



**Three Lakes Model Railroad Club
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**1st 100% Club in Wisconsin
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R Class 4-6-4: Peter's views

interpreted by R.G. Blocks

This is about R Class steam power called a 4-6-4 configuration. We call them a Hudson. The R Class served express passenger service on Australia's broad gauge Victorian Railways during the period 1951 to 1974. There were seventy engines of this class.

R Class engines were built by the North British Locomotive Company in Glasgow, England and came into service between 1951 and 1953.



Engine #711 was equipped with 73 in drivers and measured 77 ft 3.5 in length. The weight on its drivers is 58 long tons (UK) or 65 short tons (US); this yields almost 22 short tons per driver axle. Total locomotive weight is 107 long tons or 120 short tons. Confused yet? That is why pictures are better than words.

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Twenty-two short tons is about 19 long tons and was the limit that British Rail once imposed as the maximum allowable axle load. A new Australian line (2005) from Blackwater to Rolleston, using 50 kg/m rail has a locomotive axle limit of 20 t or effectively no change from old British Rail standards. Whereas, the new Fortecuse Railway (2011), a heavy-duty line sets a world record with a 40 t / axle limit. Seems to



the writer that the R Class took good advantage of British track and bridging design.

The fireplace or grate area is 42 square feet and the heating surface area is 2705 square feet total. The boiler handles 210psi pressure and the two cylinders measure 21.5 by 28 inches. A meaningful measure is 32,080 pound feet of tractive effort.

Restated, the beast is capable of 1840 drawbar horsepower (about 1,400 kw) at 38 mph an improvement of about forty some percent over the Pacific Class engines they replaced.

They started life with some corrosion problems as a result of their salt water journey from G.B. but soon averaged about 1000 miles work per week.

Another benefit received with R Class was sustainability of speed. The reason was R Class engines had automated stokers capable of feeding 10,000 pounds of coal per hour. Thus, the fireman was not a limiting factor. Further, the railroad could use lower BTU coal than when a man was doing the stoking and every BTU / pound was required.

The tender weight is 88 US tons (t). The tender holds almost 7 t of coal and 10,800 gallon of water. Hence the combined engine and tender weigh about 208-209 tons.

The sand dome looks like an American version. The cab looks European, English. The smoke lifter, or elephant ears looks European. The drivers and roller bearings are all



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Australian flavor. The R Class were originally to be built in the Australian Newport Railway Shop in Melbourne's Newport suburb. There, some 5,000 folks produced and maintained rolling stock in a shop open since 1882. However, US dollars, to spur post WWII recovery in Britain encouraged the task to be done in Great Britain.

This was a great engine for speed. It was not however a great design for start-stop service. Locomotives in general tend to transfer weight to the rear wheels under highest drawbar load conditions (ie, startup). That's one of the reasons to put more supporting wheels under the firebox. Hudson's with big drivers are great for high-speed runs and would slip at startup as weight transfers rearward.

R Class did a lot of grain service work; perhaps, not ideally suited for this design. Many were stored between harvests. Storage without good preparation meant boiler corrosion. Diesel power was favored for passenger service. Thus, many were scrapped during the sixties for metallurgical deterioration.



On November 21, 1998 #711, refined and restored, with oil as the fuel and power reverse added, was back in service between Melbourne and Warrnambool. It served up until 2004. Then, it was essentially mothballed.

Repainted in Victorian Railways colors, #711 as of May 2011 was ready once again for service. The idea, one might suppose, is to operate on the remaining 5' – 3" broad gauge. This time it was owned by the City of Bendigo and leased to Steamrail Victoria, Inc. of Newport. It is once again operational. Refer to: <http://www.steamrail.com.au/>

Thus, there is a new life for a beautiful machine. We owe a thank you to friend Glen



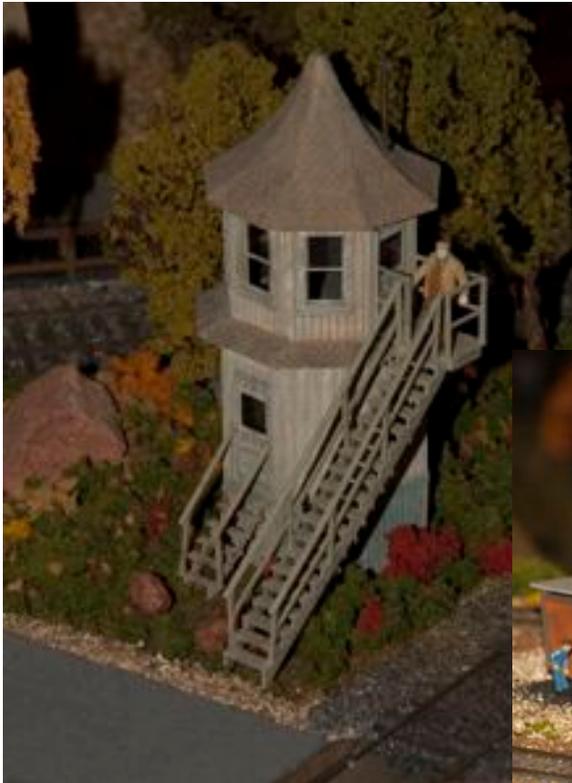
Mills for his appreciation of great photography and love for railroads. Also, a thank you to Peter Sweeten for his wonderful photography used with permission granted via Glen Mills used in this modest article.

Peters work, may also be seen elsewhere. For rail begin with NBL Preservation Group at:

<http://www.rubihorn.demon.co.uk/nblg/news%202011/NBLPG%20Newsletter%202011-08%20Aug-1.pdf> . For a view of Peter's work with airliners please try Airliners.Net : <http://www.airliners.net/photo/Ansett-Australia-Airlines/Airbus-A320-211/0001759/> .

Meeting with a Master Model Railroader at his Layout: conclusion

Story and photos by P.A. Wussow



Sometimes, it is not possible to describe a particular story with words. Pictures are the preferred route. This was the idea when Paul attempted to describe the MMR work of James Duffin begun last month.

In the photo on the left we find an interlocking tower with the tower attendant



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stretching his legs. In the photo on the lower right of the preceding page we can see the Armstrong Union Switch and Signal Company Series A levers while Tower man Bob waves to the conductor on the caboose of a train that just passed letting him know everything is ok as there were no automated hot box detectors in this era. Below, Jim used Design Preservation models as the basic kits for a number of structures.



The power plant was built before later offered as a kit. Rose Flower Farms (above) is believed to be a totally scratch built structure with great attention to detail. Even the chains holding the awning are real with miniature links.

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Rose Flower Farms, from any angle looks superb. This was a fine job by a real MMR.



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Buildings Scenery and Power systems are not the only things that go into a MMR's layout there also is the Civil Engineering.



Above, the track work included points of a scratch built turnout. A new switch stand was added. This is just one of 3 track sections that Jim built and had judged, gaining more than the required 87.5 points to be awarded the Civil AP award.



We should stop for a sample at the D Lull Brewery on our way out of town.



Master Model Railroader #344. James Duffin (Jim) received his MMR with certificates in: Master Builder Cars, Master Builder Structures, Master Builder Scenery, Model Railroad Engineer-Civil, Model Railroad Engineer-Electrical, Association Volunteer, and Author. We thank him for taking the time to show his layout and glean a few facts on how he did it.

Railroad Happenings: or Semi-local events...

January 15, 2012 WISE Division Meet, Best Western Plus Midway Hotel,
1005 S. Moorland Rd, Brookfield, WI

January 21-22, 2012 Arctic Run Train Show – Holiday Inn – Stevens Point, WI
More info at: www.trainweb.org/cwmr

January 28, 2012 Tri State Rail Sale – La Crosse Center, 2nd & Pearl Streets, La
Crosse, WI <http://www.nmra-scwd.org/Badgerland> or
www.4000foundation.com

February 18 – 19, 2012 Mad City Model RR Show – Alliant Energy Center, Madison,
WI www.nmra-scwd.org

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February 19, 2012 WISE Division Meet, Best Western Plus Midway Hotel,
1005 S. Moorland Rd, Brookfield, WI

March 3 - 4, 2012 High Wheeler Train Show, Palatine, IL info at
www.highwheelertrainshow.com

March 9, 10, 11, 2012, Midwest Region Convention, Annual Meeting of
Members, President Abraham Lincoln Hotel, Springfield, Illinois.
Discount Amtrak fares: host Illinois Valley Division.

March 11, 2012 Metro Model RR Club Show & Swap Meet, Circle B Recreation
6261 Hwy 60, Cedarburg, WI info at www.metrorrclub.org

March 18, 2012 WISE Division Meet, Best Western Plus Midway Hotel,
1005 S. Moorland Rd, Brookfield, WI

April 15, 2012 WISE Division Meet, Best Western Plus Midway Hotel,
1005 S. Moorland Rd, Brookfield, WI

April 28 – 29, 2012 Titledown Train Show, Shopko Hall, Green Bay, WI
Info at www.ttsgbllc.com

May 5, 2012 NMRA Winnebagoland Division Spring Meet, Plymouth, WI

July 29 – August 4, 2012 it's the 77th National Model Railroad Convention, Grand
Rapids, MI. The host club is found at www.grmrhs.org a 100% NMRA club. For
info on the convention: www.gr2012.org Seventy fantastic layouts within one
hour of the 12th best hotel in North America (Amway). Let's all go!

April 2013 Convention, Midwest Region, Marriot Indianapolis, IN (tentative).

Commentary & News: The Three Lakes Model Railroad Club
congratulates Paul A Wussow for recently earning the Electrical Engineer and
Author AP Certificates.

Paul has been a model railroader since his youth and at least in this editor's view,
Paul is a lover of the art of presentation: to wit his long active passion for
photography to illustrate a thought or his lighting work with the high school in Glen
Ellyn. You've seen some of his work in these pages but he (along with Bon French)
have been instrumental in management and support of the following who we direct
you to by links to the publishing of Railroad Heritage and the Railroad Heritage.org
pictorial site or their Facebook content. Simply Google, The Center for Railroad
Photography & Art (see their own artwork below). They honor Richard Steinheimer
the famous railroad photographer at the Robert Mann Gallery, New York, December

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15 thru January 21, 2012.

Clearly, Richard Steinheimer will be missed. However, Paul and Patrick Zeller, working for Bon are behind the scenes assuring preservation of high quality historical railroad photographic work is a reality. Perhaps an article on the topic in the future would be worthy? Any volunteers: Bon, Paul, Patrick or ?



CENTER FOR RAILROAD PHOTOGRAPHY & ART

Below, Brian Solomon another friend of both Paul and Bon French has a new book out on the street as of mid-November. See, below the announcement by Amazon (we thank Amazon for their ad and send it on with acknowledgement of its source).

amazon

Brian Solomon's new book
Releasing on November 15, 2011



Electro-Motive E-Units and F-Units
Brian Solomon

Hardcover: \$29.70

Learn more

Blending automotive manufacturing and styling techniques with state-of-the-art diesel-electric technologies, General Motors' Electro-Motive Division conceived and marketed America's first commercially successful road diesels: the fabulous E-Units and F-Units. This illustrated companion ...
[Read More](#)

Also, see Trains Magazine, Dec 2011 page 34. Mel Finzer (who taught Paul flying) and Solomon have photos.

Let us know if you're enjoying our attempt at keeping you informed and what you'd like for clinics and articles in 2012. Our direction will be towards the Civil Engineer, Structures, and Dispatcher NMRA activity in 2012 if left unchecked.

Thank you for an enjoyably productive railroading year. If you continue conspiring and inspiring... I'll continue perspiring.

Roger G Blocks, Editor