

**1930 Franklin
D5 Club Sedan**



Illan Shantz

Air Cooled Six Cylinder
3.5" bore X 4.75" stroke
274 cu. In. (4.49 L)
Compression Ratio 5.3: 1
35 HP at 3,100 RPM
Sufficient Torque
Optional 4 speed non-
synchromesh transmission
1st - 14.85
2nd - 8.47
3rd - 5.43
4th - 4.25
Final Drive 4.25: 1
Tires 7.00/7.50 - 19
Wheelbase 125"
Track 58"
Weight 3,875 lbs.



At the 2018 Franklin Trek, Cazenovia, New York

How Fast?

ed MPH (KPH) / Top gear RPM
5: 1 w/oversize 7.00/7.50-19 tires)

10 (16)	396
20 (32)	792
30 (48)	1,186
40 (64)	1,582
50 (80)	1,978
60 (96)	2,373
70 (112)	2,769
80 (138)	3,165

*Faster than most 1930 Sedans,
usually driven at 100 KPH on
expressways but sometimes
somewhat faster*



Dashboard includes a rotating drum speedometer, an odometer, a Waltham clock on the left; oil pressure, fuel, and amperes gauges on the right; and headlight, choke, ignition, and spark advance controls in the centre .

The Franklin Air-Cooled Engine

All Franklin engines have certain basic similarities since the first Franklins were built and sold in 1902. These are:

- Individually detachable cylinder barrels
- Cross-flow overhead valves
- Main bearings on either side of each cylinder
- Extensive use of aluminum castings

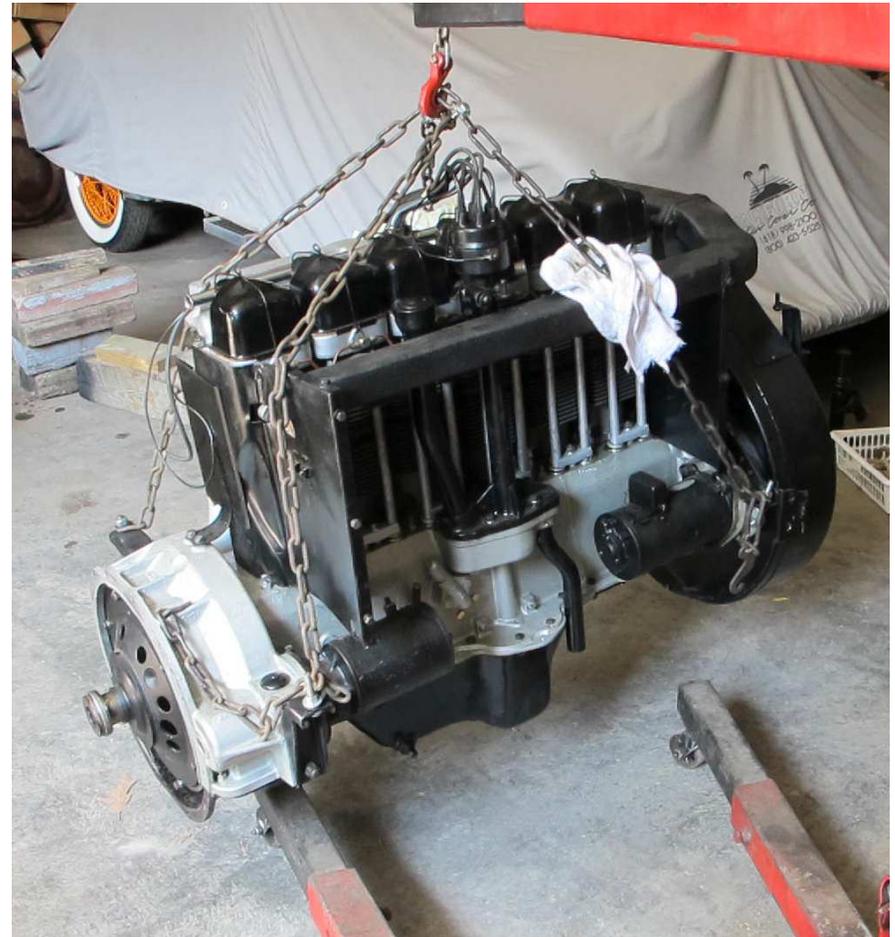
Franklin also developed and were first with many systems adopted later by most manufacturers. These include:

- Carburetor float and throttle control (1902)
- First six cylinder engine (1905)
- Automatic spark advance (1907)
- Engine driven oil pump to pressure lubricate crankshaft main bearings, connecting rod bearings, and cylinder walls (1913)
- Aluminum pistons (1915)



Franklin introduced the following changes for the 1930 Model Year:

- Each of the 6 cylinders gained its own detachable cast aluminum cylinder head with bronze insert valve seats and spark plug bushings
- new cylinder head redesign allowed for much larger valves (1.84375" intake and 1.65625" exhaust)
- horizontal cast cooling fins on cylinder barrels and heads replaced the previous vertical fins.
- air cooling shrouding rerouted to side of engine rather than previous over the top of the head configuration (side draft rather than down draft cooling)
- developed horsepower increased almost 144% from 66 in 1929 to 95 in 1930 with the same engine displacement.



The rebuilt engine ready to be loaded on a rented pick-up truck for the drive back to Canada

The Franklin Chassis

The Franklin's suspension differs significantly from other manufacturers who when using leaf springs employed semi elliptic or transverse springs and heavier cast iron front axles.

- The front axle is tubular and light, reducing unsprung weight
- full elliptic springs are used for both axles, 36" in front and 42" rear.
- Front springs compressed 4.5", the rears 5" for a wheel travel of 9" front, and 10" rear, double the shock absorbing compress-ability of competitors semi elliptic springs.
- More wheel travel resulted in less transfer of energy to the opposite wheel resulting in better ride and handling on rough roads.



The front axle and springs were re-painted while the engine was removed for rebuilding

This presentation is being interrupted for

BREAKING NEWS



Four wheel Lockheed hydraulic brakes were used in all Franklins starting in 1928, years ahead of many others.

- steel brake drums have 14 inch diameter, larger than most other autos of the era.
- each wheel has two internal expanding lined shoes.
- the brake fluid reservoir is under the hood on the left side of the dash.
- the brake pedal placement is conventional, between the clutch and the gas pedal.
- the hand brake operates a contracting band on a brake drum at the rear of the transmission.



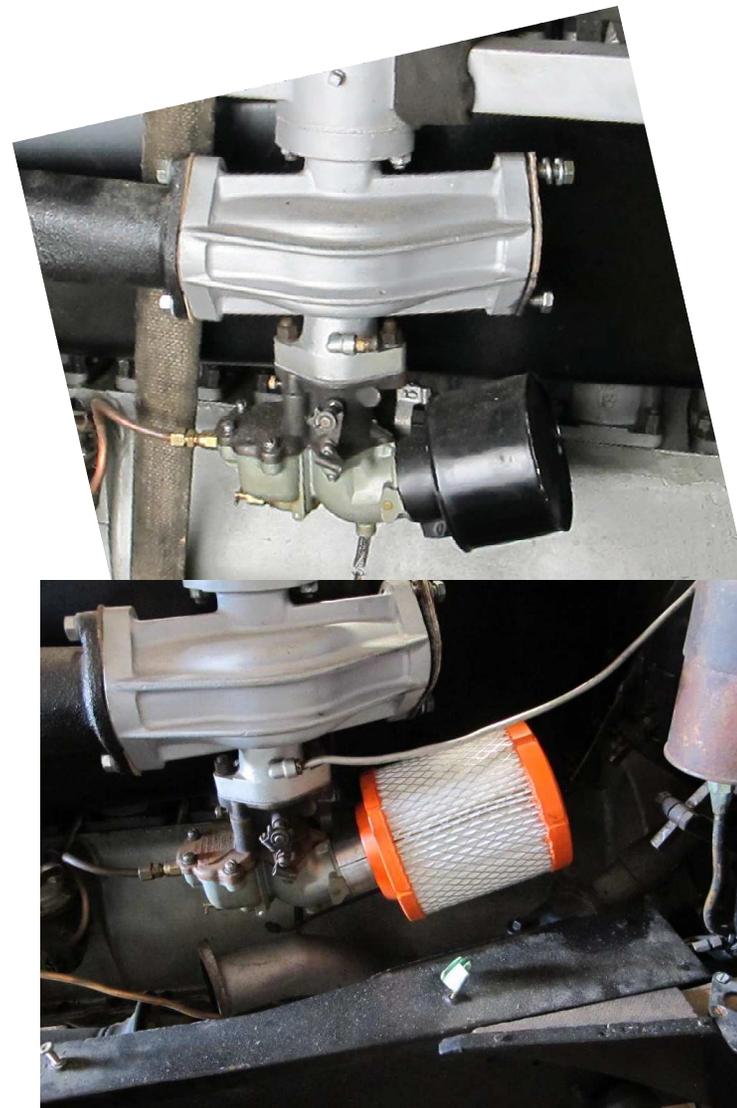
This Franklin had some optional equipment included when the car was delivered.

- the right side tail light was a \$12.00 option.
- wire wheels with front fender side mount spares were delivered with the car rather than the standard wooden spoke artillery type wheels with a spare on the back, but no trunk or folding luggage rack.
- Detroit Four speed transmission. The standard is a Warner three speed.
- amber turning signal lights were added to the rear during refurbishment. Front signal lights employ the side light fixtures on the front fenders.
- Headlight, tail, and brake light incandescent bulbs have been replaced with LED bulbs designed to fit the original sockets.
- the trunk is a recreation I built from original plans with the same materials as the original trunk delivered with the Club Sedan when new. This replaces the incorrect trunk installed on the car when the original trunk wore out.



Sacrificing originality for superior functionality.

- The original air cleaner, painted black, is shown in the upper photo. I concluded that it needed to go if I expected to get high mileage on my engine rebuild. I replaced it with one from Canadian Tire, orange and with a paper filter.
- The bottom line is that although there were many fine technical advances in 1930 cars, air cleaners were not one of them, and I will willingly use new products that extend the life of my 1930 car.
- Since this car is not intended for display in concours d'élegance, this kind of modification is more than acceptable to the Franklin community.
- notice the exhaust pipe wraps around the intake manifold above the updraft carburetor.



Using modern techniques

- to install the headliner I sewed the seams in the headliner to strips of Velcro. I stapled the matching Velcro pieces to the wooden bows. Then I was able to join the two Velcro pieces together and have straight and even headliner seams.
- Bottom line is that the end result looks like the original headliner installation, but my task was made much easier by the invention of Velcro.
- The seating upholstery was redone with new material obtained from a Toronto fabric wholesaler that closely matches the original. I had to buy a sewing machine and learn how to sew to complete that task.
- The remnants of the original upholstery fabric was used to make paper patterns.



More modern adaptations

- another example of utilizing modern technology (such as Velcro) is using a Garmin GPS to navigate. This proved to be particularly useful in confirming speed, and that the speedometer registering in miles is still fairly accurate
- notice the bracket next to the GPS. This allows the bottom of the windshield to be opened and pushed forward for interior air circulation and cooling. It's not air conditioning but it made the trip to Ottawa in the stifling heat this summer a pleasant journey



ng late at the beginning
e first Brass Monkey Run
e Franklin at Hwy 9 and
re EHS after being
essly lost. Never-the-
he crowd was caught
e lunch.

was before a Garmin was
for navigation.

