

The Diamond T company of Chicago produced two of the foremost heavy vehicles used by

When the photograph on page 10 was taken the sun must have been almost directly overhead, for it casts no long shadows onto the scorching sand of the Western Desert. The young soldier of the Royal Engineers gazes confidently out from the past. He stands with hands on hips, a half-smile on his lips. Behind him is a Diamond T 980 that has been entrusted to his care by 871 Mechanical Equipment Company, RE.

Some three-quarters of a century ago, as the unknown cameraman clicked the shutter, neither he, nor the subject – Sapper Brian Dean – could have imagined that the image captured that day would help to inspire a later generation to restore and preserve the machinery of warfare. That though is exactly what happened.

For schoolboy David Dean, Brian's son, growing up in the 1960s, that old photograph was a familiar image. It, along with other black and white pictures of vehicles and tank transporters against a background of sand and sun, were

part of a photographic album at home. As he pored over the fading images, and played with his Matchbox model military vehicles, he knew that one day he would drive a Diamond T - just like his father had done during the war – a dream was born, but it would take many years to translate into reality.

By the late summer of 1940 the British Army had a major problem. The Churchill tank, or to give it the correct nomenclature, The Tank Infantry Mark IV, which was being hurried into production, was too large and heavy for the existing UK tank transporters. The earlier tanks had weighed in the region of 25 tons, or less, but the new Churchill tank, about to come into service, was almost 40 tons.

The Scammell Pioneer, which had proved itself with the Matilda and Valentine tanks, was not capable of carrying such a load. After a year of war, British industry was fully committed to existing production, and lacked the surplus capacity and material to quickly develop a tank transporter

to accommodate the heavier vehicles which would soon be coming into service. A solution to the problem had to be found – the answer lay across the Atlantic.

From the offices of the British Purchasing Commission in New York City, the required specification for a heavy tank transport combination was submitted to likely manufacturers in the USA. The purchasing commission existed to arrange the procurement and supply of military requirements from the industrial might of American manufacturing. Despite the US being neutral at the time it had contacts in the right places to submit the British specification to likely suppliers. What was required was a 12-ton 6x4 ballast tractor, with a diesel engine, capable of towing a trailer and load combination in excess of 50 tons. The Diamond T Company, of Chicago, Illinois, was the manufacturer which put forward a product that met the requirements.

Founded in 1905 as the Diamond T Motor Car Company, the firm had, as the name implies,

A Tale of Three



'The contribution that the two 'heavies' from Diamond T made to the Allied war effort cannot be underestimated'

the Allies during World War Two - CMV recently visited a small collection in South Yorkshire

originally been a car maker. From 1911, however, it concentrated on manufacturing commercial vehicles – C A Tilt, the driving force behind the organisation having recognised the opportunities in that marketplace.

The firm had established a reputation for the strength, quality, and longevity of their vehicles, and, in the inter-war years, had actively promoted sales by describing the Diamond T as 'The Cadillac of Trucks'. Having looked at the British specifications, the company realised that with suitable modifications, a heavy truck project that was being developed for the US Army could easily be adapted to meet the needs of the British. The requirement for a diesel engine could be sourced from The Hercules Engine Company, which already supplied Diamond T with the large petrol engines favoured in the US market. Having seen their proposals, the British Purchasing Commission placed an initial order for 200 vehicles with the Diamond T Company.

Production began at the Chicago plant in 1941

and the first deliveries arrived in the UK in early 1942. The 980 was a 12-ton unit, with a ballast body which could hold eight tons to give extra traction to the driven wheels. When coupled to the British-made Trailer Mk I or Mk II, it was more than capable of handling the new generation of heavy tanks. Pressed immediately into service in North Africa, it proved utterly reliable no matter what the conditions.

Eventually around 1,000 units were bought for the British Army, some remaining in use until the early 70s. Recognising the success of Diamond T's 980, the US Army also deployed the vehicle in the transporter role, using Rogers trailers, based on the British design. More than 5,000 units saw action in every theatre of war.

The Diamond T heavy truck design emerged in 1941 as the 968 four-ton 6x6 general service cargo truck/artillery prime mover. The big brother of the GMC CCKW, the 968 saw service in all theatres in numerous roles. Soft-top and closed-cab versions were made, along with various spe-

cialised adaptations such as a recovery vehicle and a dump truck. The selectable six-wheel drive gave the 968 outstanding off-road capability.

The contribution the two 'heavies' from Diamond T made to the Allied war effort cannot be underestimated.

By the early 2000s, David Dean, and his friend, Nigel Willoughby, were heavily involved in the world of historic military vehicles. Both were members of the South Yorkshire Transport Museum, and they owned numerous examples of smaller historic motors, from Land Rovers and World War Two Jeeps, to Humbers and Ferret armoured cars.

The desire for something bigger still beat in David's heart though, and he kept his ears open whenever mention was made of Diamond T vehicles. From a former chairman of the museum, David had learned about a 980 that was 'in a yard in Retford'. Unfortunately, no one seemed to know which yard, and the prospect of driving in circles looking for the Diamond T, was not one which

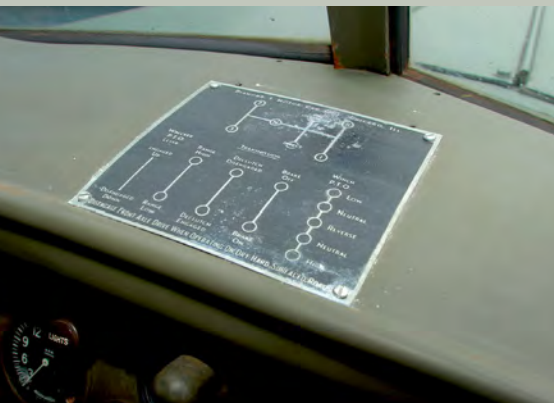
Two of the best heavy vehicles of World War Two

Ts





Timken F-2090-W-73 double reduction front axle.
In normal use the vehicle operates as a 6x4, but 6x6 is selectable when needed



Gear changing plate is easily read and clearly laid out



The Diamond T badge. Later vehicles were made without this identifying mark



Towing pintle on the rear of the vehicle



ABOVE & BELOW: With a load capacity of four tons, the 968/968A saw service in all theatres during World War Two. A soft-top version was used in warmer regions
LEFT: The small cab is lifted straight from a pre-war Diamond T light commercial. The long mirror arms make for excellent all round visibility



SPECIFICATIONS

- Make **The Diamond T**
- Model **980/981**
- Maximum speed **23mph**
- Fuel consumption **2mpg**
- Engine**
- Make **Hercules DFxE**
- Type **six- cylinder diesel**
- Bore **5 5/8in**
- Stroke **6in**
- Displacement
- 893 cubic inches (14634 cc)**
- BHP **201 at 1,600rpm**
- Gearbox**
- Make **Fuller 4B86**
- Type **four-speed**
- Weight **420 lbs**
- Auxiliary Transmission**
- Make **Fuller 3A86 or 3A92**
- Type **Three-speed**
- Weight **340 lbs**
- Clutch**
- Make **W C Lipe**
- Model **Z-38S**
- Type **two plate dry disc**
- Front Axle**
- Make **Timken**
- Type **I section beam**
- Rear Axles**
- Make **Timken**
- Type **Double reduction**
- Half-shafts **Fully floating**
- Brakes**
- Make **Timken**
- Type **Air, Bendix**
- Westinghouse type**

- Dimensions(overall)**
- Length **23ft 3 3/4in**
- Width **8ft 5 1/2in**
- Height **8ft 5in**



ABOVE: The inside of the cab is well laid out, and all controls fall readily to hand. The massive wheel compensates for the lack of power steering
ABOVE MIDDLE: The twin Timken SFD-154-W rear axles are suspended on leaf springs with supporting struts, and offer impressive articulation



ABOVE: Nigel's Diamond T 980 with eight-ton ballast body
 RIGHT: 980s served into the early 1970s in British use
 BELOW: The ballast body was found in a field in Norfolk.
 It could be loaded with sand or gravel or cast concrete blocks for maximum weight



The rear axles are Timken double reduction units giving low speed but enormous power



Front bumper is certainly a heavy duty item



SPECIFICATIONS

- Make **The Diamond T**
- Model **968/968A**
- Fuel consumption **3mpg (laden)**
- Engine**
- Make **Hercules RXC**
- Type **Six-cylinder petrol**
- Bore **4 5/8in**
- Stroke **5 1/4in**
- Displacement **529 cubic inches (8668 cc)**
- BHP **132**
- Carburettor**
- Make **Zenith**
- Model **IN167SJ**
- Gearbox**
- Make **Fuller 326-VO-21**
- Type **Five -speed**
- Weight **380lbs**
- Clutch**
- Make **W C Lipe**
- Model **Z42-S**
- Type **Single plate dry disc**
- Front Axle**
- Make **Timken**
- Model **F-2090-W073**
- Type **Double reduction drive**
- Rear Axles**
- Make **Timken**
- Model **SFD-154-W**
- Type **Double reduction drive**
- Half-shafts **Fully floating**
- Brakes**
- Make **Bendix Westinghouse**
- Type **Air**



ABOVE: Areas of the cab are still to be restored but at least the vehicle is useable

ABOVE MIDDLE: The rear springs cope easily with the weight of the 980



The Garwood winch is operated from the power take off, and has a 40000 lb capacity



The data plate fixed underneath the left wing. It shows the former military number as 25 YZ 79

Dimensions(overall)

- Length **22ft 4in**
- Width **8ft**
- Height **10ft 6in**



LEFT: In the Western Desert
BELOW LEFT: The photograph that started this story. Sapper Brian Dean with a soft top 980/981, somewhere in the Western Desert
MIDDLE LEFT: The left side of the engine gives an idea of the sheer bulk
MIDDLE RIGHT: The right side of the Hercules DFXX six cylinder diesel engine



too. They got talking to the farmer who had hired out the field for the show, and when he saw the Diamond T, he casually mentioned that he had one in a barn! Negotiations followed, and before long, Nigel had his own Diamond T safely housed in the South Yorkshire Transport Museum.

The vehicle needed work, for it had no ballast body, and the sheet metal of the cab was in poor condition. A body was found in a field in Norfolk, and a recovery mission involving a Land Rover and trailer soon



glass-fibre in these areas, so that he can use the vehicle while trying to source the panels he needs to do a perfect restoration. Some military history is known. From a data plate under the left wing, we know that at some stage the 980 had the military plate 25 YZ 79. It's believed that the unit was originally used by the Canadian forces, then ended up with the British Army on the Rhine, based at Fallingbostell in Lower Saxony. In 1960 the vehicle was sold to a firm in Suffolk, who used it on trade plates for heavy recovery work - no doubt it was at this time that the ballast body was removed.

David Dean points out that the more one becomes known in the tiny world of the Diamond T collectors, the easier it is to learn where other vehicles or parts are, or where restorations are taking place.

This access to information led directly to his second purchase - a Diamond T 968A. At a Pickering Wartime Weekend event he got talking to someone who owned the 968. The vehicle was in Whitby, and had at one time been used as a snowplough. Now it was restored, and painted to represent the markings used by the Allies during Operation Husky - the invasion of Sicily in July and August 1943. David had not planned on buying another vehicle, but this was too good to miss, so he and another friend, Steve Rodman, clubbed together and arranged the purchase, and the 968 found a new home.

Fitted with a Leyland diesel engine in place of the original Hercules RXC petrol one, David finds the 968 really pleasant to drive. Sitting behind the wheel, visibility is good thanks to convex mirrors, and the controls are laid out in a logical manner, most falling readily to hand. Unfortunately, once again the military history is uncertain, though attempts continue to learn more.

In the meantime, David and Nigel continue to work on their vehicles and to use them. Although driving these wonderful machines is not cheap, they will be attending a number of events during the year, including the Yorkshire Wartime Experience at Bradford, in July. You can also see the vehicles at the South Yorkshire Transport Museum, which is open on the second Sunday of every month. ◀

had much appeal. More information was needed - fate, though, was about to intervene.

Around 2010, David and his pals attended a military vehicle show at The Yorkshire Air Museum at Elvington, near York. In the strange way in which these things happen, David got chatting to another attendee at the meeting, and when Diamond T trucks were mentioned the stranger said that he had one in Retford! David immediately plucked up courage, and asked if he could see the vehicle, and plans for a journey south were arranged. It was love at first sight. A price was negotiated, a low-loader was hired, and the Diamond T 980 was soon delivered to Sheffield.

The vehicle was in surprisingly good condition. Some work has been needed - a new radiator core, and a new clutch - but most of the other jobs involve those little details which are a source of pleasure with old vehicles. Alas, virtually nothing is known of the military history, as all the data plates have disappeared. What is certain though, is that this is an early model, for the chassis number is 9800278.

Nigel Willoughby was much impressed with the 980, and began looking for one himself. Though there are probably quite a few 'project' Diamond Ts, there are only around 50 in working order, so Nigel knew that the odds were stacked against him - cue fate once more!

In 2013 David had taken his 980 to another show at North Anston, and Nigel had gone along

solved that problem. The drop-down tailgate was missing, but a new one was fabricated to the exact pattern, and installed.

Some of the cab bodywork has been repaired, but some sections need more work - Nigel has used



Nigel (left) and David (right).
Without them, vehicles like these would disappear