

off the fence.

Ultimate Vehicles

6 x 60'

EPISODIC BREAKDOWN

1. Ships

Not for nothing are the most gigantic vehicles in the world to be found on water. Even today, ships continue to be the means of transporting consumer goods. Whoever manages to transport the most goods at one time over the seven seas makes the biggest profit. This category of Ultimate Vehicle also provides the largest spectrum of propulsion designs: from wind power, to huge ship engines as big as houses, to aircraft turbines and fuel cells.

The OOCL Hong Kong is the biggest container ship in the world. A symbol of international trade and the globalized world. For the first time, a single ship is sailing the seven seas with more than 21,000 containers on board. Now we'll see if what was projected by computer simulations also works in practice. Its dimensions are equally gigantic, but instead of containers it loads cars and commercial vehicles. The Höegh Traveller is the biggest automobile transport ship in the world. A swimming parking lot with 8,500 vehicles on board. The Sea Cloud was once the most luxurious and fastest sailing ship in the world. A meeting place for Hollywood stars and diplomats. Today it is the world's oldest active cruise ship. The handsailed ship is one of the last of its generation. Some consider it the the Concorde of the water: the HSC Francisco. Its turbines were developed from aircraft technology, making it the fastest commercial ship in the world. On the route between Buenos Aires in Argentina and Montevideo in Uruguay, it competes with airplanes. The U212A is one of the most modern submarines in the world and the first with fuel-cell propulsion. Designed for silent and invisible coastal defense. This technologically fascinating and mysterious ship rounds out the episode.

2. Civil Aircraft

The origin of modern aviation technology lies only one hundred years in the past. And yet the first airplanes, built of wood and often with rectangular wings, have little in common with today's muscle men in the sky. Some of the strongest engines ever have been developed so that more and more passengers and cargo can take off. The A380 is the biggest and heaviest passenger aircraft in the world. Airbus developed it to outdo its competitor Boeing, in the process setting new standards for aviation: the A380 provides space for a maximum of 853 passengers over two levels. Innovative materials were used for the first time in the construction of this plane. What the A380 is to passengers, the Antonov An-124 is to cargo. It is the biggest production cargo plane in the world. This giant's arrival is an event at any airport around the globe. Today it flies mostly civil cargo, but it is actually a relic of the Cold War. Designed for transporting rocket launching ramps. It was once the biggest passenger aircraft in the world. Today it is a flying observatory. We

accompany SOFIA, the world's biggest research aircraft, on one of its nighttime missions. Flying was once the privilege of the rich. Today those who want to distinguish themselves from the masses charter a business jet. The most exclusive of them all is the Dreamjet, a Boeing 787. It can be had for 700,000 US dollars an hour. A glance inside is usually reserved for a few eyes only. The DC-3 initiated a new era in flying. Thanks to its robust technology and good flight characteristics, it is still being used 70 years after it stopped being produced. For a few remote areas of Colombia's Amazon basin, it is the connection to the outside world.

3. Military Aircraft

For several decades now, it has been aircraft above all that have decided the outcome of military conflicts. No wonder that unimaginable sums have been invested in their development. Engineers around the world assiduously improve the speed, range, versatility, and armament of military aircraft, thus decisively advancing innovation in aviation. Ultimate Vehicles showcases the best fighters, bombers, and transport aircraft. It is the result of the largest armaments program of all time: the F-35 Lightning II. When developing it, engineers had to satisfy numerous demands at once: a stealth aircraft with high speed and excellent avionics. In addition, it had to have vertical and short takeoff capability. How well was this mammoth task executed? It shocked the West and taught American bomber pilots during the Korean War the meaning of fear. The Mig-15 was the first Soviet fighter jet. Today there are only 12 airworthy Mig-15s left. We take off with one of them. Three decades later, the successful aircraft manufacturer Mikoyan-Gurevich had another stroke of genius: the Mig-29. Its maneuverability is unparalleled, and today it is considered one of the best fighter jets in the world. "Ultimate Vehicles" presents the technical features responsible for this. One day it will be the longest-serving military aircraft: the B-52 Stratofortress. It is planned to be used for about 90 years. What is behind this legendary airplane's longevity? And how does a plane with a 56-meter wingspan take off and land? The Airbus A400M is considered the most modern transport aircraft in the world. For a propeller aircraft of this weight, it can fly unusually fast and high – but also slow and low – thus making it incredibly versatile.

4. Mega Cars

On asphalt, gravel, fields, or snow – the Ultimate Vehicles in the Mega Cars episode are highly diverse, and each is perfectly tailored to its own niche. What they all have in common: powerful engines with lots of horsepower, and they amaze all who encounter them. These are the fastest, strongest, and biggest ground vehicles in the world. It is the king of paved roads: the Bugatti Chiron. Supposedly the world's fastest car. It has yet to break the record of its predecessor, the Bugatti Veyron. But all the experts consider this a mere formality. Traction is the Case IH Steiger 620's specialty. At the same time, this muscle man must be gentle on sensitive soils. No simple task for the most powerful tractor in the world, or for the engineers who designed it. It is called "the Beast," and it lives up to its name. No other snow groomer in the world can move as much snow. We ride along as it prepares the slopes for one of the most difficult World Cup races. Fully extended, it is higher than the Cologne cathedral: the Liebherr LTM 11200-9.1. Its maximum hoisting height is 188 meters. Nevertheless, the huge crane is able to move on its own: it is the biggest and strongest mobile crane in the world. It was designed for the special demands of wind farms. It is as big as a house, has more horsepower than a Formula 1 car, and operates around the clock: the Belaz 75710 is the biggest dump truck in the world. Next to it, human beings look like Lego figurines. In one trip, the heavyweight transports 450 tons of rock through an open-pit mine in Siberia. A worthy conclusion to this episode of "Ultimate Vehicles."

5. Trains

A single vehicle several kilometers long – it is only possible on rails. No wonder that trains continue to fascinate people even today, and that their fan base is one of the most devoted. The train was one of the most decisive inventions of all time. Traveling became affordable, and freight transport was expedited. Even now, 40 percent of all freight worldwide is transported by train. And fortunately so, as the train is also one of the most environmentally friendly means of transportation. From the Swiss Alps to the steppe of South Africa all the way to Japan: we present the world's most extraordinary trains. Setting speed records on gigantic wheels: the DR 18201 is the fastest steam locomotive in the world. It can travel at up to 180 km/h. It is not the fastest of high-speed trains, but is one of the most modern – the ICE 4. Thanks to its innovative drive concept, it is more flexible and energy-efficient than all other high-speed trains. For several years, luxury train service has been booming just like the Orient Express once did. The most spectacular luxury train is the Japanese Shiki-shima. Developed by a former Ferrari designer, the futuristic train offers luxury of all kinds: piano bar, bathtub, underfloor heating, and panorama cars. Cog railways can handle the steepest routes in the world. But only one of them is built to climb grades of over 40 percent. The Pilatus Railway in Switzerland manages this feat thanks to a special cogwheel design. One of the most spectacular freight trains in the world rolls across South Africa. At 4.2 kilometers long, the Sishen-Saldanha iron ore train is the longest regularly running train on the globe. It transports 34,000 tons of iron ore in one rail journey over a distance of about 800 kilometers. This unique train rounds out the episode devoted to trains.

6. Combat Vehicles

Massive, heavy, and very dangerous: combat vehicles are still the symbol of armed conflict. And since the military has always taken a leading role in technological development, the combat vehicles of today are all high-tech machines. Combat vehicles come in countless variations: as battle tanks or troop transporters, with steel or rubber tracks, fast and agile or heavy and well-armored. We examine the most extraordinary combat vehicles in the world. Combat tank experts consider the Leopard 2 the best compromise of firepower, armor, and mobility. Until 2017, it had a reputation for being nearly indestructible. Not one Leopard 2 was lost in either Afghanistan or in the Kosovo War, thus contributing to the myth of the tank's invulnerability. This has changed in the war in Syria, but the Leopard 2A7 is still one of the best tanks in the world. Another legendary tank, although from another time: the armored fighting vehicle VI Tiger, known as the Tiger I. It was the most dreaded tank of World War II. In its day, the tank was so big and its gun so powerful that opponents barely had a chance. Nevertheless, the Tiger was its own worst enemy The Merkava Mark IV's unusual design makes it an exotic tank. But this is also what provides its crew with unmatched protection. The T-54/55 is the Toyota Corolla of tanks. No other tank was built as frequently. What makes the Russian tank so successful? The CV90 is the most modern and versatile infantry fighting vehicle in the world. Countless versions based on the same basic model have been built for various customers.