

Crossties

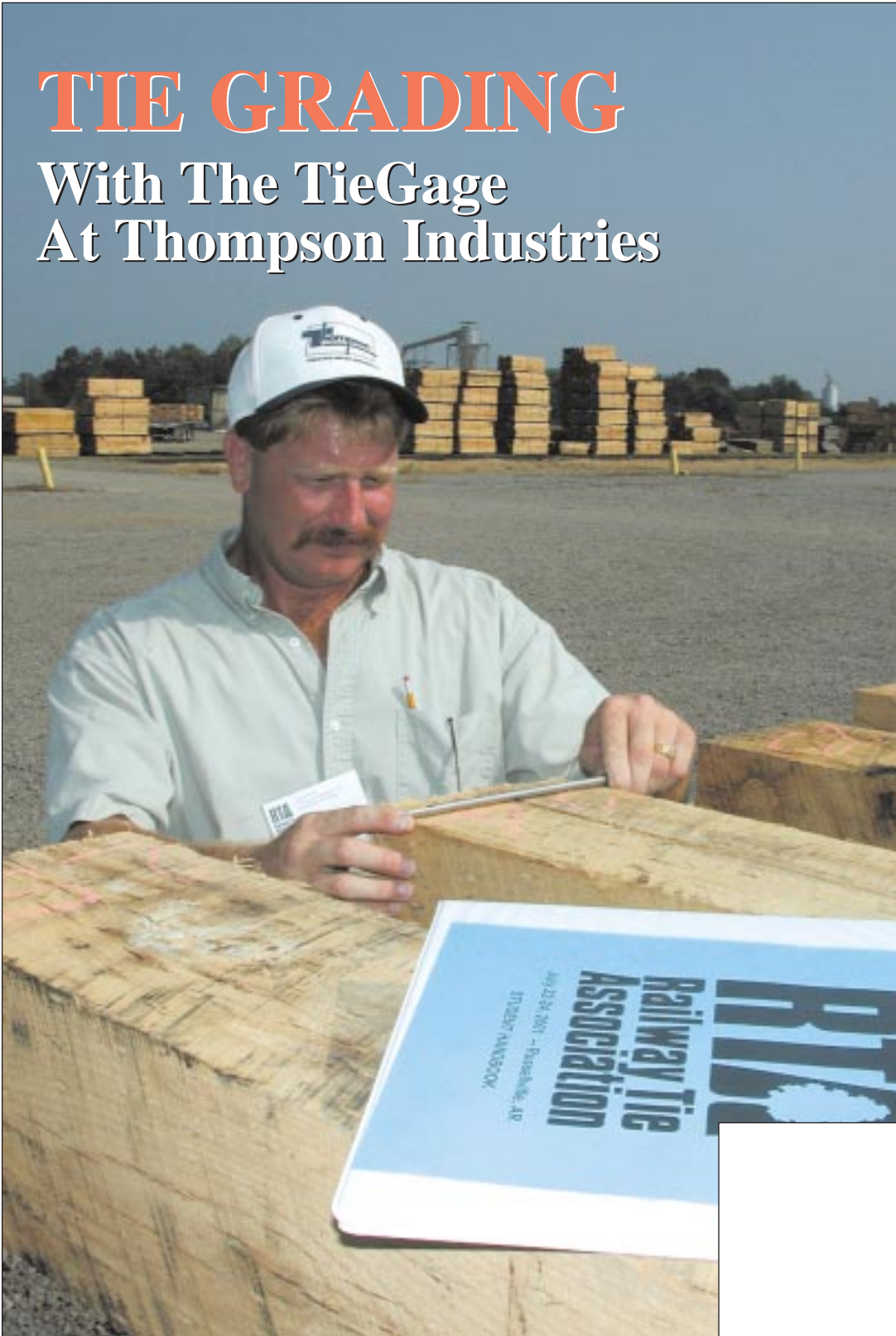
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The Magazine For Producers And Users Of Treated Wood Crossties And Related Products.

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Steady-State Without Really Trying?

By Jim Gauntt

Tie producers have suffered through a difficult period since a peak in tie demand some four to five years ago. And, although demand has steadied recently, it is at a level that is too low to optimize maintenance at the railroads, according to some, and certainly too low for the tie industry to be excited about its health or overly optimistic about the prognosis for its future.

RTA's surveys of Class 1 and short line railroads indicate that although a slight improvement in demand is expected for 2002, the marketplace is very much status quo. These exclusive surveys indicate that the bottom may have been reached in this cycle but that the upward momentum needed by tie producers will come slowly over the next few years.

This trend has also been predicted by RTA's econometric forecasts based on U.S. Gross Domestic Product (see July/August

2001 *Crossties*). In this economic-based outlook, RTA has predicted a total marketplace growth of 300,000 to 500,000 ties in 2002. How does this stack up to what tie purchasers are expecting? A look at the past year and the survey results will shed some light on that question.

R1 Reports (U.S. Roads)

The final numbers for tie installations in 2000 have now been prepared (see Tables 1 and 2). In this first look at 2000, RTA, thanks to the assistance of the Association of American Railroads' economic team, it can be seen that new wood tie installations for both Class 1 railroad maintenance and new construction were virtually unchanged from 1999. Total ties in 1999 for both categories combined were 10,765,725. For 2000, that figure was 10,655,230.

The interesting part about these numbers can only be seen, though, by looking at the regional breakdown. In the East for 1999,

Class 1s installed 5,670,957 ties, while in 2000, these same roads only installed 4,941,541 ties—a whopping 13 percent reduction. Most of this is attributable to Norfolk Southern's pullback in their purchases for maintenance ties, as CSX and Illinois Central actually increased total tie installations during the year.

On the other side of the Mississippi, BNSF and UP ramped up their programs. Western roads installed 5,094,768 in 1999 and 5,713,689 in 2000, an increase of almost 11 percent.

This bifurcated market, although appearing on the surface to be in a state of equilibrium, in reality is far from stable.

2001-2002 Surveys

Enter the survey results (see Table 3). In 2001, U.S. Class 1 railroads expect that total new wood tie installations for maintenance and new construction will total 10,557,715, with this figure being virtu-

P.T. O'Malley

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Table 1—Cross ties laid in replacement statistics for Class I railroads in the U.S. in 2000

District & Railroad	Treated wooden cross ties laid in replacement (#)		New cross ties laid in replacement other than wooden (#)	Track maintained by reporting railroad		Cross ties per mile (1967)	New cross tie replacement avg.		Switch and bridge ties laid in replacement (board feet)
	New Ties (1)	Second-Hand Ties (2)		Miles occupied by cross ties (a)	Total cross ties (b)		% renewal to all ties (7)	# laid per mile (8)	
Eastern District									
CSX	2,893,094	37,567	61,327	34,048	101,735,424	2,988	2.90%	87	6,110,000
Grand Trunk Western	95,112	0	0	1,391	4,384,432	3,152	2.17%	68	337,349
Illinois Central	336,476	0	0	3,883	12,320,759	3,173	2.73%	87	576,160
Norfolk Southern	1,333,394	52,427	0	31,939	98,244,364	3,076	1.36%	42	5,020,981
Total Eastern District	4,658,076	89,994	61,327	71,261	216,684,979	3,041	2.18%	66	12,044,490
Western District									
Burlington Northern Santa Fe	2,320,463	0	130,602	42,536	131,648,920	3,095	1.86%	58	1,897,672
Kansas City Southern	257,417	0	0	3,629	11,609,171	3,199	2.22%	71	334,314
Soo Line	192,334	0	219	2,751	8,305,269	3,019	2.32%	70	428,968
Union Pacific	2,714,363	10,420	251,577	48,358	144,106,840	2,980	2.06%	61	6,595,460
Total Western District	5,484,577	10,420	382,398	97,274	295,670,200	3,040	1.98%	60	9,256,414
Total United States	10,142,653	100,414	443,725	168,535	512,355,179	3,040	2.07%	63	21,300,904

Source: R-1 Annual Reports to the Surface Transportation Board (Furnished To RTA By AAR).

Note: 65,233 Second-Hand Other-Than-Wooden ties, not shown on this page, were laid in replacement in 2000.

(a) Total mileage operated at the end of the year, excluding mileage under trackage rights.

(b) Based on cross ties per mile of track in 1967, the last year reported.

(c) Includes 1,638 concrete ties and 259 steel ties which were assigned 65 board feet per tie.

ally unchanged in their respective regional patterns. This has been far too apparent to tie suppliers. What has been especially difficult to understand about this is that optimism remained strong at the railroads for a much-improved 2001 into last November. Then, the economy unexpectedly threw everyone a curve, and the results have spoken for themselves.

What about 2002? In the United States, a marginal improvement in demand is expected by Class 1s. The surveys say that new wood tie installations will be 10,695,715, exceeding 2000 levels. On the other hand, Canadian roads expect to install about 210,000 fewer ties than they did in 2001. So, overall, a steady state in the marketplace may now exist without any real coordinated effort to create it.

As for any silver linings, 2003 and 2004 numbers suggest that improvement will take place in a fairly significant way. The new U.S. Class 1 tie installations are predicted to be 11,270,000 in 2003 and 11,775,000 in 2004. If this occurs, tie suppliers should start seeing demand increase by mid-2002, as railroads begin to build inventories for larger programs. This would also be suggested by both RTA estimates of U.S. gross domestic product increases and the fact that conversation among railroad staff and survey

Table 2—For Calendar Year 2000

District & Railroad	Treated wooden cross ties laid in addition (number)		New cross ties laid in replacement other than wooden (number) (12)	Switch and bridge ties laid in addition (board ft.) (13)
	New Ties (10)	Second-hand ties (11)		
Eastern District				
CSX	112,493	1,172	3,515	236,661
Grand Trunk Western	0	0	0	0
Illinois Central	0	0	0	0
Norfolk Southern	170,972	0	0	301,994
Total Eastern District	283,465	1,172	3,515	538,655
Western District				
Burlington Northern Santa Fe	20,951	0	55,734	27,930
Kansas City Southern	40,777	0	0	725
Soo Line	3,481	0	0	180
Union Pacific	163,903	45,988	83,160	941,046 (c)
Total Western District	229,112	45,988	138,894	969,881
Total United States	512,577	47,160	142,409	1,508,536

Source: R-1 Annual Reports to the Surface Transportation Board (Furnished to RTA by AAR)

(c) Includes 4,536 concrete ties and 356 steel ties which were assigned 65 board feet per tie.

comments received continue to suggest that maintenance ties are far below the level necessary for "optimum" maintenance.

Short Line Railroads

This year's responses to the annual surveys by short line railroads were sparse. After hitting a record response rate of 38 percent in 2000, the rate of response fell to levels not seen since 1997—only 8 percent of

ASLRRA members responded this year. Because of this, predicting what is really going on in the short line marketplace from year to year is difficult.

Respondents this year indicated that the short line industry will install 3.3 million ties in 2001 and 3 million ties in 2002. Most of this reduction does not come at the expense of new 7-inch grade ties, but rather in the expected reductions in the use of 6-inch grade and relay ties.

Whether this is an expectation of less availability of these tie types or whether it is the fact that the short line industry is undergoing a process of upgrading much of their lines to accommodate 286,000-pound traffic is not known. As RTA has commented in past survey analyses, it could be that it is just harder for short lines to see into the future even six to 12 months on tie installations. And, as such, hindsight is better than foresight.

Table 3—Railway Tie Association Annual Survey*

Estimated Crosstie Requirements Class 1 Railroads (000's omitted) 2001-2004 Inclusive

AUTHORIZED CROSSTIES FOR 2001										
Region	Total Track Miles	New Wood Hardwood	Crossties Softwood	Wood Relay Crossties	New Non-Wood Concrete	Crossties Steel	Other	Switch Ties (Units) Wood	Other	Bridge Timbers Units
Eastern U.S.	73,614	4,782,000	0	187,000	115,000	300	0	166,750	0	40,300
Western U.S.	101,691	5,720,715	55,000	135,000	800,000	14,000	20,000	171,680	25,000	26,800
Canada & Canadian Owned U.S. Track	31,382	1,353,000	488,000	70,000	0	1,000	20,000	95,020	0	3,600
TOTAL	206,687	11,855,715	543,000	392,000	915,000	15,300	40,000	433,450	25,000	70,700
AUTHORIZED CROSSTIES FOR 2002										
Region	Total Track Miles	New Wood Hardwood	Crossties Softwood	Wood Relay Crossties	New Non-Wood Concrete	Crossties Steel	Other	Switch Ties (Units) Wood	Other	Bridge Timbers Units
Eastern U.S.	73,614	4,870,000	0	204,000	114,000	300	0	172,750	0	44,250
Western U.S.	101,691	5,770,715	55,000	135,000	800,000	14,000	40,000	171,680	25,000	22,800
Canada & Canadian Owned U.S. Track	31,382	1,270,000	352,000	50,000	0	1,000	18,000	92,500	0	3,700
TOTAL	206,687	11,910,715	407,000	389,000	914,000	15,300	58,000	436,930	25,000	70,750
AUTHORIZED CROSSTIES FOR 2003										
Region	Total Track Miles	New Wood Hardwood	Crossties Softwood	Wood Relay Crossties	New Non-Wood Concrete	Crossties Steel	Other	Switch Ties (Units) Wood	Other	Bridge Timbers Units
Eastern U.S.	73,614	5,070,000	0	224,000	112,000	300	0	180,700	0	44,200
Western U.S.	101,691	6,140,715	60,000	146,000	840,000	16,600	0	185,680	30,000	23,200
Canada & Canadian Owned U.S. Track	31,382	1,270,000	327,000	50,000	0	1,000	18,000	92,500	0	26,200
TOTAL	206,687	12,480,715	387,000	420,000	952,000	17,900	18,000	458,880	30,000	93,600
AUTHORIZED CROSSTIES FOR 2004										
Region	Total Track Miles	New Wood Hardwood	Crossties Softwood	Wood Relay Crossties	New Non-Wood Concrete	Crossties Steel	Other	Switch Ties (Units) Wood	Other	Bridge Timbers Units
Eastern U.S.	73,614	5,270,000	0	244,000	112,000	300	0	188,700	0	46,200
Western U.S.	101,691	6,482,715	60,000	152,600	884,000	17,260	0	200,580	30,000	21,640
Canada & Canadian Owned U.S. Track	31,382	1,270,000	327,000	50,000	0	1,000	18,000	92,500	0	3,700
TOTAL	206,687	13,022,715	387,000	446,600	996,000	18,560	18,000	481,780	30,000	71,540

* Eastern Railroads reporting - CSX Transportation; Elgin, Joliet and Eastern; Florida East Coast and Norfolk Southern. Western Railroads reporting - Burlington Northern Santa Fe, Kansas City Southern Railway and Union Pacific. Canadian Railroads reporting - BC Rail, Canadian Pacific Railway (includes Soo Line) and CN/IC (includes GTW).

Volume of Timber Necessary To Produce Estimated Crosstie Requirements (000's omitted)

	Thousand Board Feet		
	2001	2002	2003
Crossties - U.S. & Canada	495,960	492,720	514,720
Switch Ties - U.S. & Canada	28,175	28,400	29,770
Bridge Timbers - U.S. & Canada	9,445	9,551	12,636
TOTAL BOARD FEET	533,580	530,671	557,126

**Table 4—The Railway Tie Association*
2001 Regional & Short Line Crosstie Survey**

<u>Tie Categories</u>	<u>2000 Usage</u>	<u>2001 Projected</u>	<u>2002 Projected</u>	<u>2003 Projected</u>
New 7" Ties	2,254,980	961,867	964,000	827,333
New 6" Ties	914,187	848,407	684,000	656,000
Sub-Total New	3,169,167	1,810,273	1,648,000	1,483,333
Relay 7" Ties	253,687	165,653	168,453	163,120
Relay 6" Ties	82,727	252,667	143,333	108,000
Sub-Total Relay	336,413	418,320	311,787	271,120
Industrial 7" Ties	349,280	920,467	867,667	784,667
Industrial 6" Ties	92,407	99,333	127,400	111,067
Sub-Total Industrial	441,687	1,019,800	995,067	895,733
Switch Ties	78,673	64,620	60,607	58,700
Bridge Ties	50,433	36,813	30,113	29,500
Concrete Ties	0	667	667	667
Steel Ties	1,347	3,333	3,333	3,333
Grand Total All Ties	4,077,720	3,353,827	3,049,573	2,742,387

*In cooperation with American Short Line and Regional Railroad Association

Note: Calculation based on survey responses from 48 Roads, representing approximately 8% of operating trackage.

Contractors And Other Markets

In past years, RTA has worked with the NRC to send out a survey for railroad contractors. Unfortunately, response to the survey has dwindled to the point that results are at best a guess and are thus

potentially unreliable. For example, there were only nine contractor respondents to the 2000 survey. As a result, no survey was prepared or mailed for 2001.

Based upon RTA member and non-member estimates for tie production, how-

ever, subtracting for Class 1s in the United States and Canada, and for the short lines, it is believed that all other markets—contractors, transits, etc.—account for between 400,000 and 600,000 non-duplicative tie installations for industrial

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and government project track in 2002. While this is significantly lower than previous years' estimates, basing the prediction on production figures and allowing for the survey results from the Class 1s and short lines, may prove to be more accurate.

Further Analysis

So, then, the RTA economic models and the surveys suggest similar things—a marginal improvement in U.S. Class 1 installations for 2002. Unfortunately, this growth may be offset by fewer Canadian Class 1 and short line installations.

Over the next six to 12 months, the prudent call for suppliers should be to expect a market that is similar to the one that has been in place for the last few months. The light at the end of the tunnel may be that by mid-2002, Class 1s will begin to prepare for better times in 2003. If the U.S. economy gets kick-started sooner rather than later, improvements could come earlier. With the uncertainty in the U.S. and world economies, though, suppliers may be better off not counting on it until it happens. §

The Market Statistics Committee and RTA staff could not produce these valuable industry statistics without the assistance and cooperation of many individuals and companies. First, there are the RTA producer reports who diligently report monthly statistics on production and inventory. Then, there are the engineering and purchasing personnel for the Class 1 railroads who fill out the surveys, as well as the staff at the Association of American Railroads, who provided additional data. Finally, there is the staff of the American Short Line and Regional Railroad Association, who work very hard to support RTA in its request for information that is sometimes difficult to calculate. To everyone involved in this annual process, all RTA members express our deep appreciation for your efforts. Without your work, much would be misunderstood or, worse yet, simply unknown.

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