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Steel, Tubular Products and Steel Wire

December 2008



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Statistics Canada
Manufacturing, Construction and Energy Division

Steel, Tubular Products and Steel Wire

December 2008

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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

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Highlights

December 2008

- Between November 2008 and December 2008 production of primary steel and pig iron decreased 0.8% to 611,875 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products decreased 16.6% to 690,955 metric tonnes.
- Between November 2008 and December 2008, production of steel pipe and tubing decreased 15.3% to 172,486 metric tonnes.
- Total shipments of steel wire and specified wire products decreased 20.6% to 28,497 metric tonnes in December 2008.

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 shipments ¹ of rolled steel products, by product, monthly 2008

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								
December								
Domestic shipments								
11 Steel service centres and other wholesalers and warehouses	0	1,034	2,998	2,311	511	6,082	28	.
21 Motor vehicles and parts	145	.	51	0	.	5,010	0	.
22 Railway operating	0	.	.	.	0	43	0	.
23 Railroad cars and locomotives	.	169	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	198	3,437	623	30,357	x	0	.
32 Metal building systems	.	0	.	.	0	0	.	.
33 Contractors' products	.	0	0	.	73	x	x	.
34 Miscellaneous stamping and coating	0	0	0	149	.	x	.	.
41 Natural resources and extractive industries	.	.	144	0	751	13,385	0	.
51 Agricultural equipment	.	0	0	0	0	546	.	.
52 Non electrical machinery	.	0	2,309	0	.	5,874	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	396	.	.	.	0	555	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	0	.	.	0	x	.	.
Total domestic shipments	541	1,401	8,939	3,083	31,692	34,039	x	0
Total domestic alloy shipments	0	.	.	.	.	6,068	0	.
81 Exports to the United States	x	971	3,154	2,614	0	18,862	x	.
82 Exports to other countries (excluding United States)	0	0	x	.	0	10,759	x	0
Total disposition	x	2,372	x	5,697	31,692	63,660	x	0
Total alloy shipments	0	.	.	.	.	10,377	0	.
Producers interchange, for sale	x	.	0	.	.	695	76	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	0	.	.	.	.	.	0	.

See footnotes at the end of the table.

Table 1-1 – continued

Steel primary forms and pig iron — Disposition of net shipments ¹ of rolled steel products, by product, monthly 2008

SDC No.	Cold finished bars	Plates ²	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							
December							
Domestic shipments							
11 Steel service centres and other wholesalers and warehouses	1,516	16,476	86,822	15,813	1,184	21,238	156,013
21 Motor vehicles and parts	745	0	33,247	5,041	0	21,416	65,655
22 Railway operating	.	0	.	.	.	.	43
23 Railroad cars and locomotives	.	168	0	.	.	.	337
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	3,310	1,438	0	.	2,511	43,180
32 Metal building systems	.	.	49	.	.	1,164	1,213
33 Contractors' products	x	17	2,378	1,491	.	19,035	23,378
34 Miscellaneous stamping and coating	x	0	689	2,544	.	9,767	13,870
41 Natural resources and extractive industries	61	0	0	0	.	-34	14,307
51 Agricultural equipment	58	5	0	0	.	.	609
52 Non electrical machinery	0	128	0	0	.	0	8,311
53 Electrical machinery	.	.	120	681	.	1,807	2,608
54 Industrial packaging material	.	.	135	3,089	0	0	3,224
61 Pipes and tubes	83	0	119,166	2,087	.	1,108	122,444
62 Wire and wire products	x	.	3,277	0	.	0	12,132
63 Containers and closures	0	.	307	69	5,566	.	5,942
64 Appliances and utensils industries	.	.	.	3,092	.	1,998	5,090
70 Miscellaneous industries	x	0	0	.	.	.	400
Total domestic shipments	x	20,104	247,628	33,907	6,750	80,010	478,756
Total domestic alloy shipments	66	0	.	0	.	.	6,134
81 Exports to the United States	x	5,103	81,013	9,099	13,952	21,634	183,970
82 Exports to other countries (excluding United States)	0	4,238	6,972	1,397	x	4,339	28,229
Total disposition	x	29,445	335,613	44,403	x	105,983	690,955
Total alloy shipments	66	0	.	0	.	.	10,443
Producers interchange, for sale	0	.	64	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	309	696	5,275	.	0	6,280

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

2. 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 2008

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	x	x	90,102	x	58,864	234,403	4,269	.
21 Motor vehicles and parts	2,544	.	132	3	.	x	477	.
22 Railway operating	0	.	.	.	21	43	0	.
23 Railroad cars and locomotives	.	x	.	.	.	.	.	.
24 Shipbuilding	0	.	.	.	.	.	.	.
31 Steel fabrication	0	x	28,225	38,691	507,177	x	1	.
32 Metal building systems	.	44	.	.	0	78	.	.
33 Contractors' products	.	0	0	.	x	x	x	.
34 Miscellaneous stamping and coating	0	31	5,000	x	.	x	.	.
41 Natural resources and extractive industries	.	.	371	65	x	x	0	.
51 Agricultural equipment	.	21	85	90	0	x	.	.
52 Non electrical machinery	.	22	4,144	29	.	x	0	.
53 Electrical machinery	.	.	.	.	.	0	.	.
54 Industrial packaging material	.	.	.	.	.	0	.	.
61 Pipes and tubes	.	.	.	.	.	0	.	.
62 Wire and wire products	746	.	.	.	0	x	x	.
63 Containers and closures	.	.	.	.	.	.	.	.
64 Appliances and utensils industries	.	.	.	.	.	.	.	.
70 Miscellaneous industries	.	0	.	.	0	x	.	.
Total domestic shipments	x	x	128,059	120,254	x	716,816	x	0
Total domestic alloy shipments	0	.	.	.	.	x	0	.
81 Exports to the United States	x	x	122,989	87,098	39	x	x	.
82 Exports to other countries (excluding United States)	x	868	x	.	64	x	x	0
Total disposition	x	x	x	207,352	x	1,234,493	x	0
Total alloy shipments	0	.	.	.	.	x	0	.
Producers interchange, for sale	x	.	0	.	.	10,030	445	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	x	.	.	.	.	.	x	.

See footnotes at the end of the table.

Table 1-2 – continued

Steel primary forms and pig iron — Disposition of net shipments ¹ of rolled steel products, by product, year-to-date 2008

SDC No.	Cold finished bars	Plates ²	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	x	x	1,675,355	x	12,309	x	3,397,550
21 Motor vehicles and parts	x	0	487,795	x	0	x	1,265,898
22 Railway operating	.	0	.	.	.	.	64
23 Railroad cars and locomotives	.	x	0	.	.	.	x
24 Shipbuilding	.	.	.	.	.	.	0
31 Steel fabrication	x	x	x	x	.	x	868,717
32 Metal building systems	.	.	x	.	.	x	x
33 Contractors' products	x	x	x	x	.	x	x
34 Miscellaneous stamping and coating	x	x	x	x	.	x	x
41 Natural resources and extractive industries	655	x	1	0	.	293	x
51 Agricultural equipment	x	x	123	764	.	.	x
52 Non electrical machinery	0	x	2,529	0	.	55	x
53 Electrical machinery	.	.	277	21,323	.	15,195	36,795
54 Industrial packaging material	.	.	x	x	47	0	x
61 Pipes and tubes	268	x	x	x	.	x	1,987,962
62 Wire and wire products	x	.	x	1,362	.	x	298,122
63 Containers and closures	0	.	x	x	85,546	.	x
64 Appliances and utensils industries	.	.	.	69,486	.	x	x
70 Miscellaneous industries	x	x	x	.	.	.	x
Total domestic shipments	x	x	4,259,618	x	97,902	x	9,178,703
Total domestic alloy shipments	3,121	0	.	0	.	.	x
Exports ² (for final sale)							
81 Exports to the United States	x	x	x	x	x	x	4,652,097
82 Exports to other countries (excluding United States)	14	x	x	x	x	147,377	1,095,167
Total disposition	x	x	6,319,459	x	x	x	14,925,967
Total alloy shipments	3,298	0	.	0	.	.	x
Producers interchange, for sale	0	.	x	x	.	5	x
Exports for conversion and return ²	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	x	x	x	.	0	181,045

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

2. 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

	December		Year-to-date	
	2007	2008	2007	2008
metric tonnes				
Production of pig iron	742,857	411,320	8,579,122	8,770,234

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

	December		Year-to-date	
	2007	2008	2007	2008
	metric tonnes			
Pig iron including pre-reduced iron	740,864	374,875	8,928,370	8,499,421
Scrap				
Own make	160,560	84,633	1,899,209	1,488,263
Purchased	483,825	219,855	6,300,329	6,247,978
Total, pig iron and scrap products	1,385,249	679,363	17,127,908	16,235,662

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

	Production		Shipments	
	2007	2008	2007	2008
	metric tonnes			
December				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	506,067	193,586	x	x
Basic oxygen furnace	749,882	418,289	x	x
Steel, primary forms - Total	1,255,949	611,875	215,618	59,637
Included in "Steel primary forms total" above				
Continuous cast steel	1,249,649	604,323	211,207	x

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

	Production		Shipments	
	2007	2008	2007	2008
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	6,404,038	5,882,311	x	x
Basic oxygen furnace	9,167,514	8,962,806	x	x
Steel, primary forms - Total	15,571,552	14,845,117	1,843,688	2,505,035
Included in "Steel primary forms total" above				
Continuous cast steel	15,396,278	14,702,300	1,758,124	x

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2008

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
		metric tonnes		
December				
Total, pipe and tubing	172,486	150,343	49,797	200,140
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	2,869	0	2,869
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	15,422	15,119	2,019	17,138
over 16" (40.64 cm) outside diameter	40,769	44,765	4,653	49,418
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	9,742	9,380	6,696	16,076
over 16" (40.64 cm) periphery	26,326	10,559	17,531	28,090
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	1,362	1,127	1,122	2,249
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	86	50	209	259
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	740	61	46	107
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	802	22	824
over 16" (40.64 cm) outside diameter	709	107	0	107
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	6,925	5,893	2,760	8,653
Mechanical tubing, welded, produced from cold rolled	5,398	2,555	1,098	3,653
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	44,976	49,294	9,718	59,012
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	15,010	7,400	3,646	11,046
Other tubular products	115	362	277	639

1. Including for own use by the steel pipe and tubing industries.

Table 2-2
Steel pipe and tubing — Production and shipments, year-to-date 2008

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
	metric tonnes			
Year-to-date				
Total, pipe and tubing	2,537,794	1,551,243	1,117,792	2,669,035
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	37,555	2,257	39,812
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	88,612	104,150	11,523	115,673
over 16" (40.64 cm) outside diameter	511,265	269,056	229,498	498,554
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	238,587	146,880	130,528	277,408
over 16" (40.64 cm) periphery	573,827	187,621	377,542	565,163
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	57,863	22,993	36,665	59,658
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	13,924	x	x	16,707
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	20,495	x	x	14,933
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	11,020
over 16" (40.64 cm) outside diameter	x	x	x	4,469
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	198,814	137,906	61,224	199,130
Mechanical tubing, welded, produced from cold rolled	106,151	45,664	30,918	76,582
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	536,532	x	x	650,232
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	121,975	x	x	113,399
Other tubular products	x	18,671	7,624	26,295

1. Including for own use by the steel pipe and tubing industries.

Table 3-1
Steel and specified wire products — Factory shipments¹, monthly

	Shipments				Production
	2007	2008			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
December					
Barbed wire	x	x	x	x	.
Uncoated steel wire	12,302	7,888	3,741	4,147	.
Galvanized steel wire	9,691	7,718	2,818	4,900	.
Other coated steel wire	x	x	x	0	.
Farm fencing and wire chain link fabric	480	x	x	0	x
Wire mesh, bright or uncoated and galvanized	4,027	2,930	x	x	2,691
Wire rope	x	4,209	x	x	x
Nails and staples	x	x	x	644	x
Wire roofing nails of a length of 25 mm or more, iron or steel	1,149	355	203	152	194
Staples of iron or steel	x	x	x	x	x
All other wire products	x	x	x	0	x
Grand total	33,167	28,497	16,672	11,825	.

1. Totals may not add due to rounding.

Table 3-2
Steel and specified wire products — Factory shipments¹, year-to-date

	Shipments				Production
	2007	2008			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
Barbed wire	x	x	x	x	.
Uncoated steel wire	206,189	191,547	101,320	90,227	.
Galvanized steel wire	154,341	149,066	58,730	90,336	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	x	x	x	x	x
Wire mesh, bright or uncoated and galvanized	55,958	59,511	x	x	60,945
Wire rope	x	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	49,367	18,302	6,723	11,579	15,250
Staples of iron or steel	x	x	x	x	x
All other wire products	x	x	x	51	x
Grand total	544,460	564,518	327,772	236,746	.

1. Totals may not add due to rounding.

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
	percent	
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.gc.ca).