

45108 (D120) Works Records

These Derby Works records for 45108 came to light in 2017. They give an interesting insight into the repair history and the swapping of components between locomotives. This is a summary.

45108 was built at Crewe in 1961 and entered service as D120. The Works records cover the period 1967 to 1985 and the first visit recorded is from 14/08/67 to 26/11/67 for refurbishment. This is when the split centre head code boxes fitted when the loco was built were replaced by one piece centre head code panels (as carried in preservation today), the lower body side 'triangular' access panels replaced with grilles and internal filters fitted to the engine room air inlets. It is recorded that the engine from D18 was fitted and the bogies, boiler and all traction motors exchanged. This is also when the loco would have received BR blue livery.

D120 next paid a brief visit to the Works from 22/02/68 to 27/02/68 for No.4 traction motor to be changed.

The next overhaul (light) was received between 24/02/70 and 13/03/70 when the loco received the engine from D85 and the bogies from D160 (as these were from a Class 46, this must refer to the bogie frames only, with traction motors swapped from Brush to Crompton Parkinson).

'Special Shopping' was received between 11/07/72 and 13/07/72 for a bogie pony truck modification and the loco re-entered works on 10/04/73 for an Intermediate overhaul, boiler removal and fitting of Electric Train Heating (ETH) equipment. Bogie frames were received from D183 (No.1 end) and D174 (No.2 end) and dual brakes were fitted. The loco was released on 04/06/73, now renumbered as 45108. Two visits were made for rectification work to a 'mag valve' in the control cubicle on 27/06/73 and to an engine over-speed tripping on 10/07/73.

On 11/12/74 the loco entered Works due to piston '6A' seizing. The power unit was swapped with that from D125 (45071) which was in works 'on decision' following the serious collision at Bridgwater on 23/10/74. Interestingly 45108 is not recorded as released from works until 04/03/75!

The loco was stopped at Toton on 16/07/75 with '3A' cylinder hydrauliced and sent to Derby Works on 22/07/75. This was repaired and the heat exchanger tested (indicating this was the suspected cause of water entering the engine). The turbo charger was also changed before the loco was released back to traffic on 04/09/75.

The next record shows the loco as stopped at Toton on 13/07/76 due to an electrical cubicle fire and received at Derby on 26/07/76, where a classified (light) overhaul was also authorised. The power unit and traction motors were changed and the wheel sets from 46053 installed. The cost of the additional work to repair the fire damage is quoted as £8300. Release back to traffic was on 25/08/76, but the loco was back in works from 21/09/76 to 02/11/76 for rectification work to the 'divert frame' and for traction motors 1, 4 and 6 to be changed.

45108 paid two visits to Derby on 14/06/78 and 29/08/78 for weighing only and was then stopped at Toton on 26/06/79 for a Heavy General Overhaul, but was not received at Derby until 19/07/79. Again, the power unit and traction motors were swapped and the bogies and wheels received from 45105. It is during this overhaul that the head code boxes were removed and the nose ends reskinned for sealed beam headlights to be fitted. An 'Authorised Work Form' dated 05/10/79 quotes 150 hours as required for this work. The loco was back in service on 28/10/79.

The loco was next recorded as stopped at Toton on 29/07/82 and sent to Derby on 11/08/82 for attention to main generator risers and a turbo charger change, being released back to traffic on 13/10/82.

On 29/03/83, 45108 was stopped at Toton with scrap size tyres and sent to Derby on 05/04/83. Wheel sets from 45049 with new tyres were fitted and all traction motors changed for a release to traffic on 20/05/83.

Just under four months later, on 15/09/83, the loco was stopped at Toton due to the main generator being dead to earth and all traction motors flashed over, being sent to Derby on 28/09/83. The generator was repaired (work quoted as 'clean, stove, paint, bearing and end frame renewed') and all traction motors replaced, for a return to service on 21/11/83.

At Newton Heath depot on 30/05/84, 45108 was stopped due to a hole in the main generator commutator. The loco arrived at Derby on 06/06/84 where the main generator from 45001 was fitted (converted for use in Class 45/1). No.5 traction motor was also found to have flashover damage and was cleaned in situ. The date back to traffic was 08/08/84. Mileage since the last overhaul is quoted as 384000 (estimated) and engine hours as 8929.

The next visit to works was from 13/07/84 to 08/08/84 for attention to the engine governor and two cylinder heads.

On 04/12/84, 45108 was received at Derby for a final classified repair (light overhaul). Mileage was quoted as 412000 (estimated) and engine hours as 9599. During this work the engine from 45103 was installed, the main generator and bogies from 45113 and the wheel sets from 45022. A series of modifications were also carried out. These are listed as 'tack welding of blower motor boss/impellor securing nuts, improvement of connection on ETH alternator diode panels, improved alternator connections on top of cubicle, governor conversion, repositioning of connections of incoming cables to self-field circuits in main generator, governor linkage fitting of positive locking pins'. There are two other interesting quotes; 'New silencer to be fitted to Engineering Instruction LD.556, MB1/259' and 'Locomotive fitted with 12LDA28B type engine fitted with Mk.II blocks. Required for special future Class 45/1 refurbishing programme'!

45108 is recorded as 'off works' on 22/03/85 and I remember seeing her 'ex-works' piloting 45125 on 16:53 (SUN) Derby – St Pancras through Bedford, believed to be her first revenue earning duty after overhaul.

Steve Dexter