words **Christopher J. Chlon** pictures **as credited**

Rugged and Reliable

Shipped to Russia in World War Two, Studebaker trucks proved invaluable in the fight against Nazi Germany

The Studebaker US6 two-and-a-half ton 6x6 cargo truck was so successful in the Soviet Union where it was used during World War Two that it was closely copied as the ZiS/ZiL 151 and 157 family of trucks built until 1966. Red Army truck drivers who were impressed by the US vehicle nicknamed it the Studer. Shipped to Russia as part of the Lend-Lease programme, the truck filled many roles for the Soviets where it hauled supplies, ammunition, war material of all kinds, and soldiers.

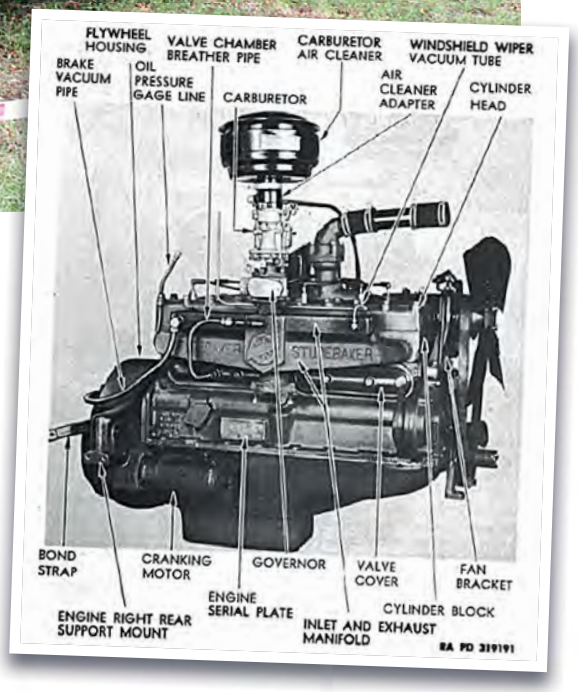
Studebaker produced more than 197,000 of this model with 75% going to the Soviet Union. The US6 gained a reputation for reliability, ruggedness, and drivability.

Driven over the Russian steppes, poor roads, and taxing terrain, it played a crucial role for the Soviets in their war with Nazi Germany. Red Army fuel was often of poor quality, but its drivers propelled the Studer to its destinations despite this.

The vehicle's history dated to 1939-40 when the US Army Ordnance Corps worked on developing a cargo truck with 5,000lb capacity that could operate off-road in all weather. Three companies, Studebaker, Yellow Coach, and

'The first Studebaker US6 trucks arrived in the Soviet Union in the autumn of 1941'

OPPOSITE: ***Katyusha Launcher on a Studebaker US6 Truck.*** *WIKIMEDIA COMMONS / NICK LOBECK*
BOTTOM INSET: ***A right side view of the Hercules JXD engine.*** *WIKIMEDIA COMMONS / US ARMY*
BELOW: ***A Studebaker World War Two military truck at Łańcut, Poland.*** *WIKIMEDIA COMMONS / PIBWL*



International Harvester bid on the design.

Studebaker became the primary contractor and built 197,678 units at its plant in South Bend, Indiana and REO built 22,204 at its Chicago plant under a sub-contract. Besides a 5,000lb truck, a 10,000lb capacity truck that came in 13 variations was also built.

Studebaker used a Hercules JXD engine with a 320 cubic inch L-head six-cylinder gasoline engine developing 86bhp (64kW) at 2,800rpm, and 200lb/ft (271Nm) of torque at 1,150rpm. It had a compression ratio of 5.82.1 and could use 72-octane gasoline.

A Warner T 93 5 transmission had a very low first, a direct fourth and overdrive fifth gear. A power take-off fitted below the radiator could operate a winch and a hydraulic hoist on dump trucks. The truck had a Timken T-79 transfer case with high and low ranges, a neutral position, and could engage or disengage the front axle. One output shaft was mounted forward of the front axle and two to the rear, with one for each rear axle. The front and rear axles of the Timken split-type had a ratio of 6.6:1. The front axle had ball-type constant-velocity joints while the other two were fully-floating.

The US6 model had a ladder frame with three beam axles, the front on semi-elliptical leaf springs, the rear tandem on quarter-elliptical leaf springs with locating arms. For semi-tractors, dump trucks, and short cargo trucks, the wheelbase measured 148in (3.76m). Tankers and long cargo models had a 162in wheelbase (4.11m). All the models had 7.50-2in tyres and dual rear tyres. Studebaker trucks differed from other 6x6 models because they included vent windows with each door. They were separate from the main window that rolled down in the doorframe and could be swung out to help with ventilation. Studebaker had an open type military truck cab, but its major customer, the USSR preferred a closed cab because of the harsh climate.

Manufactured primarily for the Lend-Lease programme, the first Studebaker US6 trucks arrived in the Soviet Union in the autumn of 1941. They soon proved an asset to the Red Army. Testing led to the enlargement of the payload from two-and-a-half tons to four tons, but this was later lowered to three-and-a-half tons to 1945.

The US government used three sea routes to transport the trucks to Russia, all of which had menacing threats. Freighter convoys on the northern route from North America, Iceland, and England were destined for Murmansk an Archangelsk in Russia. Ships on this route sailed through a gauntlet of German U-boats and warships.

Soviet chartered ships sailed from US Pacific coast ports, principally Los Angeles, San Francisco, Seattle, and Columbia River. A neutrality agreement between Japan and the Soviet Union allowed for safe voyage-no attacks by the Japanese, but a few were sunk. The Soviet ships offloaded their cargo at Vladivostok on the Pacific Coast of Russia.

The Persian Corridor saw the trucks and other war material travel from Iraq and Iran into Soviet Azerbaijan. This supply route began with US and UK ships sailing around the Cape of Good Hope to the Persian Gulf. Basra and Umm Qasr in Iraq and Bushehr and Bandar Shahur in

Studebaker US6 Dump U13. *WIKIMEDIA COMMONS / US ARMY*

Studebaker US6x4 Tractor U6. *WIKIMEDIA COMMONS / US ARMY*

Studebaker US6 Tanker U5. *WIKIMEDIA COMMONS / US ARMY*

Studebaker US6 Cargo U4. *WIKIMEDIA COMMONS / US ARMY*

Studebaker US6 Dump U11. *WIKIMEDIA COMMONS / US ARMY*

'The Persian Corridor ran the trucks and other war material from Iraq and Iran into Soviet Azerbaijan'

Iran were used to handle the shipments. From these ports, US and British drivers took them overland to Tehran and then to Ashgabat and Baku or Kazvin, Beslan and from Basra to Kazvin or Dzhulfa to Beslan. Smaller ports and transit points included Lenkoran in Azerbaijan, Yerevan in Armenia, Tbilisi in Georgia, Beslan in North Ossetia-Alania, and Krasnovodsk in Turkmenistan.

From the beginning in the Persian Corridor, hindrances delayed or blocked the shipment of the Studebaker trucks to Russia. They included a severe shortage of experienced truck drivers, lack of good roads, climate extremes, driver training, and poor organisation at the beginning, which hampered operations.

The US Army established the Persian Gulf Command to oversee shipments from the ports to Russia and on October 9, 1942, it activated the Motor Transport Service (MTS) at Camp Lee, Virginia, which had the responsibility of organising, staffing, and facilitating the movement of cargo. On March 13, 1943, commanding General Donald Connolly asked Col Donald Shingler to take over the operation. Shingler, who took over the Basra district, had a reputation as a troubleshooter. He instituted the block system of dispatching vehicles, changed truck servicing at transfer points and devised faster methods of loading and unloading.

MTS used two methods for dispatching trucks. For the first four weeks, trucks proceeded in military convoys, but because of the shortage of drivers, vehicles were left standing while drivers rested. Another problem arose due to climate. A driver starting in the desert wearing thin clothing encountered snow and freezing weather north of Andimeshk and either proceeded with inadequate protection or had to stop and change clothes which delayed the convoy.

Shingler instituted the block system for dispatching trucks on March 28. He divided a route into four blocks with an MTS camp at the end of each-one at Andimeshk, Khorramabad, Hamdon, and Kazvin. The four blocks operated from four home stations and took their trucks to the next station where they were handed over to the driver on the next block. After a rest period, the drivers drove southbound with empty trucks. They could operate vehicles both day and night with time out only for servicing and maintenance. With limited equipment but plenty of personnel, the block system was the most expeditious. They used it until August 1944.

Road congestion created problems for the Military Police which directed traffic. Inexperienced drivers sometimes drove in the centre of the road that prevented others from passing. Some Russian convoys disregarded one-way traffic control and drove through causing confusion. Native drivers posed many problems. Some had a unique sense of fatalism which accepted the crash that followed rounding a sharp curve on the wrong side of the road as the will of God. Others had an instinct to leap from the cab of a truck at the top of a steep hill because the brakes had failed.

Overworking drivers occurred because of their desire to meet delivery targets. Speeding, inadequate road signs, dust conditions, and poor highway conditions contributed to problems hauling the cargoes to Russia.

Some problems persisted until the end of the convoy runs. Bandits and thieves took advantage of slow speeds in steep terrain by dropping down from overhanging banks, slitting tarpaulins, and throwing off commodities such as sugar,

The Studebakers were so successful in the Soviet Union that they were closely copied as the ZiS/ZiL 151 and 157 families of trucks, built in the USSR until 1966 and in China until 1986. *WIKIMEDIA COMMONS / MIR76-GHOST*

Sources/Further information

Studebaker National Museum, US
Studebaker, The Complete Story by William A. Cannon and Fred K. Fox
Standard Catalog of U.S. Military Vehicles, 2nd Edition by David Doyle
The Battle of Kursk by David M. Glantz and Jonathan M. House
The Persian Corridor and aid to Russia by Vail Motter
American Cars, Trucks, and Motorcycles of World War I by Albert Mroz
Tanks and Armored Vehicles 1900-1945, Chartwell Books, New York
The Memoirs of Marshal Zhukov by Georgiï Konstantinovich Zhukov
World War 2 In Review No. 14, 2-1/2 Ton Truck
www.nationalvanguard.org; www.stude100.com; www.wikipedia.com - *Pacific Route; Persian Corridor; Studebaker; Studebaker US6 2-1/2 6x6 truck; armyhistory.org; idaoffice.org; panzerserra.blogspot.com; digitalcommons.uni.edu*

ammunition, tyres, flour, beans, and cloth. In December 1943, the MTS assigned special investigators to the thefts. Cargo was checked at each station before drivers were released, loads were sealed and they improved a system of way billing at points of origin, but the pilferage was never eliminated.

Despite all the challenges of transporting trucks to the Soviet Union, the Persian Corridor route accounted for approximately 873,000 cargo trucks. According to US Army records, 1943 and 1944, saw the largest numbers with 308,526, and 394,829 respectively.

Shipments of these trucks had proved essential to the Soviet war effort and US trucks, along with Jeeps, became the backbone of Soviet logistics. The Red Army moved troops, guns, ammunition, and supplies on these trucks and even modified some to be mobile rocket launchers for the Katyusha rocket. Without them, the Soviet army would have been hard-pressed to conduct a sustained effort. Joseph Stalin liked the truck so much that he ordered the Soviet government's purchasing commission to send a letter to Harold Vance, executive vice president of Studebaker congratulating him and the company on the quality of the truck, along with photos of the truck being used in Russia.

ABOVE LEFT: ***The Studebaker National Museum in South Bend, Indiana.*** *WIKIMEDIA COMMONS*
OPPOSITE: ***Iranian women watch an Allied supply convoy halted somewhere on the Persian Corridor.*** *WIKIMEDIA COMMONS / US NATIONAL ARCHIVES*
BELOW: ***A Studebaker photographed at Wings Wheels and Steam Country Fair.*** *WIKIMEDIA COMMONS / MARTIN PETTITT*