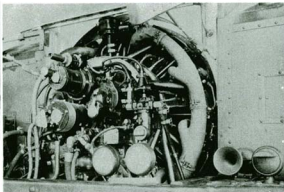


8x8 - 15-Ton



Although radial engines are basically very simple machines, their configuration helps to make them look extremely complex. The T33E1 by Corbitt had an engine installation which would have caused nightmares in an apprentice mechanic. It is seen here as it appeared in the truck with the hood raised. Basically designed as an aircraft engine, it was a Model R975C4 by Continental, had nine cylinders, and developed 450 horsepower at 2,400 rpm from 975 cubic inches. It was a high torque engine, with 1,025 foot pounds at 1800 rpm, and was, of course, air cooled. The same engine had been used in the T33, but the T33E1 received a Spicer Torque converter transmission which had three speed ranges and a Timken T-106 three-speed transfer case. The axles of both models were built by Timken, and were gear driven, using 20 ply 14.00x24 tires all around. Dual Gar Wood Model 60-60 winches were mounted behind the cabs of both the T33 and the T33E1, and they both had a very respectable road speed of 55 miles per hour, with a 300 mile cruising range. The E1 weighed 51,300 pounds net, and with a full payload weighed an impressive 75,300 pounds. The angles of approach and departure were reasonably good, at 38 and 36 degrees respectively. This photograph of the engine compartment of the T33E1 was taken in October, 1946, while the truck was at Aberdeen Proving Ground, Maryland, for tests. (TL)

The Detroit Arsenal XM194E2 returned to the use of a Continental air-cooled V-8 carbureted gasoline engine, the model AV-1195-3, but during 1953, Ordnance personnel at Aberdeen installed a much larger Continental model AV1-1790-7A in the XM194E2. The new engine was a V-12 air cooled model which was being used in the M47 and M48 tanks, and initial tests indicated satisfactory performance whereas the previous T58/XM194/XM194E1 models had shown limited durability. The XM194E2 was shipped to Kenworth, where it was completely rebuilt and reappeared in 1955 as the XM194E4. The tractor illustrated here is the XM194E3. It had been fitted with a fuel injected, air cooled, Continental V-8 of 1195 cubic inches and 530 horsepower (model AV-1195-3), and had a GCW of 150,000 pounds, while weighing 47,850 pounds itself. It also used the Allison TX-500-2 torque converter transmission. All of the XM194 series trucks sat on a 175-inch wheelbase, used 16.00x25 tires, were 124 inches wide and 110 inches high (reducible to 103 inches). (TEC)



Although the Sterling T26 series and Corbitt T33 series trucks had generally performed very well in Army evaluations, they were by anyone's standards, simply too big. They were far too wide for either operation on public roads or for loading onto railcars, and they were as difficult to extract from the mud as a tank. But the Army was still convinced of the need for immense trucks to carry immense loads. The T57 cargo truck mentioned earlier in this chapter as an 8 tonner had a cargo and tractor counterpart in the T58, which was rated at 12 tons at first, then later at 15 tons. They were all designed and built at the Army's Detroit Arsenal in 1951, and when the T58s were shipped to Aberdeen for evaluation, they were redesignated as the XM193 (cargo) and XM194 (tractor). The pilot models used Continental air-cooled gasoline V-8 model AV-1195-2 engines, which developed 540 horsepower at 2800 rpm from 1194.5 cubic inches displacement. This drove into an Allison TF-500-2 automatic transmission with torque converter, which had the transfer case built in as part of the transmission's locking differential assembly. The truck shown here is the XM194E1 and is nearly identical to the XM194 (the earlier model had equal sized grille openings as the engine cover) except for the replacement of the Continental engine by a Ford Model GAF 1100 cubic inch water-cooled V-8 which turned out 525 horsepower at 2800 rpm. The installation of the Ford GAF had been done by AFC Brill in Philadelphia, Pennsylvania, and an Allison TX-500-2 transmission was also fitted, with the XM194E1 subsequently being tested at GM's proving ground at Milford, Michigan. (TEC)

When the Kenworth Truck Company of Seattle, Washington, returned the XM194E4 (nee XM194E2) to the Army in March of 1955, it had undergone a thorough transformation. Kenworth, which was also the builder of the T10 transporter for the 280 mm gun (Chapter 9), put their best effort into the remodeling of the tractor, and it is seen here at the Kenworth plant prior to shipment to Ordnance. Although the overall appearance is similar, the three speed Allison TX-500-3 transmission was upgraded to match the huge Continental AV1-1790-8A engine, an air-cooled, V-12, fuel injected, 1,790 cubic inch model which churned out 835 horsepower at 2800 rpm, and it could tow a full 150,000 pounds at 45 miles per hour on improved roads. Other changes by Kenworth included increasing brake capacity, using only steel in the cab construction, increasing the fuel capacity from 200 to 272 gallons, and the relocation of the winches including turning one about 15° so it could be used in either front or rear recovery operations. (DA)

