

DIMENSIONS



Famed automotive photographer **Roy D. Query**, former Chief Photographer of the legendary Automobile Quarterly, has never taken a photo class – he graduated as an Industrial Designer. Once he said *"I haven't been told what I can and cannot do, so I approach things uniquely"*.

He has been photographing cars professionally for over 51 years and has amassed an amazing archive. We are lucky to be able to introduce his latest concept: "Dimensions".

Here he takes some of the rarest & most unique cars from his files and researches major dimensions with some of them mathematically calculated by necessity based solely on his photographs! This is accompanied by an assortment of historical tidbits and specifications.

Please enjoy the unique and creative vision of Roy D. Query

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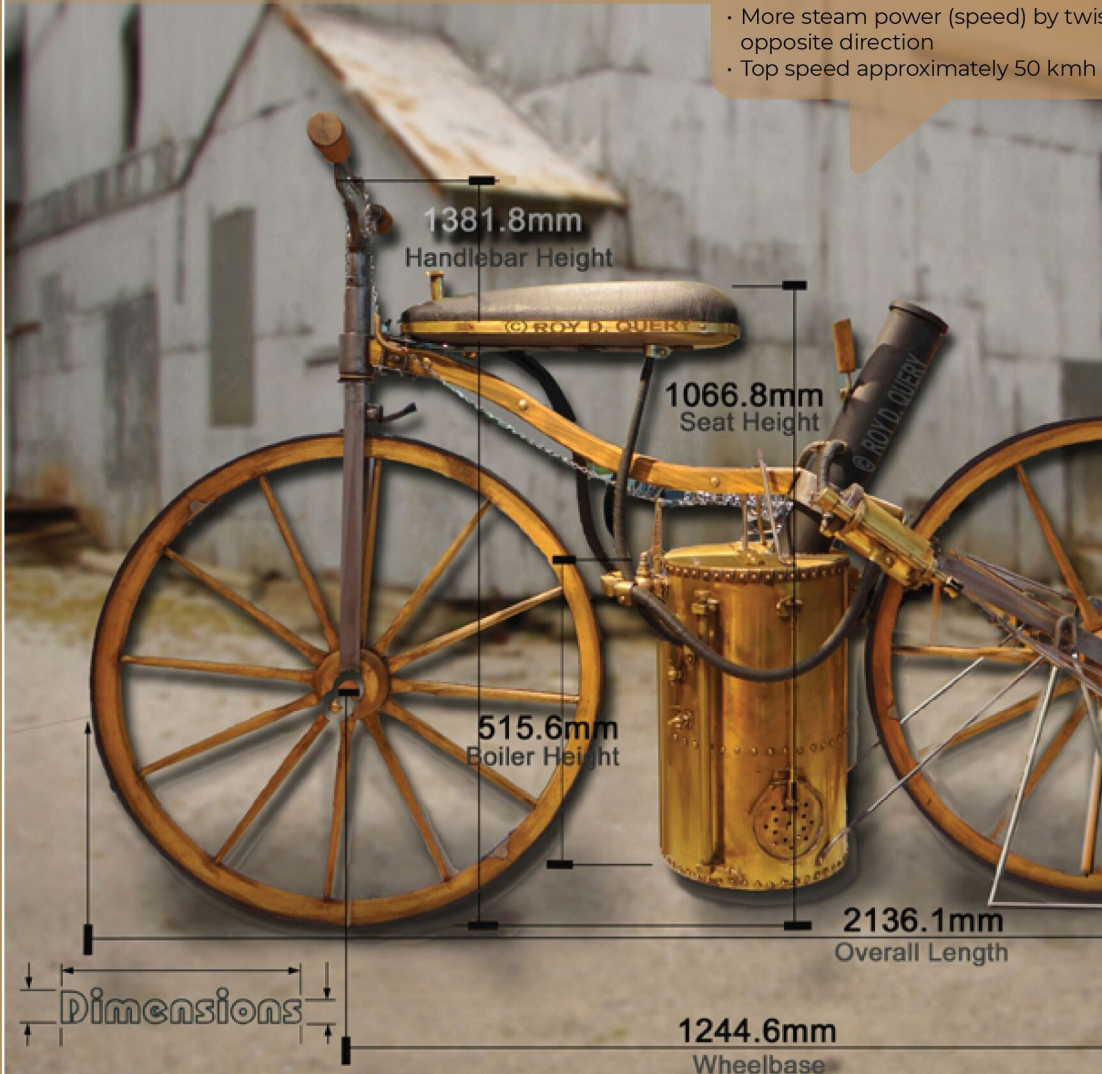


POWER

- Steam generated in the “fire tube” (boiler) beneath the seat
- Boiler made of rolled, riveted sheet brass between wheels
- Steam from boiler by two pistons to rear wheel via direct drive
- Pistons of 57.15 mm bore x 63.6 mm stroke, one on each side of frame behind seat
- Steam relief (exhaust chimney) immediately behind “seat”
- Seat is actually water reservoir for boiler, not cushioned

CHASSIS

- Built by Hanlon Brothers
- Purpose built frame
- Rigid wood frame of hickory with f
- Wheels and spokes of ash wood w
- Rider sits oddly forward of centerlin
- “Spoon” brake on front wheel ope
- handlebar one direction
- More steam power (speed) by twis
- opposite direction
- Top speed approximately 50 kmh



Forged iron strapping
with steel bands
1.5 in w/feet on front

Operated by twisting

Twisting handlebar in



863.6mm
Wheel

NOTE: Since virtually no
measurements are available
these are very close
mathematical computations

1867

ROPER STEAM VELOCIPEDE (MOTORCYCLE)



This is an exact replica of the 1867 ROPER motorized Motorcycle (later called “Motorcycle”), the first one ever made. It was invented by Sylvester H. Roper of Roxbury, Massachusetts, USA. Amidst controversy of being named a “motorcycle” it was years ahead of Germany’s Daimler “Reitwagen.” Daimler’s claim was it had to have a reciprocating GASOLINE engine, not steam power. In any case this is the first self-powered velocipede. Steam power easily preceded gas burning engines in 1867. Roper never patented his invention thus the idea was freely given over to the public. There is absolutely no form of suspension on this vehicle. The seat is the metal water supply tank for the boiler beneath it. With the unique vertical steering fork, steel banded solid ash wheels, red oak frame and no suspension it was most uncomfortable, difficult and dangerous to ride on the deeply rutted dirt roads of the later 1800s. This example is on display in the Barber Vintage Motorsports Museum in Alabama, USA.



POWER

- Inline 4 cylinder
- 18,932 cc, 18.8 L
- 59.66 kw
- 184.1 mm x 177.8 mm @ bore x stroke
- Water cooled
- Splash oiled – no valve cover, no oil pan
- No transmission – simple wood facing clutch
- No differential only open gear set
- Giant flywheel weighs 122.5 kg
- Motor constructed mostly of steel, iron... very few castings used

TOTAL COST

US\$ 5,000.00

(US\$ 172,556.00 now)

CHASSIS

- Very crude wooden frame rails reinforced by iron straps on sides
- Front semi elliptic springs
- No rear suspension
- Steering by crude "T-handle" in front of single seat
- Driveshaft to RWD
- Wire spoke wheels

BODY

- None
- Single small seat drive gear rear a

704.85 mm
Tire diameter

(unknown) mm
Overall Width

1397.0 mm
Front Track

3683.0 mm
Overall Length

1270 mm
Overall Height

29



t over
area



1902-1903 FORD “999” BEACH RACECAR



By 1902, Henry Ford had been voted out of his second automobile company due to his fascination with racing his cars rather than selling them. His mantra became “Win on Sunday, sell on Monday” With his severance of his name, motor design, plans for his two race cars and US\$ 900.00 (US\$ 31,060.00 today) he began his third journey. Determined to become the fastest road auto manufacturer on earth, he designed and built two racing cars, the 999 and the Arrow, with the help of C. Harold Wills, Ed Huff and Gus Degener.

Before the race, when neither car would start, he sold everything to his partner, Tom Cotter for US\$ 800.00. So Ford did not own the cars when they were raced! Tom was to drive the car in trials but ultimately he called in another pro bicycle racer friend, Berna Eli “Barney” Oldfield to drive for them. Oldfield had never even DRIVEN a car let alone raced one... Barney won the race against Alexander Winton in the “Bullet 2” His secret? “Dirt tracking” instead of braking in the corners. Ford bought back the previously crashed and rebuilt “Arrow” car, and, driving it in the winter of 1904, he set a land speed record on iced over Lake St Claire of 147.04 kph in Michigan, USA.



ENGINE

- Two cylinder gasoline, air cooled, horizontally opposed
- 1641.9 cc
- 10.44 kW
- 104.8 mm x 95.3 mm bore x stroke
- 40.23 kph
- 3.8 L fuel to travel 48.3 km
- Lubrication forced by pressure in crankcase

CHASSIS

- Believed to be iron frame
- Transverse elliptic leaf buggy springs front and rear
- Chain drive from engine to Jack Shaft then double chain drive rear wheels
- Side lever dual rear wheel brakes
- Two speed transmission
- Steering wheel

BODY

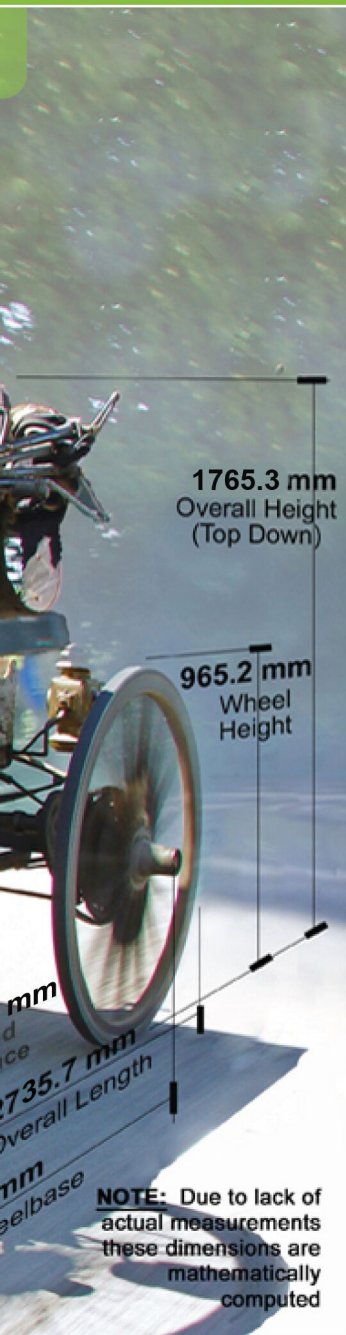
- All wood body with parts nibbled away by a horse
- Black patent leather front "dashboard" (mud guard) missing
- Bulb type curved brass horn

TOP SPEED

- 40.23 kph



1906 (8) **BLACK** AKA CHICAGO MOTOR BUGGY **MODEL 12**



1765.3 mm
Overall Height
(Top Down)

965.2 mm
Wheel
Height

mm
d
ice
1735.7 mm
Overall Length

mm
eelbase
NOTE: Due to lack of
actual measurements
these dimensions are
mathematically
computed

1906 was a transitional year when the public was still trying to decide whether the auto buggy (high wheeler) would replace the venerable horse and carriage. “High Wheelers” were carriages with wooden buggy wheels sometimes with steel bands around them. A motor was mounted under the seat. While Black was the corporate name, and they produced Black “High Wheelers,” they also produced a less expensive (at US\$ 375.00 to US\$ 450.00) version named the Chicago Motor Buggy (such as this example). 1908 was the first year of production for the Black Manufacturing Company in Chicago, Illinois. (There is some discrepancy as to whether they started in 1906 or 1908). This buggy had a “1906” stamped on the frame so the 1906 production year is an assumption. The Chicago was nearly half the nearest competitor’s price. It was only made for two years before dissolution. This original buggy has the solid rubber “tires” (\$ 35.00) and the “two oil burning lamps” (\$ 10.00) options. Additional available options were fenders with running boards for \$ 23.00 and bulb horn (\$ 2.50). The front “dashboard” (missing) was black patent leather. While stored next to a barn’s stable the horse nibbled away part of the wooden body on one side.

1906 STANLEY (STEAMER) “ROCKET CAR” RACER



The Stanley twins were very creative brothers. By 1883, Francis Edgar (F.E.) had invented a dry plate process for making photographs, while his brother, Freelan Oscar (F.O.) invented the airbrush as well as manufacturing a precise series of drafting tools. By 1897, they had started building steam powered cars using their Stanley nameplate and by 1899 had sold 200 of them. In 1898, they hired Fred Marriott, a legendary motorcycle racer at the time, as their General Manager. A year later, they sold their steam car business to John B. Walker for the newly formed Locomobile Company for a “pie-in-the-sky” US\$ 250,000.00 cash. (US\$ 8,939,668.67 today). In 1904, they sold their dry-pate process to Eastman-Kodak In 1902, they returned to their beloved steam power, building street vehicles and a speed racer to compete in the Dewars International Trophy. Built of wood with a coated canvas skin and a flat bottom, they installed one of their small steam engines, put some motorcycle wheels on it and went off racing for the land speed record on Ormond Beach, Florida, USA. Ultimately Fredd Marriott set a speed record of 205.43 kph that stood over 100 years.



POWER

- Vertical fired copper tube boiler driver
- 762 mm diameter x 457.2 mm
- Two double acting side-by-side
- 114.3 mm x 165.1 mm
- Steam pressure of 68.476 bar required @ 371.11 °C
- Boiler reinforced by many layers wrapped piano wire
- Engine had 13 moving parts

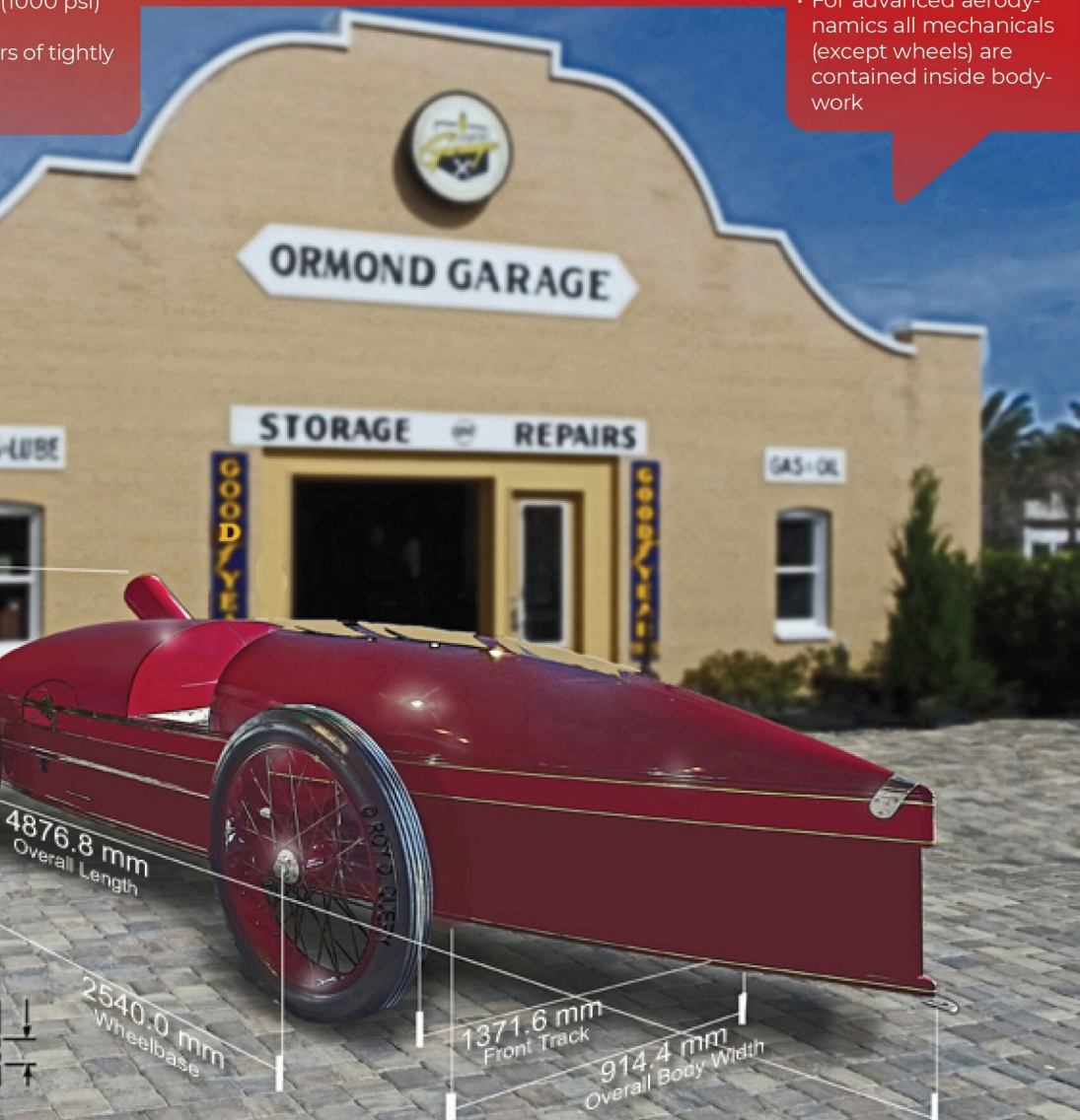


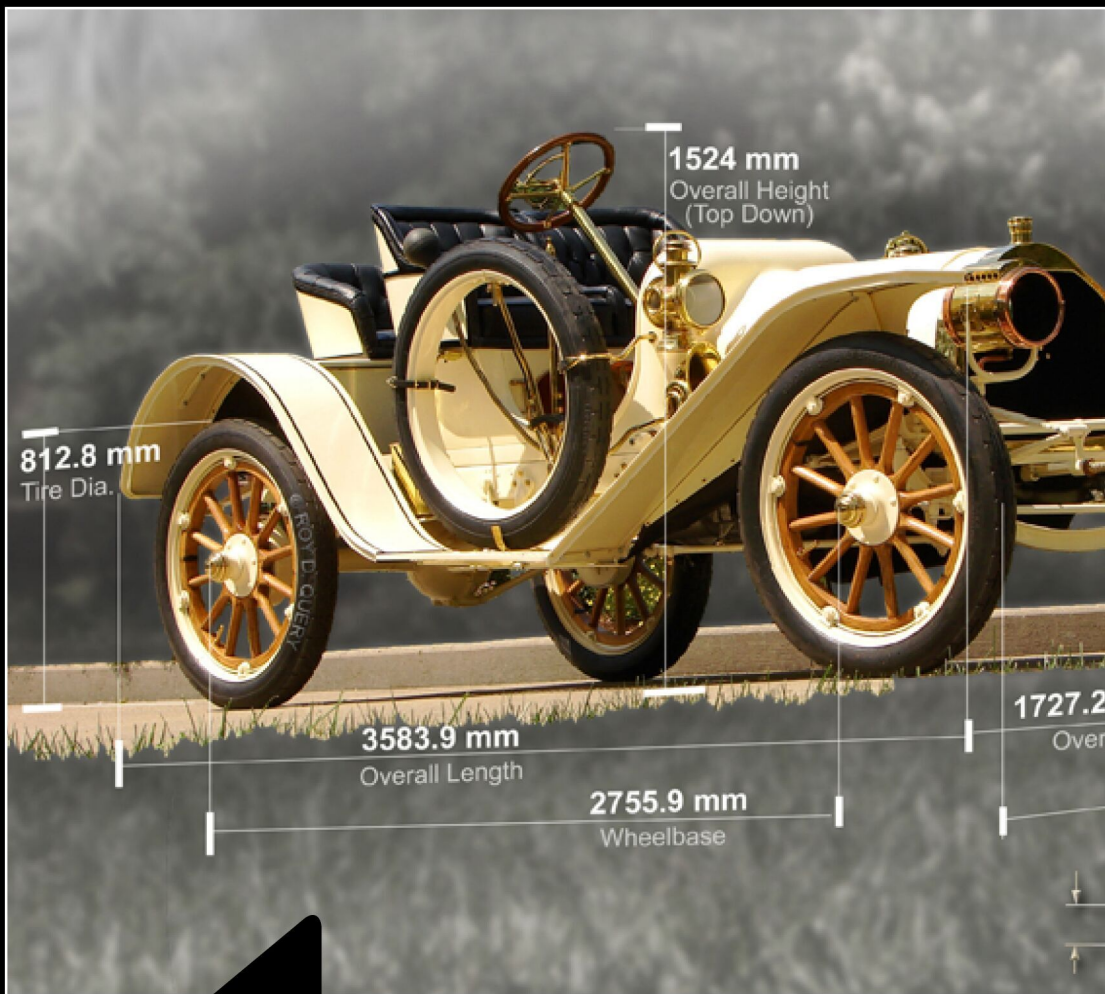
CHASSIS

- er behind
 - high boiler
 - le cylinders
 - (1000 psi)
 - rs of tightly
- Ash wood sill rails mildly reinforced to support mechanicals
 - All parts except wheels fully contained inside body
 - Direct drive to rear wheels via chain through a differential
 - No transmission
 - Tiller steering inside body

BODY

- An inverted 4876.8 mm J.R. Robertson “Riverside” model canoe
- Side panels are white wood
- For advanced aerodynamics all mechanicals (except wheels) are contained inside body-work





812.8 mm
Tire Dia.

1524 mm
Overall Height
(Top Down)

3583.9 mm
Overall Length

2755.9 mm
Wheelbase

1727.2 mm
Overall Width

POWER

- Inline, four cylinder, water cooled, gasoline powered
- 3958 cc, 4 liter
- 108 mm x 108 mm @ bore x stroke
- Side valve head
- Jump spark ignition

CHASSIS

- Pressed steel channel
- Transmission three speed, sliding gear change w/side lever
- Multiple disk foot operated clutch
- Drive shaft engine to rear wheel drive, not chain drive
- Steering by nut & screw system
- Special semi elliptic springs/shocks
- Brakes only on rear wheels with driveshaft hand brake

BODY

- Open top
- Two front seats, jump seat
- No doors, passenger side

WEIGHT

- 907 kg



1907

PREMIER

MODEL 24 RUNABOUT



Premier was one of the most reliable automobiles in the USA at the turn of the century. Founded in 1903 by George A. Weidely, the engine designer, and Harold O. Smith, their factory was in Indianapolis, Indiana, USA. At the turn of the century, Indiana was the leading auto manufacturing state in the country. In 1903, their “shield” was a large, green oak leaf on the radiator... purported to be the first use of a “badge” on a car radiator. In 1907 their pride was the Premier model 24 Runabout. Weidely designed a strong, water cooled, 24 hp engine and the vehicle proved very popular while selling for a pricey US\$ 2250.00. In their 21 years of existence as Premier, or a derivative, they reportedly built 13,971 cars. Due to financial troubles, the company changed hands in 1914, 1920 and again in 1923. In 1923, due to the lack of interest in higher priced cars (and exiting a depression), the then named Premier Motors company slowed. In 1924, they started to build Premier taxicabs under contract but were sold to National Cab & Truck Company which folded in 1926. All the various Premier lines were gone.



mm (est.)
Overall Width
1422.4 mm
Front & Rear Track

Dimensions

ree passenger
t buckets plus rear single
at
s, windshield or any other
er protection

HT

POWER

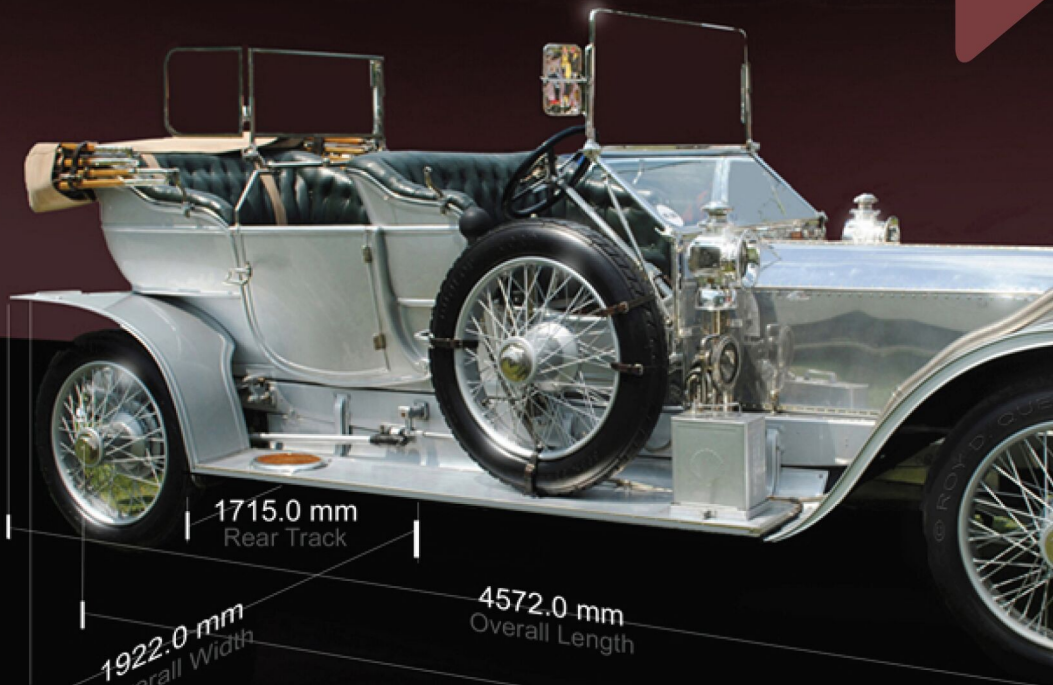
- Straight 6 cylinder
- Cylinders cast in 2 units of 3 cylinders each
- 7036 cc
- Seven bearing crankshaft w/large center main bearing to dampen Vibration
- Trembler coil for spark
- Dual spark plugs @ cylinder
- 36 kW @ 1250 rpm
- 3.2:1 compression ratio
- 3-speed manual transmission

CHASSIS

- Steel front & rear axles are rigid w/transverse leaf springs
- Hand lever operated rear wheel trans brake on driveshaft by foot
- Right Hand drive

BODY

- "Roi des Belges" (King of Belgium) called "Tulip Paeton"
- Coachbuilt by Barker
- Only 7874 Silver Ghosts made including 1701 made in the USA
- Considered the "Most Expensive in the World"



1715.0 mm
Rear Track

1922.0 mm
Overall Width

4572.0 mm
Overall Length

3442.0 mm
Wheelbase

DIMENSIONS

brakes only plus
t pedal inside

m) body style also

etween 1907 and 1926

e Automobile



584.2 mm
Wheel Dia.

1422.0 mm
Front Track

1909 ROLLS ROYCE SILVER GHOST ROI DES BELGES



This vehicle was originally named the Rolls Royce (RR) 40/50 series. It was introduced by Henry Royce and C.J. Johnson in 1907 as a “Whisper quiet,” “silky smooth”, ultimate vehicle for the world’s elite. The media were the ones to later name it the “Silver Ghost” due to its appearance (silver paint and nickel plated everything) and hushed running. The name stuck. Johnson ordered chassis # 66051 and used this car (AX-201) as the demonstrator for RR. An open top Roi des Belges by Barker was put in place for practical use.

He took the press along on a number of durability runs to include the 24,000 km trial between London and Glasgow... 27 times!!! A risky move that proved the car well to all. In 1908, it was later sold to a private customer as a vacation (holiday) car in Italy. In 1948, Rolls Royce once again took ownership, and the car was put on display at various functions around the world. In 1998, AX-201 was sold to the Volkswagen Group where it seldom saw daylight. It was recently sold at auction to a private owner.



1911 OLDSMOBILE AUTOCRAT “YELLOW PERIL”



The OLDSMOBILE Autocrat was a large vehicle to begin with. It was a one owner car from purchase new in 1911 until the death in 1968 of its owner/driver, John Henry Greenway Albert. Born into a wealthy Maryland family, he raced his Autocrat a good bit of his playboy life. Early on, he and his chauffeur (cum riding mechanic), Columbus Ridge, removed unnecessary (to racing) body parts and re-bodied it with an aluminum boat tail design by Albert himself. Albert also “invented” the earliest form of fuel injection which he installed for racing purposes. Only 28 years old, he is probably best known for racing his Olds in the 1915 AAA race first held at the horse race track in Benning, Washington, D.C. USA. After spinning off the track and winding up in the bushes, he removed himself and resumed to pass all comers except a Stutz and came in second place with Honeysuckle vines blowing in the wind behind him. Unfortunately, during that last lap, the fuel injection faulted and sprayed gasoline on the hot exhaust pipes, resulting in him winning in a ball of fire. He claimed to have won every race he entered since that day. The Mother-In-Law seat was later added to transport the Helldorado Queen in the Parade, Tombstone, Arizona.



CHA

- Stam
- Four
- Front
- Rear
- Fully
- Two
- 765.2
- Trauf
- Large
- Huge



CHASSIS

- Tapered nickel/steel alloy rail frames
- 4-speed manual sliding gear transmission
- Front semi-elliptic leaf springs
- Rear 3/4 elliptic leaf springs
- Floating rear axle
- Wheel rear drum brakes
- 22 mm tires on wood spoke wheels
- Standard-Hartford shock absorbers
- Original homemade radiator
- Original brass 203.2 mm E & J headlamps

POWER

- Inline 4 cylinder
- Cylinders cast iron in pairs
- T-head
- 8193.5 cc
- 29.83 kW (est.)
- Self-designed, homemade, first "fuel-injection" system

BODY

- Aluminum rear section designed and crafted by Albert and Ridge
- Right-hand drive
- Removable fenders
- "Riding Mechanic" / "Mother-In-Law" seat added (originals)



POWER

- New Buick M-243 designed by Leo Goossen
- Cast iron block
- Valve-in-head (OHV)
- Liquid cooled
- "Slip" type transmission

CHASSIS

- Pressed steel
- Front semi-elliptic springs
- Driveshaft instead of norm
- Dropped forged I-beam fr
- Wood spoke wheels with

BODY

- Tandem, in-line, very narrow
- Electric lights with genera
- Telescoping steering whe
- Leather upholstery
- All handles, levers and ga
- Narrow touring style foldi
- Car weighs approx. 272.16

Designed on a linen napk
(now in Sloan Museum)



Dimensions

nal external chain drive
front axle
813 mm tires

ow 2-passenger seating
ator
el

uges inside body confines
ng top
kg

in about 1912



1914 BUICK (MARR) CYCLE CAR (PROTOTYPE)



This vehicle was designed by Walter L. Marr. He had designed and built a number of vehicles elsewhere in the past. When he joined Buick as their first Chief Engineer, he convinced David Buick, and then president Walter P. Chrysler, to design and build a one-off prototype “cycle car” for possible European market sales. They were very popular over there. Here they were sometimes considered a “four wheel motorcycle” partly due to the dwarf size and in-line seating. It has a number of Marr innovations such as electric lights with generator, a full curved radiator with shell, telescoping steering wheel, driveshaft replacing external chain drive, self-starter and improved shift, as well as the Buick M-243 four cylinder engine designed by Leo Goossen. Because of these innovations, the Marr was often called a “narrow light car” instead of cycle car. The cost of manufacturing the Marr was almost equal to a full size Buick, so Chrysler cancelled the project, and this single prototype was given to Marr for his efforts. The car continues to live with Marr’s dependents to this day and has only 774 miles on the odometer.



1923

AVIONS VOISIN C-6 “LABORATOIRE”



This very unusual race car is the work of aviation pioneer and student of art Gabriel B. Voisin and his friend, designer Andre Lafabvre. It is a car that would substitute lightweight, small and aerodynamic design to compensate for the proposed small engine. Virtually everything about this car would be new and trend setting for race cars of the future... immediate and beyond. Four cars were built for entry in the French Grand Prix, but only one finished the race (5th place). They had little time to test the C-6s, so only small success in grand prix racing resulted. Trying to recoup some success they entered the Monza GP, but that was the end of the “Laboratoire” as it disappeared thereafter. This example is an extremely close reproduction made by Phillipp Moch using factory drawings in 1992. It is exhibited and vintage raced by the Mullin Museum in Oxnard, California, USA.

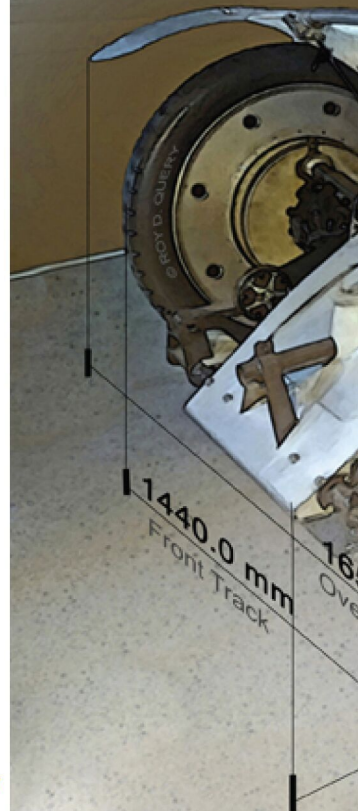


POWER

- Inline 6 cylinder
- 1984 cc
- 58.8 kWh
- Knight sleeve
- Normal carburetor
- 58.8 kWh
- Prop on front water pump
- 3-speed manual

CHASSIS

- Rear wheel drive
- Monocoque (chassis)
- Solid front axle
- Rear axle is universal



BODY

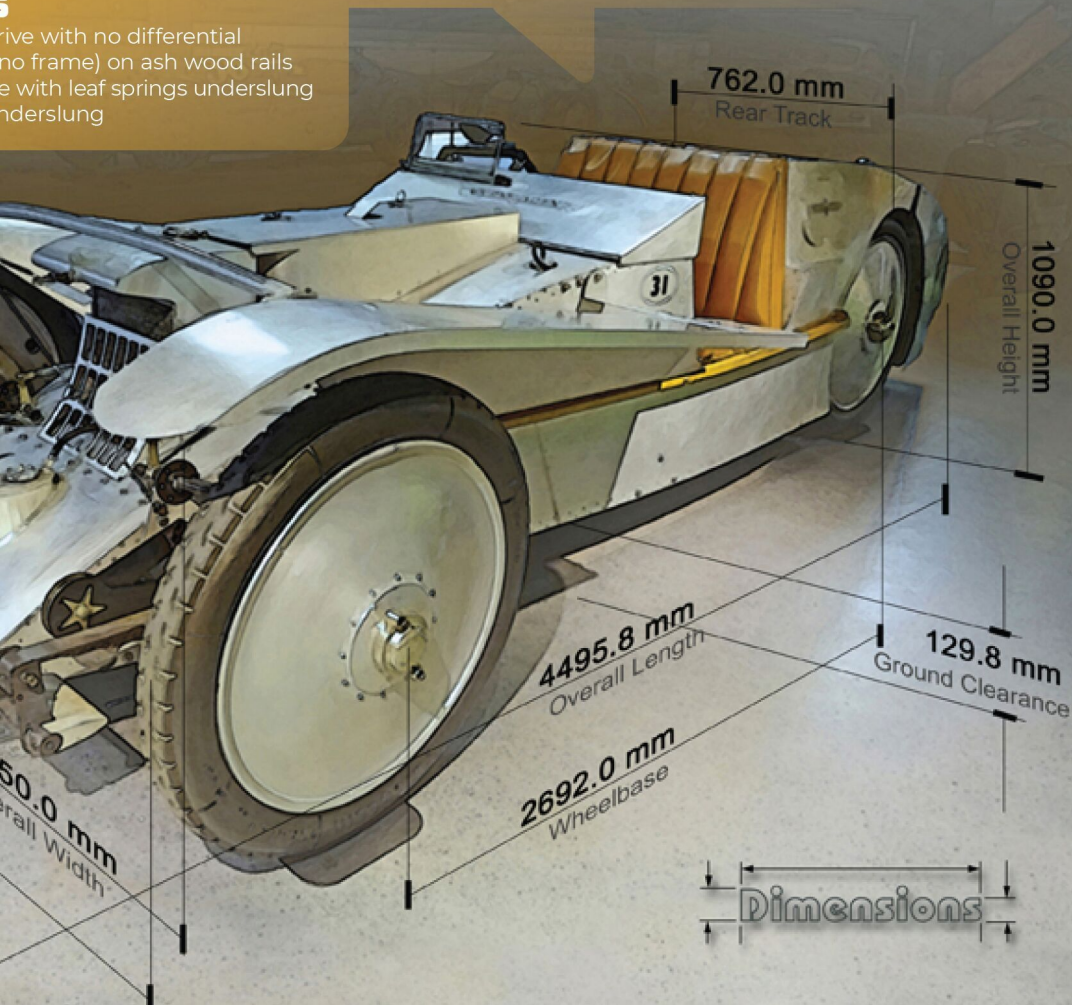
- Wedge shaped for aerodynamics
- First ever “monocoque” design using lightweight, thin wall aluminum alloy with bulkheads over ash wooden framework
- 2-passenger
- Removable front fenders
- Rear wheels contained inside bodywork
- Body tapered to a much narrower rear-end for aerodynamics
- Flat belly pan

er

valves, no pushrods
retion

of engine is to power
and liquid cooling
ual transmission

5
rive with no differential
(no frame) on ash wood rails
e with leaf springs underslung
nderslung



POWER

- Inline 4 cylinder
- 1368 cc
- Single Overhead Cam (SOHC) by front bevel drive
- Eight spark plugs
- Twin magneto
- Ball bearing crankshaft
- 5.8:1 compression ratio
- 35.79 kW @ 4500 max
- Four speed transmission

CHASSIS

- Girder type frame
- "H" section front axle
- "Live" rear axle w/semi elliptic springs
- Cable actuated drum brakes

SPEED

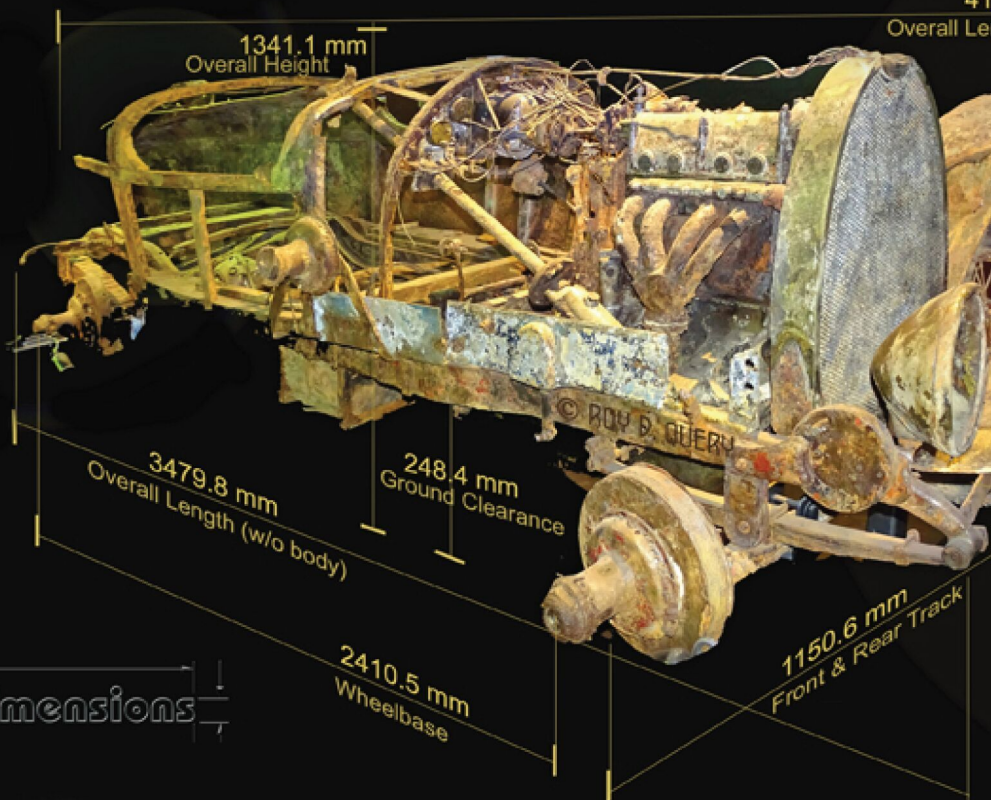
- 96.5 kph @ best was 16 of 4500 rpm

BODY

- Factory formed aluminum "Torpedo" style with elongated rear

NOTE

- Original Engine retained



41

Overall Len

o 2600 rpm
50 kph w/rev limit
m

nglebert tires still
r pressure

47.8 mm
length (with body)



228.6 mm
Wheel Rim Dia.

1925 BUGATTI TIPO T-22 BRESCIA

“LADY OF THE LAKE”



This 1925 Bugatti tipo T22 Brescia roadster was once owned by legendary race car driver Rene Dreyfus. In the Spring of 1934, he met a Swiss bon vivant named Adalbert Bode while he was visiting a bar in Paris. After a couple bottles of bubbly, an impromptu poker game broke out between the two... the “pot”, our Bugatti. Dreyfus lost. Bode headed home to Switzerland. At a border the gendarmes demanded Swiss customs on the Bugatti be paid then and there. With insufficient funds, Bode abandoned the car on the spot. It was put under wraps, and, after a few years as Italian law dictates, it was destroyed for non-payment. The Swiss powers attached only a 35 foot chain to the car (in case a judgement be paid soon thereafter) and pushed it into Lake Maggiore in Ascona. In time, with no resolve, the chain broke. The car settled to 173 feet on the lake's floor and passed into history. 75 years later, rescue efforts were arranged by a local diving club, and others, to raise the Bugatti and auction it off to benefit a local charitable foundation to combat violence against children. In 2009 the winning bid of €260,500.00 was made by the Mullin Museum in Oxnard, California, USA, and there it resides today.



POWER

- Lycoming straight-8 DOHC with 4 valves @ cylinder
- 6878 cc, 198 kW @ 4200 rpm
- 95.25 mm x 120.65 mm bore x stroke
- 5.21 compression ratio
- Supercharger an available option (model changes to "SJ")

CHASSIS

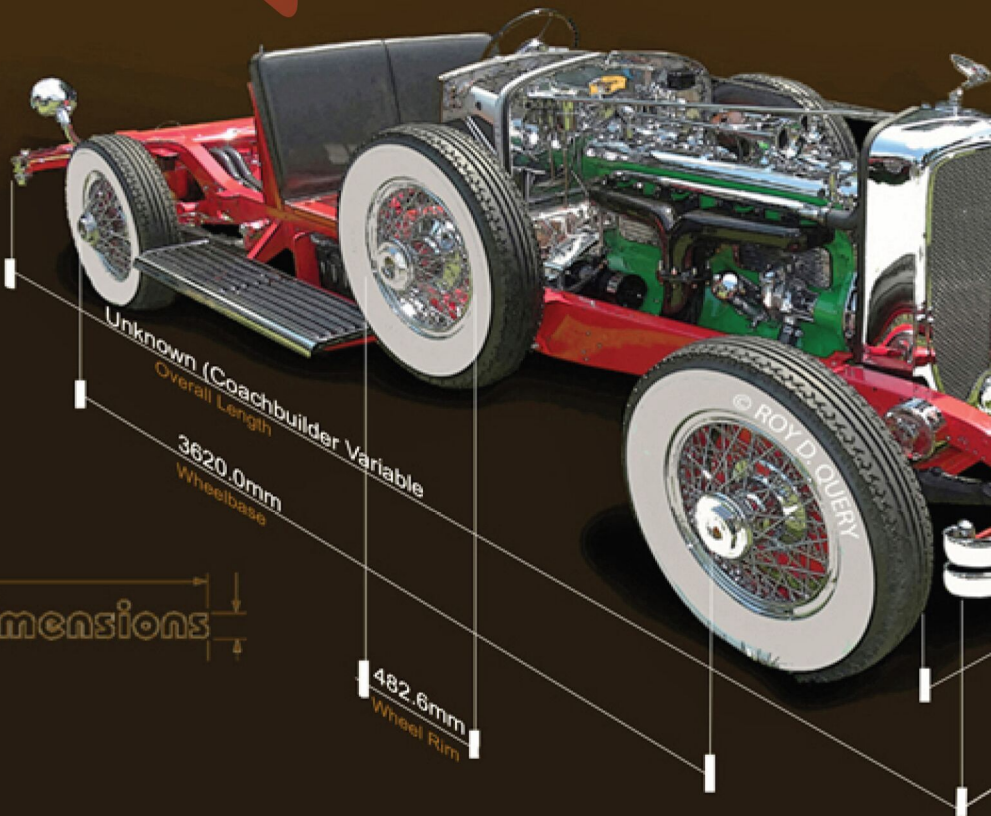
- Stamped steel
- Semi-elliptic leaf springs w/beam axle front
- Leaf springs and hypoid axle rear
- Two wheelbases were available: 3619.5 mm and 3898.9 mm

BODY

- All Duesenbergs were coachbuilt to owner's preference with standard cast aluminum firewall/dash panel unit
- Top speed of 206 kph

TRANSMISSION

- 3-speed selective gear manual floor shift



1929 DUESENBERG J-150 SHOW CHASSIS



Over the years, the Duesenberg name has become synonymous with the ultimate in American built luxury and quality. But not at first. After years in Iowa (USA) working for various vehicle manufacturers, the immigrant brothers, Frederick and August, formed a company in 1913 to make race cars of their own design in St. Paul, Minnesota. Self-taught, they were very successful even though they never actually owned a stake in this company. After WWI, they moved to Indianapolis, Indiana, to produce their own motorcars. Their race cars won the Indianapolis 500 Mile Race a total of five times and the French Gran Prix in 1923. This gave them inroads to sell their automobiles. First was the model A, but it did not do well. Then the model X. It did even worse with only 13 cars sold. In 1928 E.L. Cord bought the company and the model J was introduced with Fred being retained as engineer. The model J was the most successful with 481 built. One “Duesy” cost as much as 22 Ford model T’s. It was obviously the mobile throne of the wealthy. Then the Great Depression hit. A “prototype” car made of Auburn and Duesy parts was to be the 1937 model to save the company, but it shuttered instead.



POWER

- Inline six iron block cast in two pairs of three cylinders
- One piece OHV aluminum cross-flow head
- Intake & exhaust on opposite sides of head
- Water cooled
- 7668 cc, 7.7 L
- 88.32 kW @ 3000 rpm
- 107mm x 140mm bore x stroke

CHASSIS

- Much lower frame/suspension design
- Radiator set back further
- Higher rear gears for smoother, quieter, higher cruising speeds
- New style shock dampers
- Radiator now new stainless steel or "Staybright" metal
- New lubrication from driver's seat to 40 chassis/points
- Four wheel brakes

TRANSMISSION

- Four speed manual to the engine
- Synchromesh gears only



SSION

annual attached directly

in third and fourth



1933 ROLLS ROYCE PHANTOM II SKIFF ROADSTER



Rolls Royce manufactured 1281 Phantom II (P-II) chassis. In 1929, Henry Royce designed his last, updated, much improved chassis, the P-II. This is serial 184PY. The new, lower set frame, suspension and mechanicals allowed for lower, sleeker, more graceful coachbuilt bodies on P-II platforms. The new engine offered 30% more power, and the chassis improvements made it much more drivable and desirable. This example started life as a 1933 Arthur Mulliner Limousine. In the 1970s, American collector James Leake imported it to the USA. It is unclear who commissioned this coachwork, but it was undertaken by W. B. Carter Coach & Boat Builders of Cambridgeshire, England, at a reported 3000 man hours. The body is solid mahogany with dowel and pin fasteners except the hood which is wood veneer over metal to prevent warpage and scorching. It is now in the care of Klairmont Collections in Chicago, Illinois.



POWER

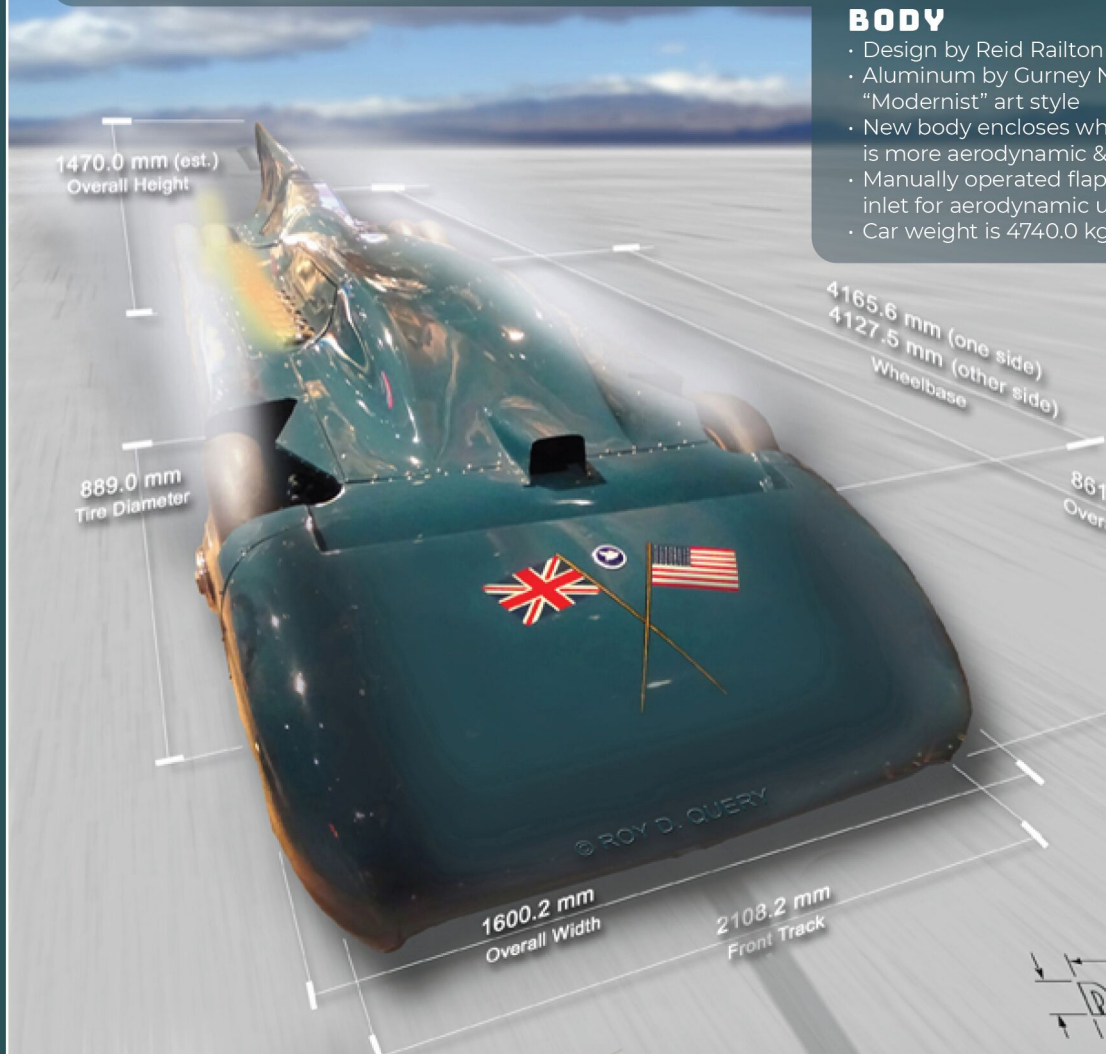
- V-12 Rolls Royce type "R" Schneider Trophy modified, supercharged aero engine
- 1864.25 kW @ 3200 rpm with engine life of only 10 minutes
- 36,582 cc, 152.4 mm x 167.64 mm @ bore x stroke
- Rear wheels split indirect drive through multi disk clutch and three speed Gearbox

CHASSIS

- Front engine, dual rear wheel drive w/two
- John Thompson Motor Pressings dual deck mounted sub-frame
- One side wheelbase is 38.1 mm longer than the other for torque handling characteristics
- Single front, dual rear 889.0 mm Dunlop
- Tread over silk woven base inflated to 125 psi
- 680.4 kg lead weight added to left frame

BODY

- Design by Reid Railton
- Aluminum by Gurney Noyes
- "Modernist" art style
- New body encloses wheels
- Body is more aerodynamic & lighter
- Manually operated flap on front inlet for aerodynamic use
- Car weight is 4740.0 kg



1470.0 mm (est.)
Overall Height

889.0 mm
Tire Diameter

4165.6 mm (one side)
4127.5 mm (other side)
Wheelbase

861.0 mm
Overall Width

1600.2 mm
Overall Width

2108.2 mm
Front Track



to separate drive units @ wheel
ep chassis steel rails with motor

an other to compensate for

tires with 0.794 mm rubber
psi front, 110 psi rear
rails to lessen alleviate torque

cutting in 1930s

wheels new nose
stable
over radiator
use

0.6 mm
rail Length

Dimensions

1935 CAMPBELL-RAILTON “BLUEBIRD” LSR RECORD CAR



Malcolm Campbell was born in Chislehurst, Kent, England, on 11 March, 1885 to a prominent family. His father William and he were both trained diamond merchants. Malcolm began racing, and winning, in motorcycle races in 1906. He progressed to cars at Brooklands in 1910. Wanting to go faster, he purchased the Sunbeam LSR car of Kennelm Lee Guinness in 1923. His then record of 235.20 kph wasn't enough, so, in 1927, he had Amherst Villers build a new car, ground up, he named "Blue Bird" after the play he had seen. Now he was up to 281.42 kph. He then bested Henry Seagrave with a 333.02 kph in 1928. Still not satisfied, he hired Reid Railton to design a new Blue Bird with a Napier Sprint Lion VII Schneider Cup airplane engine. With that he zoomed to 396.01 kph and a Knighthood in 1931. With many changes to the original design, he raised the mark to 445.46 kph at Daytona Beach, USA, but those beach conditions were souring so he, and his assistant Leo Villa, found the Bonneville Great Salt Lake salt flats in Utah. On 3 September 1935 he became the first man to exceed 483 kph (300 mph, his goal) on land with an astonishing 2 way average record of 484.91 kph. He then retired from racing automobiles.



POWER

- Front engine, inline, longitudinally mounted 6 cylinders, OHV
- Cast iron block w/light alloy hemispherical head/chambers
- Slanted valves w/overhead cam
- 3996.8 cc 4L
- 88.9 mm x 104.1 mm bore X stroke
- 127.0 kW @ 4100 rpm
- Triple Zenith-Stromberg carburetors

BODY

- Panels are aluminum & with some steel
- Fastback design by Giuseppe Figoni
- Sunroof option included
- ONLY example extant with all original body intact
- Raced with hot rods at Muroc Dry Lake setting speed record of 189.0 kph

CHASSIS

- Steel boxed, short wheelbase frame
- Rear wheel drive via driveshaft and "underslung"
- Wilson pre-selector 4-speed transmission (com
- Front suspension is independent w/upper wish
- verse semi-elliptic leaf spring, friction dampers
- Rear suspension is live axle on semi-elliptic leaf
- Cable operated four wheel drum brakes
- Worm & nut steering, no power assist



g" axle
pany owned by Lago)
bone and lower trans-
springs, friction dampers



1937 TALBOT-LAGO T-150 C SS FIGONI ET FALASCHI



Nicknamed the “Goutte d’Eau” which translates as waterdrop but was called the Teardrop in English, the Figoni&Falaschi-bodied Talbot-Lago T-150C embodies the 1930s Art Deco movement in automotive styling. Penned by Anthony Lago, the swooping lines were inspired by the automotive illustrations of Geo Ham.

Talbot-Lago has a convoluted history, full of ownership changes and dallies with bankruptcy. But Italian-born Anthony Lago still saw a future for the battered French Talbot and, together with engineer Walter Breschia, reworked the old T120 into the race-oriented T150. By 1937 came the T150C, a light-version which won a few races. Its road going version was available in two guises: the shorter SS (Super Sport) and the longer Lago Speciale. By 1937, Figoni et Falaschi had struck a deal with Talbot-Lago to create teardrop bodies for both versions of their chassis. The first Teardrop was shown in August of 1937 at the Paris-Nice Criterium de Tourism. Featuring the 4-liter engine and shortened version of the competition chassis, the completed car was good for 160 km/h. Remarkably, one showroom stock Teardrop raced and placed third overall at the 1938 24 Hours of LeMans.



POWER

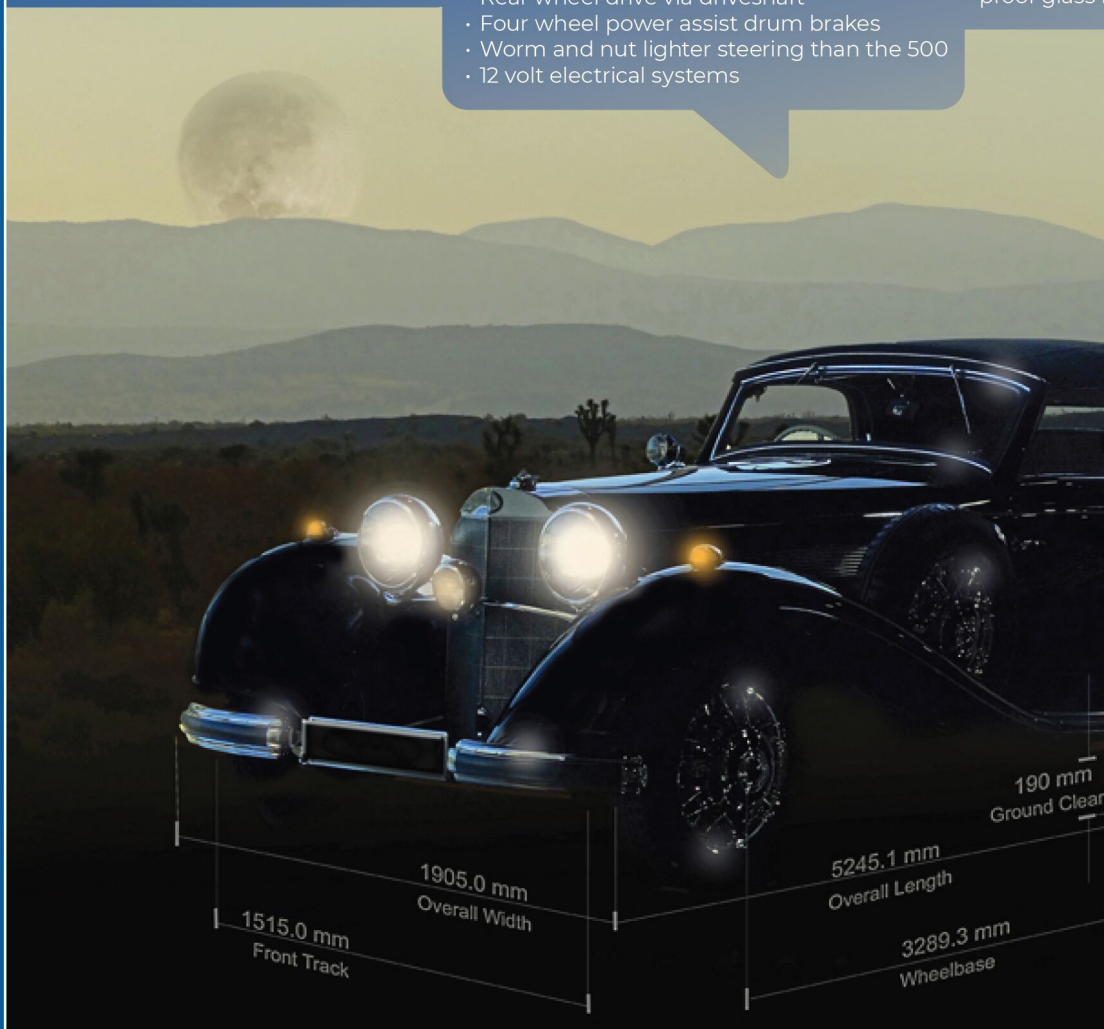
- Inline straight 8 cylinder Overhead Valves water cooled
- 5401.2 cc, 5.4 L
- 87.9 mm x 110.0 mm bore x stroke
- Rootes type supercharger (the "K" is for "Kompressor")
- 134.2 kW @ 3400 rpm (w/supercharger engaged)
- Sodium cooled valves

CHASSIS

- As 500-K frame only lightened by oval section tubing replacing girders
- Front cross member/radiator moved back behind 500 front axle position
- Independent double wishbone suspension in front w/coil springs
- Swing axles with coil springs in rear
- 4 speed manual transmission w/5 speed later in production w/synchro
- Rear wheel drive via driveshaft
- Four wheel power assist drum brakes
- Worm and nut lighter steering than the 500
- 12 volt electrical systems

BODY

- Sindelfinger "A" body
- "High door,"
- Dual side m
- Landau iron
- Finest mate used in inte
- During WW be built with proof glass



n (M-B owned) Cabriolet

long tail" design
mount wheels/tires
s on roof sides
erial, wood leather goods
rior

2 Hitler authorized over 20
n armor plating and bullet
for the Nazi hierarchy



Dimensions

1938 MERCEDES-BENZ 540-K CABRIO A - SINDELFINGEN



In 1938 the Mercedes-Benz (M-B) 540-K was the epitome of German personal luxury touring cars. Originally designed about 1933 by Sindelfingen's Friedrich Geiger (who also designed the Mercedes 300-SL Gullwing and other Mercedes landmark cars after WW 2) and M-B engineer Max Sailer it became the vehicle of kings, dictators and movie stars. The 1934 500-K was a progression up from the newly retired, weak type 380 and was soon joined by a slightly larger brother the 540. When the 500 liter engine was bored out to 5.4 liters, it became the 540. When a supercharger was bolted on, it became the 540-K with the "K" for "compressor". This example is the most desirable of all, the "Cabriolet A". In 1948, Mr. Geiger left M-B but returned shortly thereafter to become the head of the styling department going on to design the M-B 300-SL "Gullwing" (among other special cars). Nearly all 540-Ks were coachbuilt by the factory owned Sindelfingen Karrossier. Only 70 were not. Cost new in today's money was about US\$ 225,000.00 and was the early equivalent to a Lamborghini or early Bugatti Veyron with a then top speed of approximately 169 kph.



POWER

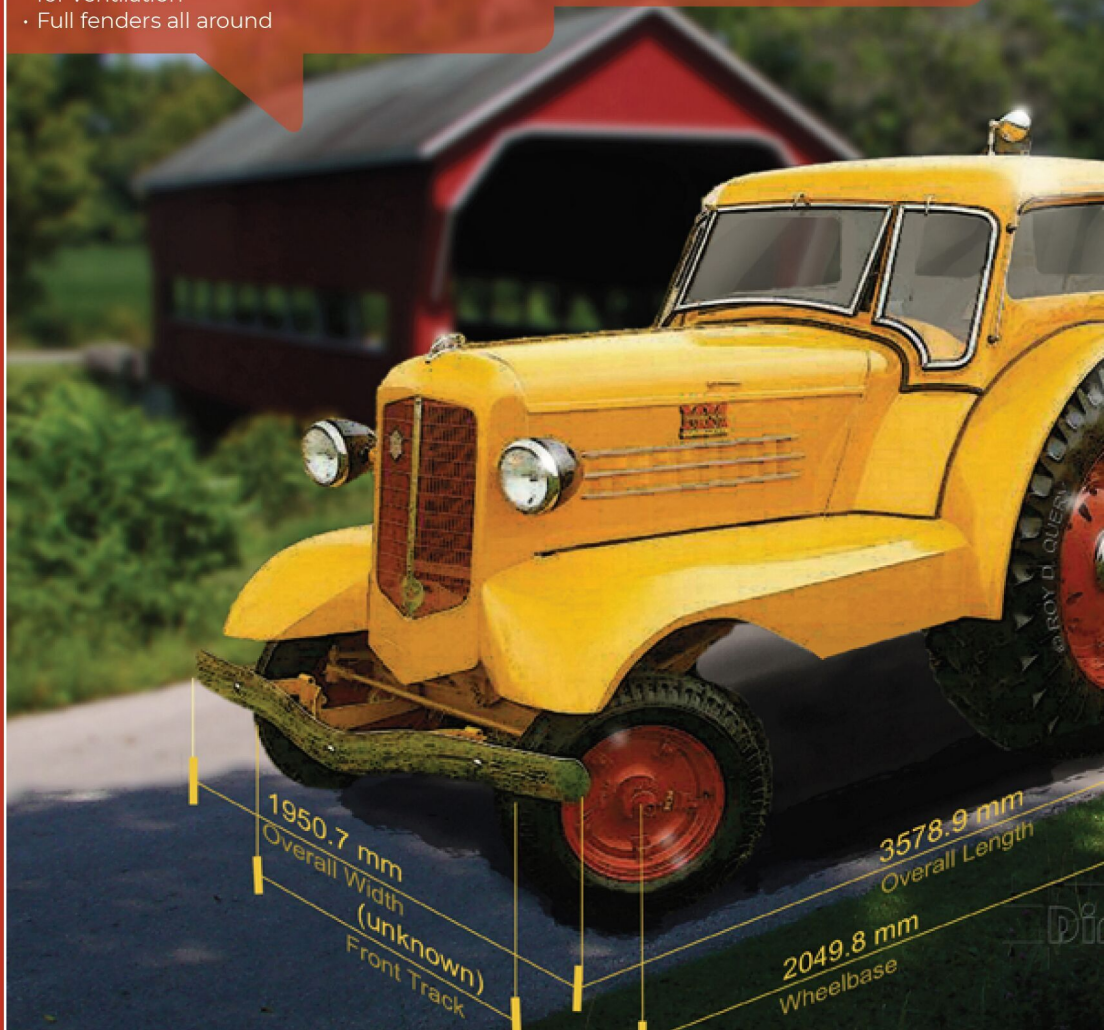
- Inline MM 4 cylinder 4 stroke gasoline
- 4649.0 cc
- 108 mm x 127 mm bore x stroke
- 26.85 kw @ 1275 rpm (1785 rpm for road travel)

BODY

- Fully enclosed steel cabin (removable) w/wood inner structure, double wide rear door
- Safety glass throughout w-pop-out windows for ventilation
- Full fenders all around

CHASSIS

- Front axle and engine attached to a 25.4 mm x 406.4 mm steel plate
- 5-speed forward, 1 reverse synchronized transmission w/driveshaft
- Rear wheel drum brakes
- Drawbar 20.1 kW
- 3 to 4 hp energy
- Weight 2903 kg
- 34 x 8 rear tires, 6.00 x 16 front tires



1950.7 mm
Overall Width
(unknown)
Front Track

3578.9 mm
Overall Length
2049.8 mm
Wheelbase

© ROY D. QUERY

1938 MINNEAPOLIS-MOLINE UDLX COMFORT TRACTOR



The 1938 Minneapolis-Moline (MM) was hailed as the ultimate tractor both then and now. Then, it was also the most expensive tractor ever at US\$ 2155.00. It was, until the late very 1960s, the most “luxurious” farm implement. It was designed so it could plow the fields during the day then take the wife to dinner in town at night. BUT... it cost more than a conventional tractor AND a Model T Ford combined. While it was “luxurious” in every facet, the regular farmers considered the “gentleman farmer” who bought one as “elitist” and a bit of a “wuss”. Only 125 were built between 1938 and 1941, and many were returned to the factory as unsellable. The cabs and a few other “niceties” were removed and re-sold as “normal” models. One source says the UDLX was shipped to England as a basic “U” and returned to USA as a UDLX. Front end styling is similar to a 1933 Oldsmobile or Plymouth. They came complete with full fenders, chrome bumpers, a chrome grille, hood sides; a fully enclosed cab with a rear door, two seats (one fold-away), heater, pop-out windows, windshield wipers, radio, glove box, cigarette lighter, ash tray, gauges, horn, headlights and taillight; and a Prairie Gold paint job.



2379.9 mm
Overall Height

Dimensions

POWER

- Inline straight 6 cylinder
- Cast iron block
- 3649 cc, 3.7 L
- 87 mm x 102 mm bore x stroke
- 62.56 kW @ 3520 rpm
- Water cooled

CHASSIS

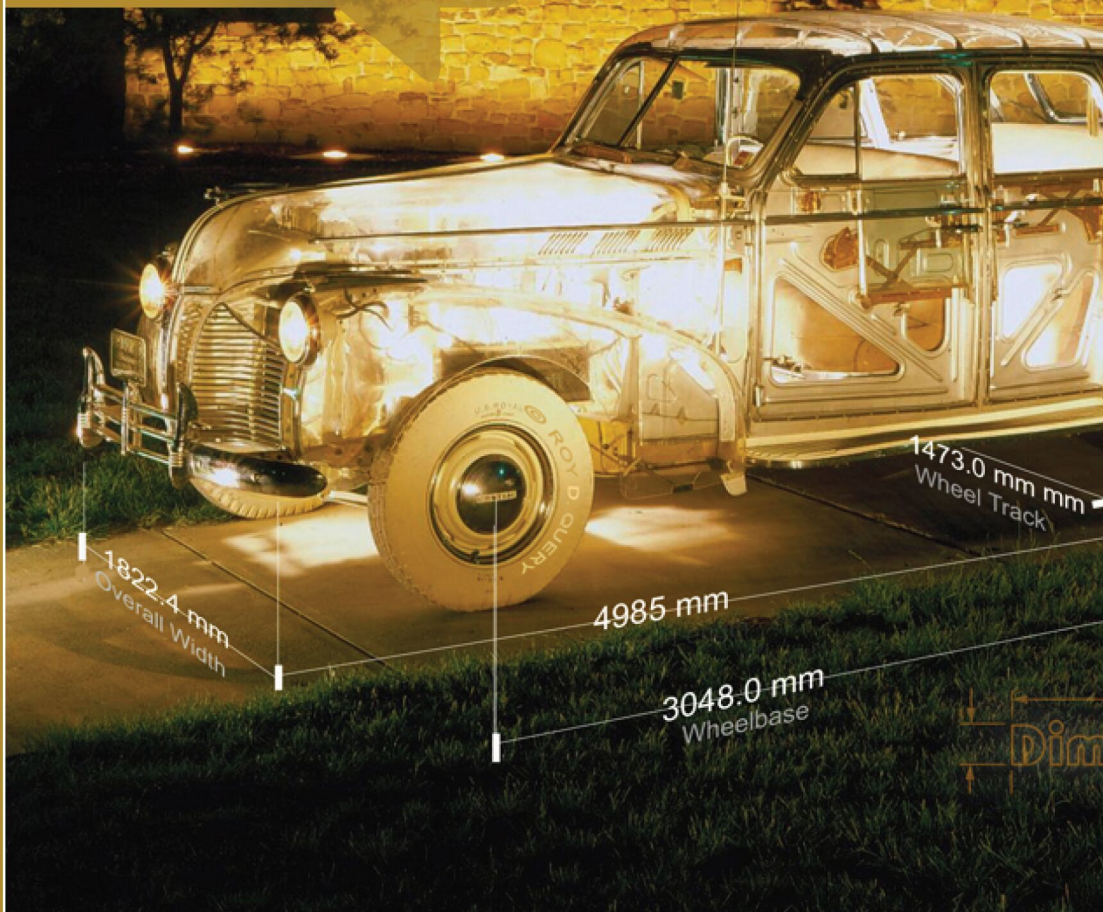
- Stamped steel frame
- Hotchkiss rear wheel drive
- Coil spring front suspension
- Live axle w/semi-elliptic leaf springs in rear
- 3 speed column shift

BODY

- Acrylic plastic "Plexiglas®" outer body skin
- Copper washed metal and chrome plated inner metal pieces
- White rubber tires and rubber bits and bobs
- Normal cloth upholstery

PRICE

- Sold at estate auction for \$308,000.00 in 2011



1939 PONTIAC WORLD'S FAIR PLEXIGLAS "GHOST CAR"



With the upcoming 1939 World's Fair in New York City, New York, General Motors (GM) wanted something special for their Highways and Horizons" exhibit. They chose the 1939 (40) Pontiac Deluxe Six, four-door Touring Sedan as their subject. GM worked with Rohm & Haas Chemicals to produce the outer sheet metal body pieces of this vehicle in the brand new acrylic plastic "Plexiglas" material. The tires and trim parts were white rubber while smaller parts were copper washed or chrome plated. This would show the public all of the sturdy "inner" workings of Fisher Body's GM car. It was the first "see-thru" and first Plexiglas car ever built. It cost a reported US\$ 25,000.00 in 1939. Two were built, this 1939 and a later one with a 1940 nose that has since disappeared. They were fully functional, and this one has 86 original miles on the odometer. During WW II it was stored in the Smithsonian Museum and was later kept for decades by Frank Kleptz of Indiana, USA. Over the years it has become brittle due to UV rays and age of the material.



1684.0 mm
Overall Height

Dimensions

- This is the only example made and extant and resides in the former Schlumpf Museum

POWER

- One electric motor driving single rear wheel
- Batteries totaling 300 kg – five 12 volt batteries
- Power good for 100 km @ 70 km/h empty
- Power reduced to 60 km/h with two passengers
- After the war it had a 1 cylinder, 125 cm g

CHASSIS

- Made of "Duralinox" tubing, aluminum and steel
- Alloys used so as to prevent corrosion
- Weight is 90 kg empty, 350 kg w/all batteries

427.5mm
Tire Height

197.8mm
Ground Clearance

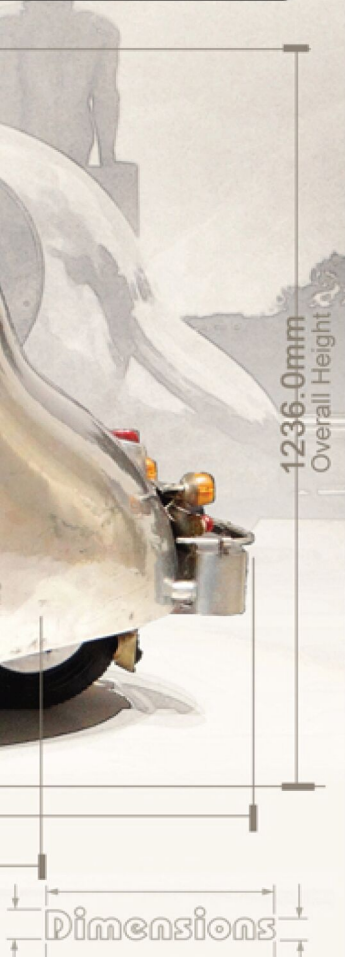
2100.0mm
Overall Length

1403.5mm
Wheelbase

NOTE:
Due to lack of
dimensions these
are very close
mathematical
computations

steel
batteries under bench seat
by
passengers
as engine good for 80 kph

and magnesium body skin
series and two passengers



1942

ARZENS'S

L'OEUF L'ELECTRIQUE COUPE



The L'Oeuf ("the Egg") is a product of the mind of Parisian Industrial Designer Paul Arzens. His specialty was locomotives. During WW-II, with France under Nazi occupation, gas, metal, rubber and other products were in very short supply. Arzens conceptualized and designed his own, hand built L'Oeuf, for use as his personal transportation. He built it primarily out of aluminum and Plexiglas, a new synthetic material, which was made for him by Alstom under license. A single rear wheel is powered by the single electric motor above it and behind the bench seat. After the war a single cylinder Peugeot 4.1 kW gas engine replaced the electric power. Very miserly and tiny overall it had huge Plexiglas side doors, seating for two, a large steering wheel, three pedals and a shift lever. It looked miniscule and lost in Paris' heavy street traffic. Arzens kept and used this vehicle until his death in 1990.



POWER

- Inline 4 cylinder, OHV with pushrods (same as Ferguson tractor engine)
- 2091.0 cc
- 85.1 mm x 91.9 mm bore x stroke
- 50.7 kW @ 4000 rpm
- Water cooled

BODY

- Nearly all four-door saloons at first
- Steel shell mounted to framework
- Later "aprons" (fender skirts) added to design (a first)

CHASSIS

- Normal pressed steel
- Independent suspension in front w/coil springs
- Live axle with leaf springs in rear
- Sway bars added
- Four wheel cable operated drum
- Driveshaft to rear wheel drive
- Manual synchronized transmission three speed column mounted later with 2nd & 3rd gear overdrive (equivalent to 5-speed total)



nt
ar
m brakes

sion
shift,
rive



1950 STANDARD VANGUARD 4DR SALOON “BANGER”



Coventry was the English center of manufacturing following the Industrial Revolution. It was also ground zero for Reginald Maudslay (and backer John Wolfe Barry) who founded the Standard Motor Company in 1903. During WW 1, Standard manufactured war aircraft in large numbers, then returned to automobile production. WW 2 saw them back to airplane production again. Following WW 2, they acquired the Triumph and Ferguson (tractor) companies and continued building mid-sized cars. Again problems surfaced, but by 1946 things smoothed out again. Britain had passed laws to promote export of most products made there for two years in post-war times. In 1947, the one make, one model Standard was introduced. With leadership from Sir John Black, director Ted Grinham and designer Walter Belgrove, a totally new design surfaced. It was named after a famous battleship, the Vanguard, following very hard to obtain permission from the Royal Navy. Virtually all production was shipped to Australia, Brazil, Belgium (a convertible), West Germany, Scandinavia, etc. Finally, in 1950, all became available to the car starved British Isles. It was very well made and went virtually unchanged from 1948 to 1953.



POWER

- Ford "260" V-8
- 4260.6 cc
- 193.9 kw
- 96.5 mm x 72.9 mm bore x stroke

BODY

- Fiberglass and PVC plastic parts and pieces
- Canvas fold up top
- Brass fittings & accessories

CHASSIS

- 1957 Ford F-100 pickup Truck (stretched from stock 2794 mm length)
- Stamped steel frame
- Dropped "I" beam front axle
- Elliptic springs front & rear
- Three-speed automatic transmission (Curtis couldn't drive a manual)
- Wood spoke wheels

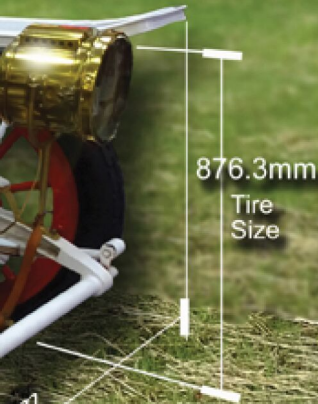


Dimensions

1964 LESLIE 4DR PHAETON “GREAT RACE” #3



This “Classic” car is not as it seems. It actually started as one of a quadruplet of excess 1957 Ford F-100 pickup trucks on Warner Brothers (WB) movie back lot in 1963. The WB commissioned their “prop shop” to strip the F-100’s down to bare chassis, modify them, then design and build exaggerated cars for Blake Edwards super expensive movie, “The Great Race.” This was to be a comedic movie version of the actual New York to Paris race (the looong way) in 1908 which, in real life, was won by George N. Schuster driving Edwin R. Thomas’ personal, stripped down 1907 Thomas-Flyer model 40. The F-100s were transformed by the shop to be called “Leslie Specials” after their “movie builder,” Leslie “The Great Leslie” Gallant III (played by Tony Curtis). They were spoofing the Thomas Flyer that actually won the real race. The movie cars were made of Fiberglass and PVC plastics and had a Ford 260 engine with automatic transmission since Curtis couldn’t drive a “stick.” Some of the parts could have come by way of “pickers” from the famous Hershey Car Show and Swap Meet in Pennsylvania. Ultimately Curtis (aka: Leslie) wins the race... and the girl... and all lived happily thereafter. The end.



NOTE: Since no dimensions are available these are close approximations

1942 SKODA SUPERB TYPE 952 KFZ 21 COMMAND CAR



Emil Skoda originated the SKODA Company in 1859 as an arms maker. In the 1890s, bicycle manufacturing took over priority. After a few mergers and spin-offs, the Skoda brand returned to make Skoda automobiles in the 1930s under Czechoslovakian Chief Engineer Vladimir Matous who designed the “Superb” line. It was to be named the “Regent” but that all evaporated. The “Superb” designation was indeed appropriate as the car proved superb both visually and technically. A most luxurious and dependable conveyance of class. With WW 2, all civilian production was ceased. A military vehicle named the Superb 952 KFZ 21 command car took over at the orders of the Nazi SS. Made in the Miada Boleslav plant, the basically modified, heavily reinforced model 924 was built for off-road, light terrain use. Only 100 units were ordered by the SS, and they were made between September and December 1943. That marked the end of the Superb model production. In 1943 Skoda built five prototype cars, but they ceased to exist and never made the assembly line. Well known German coachbuilder Glaser made the bodies for the 952.



POWER

- Inline 6 cylinder engine with
- Water cooled
- 3121.7 cc
- 80 mm x
- 59.7 kW @
- 12 volt electrical

BODY

- Steel four door
- Built by Glaser
- One side door
- Dip Light



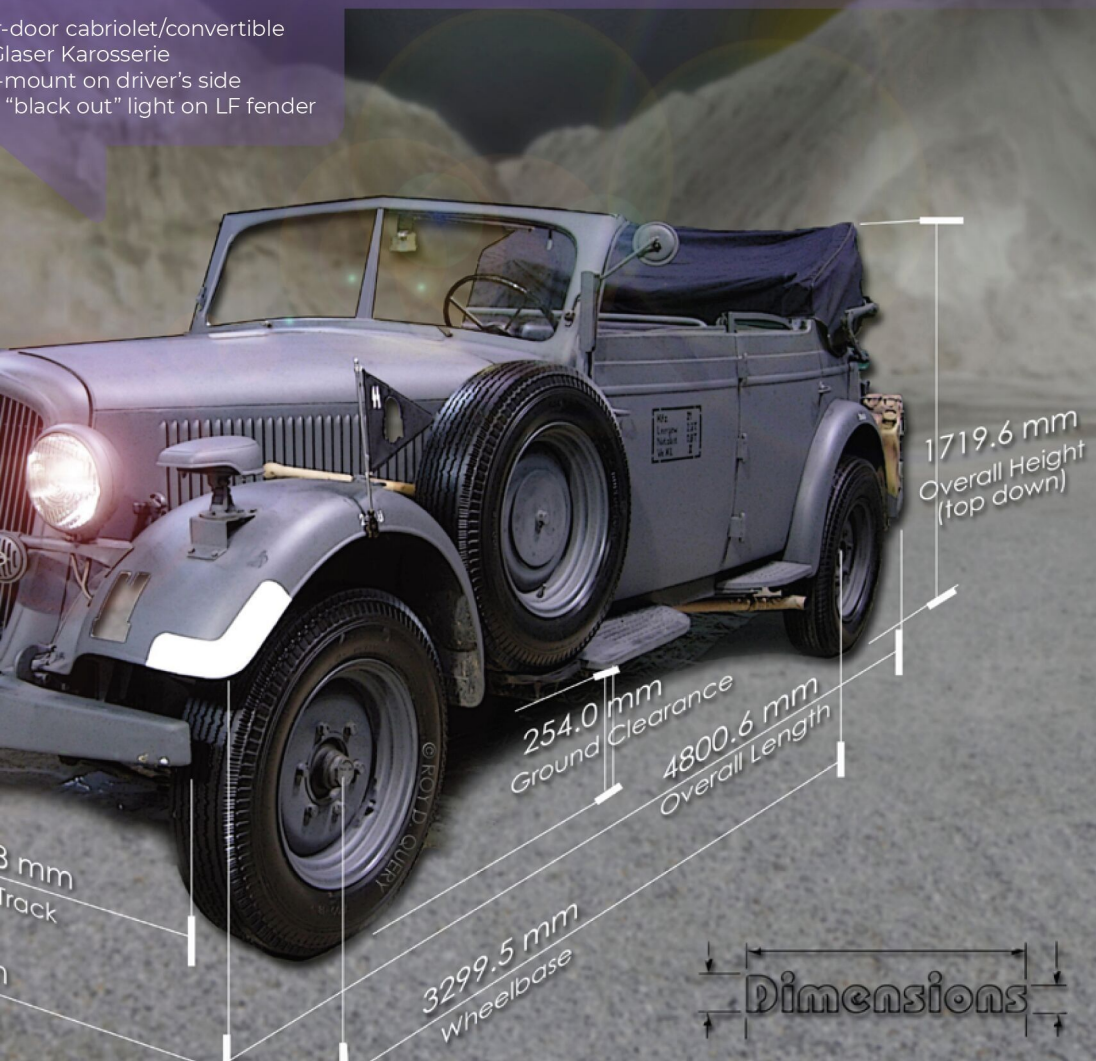
R
 cylinder, 4 stroke gasoline
 with overhead valves
 cooled

103.99 mm bore x stroke
 @ 3600 rpm
 Electrics

2-door cabriolet/convertible
 Glaser Karosserie
 -mount on driver's side
 "black out" light on LF fender

CHASSIS

- Skoda model 924 heavily reinforced steel backbone chassis
- Chassis forked in front with cross and side member reinforcements
- Trapezoid axle in front sprung w/16 leafs plus coils
- Split axle in rear w/2 x 9 leaf springs, driveshaft locked rear-end
- Front engine, rear wheel drive (4 x 2)
- Manual four speed transmission w/reverse. 3rd & 4th synchronized
- Dry, single disk clutch w/throw out bearing center
- Hydraulic four wheel manual brakes



1719.6 mm
 Overall Height
 (top down)

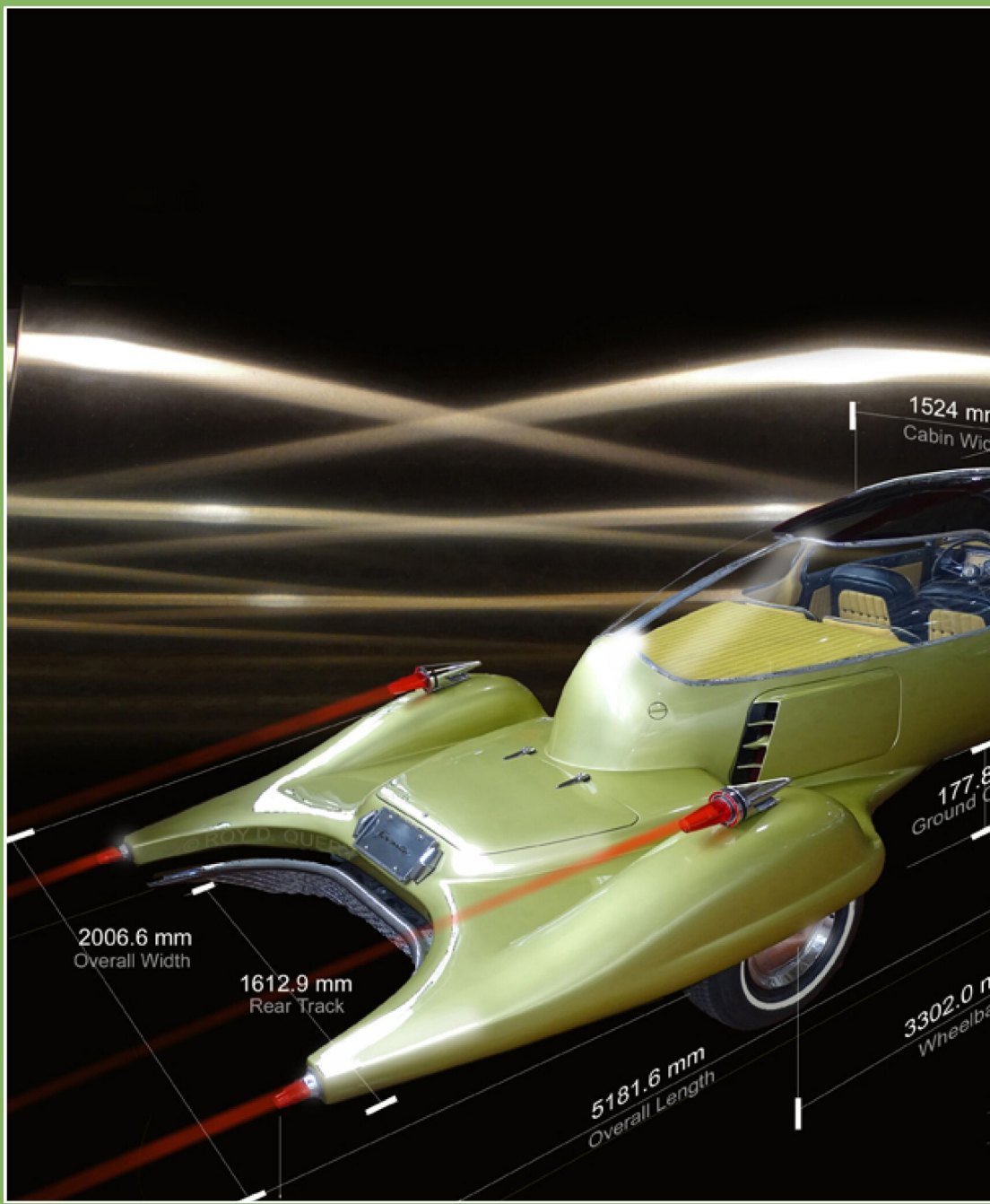
254.0 mm
 Ground Clearance

4800.6 mm
 Overall Length

3299.5 mm
 Wheelbase

8 mm
 Track

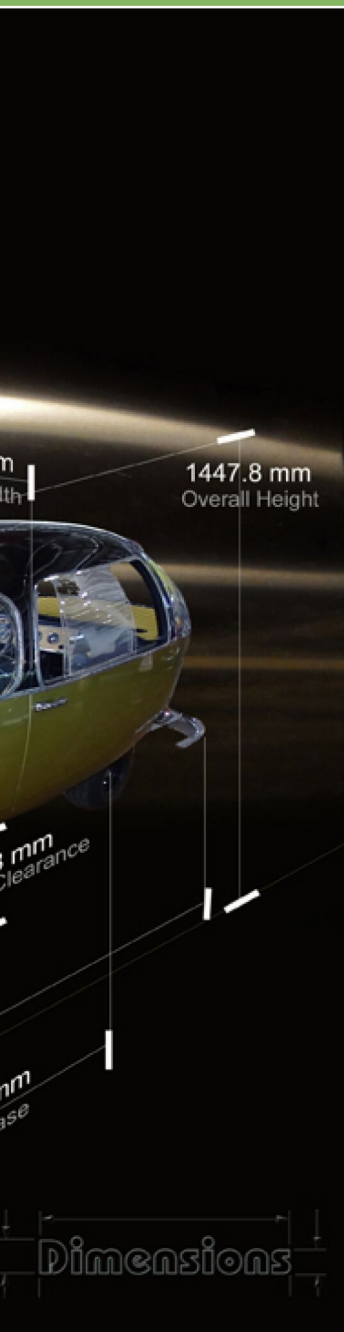
Dimensions



1969 FASCINATION PROTOTYPE #1



After the failure of his first automotive project, the 1937 three wheel "Aiomobile" (designed by Tom Tjaarda), its creator, Paul M. Lewis, came up with yet another radical concept. The 1969 "FASCINATION". Five were built by his own Highway Aircraft Corporation of Sidney, Nebraska, USA. This unique auto design originally had a huge propeller (in a cage) on the rear of the cabin pointed up about 70 degrees for wind propulsion. The prop broke in an accident during its demonstration, so it and the engine were removed. Lewis had initially planned to use his design for a "Noble Gas Plasma Propulsion" engine he had "invented," but investors were never secured so that proposal never materialized either. Ultimately one Volkswagen type 3 engine, three Renault engines and one Oldsmobile V-6 were used for power in the tail of each prototype. Stockholders in his company removed him very early in production, and only five examples were built. All five still exist today, and each one is very slightly different. This example is prototype #1.

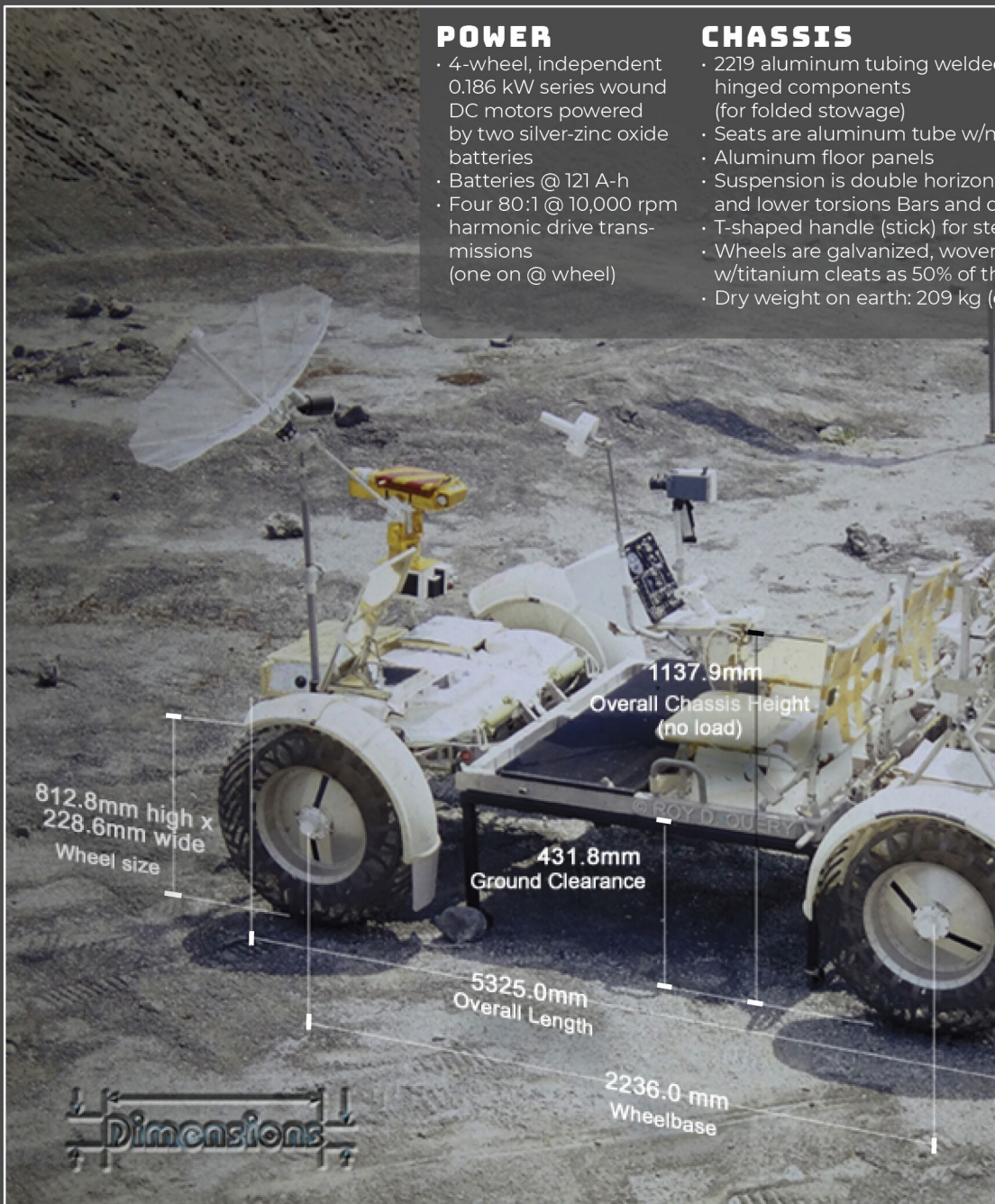


POWER

- 4-wheel, independent 0.186 kW series wound DC motors powered by two silver-zinc oxide batteries
- Batteries @ 121 A-h
- Four 80:1 @ 10,000 rpm harmonic drive transmissions (one on @ wheel)

CHASSIS

- 2219 aluminum tubing welded hinged components (for folded stowage)
- Seats are aluminum tube w/n
- Aluminum floor panels
- Suspension is double horizontal and lower torsions Bars and c
- T-shaped handle (stick) for ste
- Wheels are galvanized, woven w/titanium cleats as 50% of th
- Dry weight on earth: 209 kg (



812.8mm high x
228.6mm wide
Wheel size

1137.9mm
Overall Chassis Height
(no load)

431.8mm
Ground Clearance

5325.0mm
Overall Length

2236.0 mm
Wheelbase

Dimensions

d to make three separate,

ylon webbing

tal wishbone w/upper

damper units

earing

n piano type wire

he tread

on lunar surface 35 kg)



1828.8mm
Wheel Track

2020.0mm
Overall Width

1991 NASA LUNAR ROVER VEHICLE #4



This is the United States NASA Lunar Rover (LRV) #4 of 4 built. All were destined for lunar roving on the Apollo 15, 16, and 17 “moon walking” missions. Of the four built, three are currently on the lunar surface. This was a backup unit that instead wound up on display in U.S. Space & Rocket Center in Huntsville, AL. In the 1960s Werner von Braun voiced a need for lunar exploration with LRVs. In 1963, eight different design ideas were tested, and this “open design” by Ferenc Pavlics with Sam Romano Georg von Tiesenhausen was chosen because it would compactly fold up in the lunar landing module. Grumman had 400,000 people build the lunar module while the LRV was built by Boeing with 400 people and a 17 month deadline. GM built mobility and drive systems and chassis. Boeing built the electronics and batteries. Total cost was US\$ 38,000,000.00 in 1960s.



POWER

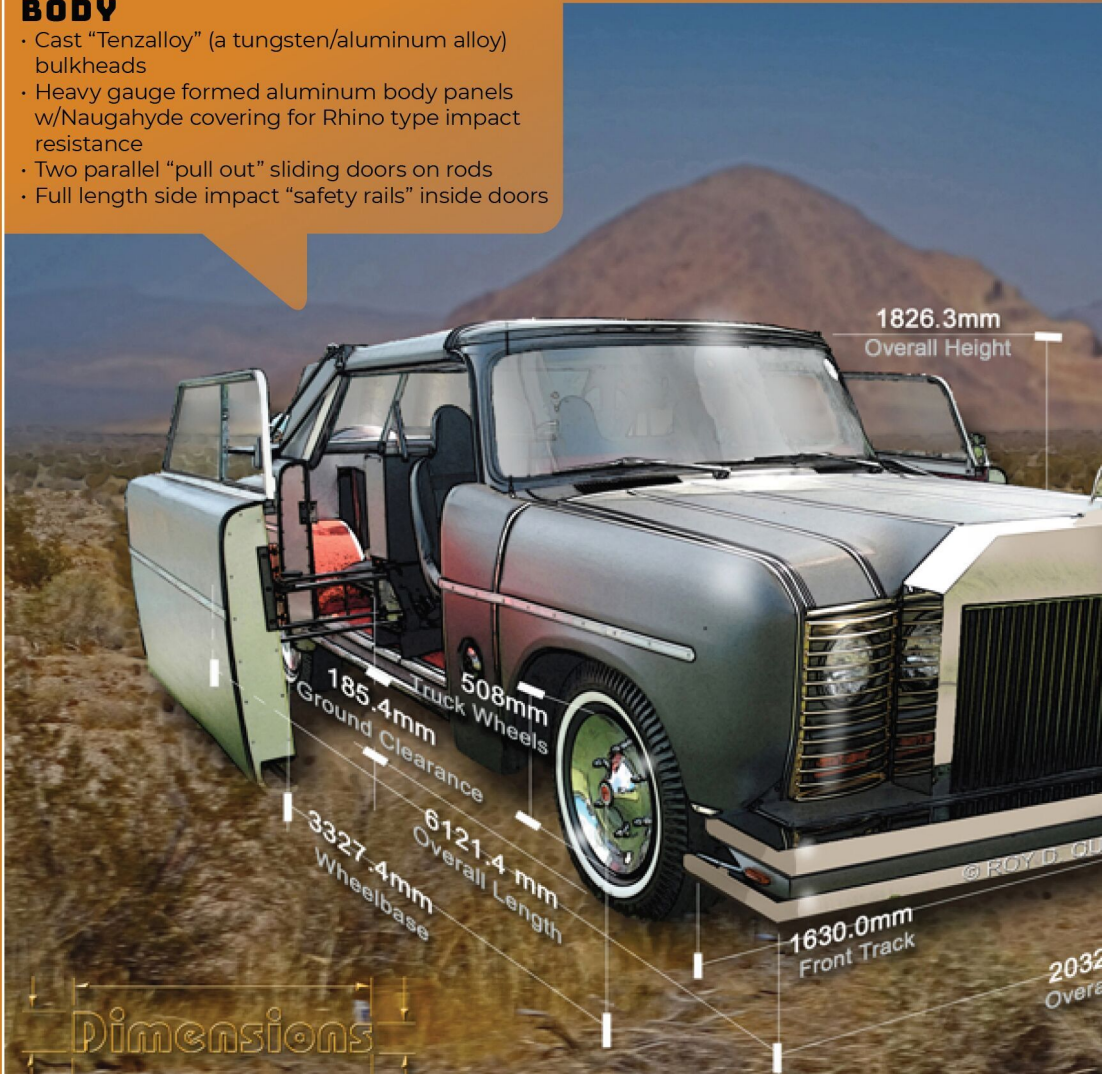
- AMC sourced 6424 cc V-8
- 104.6 mm x 92.9 mm bore & stroke
- 133 kW output @ 3600 rpm
- 8.02:1 compression ratio
- Water cooled
- Heavy duty 3-speed automatic transmission w/4 x 4 optional

BODY

- Cast "Tenzalloy" (a tungsten/aluminum alloy) bulkheads
- Heavy gauge formed aluminum body panels w/Naugahyde covering for Rhino type impact resistance
- Two parallel "pull out" sliding doors on rods
- Full length side impact "safety rails" inside doors

CHASSIS

- Steel 1969 International Harvester (IH) Travelall 4 dr Station Wagon/Off-road truck frame
- Independent torsion bars front suspension
- Solid axle with "extraordinary length" leaf springs
- Hydraulic assist drum brakes of "oversize dimensions"
- Worm & sector power steering
- 508 mm truck wheels



Dimensions

ame

in rear
ions”

e.0mm
all Width

1973 MOHS SAFARIKAR “DUAL COWL PHAETON”



The MOHS Safarikar is a most ostentatious vehicle designed for the Gentleman Hunter. It has a high-level of comfort while hunting while hunting big game off-road in the African wilds. That was the intentions of Bruce Balwin Mohs, an eccentric inventor/builder from Minnesota, USA. Beginning with a 1969 International Harvester Travelall truck chassis, he devised all manner of solutions to questions that were never asked. Like using 40 large cans of adhesive to make the polyurethane foam padding stick to the aluminum body skin.

He then added 5974.1 cm of 6.4 mm x 25.4 mm wood strips that were riveted with 2700 aluminum rivets on top of the foam so 3657.6 cm of black Naugahyde could be stapled to those strips using 7000 stainless steel staples. Inside, it has seating for eight with “swing seats” in the front. It has Sleeping accommodations for 4, a butane furnace, interior wall to wall clearance lights, a vanity, air conditioning and 2-way radio to base camp. Two HUGE doors pull out on rods and cantilever, there are NO hinges. There is a manual disappearing roof. This is one of three prototypes made.



POWER

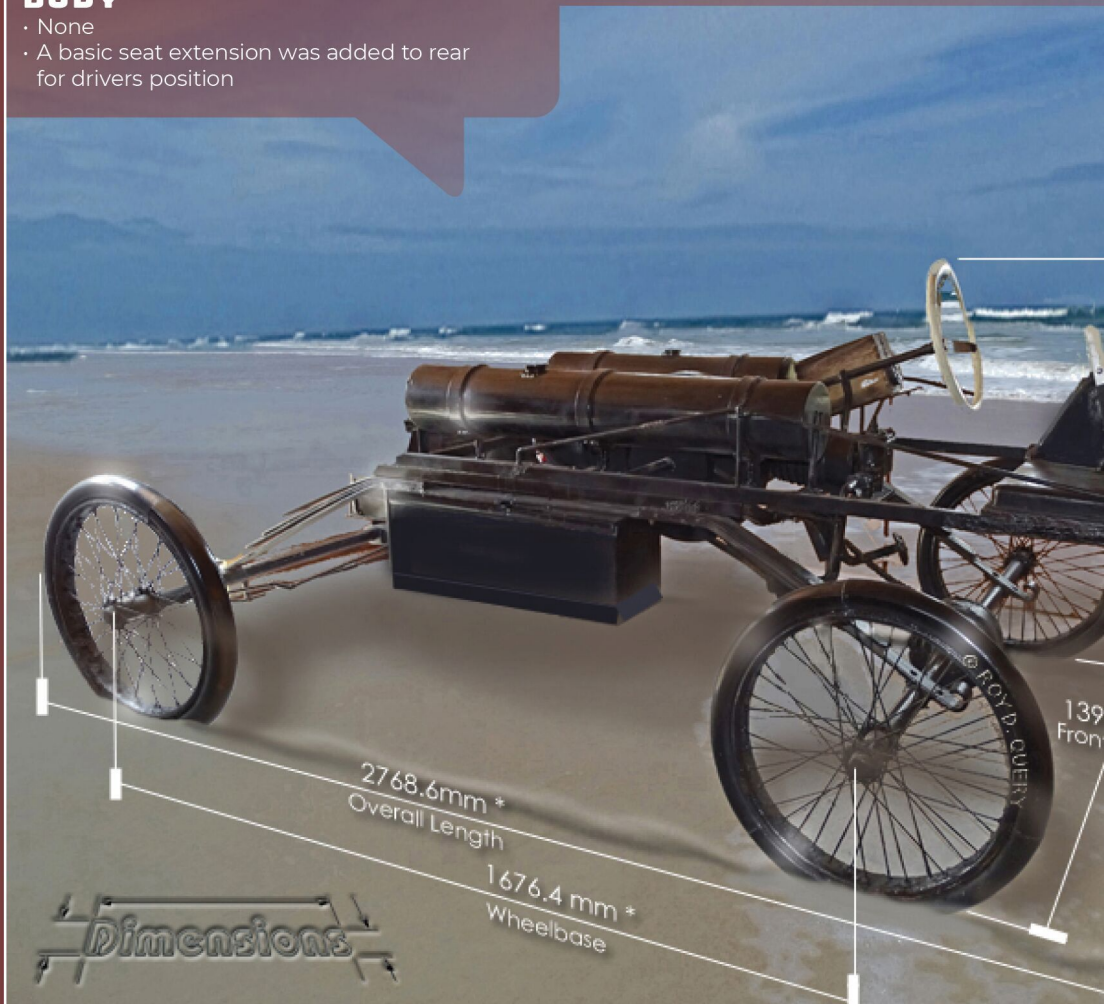
- 2-cylinder engine replaced the stock single (original engine was lost)
- L-head – Horizontally opposed under seat
- 10.44 kph @ 1500 rpm (1 cylinder x 2)
- 3113.6 cc (1 cylinder x 2)
- 114.3 mm x 152.4 mm bore x stroke
- Water cooled by copper disk radiator
- Jump spark ignition
- 520.7 mm flywheel @ 52.2 kg

BODY

- None
- A basic seat extension was added to rear for drivers position

CHASSIS

- Angle steel rails in box configuration, body on top
- Two speed transmission w/reverse
- Chain drive to rear differential/wheels
- Very long six leaf springs longitudinally from front
- Transverse buggy springs in front
- Front axle 38.1 mm steel tube
- Rear axle 50.8 mm casing w/25.4 mm steel shaft
- Dual “rocket” tanks added to frame for gasoline and oil
- Steering by wheel, not tiller
- Rear wheel brakes



axle to rear axle

inside
and water

1450.0 mm *
Overall Height

7 mm *
Rear Track Track

1903 OLDSMOBILE RUNABOUT “PIRATE” BEACH RACER



In 1884, Ransom Eli Olds had built a steam car and sold it, but, on the way to the purchaser in India, the ship sank. In 1886, he won a patent for a gas powered buggy. In 1895, he and his father founded Olds Gasoline Engine Works in Lansing, Michigan, USA. In 1897, he closed his father's machine shop and reorganized as the Olds Motor Vehicle Company. In 1899, a new investor surfaced, and Olds sold out, only to become the head of operations for the new owner, Samuel L. Smith. He no longer owned the company. Their new factory in Detroit burned down, but Olds revived the company with the 1901 "Curved Dash Olds," which became very popular. In 1902, he stripped down one of his cars, installed a 2 cylinder engine, put a seat on the back and voila, the Olds Pirate was born to go beach racing. He won his first race at 87.51 kph over John D. Rockefeller and Cornelius Vanderbilt. It is worth noting that the original car no longer exists. This vehicle (and the one in GM Heritage Museum) are 3/4th scale reproductions. Since there are absolutely no dimensions available and only three photos, all dimensions are from a 1903 model R Runabout, from which the original racer was stripped. Therefore, all dimensions are close mathematical computations.



POWER

- 2 cylinder horizontally opposed under seat
- Water cooled
- Side-valve (L-head)
- 3211.8 cc
- 133 mm x 127 mm bore x stroke
- 14.9 kW

CHASSIS

- Steel chassis with mounted carriage

TRANSMISSION

- 2 speed manual
- Planetary gearbox
- "Phantom" sliding gear friction drive clutch
- Single chain drive to rear axle

BODY

- Rear Side-entrance removable tonneau body-work mostly wood
- 5-passenger touring body. Only style offered soon roadster & limousine carriages were added
- Bright colors and plenty of brass was norm on west coast built Tourist car





1906 TOURIST MODEL K SIDE ENTRANCE TOURING



The TOURIST automobile was the brainchild of one William B Stout who also gave us the very unique STOUT Scarab automobiles and the FORD Tri-Motor airplane. The rare Tourist was built in Los Angeles, California, by the Auto Vehicle Company from 1902 to 1910, and it is not to be confused with the ROYAL TOURIST built in Cleveland, Ohio. The Tourist is little known outside of the West Coast but was a big hit there. Since nearly no nationwide distribution was available in those days (to any extent anyhow), localized manufacturing was a very profitable concept. The Tourist was also finished in a way to better represent that part of the country with its flashy colors and bright finishes. It sold very well until parts sourcing became a real problem. The company reorganized as the California Automobile Company which then went bankrupt in 1910. The new owners became involved in selling the contemporary electric cars.



1422.4 mm*
Front Wheel Track

* All dimensions are
close mathematical
computations as no
actual measurements
are available

1955 CHRYSLER “FALCON” GHIA ROADSTER PROTOTYPE



In 1949, a young, avant-garde Virgil Exner left the Studebaker Company Design Department for the staid, dowdy Chrysler Corp. Little did he know what he was getting himself into. (Studebaker later contracted with Raymond Loewy then Brooks Stevens). Chrysler went on to introduce its “Forward Look” which was conceived by Exner. Chrysler was butting heads with GM’s Corvette soon to be followed by Ford’s Thunderbird. Chrysler had no two passenger “sporty” car. Using newcomer Exner’s ideas and guidance, Maurice Baldwin came up with a design with the working name of Plymouth Valiant. That name changed to the Chrysler “Falcon,” a name only to be lost to Ford’s quick actions. A hasty contest was organized for design employees to come up with a new moniker. In the meantime... the “Falcon” would be slightly modified and built by Ghia of Italy using a shortened, steel Chrysler 300-C base. Exner ordered three copies from them. He used the black one as his “personal car” and even competed in some S.C.C.A. events with it. The decision on the future of the sports roadster came and went as the conservative decision makers killed the concept. Soon thereafter Exner became the “Father of the Tailfin” wars. (!!!)



ENGINE

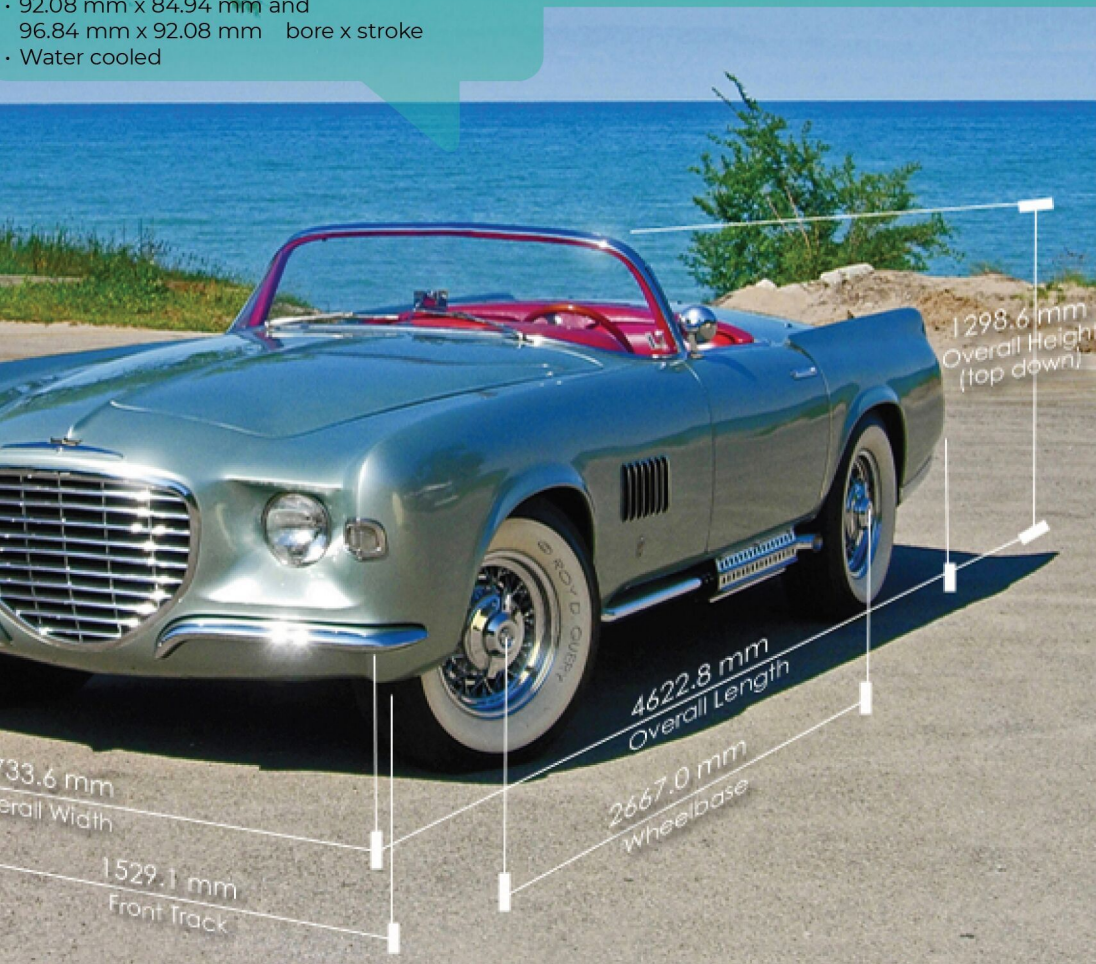
- Two different engines were used at different times. The new FireDome 4522.8 cc V-8 Hemi and new 5424.1 cc V-8 Hemi
- Cast iron block & hemispherical cylinder heads (both)
- Two barrel Stromberg or two barrel Carter BBD carburetors (one each)
- 126.8 kW and 145.4 kW @ 4400 rpm
- 92.08 mm x 84.94 mm and 96.84 mm x 92.08 mm bore x stroke
- Water cooled

CHASSIS

- 1955 Chrysler 300-C unitary ("unibody") chassis shortened by 533.4 mm
- Double wishbone ("A frame") front suspension w/coil springs, shocks
- Live axle on leaf spring rear suspension w/shocks
- Two speed TorqueFlite automatic transmission
- Four wheel drum brakes
- External Rocker panel "side pipe" exhausts

BODY

- Steel body
- Car weighs 1496.9 kg



POWER

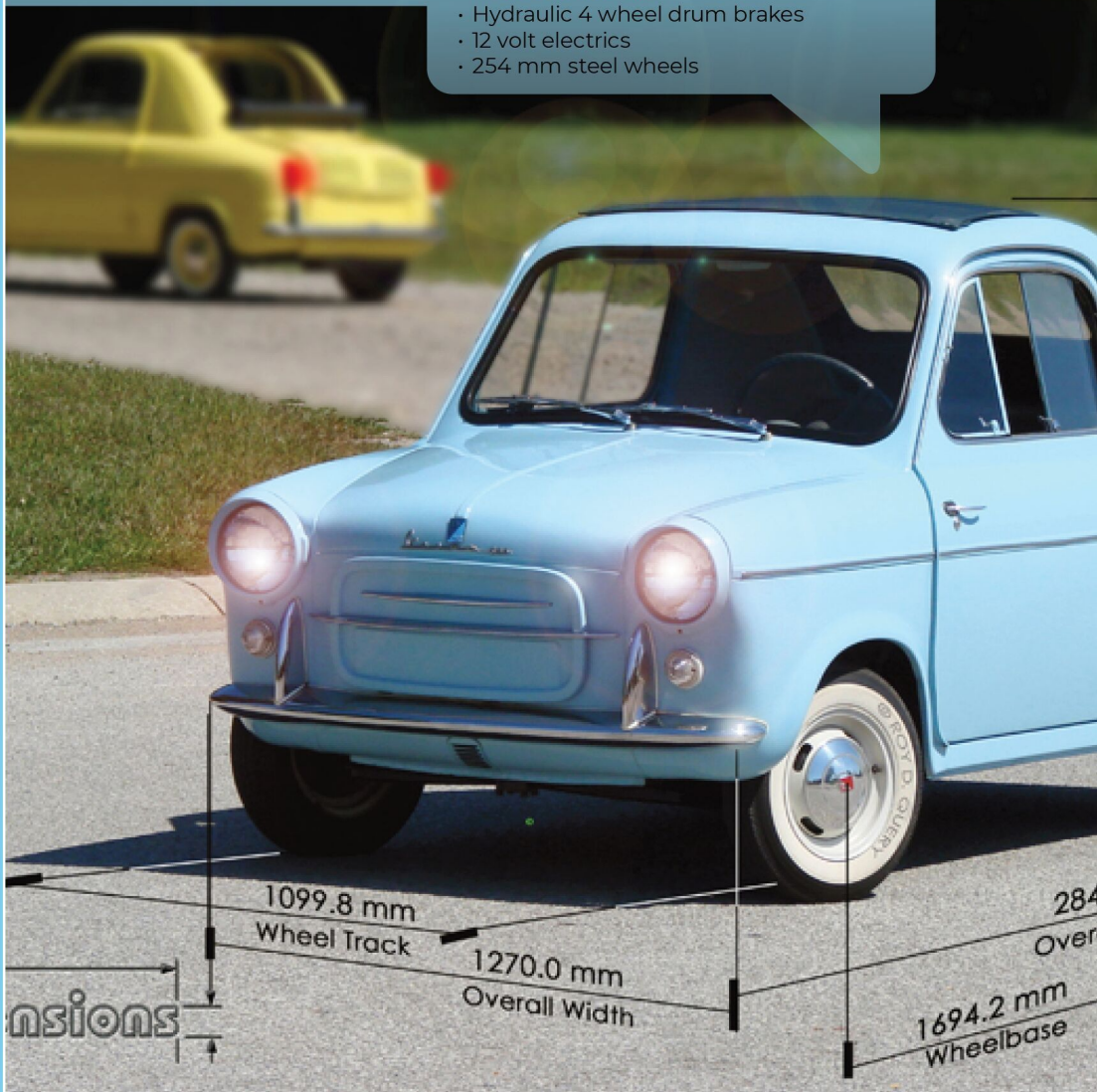
- 2-cylinder 2-stroke Inline air-cooled engine
- 393.9 cc
- Bore x stroke: 63 mm x 63 mm
- 10.44 kW @ 4500 rpm
- Electric starter

CHASSIS

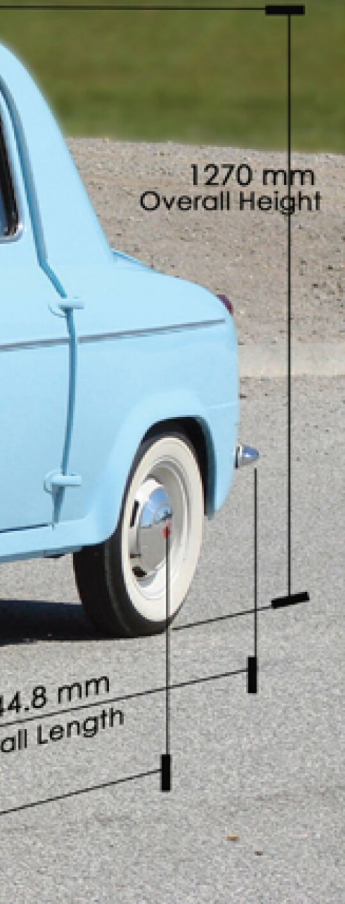
- Steel monocoque "frame"/body
- Rear wheel drive thru differential
- 3-speed (later 4-speed) synchromesh transmission w/reverse
- Four wheel independent suspension w/coil springs, shocks
- Front anti-roll bar
- Hydraulic 4 wheel drum brakes
- 12 volt electrics
- 254 mm steel wheels

BODY

- Monocoque 2
- Slide back fab
- Fixed window
- Basic hanger s
- tubing frames
- No sound dea



dr ("suicide" doors) "cabriolet"
tric roof
s (later slide-back windows)
sprung vinyl seats on metal
s
dening



1960 VESPA 400 "LUSSO" 2DR SUNROOF COUPE



Falling under the category of "Micro Car," Vespa cars were produced from 1957 to 1961. A very basic mode of transportation for two, taxed on the engines power. It was only natural Europeans needed these inexpensive, "underpowered" micro-cars that would fit in very, very cramped parking spaces.

Italian scooter maker Piaggio, along with their French sister company A.C.M.A., stepped up to the plate with their Vespa 400. Initial conceptual work began in 1952. Much work was undertaken to make the Vespa one of the best micro-cars available... better even than market leader Fiat. Fiat felt jeopardized by the new car so they threatened to start making scooters to compete. That's when Vespa moved their facilities to Fourchambault, France, so it would become a "French car." French engineers worried owners would fail to add the oil to the tiny two cylinder, two stroke engine's gas tank, so they soon designed an oil additive system to the car. Problem solved, but uninsulated noise remained a problem in the "tin box".

Production ended in 1961 with 30,976 units built.



1904 CYKLON CYKLONETTE @-WHEEL “TRIKE”

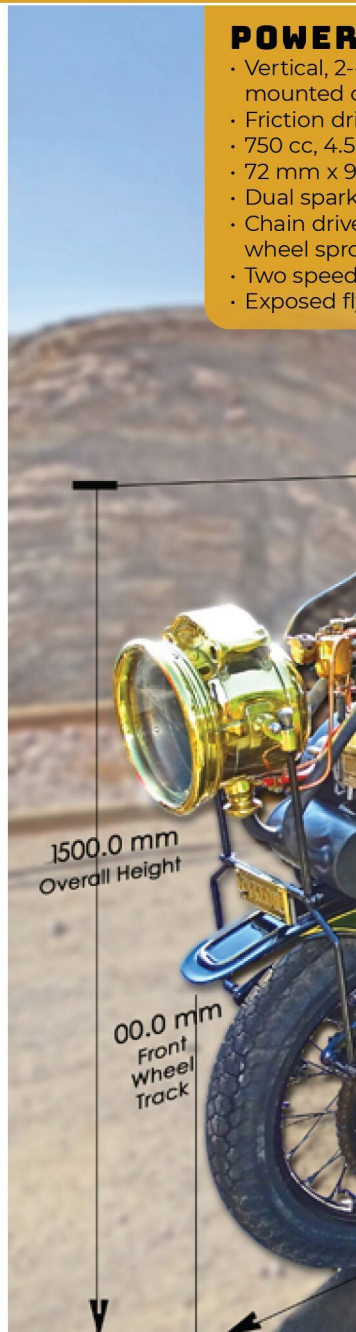


1897 was birthdate of the Cyklon, a manufacturer of bicycles in the state of Saxony. By 1900, Paul Schauer of Cyklon began production of motorized bicycles later called motorcycles. With a move to Berlin in 1902, he designed and began production of a unique, interesting “trike” named the Cyklon Cyklonette Trike. It was obviously a three wheeled motorcycle, only this one had the motor and all controls mounted on the tiller/front wheel. It was also taxed as a motorcycle in Europe. Under-powered, lightweight, economical and open-air, it was seemingly just what was wanted as it became very popular. Models came in many forms, from civilian to commercial. Two wheel motorcycles were finally discontinued 1905, but the “trikes” continued on profitably. Production of the various trike models lasted until 1922-23 with very little change.



POWER

- Vertical, 2-mounted
- Friction drive
- 750 cc, 4.5
- 72 mm x 9
- Dual spark
- Chain drive
- wheel spro
- Two speed
- Exposed fl



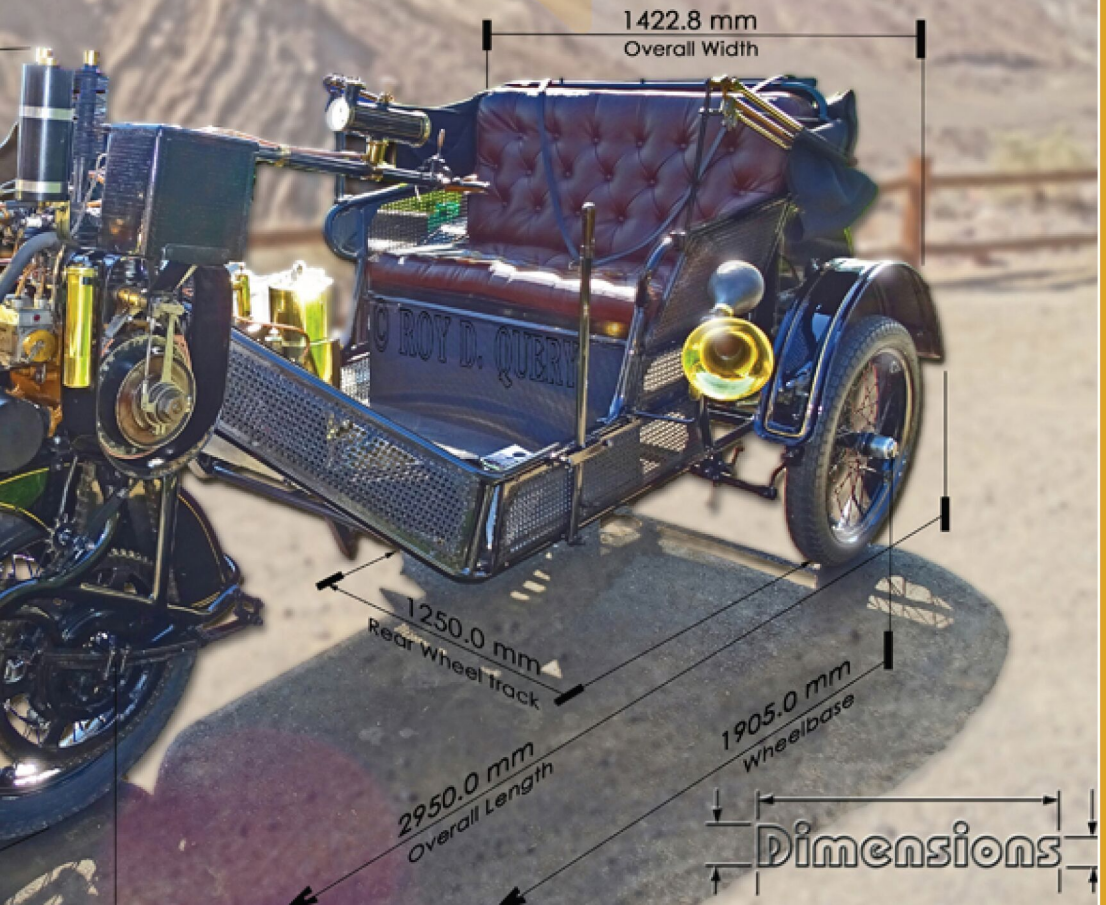
1500.0 mm
Overall Height

100.0 mm
Front
Wheel
Track

cylinder, 4-stroke, motor
over front wheel
ive fan cooled cylinders
kW
0 mm bore x stroke
t plugs @ cylinder
e down from engine to front
ocket
epicyclical gearbox
ywheel on right side of engine

CHASSIS

- Heavy duty welded steel tubing ala bicycle frame w/strong modification
- Rigid rear axle w/leaf springs
- Engine mounted on buggy type C-sprung front fork w/front wheel drive
- Central mounted long tiller steer lever for operators in either seat to work with multiple controls for working ignition, throttle, mixture and "shift" requiring some adeptness to master
- Band type rear wheel brakes
- Wire spoke wheels



POWER

- Tatra model 87 V-8 air cooled engine in rear
- 2954.59 cc
- Aluminum block and heads
- Original 55.18 kW increased to 72.57 kW @ 3500 rpm
- Overhead valve
- 75 mm x 84 mm bore x stroke

CHASSIS

- Tatra basic model 87 chassis
- Rear engine power drive(s)
- All steel linear "backbone" flex tube using the permitted Budd patent
- Engine drives propeller directly and cteated rear drum thru transmission
- 4 speed transmission w/one reverse plus 2-stage converter making it 8/2
- Dual steering wheels one stacked above the other. Upper, small wheel steers the front skis. Larger, lower steering wheel steers rear skis

BODY

- All steel monocoque body construction
- Truncated Tatra model 87 body w/rear spine "stabilizer wing" removed
- Rear fin acts as aerodynamic stabilizer to split air turbulence in back
- Louvers in "boot" provide engine cooling
- Very little rearward vision

1942

TATRA V-855 "AEROLUGE" SNOWMOBILE



During WW 2, the Wehrmacht comissioned the Tatra factory, which was in occupied Czechoslovakia, to design and build a "snowmobile". Tatra selected the T87, which was designed by Hans Ledwinka, Paul Jaray and Erich Ubelacker, as the basis. Two prototypes were built in 1942.

The nose for number one was truncated, redesigned and hand built. "Stilts" were added at the axles with huge skis mounted on the bottom in place of wheels. The V-8 engine in the rear proved perfect to mount a huge vertical propeller and a cteated horizontal drum on the ground for propulsion. The steering was via one of two "steering wheels". Braking was ala civilian skiers who "pigeon toed" the skis inward for braking along with lowering the drum to the ground for additional braking. The drum propelled the vehicle up to 16.1 kph, then the propeller kicked in for speeds up to 80 kph. There were unresolved problems with the "Aeroluge" (flying sled) as the interior offered two seats in front and three abreast in the back, but no space was available for any sort of munitions or military paraphernalia. This is Lane Motor Museum's accurate replica.

