Total	3,909,495	4,051,645	x	318,081
Included in "Steel primary forms total" above Continuous cast steel	3,860,876	4,011,250	x	304,706

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

	Production	Ship	Shipments for sale		
		Domestic ¹ shipments	Exports ²	Total shipments	
_		metric tonn	es		
March					
Total, pipe and tubing	267,171	131,310	103,049	234,359	
Pipe welded and seamless					
Line pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter over 16" (40.64 cm) outside diameter	2,211 5,469 79,328	5,401 3,579 9,745	21 436 25,216	5,422 4,015 34,961	
Hollow structural sections up to and including 16" (40.64 cm) periphery over 16" (40.64 cm) periphery	24,650 60,189	15,502 19,357	12,280 39,840	27,782 59,197	
Standard pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	4,055 991	1,462 649	2,592 897	4,054 1,546	
Other pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter over 16" (40.64 cm) outside diameter	1,147 720 1,802	1,155 1,811 1,468	179 7 93	1,334 1,818 1,561	
Mechanical tubing Mechanical tubing, welded, produced from hot rolled Mechanical tubing, welded, produced from cold rolled	29,885 16,182	19,405 6,117	8,653 3,704	28,058 9,821	
Oil country tubular goods Oil country tubular goods, welded and seamless, casing (including coupling) Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	34,010 5,311	37,755 6,940	x 441	x 7,381	
Other tubular products	1,221	964	x	х	

Including for own use by the steel pipe and tubing industries.
 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		
	_	Domestic ¹ shipments	Exports ²	Total shipments
_	metric tonnes			
Year-to-date				
Total, pipe and tubing	721,597	431,116	268,344	699,460
Pipe welded and seamless				
Line pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter over 16" (40.64 cm) outside diameter	13,399 12,348 174,517	12,805 17,724 56,436	62 2,727 57,051	12,867 20,451 113,487
Hollow structural sections up to and including 16" (40.64 cm) periphery over 16" (40.64 cm) periphery	60,624 146,947	34,918 46,588	30,280 97,286	65,198 143,874
Standard pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	14,540 3,531	6,380 1,924	8,032 3,047	14,412 4,971
Other pipe up to and including 4 1/2" (11.43 cm) outside diameter over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter over 16" (40.64 cm) outside diameter	3,560 2,438 7,040	2,345 4,987 3,994	417 78 918	2,762 5,065 4,912
Mechanical tubing Mechanical tubing, welded, produced from hot rolled Mechanical tubing, welded, produced from cold rolled	81,650 45,485	55,884 18,248	24,526 10,519	80,410 28,767
Oil country tubular goods Oil country tubular goods, welded and seamless, casing (including coupling) Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	131,433 21,748	x 24,355	x 1,635	x 25,990
Other tubular products	2,337	х	x	х

Including for own use by the steel pipe and tubing industries.
 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		06 2007		
		Total shipments	Domestic shipments	Exports ²	
<u> </u>	metric tonnes				
March					
Barbed wire	х	х	х	x	-
Uncoated steel wire	21,876	18,291	10,392	7,899	
Galvanized steel wire	14,600	13,202	5,529	7,673	
Other coated steel wire	X	X	Х	Х	
Farm fencing and wire chain link fabric	1,286	849	Х	Х	791
Wire mesh, bright or uncoated and galvanized	3,736	4,099	Х	Х	4,337
Wire rope	4,088	3,739	Х	Х	3,841
Nails and staples	X	4,456	Х	Х	Х
Wire roofing nails of a length of 25 mm or more, iron or steel	5,424	4,313	Х	Х	Х
Staples of iron or steel	Х	Х	Х		Х
All other wire products	Х	Х	Х	3	Х
Grand total	55,853	49,922	29,399	20,523	

^{1.} Totals may not add due to rounding.

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	х	х	
Uncoated steel wire	61,209	51,758	29,190	22,568	
Galvanized steel wire	39,773	37,867	15,581	22,286	
Other coated steel wire	Х	Х	X	X	
Farm fencing and wire chain link fabric	2,942	Х	X	X	X
Wire mesh, bright or uncoated and galvanized	10,231	11,557	X	X	12,235
Wire rope	Х	10,570	X	X	10,684
Nails and staples	Х	Х	X	X	X
Wire roofing nails of a length of 25 mm or more, iron or steel	15,398	12,595	Х	X	X
Staples of iron or steel	X	X	Х	X	X
All other wire products	Х	Х	X	X	х
Grand total	150,111	136,688	78,589	58,099	

^{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.

^{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 Ingots and rolled steel products Steel pipe and tubing Steel wire	0 3 0 0	6 0 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 OT6 (Telephone: 1-866-873-8789 or (613) 951-9497; Fax: (613) 951-9499; Internet: manufact@statcan.ca).