

The 48 Class Locomotive

The DL531 (of which the NSW 48 Class and the ASR 830 Class are examples) was introduced by ALCO to compete with the increasing success of the EMD (General Motors) G8 (eg: VR T Class, NSW 49 Class) and G 12 (QR 1400 Class), in the export market. Particularly the design was suitable for use in areas with gauges as small as one metre.

The DL531 had six axles, all driven. EMD on the other hand only used four driven axles, in the belief that the operating railways would allow a heavier axle load for diesel power than for steam, owing to the reduction in unbalanced forces on the track. This hope was not, in the short term, fulfilled, and EMD had to match the six driven axles in later models.

As it turned out, most of the DL531's were built (by AE Goodwin, NSW) for use in Australia, and most of them operated on broad or standard gauge lines. New South Wales, with 165 units, had the largest fleet. Very few were ever built for Narrow gauge lines.

The New South Wales system had many light branch lines, built for political reasons and carrying mainly seasonal traffic, usually grain. These lines were worked by the survivors of the mainline steam locomotives of the 1880's, supplemented by suburban tank locomotives, from the turn of the century, which had been converted into tender locos.

Twenty DL531's (4801 – 4820) were ordered to see if the high and rapidly increasing operating costs of these branch lines could be brought under control. Starting in late 1959 fourteen units were sent to Werris Creek, to operate the wheat lines of the North West, and the remaining six went to Casino to replace steam on the Murwillumbah branch. They were an immediate success, and by the early 1960's the heaviest trains in the state were being hauled by 48 Class locomotives (in multiples of up to three) on the light lines radiating from Werris Creek.

The next batch, 4821 – 4830, were allocated to Goulburn to work the Canberra, Cooma, Batlow and Captain's Flat lines. For the first time advantage was taken to provide electric power from the locomotive main generator to passenger trains, and this group of locomotives was equipped to power heating in specially fitted passenger cars on the "Cooma Mail". Some 44 Class locomotives were also equipped for the main line haul to Goulburn.

Junee became the home depot for 4831 – 4845, when they took over working the South Western branches, including the alternative day working of the Riverina Express to Griffith. On the main line the Riverina remained a 38 Class working for a short time.

At this stage, with the 49 Class working the far Western branches, the initial rounds of conversion to diesel were complete, as far as the branch lines were concerned Railmotors had already taken over most of the remaining branchline passenger traffic and the first rail tractors were appearing for minor shunting duties.

The 48 Class was seen as a general-purpose locomotive capable of replacing a 32 Class or 50 Class steam loco on the main lines as well as on light track. They were allocated to Eveleigh for Illawarra passenger working, replacing the 32 Class. There was no improvement in running times although allowances for taking water were removed from the timetable. Thus, another three orders each of forty locomotives were placed, resulting in a total of 165 locomotives, mainly for use on the main lines. From 4886 onward they were fitted with a larger fuel tank (3178 versus 2270 litres) and an externally mounted battery box. The Powerline model represents the earlier configuration.

Towards the end of steam triple 48 Class could be seen, substituting for double 60 Class Garratt locomotives. By the late 1970's, a 48 was often matched with one or two mainline units on fast interstate freight trains. By 1981, the allocation of 48 Class was rationalised in order to prevent the first series with the smaller fuel tanks from being involved in interstate express freight working. The arrival of the 81 Class greatly reduced the requirement for 48 Class on fast freight, and the closure of many branch lines reduced their utility in that area.

They were also used on Mail trains and lighter interurban trains until locomotive haulage of passenger trains was virtually eliminated in 1989.

With the coming of open access, a number of third level operators obtained 48 Class locomotives. Austrac, based at Junee, obtained two units, 4814 and 4836. These worked the early main line container services, fitted with additional fuel tanks. The larger ex-WA 18 Class and leased an ex-AN.

EL Class are still assisted by these 48 Class units as required.

Cargill use a single unit, the former 4812, renumbered as CAR 1, at their plant on Kooragang Island near Newcastle.

Silverton obtained three new DL-531's from Goodwin, numbered 27 to 29, following on from their steam locomotives. These worked the 1067mm gauge connection with the South Australian Railways to Broken Hill until the standard gauge arrived in 1970. The original 29 became SAR 874, but the others were converted to standard gauge and remain in service. Two more were obtained from Tasmania and six more from NSW, becoming numbers 29 to 36, and recently these were renumbered as 48's 27 to 48's 36. A modified version of the blue and yellow scheme is now used. Two further ex-NSW 48 Class have been purchased for use, and the operation is now centred on Parkes rather than Broken Hill.

A number of 48 class have been fitted with exhaust scrubbers for use in the Sydney Underground tunnels, and two of these (4819 and 4827) are operated by Rail Services Australia in two styles of corporate image liveries.

Many of the remaining Freight Corp 48 class have been fitted with external replacement cab side windows, cab air-conditioning and raised GPS antennas, somewhat complicating their original simple appearance. These are often found leading groups of four 48 Class on coal and grain trains, and in pairs on smaller trains. Two units were rebuilt for driver only operation and renumbered PL1 and PL2. The original cab was retained, but the short hood was replaced by a full width equipment box, with two large forward sloping windows providing better forward view. The numbering indicated their intended use on "Port Link" container traffic.

The 48 Class remains in service as an extremely simple and reliable type, capable of any duty, limited only by it's low power rating.