'WARWELL' WELL WAGON ADS 3150

(with Atlas 5 Ton Hydraulic Crane)

Warwell wagon ADS 3150 fitted with Atlas Crane 96501

Correspondence from the Ministry of Supply to the Ministry of War Transport Railways Division (Ref: 208/P/1358/1/26), dated Friday 2nd July 1943, includes reference to a contract having been placed for 200 vehicles to transport large Tanks. These became known as 50 Ton "Warwell" wagons and construction was allocated as to 100 by the Gloucester Railway Carriage & Wagon Co. (GRC&W); 75 by Head Wrightson & Co Ltd. of Thornaby-on-Tees and 25 by the Southern Railway (SR) at their Carriage & Wagon Works in Lancing.

These featured a lowered floor between diamond-frame bogies which allowed large tanks, such as the American 'Sherman' M4 Medium Tank, to be moved within the UK's restricted railway loading gauge. "Warwell" wagons had strengthened frames and floors to accommodate heavy loads and were fitted with four screw jacks [one at each corner], for stability during loading/unloading, as well as vacuum brakes.

Incidentally, 'Sherman' tank production began at the Lima Locomotive Works, Ohio and the second production model can be viewed at The Tank Museum, Bovington, Dorset.

All 200 Warwell's were heavily involved in the movement of vast numbers of tanks, from America, during the build up to Operation Overlord. First there were train loads from various ports, such as Liverpool, to holding centres across England where stocks were consolidated.

Later, special trains transported thousands of tanks to various south coast ports, such as Southampton and Weymouth, in readiness for the invasion on 6th June 1944. These special trains were repeated thereafter to replace those lost during the initial battles and to strengthen forces as the Allies advanced.

Our vehicle was built by GRC&W to design diagram 6/805 with serial number 551 applied when it was outshopped. It was registered by the LMS Railway [WD(M) 651] in 1942 as all 'Private Owner' wagons had to be registered as conforming to Railway regulations at that time. Some basic dimensions are as follows: Length over buffers: 47 Feet; Length of Bogie Centres: 33 Feet; Length of centre decking: 14 Feet 6¼ ins.; Width: 8 Feet 3 ins.; Tare Weight: 26 Tons 15 Cwt.

After World War 2 the War Department (WD) made a lot of these vehicles surplus to requirements. As well as some wagons remaining in military use, WD sold several surplus wagons to the 'Big 4' operators.

Around 1946/7, SR bought six Warwell's from the WD to carry loco boilers and numbered them in the 3146 – 3151 series. One of the six [CDS 3151] eventually carried BR's internal user fleet number 083262 for use at British Rail Maintenance Limited (BRML) Eastleigh Works. It was one of those constructed by Gloucester C&W.

100 Warwells were purchased by the LMS after the war. These were used as follows: twelve were numbered 360329 to 360340 to diagram 133F and designated as 50 Ton Warwell Trolley. 38 wagons were numbered 721200 to 721237 to diagram 5B and were designated Bogie Bolster B as lot 1547. The remaining 50 wagons were numbered 748300 to 748349 to diagram 11D being designated 30 Ton Bogie Rail Wagon as lot 1497.

These passed into British Railways ownership at nationalisation in 1948 with a number converted into steel carriers with bolsters. Others became boiler carriers for use in BR's workshops or converted into specialist wagons with the addition of hydraulic cranes such as our vehicle.

Later, BR bought a further forty 50-ton 'Warwell' wagons and numbered them into their Western Region series as W 160800 to W 160839. These were identical to the conversion to LMS diagram 5B and were designated as 30 Ton Bogie Bolster B. They were converted to diagram J33 at Swindon Works in July 1949, which later became known as diagram 1/486. The conversion work was allocated lot number 3415.

Almost all BR ex-Warwells were withdrawn by the early 1980s, being replaced with more modern designs. Some were sold into industrial use and could be seen at Steel Mills across the UK into the early 2000s.

The MoD's remaining Warwells stayed in military service, transporting tanks, jeeps and other vehicles between military bases across the UK. The MoD fully refurbished the majority of its fleet in the late 1970s including fitting air brakes and new Gloucester bogies to modernise them. A small number of unmodified wagons were kept for use on internal military base systems.

During the 1990's, following further refurbishment and extensions to the decking, 'Warwells' could carry larger military vehicles and a small fleet remains in MoD service to this day, almost eighty years after construction.

Steam locomotives ceased being used on BR(S) services on 9th July 1967 so there was no reason for Southern Region to keep their boiler-carrying wagons in service. It has not been ascertained what happened to 3147 or 3148 but, presumably, they were scrapped.

Three of the six (ADS 3146, 3149 and 3150) were not scrapped, however, gaining a new lease of life when Atlas telescopic hydraulic cranes were installed on two of them in 1973 to BR design diagram 1903. So far as our vehicle [ADS3150] is concerned, an Atlas 5 Ton

diesel hydraulic crane unit (Model number AK5000V13,8-185) was installed. It was built by Hinrich Weyhausen KG of Delmenhorst, Lower Saxony in 1971 having serial number 724. A Staff and Tool coach would normally be coupled to the wagon to ensure staff and supplies were readily available on the work site.

BR's Civil Engineers Plant System (CEPS) numbering series was introduced in 1974. As a result of those alterations the three wagons were renumbered into the BR Track Machine and Rail Crane number series (DR 96xxx – Light Duty Diesel Hydraulic Crane) being allocated numbers DRW 96500 to DRW 96502 with ADS 3150 receiving number ADRW96501.

The prefix 'A' related to it's allocation to the Mechanical & Electrical Engineers Department and the 'W' showed it to be a Warwell/Atlas wagon. Similar vehicle ADS3149 became KDRW96502, when converted in 1981, and is currently based on the Mid Hants Railway. Incidentally, the 'K' indicated it's allocation to the Signal & Telegraph Engineers. The third Atlas fitted Warwell was ADS3146 which became ADRW96500 and, at the time of writing [2023], it remains based on the West Somerset Railway.

These cranes have an impressive reach of up to 45 feet with the telescopic section fully extended.

Plated Lifting Capacities	
Length of Boom in Feet and inches (Metres)	Lifting Capacity in lbs (kg)
6 Ft 1ins (1.85m)	12,675 lbs (5,749.28kg)
34 Ft 2 ins (10.42m)	2,200 lbs (997.90kg)
45 Feet 4 ins (13.82m)	1,540 lbs (698.53kg)

As mentioned above, ADRW96501 (ADS 3150) went to the Southern Region's Mechanical & Electrical Engineers Department Power Supply section. One of it's uses involved replacing equipment in electrical sub-stations. On the 750v DC network these sub-stations were placed at regular intervals along each line to ensure adequate power supplies reached the third rail.

Although ADRW96501 (ADS 3150) was based primarily on the Central Section it was, in practice, quite likely to turn up anywhere on the Southern network to assist lifting M&EE's items as necessary. It was last overhauled in 1984 at Ashford Carriage Repair Depot after which it returned to it's base at Horsham Yard.

ADRW96501 (ADS 3150) was noted at work in the Three Bridges Pre-Assembly Depot on 30th August 1993. Two months later it was engaged in material movements in the Clapham Junction area on the 11th October.

After Britain's railways were privatised, ADRW 96501 (ADS 3150) came under Jarvis PLC ownership, being based at their depot in Horsham Yard, and was allocated the Jarvis number S4404. It was noted at work in the Tonbridge area briefly on 21st April 1996 and was photographed at it's normal base in Horsham Yard on Sunday 5th May 2002 but was not to continue working there for much longer. Unfortunately, by this time, Jarvis PLC was becoming burdened with increasing corporate indebtedness.

ADS 3150 was purchased by Southern Catering Preservation Group in March 2005 after

their initial offer to buy it (5½ years earlier) had been ignored!

It was transported from Horsham to Norden Road/Rail terminal during April 2005. Since then it has been used for many lift jobs requiring the use of it's reach.

Compiled from various sources by Peter Sykes 12/02/2020

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