

Modern Cane Railways of Queensland

Carl Millington's presentation at the Modelling the Railways of Queensland Convention, 2004

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Part 13: Brakevans and Slugs

Brakevans

Mills use brakevans (or brakewagons as some mills refer to them) to provide additional braking to the rakes of cane bins, so mills can operate longer and heavier trains, and to provide added braking on lines that have steep grades.

A brakevan is simply a weighted chassis on wheels with a motor driven air compressor on top to supply air for the brakes. Several cabinets are mounted on the vans to contain the control valves for the air and to house the radio and electrical equipment.

The application of the brakes on brakevans is made from a control panel in the locomotive cab and transmitted to the van by radio signal. Brakevans vary from 12 tons to 32 tons depending on what the mill requires.

Clyde Engineering constructed the first canefield brakevan in 1965 for Hambledon Mill. The other two major cane equipment manufacturers at the time followed soon after with Commonwealth Engineering (ComEng) building their first in 1967 for Victoria Mill and EM Baldwin in 1973, also for Victoria Mill. All these brakevans were constructed around a rigid 6 axle chassis.

The first bogie van appeared in 1986 and was built for the Isis Central Sugar Mill by Hexham Engineering after they acquired the rollingstock manufacturing side of EM Baldwin.

With the introduction of the first bogie van in 1986 mills started to construct their own bogie vans using bogies supplied by F & M Baldwin.

Several mills and small engineering firms, such as Solaris of Ingham, made brake vans using old QR bogie goods wagons. The HJS type bogie wagon has been a popular choice for this conversion.

With declining world sugar prices mills had to look at cheaper ways of obtaining brakevans. Several mills chose to convert surplus 0-6-0 locomotives to brakevans by removing everything above the frame and adding a compressor. The first conversion took place at Invicta Sugar Mill in 1982 from a surplus ComEng 0-6-0 locomotive. Isis Mill converted a former QR DH locomotive into a brake van.

Over the years brakevans have been modified to allow extra equipment to be fitted or repaired after damage. Just like the locomotives used throughout the canefields, no two brakevans are the same in appearance.

Slugs

Isis Mill experimented with slug or calf locomotives in the early 80s. They removed the cabs from two of their Clyde DHI-71 locos, added control jumper cables, and ran them in cow and calf arrangement. Again the conversion was successful, but Isis was the only mill to do it. Their two calves, along with all the mill's DHI-71s were sold to sugar mills in Fiji in 1994.



Clyde van, Victoria Mill



ComEng van, Victoria Mill



EMB van, Macknade Mill



Hexham-Baldwin van, Isis Mill



Tully Mill's mill-built van



Place Creek mill-built van



Former Drewry locomotive, Mulgrave Mill



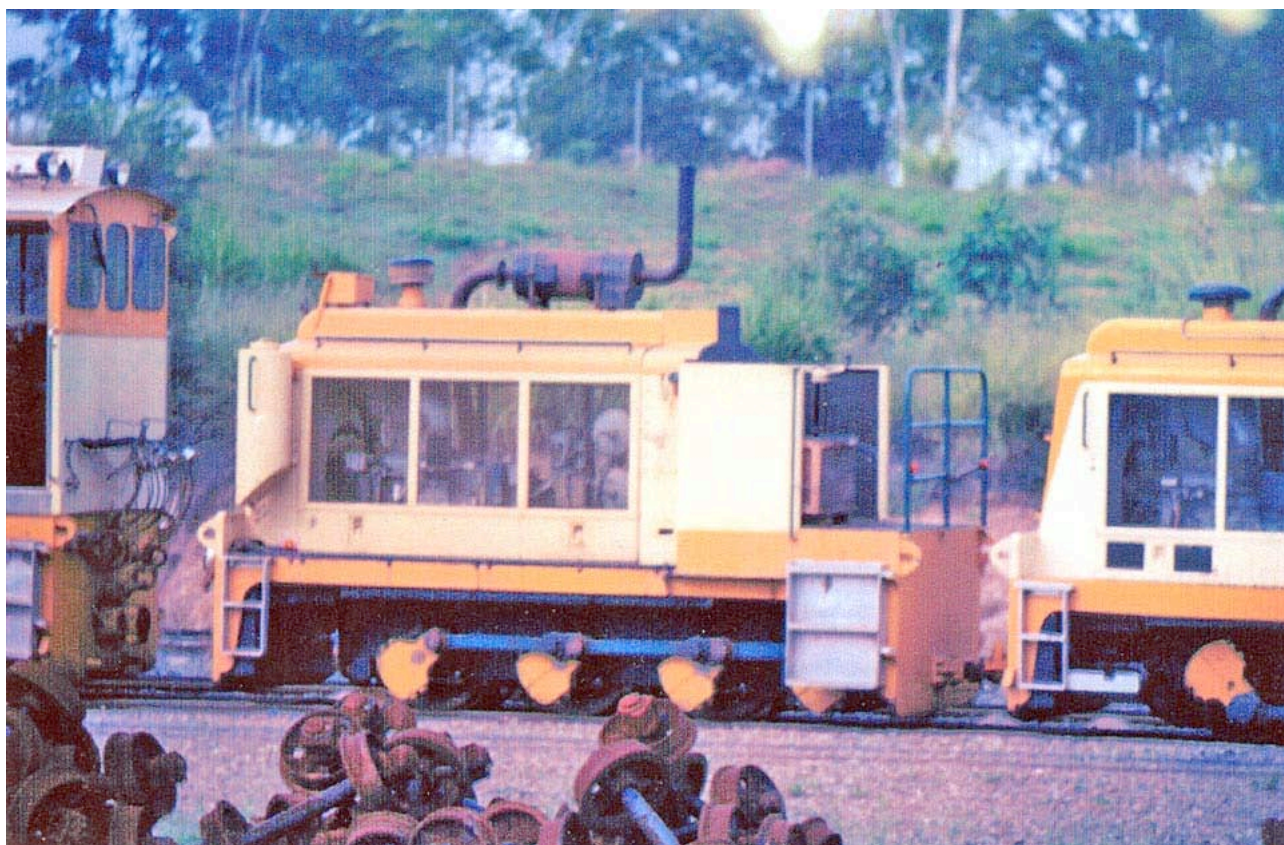
Former ComEng locomotive, Invicta Mill



Former QR DH locomotive, Isis Mill



Isis Mill loco D5 with former loco D3 at mill full yard. T Badger, photographer



Former Clyde DHI-71 loco D3 as converted to a slug unit. Brian Bouchardt, photographer