



BIGGS APPRAISAL

PROVIDING VALUATION AND TRANSPORTATION SERVICES TO THE RAIL INDUSTRY



Subjects of Value

The Inspection and Appraisal of Rail Equipment

Volume 12, Issue 1

Winter 2017

Visit our new website!

www.biggsappraisal.com

Subjects of Value is a publication of Biggs Appraisal and is ©2017 by Biggs Appraisal

**MEMBER OF THE
AMERICAN
SOCIETY
OF APPRAISERS**



Freight Cars in Focus: The Pressure Differential Covered Hopper

The Pressure Differential (PD) Covered Hopper is a specialty car sized for certain light weight dry bulk commodities that require a closed unloading system and the assistance of pressure, aeration and vacuum to move the product from the car to the storage silo. The PD covered hopper protects the commodity from the environment and the environment from the commodity.

The PD is not just another covered hopper in that it is an air tight car that can be pressurized between 5 PSI and 14 PSI. It has aerators at the bottom of the pockets and significant piping and valves to allow each pocket to be unloaded individually. There are also

gauges to monitor both car pressure and outlet pressure.

The builders of modern pressure differential covered hoppers are ARI with 3,720CF and 5,650CF cars, National Steel Car with a 3,230CF Car, and Trinity with a 3,230 CF and 5,660 CF cars. Specialty cars require special parts and companies such as Kelso, Midland, PD Rail Solutions, and Salco provide a wide variety of parts to keep these cars in good repair.

PD covered hoppers are not new to rail product shipping and have been in service in increasing numbers since the early 1960's. The PD rail fleet is comprised of 4 AAR Car types that range

from C611- C614. The 6 in the car type designates the car as a pressure differential and the third digit designates the car size: 1 under 3,000 Cubic feet, 2 is 3,000 but less than 4,000 CF, 3 is 4,000 but less than 5,000 cubic feet, and 4 is 5,000 cubic feet and over

capacity. The move to 286,000 pounds gross rail load cars has moved most products away from the C611 and C613 to higher capacity cars in the C612 and C614 categories.

Commodities Carried in the C614 Over Time¹

Commodity	2014	2013	2012	2010	1999
Wheat Flour	50,406	53,750	50,954	50,188	27,868
Corn Starch	25,264	25,743	25,799	25,388	24,864
Lt. Wt. Aggregates, Clays or Slags	12,927	13,050	11,529	9,796	6,400
Freight Train Cars	7,583	8,657	7,836	6,504	4,644
Sodium Compounds	5,705	4,568	6,192	7,008	4,640
Carloads (4,500 or under)	34,764	33,892	32,209	32,032	24,512
Total	136,649	139,660	134,510	130,916	92,928

¹Biggs Study of STB Raw car load data for years shown.

BIGGS APPRAISAL

2255 Sumter Lake Drive
Marietta, Georgia 30062

Edward Biggs

Phone: 404.625.4059

E-mail: Biggsappraisal@yahoo.com

Stuart Biggs

Phone: 404.245.9638

Email: s.biggs@biggsappraisal.com

Visit our website for archives of
Subjects of Value.
www.biggsappraisal.com



BIGGS APPRAISAL

PROVIDING VALUATION AND TRANSPORTATION SERVICES TO THE RAIL INDUSTRY

Biggs Appraisal and Subjects of Value are service products of Edward D. Biggs III, LLC D/B/A Biggs Appraisal. An Accredited Senior Appraiser (ASA) member of the American Society of Appraisers with a focus on rail equipment, locomotive, railcar, and maintenance of way equipment valuations. Ed Biggs has spent over 39 years in the railroad industry with a mix of significant experience with railroads and leasing companies, including experience in fleet operations, mechanical, and sales. Biggs has particularly in-depth knowledge of railcar extended life upgrade and rebuilding programs. Biggs Appraisal also researches a wide variety of subjects to support valuations, both for its own interests and those of its clients. Stuart Biggs has been involved with every aspect of Biggs Appraisal's business for over 5 years and is a qualified rail equipment inspector that you can expect to see more of on inspections. Johanna Biggs Mitchell has been working behind the scenes for a couple years in research, appraisals, and inspections. The articles in Subjects of Value are by necessity brief and are designed to spur further conversation. Questions, comments, and feedback are always appreciated. This newsletter is aimed at people interested in the rail industry. If you wish to be either added or removed from our mailing list, please email us at biggsappraisal@yahoo.com. We encourage industry distribution of this newsletter.

Freight Cars in Focus: The Pressure Differential Covered Hopper

The C612 is well liked in cement service as it eliminates the OSHA and EPA dust related issues. In 2014 Cement accounted for about ½ of the 40,000 car loads carried in the C612 type.

Pressure Differential Covered Hoppers as of January 27, 2016

ETC	Gross Rail Load	Gross Load	Gross Rail Load	Gross Rail Load	Total
	220,000	263,000	286,000	315,000	
		-			
		270,000			
C611	36	1005			1041
C612		968	5259	19	6252
C613		75			75
C614		6403	14559		20962
					28330

PD cars have not been over built as they are expensive to build. Even older pressure differential cars have held strong values. Food grade is the highest class of pressure differential and these cars have interior linings/coatings to protect the commodity. Cars of a certain size will generally stay in the same narrow band of commodity services for many years and re-leasing to existing customers occurs regularly. In most leases I have seen the lessee is responsible for the unloading system and this requires a thorough cleaning upon return.

The modern pressure differential covered hopper fleet is overwhelmingly of 286,000 pound gross rail load with the C612 being at 84% and the C614 being at 69% of 286K capacity. The older cars of 263K GRL are generally being used in niche or lower grade and contaminating commodity services. These are the cars that have stood the test of time and can truly be useful to 50 years and possibly beyond.

Hope to see you at the Railroad Financial Conference

March 5-8th, 2017 the Biggs Appraisal team will all be out Conference at La Quinta, California. Get to meet Johanna Biggs Mitchell our newest member. Biggs is a conference sponsor and we invite you to join us for lunch on locomotive day. If your new to the rail industry or have been a way for a while REF is the place to catch up and get a

good start on 2017. This conference is jam packed with information on all of what is going on in modern railroading. Get plenty of rest in preparation for this conference as you will no doubt encounter information overload.

The Biggs Appraisal family wishes you a very safe and Happy New Year! Johanna, Stuart, and Ed