



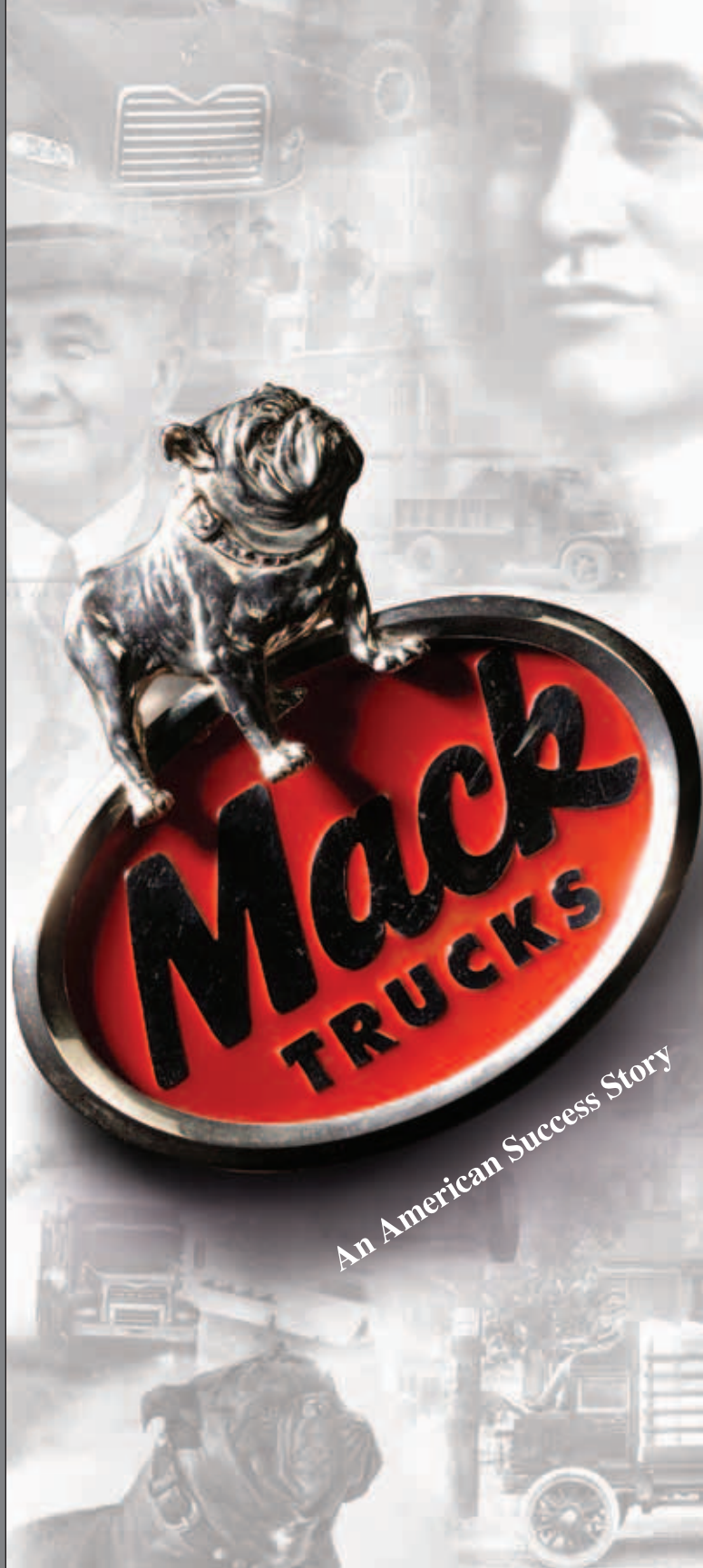
BUILT LIKE A MACK TRUCK®

Mack Trucks Historical Museum
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1B-MH-10/10-SWBR/15M



An American Success Story



John "Jack" Mack



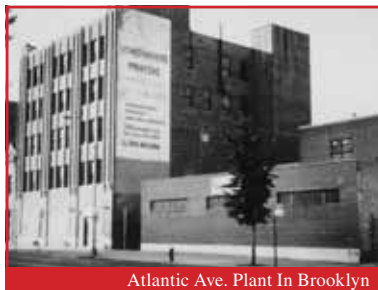
Augustus "Gus" Mack

Mack Brothers Get Their Start

In 1890, John "Jack" Mack takes a job as a stationary steam engineer at the carriage and wagon firm of Fallesen & Berry in Brooklyn, New York. Born in 1864 to an immigrant family of teamsters, Jack is one of nine siblings raised on a farm in Mount Cobb, Pa. Possessing great mechanical aptitude, Jack works as a mule driver, machinery supervisor and second engineer of a ship traveling between the United States and the Panama Canal construction project before moving to Brooklyn. There he joins his youngest brother, Augustus "Gus" Mack, who works at the carriage factory as a clerk.

- In 1893, Jack and Gus purchase the Fallesen & Berry operation at 3rd Avenue and 22nd Street in Brooklyn. The company's lightweight, horse-drawn vehicles are known for their strength and durability, as is their proprietary fifth wheel that allows the front axle to pivot when cornering — similar in purpose to the modern fifth wheel used to connect a tractor and semi-trailer.
- In 1894, William Mack joins the venture. The eldest of the five brothers who will eventually work for the company, Willie brings with him the experience of running his own wagon-building plant in Scranton, Pa.
- In 1896, the brothers build an electric-powered car, one of five steam or electric-powered automobiles they will make deciding that internal combustion gasoline engines were the best power choice.

• After phasing out the carriage-making business to focus on building milk wagons, the brothers realize they need a larger space. In 1897 they move their factory to 532-540 Atlantic Ave. in Brooklyn.



Atlantic Ave. Plant In Brooklyn

First Bus "Manhattan" Makes Its Mark

Using their own design for a motorized wagon, the brothers open an omnibus manufacturing plant in 1900. Their first successful vehicle is a 24-horsepower, 13-passenger bus with a 4-cylinder engine, sliding gear transmission and double chain drive. It has semi-elliptical springs for a smoother ride. Designed by Gus, the tonneau passenger body is open to the elements. The bus goes 12 mph. Built for sightseeing concessionaire Harris and McGuire, the vehicle operates in Brooklyn's Prospect Park for eight years. The right-hand-drive bus is the first Mack Brothers-built vehicle called the Manhattan.

Old No. 1 racks up a million miles of service before retirement, the first in a long line of Mack® vehicles to do so. The success of the bus establishes Mack's reputation for building reliable and durable motorized products.



"The Manhattan" Bus Debuts

- The Mack Brothers Company is incorporated in New York in late 1900, two years before Henry Ford incorporates the Ford Motor Co.

Operations Move To Allentown

With business booming, the company outgrows the second location in Brooklyn. A fourth brother, Joseph, suggests the company buy an abandoned foundry along the Little Lehigh Creek on 10th Street in South Allentown, Pa., near a silk mill he owns. In 1905 the Mack Brothers Motor Car Company is incorporated. The brothers transfer machinery, skilled labor and work-in-progress from Brooklyn to Allentown.



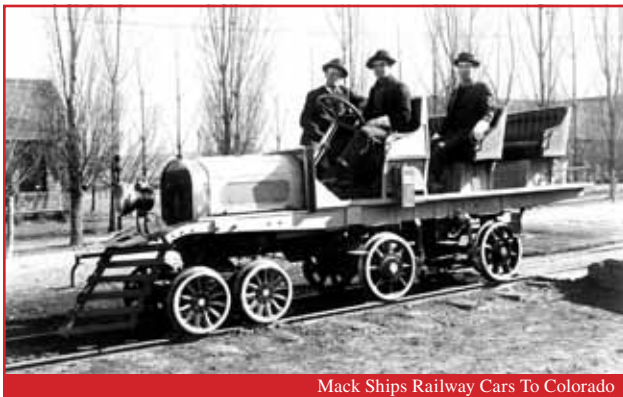
Mack 5-Ton Truck

First Heavy-Duty Truck Is Built

With the move to Allentown, the brothers build their first trucks — delivery vehicles of a nominal 1½ to 2-ton capacity. They follow the basic chassis construction of the 12- to 15-passenger buses they make. The company introduces its first heavy-duty truck, a 5-ton seat-over-engine model that can haul heavy commodities such as coal, building material and 50 kegs of beer at a time. Later they add 3- and 4-ton cab-over models.

Railway Cars Begin Production

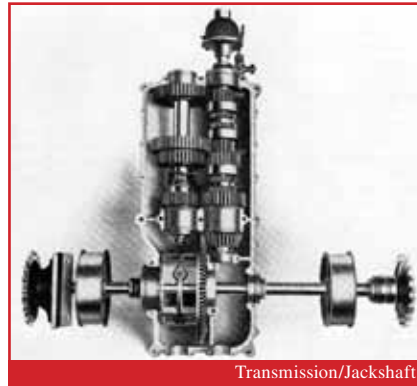
In 1905 the company begins building railway passenger motor cars for two narrow gauge railroads in Colorado. The lightweight gasoline-engine-propelled cars are mechanically similar to highway omnibuses with additional features such as flanged wheels and a locomotive bell.



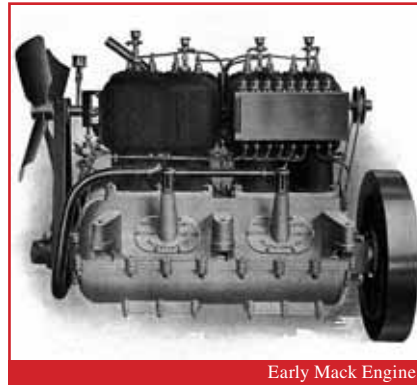
Mack Ships Railway Cars To Colorado

Balanced Design Becomes Key Building Block

The brothers begin a tradition of designing and building an integrated package of engine, transmission and axles. In their first year in Allentown they produce 51 vehicles, mostly buses. The Mack® engine and transmission/jackshaft established Mack as an integrated manufacturer designing and building all the major components of their vehicles. Designed in 1905, the Mack engine has a bore and stroke of 5½ x 6 inches and produces a nominal 50 brake horsepower at 1,000 RPM. To this Gus adds another key to success: a constant-mesh, selective gear ratio transmission. His design protects the gears from damage by inexperienced drivers.



Transmission/Jackshaft



Early Mack Engine

- While Jack Mack is a demanding taskmaster, he appreciates his workers' efforts. The company begins holding annual picnics. It also celebrates each sale by treating employees to beer and pretzels when vehicles leave the factory.

Mack® Ahead Of Its Time

In 1906, the motor truck is an unknown entity. Horse-drawn transport still dominates the streets. The machines frighten animals, anger wagon drivers and confuse mechanics. To convince people to buy, the Mack brothers introduce their vehicles to businesses through practical demonstrations.

- In 1906 the company signs an agreement with Universal Motor Car Co. to act as exclusive sales agents for the entire Mack output. By 1910 Mack will start the famous branch system, with the company controlling its own outlets in the Mid-Atlantic cities.



The Mack Senior Model

Senior Model Is Introduced

The Mack brothers rename their 5-ton rig the Senior. Rated from 2 to 5 tons with 50- to 60-horsepower engines, the Senior is built in both conventional and seat-over-engine configurations. It features a C-shaped open cab with standard right-hand steering — many were used as bus chassis where it was advantageous to have the driver on the curb side.

Truck Production Ramps Up

In 1908, the company introduces a line of dump trucks with an under-body hoist. To meet demand for products, Mack purchases the Liberty Silk Dyeing Co. plant just downstream from the existing plant. Vehicle assembly and machining are moved to this location. Truck and bus body fabrication continues in the original plant.



The Mack Junior Model

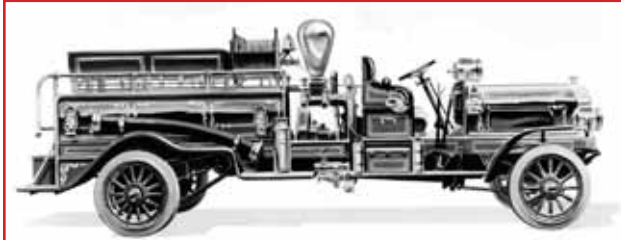
Junior Model Handles Local Hauling

To capture the local-haul market, Mack Brothers introduces the Junior model in 1909. The lighter-weight version of the Senior features a rated capacity of 1, 1½ and 2 tons. The Junior is powered by a 32-horsepower engine and offers a left-handed drive. Juniors are popular with shop owners and department stores.

- To ensure a steady supply of engines, the company buys its supplier, the F.A. Seitz Co., in 1910.
- In 1910 the name *Mack* replaces the trade name *Manhattan*.
- A fifth brother, Charles Mack, goes to work at the Allentown plant in 1910.
- Trucks replace horse-drawn vehicles on the nation's streets. This trend as well as the reputation of Mack vehicles increases the need for more capital for facilities and material. The Mack brothers need to borrow money but refuse to give up their company. In 1911 the Mack Brothers Motor Co. merges with the Saurer Motor Company of Plainfield, N.J., which has a license to build the Swiss-designed Saurer motor truck in America. A year later the newly formed International Motor Company adds New York City-based motor truck builder Hewitt Motor Co.
- With a reputation as honest, friendly, hard-working people, the Mack brothers are respected by employees, customers and the community. That shows in their celebrations. Started by employees in 1906, the annual clam bake featuring food, drink, music and sports is now completely funded by the Mack organization and in 1911 draws 1,500 employees, relations and customers. The all-day event starts with a mid-city Allentown parade followed by a trolley ride and walk to Jackson Grove in nearby South Whitehall Township.



First Mack® Fire Truck



Mack Begins Building Fire Trucks

Mack Brothers builds its first fire apparatus in 1912, a pumper chassis for Cynwyd, Pa.

Mack Brothers Move On

Following the financial panic in U.S. markets in 1911, the International Motor Co. finds it difficult to raise working capital. Plant expansion in 1911 and 1912 and industry consolidation leave IMC with excess inventory. In 1912, the company borrows \$1.5 million from its stockholders but the price is high. In addition to 6 percent interest, stockholders are told to surrender 55 percent of their shares. Having worked with integrity to build their company and their vehicles, the Mack brothers leave to pursue other interests. Four of the brothers receive either cash, preferred stock in IMC or both.

Gus settles near San Diego and buys a farm that produces ostrich feathers, highly valued as decoration for women's hats. Charlie also moves to San Diego. Joe remains in the textile business in Allentown and New York. Willie remains with IMC until he retires in the 1920s. Jack and Roland Carr produce the Maccarr line of 1,500-to-3,000 pound capacity delivery trucks in Allentown.

Junior Becomes The AB Model

Two engineers from Hewitt, Edward Hewitt and Alfred Masury, modernize the Junior line with the introduction of the AB model in 1914. The truck features a 4-cylinder, 30-horsepower engine; 3-speed transmission; worm-drive rear axle or chain drive; and sheet metal for fenders, hood, cowl and cab.



Popular AB Model Is Born



AC Model Can Haul Up To 7.5 Tons

AC Model Replaces The Senior

In 1916, Hewitt and Masury create the AC model to replace the Senior. It features a 74-horsepower engine and is built in 3½-, 5½- and 7½-ton sizes. It achieves a balance between weight and strength due to various alloys and heat treatment processes.

A Mascot Is Born

During World War I Mack becomes the primary supplier of military vehicles to the Allied Powers. The company's contributions begin in 1917 when the British government orders 150 5½-ton AC models to move troops. British soldiers are so impressed with the tenacity of the vehicles and their pugnacious fronts that they nickname them "Bull Dog Macks." Over the next 22 years the company will build 40,299 AC models.



AC Models Make Lasting Impression

Mack Vehicles Lead The Way

In 1919, the U.S. War Department organizes a cross-country trip using 72 Army vehicles to show the importance of motor trucks to national defense. Mack vehicles comprise a significant number of trucks used on this excursion from Washington, D.C. to San Francisco. The trip is intended to determine whether it is practical to move military-sized vehicles and loads over existing roads and bridges. Some vehicles fail to navigate muddy roads, get stuck in the mud and slide into ditches. The heavy-haul AC models carry equipment needed to shore up weak bridges and repair vehicles. An observer in the convoy, Dwight Eisenhower, never forgets the lessons of the trip. In 1954 the future president sponsors legislation to create the nation's interstate highway system.

Company Creates More Comfortable Ride

From 1920 through 1927 the company wins more than 270 patents for innovations in accessory design, components and industrial processes. One of the most important involves the use of live rubber in suspensions systems. In 1921 the company introduces a cushion connection between spring ends and chassis frames in the AB model. Eventually all components such as engines, transmissions, radiators, steering gears and cabs use rubber isolators to dampen road vibration and lessen driver fatigue.

- *Bulldog* Magazine debuts in February 1920 as an early form of public relations for the company. Still in publication today, it is believed to be the oldest corporate magazine.
- In 1921, the first official company-owned sales outlet in Canada is established in Toronto. It's the second foray into Canada, following the establishment in 1912 of the first Canadian sales agent, the Fairbanks-Morse Co. of Montreal.

Bulldog® Debuts On Cab



First Use Of Bulldogs On Trucks

The famous Bulldog symbol is first used in 1921 on a sheet metal plate riveted to each side of the cab. The image shows a Bulldog chewing a book entitled *Hauling Costs*, with the name Mack® on his collar. Shortly after, the Bulldog is officially adopted as the company mascot.

- In 1922, the International Motor Company reincorporates itself as Mack Trucks, Inc. to more closely associate the truck brand with the corporate name and to reduce confusion between the identities of International Motor Co. and International Harvester Co.
- In 1924, tragedy strikes when Jack Mack dies in an automobile accident near Neffs, Pa. He is buried in Fairview Cemetery, near the Mack plant on 10th Street in Allentown.



BJ Moving Van

Engineers Design Trucks To Advance Business

The Roaring Twenties ushers in an era of prosperity. The nation starts paving its roads with asphalt. Manufacturers begin enclosing cabs and replacing hard rubber tires with pneumatic ones. It becomes practical to move larger quantities of goods over longer distances. This combination requires vehicles with greater power and speed.

Mack responds by developing a line of 6-cylinder engines and 6-wheeled vehicles, which when coupled with semi-trailers can haul more than straight trucks. The company expands the A model line with the introduction of the 150-horsepower AP engine and the chain-drive AP truck, a favorite of the heavy construction industry. For the medium-duty market Mack introduces the first of the early B models, the 126-horsepower BJ, and the cabover CH and CJ models for the urban delivery market.

Manufacturing Expands Again

To accommodate demand in the 1920s, Mack builds new manufacturing and assembly plants. Plants 3 and 3A become the company's machine shop. Plants 4 and 4A provide space for moving assembly lines and sheet metal fabrication as well as the building of rail equipment. Plant 5 adds considerably more space for bus manufacturing.

- Total chassis output soars in the 1920s, from 5,000 in 1919 to more than 7,500 in 1927. But with the advent of the Great Depression in 1929, Mack domestic sales plunge by 75 percent. Business recovers by the mid-1930s and Mack returns to profitability in 1936. By 1940 production exceeds pre-Depression levels.



Hard At Work On New York Subway System

Mack® Vehicles Help Build A Nation

In the 1930s Mack vehicles, especially the AC and AP models, contribute significantly to the construction of major projects around the world, including skyscrapers, the New York subway system and Boulder Dam. About a dozen 4-wheel AP models with 14-yard rock bodies work on the project, later renamed Hoover Dam.

- In 1932, Alfred F. Masury is admitted to Allentown Hospital for an operation. During recovery, the restless engineer carves the first model of the now famous Mack Bulldog from a bar of soap. A lieutenant colonel in the U.S. Army Reserve Corp., Masury dies a year later in the crash of the U.S. Navy airship Akron.
- The iconic Bulldog® hood ornament first appears on trucks in late 1932. It did not appear on all trucks initially, but today it adorns the hoods of every Mack truck and the design has changed very little since its introduction.



Early Mack Fire Truck In Action

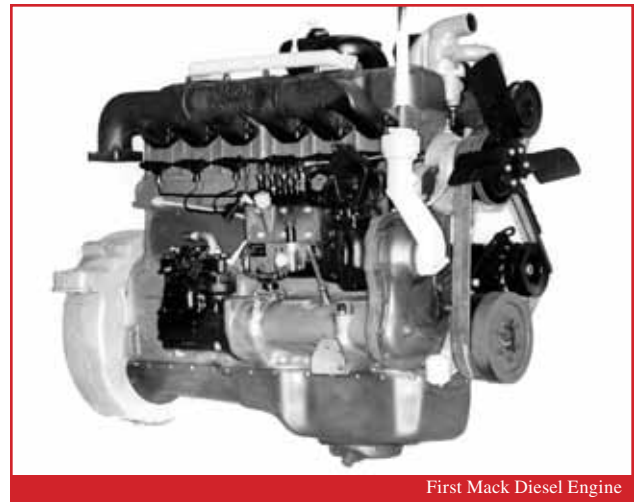
Company Is Top Bus And Fire Truck Supplier

Mack becomes the leading manufacturer of buses and fire apparatus in the United States, due largely to the vehicles' outstanding performance and durability. By the fall of 1935 the company offers five basic modern transit-type buses, three with rear-mounted engines. Utilizing existing truck designs, Mack introduces a complete line of fire apparatus with pumping capacities ranging from 100 to 1000 gallons a minute.

Mack Jr. Model Gets Trial Run

To increase traffic in dealer showrooms and answer the need for lighter duty vehicles during the long Depression years, Mack markets light and medium trucks from the Reo Motor Car Co. under the name Mack Jr. (not to be confused with the Junior model first produced in 1909). Sold from 1936–1937, the trucks give the company time to produce a new series of conventional and cabover models.

- Introduced in 1936, the E series features a modern cab with sloping windshield, full-bodied fenders and chromium plating for a brighter appearance. Along with a broad product line, the EH helps Mack achieve its best sales year since 1930.



First Mack Diesel Engine

First Truck Manufacturer To Produce Own Diesel Engine

Until the 1930s all Mack engines run on gasoline. In 1938, a decade after it begins development of a new power plant, Mack becomes the first independent truck manufacturer to produce its own diesel engine. Diesel offers a significant improvement in fuel economy, durability, driveability and torque. Using the Lanova combustion chamber design, the Mack engine produces 131 brake horsepower with 519 cubic inches of displacement.

Mack Ready To Serve

The shadow of World War II reaches America. In 1939 the U.S. Army orders 535 Mack military trucks to transport troops and tow heavy equipment. In 1940 the Army orders 700 cab-over-engine tractors. All units are based on civilian models, with modifications for military service.



Mack On Duty In WWII

Allied Forces Rely On Mack®

Mack joins the fight against the Axis powers in the Libyan Desert. The company has supplied specialized military vehicles to France and Great Britain since 1939. After the attack on Pearl Harbor and the U.S. entry into World War II in 1941, that role increases significantly. By the end of the war, Mack has become the primary supplier of heavy military vehicles to the Allied forces, producing more than 35,000 units.

- Before curtailing civilian-vehicle production, Mack introduces the popular L series in 1940 with deeper, wider, more comfortable cabs. The line eventually will include the LF, LH, LJ and LM models.
- In 1941, contractors use 80 Mack FC and NW model off-highway dump trucks to expand the Panama Canal.



Military-Issue Mack Fire Truck

War Department Takes Over Mack Plant

Mack severely curtails development of civilian vehicles as the War Department takes over production in Allentown. The company builds two types of trucks: administrative vehicles (including fire trucks) for use on military bases and tactical vehicles that provide support functions close to combat zones.

- In 1942, the government takes control of the Mack bus plant in Allentown, authorizing Vultee Aircraft, Inc. to manufacture torpedo bombers for the Navy.

Mack Expands Product Line

Following delivery of EXBX tank transporters to the British in 1939, Mack develops the model NR 6x4 series for service in the Middle East. The wide bogie axles and extra-large tires allow the vehicles to “float” on desert sands. Mack builds NR-4 tank transporters and LMSW heavy wrecker trucks. Its 7½-ton prime mover, the NO, gains use hauling 155-mm Long Tom field guns. The company also builds transmissions for M-3 and M-4 medium tanks.

- With the war drawing male workers into service, manufacturers need able bodies to replace them in the factory. By 1944 American women comprise 35 percent of the U.S. civilian labor force. Two million women work in war industries and Mack employs many of them among its peak workforce of 4,800. They labor as stock handlers, plant inspectors, gear hobbers and operators of drill presses and turret lathes.
- Mack resumes control of Plant 5 in late 1945 and resumes production of buses, with 92 vehicles under construction. The company introduces the C series with its improved frame, heating and ventilation.



L Series Tankers

L Series Grows To Meet Demand

Growth in the U.S. trucking industry soars after the end of World War II. From 1945 to 1949 the number of privately owned trucks more than doubles to 7.69 million. Mack responds by developing larger and lighter conventionals and off-highway dump trucks in its L series.



A51 Diesel Demo Truck

Company Launches Advertising, PR Campaign

By 1950, highway congestion becomes a serious issue. A U.S. Senate subcommittee holds hearings to determine if trucks are ruining roads and benefiting unfairly from publicly funded highways — a claim leveled by the railroads. The trucking industry fights back. Mack® launches advertising and public relations efforts. And as the Korean conflict begins that June, the company places ads to inform the public that “National Security Rides on Trucks.”



B61ST Gas Tanker

New Diesel Engine Sets Standard For Industry

The mid-1950s become a time of major product innovation for Mack. In 1953 the company introduces the B series with ratings up to 80,000 lbs. gross vehicle weight. The same year Mack unveils its new cab-over-engine highway tractor, the H series, and the lightweight W series for the West Coast. To power the fleet, Mack creates the END 673 Thermodyne® diesel engine — an open-chamber, direct-injection design. The engine sets the standard for durability and fuel economy.

- Construction of the U.S. interstate highway system ramps up. Sales of Mack trucks more than double between 1954 and 1956 to 13,190 units.

Mack Expands, Acquires Companies

After the business slump of 1953-54, Northeast Capital Corp. acquires a controlling interest in Mack. Expansion follows with Mack acquiring the Brockway Motor Co. in 1956. The Cortland, N.Y., company has produced quality trucks since 1912. Mack also buys C.D. Beck Co. of Sidney, Ohio, a maker of custom-built inter-city buses.



L Series Answers The Call

Arctic Convoy Builds Warning System

In 1956, a convoy of 11 LRVSW 6x4 off-highway dump trucks helps to build one of North America's biggest Cold War defense projects and a deterrent against Soviet nuclear attack, the Distant Early Warning system. A chain of 60 radar sites, the DEW line stretches 3,000 miles across Alaska and Northern Canada. Based on Mack's L series, each of the 600-horsepower prime mover/semi-trailers measures 82 feet long and grosses 164 tons. Conditions are so rough and cold that drivers never shut down the big engines. When they do stop on their 1,500-mile trek, drivers have to heat the transmission cases with blow torches so they can shift gears again.

- In 1959, Mack announces that after 50 years of production the former Sauer plant in Plainfield, N.J. will close, along with the plant in New Brunswick, N.J. To improve quality and profits, the manufacture of engine castings and gear products will move to a new plant next year.

- After building some of the most rugged and innovative vehicles in the industry, increasing competition and declining demand compel Mack® to end bus production in Allentown in 1960.



Hagerstown Plant

Dedicated Powertrain Plant Opens

In 1961 the Hagerstown, Md., plant opens for the engineering and manufacture of all powertrain components. Planned as a one million square foot structure, the facility symbolizes a major effort to restructure Mack's manufacturing processes. Hagerstown replaces the Plainfield, N.J., plant.

New Truck Design Allows Customers To Haul More

Mack introduces new highway and city trucks with shorter bumper-to-back-of-cab dimensions. With more liberal motor vehicle laws sweeping the nation, these models can haul longer semi-trailers and more freight. Mack introduces a major new cab-over-engine highway tractor, the F series, in 1962 — the first of a new family of COE and conventional models that will be introduced in the 1960s. The models to follow — the R, U and DM — feature standardized parts and roomier galvanized steel cabs.

- In response to demand, Mack continues to specialize in heavy-duty vehicles. By 1964 more than 10,000 of the 12,000 units the company produces are rated at more than 33,000 pounds gross vehicle weight.
- With the engineering firm of Cox and Gibbs, Mack develops a super pumper for the New York City Fire Department. Placed into service in 1965, the pumper delivers 4,400 gallons of water per minute at 700 psi, enough force to blow through walls.

New President Makes Sweeping, Positive Changes

In 1965 Mack enters a new era when Zenon C.R. Hansen, executive vice president of the White Motor Co., becomes president. With a decisive management style that recognizes the contribution of employees, Hansen breathes new life into Mack. He consolidates executive office locations in Allentown near the assembly plant, revives the Bulldog icon as a symbol of strength and cuts travel costs by establishing Bulldog Airlines. To service the growing West Coast market, he directs the company to buy a 100,000 square foot plant in Hayward, Calif., about 10 miles south of Oakland. There a complete line of conventional and COE models designed for the western market are built. Mack Western, a subsidiary of Mack, is established there.

- To meet a new surge in demand for heavy-duty trucks in 1965, Mack introduces the R and U model lines. The R series of highway trucks offers a roomier cab, larger windshield and fully adjustable driver's seat. The U series features a short 90-inch BBC dimension. By offsetting the cab to the left, the wider V8 diesel engine could be accommodated without raising the cab.
- In 1966, Mack shakes up the dump and concrete mixer markets by introducing the DM series. Combined with the high-performing, durable Mack powertrain, this rugged chassis will become the construction industry standard for a record-setting 41 years.



Australian R Series

Mack Enjoys Success In International Markets

The Mack International Division continues to flourish. Mack Trucks Australia opens its national headquarters and factory in three hangars at Brisbane Airport, Queensland in 1963. A Canadian factory in the Toronto suburb of Oakville goes online in 1966. By 1972 Mack will distribute its products in 67 countries.

New Engine, Transmission Shift Mack® Forward

After several years of development, Mack introduces the constant horsepower ENDT675 Maxidyne® diesel engine, which provides maximum horsepower over a wider range of RPMs. The engine reduces the need for drivers to shift gears to prevent the engine from lugging when ascending long grades. Mack matches the engine with a new triple countershaft transmission called Maxitorque®.



Aerial View Of Mack Headquarters

Mack World Headquarters Opens Doors In Allentown

The company begins work on the multi-million dollar Mack World Headquarters in Allentown. It officially opens in 1970.

- Significant change comes to Mack. To secure working capital, the company merges with the Signal Oil and Gas Co. of Los Angeles. A diversified company, Signal Oil owns a variety of businesses including containerized shipper American President Lines and aerospace company Garrett Corp.
- Mack withdraws from the gasoline-engine business to fully support its more efficient counterpart, the diesel power plant.
- In 1973, Mack expands its heavy-duty line of trucks with the RM series for road maintenance and snowplow work, the RD for construction projects and the DMM for the all-wheel-drive construction industry.

Maxidyne 300 Series Engine Introduced

The Arab oil boycott of late 1973 increases fuel prices and decreases supply. Mack launches a series of products that can save drivers money, including the Maxidyne 300 series engine. This was the first engine with charge-air cooling supplying cooler air to the combustion process resulting in efficiency and durability gains.

- Zenon Hansen retires in 1974.
- In 1974, Mack builds its 10,000th vehicle in Canada.



Cruise-Liner

Cruise-Liner Fulfills Need For Western Markets

Mack pushes horsepower and comfort to new heights with the 1974 introduction of the Cruise-Liner. Created for the Western market, the cabover features a popular riveted aluminum cab, larger radiator and engines rated up to 500 horsepower to master long runs through mountainous terrain.

Mack Opens Engineering Development Test Center

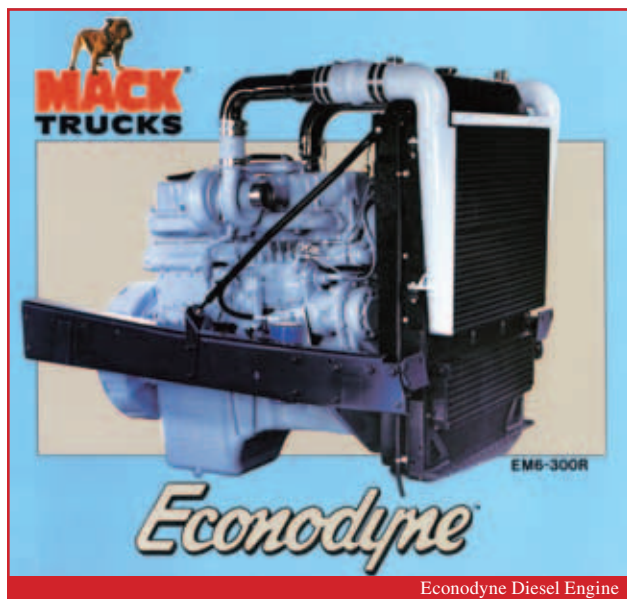
Responding to new government emissions and safety standards as well as the popularity of its Maxidyne engines, Mack launches a major expansion program. In 1975 the company opens the \$10 million Engineering Development Test Center on a 62-acre tract about a mile from world headquarters. That same year it dedicates the \$25 million Macungie Assembly Plant, about nine miles from headquarters. The company expands Plant 5C in Allentown, the engine and gear train plant in Hagerstown, Md., the West Coast plant in Hayward, Calif., and the Oakville Plant near Toronto.

- In November 1977 Mack extends the engine and transmission warranty on all highway vehicles to 36 months or 300,000 miles.
- The conventional Western-styled RW Super-Liner debuts in 1977. It features a modified R cab and a larger front to accommodate bigger cooling systems and engines rated up to 450 horsepower.
- Mack ends the decade by introducing the MC line of heavy-duty urban delivery units and the MR line of refuse vehicles. To meet a growing demand for medium-duty diesel-powered delivery vehicles, it imports the Mack MS Mid-Liner from Renault Vehicles Industrial in France, beginning a relationship that will lead to Renault's acquisition of Mack.

Renault Invests In Mack®

Mack marks the new decade with changes in ownership and products. By the end of the 1980s it will launch a \$500 million capital expenditure program, introduce several major truck lines and change parent companies from Signal Oil to Renault.

After taking a 10 percent stake in Mack in 1979, Renault increases its holdings to 20 percent in 1982. When Mack again becomes a public corporation in 1983 with a public offering of common stock, Renault increases its holdings to 40 percent. In 1987 the commercial vehicle division of Renault, Renault V.I., buys the Mack shares from its parent company.



Econodyne® Engine Boosts Performance

In an industry-leading move, Mack introduced the Econodyne series diesel engines in 1981. The chassis-mounted, charge-air-cooler supplies cooler air to the engine combustion chambers, resulting in improved fuel economy, horsepower and engine durability.

- In 1982, Mack introduces the MH Ultra-Liner, featuring the industry's first successful all-fiberglass, metal cage-reinforced cab. The new design results in advancements in cab-weight reduction, durability, and corrosion resistance.
- More than 50 Mack trucks, primarily DM and R models, join other heavy-duty vehicles in 1982 to build the Amaluza Dam in Ecuador for hydroelectric power generation. At 558 feet, the dam is the highest of its type in South America at this time.

- In 1986, Mack delivers its one millionth vehicle. It builds the dark green Super-Liner II in the Macungie plant for Yarmouth Lumber, Inc. of Freeport, Maine.



CH Model Improves Driver Experience

In 1988 Mack introduces the CH series for highway applications, the first new over-the-road model since the R series of 1965. The CH features aerodynamic contours that help reduce fuel consumption and superb handling in both axle-forward and axle-back configurations. And with one of the roomiest air-suspended cabs in the industry, the CH provides a quieter, more comfortable driving environment.

- Mack introduces the E7 series of 12-liter engines in 1989. The E7 boasts the industry's best horsepower-to-weight ratio for customers concerned with achieving maximum productivity. The line eventually will include 16 engines with both Maxidyne and conventional power output curves and horsepower ratings ranging from 250 to 454.

V-MAC® Introduced

The start of a new decade brings refinements in management and manufacturing. In 1990 Mack Trucks, Inc. becomes a wholly-owned subsidiary of Renault V.I. Mack is now one of North America's largest producers of heavy-duty diesel trucks, in addition to major product components.

Introduced in 1990, the V-MAC Vehicle Management and Control system offers customers an unprecedented level of control in tailoring performance to their requirements. The V-MAC system leads the industry with such innovations as cruise auto-resume and dual-PTO capability.



CL Series

CL Redefines Over-The-Road Truck

In 1992 Mack® introduces the CL series of long-nosed conventionals to replace the R700 and RW Super-Liner Series. The CL ships with large engines and high horsepower for over-the-road as well as on/off road operations such as logging and construction. It offers excellent weight distribution, maneuverability and durability, along with greater driver comfort.



Mack Low Entry Refuse Truck

Mack Dominates Refuse Industry With LE

Mack continues to dominate the refuse industry by introducing the LE (low entry) refuse vehicle in 1994. The LE features dual-steering controls and a right-side, stand-up-drive cab to improve worker productivity, especially when equipped with an automatic loading side pick-up refuse body.

- Mack takes steps to build more environmentally friendly vehicles. In 1997 the company announces the availability of Mack MR and LE model trucks fueled by liquid natural gas. Both models are equipped with Mack E7G 325 horsepower natural gas engines.

Mack E-Tech Wins EPA Certification

Starting in 1997, Mack positions its product line for compliance with present and future environmental regulations in the U.S. and Europe. That strategy takes the form of two powertrain improvements: a new version of the Mack E7 engine called the Mack E-Tech that utilizes higher injection pressure individual unit pumps and a new generation of Mack's electronic vehicle management and control system, V-MAC® III. The combination has far-reaching effects: unlike its competitors, Mack is able to meet all U.S. and European emissions regulations into the next century.

That engineering work pays off when the U.S. Environmental Protection Agency certifies that the E-Tech engine meets 1998 emissions criteria. The MaxiCruise® E7-330/350 engine is the first heavy-duty Class 8 power plant to receive the certification.

- Mack ends the decade with record net sales of \$3.18 billion, up from \$2.77 billion in 1998. The company records its sixth straight year of profitability and seventh consecutive year of U.S. market share growth — the only U.S. Class 8 truck manufacturer to do so.



Vision By Mack

Vision™ Leads Fleet In Economy, Style

In 1999, the company introduces the flagship of its highway fleet, Vision by Mack. With its aerodynamic styling and leading-edge technologies, Vision gives drivers the power, handling and comfort they want without compromising the low operating cost, efficiency and serviceability demanded by fleet managers. Mack combines Vision with a full line of engines, including the 460-horsepower, 12-liter E-Tech engine, and a wide range of sleepers to offer a truck that is both stylish and functional.



Mack 100th Anniversary Ad

Mack® Celebrates Centennial With Mobile Exhibit

Mack kicks off its 100th anniversary celebration in 2000 with a unique historical caravan that will travel North America for the rest of the year. The Mack Centennial Trailer Exhibit is a mobile museum that integrates iconography, video and photography to educate visitors about the ongoing story of the world's most famous truck and its role in the history of the 20th Century. Along with the centennial trailer, two show trailers display antique Mack vehicles from the Mack Historical Collection.

Sweden's Volvo Group Acquires Mack Trucks

In late 2000, the U.S. Department of Justice clears the way for Sweden's AB Volvo to acquire Renault V.I./Mack. The Volvo Group supplies trucks, buses, construction equipment, drive systems for marine and industrial applications as well as aircraft engine components. (AB Volvo sold its car division to Ford Motor Co. in 1999.) A new business unit, Volvo Global Trucks, includes the Volvo, Renault and Mack truck brands. As a result of the acquisition, the Volvo Group becomes the world's second-largest and Europe's biggest manufacturer of heavy trucks, with a 28 percent marketshare in Western Europe and a 24-percent share in North America. The acquisition becomes official in 2001.

- Looking to expand its position as the number-one supplier of heavy-duty vocational vehicles in North America, Mack introduces the Granite series of vehicles to replace the industry standard RD, RB and DM models. Granite is ideally suited for a variety of jobs, including dump, refuse, mixer and applications such as the hauling of lowboy trailers. Granite proves so popular that by the following year Mack increases production of the vehicle at its Macungie Assembly Plant.

- The year 2002 brings several technological improvements. To meet the 2002 emissions requirements while maintaining optimum performance, Mack introduces the ASET™ (Application Specific Engine Technology) 12L engine family. Adding to its line of over-the-road heavy trucks, Mack introduces the Vision DayCab, a stylish, lightweight and aerodynamic alternative for the competitive and demanding day cab market.

- Emissions take center stage in 2004 when Mack announces it will use engine technology based on exhaust gas recirculation (EGR) to meet new U.S. diesel engine regulations scheduled to take effect in 2007. Mack confirms its EPA'07 solution will include a diesel particulate filter (DPF) system to reduce particulate matter.



2010 Granite

2010 Pinnacle

Granite®, Pinnacle™ Top New Product Launch

Mack kicks off 2005 by launching a new range of vehicles designed to meet the demands of both highway and construction customers. Key elements of the offering for 2006 include a new flagship for the highway line, a premium tractor called Pinnacle, as well as new models of the company's highly successful Granite construction vehicles. Each of the new models offers state-of-the-art advancements in engine technology, driver environment and electronics.

Featured in the initial offerings is the MP7 engine, the first in a new family of Mack engines designed with the power, torque and durability that customers have come to expect from the trucking industry's long-time leader in integrated powertrains. The MP7 is an 11-liter engine available in three families and six horsepower ratings. The MP7 base architecture represents the heart of Mack's response to 2007 emissions regulations by the U.S. Environmental Protection Agency.



Mack From The Animated Film "Cars"

Bulldog® A Hit On Big And Small Screen

The Bulldog is a workhorse but sometimes the company lets him off the leash. Mack® vehicles have appeared in hundreds of movies since the 1920 film "What's Your Hurry," when driver Dusty Rhoades leads a team of truckers over dangerous roads to deliver emergency supplies before a dam breaks. Since then the Bulldog has appeared in dozens of classics, from "Duck Soup" to "In the Heat of the Night" to modern sensations like "Convoy," the animated film "Cars" and both "Transformers" movies. As for television, the company takes the spotlight in "King of the Hill," "Trick My Truck," "American Loggers" and "John Ratzenberger's Made in America." In 2010 the iconic truck even goes under the knife in the History™ channel program "Sliced" when the hosts cut apart a TerraPro™ model to see how the emissions control system works.

Mack Leads Industry In Cleaning Air

Once again Mack takes the industry lead in meeting environmental regulations when, in 2006, the company announces it will use a combination of exhaust gas recirculation (EGR) technology and proven selective catalytic reduction (SCR) to satisfy the nitrogen oxides (NOx) portion of the U.S. diesel engine emissions regulations scheduled to take effect in 2010. Developed by the U.S. Environmental Protection Agency, the regulations call for NOx emissions levels to be reduced more than 80 percent from the standard set to take effect in January 2007. SCR technology allows Mack to meet the new guidelines without degrading fuel economy or performance.

To expand its product offering, Mack will add two more power plants to the MP™ series to include the MP8 and MP10 engines. Designed for heavy-haul and severe-service applications, the big block, 16-liter MP10 delivers up to 605 horsepower and 2,060 lb.-ft. of torque.

- In 2007, Mack introduces the TerraPro™ Cabover model. An evolution of the company's popular MR and LE models, the TerraPro Cabover is optimized for demanding refuse and construction applications, including concrete pumping. Utilizing the new MP7 engine, TerraPro combines Mack's traditional ruggedness with a new driver environment designed to maximize comfort and productivity.

- Mack returns to its traditional role as a supplier of vehicles to the U.S. military by securing several contracts worth millions of dollars. In 2008 the company earns an \$8.6 million contract from the U.S. Army to build 66 Mack Granite® Elite model tractors, known domestically as the Granite axle back model. Later this year Mack wins a \$28.5 million award from the Army to build 152 Vision™ Elite model tractors and to supply the same number of heavy-duty low boy trailers.



2010 Titan

Titan By Mack Makes Bold Statement

In 2008 the company launches the heavyweight of heavy-haul vehicles, Titan by Mack. Starting with its 605-horsepower MP10 engine, with a massive 2,060 lb.-ft. of torque, the truck is designed specifically for logging, oil fields and other severe-service applications.

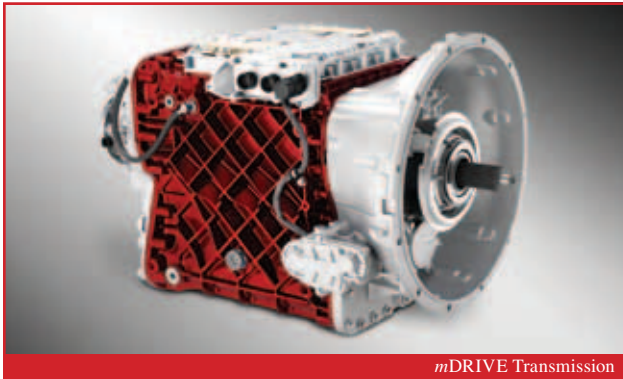
- Mack Trucks finishes 2009 as the leading exporter of heavy-duty North American trucks. The company claims nearly one-third of total truck exports from the U.S., Canada and Mexico to countries outside North America, with a 30.8 percent market share.



Mack World Headquarters In Greensboro, N.C.

Mack® World Headquarters Move To N.C.

In 2009, the company opens a new Mack World Headquarters in Greensboro, N.C., consolidating sales, marketing and back-office operations with sister company Volvo Trucks North America. The Mack Engineering, Development and Test Center becomes the Mack Customer Center.



mDRIVE Transmission

Economy, Durability Mark New Product Lineup

Mack kicks off 2010 by launching a host of improvements in its product line. The latest generation of the Mack Econodyne® engine family for highway applications, called EconoBoost, delivers more torque at low engine speeds for improved fuel efficiency and hill-pulling performance. Mack introduces the latest in automated manual transmissions, called the Mack mDRIVE™, for greater convenience and economy. The company brings more than a century of experience building drivelines to the design and engineering of the stronger, lighter Mack C150/151 rear axle carriers. And in Canada, the company unveils an ultra-rugged twin-steer Granite® model ideally suited for dump, crane and oil field operations.



Poised For The Future

Mack Gears For Future With Innovative Designs

What does the future hold for Mack Trucks? Meeting customers' demands will require advanced technologies, innovative materials and highly-skilled employees — things with which Mack is already familiar. Our society relies on heavy-duty trucks more than ever. Mack and its customers will focus even more on safety, efficiency and reliability to meet society's needs. So Mack will continue to innovate aggressively, designing powerful and dependable trucks that deliver better fuel economy and near-zero emissions to help its customers succeed in a global market. That's a tradition the Mack brothers started in 1900, and one the Bulldog® is proud to continue: Built Like A Mack Truck® for the next century.