

## **The 830 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 G12 (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 first South Australian DL531, originally numbered 830, was delivered in December 1959 for service on the Murray lands lines of the then South Australian Railways, working out of Tailem Bend. Nine more followed by mid-1960, all for service on those light broad gauge lines, replacing elderly English style steam, and some ex-Victorian Railways mikados obtained when almost new. This resulted in a group of diesels numbered 830 to 839.

The narrow gauge was also in dire need of new motive power and the isolated Eyre Peninsula lines, working out of Port Lincoln, had the highest priority being in very dry country with mainly seasonal grain traffic. Two locomotives, 850 and 851, were delivered in March and April 1962.

Adelaide was next, getting five units numbered 840 to 844 between June and October 1962 for use on the broad gauge.

The busiest narrow gauge system was the Peterborough division, extending from Broken Hill to Port Pirie. This line was intended for eventual conversion to standard gauge. Thus numbers 856 to 867 were purchased with Federal Standard Gauge funding, although they were delivered from early 1963 with narrow gauge bogie frames and wheel sets.

Next, Adelaide received two more units, numbered 845 and 846, in late 1963, to help out the earlier five units in this series. At the same time, Port Lincoln got four more units, 852 to 855, filling the gap in the narrow gauge number series.

At this stage the complex numbering system broke down completely, and three locomotives for Port Lincoln, delivered in early 1966, were numbered 871 to 873. Quite why this happened is not clear, but Alco records show a cancelled order for three more powerful DL535 units at this time, so perhaps these were the numbers of the proposed new class. It could be that these were the first SAR DL531's with British AEI electrical gear instead of US or Canadian General Electric equipment, but there were now four distinct number groups in the class. By 1969 the standard gauge line from Broken Hill to Port Pirie was nearing completion and six new units were obtained, being delivered from mid to late 1969. The first three filled the gap at the end of the Adelaide roster, 847 to 849, and the last three the gap between the Peterborough and later Port Lincoln locomotives, 868 to 870.

In early 1970, the SAR took over Silverton Number 27 (another DL531) and numbered it 874. When the SAR was broken up on March 1<sup>st</sup>, 1978, the metropolitan system was retained in state ownership as the State Transport Authority of South Australia (STA), and the country lines merged with the Commonwealth Railways to form Australian National. 830 and 845 were kept for the STA, but both were eventually transferred to AN along with the rest of the class. Much later, AN changed the number on 830 to 875, in a computer related fleet wide renumbering.

With the opening of the standard gauge line from Tarcoola to Alice Springs, much narrow gauge, equipment became surplus to AN's requirements on the mainland. While many freight

vehicles were directly transferred to the standard gauge, the ex-Commonwealth Railways locomotives replaced narrow gauge 830 Class units, mainly in Port Lincoln and Peterborough, and many 830 Class were moved to Tasmania.

In total twenty locomotives were transferred to Tasmania from January, 1980, to August, 1986. The range of numbers were 834, 837, 840, 846, 852 – 867 (except 863) and 875 (the original 830). No AEI equipped locomotives went to Tasmania. The 830's were not popular locomotives in Tasmania, which had been an English Electric stronghold since 1950, and no other mainline type had been purchased by the former TGR.

When Queensland Railways locomotives generally similar to the TGR Z Class became available as a result of mainline electrification, three 830's were returned to South Australia (on narrow gauge), two went to the Silverton Tramway as complete units, plus two more broken up for spare parts. Most of the remaining units were scrapped.

Three units, 852, 866 and 875, remained in branch line service in Tasmania ten years after the first unit arrived. 852 is distinctive in that it was the only unit in the class to be marked "Tasrail" rather than "Australian National".

On the mainland, many have remained in service, although not always where they were first allocated, 830 Class have been seen as far North as Alice Springs, as far west as Kalgoorlie. By 1990 the Port Lincoln locomotives had begun to operate in quadruple on wheat trains, hauling more than the high powered NJ Class units.

From 1992, six 830 Class' were converted by Australian National to DA Class units with low noses for driver only operation, and a further unity, DA7 was converted from ex-NSW 4813. This was the first locomotive to appear in the Australian Southern orange and black livery. The DA Class progressively varied in the cab design, from the original 830 class profile to a larger cab with two large front windows.

874 to 849 were leased to the NSW Railways for over six years, from 1974, being used (despite their lack of buffers or buffering plates) as additional 48 Class locomotives, distinguished only by their "Mustard Pot" yellow livery.

To date the 830 Class and its derivatives have served South Australia well and should continue to do so for quite some time into the future, on all three gauges.

History notes by Mr. Peter Clark, February 2000.