

45121

45121 (the erstwhile D18) was one of two Class 45/1s (the other being 45110) that received white body side stripes and red buffer beams at Toton Depot in 1980. The loco carried these in service until being called into Derby Works for a Heavy General Overhaul in 1981. The rare photos below show the loco in the Erecting Shop during refurbishment and outside the Test House just prior to repainting. Note that the head code boxes on the nose ends were also replaced with sealed beam headlights during this overhaul.



The photo below shows the loco fully painted and undergoing final testing before release back to service on 1st November 1981.



The loco made a final visit to the works in June 1986, being one of the last 45s to receive repairs there (photo below by Ian Hammond).

Following Main Generator Repairs it returned to traffic in October 1986.

The loco was scheduled to be withdrawn in May 1987, but received a reprieve due to other locos being in worse condition.



However the reprieve was cut short when the loco derailed all wheels at Healey Mills on 28/10/87 and was deemed beyond economical repair, being withdrawn on 19/11/87. The loco was then sent to Derby Etches Park for Carriage Heating duties, but then suffered the ignominy in 1993 of being rammed by a Class 158 vehicle as part of a crashworthiness test for the then new units. The article below is from 'Rail' magazine. The loco was sold for scrap soon afterwards to 'Thomas Hill' scrap merchants and cut up on site on 13/03/93. It was not completely the end, as many components were saved by the Pioneer Diesel Group for re-use on their locos (45060, 105 and 135).

Steve Dexter

Class 158 hits a 'Peak'

Locked together, the Class 158 vehicle and Class 45 No. 45121 following the controlled collision at ABB Transportation, Derby.



A CLASS 158 vehicle coupled to a ballasted flat wagon, to simulate a two-car Class 158 unit, has been rammed into 'Peak' locomotive No. 45121 at ABB Transportation's Litchurch Lane Works in Derby.

In the simulated collision the Class 158 vehicle and wagon were accelerated up to the required speed by a Class 20 locomotive, No. 20227 loaned from the Midland Railway Centre, and then released to collide head-on with the 138-ton locomotive.

Inside the Class 158 vehicle were three seated and instrumented life-like dummies to record the body shock loads typically experienced by passengers in a rail crash.

With the 158 up to the required speed the Class 20 ceased accelerating and the unit charged into the locomotive. Initially the front of the Class 158 bounced up, allowing all wheels on the leading bogie to spin before making contact with the track again and pushing the Class 45, with all wheels locked, eleven metres along the track.

Severe damage to the 158 was confined to the lower front end and underframe equipment. The passenger compartment remained intact with no broken windows and the three dummies recorded survivable loads.

The object of the exercise was to investigate the potential to improve vehicle safety, and demonstrate body repair procedures for aluminium vehicles following accident damage. The next task is to develop and apply repair procedures to the damaged 158 vehicle to demonstrate that, following repairs, the vehicle structure is as good as new. ●



A member of ABB Transportation's, Advanced Technology Division, inspects the damage to the front end of the Class 158 vehicle, which displayed the set number 158999, following the controlled collision. Photos. ABB Transportation Limited.