

Part XI--Proposed New Industry Structure for Repair and Maintenance

Section A--NAICS Structure

North American Industry Classification System

(NAICS)

Agreement Number 21

This document represents the proposed agreement on the structure of the North American Industry Classification System (NAICS) for the following industries:

Repair and Maintenance

The detailed NAICS structure along with a brief description of the structure is attached (Attachments 1 and 2). Each country agrees to release a copy of the proposed NAICS structure to interested data users. Comments received will be shared among the countries and additional discussions will be held before a final decision on the structure is made. Each country may add additional detailed industries, below the 4-digit level of NAICS, as necessary to meet national needs, so long as this additional detail aggregates to a 4-digit NAICS level in order to ensure full comparability among the three countries. This NAICS structure was presented and provisionally accepted at the NAICS Committee meeting held on November 8 and November 9, 1995 in Washington, D.C.

Accepted	Signature	Date
Canada	/S/ Jacob Ryten	11/9/95
Mexico	/S/ Enrique Ordaz	11/9/95
United States	/S/ Jack E. Triplett	11/9/95

ATTACHMENT 1--NAICS STRUCTURE

XX	Repair and Maintenance
XXX	Automotive Repair and Maintenance
XXXX	Automotive Mechanical and Electrical Repair and Maintenance
XXXX	Automotive Body, Paint and Interior Repair
XXXX	Other Automotive Repair and Maintenance
XXX	Heavy and Industrial Machinery and Equipment Repair and Maintenance
XXXX	Heavy and Industrial Machinery and Equipment Repair and Maintenance
XXX	Electronic and Precision Equipment Repair and Maintenance
XXXX	Electronic and Precision Equipment Repair and Maintenance
XXX	Personal or Household Goods Repair and Maintenance
XXXX	Home and Garden Equipment and Appliance Repair and Maintenance
XXXX	Reupholstery and Furniture Repair

XXXX Footwear and Leather Goods Repair
XXXX Other Personal or Household Goods Repair and Maintenance

Attachment 2--North American Industrial Classification System

Draft Classification for:
Repair and Maintenance

Representatives of the statistical agencies of Canada, Mexico, and the United States agree to a draft industry classification for these industries.

The draft classification provides for the subsector Repair and Maintenance. This subsector is further sub-divided into four industry groups and nine industries. The placement of this subsector within the NAICS structure has not yet been decided.

A General Outline

In the current classification systems of the three countries, repair and maintenance establishments are included in many different categories based on the type of item being repaired. Further, repair and maintenance industries are dispersed among many industry categories in ISIC. The NAICS structure brings together most types of repair and maintenance establishments and categorizes them based on production processes, that is, on the type of repair and maintenance activity performed, and the necessary skills, expertise and processes that are found in different repair and maintenance establishments.

Establishments included in the Repair and Maintenance subsector apply skill and knowledge to restoring machinery, equipment and other products to working order for customers. These establishments also typically perform general or routine maintenance on such products to ensure that they work efficiently and to prevent breakdown and unnecessary repairs.

This subsector includes four industry groups, each based on the type of repair and maintenance services provided and on the operating characteristics of the establishments classified in the component industries.

The Automotive Repair and Maintenance industry group includes establishments involved in the repair and maintenance of motor vehicles, both cars and trucks. Establishments classified in the Automotive Mechanical and Electrical Repair and Maintenance industry employ mechanics with specialized technical skills to diagnose and repair the mechanical and electrical systems of motor vehicles. The Automotive Body, Paint and Interior Repair industry includes establishments with staff skilled in repairing or painting automotive exteriors, or in repairing interiors. The Other Automotive Repair and Maintenance industry includes establishments that provide a variety of automotive care services that help to maintain vehicles but that do not normally require the technical skill levels that establishments in the other industries possess.

The Heavy and Industrial Machinery and Equipment Repair and Maintenance industry group includes establishments that repair and maintain transportation equipment, except motor vehicles, and other heavy and industrial machinery and equipment.

The Electronic and Precision Equipment Repair and Maintenance industry group includes

establishments that repair electronic equipment, such as computers and communications equipment, and other highly specialized precision instruments. These establishments typically have staff skilled in repairing items having complex, electronic components.

The last industry group, Personal or Household Goods Repair and Maintenance, includes establishments that repair a wide variety of goods, most of which are personal and household goods such as garden tools and home appliances.

The proposed subsector does not include all establishments that do repair and maintenance. For example, a substantial amount of repair is done by establishments that also manufacture machinery, equipment and other goods. These establishments are included in the Manufacturing sector in NAICS. Rebuilding of machinery and equipment for resale is considered manufacturing in NAICS and therefore not included in this subsector. In addition, repair of transportation equipment is often provided by or based at transportation facilities (airports, seaports) and these activities are included in the Transportation sector.

A particularly unique situation exists with repair of buildings. Plumbing, electrical installation and repair, painting and decorating and other construction-related establishments are often involved in performing installation or other work on new construction as well as providing repair services on existing structures. While some specialize in repair, it is difficult to distinguish between the two types and all have been included in the Construction sector.

This classification also does not delineate between repair services provided to businesses versus those that serve households. Although some industries primarily serve businesses and other households, separation by class of customer is limited by the fact that many establishments serve both businesses and households. Establishments repairing computers and consumer electronics products are two examples of such overlap.

Limitations and Constraints of the Classification

In the Repair and Maintenance subsector, most activities identified in one country exist in the others. The way activities are combined in establishments differs to some extent in the different countries. Therefore, the NAICS structure contains somewhat less detail than the existing classification systems of the three countries. The level of specialization for repair services varies significantly among the three countries and the NAICS levels reflect those for which common classes can be established. For example, there are a significant number of establishments in Mexico specializing in rebuilding automotive engines as a repair service, and these are located in this subsector. In the United States and Canada, owners of cars that need rebuilt engines typically buy a factory rebuilt engine that is installed at an automotive repair shop.

Relationship to ISIC

The approach adopted for NAICS, that of regrouping most repair activities in a single subsector, is significantly different from the approach employed in the current International Standard Industrial Classification of all Economic Activities (ISIC, Revision 3) of the United Nations. The most important difference is that ISIC classifies establishments primarily engaged in the repair of most types of machinery and equipment in the same industry as those manufacturing the equipment. For example, the repair of printing equipment is included in

ISIC, 2929, Manufacture of Other Special Purpose Machinery. Repair activities can be found in twenty-seven manufacturing industries spanning seven 2-digit groups in ISIC. Repair activities also are found in ISIC Division 50, Sale, Maintenance and Repair of Motor Vehicles and Motorcycles, Retail Sales of Automotive Fuel; Division 52, Retail Trade, Except of Motor Vehicles and Motorcycles, Repair of Personal and Household Goods; and Division 72, Computer and Related Activities.

Largely as a result of the conceptual difference, four of the nine proposed NAICS industries relate to more than one 2-digit ISIC. These are: Heavy and Industrial Machinery & Equipment Repair and Maintenance (three 2-digit ISIC's); Electronic and Precision Equipment Repair and Maintenance (six 2-digit ISIC's); Home and Garden Equipment and Appliance Repair and Maintenance (four 2-digit ISIC's); and Other Personal or Household Goods Repair and Maintenance (seven 2-digit ISIC's).

Changes to National Classification

For Canada, the adoption of a Repair and Maintenance subsector represents a major departure from its current practice. The 1980 Canadian Standard Industrial Classification (CSIC) assigns repair and maintenance activities to many subsectors including Retail Trade, Wholesale Trade, Business Services and Personal and Household Services. The proposed NAICS structure consolidates most repair and maintenance activities in this subsector.

The most important structural change is the transfer to this subsector of the following activities: the repair and maintenance of automobiles, home appliances, consumer electronics, furniture, recreational vehicles, bicycles, musical instruments and watches and jewelry from retail trade; the repair and maintenance of a wide range of machinery and equipment from wholesale trade; the repair and maintenance of computer and related equipment from business services; and the repair of shoes, leather goods and clothing from personal services. Since many of these activities are components of existing industries, there are a significant number of partial relationships between the proposed and existing classifications, in particular for wholesale trade industries. In practice, however, the number of establishments moving from the Wholesale Trade sector to the Repair and Maintenance subsector is small. The repair and maintenance of machinery and equipment is often a secondary activity of wholesalers of the machinery and equipment and the number of establishments specializing in repairs is relatively small.

More often than not, the repair and maintenance activities currently found in retail trade, business services and personal services are classified in separate industries. As a result, the relationship between the new and old classifications is more straightforward. Furthermore, a number of the existing industries will be retained in the national classification, thereby facilitating the comparison between statistics compiled on the basis of the two systems.

For Mexico, there were fewer changes since CMAP class 96, Repair and Maintenance Services, was the basis upon which NAICS was established. Changes to CMAP included CMAP classes 951023, Other Professional Technical Specialized Services not previously mentioned; 961203, Automotive Body Repair Services; and part of CMAP 961309, Furniture Upholstery Services. These classes were merged to form a single NAICS industry, Automotive Body, Paint and Interior Repair.

Finally, computer repair, CMAP 961106, Repair and Maintenance of Machinery not

previously mentioned, was combined with Electronic and Precision Equipment Repair and Maintenance in NAICS.

For the United States, the proposed NAICS structure consolidates most types of repair establishments into this NAICS subsector. The structure primarily includes those industries covered by 1987 SIC Major Group 76, Miscellaneous Repair Services, and 1987 SIC Industry Group 753, Automotive Repair Services. The new structure also includes establishments classified in 1987 SIC 7542, Car Washes; part of 1987 SIC 7549, Automotive Services, Except Repair and Carwashes (oil change and lubricating services, rustproofing services); 1987 SIC 7378, Computer Maintenance and Repair; 1987 SIC 7251, Shoe Repair Shops and Shoeshine Parlors; part of 1987 SIC 7219, Laundry and Garment Services, NEC (repair of furs and apparel and reweaving of textiles); and part of 1987 SIC 3732, Boat Building and Repairing (repair services). Tire retreading and electric motor rebuilding on a factory basis are manufacturing activities and are now included in the Manufacturing sector in NAICS.

The NAICS structure and U.S. national industry detail provide new industry classifications for various types of industrial machinery and equipment repair, electronic and precision equipment repair, and other specialized repair and maintenance. Many of the new industries were created by breaking apart 1987 SIC 7629, Electrical and Electronic Repair Shops, NEC, and 1987 SIC 7699, Repair Shops and Related Services, N.E.C.

Achievement of Objectives

The proposed classification structure meets the objectives for the North American Industry Classification System (NAICS) in that it comprises industries that group establishments with similar production processes and achieves comparability for the three participating countries. The NAICS structure consolidates repair and maintenance in one subsector and provides a structure that includes specialized segments within the subsector.

Other objectives of the NAICS project have also been met. New industries that recognize new and emerging activities have been established, particularly in the area of electronic and precision equipment repair and maintenance.

The industries are economically significant. Some NAICS industries are much larger than others, but this was necessary to ensure comparability among the countries or because it was not possible to subdivide large industries.

Finally, disruptions to time series, while they exist, have been minimized to the extent possible. Most of the changes reflect the regrouping of diverse residual categories to create new industries that better define the activities.

Section B-Annex: United States National Industry Detail

As explained in the *Structure* presentation of this notice, for a number of reasons 4-digit industries in the NAICS industry subsector presented in *Part XI, Section A--Attachment 1*, contain less detail than is currently in the U.S. SIC system, and less detail than is required to meet important analytical requirements in the U.S. The three country agreement on NAICS envisions that each country may develop national detailed industries below the NAICS industry level, so long as the national detail can be aggregated to the NAICS classification, thus assuring full North American comparability.

The ECPC is proposing U.S. 5-digit industry detail for the NAICS industry subsector covered in Part XI of this notice. For cases where no 5-digit detail is shown, the ECPC is

proposing that the NAICS 4-digit industries will also represent the most detailed U.S. industries.

TABLE 1

The definitions of status codes are as follows: E-existing industry; N-new industry; R-revised industry; and * means "part of". The abbreviation NEC is used for Not Elsewhere Classified

1997 NAICS and U.S. description	Status Code	1987 SIC Code	1987 SIC description
XX Repair and Maintenance			
XXX Automotive Repair and Maintenance			
XXXX Automotive Mechanical and Electrical Repair and			
XXXXX General Automotive Repair	E	7538	General Automotive Repair Shops
XXXXX Automotive Exhaust System Repair	E	7533	Automotive Exhaust System Repair Shops
XXXXX Automotive Transmission Repair	E	7537	Automotive Transmission Repair Shops
XXXXX Other Automotive Mechanical and Electrical Repair and Maintenance	E	7539	Automotive Repair Shops, NEC
XXXX Automotive Body, Paint, and Interior Repair			
XXXXX Automotive Body, Paint and Upholstery Repair and Maintenance	E	7532	Top, Body, and Upholstery Repair Shops and Paint Shops
XXXXX Automotive Glass Replacement Shops	E	7536	Automotive Glass Replacement Shops
XXXX Other Automotive Repair and Maintenance			
XXXXX Automotive Oil Change and Lubrication Shops	N	*7549	Automotive Services, Except Repair and Carwashes (lubricating service, automotive)
XXXXX Car Washes	E	7542	Carwashes
XXXXX All Other Automotive Repair and Maintenance	R	*7534 *7549	Tire Retreading and Repair Shops (repair) Automotive Services, Except Repair and Carwashes (except lubricating and towing)
XXX Heavy and Industrial Machinery and Equipment Repair and Maintenance			
XXXX Heavy and Industrial Machinery and Equipment Repair and Maintenance			
XXXXX Transportation Equipment Repair and Maintenance	N	*3732 *7699	Boat Building and Repairing (boat repair) Repair Shops and Related Services, NEC (other non-automotive transportation equip.)
XXXXX Other Industrial Machinery and Equipment Repair and Maintenance	R	*7623 *7694 *7699	Refrigerator and Air-Conditioning Service and Repair Shops (commercial refrigerator equipment repair) Armature Rewinding Shops (repair) Repair Shops and Related Services, NEC (industrial machines and equipment)
XXX Electronic and Precision Equipment Repair and Maintenance			

XXXX	Electronic and Precision Equipment Repair and Maintenance				
XXXXX	Consumer Electronics Repair and Maintenance	N	*7622	Radio and Television Repair Shops (stereo, TV, VCR, and other consumer electronics equipment)	
			*7629	Electrical and Electronic Repair Shops, NEC (consumer equipment except computer)	
XXXXX	Computer and Office Machine Repair and Maintenance	N	7378	Computer Maintenance and Repair	
			*7629	Electrical and Electronic Repair Shops, NEC (business and office machine repair, electrical)	
			*7699	Repair Shops and Related Services, NEC (typewriter repair)	
XXXXX	Communication Equipment Repair and Maintenance	N	*7622	Radio and Television Repair Shops (telecommunication equipment repair)	
			*7629	Electrical and Electronic Repair Shops, NEC (telephone set repair)	
XXXXX	Other Electronic and Precision Equipment Repair and Maintenance	N	*7629	Electrical and Electronic Repair Shops, NEC (electrical measuring instrument repair and calibration, medical equipment repair, electrical)	
			*7699	Repair Shops and Related Services, NEC (dental instrument repair, laboratory instrument repair, medical equipment and other electronic and precision equipment repair, except typewriters)	
XXX	Personal or Household Goods Repair and Maintenance				
XXXX	Home and Garden Equipment and Appliance Repair and Maintenance				
XXXXX	Home and Garden Equipment Repair and Maintenance	N	*7699	Repair Shops and Related Services, NEC (lawnmower repair shops, sharpening and repairing knives, saws and tools)	
XXXXX	Appliance Repair and Maintenance	N	*7623	Refrigeration and Air-Conditioning Service and Repair Shops (except commercial)	
			*7629	Electrical and Electronic Repair Shops, NEC (appliance repair, electrical; washing machine repair; Electric razor repair)	
			*7699	Repairs Shops and Related Services, NEC (gas appliance repair service, sewing machine repair, stove repair shops, and other non-electrical appliance)	
XXXX	Reupholstery and Furniture Repair	E	7641	Reupholstery and Furniture Repair	
XXXX	Footwear and Leather Goods Repair	R	7251	Shoe Repair and Shoeshine Parlors	
			*7699	Repair Shops and Related Services (leather goods repair shops, luggage repair shops, pocketbook repair shops)	
XXXX	Other Personal or Household Goods Repair and Maintenance	N	*7219	Laundry and Garment Services, NEC (alteration and repair)	
			7631	Watch, Clock, and Jewelry Repair	
			7692	Welding Repair	
			*7699	Repair Shops and Related Services, NEC (except industrial, electronic, home and garden, appliance, and leather goods)	

TABLE 2

The abbreviation “pt” means “part of”. @ means time series break has been created that is greater than 3% of the 1992 revenues for the 1987 SIC industry. The abbreviation NEC is used for Not Elsewhere Classified.

1987 SIC code	1987 SIC description	1997 U.S. description
3732@	Boat Building and Repairing (Boat repair)	Transportation Equipment Repair and Maintenance (pt)
7219	Laundry and Garment Services, NEC (Alteration and Repair)	Other Personal or Household Goods Repair and Maintenance (pt)
7251	Shoe Repair Shops and Shoeshine Parlors	Footwear and Leather Goods Repair (pt)
7378	Computer Maintenance and Repair	Computer and Office Machine Repair and Maintenance (pt)
7532	Top, Body, and Upholstery Repair Shops and Paint Shops	Automotive Body , Paint, and Upholstery Repair and Maintenance
7533	Automotive Exhaust System Repair Shops	Automotive Exhaust System Repair
7534@	Tire Retreading and Repair Shops	
	Remanufacturing	Manufacturing Sector
	Repair	All Other Auto Repair and Maintenance (pt)
7536	Automotive Glass Replacement Shops	Automotive Glass Replacement Shops
7537	Automotive Transmission Repair Services	Automotive Transmission Repair
7538	General Automotive Repair Services	General Automotive Repair
7539	Automotive Repair shops, NEC	Other Automotive Mechanical and Electrical Repair and Maintenance
7542	Carwashes	Car Washes
7549@	Automotive Services, Except Repair and Carwashes	
	Lubricating Services, Automotive	Automotive Oil Change and Lubrication Shops
	Towing	Towing Services (Included in Transportation sector)
	Automotive Services, Except Repair and Carwashes (except lubricating and towing)	All Other Automotive Repair and Maintenance (pt)
7622	Radio and Television Repair Shops	
	Stereo, TV, VCR, and Other Consumer Electronics Equipment	Consumer Electronics Repair and Maintenance (pt)
	Telecommunication Equipment Repair	Communication Equipment Repair and Maintenance (pt)
7623@	Refrigeration and Air-Conditioning Services and Repair Shops	
	Commercial Refrigerator Equipment Repair	Other Industrial Machinery and Equipment Repair and Maintenance (pt)
	Except Commercial	Appliance Repair and Maintenance (pt)
7629@	Electrical and Electronic Repair Shops, NEC	
	Business and Office Machine Repair, Electrical	Computer and Office Machine Repair and Maintenance (pt)
	Telephone Set Repair	Communication Equipment Repair and Maintenance (pt)
	Electrical Measuring Instrument Repair and Calibration, Medical Equipment Repair, Electrical	Other Electronic and Precision Equipment Repair and Maintenance (pt)
	Appliance Repair, Electrical; Washing Machine Repair; Electric Razor Repair	Appliance Repair and Maintenance (pt)

7631@	Consumer Electronic Equipment Repair Except Computer	Consumer Electronics Repair and Maintenance (pt)
7641	Watch, Clock, and Jewelry Repair	Other Personal or Household Goods Repair and Maintenance (pt)
7692@	Reupholstery and Furniture Repair	Reupholstery and Furniture Repair
7694@	Welding Repair	Other Personal or Household Goods Repair and Maintenance (pt)
	Armature Rewinding Shops	
	Repair	Other Industrial Machinery and Equipment Repair and Maintenance (pt)
	Remanufacturing	Included in Manufacturing Sector
7699@	Repair Shops and Related Services, NEC	
	Other Non-Automotive Transportation Equipment	Transportation Equipment Repair and Maintenance (pt)
	Industrial Machines and Equipment	Other Industrial Machinery and Equipment Repair and Maintenance (pt)
	Typewriter Repair	Computer and Office Machine Repair and Maintenance (pt)
	Dental Instrument Repair, Laboratory Instrument Repair,	Other Electronic and Precision Equipment Repair and Maintenance (pt)
	Medical Equipment and Other Electronic and Precision	
	Equipment Repair, Except Typewriters	
	Lawnmower Repair Shops, Sharpening and Repairing	Home and Garden Equipment Repair and Maintenance (pt)
	Knives, Saws and Tools	
	Gas Appliance Repair Service, Sewing Machine Repair,	Appliance Repair and Maintenance
	Stove Repair Shops, and Other Non-Electrical Appliances	
	Leather Goods Repair Shops, Luggage Repair Shops,	Footwear and Leather Goods Repair (pt)
	Pocketbook Repair Shops	
	Lock Parts Made to Order and Locksmith Shops	(Included in Management and Support Services subsector)
	Except Industrial, Electronic, Home and Garden, Appliance,	Other Personal or Household Goods Repair and Maintenance
	Locksmith, and Leather Goods	

Description of Changes to the U.S. System

Repair and Maintenance - Nine new NAICS or national industries were created in this new subsector for 1997 to better describe the activities associated with the subsector and to bring together activities with similar production functions. A number of these industries were created from parts of two 1987 Not Elsewhere Classified (NEC) industries. The new industries are:

Automotive Oil Change and Lubrication Shops from part of 1987 SIC 7549, Automotive Services, Except Repair and Carwashes.

Transportation Equipment Repair and Maintenance from part of 1987 SIC 3732, Boat Building and Repairing, and part of 1987 SIC 7699, Repair Shops and Related Services, NEC.

Consumer Electronics Repair and Maintenance from part of 1987 SIC 7622, Radio and Television Repair Shops, and part of 1987 SIC 7629, Electrical and Electronic Repair Shops, NEC.

Computer and Office Machine Repair and Maintenance from 1987 SIC 7378, Computer Maintenance and Repair; part of 1987 SIC 7629, Electrical and Electronic Repair Shops, NEC; and part of 1987 SIC 7699, Repair Shops and Related Services, NEC.

Communication Equipment Repair and Maintenance from part of 1987 SIC 7622, Radio and Television Repair Shops, and part of 1987 SIC 7629, Electrical and Electronic Repair Shops, NEC.

Other Electronic and Precision Equipment Repair and Maintenance from part of 1987 SIC 7629, Electrical Electronic Repair Shops, NEC, and part of 1987 SIC 7699, Repair Shops and Related Services, NEC.

Home and Garden Equipment Repair and Maintenance from part of 1987 SIC 7699, Repair Shops and Related Services, NEC.

Appliance Repair and Maintenance from part of 1987 SIC 7623, Refrigeration and Air-Conditioning Service and Repair Shops; part of 1987 SIC 7629, Electrical and Electronic Repair Shops, NEC; and part of 1987 SIC 7699, Repair Shops and Related Services, NEC.

Other Personal or Household Good Repair and Maintenance from part of 1987 SIC 7219, Laundry and Garment Services, NEC; 1987 SIC 7631, Watch, Clock, and Jewelry Repair; 1987 SIC 7692, Welding Repair; and part of 1987 SIC 7699, Repair Shops and Related Services, NEC.

The 1987 SIC Major Group 76, Miscellaneous Repair Services, was split into 3 new industry groups: Heavy and Industrial Machinery and Equipment Repair and Maintenance; Electronic and Precision Equipment Repair and Maintenance; and Personal and Household Goods Repair and Maintenance. Of the 8 industries in 1987 Major Group 76 only two, Radio and Television Repair and Reupholstery and Furniture Repair, will not have a time series break. There will be time series breaks for the other six 1987 SIC industries. These changes were made to break up the miscellaneous industries and to more clearly define industries with similar production functions.

There will also be a time series break for 1987 SIC's 7534 and 7549. The time

series break for 1987 SIC 7534, Tire Retreading and Repair Shops, is the result of moving the remanufacturing portion of retreading to the manufacturing sector and the repair to All Other Auto Repair and Maintenance. The time series break for 1987 SIC 7549 is the result of splitting oil change and lubrication shops and towing services from all other automotive repair, Automotive Services, Except Repairs and Carwashes, and maintenance.