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Steel, Tubular Products and Steel Wire

May 2013



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Steel, Tubular Products and Steel Wire

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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
- * significantly different from reference category ($p < 0.05$)

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Highlights

May 2013

- Monthly production of primary steel and pig iron decreased 6.5% in May 2013 to 930,730 metric tonnes.
- In the same month, the total disposition of shipments of rolled steel products decreased 3.8% to 956,171 metric tonnes.
- Between April 2013 and May 2013, production of steel pipe and tubing decreased 12.6% to 152,325 metric tonnes.
- Total monthly shipments of steel wire and specified wire products increased 4.7% to 40,324 metric tonnes in May 2013.

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 of rolled steel products, by product and industry monthly 2013

	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							
May								
Domestic shipments								
Steel service centres and other wholesalers and warehouses	0	3,913	5,748	3,967	544	7,436	0	.
Motor vehicles and parts	0	0	379	13	.	6,566	0	.
Railway operating	0	.	.	.	0	25	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	97	767	x	44,018	705	0	.
Metal building systems	.	0	0	0	8	0	.	.
Contractors' products	.	0	0	.	1,244	13	248	.
Miscellaneous stamping and coating	0	3	113	302	.	16	.	.
Natural resources and extractive industries	.	0	0	0	2,866	12,847	0	.
Agricultural equipment	.	0	0	0	0	290	.	0
Non electrical machinery	.	0	1,604	0	.	7,503	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	2,116	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	0	4,013	8,611	x	48,680	37,517	x	0
Total domestic alloy shipments	0	.	.	.	.	4,610	0	.
Exports to the United States								
Exports to the United States	x	2,036	7,369	5,967	0	21,880	x	.
Exports to other countries (excluding United States)	x	0	37	0	0	15,472	x	0
Total disposition	x	6,049	16,017	x	48,680	74,869	x	0
Total alloy shipments	0	.	.	.	.	8,689	0	.
Producers interchange, for sale	x	.	0	.	.	474	0	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	0	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-1 – continued

Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry monthly 2013

	Cold finished bars	Plates ¹	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							
May							
Domestic shipments							
Steel service centres and other wholesalers and warehouses	1,332	15,118	133,932	13,633	1,276	31,774	218,673
Motor vehicles and parts	797	0	36,478	9,038	0	57,440	110,711
Railway operating	.	0	0	.	.	0	25
Railroad cars and locomotives	.	881	0	.	.	.	881
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	6,281	3,467	0	.	1,979	x
Metal building systems	.	.	0	.	.	1,916	1,924
Contractors' products	0	5,095	6,294	1,375	.	29,327	43,596
Miscellaneous stamping and coating	30	0	3,068	3,929	.	15,133	22,594
Natural resources and extractive industries	47	0	0	0	.	2	15,762
Agricultural equipment	40	374	0	0	.	0	704
Non electrical machinery	0	196	999	0	.	0	10,302
Electrical machinery	.	.	105	1,143	.	1,992	3,240
Industrial packaging material	.	.	22	3,727	0	0	3,749
Pipes and tubes	0	0	96,055	447	.	1,148	97,650
Wire and wire products	x	.	175	102	.	82	x
Containers and closures	0	.	0	0	993	.	993
Appliances and utensils industries	.	.	0	127	.	1,386	1,513
Miscellaneous industries	203	0	0	.	.	.	203
Total domestic shipments	x	27,945	280,595	33,521	2,269	142,179	619,832
Total domestic alloy shipments	135	0	.	0	.	.	4,745
Exports to the United States	1,249	9,245	90,439	x	17,304	59,318	276,633
Exports to other countries (excluding United States)	0	569	18,783	x	543	17,143	59,706
Total disposition	x	37,759	389,817	50,165	20,116	218,640	956,171
Total alloy shipments	567	0	.	0	.	.	9,256
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	0	0
Imports by producers (including conversion)	.	0	1,675	179	.	0	1,854

1. 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.

Note(s): Compiled by principal consuming industries, according to distribution of shipments reported by iron and steel mills.

Table 1-2

Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry, year-to-date 2013

	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								
Steel service centres and other wholesalers and warehouses	0	22,182	28,506	17,803	9,966	39,372	0	.
Motor vehicles and parts	0	0	1,694	96	.	26,987	0	.
Railway operating	0	.	.	.	0	118	0	.
Railroad cars and locomotives	.	0	.	.	.	.	.	.
Shipbuilding	0	.	.	.	.	.	.	.
Steel fabrication	0	946	2,848	x	210,518	2,027	0	.
Metal building systems	.	0	0	0	93	0	.	.
Contractors' products	.	0	0	.	7,173	714	1,477	.
Miscellaneous stamping and coating	0	15	760	2,896	.	790	.	.
Natural resources and extractive industries	.	0	0	0	11,452	55,319	0	.
Agricultural equipment	.	0	0	0	0	1,582	.	0
Non electrical machinery	.	0	7,755	0	.	39,651	0	.
Electrical machinery	.	.	.	.	.	0	.	.
Industrial packaging material	.	.	.	.	.	0	.	.
Pipes and tubes	.	.	.	.	.	0	.	.
Wire and wire products	0	.	.	.	0	10,299	x	.
Containers and closures	.	.	.	.	.	.	.	.
Appliances and utensils industries	.	.	.	.	.	.	.	.
Miscellaneous industries	0	0	.	.	0	0	.	.
Total domestic shipments	0	23,143	41,563	x	239,202	176,859	x	0
Total domestic alloy shipments	0	.	.	.	.	25,123	0	.
Exports to the United States	x	13,908	37,195	28,435	0	111,522	x	.
Exports to other countries (excluding United States)	x	0	305	0	0	84,558	x	0
Total disposition	x	37,051	79,063	x	239,202	372,939	x	0
Total alloy shipments	0	.	.	.	.	46,417	0	.
Producers interchange, for sale	x	.	0	.	.	2,013	57	.
Exports for conversion and return	.	.	.	.	.	0	.	.
Imports by producers (including conversion)	0	.	.	.	.	.	0	.

See notes at the end of the table.

Table 1-2 – continued

Steel primary forms and pig iron — Disposition of net shipments of rolled steel products, by product and industry, year-to-date 2013

	Cold finished bars	Plates ¹	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							
Steel service centres and other wholesalers and warehouses	7,421	76,368	817,275	77,923	6,296	164,898	1,268,010
Motor vehicles and parts	4,095	74	190,021	42,324	0	279,075	544,366
Railway operating	.	0	0	.	.	0	118
Railroad cars and locomotives	.	4,386	0	.	.	.	4,386
Shipbuilding	.	.	.	.	.	.	0
Steel fabrication	x	27,530	17,791	393	.	7,441	x
Metal building systems	.	.	0	.	.	7,297	7,390
Contractors' products	0	14,441	26,839	9,487	.	119,818	179,949
Miscellaneous stamping and coating	62	0	12,578	14,481	.	66,090	97,672
Natural resources and extractive industries	463	0	0	0	.	5	67,239
Agricultural equipment	207	1,423	0	0	.	0	3,212
Non electrical machinery	0	876	4,998	0	.	0	53,280
Electrical machinery	.	.	568	5,624	.	7,964	14,156
Industrial packaging material	.	.	22	21,959	0	0	21,981
Pipes and tubes	0	0	676,988	3,471	.	11,125	691,584
Wire and wire products	x	.	786	419	.	244	x
Containers and closures	0	.	309	0	4,893	.	5,202
Appliances and utensils industries	.	.	0	387	.	6,193	6,580
Miscellaneous industries	801	0	0	.	.	.	801
Total domestic shipments	x	125,098	1,748,175	176,468	11,189	670,150	3,365,894
Total domestic alloy shipments	510	0	.	0	.	.	25,633
Exports (for final sale)							
Exports to the United States	7,072	x	432,347	x	86,599	316,039	1,399,855
Exports to other countries (excluding United States)	21	x	52,520	x	2,976	71,679	276,930
Total disposition	x	187,020	2,233,042	274,220	100,764	1,057,868	5,044,985
Total alloy shipments	3,130	0	.	0	.	.	49,547
Producers interchange, for sale	0	.	0	0	.	0	x
Exports for conversion and return	.	.	0	0	.	652	652
Imports by producers (including conversion)	.	0	5,008	5,344	.	0	10,352

1. 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.

Note(s): 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

	May		Year-to-date	
	2012	2013	2012	2013
metric tonnes				
Production of pig iron	674,848	471,394	3,300,750	2,686,672

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

	May		Year-to-date	
	2012	2013	2012	2013
	metric tonnes			
Pig iron including pre-reduced iron	692,831	331,826	3,417,381	2,094,844
Scrap				
Own make	132,757	283,550	690,807	1,597,090
Purchased	509,399	413,878	2,428,846	2,071,750
Total, pig iron and scrap products	1,334,987	1,029,254	6,537,034	5,763,684

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

	Production		Shipments	
	2012	2013	2012	2013
	metric tonnes			
May				
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	520,629	475,953	x	x
Basic oxygen furnace	690,656	454,777	x	x
Steel, primary forms - Total	1,211,285	930,730	175,040	165,432
Included in "Steel primary forms total" above				
Continuous cast steel	1,175,932	898,181	146,691	136,520

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

	Production		Shipments	
	2012	2013	2012	2013
	metric tonnes			
Steel, primary forms (carbon and alloy including continuous cast steel)				
Electric furnace	2,502,444	2,335,076	x	x
Basic oxygen furnace	3,419,667	2,865,720	x	x
Steel, primary forms - Total	5,922,111	5,200,796	868,678	857,448
Included in "Steel primary forms total" above				
Continuous cast steel	5,749,945	5,045,737	723,446	727,620

Table 2-1
Steel pipe and tubing — Production and shipments, monthly 2013

	Production	Shipments for sale		Total shipments
		Domestic shipments ¹	Exports	
metric tonnes				
May				
Total, pipe and tubing	152,325	126,474	80,009	206,483
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	730	0	730
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	7,905	x	x	x
over 16" (40.64 cm) outside diameter	26,222	22,265	12,956	35,221
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	10,936	12,173	x	x
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	16	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	1,829	1,222	x	x
over 16" (40.64 cm) outside diameter	x	1,655	23	1,678
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	20,135	10,472	8,000	18,460
Mechanical tubing, welded, produced from cold rolled	6,254	4,847	2,064	6,911
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	10,968	21,952	16,958	38,911
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	10,081	6,981	x	x
Other tubular products	x	3,847	376	4,222

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 2013

	Production	Shipments for sale		
		Domestic shipments ¹	Exports	Total shipments
	metric tonnes			
Total, pipe and tubing	879,808	566,724	464,838	1,031,564
Pipe welded and seamless				
Line pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	5,879	0	5,879
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	36,910	x	x	x
over 16" (40.64 cm) outside diameter	167,300	36,704	123,922	160,624
Hollow structural sections				
up to and including 16" (40.64 cm) periphery	x	x	x	x
over 16" (40.64 cm) periphery	x	x	x	x
Standard pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
Other pipe				
up to and including 4 1/2" (11.43 cm) outside diameter	x	x	x	x
over 4 1/2" (11.43 cm) up to and including 16" (40.64 cm) outside diameter	x	x	x	x
over 16" (40.64 cm) outside diameter	x	6,660	112	6,772
Mechanical tubing				
Mechanical tubing, welded, produced from hot rolled	107,917	51,337	35,433	86,755
Mechanical tubing, welded, produced from cold rolled	32,194	23,905	9,742	33,647
Oil country tubular goods				
Oil country tubular goods, welded and seamless, casing (including coupling)	x	137,139	72,883	210,025
Oil country tubular goods, welded and seamless, oilwell tubing (including coupling)	x	x	x	x
Other tubular products	x	11,293	2,204	13,496

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

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

	Shipments				Production
	2012	2013			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
May					
Barbed wire	x	x	x	x	.
Uncoated steel wire	18,333	19,819	8,921	10,898	.
Galvanized steel wire	7,845	8,512	3,464	5,048	.
Other coated steel wire	x	x	x	0	.
Farm fencing and wire chain link fabric	855	562	x	x	465
Wire mesh, bright or uncoated and galvanized	x	x	3,475	x	3,596
Wire rope	x	x	x	x	x
Nails and staples	x	x	772	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	2,732	2,535	x	x	2,488
Staples of iron or steel	x	x	x	0	x
All other wire products	x	1,275	1,270	5	1,034
Grand total	39,037	40,324	20,739	19,585	.

Note(s): Data has been revised from March 2010 to November 2011. These revised data are available at: www.statcan.gc.ca/cansim, table 303-0047. Totals may not add due to rounding.

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

	Shipments				Production
	2012	2013			
		Total shipments	Domestic shipments	Exports	
	metric tonnes				
Barbed wire	x	x	x	x	.
Uncoated steel wire	94,007	92,292	40,833	51,459	.
Galvanized steel wire	39,844	39,058	15,608	23,450	.
Other coated steel wire	x	x	x	x	.
Farm fencing and wire chain link fabric	4,051	2,622	x	x	2,470
Wire mesh, bright or uncoated and galvanized	x	x	15,457	x	16,791
Wire rope	x	x	x	x	x
Nails and staples	x	x	4,137	x	x
Wire roofing nails of a length of 25 mm or more, iron or steel	14,113	11,582	x	x	11,009
Staples of iron or steel	x	x	x	0	x
All other wire products	x	x	x	18	5,826
Grand total	201,239	189,038	97,722	91,316	.

Note(s): Data has been revised from March 2010 to November 2011. These revised data are available at: www.statcan.gc.ca/cansim, table 303-0047. 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 (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 (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 the Annual Survey of Manufactures and Logging (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 Annual Survey of Manufactures (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.

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 301-0006. Specific enquiries should be directed to: The Dissemination and Frame Services section, Manufacturing and Energy Division, Statistics Canada, Ottawa, Ontario, K1A 0T6 (Telephone: 1-866-873-8789 or 613-951-9497; Fax line: 613-951-3877; Internet: manufact@statcan.gc.ca).