

# Modelling the Narrow Gauge Railways of Queensland

## Introduction

"Light railway" is a generic term which covers a wide variety of railways and tramways. The term light railway implies economy of construction in one or more ways, for example: light weight rails, wooden rails, light bridges, minimal earthworks, sharp curves and steep gradients, narrow track gauge. These railways have been associated with a large range of industries, including sugar production, timber milling, construction, mining, electricity generation, tourism, water supply, gas production and explosives manufacture.

Whilst most of Australia's light railways belong to the past, there are notable exceptions. Specialised railways are still used in underground mining, and in the tourist industry. In Queensland, the sugar industry relies on a vast network of 2 ft gauge tramways. These were first built in the 1880s and have naturally evolved since that time to take advantage of technological changes.

In the mid 1970's, I purchased a copy of the first edition (1973) of "The Innisfail Tramway" by John Armstrong and G.H. Verhoeven. I came to realise that narrow gauge cane tramways were a quintessential part of the tropical North Queensland landscape. It was about this time I was trying to model Queensland Railways in HO scale but reached the final level of frustration that the only wheels and mechanisms likely to be available were old Triang "TT" and occasionally PECO underframes. The discovery that "N" gauge track, mechanisms and wheels could be used to model cane railways in HO scale set the course of my modelling interests ever since.

Whilst there is limited commercial support for modelling the Queensland narrow gauge railways and it remains the realm of scratch builders and kit bashers, there are a number of products that can be adapted to make a reasonable representation of these railways. I have tried to identify prototype products in the market place and offered some suggestions as to what might be suitable for taking a freelance approach to modelling the narrower gauge railways of Queensland.

## Prototype Background

Rather than repeat information on the various prototypes, reference will be made to general trends and observations. For more detailed background, there are a number of on-line resources, in particular:

The Light Railway Research Society of Australia Inc | <http://www.lrrsa.org.au/index.html>

CaneSIG: The Sugar Cane Railway (Tramway) Modelling Special Interest Group | <https://www.zelmeroz.com/canesig/>

### Construction Tramways

Typically, these used the ubiquitous "V" skips from a range of manufactures and sizes. Often they used portable track and were man or horse worked. A few examples used small 4 wheel locomotives. This type of use finished in the late 1930's and it is unlikely that they saw much use after WW2. There are known examples where local Councils contracted the sugar mills to deliver road gravels using the cane railways.

### Shire Tramways

The passenger era of the shire tramways was over by the late 1930's and many didn't survive WW2, often being sold to adjoining sugar mills. Douglas Shire Tramway lasted into 1959 hauling bagged sugar between Mossman and Port Douglas and delivering cane to Mossman Mill. This traffic was lost with the move to bulk sugar – it being road transported to Cairns – and the remnants became part of the Mossman Mill network.

## Modelling the Narrow Gauge Railways of Queensland

For the modeler, these tramways have the advantage that they often had only two locomotives and a few passenger carriages with a handful of other rollingstock. In fact, at Ingham, the Council owned the tramway but no locomotives or rollingstock and contracted CSR to provide the services.

### Cane Tramways

It is not proposed to give detailed accounts of different mills and their locomotives, other than to say there was wide variety across the industry with many locomotives being purchased second hand and being sold or transferred between mill. Many locomotives have been rebuilt and remanufactured over their considerable life spans. For every generalisation there are an equal number of exceptions. For example, the "G" Class Sharp Stewart tank locomotives from the North East Dundas Tramway in Tasmania were converted to tender locomotives at Isis Central Mill, whereas the Borsig tender locomotive from the Irvinebank and Stannery Hill Tramway was converted to a tender locomotive at Cattle Creek Mill.

From the perspective of selecting equipment that is appropriate to the era being modeled the following general observations are made:

The majority of steam cane locos were 4 or 6 coupled wheel tank loco. These may have leading or trailing bogies. Most common types: 0-4-0T, 0-4-2T, 0-6-0T and 0-6-2T. Main exception was CSR which used Hudswell Clarke 0-6-0 tender loco.

Locos were supplied from many parts of the world with British manufacture dominating. German and Continental manufacturers were popular before WW1 but then fell out of favour. Only a few American locos were used. Post WW2, Australian built steam locos were more readily available.

Most early diesel/petrol locos were small 4 wheel probably of UK origin. From 1930's, Fowler introduced 0-4-0 and 0-6-0 suitable for cane haulage on the mainlines. UK manufacturers were the main sources of 0-6-0 diesels in the early 1950's as "dieselization" commenced. Australian 0-6-0 diesel manufacturers entered market from mid-1950's. Australian manufactures dominated the market after this time.

Mulgrave Mill, Gordonvale was fully dieselised with 6 locomotives by 1956. However, Millaquin and Qunaba Mills, Bundaberg operated their steam locomotives up to 1979. Most mills had a transition period where steam and diesel locomotives were operated together, often with the steam locomotives on standby in case of diesel failure.

E.M. Baldwin and Sons supplied their first bogie locomotive in 1972 which changed the face of the cane railways. In 1991, the first of the re-gauged ex QGR DH locomotives appeared which effectively ended the supply of new locomotives as virtually all "new" locomotives since that time have been re-gauged DH or NSW 73 Class locomotives.

Remote controlled brake wagons (typically 6 wheel) began appearing from about 1972. Bogie brake wagons appeared in the mid 1980's from E.M.B. In the era of the re-gauged DH/73 Class locomotives, bogie brake wagons made from re-gauged ex-QGR wagons have appeared at mills that operate these locomotives.

From the mid-1970's CSR started a program of replacing the cabs on their 0-6-0 Clyde and ComEng diesels with EMB soundproofed cabs. Other mills later followed suit with similar cabs from other suppliers.

Manually cut whole stick cane was loaded transversely across 4 wheel wagon and held down by chains or wire rope winched tight.

# Modelling the Narrow Gauge Railways of Queensland

Until 1959, whole-stalk sugar cane harvesters were the only type of mechanized harvesting in Australia. The whole-stalk harvester does not handle lodged cane well; consequently the chopper cane harvester was developed. A chopper cane harvester cuts the stems, or stalks, into billets approximately 35 cm in length. This type of harvester was commercially developed by Massey Ferguson, and by 1967 over 50 percent of the Australian cane crop was harvested by a self-propelled model. By 1978, chopper harvested cane had increased to 99.98 percent of the crop. In 1968, Toft's first chopper cane harvester CH200 was introduced. This machine enabled the cane to be harvested and loaded in a single operation. They also designed and built infield side tipping transporters. In 1985, Toft introduced the Series 7000, the first cane harvester to cut green cane in commercially acceptable tonnages.

Early cane bins were typically fitted onto existing whole stalk trucks and were of relatively small capacity. Generally, they were wider than their length. Typically, they had sides that were hinged at the top to allow unloading by partial tipping to one side. They had corrugated iron floors and end walls and some had flat iron sheet sides and walls.

Later cane bins were typically 4t, 5t or 6t capacity with mesh sides and ends. The sides were fixed to allow rotary tipping for unloading.

By the late 1980's, large capacity (15 to 20tonne) 4 wheel bins with self-steering suspension were under development by Sugar Research Institute and NQEA. Bins to this style are in use at some mills. Victoria Mill progressively joined two 4 wheel 4 tonne bins together and removed two wheel sets. They eventually progressed to bogie 11 tonne bins and 4 wheel 10 tonne bins.

## So what does this mean to a railway modeller?

Shire tramways would use steam locomotives and would need to be set prior to WW2.

Again, construction tramways are likely to have existed prior to WW2. In HO scale, typical "V" skips are available from several manufacturers.

For a layout set in a period prior to 1960, cane bins would not have existed. If the period is set after the late-1970's then only cane bins would be in use. Between these two periods, both wholestick wagons and cane bins would be in use. By the late 1960's, the mix could be about 50% of each. Steam locomotives would be used to haul either wholestick wagons or small cane bins as would the smaller 0-6-0 diesel locomotives. It is unlikely that bogie diesel locomotives hauled wholestick wagons in any great quantity. "V" skips were also used by sugar mills to transport "mill mud" and for ballast work and probably lingered into the 1960's.

During the transition period, a mixture of wholestick wagons and small cane bins might appear on the one train however they would be marshalled with all the cane bins together and the wholestick wagons together. It is unlikely that the one farmer would require a mixture of wagon types. The mill may have different methods of handling the two types of loads.

## The Question of Scale

Australia being a British Colony used a lot of British equipment. However, some continental equipment and a small amount of US equipment found its way to Australia. The same can be said for motor vehicles.

Items from the UK are normally for 4mm:foot (OO) scale, whereas from the rest of the world the items are to 3.5mm:foot (HO) scale. The majority of Australian prototypes in terms of scenery items are likely to be HO scale. So combining items sourced from many different parts of the world

## Modelling the Narrow Gauge Railways of Queensland

does present some challenges and compromises. In many cases, the British prototypes were comparatively smaller compared to the other continents so despite being to a larger scale may not look out of place. Due to the availability of the Internet and language translator software, Japanese models can now be sourced with relative ease. This adds another dimension as Japanese HO scale is 1:80.

For narrow gauge locos in HO or OO scale running on 9mm (“N”) gauge track, different countries use different terminology

Country	Description	Scale	Derivative	Approximate Gauge
Australia	HOn2½	1:87	2½ = 2½ feet gauge	2' 7" ~ 780mm
USA	HOn30	1:87	30 = 30 inch gauge	2' 7" ~ 780mm
Europe	HOe / HO9	1:87	e = Eggerbahn	2' 7" ~ 780mm
UK	009	1:76	9 = 9mm actual gauge	2' 3" ~ 685mm
Japan	HOe	1:80	Follows Europe	2' 4" ~ 720mm

Another derivative is HO scale running on 6.5mm (“Z”) gauge track and referred to as HOn2 (2 = 2' gauge) or HO<sub>f</sub> (f = Feldbahn). This scales out at 1' 10" or 566mm. Whilst this is a closer approximation to 2' gauge (610mm), the limited availability of track, wheels and mechanisms for “Z” scale means using “N” scale provides a much greater range of potentially suitable track, wheels and mechanisms. HOe and 009 do receive some commercial support.

### Modelling Options

There are very few models on the market that are specifically cane trains and there is limited commercial support. There hasn't been any specific R-T-R cane equipment but some items may be adapted. Even in much more populated markets such as UK, it is only now that R-T-R 009 locomotives are starting to appear. So narrow gauge railways still remain the domain of kit builders and bashers and scratch builders, often adapting equipment from other countries.

In the UK, a number of “cottage” industry manufacture body kits in OO scale to fit existing commercial “N” gauge mechanisms so some compromises may have been made. The most noticeable of these is the use of inside locomotive frame rather than the characteristic outside frames of small locomotives. Often older kits are designed for a chassis that is out of production. Traditionally, the UK manufacturers used cast white metal. This often resulted in the weight on the commercial chassis being out of balance requiring careful redistribution of the weight of the body kit. To improve the quality of the details, the white metal fittings were later replaced with lost wax brass castings. The white metal cabs and other details were later replaced with etched brass components supplied as a flat sheet to be folded up. More recently, 3D printed bodies have started to appear either through Shapeways and other 3D print bureaus or directly from manufacturers. Australian kit manufacturers have tended to use cast resin to make kits. However, some etched products have been available. Most products have been available are from the “cottage” industry and often they are only available in limited quantities for limited periods. Mostly, this was through model railway exhibition or some specialist retailers.

The biggest advance in recent years has been the re-emergence of the Minitrains brand from Andreas Schönfeld from Germany. They try to catch the flair of Narrow Gauge Model Railways in HO scale on 9 mm Track and accept one or the other scale inaccuracy. However, they create models with excellent operating characteristics. Their program covers Industrial and Narrow Gauge railways based on prototypes and inspirations from all over the world.

# Modelling the Narrow Gauge Railways of Queensland

## Mechanisms / Chassis


Whilst the advantage of modelling HO scale narrow gauge gives the opportunities to use “N” scale mechanisms, wheels and track, there are limited small size 0-4-0 or 0-6-0 mechanisms, especially for steam locomotives, available. Most “N” scale modelers appear to use multi-heading of bogie locomotives with 3 axle bogies and don’t appear to tolerate the potential reliability issues of the 0-4-0 or 0-6-0 locomotives. Some examples of “N” scale mechanisms or donor locomotives are shown. Some of the R-T-R HOe or OO9 may also provide donor mechanisms. There are body kits designed to use the new generation of Minitrains HOe for mechanisms. There are a number of small Japanese manufacturers that produce small 4 wheel chassis – typically without side roads.

			
		Tomytec sells mechanisms separately to bodies	
			
Nigel Lawton 009	Graham Farish 08	Bachmann MDT Plymouth	



## Some Approaches to Modelling Cane Locos In HO or OO Scale

### Available HO or OO scale Equipment

#### Locomotives

Ready To Run Locomotives		
	Minitrains Baldwin 2-6-2 Trench Train Locomotive, grey or black, closed cab	HOe

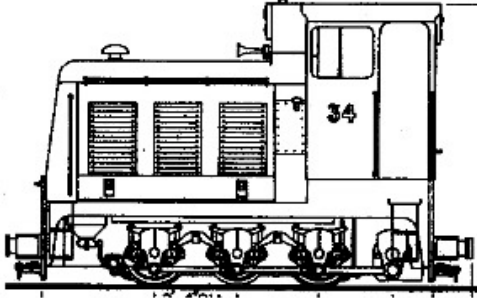
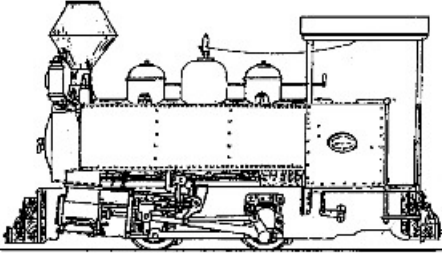
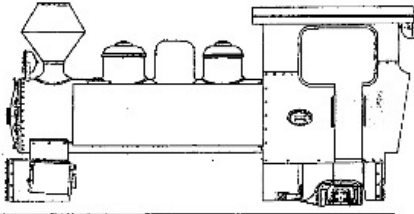



## Modelling the Narrow Gauge Railways of Queensland

	<p>Minitrains Decauville progres – green, red or black</p>	<p>HOe</p>
	<p>Minitrains Bagnall Wingtank – black or maroon</p>	<p>HOe</p>





Complete Kits – Including Chassis		
	<p>Backwoods Miniatures (UK) - 1937 Fowler 0-6-0 Diesel Mechanical The kit is etched in nickel silver using a 43:1 gearbox driven by a Mashima 1015 can motor, includes push-fit flycranks, nickel silver tyred wheelsets (ready assembled) and etched, screw-fit pickups. 3 used in Australia.</p>	<p>009</p>
	<p>Backwoods Miniatures (UK) - Fowler 0-4-0ST Plantation Loco and tender Fowler of Leeds built a number of these tiny saddle tanks, usually for overseas plantation work. The model features a tender-mounted motor with shaft drive to the loco.</p>	<p>009</p>
<p>Other Backwoods Miniatures locomotive kits might be suitable. For experienced modellers. Their Freelance Cane Car bears little resemblance to anything in Australia. <a href="http://www.backwoodsminiatures.com/">http://www.backwoodsminiatures.com/</a> Trading is currently suspended due to health issues.</p>		
	<p>Nigel Lawnton 009 20HP WD Simplex or Bow framed Simplex SIZE WARNING! THIS LOCO IS SERIOUSLY SMALL!</p>	<p>009</p>
<p>Other Nigel Lawnton locomotive kits might be suitable. For experienced modellers. <a href="http://www.nigellawnton009.com/VeeTipper.html">http://www.nigellawnton009.com/VeeTipper.html</a></p>		



## Modelling the Narrow Gauge Railways of Queensland

Body Kits – Etched, White Metal, Resin to Kit Commercial “N” Gauge Chassis		
	<p>ROGER CHIVERS – Five79 Clyde 0-6-0 Diesel Loco Body Kit Product Code: RC13</p> <p>An Australian built cane locomotive</p>	HO
	<p>ROGER CHIVERS – Five 79 (Originally Colonial Models kit) Fowler 0-4-0T Loco Body Kit Product Code: RC42</p> <p>A good example of a steam cane locomotive</p>	HO
	<p>ROGER CHIVERS – Five79 (Originally Colonial Models kit) Bundaberg Fowler 0-6-2T Loco Body Kit Product Code: RC44 7 built in Australia</p>	HO
	<p>ROGER CHIVERS – Five79 Hudswell Clarke 0-6-0 Sydney Loco &amp; Tender Product Code: RC8</p>	009
	<p>ROGER CHIVERS – Five79 USA WW1 BALDWIN (Felin Hen) 2-6-2 Tank Loco Product Code: RC40 Used at Fairymead Mill, Bundaberg</p>	009
	<p>ROGER CHIVERS – Five79 Freelance Hudson Hunslet 0-4-0 Diesel Loco Product Code: RC37 Overall roofed version based on Cattle Creek Mill Loco</p>	009

## Modelling the Narrow Gauge Railways of Queensland

	<p>LANGLEY MINIATURE MODELS W.W.1 War Dept. Hunslet 4-6-0 Tank Loco Kit - Product Code: I4 Hunslet Conversion Kit, (converts I4 to Australian version) - Product Code: I5</p>	009
	<p>R T MODELS Baguley Drewry Diesel 0-6-0 Body Kit for W &amp; L Light Railway "Chattenden". Product Code: RT02 There are components to convert a Graham Farish 0-6-0 diesel to include the jackshaft drive.</p>	009
	<p>Wuiske Models DH CLASS DIESEL HYDRAULIC LOCOMOTIVE SHELL [QRL010]. Convert to ISIS 1</p>	HO
	<p>A1 MODELS Fowler 0-6-0 Diesel Loco Body for Farish 08 Diesel (Outside Frames) 3D Printed Bodyshell.</p>	OO9

### Rollingstock

Lyndon Basic Australian Trains, Mernda Victoria offers 6 ton bin, 4 ton Moreton Mill bin, Innisfail tramway C van and H wagon in HO scale. Through an association with Phil Badger of Badger Bits, they have announced that they some locomotives planned, with the diesel loco "Bli Bli" from Nambour Mill up first.

Queensland Narrow Gauge Models is owned by Lincoln Driver and the main focus of this manufacturer is HO $\frac{1}{2}$  cane railway models. The first releases in 2015 were cane bins, available in four different styles. Queensland Scale Models are the sole retail outlet for Queensland Narrow Gauge Models.

Model Train Buildings advertise HOe 1/87 (runs on 9mm track) Scale Sugar Cane Bins. The brass and plastic kits are based on the bins from the Nambour Sugar Mill.

Tebee Models offer a 3D printed HO scale cane bin through Shapeways – although some compromises on member thicknesses have been made to allow for the 3D print process. Koala Creek has a 3D printed freelanced whole stalk truck available from Shapeways. This is the only HO model of a whole stick truck of which I am aware.









# Modelling the Narrow Gauge Railways of Queensland

## Freelance Options for Modelling Narrow Gauge in HO Scale


There are very few models on the market that are specifically cane trains. The following suggestions are some ideas about what should be available for “freelance” cane trains. This is not a comprehensive list and many suitable kits may exist.


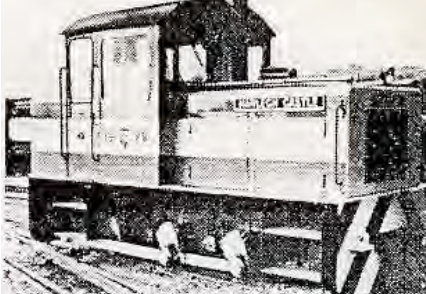
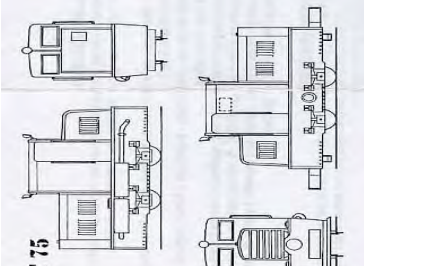

Ready To Run Locomotives			
		BCH International Minitrains (Re-release)  Plymouth	HOn30
		BCH International Minitrains (Re-release)  Porter	HOn30
		Model #33206 - Roco H0e-Diesel Loco  Freelance	HOe
		Model #33241 - Roco H0e-Light Railway Steam Locomotive  Freelance	HOe
		Model #33250 - Roco Narrow Gauge Tank Loco Outside framed chassis may be the basis for new body.	HOe
		BEMO 1011953 ÖBB 2092.03 Heeresfeld-Diesellok (HOe scale) Three axle rod-drive diesel locomotive class HF130 of the Austrian Federal Railways OBB STLB - length: 61mm Outside framed chassis may be the basis for new body.	HOe
		Liliput Diesellok VL6 Steiermärkische Landesbahn Ep.V	HOe

## Modelling the Narrower Gauge Railways of Queensland

	<p>Liliput Tank locomotive, Type U, Class 298, ÖBB.</p>	<p>HOe</p>
	<p>Minitrains Schneider Locotracteur Grey, Green or Red</p>	<p>HOe</p>
	<p>Minitrains Diesel Locomotive Ns2f Green, Red-brown, Blue or Orange</p>	<p>HOe</p>
	<p>Minitrains Gmeinder Lokomotive Silver with red chassis, red with dark grey chassis, blue with red chassis, green with red chassis and yellow with black chassis</p>	
	<p>Tomytec These are sold as static models. Locomotive chassis and wagon weights and wheels are sold separately. Locomotive could be used for cane trains. Wagons could be a reasonable representation of Shire Tramway equipment.</p>	<p>HO Narrow 1/80</p>
	<p>Tomytec These are sold as static models. Railcar chassis and wagon weights and wheels are sold separately. Wagon could be a reasonable representation of Shire Tramway equipment.</p>	<p>HO Narrow 1/80</p>





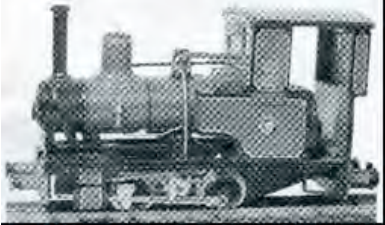
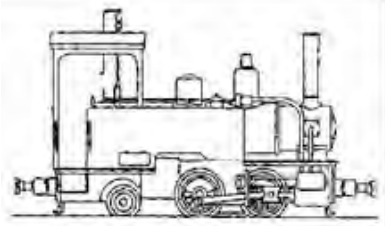

## Modelling the Narrower Gauge Railways of Queensland

	<p>Tomytec These are sold as static models. Railcar chassis and wagon weights and wheels are sold separately. Wagon could be a reasonable representation of Cane Tramway molasses wagon.</p>	<p>HO Narrow 1/80</p>
---	--	-------------------------------







Body Kits – Etched, White Metal, Resin to Kit Commerical “N” Gauge Chassis		
	<p>ROGER CHIVERS – Five79 (Originally Colonial Models kit) Baldwin 0-4-0 Saddle Tank Product Code: RC30</p>	<p>HO</p>
	<p>ROGER CHIVERS – Five79 Festiniog Railway 'Harlech Castle' Diesel Loco Body Kit Product Code: RC32 -</p>	<p>009</p>
<p>A number of other 009 ROGER CHIVERS (Five79) kits could make passable cane locos</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Product Code: RC10 - Avonside 'Elidir' 0-4-0 Tank Loco</li> <li><input type="checkbox"/> Product Code: RC33 - Festiniog Railway 'Conwy Castle' Diesel Loco Body Kit</li> <li><input type="checkbox"/> Product Code: RC79 - Avonside Charlton Class 0-4-0 Tank Loco 'Woolwich'</li> <li><input type="checkbox"/> Product Code: RC26 - British Outline Diesel Shunter</li> <li><input type="checkbox"/> Product Code: RC46 - Davenport 0-4-0T Loco Body Kit (HO Scale – ex-Colonial)</li> </ul>		
	<p>MOSSKITO N G Billard Locotracteur T75: 0-4-0 Body Kit -Product Code: LT01</p>	<p>009</p>
	<p>Logging 0-6-0 SL Kit Freelance model of a logging railway 0-6-0 steam locomotive. Kit includes photo etched brass sheets, white metal parts, screws and illustrated instructions. Power chassis is pre-assembled and ready to run. ARU-B1041</p>	<p>HOn30-9mm</p>







## Modelling the Narrow Gauge Railways of Queensland

	<p>Logging 0-4-0 SL Kit          Freelance model of a logging railway 0-4-0 steam locomotive. Kit includes photo etched brass sheets, white metal parts, screws and illustrated instructions. Power chassis is pre-assembled and ready to run.          ARU-B1037</p>	<p>HOn30-9mm</p>
	<p>MERIDIAN MODELS          Ruston and Hornsby 27/32 HP 0-4-0 Diesel Loco Body Kit          Product Code: MM3</p>	<p>009</p>
	<p>ROXEY MOULDINGS          'Hampton' Kerr Stuart 0-4-2 Side Tank Loco Body Kit          Product Code: LOK3</p>	<p>009</p>
	<p>GEM          W.W.1 War Dept. Baldwin 4-6-0 Tank Loco Body Kit          Product Code: 9002</p>	<p>009</p>
	<p>GEM          Tallylyn Railway "Douglas" 0-4-0 Tank Loco Body Kit          Product Code: 9005</p>	<p>009</p>
	<p>MOSSKITO N G          Orenstein &amp; Koppel 'Plantation' 0-4-2 Well Tank Loco Body Kit          MM14</p>	<p>009</p>
	<p>NARROW PLANET          O&amp;K 0-6-0wt Steam Loco Body Kit ENG-005          Requires Roco Steam Loco Chassis (33241 or 33242).</p>	<p>009</p>

## Modelling the Narrow Gauge Railways of Queensland





		A1 MODELS 009 Bodyshell Conversion (etched) for the Bachmann Plymouth 0-6-0 Diesel Locomotive Product Code: A01	009
		A1 MODELS Baldwin Diesel Loco Bodyshell for the Farish 08 Diesel Shunter (Outside Frames) Product Code: A12	009
		A1 MODELS Baguley Diesel Loco Bodyshell for the Farish 08 Diesel Shunter (Outside Frames) Product Code: A15	009
Some of the other A1 MODELS etchings may be suitable.			
		PECO 'Jeanette' 0-6-0 Side Tank Loco Body Kit GL1	OO9
		PECO 'James' 0-6-0 Saddle Tank Loco Body Kit GL2	OO9
		World Kogei Iwate Light Railway Steam Locomotive #11 II (Koppel 9.5t B Tank) (Unassembled Kit)	HOe HO Narrow, 1/87

### Typical examples of 3D printed items available through Shapeways

			
Cane Tramway	Shire Tramway	Cane or Shire	Construction



## Modelling the Narrow Gauge Railways of Queensland

			
Cane Tramway	Cane Tramway	Cane or Shire	Construction/Cane

### SOURCES – Ones I know about or have used.

Narrow Japan Models. <http://www.narrow-japan.com/>

DUNDAS MODELS in Scotland is a specialist narrow gauge railway manufacturer and supplier and stock most of the UK manufactures. They offer world wide mail order that I've used several times. <https://dundasmodels.co.uk/webstore/index.php>

Hobby Search Co., Ltd. They offer world wide mail order that I've used several times. <https://www.1999.co.jp/eng/train/>

A range of Japanese Kits - Ginza Light Railways Club, Yoshiya Kobayashi, Japan. <http://www.justmystep.justhpbs.jp/sub1.html>

An American body kit manufacturer with some small locos. <http://www.railway-recollections.com/>

CWRailways.com - UK-based offering 3D printed OO9. <https://www.cwrailways.com/009-ng.html>

Backwoods Miniatures produce kits for narrow gauge railway prototypes in OO9. Due to health issues, they have suspended trading. They plan to transfer the business to a new owner and this process is ongoing. <http://www.backwoodsminiatures.com/index.htm>

Minitrains manufactures Narrow Gauge Model Railways in HO scale on 9 mm Track (HOe or OO9). They have an Australian distributor. <http://minitrains.eu/>

Nigel Lawton locomotive kits and chassis might be suitable.. <http://www.nigellawton009.com/VeeTipper.html>

Shapeways is a 3D printing marketplace and service company. Users design and upload 3D printable files, and Shapeways prints the objects for them or others. <https://www.shapeways.com/>

### Suggested Published Sources

Whilst there are many books published on the history of sugar mills and the towns where they were located, many of these only touch on the sugar tramways in passing. Some books that have a specific focus on the tramway aspects are listed.

*The Mapleton Tramway – The Line of the Diminutive Shay Locomotives* by John Knowles, Self published, Brisbane 2004.

*The Innisfail Tramway – The History and Development of the Geraldton Shire Tramway and the Mourilyan Harbour Tramway* by John Armstrong and G. H. Verhoeven, LRRSA, Melbourne 2000. 2<sup>nd</sup> Edition.

*Cane Train – The Sugar-cane Railways of Fiji* by Peter Dyer and Peter Hodge, NZRLS, Wellington 1988.

*Built by Baldwin – The Story of E.M. Baldwin & Sons, Castle Hill, New South Wales* by Craig Wilson, LRRSA, Melbourne 2002.

*Built by BUNDABERG FOUNDARY* by John Browning and Brian Webber, ANGRMS, Woodford, 2012.

*Salute to the Hudswells – The story of the Colonial Sugar Refining Company's Hudswell Clarke locomotives in Queensland and Fiji* by Ian Stocks, David Mewes and John Browning, ANGRMS, Woodford, 2014.