



SteamRanger's Heritage - an insight into our past

BACKGROUND

The SAR 930 class diesels were built to replace the medium weight steam locos

In service they handled the main south line trains and many Port Pirie and Peterborough line services in preference to the older and heavier 900 class locos.

For many years these engines also worked the Overland express from Adelaide to Serviceton and with the advent of through working of locos to Victoria some were also to be seen in that State.

SteamRanger has preserved loco 958 which is used as "back up" to the big powered steam engines in addition to working services during fire ban periods

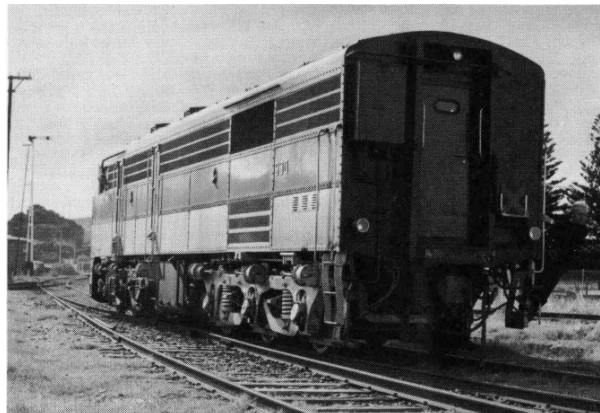
This article was written in 1976 to celebrate the 21st anniversary of the introduction of the 930 class to the SAR

THE 930s COME OF AGE

Contributed by John Ramsay

The Recorder December 1976 pages 37 - 39

Dieselization of the South Australian Railways had been proceeding for three years when a notice appeared in the Government Gazette calling for tenders for "the supply and delivery at Islington Workshops of six (6) diesel-electric locomotives in complete working order, or alternatively diesel engine units and power generator, control and power transmissions etc., also spare parts and equipment." Tenders closed at noon on Tuesday, 10th August, 1954. This short article deals with the results of that tender call



The first six 930 class locos were equipped for single end working only, as this photo of 930 reveals. Photo: J. Ramsey

Let us look at the likely tenderers for that contract. Islington had just completed a contract for ten 900 class diesel-electric locomotives for the S.A.R. using English Electric engines and traction motors, and with English Electric providing the same equipment would have had to be considered for this new tender. English Electric itself was in the process of setting up a factory at Rocklea in Queensland to build locomotives for the railways of that state, and so it submitted a tender for the complete locomotive.

A. Goninan of Sydney were either about to get or already held a contract for supplying the 43 class locomotives of the New South Wales Railways using Alco engines and General Electric generators and traction motors, and if the tender of the Australian General Electric Company had been successful, it is probable that the 930's would have been built there. A Sydney engineering firm, A. E. Goodwin Ltd., tendered with a design of the American Locomotive Company of New York, from whom Goodwin held a licence to manufacture the ALCO locomotives in Australia, but, at that time, no locomotive was either under construction or begun.

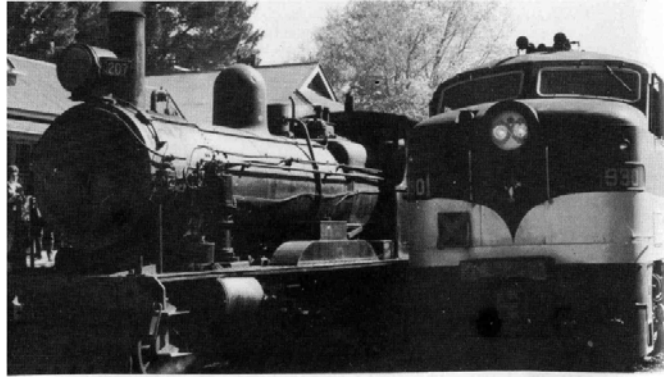
The Clyde Engineering Company of Granville, N.S.W. had finished building the GM-1 class locomotives for the Commonwealth Railways and the B class for the Victorian Railways. They were tooling up for the production of their Model A-7 (later A16C) which was to see service on the Commonwealth as the GM-12 class, on the New South Wales Railways as the 42 class, and the Victorian Railways as the S class.

They tendered a broad-gauge A-7 similar to the S class. Three other tenders were also received, including one from the big English locomotive manufacturer, Brush Bagnall, and one from West Germany which tendered a diesel-mechanical-hydraulic unit

From the beginning of consideration of tenders it became clear that Islington would not be building the new locomotives. The workshops were fully occupied with building the 300 class suburban diesel railcars and the 250 class "Bluebird" country railcars, and no space was available for locomotive manufacture. Thus, 909 was, and still is, the last main-line diesel-electric locomotive to have been built by the S.A.R. Further consideration reduced the tenderers to four, A.G.E., English Electric, A. E. Goodwin and Clyde.

The Australian General Electric tender was for a locomotive using similar engine and traction components to that offered on the A. E. Goodwin entry, but at an increased cost over the latter tender. Therefore, A.G.E. were not awarded the contract. It is interesting to note that, although the specifications called for an engine of 1760 hp with 1600 hp available for traction, two tenderers offered units with 1900 hp engines and one with a 2000 hp engine, the same nominal rating as the S.A.R.'s present 700 class. After full consideration of the remaining tenders, and taking into account all factors including the cost of the locomotive offered, the S.A.R. awarded the contract for the supply of six units to A. E. Goodwin of Auburn, N.S.W. The design was ALCO's World type DL-500B cab diesel-electric locomotives, examples of which were then running in Spain. The locomotives were classified as the 930 class by the S.A.R. and the class leader was to be numbered 930.

Details of the locomotive were published in the August, 1976 issue of this magazine. The engine varies its speed according to throttle setting from 400 rpm to 1000 rpm and the gear ratio of the traction motors is 93/18. The continuous tractive effort at 11.3 mph is 42,900 lbs and the maximum tractive effort at 25 p.c. adhesion is 56,000 lbs.



Rx207 was waiting for its A.R.H.S. special passengers to board at Aldgate when 930 rolled past at the head of a Tailern Bend bound freight in 1971.
Photo: J. Ramsey

Production began on 15th July, 1955 at Goodwin's plant in Sydney. The diesel engine, ALCO's type 251B and electrical equipment were imported from the United States while the building of the bodies, mechanical details and final assembly of the locomotives were the responsibility of A. E. Goodwin Ltd. In due course 930 was completed and entered the testing and delivery phase of its construction.

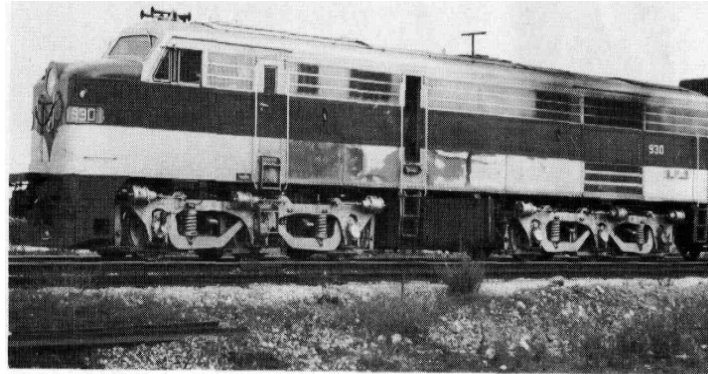
The standard pattern for testing the S.A.R. 930 units on the New South Wales Railways was for each engine to haul 600 tons on a north goods to Gosford and 900 tons on the return to Sydney with assistance up the Cowan Bank. On 9th December 1955 the press and media were invited to Enfield Marshalling Yard to see 930 commence its 1,000 mile delivery run to Adelaide by hauling No. 473 Goods 750 tons to Demondville in the Southern Highlands of New South Wales. The engine was stabled overnight at Harden, and then continued the next day with an 800 ton load to Albury. It is interesting to note that Goodwin's built standard gauge bogies for this locomotive two years in advance of an order for this type from the New South Wales Railways. The standard gauge had not been laid to Melbourne at that stage, so on 11th December 1955 the locomotive ran light to the Bandiana Military Depot across the border in Victoria where the Army's 50 ton crane was used to exchange the power bogies from standard to broad gauge.

This was to be the standard delivery pattern for all broad gauge locomotives built in New South Wales until 1962. The Commonwealth GM class came the same way, except that broad gauge freight bogies were substituted for the power bogies. After a short test run to Barnawartha 930 was stabled overnight at Wodonga and the next day hauled 750 tons to Melbourne. The locomotive remained one day at the North Melbourne locomotive depot (13th December 1955) while the Victorian Railways examined the engine. They never ordered any Goodwin locomotives. On 14th December, 1955 the locomotive ran light to Tottenham goods yard and then hauled 600 tons to Ararat, 900 tons from Ararat to Dimboola and 750 tons to Serviceton. It left Melbourne at 8.45 a.m. and arrived at Serviceton at 11 15 p.m. EST. The load of 600 tons to Ararat was hauled by 930 up the 1:48 Igliston Bank near Bacchus March, a prelude to its work in the heavily graded Mount Lofty Ranges. On 15th December, 1955, 930 worked through to Adelaide on scheduled and special goods trains and the next day was put on special display at Adelaide Railway Station.

930 was handed over to the then Minister of Railways, Mr N Jude on 16th December, 1955 and placed in traffic on 20th December 1955. The cost of the locomotive was approximately \$236,300 a price which was to rise to approximately \$241,300 for the double ended design which was to commence with locomotive 936. 930 was a loner until 29th March, 1956 when 931 joined the fleet. 930 achieved a number of firsts.

It was the first locomotive built by A. E. Goodwin Ltd., the first mainline locomotive ordered by the S.A.R. from outside the state, the first locomotive delivered from outside the state and the first locomotive to work from Sydney to Adelaide hauling revenue-earning freight trains.

The reason for this article? 930 has come of age— 21 years old this month!



Three months old — 930 at Tailm Bend on 30th March, 1956. Photo: B. J. Castle