


Bee

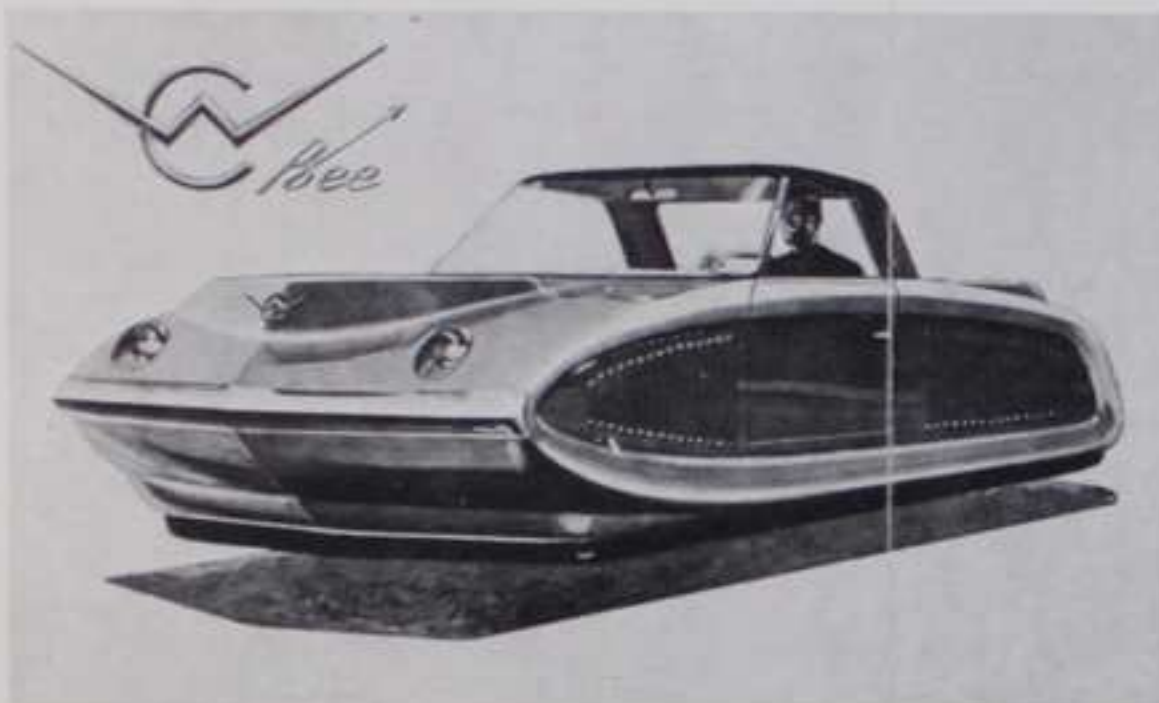


The CURTISS-WRIGHT AIR-CAR

The Bee

The Curtiss-Wright Air-Car is a completely new method of transportation that successfully meets the need for a vehicle that will travel over unobstructed land, across water or over surfaces that will not support wheeled vehicles.

Because of its versatility, the Air-Car opens up a new era in the transportation of passengers and cargo in a wide variety of industrial and commercial uses.



The Bee is a compact, two passenger Air-Car which travels at speeds over 50 miles per hour. The Bee is the next Air-Car model planned for production.

The Curtiss-Wright Air-Car travels on a cushion of air, at a height of up to 4 inches, over any unobstructed terrain, water, mud, swamp, ice or snow. Its advanced design, utilizing the ground effect principle, permits the Air-Car to travel in any direction — forward, backward or sideward and turn on its own axis. In addition to its mobility, the Air-Car can move from one type of surface to another without affecting the performance of the vehicle. Air is used for suspension, propulsion and braking.

The Air-Car is an inherently stable vehicle. The controls are used only for movement in any direction and braking — the operator does not have to "balance" the vehicle on the cushion of air.

The unique advantages of the Air-Car make it especially valuable for personal or company use on large variable terrain properties, or in industrial use to transport personnel and equipment in such areas as petroleum production and exploration, pipeline surveillance, lumbering, ranching and many others.

The Curtiss-Wright Air-Car is suspended and propelled by air, and does not need the usual wheels, axles, transmission, clutches, springs or brakes.

Suspension of the vehicle is accomplished by maintaining approximately 1/10 lb. per square inch of air pressure under the vehicle. Suspension air is also used for propulsion.

The controls of the Air-Car are simple. An automotive type steering wheel is used to guide the vehicle in any direction. A conventional throttle controls engine speed. Since the operator does not balance the vehicle on the air cushion, controls are used only for directional guidance and braking. Since the Air-Car is presently offered only for off highway use, no special licenses are required for operation.

To create the air cushion, the Air-Car powerplant drives a fan system which produces the volume of air required for both suspension and propulsion.

Flotation equipment is built into the structure of the Air-Car, enabling it to float on water, and rise from the surface of the water, even when carrying a full load. The Air-Car body is a rugged combination of aluminum and fiberglass on a tubular aluminum frame. Deflector plates are incorporated in the design to control spray in over water operation.

SPECIFICATIONS:

Dimensions	Length 12 Feet Width 6 Feet Height 51 Inches
Powerplant	100 horsepower engine
Weight	1115 Pounds
Speed	53 Miles Per Hour
Fuel Capacity	1-20 Gallon Fuel Tank
Range	2½ Hours (approx.)
Type of Fuel	Automotive Gasoline
Payload	440 Pounds or 2 Passengers
Hover Height	4 Inches Above Surface

THE GROUND EFFECT PRINCIPLE

The Curtiss-Wright Air Car, employing the Ground Effect Principle, is supported on an air cushion and is designed for operation in close proximity to the surface.

In operation, air is drawn in through an engine-driven fan system, and directed to the base of the machine. When the pressure of the air underneath the machine reaches a value which is approximately equal to the machine weight divided by its plan area, the vehicle lifts off the surface. Equilibrium at a given height is determined when the exit air flow equals the inlet air flow.

The Curtiss-Wright ground effect vehicle utilizes the deflector plate (or annular slot system). The deflector plate machine requires a minimum air flow to achieve a given performance. By expelling the air through the slot, additional height of the machine from the surface is achieved by utilizing the downward directed exit momentum. Also, the lower air flows associated with the deflector plate vehicle appreciably reduce the inlet momentum drag penalty and permit the deflector plate machine to achieve higher speeds.

FOR INFORMATION WRITE:

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