

# SuperCar 8880

## At the “top” of Technic

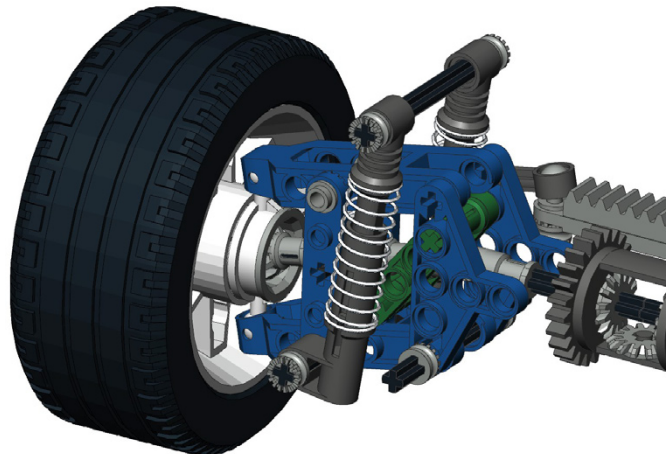
Text by Manticore

Images from Blackbird’s Technicopedia

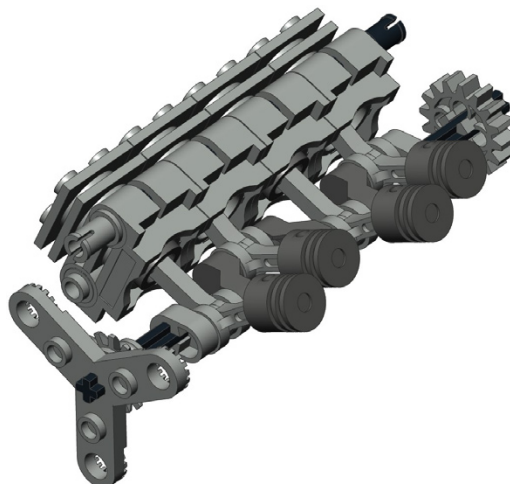
In 1994, International Year of the Family and Sports and the Olympic ideal, LEGO released the penultimate supercar we will analyze: the 8880. Allow me a brief personal note, as this was one of the sets that caught me in full dark-ages, at the “tender” age of 22 years. It was the first time my current wife looked at me strangely ... thank goodness that with time she has grown accustomed ... and me too.

Let’s start with the box: EXTRAORDINARY. With a cover that shows pictures of the main model and a rear side with Pictures of the alternate model, a F1 car ...Was it a prelude to the Silver Champion? It was made of hard cardboard, with a tray with yellow plastic separators, typical of the sets of those years.

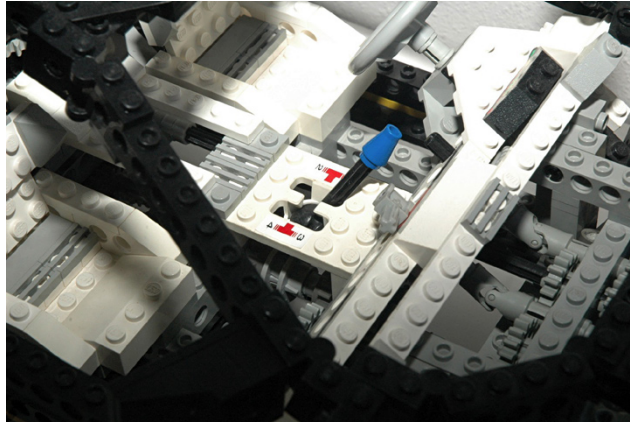
What is most striking is the change of the wheels, the traditional and even mythical 24x43 LEGO TECHNIC wheels that the three previous supercar models used are replaced with the much more realistic 81.6x34ZR wheels. It maintains the double wishbone suspension like the 8865 set (four-wheel independent):



It maintains also the swinging headlights but incorporates 4-wheel drive, differential in both axis, a V8 engine with smaller and more realistic cylinders that substitute the old Technic Piston 2 x 2 Block:



Four-wheel steering (unique among all TECHNIC sets to date) and a synchronized 4-speed gearbox (the first time in a set LEGO®). This system persists in the latest sets like in the 8043 bulldozer, as a gear selector as well as a function selector:

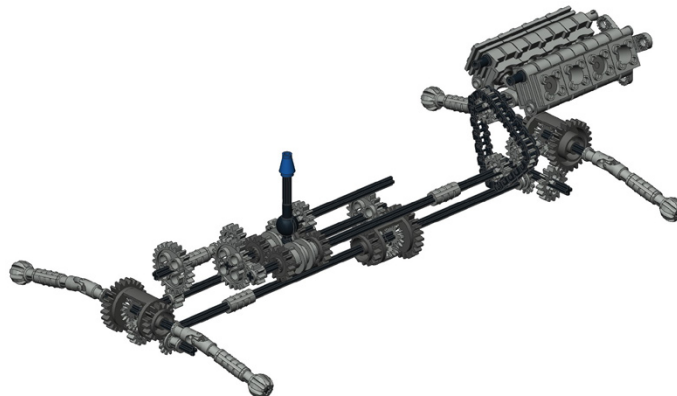


We can summarize that the numbering of this set (the highest numerical value ever given to a Technic set) is explained by many reasons. I'll briefly explain some of them. First, we will talk about the aesthetics of the vehicle's bodywork. It is built only with TECHNIC bricks, the liftarms appear years later. The large number of hinges also stands out, which gives the bodywork a curve that would not have been possible with basic bricks. The rear lid opens revealing the V8 engine and the details of folding headlights, the mirrors and white seats provide a sporty yet classic style at the same time.



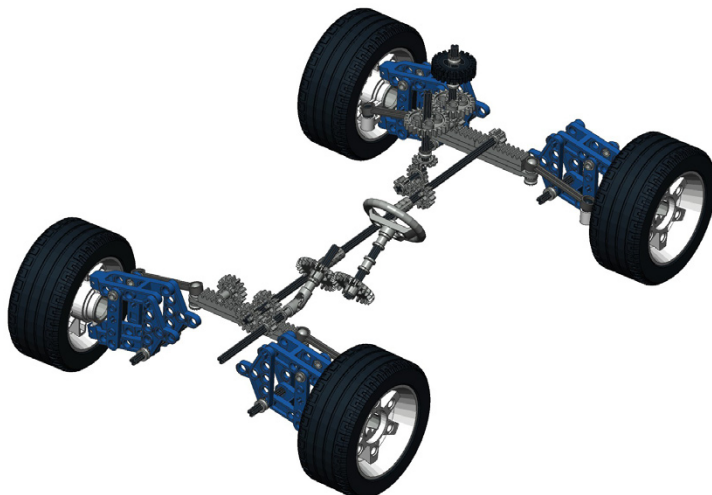
For the technical details we could start with a simple statistics of elements:  
3 Differential, 50 gears, 8 shock absorbers, 8 pistons, a 21 link chain, 85 axles and 13 new pieces that had never been used before.

The centre differential allows the front and rear axis to rotate at different speeds, standard for total or 4x4 traction. This image shows the complexity of the complete transmission of this car:

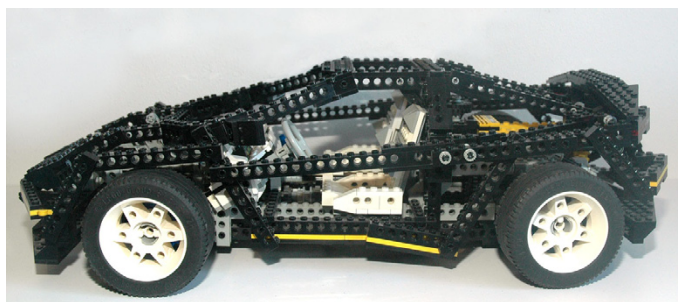
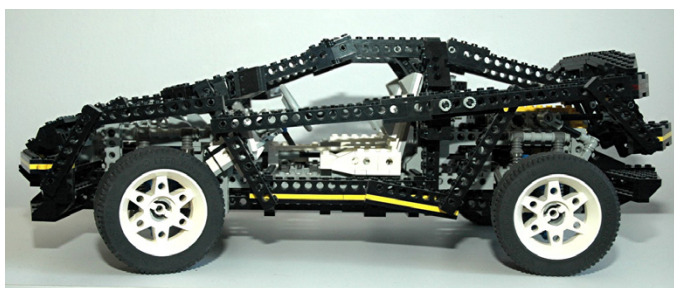


For the direction it uses the Ackerman Principle (when a vehicle turns the axles of all wheels must concur at one point), based on the shape of the steering arms. This allows the inside wheel to turn at a greater angle than the outside one in a bend.

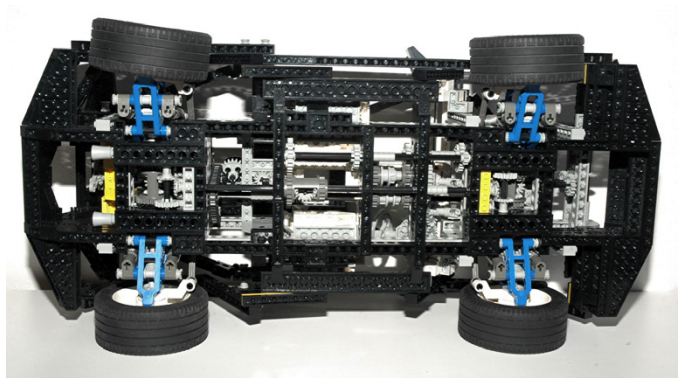
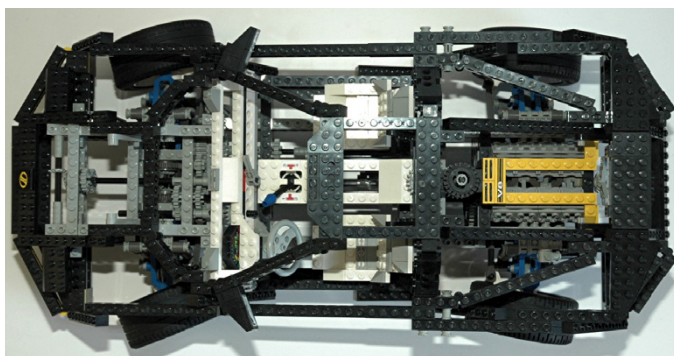
As is customary in many sets, it introduces the HOG (Hand of God) steering on top of the vehicle. As data regarding the steering mechanism of the rear axle, it uses an 8-tooth gear wheel, so compared to 16 teeth gear on the front axle it causes the rear wheels to turn less than the front:



Regarding the suspension, a curious fact we can see is that the set with the fully compressed shock absorbers looks more realistic and a more sporty:



Finally, a couple of images of the top and bottom of the set:



Since that distant 1994, which saw the release of "Pulp Fiction", "Forrest Gump" and, why not say, "Godzilla vs. Space Godzilla", LEGO® has released more TECHNIC sets, but the AFOL community has only "allowed" the 8448 to be qualified as a Supercar. But that, my friends, is another story ...

PS: Thanks to Eric Albrecht for the artwork  
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