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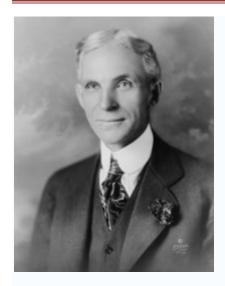
# CHAPTER I. FORD MOTOR COMPANY-INTRODUCTION

**Ford Motor Company** is an American multinational corporation and the world's third largest automaker based on vehicle sales in 2005. Based in Dearborn, Michigan, a suburb of Metro Detroit, the automaker was founded by Henry Ford and incorporated in 1903. Ford now encompasses many global brands, including Lincoln and Mercury of the US, Jaguar, Aston Martin and Land Rover of Great Britain, and Volvo of Sweden. Ford also owns a one-third controlling interest in Mazda.

Ford has also been one of the world's ten largest corporations by revenue and in 1999 ranked as one of the world's most profitable corporations. In recent years, it has not fared as well and since 1995 has lost market share in the U.S. for eleven years in a row. In December 2006 the company announced that it expects Toyota to overtake it as the number 2 automaker in the US market.

Ford introduced methods for large-scale manufacturing of cars and large-scale management of an industrial workforce, especially elaborately engineered manufacturing sequences typified by moving assembly lines. Henry Ford's combination of highly efficient factories, highly paid workers, and low prices revolutionized manufacturing and came to be known around the world as Fordism by 1914. He is not related in any way to the 38th president of the United States, Gerald Rudolph Ford, though they were both raised in the same state, which is Michigan.

## CHAPTER II. HISTORY



Henry Ford (ca. 1919)

## 1.EARLY DEVELOPMENT

Ford was launched from a converted wagon factory in 1903 with \$28,000 in cash from twelve investors. During its early years, the company produced just a few Alphabet Cars a day at its factory on Mack Avenue in Detroit, Michigan. Groups of two or three men worked on each car from components made to order by other companies. Henry Ford was 40 years old when he founded the Ford Motor Company, which would go on to become one of the largest and most profitable companies in the world, as well as being one of the few to survive the Great Depression. The largest family-controlled company in the world, the Ford Motor Company has been in continuous family control for over 100 years.

In 1908, the Ford Company released the Ford Model T. The first Model T's were built at the Piquette Manufacturing Plant. The company moved production to the much larger Highland Park Plant to keep up with the

demand for the Model T. By 1913, the company had developed all of the basic techniques of the assembly line and mass production. Ford introduced the world's first moving assembly line that year, which reduced chassis assembly time from 12½ hours in October to 2 hours, 40 minutes. However, these innovations were hard on employees, and turnover of workers was very high. Turnover meant delays and extra costs of training, and use of slow workers. In January 1914, Ford solved the employee turnover problem by doubling pay to \$5 a day (\$103 per day in 2006 dollars), cutting shifts from nine hours to an eight hour day for a 5 day work week, and instituting hiring practices that identified the best workers. Thus, it pioneered the minimum wage and the 40 hour work week in the United States, before the government enacted it. Thus, Henry Ford became an American legend.

Productivity soared and employee turnover plunged, and the cost per vehicle plummeted. Ford cut prices again and again and invented the system of franchised dealers who were loyal to his brand name. Wall Street had disagreed with Ford's generous labor practices when he began paying workers enough to buy the products they made.



Ford assembly line (1913)

By the end of 1919, Ford was producing 50 percent of all cars in the United States, and by 1920 half of all cars in the country were Model Ts. Henry

Ford is reported to have said, "Any customer can have a car painted any color that he wants so long as it is black." This was because black paint was quickest to dry; thus assembly time was cut down. Earlier models had been available in a variety of colors.

In 1915, Henry Ford went on a peace mission to Europe aboard a ship, joining other pacifists in efforts to stop World War I. This led to an increase in his personal popularity. Ford would subsequently go on to support the war effort with the Model T becoming the underpinnings for allied military vehicles.

### 2.HISTORY OF THE BLUE OVAL

The Ford oval trademark was first introduced in 1907. The 1928 Model A was the first vehicle to sport an early version of the Ford script in the oval badge. The dark blue background of the oval is known to designers as Pantone 294C, the same color used in Finland's flag. The Ford script is credited to Childe Harold Wills, Ford's first chief engineer and designer. He created a script in 1903 based on the one he used for his business cards. Today, the oval has evolved into a perfect oval with a width-to-height ratio of 8:3. The current Centennial Oval was introduced on June 17, 2003 as part of the 100th anniversary of Ford Motor Company.

## 3.POST WORLD WAR I DEVELOPMENTS

In 1919, Edsel Ford succeeded his father as president of the company, although Henry Ford still kept a hand in management. Although prices were kept low through highly efficient engineering, the company used an old-fashioned personalized management system, and neglected consumer

demand for upscale vehicles. It steadily lost market share to GM and Chrysler, as these and other domestic and foreign competitors began offering fresher automobiles with more innovative features and luxury options. GM had a range of models from relatively cheap to luxury, tapping all price points in the spectrum, while less wealthy people purchased used Model Ts. The competitors also opened up new markets by extending credit for purchases, so consumers could buy these expensive automobiles with monthly payments. Ford initially resisted that approach, insisting that such debts would ultimately hurt the consumer and the general economy. Ford eventually relented and started offering the same terms in December 1927, when Ford unveiled the redesigned Model A, and retired the Model T after producing 15 million of them.

On February 4, 1922 Ford expanded its reach into the luxury auto market through its acquisition of the Lincoln Motor Company, named for Abraham Lincoln whom Henry Ford admired, and the Mercury division was established in 1938 to serve the mid-price auto market. Ford Motor Company built the largest museum of American History in 1928, The Henry Ford.

Henry Ford would go on to acquire Abraham Lincoln's chair, which he was assainated in, from the owners of the Ford Theatre. Washington, D.C. Abraham Lincoln's chair would be displayed along with John F. Kennedy's Lincoln limousine in the Henry Ford Museum & Greenfield Village in Dearborn, known today as The Henry Ford. John F. Kennedy's Lincoln Limousine was leased to the White House by Ford.

President Franklin Roosevelt referred to Detroit as the "Arsenal of Democracy." The Ford Motor Company played a pivotal role in the allied

victory during World War I and World War II. As a pacifist, Henry Ford had expressed that war was a waste of time, Ford did not want to profit from it. Henry Ford was concerned that the Nazis during the 1930s might nationalize his factories in Germany. During the Great Depression Ford's wages may have seen great to his employees but many of the rules of the factories were very harsh and strict. Those were tense times for American companies doing business in Europe. In the spring of 1939, the Nazis assumed day to day control of Ford factories in Germany. With Europe under siege, Henry Ford's genius would be turned to mass production for the war effort. Specifically, the B-24 Liberator Bomber, still the most produced allied bomber in history, quickly shifted the balance of power in favor of the allies. The aviation industry could produce, if everything went alright, one Consolidated Aircraft B-24 Bomber a day at an aircraft plant. Ford would show the world how to produce one B-24 an hour at a peak of 600 per month in 24 hour shifts. Ford's Willow Run factory broke ground in the April of 1941. At the time, it was the largest assembly line in the world, with over 3.5 million sq. ft. Edsel Ford, Henry Ford's son, under severe stress of running the B-24 bomber facility, died in the Spring of 1943 of stomach cancer prompting his grieving father Henry Ford to re-assume day-to-day control of the Ford Motor Company. Mass production of the B-24 began by August of 1943. Many pilots slept on cots waiting for takeoff as the B-24 rolled off the assembly line at Ford's Willow Run facility.

## 4.POST WORLD WAR II DEVELOPMENTS

At the behest of Edsel Ford's widow Eleanor and Henry's wife Clara, Henry Ford would make his oldest grandson, Henry Ford II, President of Ford Motor Company.



A Ford Taurus, one of Ford's best-selling models. In its 21 year lifespan, it sold 7,000,000 units. It is the 4th best selling car in Ford's history, behind only the F-150, the Model T, and the Mustang.

Henry Ford II served as President from 1945–1960, and as Chairman and CEO from 1960–1980. "Hank the Deuce" led Ford to become a publicly traded corporation in 1956. However, the Ford family maintains about 40 percent controlling interest in the company, through a series of Special Class B preferred stocks.

In 1947, Henry Ford died. According to A&E Biography, an estimated 7 million people mourned his death.

Ernest Breech was hired in 1946 and became Executive Vice President. He later in 1955 became Board Chairman.

In 1946 Robert McNamara joined Ford Motor Company as manager of planning and financial analysis. He advanced rapidly through a series of top-level management positions to the presidency of Ford on 9 November 1960, one day after John F. Kennedy's election. The first company head selected outside the Ford family, McNamara had gained the favor of Henry Ford II, and had aided in Ford's expansion and success in the postwar period. Less than five weeks after becoming president at Ford, he accepted Kennedy's invitation to join his cabinet, as Secretary of Defense.

In the 1950s, Ford introduced the iconic Thunderbird in 1955 and the Edsel brand automobile line in 1958. Edsel was cancelled after less than 27 months in the marketplace in November 1960. The corporation bounced back from the failure of the Edsel by introducing its compact Ford Falcon in 1960 and the Mustang in 1964. By 1967, Ford of Europe was established.

Lee lacocca was involved with the design of several successful Ford automobiles, most notably the Ford Mustang. He was also the "moving force," as one court put it, behind the notorious Ford Pinto. He promoted other ideas which did not reach the marketplace as Ford products. Eventually, he became the president of the Ford Motor Company, but he clashed with Henry Ford II and ultimately, on July 13, 1978, he was famously fired by Henry II, despite Ford posting a \$2.2 billion dollar profit for the year. In 1979 Phil Caldwell became Chairman, succeeded in 1985 by Don Petersen

Harold Poling served as Chairman and CEO from 1990-1993. Alex Trotman was Chairman and CEO from 1993-1998, and Jacques Nasser served at the helm from 1999-2001. Henry Ford's great-grandson, William Clay Ford Jr., is the company's current Chairman of the Board and was

CEO until September 5, 2006, when he named Alan Mulally from Boeing as his successor. As of 2006, the Ford family owns about 5 percent of Ford's shares and controls about 40 percent of the voting power through a separate class of stock.

In November 2006, Ford announced that it would mortgage all its assets including factories, equipment, office property, intellectual property (patents and trademark), and stakes in subsidiaries to raise \$18 billion in an effort to overhaul itself. The amount to be raised exceeded Fords market value at that time by \$2 billion, and the action was unprecedented in the company's 103 year history.

## 5.GENERAL CORPORATE TIMELINE



Henry Ford and the Quadricycle



1896 Quadricycle at The Henry Ford Museum in Dearborn, MI



1903 Ford Model A



Ford Model T ad - ca 1908



1928 Ford Model A



#### Mustang Serial #1 - The First Mustang



#### Ford Motor Company also manufactures Ambulances

- 1896: Henry Ford builds his first vehicle the Quadricycle on a buggy frame with 4 bicycle wheels.
- 1901: Henry Ford wins high-profile car race in Grosse Pointe, Mi.
- 1903: Ford Motor Company incorporated with 11 original investors.
  The original Model A "Fordmobile" is introduced 1,708 cars are produced.
- 1904: Henry Ford teams up with Harvey Firestone of Firestone Tires
- 1906: Ford becomes the top selling brand in the US, with 8,729 cars produced.
- 1908: Model T is introduced. 15 million are produced through 1927.
- 1911: Ford opens first factory outside North America in Manchester, England.

- 1913: The moving Assembly line is introduced at Highland Park assembly plant, making Model T production 8 times faster.
- 1914: Ford introduces \$5 workday minimum wage double the existing rate.
- 1918: Construction of the Rouge assembly complex begins.
- 1919: Edsel Ford succeeds Henry as Company President.
- 1921: Ford production exceeds 1 million cars per year, nearly 10 times more than Chevrolet - the next biggest selling brand.
- 1922: Ford purchases Lincoln Motor Company for US \$8 million.
- 1925: Ford introduces Ford Tri-Motor airplane for airline services
- 1926: Ford Australia is founded in Geelong, Victoria, Australia.
- 1927: Model T production ends, Ford introduces the next generation
  Model A, from the Rouge complex.
- 1929: Ford regains production crown, with production peaking at 1.5 million cars
- 1931: Ford and Chevy brands begin to alternate as US production leaders, in battle for automobile sales during the Great Depression.
- 1932: Ford introduces the one-piece cast V8 block.
- 1936: Lincoln Zephyr is introduced.
- 1938: The German consul at Cleveland gave Henry Ford the award of the Grand Cross of the German Eagle, the highest medal that Nazi Germany could bestow on a foreigner
- 1939: Mercury division is formed to fill the gap between economical Fords and luxury Lincolns. Operated as a division at Ford until 1945
- 1941: The Lincoln Continental is introduced. Ford begins building general purpose "jeep" for the military. First labor agreement with UAW-CIO covers North American employees.

- 1942: Production of civilian vehicles halted, diverting factory capacity to producing B-24 Liberator bombers, tanks, and other products for the war effort.
- 1943: Edsel Ford dies of cancer at the age of 49, Henry Ford resumes presidency.
- 1945: Henry Ford II becomes president.
- 1945: Lincoln and Mercury are combined into a single division.
- 1946: The Whiz Kids, former US Army Air Force officers, are hired to revitalize the company. Automobile production resumes.
- 1947: Henry Ford dies of cerebral hemorrhage at the age of 83;
  Henry Ford II becomes new chairman.
- 1948: F-1 Truck introduced, Lincoln Continental is introduced.
- 1949: The '49 Ford introduces all-new post-war era cars. The "Woody" station wagon is introduced.
- 1954: Thunderbird introduced as a personal luxury car with a V8.
  Ford begins crash testing, and opens Arizona Proving Grounds.
- 1956: \$10,000 Lincoln Continental Mark II introduced. Ford goes public with common stock shares.
- 1957: Ford launches the Edsel brand of automobiles in the fall of 1957 as 1958 models. Ford is top selling brand, with 1.68 million automobiles produced.
- 1959: Ford Credit Corporation formed to provide automotive financing. Ford withdraws the 1960 model Edsels from the market in November 1959.
- 1960: Ford Galaxie and Ford Falcon introduced.
- 1960: Robert Mcnamara is appointed President of Ford by Chairman Henry Ford II.

- 1960: Ford President Robert McNamara appointed Secretary of Defense by President elect John F. Kennedy.
- 1964: Ford Mustang and Ford GT40 introduced.
- 1965: Ford brand US sales exceed 2 million units.
- 1967: Ford of Europe is established.
- 1968: Lincoln Mark Series is introduced as the company's first personal luxury car to compete with the Cadillac Eldorado
- 1970: Ford establishes Asia Pacific operations.
- 1973: Ford US brand sales reaches an all time high of 2.35 million vehicles produced.
- 1976: Retractable seat belts introduced.
- 1979: Ford acquires 25% stake in Mazda.
- 1981: The Lincoln Town Car is introduced as the company's top-ofthe-line model. Ford Escort is introduced in the US.
- 1984: The Ford Tempo is introduced (in mid-1983 as a 1984 model).
- 1985: Ford Taurus introduced with revolutionary "aero design" styling. Ford Aerostar minivan is also introduced. Annual revenues reached \$53 billion.
- 1987: Ford acquires Aston Martin Lagonda and Hertz Rent-a-Car.
- 1988: Ford Festiva, built in Korea by Kia with a Mazda engine/design, is introduced.
- 1989: Ford acquires Jaguar, and the Mazda MX-5 Miata is unveiled.
- 1990: The Ford Explorer is introduced, turning the rural/recreational SUV into a popular family vehicle.
- 1992: Ford Taurus becomes America's top selling car.
- 1993: Ford introduces dual airbags as standard equipment.
- 1994: Last Ford Tempo built in the spring of 1994.

- 1994: Ford Aspire introduced to replace Festiva (also built in Korea by Kia, with the same engine as Festiva but with new 3- and 5-door bodystyles).
- 1995: Annual revenues reached \$137 billion.
- 1995: Ford Contour/Mercury Mystique are intorduced, along with a redesigned Ford Explorer and Lincoln Continental (first front-wheeldrive V8 from Ford).
- 1996: Ford certifies all plants in 26 countries to ISO 14001 environmental standards. The Jaguar XJS with optional V12 is discontinued.
- 1996: Ford increases investment stake in a troubled Mazda
  Corporation to a controlling interest of 33.4%
- 1996: Ford Taurus and Mercury Sable recieve major redesign.
- 1997: Ford introduces its first full size 4-door SUV (the Expedition)
  and its first luxury SUV, the similar Lincoln Navigator.
- 1997: Mercury division gets its first SUV: The Mountianeer (based extensivly off Ford's Explorer).
- 1997: Ford Escort and Mercury Tracer are redesigned.
- 1997: The Ford Aerostar, Probe, and Aspire are discontinued (Aspire gets new front facia for 1997 only, and Aerostar gets new tail lamps as well).
- 1999: Ford purchases Volvo (car division). Bill Ford becomes Chairman of the Board.
- 1999: Establishes Jaguar Racing Formula One team.
- 2000: Ford purchases Land Rover from BMW. Lincoln LS and Jaguar S-Type are introduced. Annual revenues reached \$141 billion.

- 2001: The retro-styled Ford Thunderbird is reintroduced, based on the Lincoln LS/Jaguar S-Type.
- 2002: The Lincoln Continental is discontinued after a roughly fifty year run, and the Jaguar X-Type is introduced.
- 2003: Ford Motor Company's 100th Anniversary. The Ford GT was released to celebrate this occasion. The Lincoln Navigator is redesigned with all other Lincoln, Jaguar, and Mercury models receiving slight face lifts.
- 2004: Sells Jaguar Racing to Red Bull GmbH.
- 2004: The Ford Escape Hybrid, the first gasoline-electric hybrid SUV, is introduced.
- 2005: The popular Ford Mustang is completely redesigned for the 2005 model year, and includes styling reminiscent of the 1960s models, a new power plant, and a new platform. Annual revenues reached a new peak of \$178 billion.
- 2005-2006: Ford ends production of the Mercury Sable in 2005 and the Ford Taurus in October 2006, after a 20-year run.
- 2006: Ford introduces the Fusion (and similar Mercury Milan, Lincoln Zephyr/MKZ) as its volume mid-size sedan to compete with Toyota Camry and Honda Accord.
- 2006: Ford announces major restructuring, called The Way Forward, aimed at bringing production capacity, and fixed costs into alignment with projected market share.
- 2006: Bill Ford steps down as CEO and Alan Mulally is selected as his replacement.
- 2006: Ford buys Rover brand name from BMW.
- 2006: Ford mortgages all its assets to raise \$18 billion.

# CHAPTER III. NEW DIRECTIONS FOR THE TWENTY-FIRST CENTURY

In 2000, under the leadership of the current Ford chairman, William Clay (Bill) Ford, the Company stunned the industry (and pleased environmentalists) with an announcement of a planned 25 percent improvement in the average mileage of its light truck fleet — including its popular SUVs — to be completed by the 2005 calendar year. However, in 2003, Ford announced that competitive market conditions technological and cost challenges would prevent the company from achieving this goal. Ford did achieve significant progress toward improving fuel efficiency during 2005, with the successful introduction of the Hybrid-Electric Escape. The Escape's platform mate Mercury Mariner is also available with the hybrid-electric system in the 2006 model year—a full year ahead of schedule—due to high demand. The similar Mazda Tribute will also receive a hybrid-electric powertrain option, along with many other vehicles in the Ford vehicle line. In 2005, Ford announced its goal to make 250,000 hybrids a year by 2010, and by mid-2006 announced that it would not meet that goal. Other hybrids to come out will be the Ford Fusion and Mercury Milan Hybrid version in 2008. There are also plans for a Ford Edge and Lincoln MKX Hybrid. The Edge and MKX is Ford's new crossover SUVs to come out for the 2007 model year. Ford also continues to study Fuel Cell-powered electric powertrains, and is currently demonstrating hydrogen-fueled internal combustion engine technologies, as well as developing the next-generation hybrid-electric systems. To the extent Ford is successful in increasing the percentage of hybrid vehicles and/or fuel cell vehicles, there will be a significant decrease not only of air pollution emissions but also reduced sound levels, with notable favorable impacts upon respiratory health and decrease of noise health effects.

## 1.ECONOMICS WOES

During the mid to late 1990s, Ford had great success selling trucks and SUVs in an era of a booming economy, soaring stock market, and decades low prices for gasoline. But during the subsequent decade, the company was in crisis, with legacy healthcare costs, high gas prices, and a faltering economy leading to falling market share, declining sales, and sliding profit margins. In fact, the company was making most of its profit on consumer financing and car loans.

By 2005, the recognized bond rating agencies downgraded the bonds of both Ford and GM to junk status., citing high U.S. health care costs for an aging workforce, soaring gasoline costs, eroding market share, and dependence on declining SUV sales for revenues. Profit margins decreased on large vehicles from increased "incentives" (in the form of rebates or low interest financing) to offset declining demand from high fuel costs. While rebates and reduced interest financing may be popular with the public, they eat up profit margins.

In the face of falling truck and SUV sales, Ford has moved to introduce new vehicles, including "crossover" SUVs built on an automobile or minivan platform rather than a truck chassis, as well as alternative fuel vehicles such as the Escape Hybrid.

But by December 2006, the company arranged to raise its borrowing capacity to \$23 billion, but for the first time in its history was forced to put

up substantially all of its North American assets as collateral to secure the loan.
While chairman Bill Ford says "bankruptcy is not an option", critics charge that the company's impending contract fight with the United Auto Workers in 2007 could be brutal, as the UAW has vowed to fight for such costly perks as the jobs banks, which pays idled workers for doing nothing.
The automaker lost \$7 billion during the first nine months of 2006 and has said it won't return to profitability until 2009.

# CHAPTER IV. BRANDS AND MARQUEES

Today, Ford Motor Company manufactures automobiles under several names including Lincoln and Mercury in the United States. In 1958, Ford introduced a new marque, the Edsel, but poor sales led to its discontinuation in 1960. Later, in 1985, the Merkur brand was introduced; it met a similar fate in 1989.

Ford has major manufacturing operations in Canada, Mexico, the United Kingdom, Germany, Brazil, Argentina, Australia, the People's Republic of China, and several other countries, including South Africa where, following divestment during apartheid, it once again has a wholly owned subsidiary. Ford also has a cooperative agreement with Russian automaker GAZ.

Since 1989, Ford has acquired Aston Martin, Jaguar, Daimler (division of Jaguar), Land Rover, and Rover from the United Kingdom and Volvo Cars from Sweden, as well as a controlling share (33.4%) of Mazda of Japan, with which it operates an American joint venture plant in Flat Rock, Michigan called Auto Alliance. It has spun off its parts division under the name Visteon. Its prestige brands, with the exception of Lincoln, are managed through its Premier Automotive Group.

Ford's non-manufacturing operations include organizations such as automotive finance operation Ford Motor Credit Company. Ford also sponsors numerous events and sports facilities around the nation, most notably Ford Center in downtown Oklahoma City and Ford Field in downtown Detroit. It is also notable that both facilities share design

aesthetics in addition to their common name and similar downtown location!

Overall the Ford Motor Company controls the following car marques:

- Aston Martin (put up for sale on August 31, 2006.)
- Daimler (as Jaguar division)
- Edsel
- Ford
- Jaguar
- Lagonda (as Aston Martin division)
- Lanchester (as Jaguar/Daimler division)
- Land Rover
- Lincoln
- Mazda
- Mercury
- Merkur
- Rover (marquee name only)
- Volvo (passenger vehicles only)

Aston Martin, Daimler Motor Company, Jaguar, Lagonda, Land Rover, Rover, and Volvo are controlled under the Premier Automotive Group.

## 1.GLOBAL MARKETS

Initially, Ford models sold outside the U.S. were essentially versions of those sold on the home market, but later on, models specific to Europe were developed and sold. Attempts to globalize the model line have often failed, with Europe's Ford Mondeo selling poorly in the United States, while U.S. models such as the Ford Taurus have fared poorly in Japan and Australia, even when produced in right hand drive. The small European model Ka, a hit in its home market, did not catch on in Japan, as it was not available as an automatic. The Mondeo was dropped by Ford Australia, because the segment of the market in which it competes had been in steady decline, with buyers preferring the larger local model, the Falcon. One recent exception is the Focus — the European model has sold strongly on both sides of the Atlantic.

## 2.EUROPE



Feel the difference

In May 2006, at the same time as the launch of the Ford S-MAX, Ford of Europe removed country specific taglines and adopted 'Feel the difference' across its markets (see right).

At first, Ford in Germany and the United Kingdom built different models from one another until the late 1960s, with the Ford Escort and then the Ford Capri being common to both companies. Later on, the Ford Taunus and Ford Cortina became identical, produced in left hand drive and right hand drive respectively. Rationalization of model ranges meant that production of many models in the UK switched to elsewhere in Europe, including Belgium and Spain as well as Germany. The Ford Sierra replaced the Taunus and Cortina in 1982, drawing criticism for its radical aerodynamic styling, which was soon given nicknames such as "Jellymould" and "The Salesman's Spaceship."

Increasingly, Ford Motor Company has looked to Ford of Europe for its "world cars," such as the Mondeo, Focus, and Fiesta, although sales of European-sourced Fords in the U.S. have been disappointing. In Asia, models from Europe are not as competitively priced as Japanese-built rivals, nor are they perceived as reliable. The Focus has been one exception to this, which has become America's best selling compact car since its launch in 2000.

In 2001, Ford ended car production in the UK. It was the first time in more than eighty years that Ford cars had not been made in Britain, although production of the Transit van continues at the company's Southampton facility, engines at Bridgend and Dagenham, and transmissions at Halewood. Development of European Ford is broadly split between Dunton in Essex (powertrain, Fiesta/Ka, and commercial vehicles) and Cologne (body, chassis, electrical, Focus, Mondeo) in Germany. Ford also produced the Thames range of commercial vehicles, although the use of

this brand name was discontinued circa 1965. It owns the Jaguar, Land Rover, and Aston Martin car plants in Britain, which are still operational. Ford's Halewood Assembly Plant was converted to Jaguar production.

Elsewhere in continental Europe, Ford assembles the Mondeo range in Genk (Belgium), Fiesta in Valencia (Spain) and Cologne (Germany), Ka in Valencia, and Focus in Valencia, Saarlouis (Germany) and Vsevolozhsk (Russia). Transit production is in Kocaeli (Turkey), Southampton (UK), and Transit Connect in Kocaeli.

Ford also owns a joint-venture production plant in Turkey. Ford-Otosan, established in the 1970s, manufactures the Transit Connect compact panel van as well as the "Jumbo" and long wheelbase versions of the full-size Transit. This new production facility was set up near Kocaeli in 2002, and its opening marked the end of Transit assembly in Genk. Another joint venture plant near Setubal in Portugal, set up in collaboration with Volkswagen, assembles the Galaxy people carrier as well as its sister ship, the VW Sharan.

## 3.ASIA PACIFIC

In New Zealand and Australia, the popular Ford Falcon is considered the typical (if not particularly economical) family car, though it is considerably larger than the Mondeo sold in Europe. Between 1960 and 1972, the Falcon was based on a U.S. Ford of that name, but since then has been entirely designed and manufactured locally. Like its General Motors rival, the Holden Commodore, the 4.0 L Falcon retains rear wheel drive. High performance variants of the Falcon running locally-built engines produce up to 390 hp. A ute (short for "utility," known in the US as pickup truck)

version is also available with a similar range of drivetrains. In addition, Ford Australia sells highly-tuned Falcon sedans and utes through its performance car division, Ford Performance Vehicles. These cars produce over 400 hp and are built in small numbers to increase their value as collectors' cars.

In Australia, the Commodore and Falcon outsell all other cars and comprise over 20% of the new car market. In New Zealand, Ford was second in market share in the first eight months of 2006 with 14.4 per cent.

Ford's presence in Asia has traditionally been much smaller. However, with the acquisition of a stake in Japanese manufacturer Mazda in 1979, Ford began selling Mazda's Familia and Capella (also known as the 323 and 626) as the Ford Laser and Telstar. The Laser was one of the most successful models sold by Ford in Australia, and outsold the Mazda 323, despite being almost identical to it. The Laser was also built in Mexico and sold in the U.S. as the Mercury Tracer, while the 1989 American Ford Escort was based on the Laser/Mazda 323. The smaller Mazda 121 was also sold in the U.S. and Asia as the Ford Festiva.

Through its relationship with Mazda, Ford also acquired a stake in South Korean manufacturer Kia, which later built the Ford Aspire for export to the United States, but later sold the company to Hyundai. Ironically, Hyundai also manufactured the Ford Cortina until the 1980s. Ford also has a joint venture with Lio Ho in Taiwan, which assembled Ford models locally since the 1970s.

Ford came to India in 1998 with its Ford Escort model, which was later replaced by locally produced Ford Ikon in 2001. It has since added Fusion, Fiesta, Mondeo and Endeavour to its product line.

## 4.SOUTH AMERICA

In South America, Ford has had to face protectionist government measures in each country, with the result that it built different models in different countries, without particular regard to rationalization or economy of scale inherent to producing and sharing similar vehicles between the nations. In many cases, new vehicles in a country were based on those of the other manufacturers it had entered into production agreements with, or whose factories it had acquired. For example, the Corcel and Del Rey in Brazil were originally based on Renault vehicles.

In 1987, Ford merged its operations in Brazil and Argentina with those of Volkswagen to form a company called Autolatina, with which it shared models. Sales figures and profitability were disappointing, and Autolatina was dissolved in 1995. With the advent of Mercosur, the regional common market, Ford was finally able to rationalize its product line-ups in those countries. Consequently, the Ford Fiesta and Ford EcoSport are only built in Brazil, and the Ford Focus only built in Argentina, with each plant exporting in large volumes to the neighboring countries. Models like the Ford Mondeo from Europe could now be imported completely built up. Ford of Brazil produces a pick-up truck version of the Fiesta, the Courier, which is also produced in South Africa as the Ford Bantam in right hand drive versions.

## **5.AFRICA AND MIDDLE EAST**

In Africa Ford's market presence has traditionally been strongest in South Africa and neighboring countries, with only trucks being sold elsewhere on the continent. Ford in South Africa began by importing kits from Canada to be assembled at its Port Elizabeth facility. Later Ford sourced its models from the UK and Australia, with local versions of the Ford Cortina including the XR6, with a 3.0 V6 engine, and a Cortina 'bakkie' or pick-up, which was exported to the UK. In the mid-1980s Ford merged with a rival company, owned by Anglo American, to form the South African Motor Corporation (Samcor).

Following international condemnation of apartheid, Ford divested from South Africa in 1988, and sold its stake in Samcor, although it licensed the use of its brand name to the company. Samcor began to assemble Mazdas as well, which affected its product line-up, which saw the European Fords like the Escort and Sierra replaced by the Mazda-based Laser and Telstar. Ford bought a 45 per cent stake in Samcor following the demise of apartheid in 1994, and this later became, once again, a wholly owned subsidiary, the Ford Motor Company of Southern Africa. Ford now sells a local sedan version of the Fiesta (also built in India and Mexico), and the Focus and Mondeo Europe. The Falcon model from Australia was also sold in South Africa, but was dropped in 2003.

Ford's market presence in the Middle East has traditionally been even smaller, partly due to previous Arab boycotts of companies dealing with Israel. Ford and Lincoln vehicles are currently marketed in ten countries in the region.<sup>[13]</sup> Saudi Arabia, Kuwait, and the UAE are the biggest markets. Ford's distributor in Saudi Arabia announced in February 2003 that it had sold 100,000 Ford and Lincoln vehicles since commencing sales in November 1986. Half of the Ford/Lincoln vehicles sold in that country were Ford Crown Victorias.<sup>[14]</sup> In 2004, Ford sold 30,000 units in the region, falling far short of General Motors' 88,852 units and Nissan Motors' 75,000 units.

## **6.ALTERNATE FUEL VEHICLES**



## 2006 Ford Escape Hybrid

Bill Ford was one of the first top industry executives to make regular use of an battery electric vehicle, a Ford Ranger EV, while the company contracted with the United States Postal Service to deliver electric postal vans based on the Ranger EV platform. The alternative fuel vehicles, such as some versions of the Crown Victoria especially in fleet and taxi service, operate on compressed natural gas - or CNG. Some CNG vehicles have dual fuel tanks - one for gasoline, the other for CNG - the same engine can

operate on either fuel via a selector switch. Flexible fuel vehicles are designed to operate smoothly using a wide range of available fuel mixtures - from pure gasoline, to bioethanol-gasoline blends such as E85 (85% ethanol, 15% gasoline). Part of the challenge of successful marketing alternative and flexible fuel vehicles, is the general lack of establishment of sufficient infrastructure (fueling stations), which would be essential for these vehicles to be attractive to a wide range of consumers. Significant efforts to ramp up production and distribution of E85 fuels are underway and expanding.

#### Current Ford Flexible Fuel Vehicles

- Ford F-150
- Ford Crown Victoria
- Ford Focus / Focus C-MAX / Ford Focus FFV (Flexible-fuel vehicle).
- Ford Taurus
- Ford Ranger
- Mercury Grand Marquis
- Lincoln Town Car

Ford was third to the automotive market with a hybrid electric vehicle: the Ford Escape Hybrid, which also represented the first hybrid electric SUV to market. The Hybrid Escape will also be the first hybrid electric vehicle with a Flexible Fuel capability to run on E85. The company had made plans to manufacture up to 250,000 hybrids a year by 2010, but has since had to back down on that commitment, due to excessively high costs and the lack of sufficient supplies of the hybrid-electric batteries and drivetrain system components. Instead, Ford has committed to accelerating development of

next-generation hybrid-electric power plants in Britain, in collaboration with Volvo, Jaguar, and Land Rover. This engineering study is expected to yield more than 100 new hybrid-electric vehicle models and derivatives. Ford is also planning to produce 250,000 E85-capable vehicles a year in the US, adding to some 1.6 million already sold in the last 10 years Ford also has launched the production of hydrogen-powered shuttle buses, using hydrogen instead of gasoline in a standard internal combustion engine, for use at airports and convention centers.

At the 2006 Greater Los Angeles Auto Show, Ford showcased a hydrogen fuel cell version of its Explore SUV. The Fuel cell Explorer has a combined output of 174 horsepower. It has a large hydrogen storage tank which is situated in the center of the car taking the original place of the conventional model's automatic transmission. The centered position of the tank assists the vehicle reach a notable range of 350 miles, the farthest for a fuel cell vehicle so far. The fuel cell Explorer the first in a series of prototypes partly funded by the United States Department of Energy to expand efforts to determine the feasibility of hydrogen- powered vehicles. The fuel cell Explorer is one of several vehicles with green technology Ford being featured at the L.A. show, including the 2008 Ford Escape Hybrid, PZEV emissions compliant Fusion and Focus models and a 2008 Ford F-Series Super Duty outfitted with Ford's clean diesel technology.

Current and planned Ford hybrid electric vehicles:

- 2004– Ford Escape Hybrid
- 2006– Mercury Mariner
- 2008– Ford Fusion/Mercury Milan
- 2009– Ford Edge/Lincoln MKX

## 7.CRITICISM

Throughout its history, the company has faced a wide range of criticism. Detractors of the company in the past have accused the early Fordist model of production of being extremely dehumanizing and exploitative, as well as characterizing the company as oppresive and unscrupulous, willing to collaborate with dictatorships or hire mobs to intimidate union leaders and increase their profits through unethical means. Detractors of the company often point out to the fact that Ford refused to allow collective bargaining well until 1941, with the Ford Service Department being set up as an internal security, intimidation, and espionage unit within the company, and quickly gained a reputation of using violence against union organizers and sympathizers (see The Battle of the Overpass).

#### 7.1 COLLABORATION IN THE ARGENTINE "DIRTY WAR"

Ford company is also accused of collaborating with the Argentine 1976-1983 military dictatorship, actively helping in the political repression of intellectuals and dissidents that was pursued by said government. In a lawsuit initiated in 1996 by relatives of some of the estimated 600 Spanish citizens who disappeared in Argentina during the "Dirty War", evidence was presented to support the allegation that much of this repression was directed by Ford and the other major industrial firms. According to a 5,000-page report, Ford executives drew up lists of "subversive" workers and handed them over to the military "task forces" which were allowed to operate within the factories. These groups kidnapped, tortured and murdered workers - at times within the plants themselves.

The report brought by the CTA, among other allegations, also establishes that the company's Argentine factory was used between 1976 and 1978 as a detention center and that management allowed the military to set up its own bunker inside the plant.

## 8.AUTO RACING



NASCAR Ford Fusion race car

Ford is a major player in the scene of auto racing and motorsports.

### 8.1 NASCAR

Ford is one of four manufacturers in the three NASCAR series: Nextel Cup, Busch Series, and Craftsman Truck Series. Major teams include

Roush Racing and Robert Yates Racing. Ford's racing teams debuted the Fusion race car, replacing the Taurus at the 2006 Daytona 500.

### 8.2 DRAG RACING

John Force has piloted his Drag Ford Mustang to several NHRA funny-car titles in recent seasons.

#### 8.3 INDIANAPOLIS 500

Ford powered racing cars won the Indianapolis 500 17 times between 1965 and 1996.



Rubens Barrichello driving for the Stewart Grand Prix team in 1997

#### 8.4 FORMULA ONE

Ford was heavily involved in Formula One for many years, and supplied engines to a large number of teams from 1967 until 2004. These engines were designed and manufactured by Cosworth, the racing division of which was owned by Ford from 1998 to 2004. Ford-badged engines won 176 Grands Prix between 1967 and 2003 for teams such as Team Lotus and McLaren. Ford entered Formula One as a constructor in 2000 under the Jaguar Racing name, after buying out the Stewart Grand Prix team which had been its primary 'works' team in the series since 1997. Jaguar achieved little success in Formula One, and after a turbulent five seasons,

Ford pulled out of the category after the 2004 season, selling both Jaguar Racing (which became Red Bull Racing) and Cosworth (to Gerald Forsythe and Kevin Kalkhoven).<sup>[26]</sup>

#### 8.5 RALLY

Ford has also been active many years in the World Rally Championship, and has used various versions of the Ford Focus WRC since 1999 to much success. In 2006 Ford secured the FIA World Rally Championship manufacturers' title, with the Focus RS. Ford is the only manufacturer to score in the points for 75 consecutive races, since the opening round in the 2002 championship. Ford has a very long history in rally racing, having previously run the Ford RS200 and many versions of the Ford Escort and Ford Sierra to great success.

### 8.6 SPORTS CARS

Ford sports cars have always been visible in the world of endurance racing. Most notably the GT40 won the prestigious 24 Hours of Le Mans four times in the 1960s and still stands today as one of the all-time greatest racing cars. The GT40 is the only American car to ever win Le Mans.

Ford currently holds the manufacturers title (2005) for Grand-American Racing Cup with the FR500C Mustang race car.

Also, some companies customize ford sports cars shuch as Ronaele.

#### 8.7 TOURING CARS

Ford has campaigned touring cars such as the Focus, Falcon, and Contour/Mondeo and the Sierra Cosworth in many different series throughout the years. Notably, the Mondeo finished 1,2,3 in the British Touring Car Championship in 2000, and the Falcon finished 1,2,3 in the Australian V8 Supercar Series in 2005.

#### 8.8 FORMULA FORD

This formula for single-seater cars without wings and originally on road tires were conceived in 1966 in the UK as an entry-level formula for racing drivers. Many of today's racing drivers started their car racing careers in this category.

## 9. BUS PRODUCTS

Ford has manufactured buses in the company's early history, but most Ford buses are built on Ford chassis by other manufacturers:

#### School Bus

- Ford 3800 school bus
- Ford Transit bus van
- Ford Minibus using F450 chassis
- Ford Minibus using E350 (formerly Econoline 350)
- Ford E350 Super Duty minibus
- Ford Class C School Bus using B700 chassis

#### Commercial Bus

• Ford Specialty Trolley

### Transit/Suburban Bus

- Ford G997
- Ford R1014
- Ford Trader
- Ford Hawke
- Ford ET7 with Casha bodywork
- Ford 19B, 29B
- Ford Collins School bus
- Ford ET7 Aqualina

### Clients include:

- Toronto Transportation Commission
- Kitchener Transit
- Hamilton Street Railway

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## **CONCLUSION**

Ford is one of the biggest and most respected car builder in the world, this is because, the company's father, Henry Ford, followed his dream of building cheap and reliable cars for the masses. The Ford Model

T was the car of it's time, it was built much the same way modern cars are built and it was the car that changed the automotive industry.

A testimonial to the success of the Ford Motor Company is the fact that you can see a Ford automobile all most anywhere in the world.

Although nowadays, Ford cars are built using the most high-tech solutions and in association with top designers they are still faithful to Henry's vow to build a cheap and reliable car.