Tomorrow's Train... Today

Union Pacific
The Overland Route
NEW UNION PACIFIC TRAIN WILL MAKE SPEED OF 110 MILES PER HOUR

America's newest history-making transportation sensation—a high speed, light weight, stream line passenger train, capable of making 110 miles per hour—is being built for the Union Pacific.

This train will be completed late this year. It will first be operated on special runs between the larger cities on the Union Pacific System, with the purpose of demonstrating its practicability for regular main line through passenger train service, including trans-continental.

The train consists of three cars articulated, i.e., one truck between each two cars and the cars hinged together. The purpose of such articulation is to save weight, first cost and friction of trucks, reduce cost of maintenance, and give a better riding quality by elimination of slack or motion between cars other than the hinge motion.

The first car contains a 600-horse power internal combustion engine burning distillate, which is a non-explosive fuel. An electric generator is directly connected with the engine which develops current to operate motors on the wheels of the forward truck. The first car also contains a 30-foot railway post office and a baggage room. The second car is a coach seating 60 passengers. The rear car is also a coach seating 56 passengers, with a buffet at the rear end to serve light meals to passengers in their seats.

The design has been based largely on automotive and aircraft developments, where speed and light weight, combined with strength, has been such a vital necessity. To obtain light weight, with strength, the train will be constructed of aluminum alloys, which have the strength of ordinary steel with one-third the weight. In place of the conventional underframe now used on passenger cars, which takes all of the shock and, in addition, carries the superstructure and the load, each car in this new train is tubular in shape and the entire

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**Diagram:**
- Engine Room
- 600 Horse Power V-Type Motor Non-Explosive Fuel
- Railway Post Office Compartment
- Baggage Compartment
- Auxiliary Heater
- Air Compressor
- Cars Hinged Together on Articulated Trucks-Closed Vestibules
- Passenger Compartment Seating 60 People—Reclining Chairs
- Entrances with Folding Steps
- Wash Rooms
- Passenger Compartment Seating 56 People
- Total Length of Train 202 Feet
- Train Completely Air Conditioned All Windows Sealed Shatter Proof Glass
- Buffet Kitchen
car body forms a deep stiff beam, thereby requiring a minimum amount of material for a given strength.

The equipment is designed for a maximum speed of 110 miles an hour, with a sustained speed on straight and level track of 90 miles per hour. The train of three cars will weigh not over 80 tons, which is the present weight of one Pullman sleeping car.

The train is fully streamlined to a greater extent than has been attempted to date either in this or any foreign country. To get the full benefits of streamlining, the windows, of shatter-proof glass, are placed practically flush with the outside of the car; vestibules between cars are covered to continue the smooth sides of the cars; all such devices as headlights, tail lights, whistles, bells, etc., are recessed into the car body. A specially designed mechanism opens the doors and lets down folding steps for entrance to and exit from the car.

The train is fully air conditioned; windows sealed, and forced ventilation used which will heat the train in winter, cool it in summer, filter all dirt and dust from the outside air and maintaining a pressure in the car, will exclude all dirt.

The sealed windows, heavy body insulation, complete streamlining, liberal use of rubber in the trucks, and the probable use of a resilient wheel, will materially reduce noise.

A modern indirect lighting system is provided, giving uniform light reflected from the ceiling. The seats are the most comfortable that modern art has developed. Interior decorations are striking but simple. The train is completely equipped with modern roller bearings in order to reduce friction and avoid the necessity of terminal attention.

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