

Queensland Cane Mills

First Generation Mainline Diesels

Lynn Zelmer

This article focuses on Queensland sugar cane mills' first generation mainline diesel locomotives and continues the series started in NGDU #27 (Early Internal Combustion Motive Power in the Canefields). As was noted in the earlier article, petrol-based power was introduced to the canefields in the 1920s and the first diesel-based power in the 1930s, but it wasn't until the 1950s that diesels really started displacing steam.

There may or may not be a strict definition of sugar industry diesel locomotive generations, however for the purpose of this series I've divided them into four basic eras, with a number of small (in both weight and number) diesel mechanical locomotives in the first generation, then the widely-adopted Clyde 0-6-0 DH (diesel-hydraulic) and similar locomotives, followed by various bogie locomotives from EM Baldwin and others, and culminating with heavy-haul purpose-built locos such as the Eimco and rebuilt mainline DH locomotives.

As might be expected, many early generation locomotives were rebuilt and/or re-gauged one or more times over the years. For example, Ex-Queensland Railways (DL19 KALBO, 1977) via Mourilyan Mill, Dunethin was previously Aramac Shire Tramway's 'R.R.MAC' and was converted from 1067mm gauge when rebuilt at the QGR Ipswich Workshops in 1974. The loco, still named Dunethin, moved to Bingera Mill in 2004 following the closure of Moreton Mill.

A number of locomotives were built at Bundaberg Foundry under licence from Jenbacher Werke and were known as Bundaberg Jenbachs. Only two were built as 6 wheel locomotives, both being supplied to the North Eton Mill, near Mackay. In 1978 the North Eton Mill had three DM locomotives:



ABOVE: Bundaberg Foundry 6w DM Jenbach D2 ex-Eton, Cattle Creek and Marian Mills. Now named Netherdale and sporting a ComEng bonnet and cab, the loco is preserved at the Durundur Railway (ANGRMS), Woodford Qld. Lynn Zelmer, photographer.

D1 and D2 were Jenbach 6w DM, D3 was a ComEng 0-6-0 DM. At the same time North Eton also had three ComEng 0-6-0 DH locos, an EMB bogie DH, two 4w DM locos and a Plasser self-propelled 4w DH ballast tamper.

Ex-North Eton Mill D2 (16 ton, 170 HP, chain-driven, 6w DM, Bundaberg Foundry under licence from Jenbacher Werke, Austria, model BJ200 #13, 1954) was never converted to diesel hydraulic and is preserved at the Durundur Railway (ANGRMS, Woodford Qld). D2 was transferred to the Cattle Creek Sugar

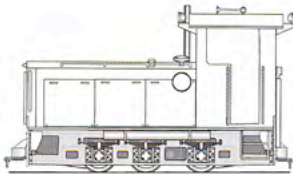
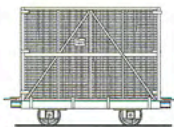
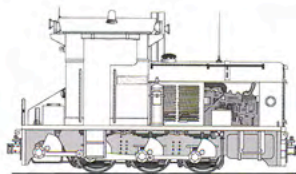
Mill in 1989 after the closure of the North Eton Mill, then to Marian Mill in 1991 after the closure of Cattle Creek. The original Jenbach diesel motor had been replaced by a Gardner 8LW eight-cylinder diesel motor; then in 1984 it was fitted with a Detroit six-cylinder diesel motor, along with the cab and bonnet from a ComEng 0-6-0.



ABOVE: Ex-Mulgrave Mill and ex-St Helena Island tourist train Baguley 0-6-0 DM 1.3377 of 1953; photographed June 2004 with two tourist coaches from St Helena Island at the Durundur Railway (ANGRMS), Woodford. Bill Blannin, photographer.



ABOVE: South Johnstone Mill's '10' (0-6-0 DM Baguley/RMP 3390, 1954), ex-Queensland Railways Innisfail Tramway DL12 'Mourilyan', 31 August 2000. The ComEng Model A is similar. Greg Stephenson, photographer



LEFT: Still in service, Bingera Sugar Mill's 'Dunethin' (0-6-0 DH ComEng model AC #H1022, 1958) has been rebuilt and re-gauged since coming into service. On the right, 'Netherdale' (6w DM, Bundaberg Foundry under licence from Jenbacher Werke, Austria, model BJ200 #13, 1954) has been extensively rebuilt but is still chain-driven. The bin has been included for size comparison purposes. Jim Fainges drawings from the CaneSIG collection.

Modelling

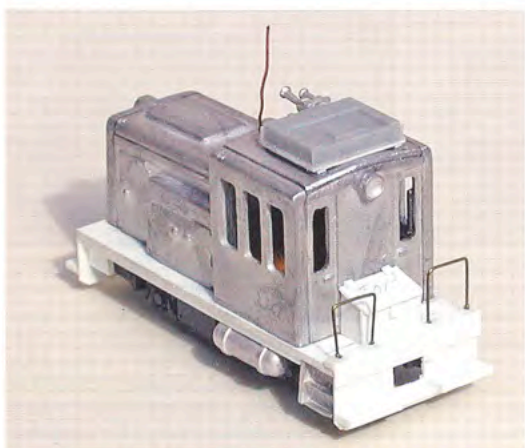
A variety of small diesel mechanical OO9/HOn2.5 ready-to-run models and kits are available in white metal or brass, primarily from UK manufacturers. You should ensure that you can obtain a suitable mechanism as many come without a power unit. On the other hand, it's quite easy to scratchbuild a suitable superstructure to fit a 'N' gauge mechanism. In any case, some consideration should be given to ensuring that the cab is appropriate for canefield operations. Modifications might include adding an air conditioner or leaving the doors open.



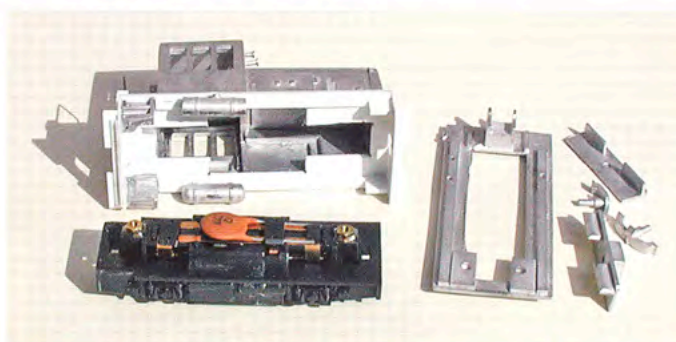
ABOVE: Greg Stephenson's OO9/HOn2.5 'child of mixed parentage'. The bonnet and frame are from a Roger Chivers' GEC style loco kit and the cab comes from a Meridan Models Kerr Stuart diesel loco kit. Greg soldered two of the Kerr Stuart's together to make a centre cab and had a cab spare! The chassis is a 6 wheel Tomix with unequal wheel spacing. Lynn Zelmer, photographer.



ABOVE: Two OO9/HOn2.5 first generation 6w diesels on Bob Dow's Layout, Brisbane. Both use a Bachmann diesel chassis and are based on Bob's generic cane loco scratch-building design from an early Modelling the Railways of Queensland Convention. In the late 1990s Bob also sold these as kits. No 7 was built by Bob, the front one was likely built from one of Bob's kits by Joe Burrell, who gave it back to Bob at some stage. The out-of-focus loco in the background is a standard gauge loco cut down to narrow gauge. Lynn Zelmer, photographer.



ABOVE: Chivers Finelines freelance GEC style whitemetal diesel kit, built here as a first generation 4w sugar cane loco. The closed cab and air conditioner makes a very different model from Greg Stephenson's model using some of the same components. The copper wire radio antenna has been bent several times in handling, but has never broken off. None-the-less it should probably have been made of a thinner, straight wire! After hand painting, Microscale Kristal Clear was used to glaze the windows; a standing figure holding onto the hand rail was added for interest. Lynn Zelmer, model builder and photographer.



ABOVE: Chivers Finelines freelance OO9/HOn2.5 GEC style diesel kit adapted for a 4w mechanism and operation on a sugar cane line. Styrene has been used to fabricate a replacement for the white metal frame and footplate (all parts to the right were discarded) for a Kato 11103 N gauge 4 wheel mechanism. The cab back had to be cut out to fit the mechanism, with a tool box built to cover, and the footplate adapted for Kato N scale couplers. Wire hand rails and radio antenna, and a Diesel Associates CB 2308 air conditioner completed the model. Lynn Zelmer, model builder and photographer.

Significant Dates: First Generation Diesels

1935: First diesel loco in the canefields (Isis Mill)

1951: Baguley 0-6-0 DM began post-war dieselisation with 15 locos

1953-4: Bundaberg Foundry licensed Austrian design 6wDM, two sold to North Eton Mill

1954: Clyde Engineering started DH, first "widely-adopted Australian-built canefield diesel locomotives"; 18 tons, 54 to Australian mills, 18 to Fiji.

1980s: 1st generation locos due for replacement

Dates were extracted from McKillop, Robert F and Browning, John (2000). Sugar Cane Transport, LRRSA: www.lrrsa.org.au/LRR_SGRb.htm, downloaded 19/05/07.

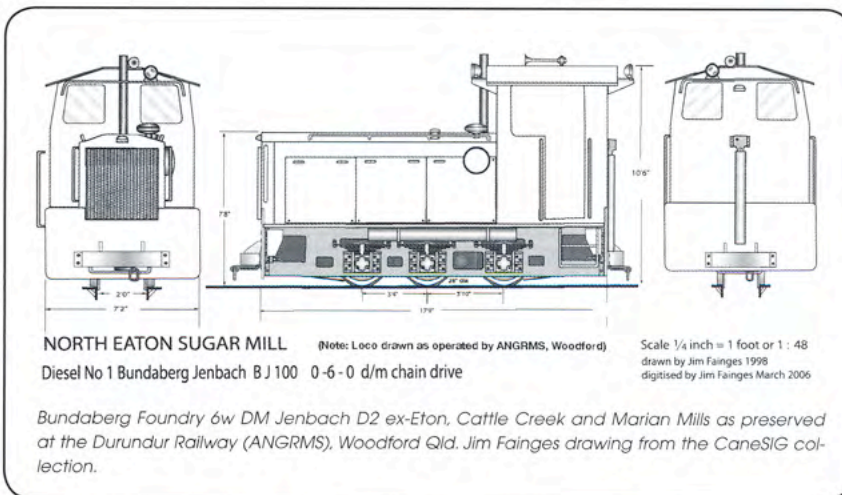
Acknowledgments and References

Jenbach D2 (Netherdale) details are from David Mewes' collection notes on the ANGRMS web site (www.angrms.org.au).

The best reference for identifying diesels in the Queensland canefields is John Browning's locomotive list on the Light Railway Research Society of Australia (LRRSA) web site (www.lrrsa.org.au/QLD_locolist_June2005.htm). The web site also has a number of other articles on Queensland and Fijian sugar cane railway motive power and history.

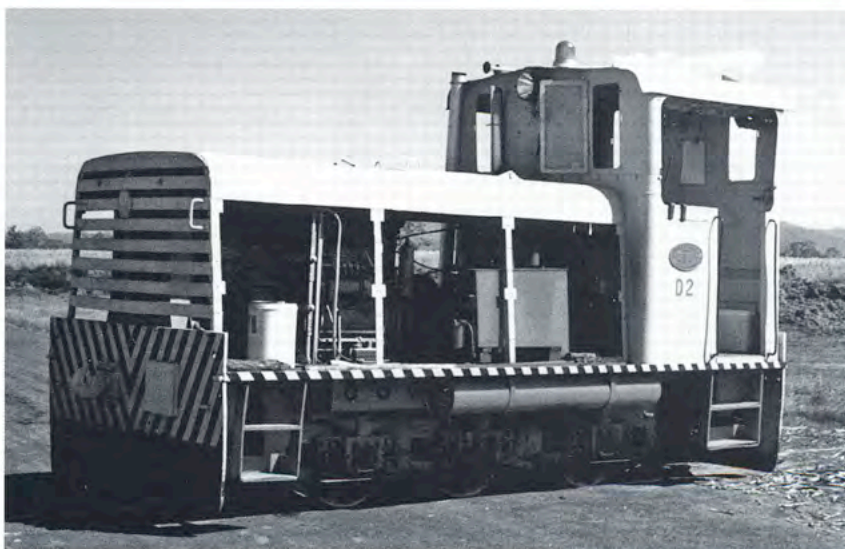
Additional photos, plans and modelling details can be found on the CaneSIG web site (<http://www.zelmeroz.com/canesig>). John Browning's 1978 and 2005 loco lists are also available there on a mill-by-mill basis, including for mills that are now closed.

And an apology, John Armstrong's models in NGDU #27 were both fabricated from styrene rather than using a resin chassis. A number of other Brisbane modellers do have Comeng models using the cast chassis. →

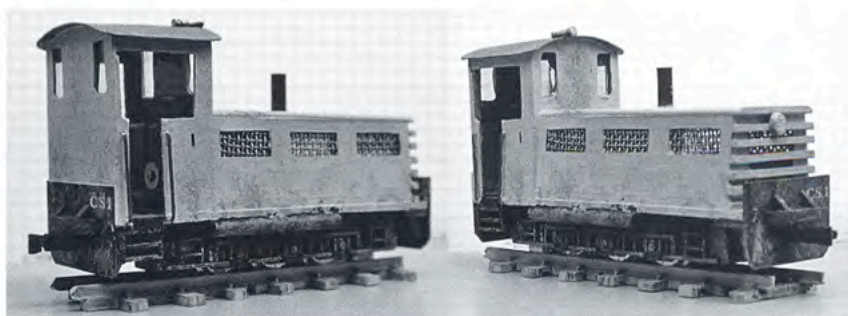


NORTH EATON SUGAR MILL (Note: Loco drawn as operated by ANGRMS, Woodford)
Diesel No 1 Bundaberg Jenbach BJ 100 0-6-0 d/m chain drive
Scale 1/4 inch = 1 foot or 1 : 48
drawn by Jim Fainges 1998
digitised by Jim Fainges March 2006

Bundaberg Foundry 6w DM Jenbach D2 ex-Eton, Cattle Creek and Marian Mills as preserved at the Durundur Railway (ANGRMS), Woodford Qld. Jim Fainges drawing from the CaneSIG collection.



ABOVE: Bundaberg Foundry 6w DM Jenbach D2 at Eton Sugar Mill. Photo taken mid-1960s to mid-1970s when fitted with the original Gardner motor and cab. Bob Gough, photographer.



ABOVE: The Bundaberg Foundry Jenbach locomotive was the inspiration for an HOn30 model displayed at the 1998 Modelling the Railways of Queensland convention. In his clinic Bob Dow showed how to scratchbuild the Jenbach and other cane locos (see the photo of his generic diesel on page 19); he even supplied the locos as ready-to-run models for some time.

I adapted Bob's Jenbach design to the N gauge Bachmann mechanism available when I scratchbuilt my first diesel locomotive in styrene a couple of years later. Full construction details are on the CaneSIG web site (www.zelmeroz.com/canesig). Follow the links to the Modelling Handbooks; it's Section 8 of 'Modelling Cane Railways'.

A more detailed On30 model should be quite feasible using a 6 wheel BullAnt or similar HO mechanism. Lynn Zelmer model builder and photographer.