

Stunning Growth In Wood Tie Market

Torrid Pace Leads To 2006 Record Purchases, Production

By Jim Gauntt

There is only one word that comes to mind when describing the wood tie market in 2006. Phenomenal! A blistering 10 percent growth rate in tie purchases, nearly 23 million ties produced, and, remarkably, 21 million ties purchased (estimated year-end totals). Wow!

At the beginning of 2006, the Railway Tie Association (RTA) predicted it would be a great year. The high-end forecast was for 20.5 million ties if various production or installation constraints did not rear their head. But, 21 million? It was not even one of the scenarios considered.

There was a reason that the predictions did not include a total of 21 million ties purchased for 2006. The RTA forecast model has several inputs for which assumptions have to be made (see article on page 8). No scenario seemed plausible that would have created a total purchase amount of 21 million ties.

And, even this year, the forecast model, with relatively aggressive assumptions, outputs a forecast of 20.4 million ties purchased for 2006, 3 percent below the estimated end-of-the-year figures. This is somewhat odd in that the RTA forecast model has been very accurate over the past few years. After all, the model attempts to identify the level of purchases consistent with predicted economic conditions.

What is going on? Does the model have a flaw? Are the assumptions of coal shipments, freight growth and GDP too conservative?

Well, even though no forecast model is perfect, there could be a few other reasons that purchases exceeded the predicted demand.

One reason could be that in the rush to meet the extraordinary pace of purchases, speculation in procurement may have created a little excess inventory in 2006.

There is a sense that west of the Mississippi inventories could be higher than what is optimal at this specific point in time. How much higher is subject to debate, but it is safe to say that even if it is only a little higher than optimal it could have an impact on what will happen in 2007.

In one scenario, if the inventory is a lot higher than optimal, say 400,000 to 500,000 ties, then one could postulate that this could result in a softening in tie purchases starting in the first half of the year.

On the other hand, if the inventory is only marginally higher, then there might

not be any measurable impact at all. This is especially true if any or all of the other following scenarios are, in fact, occurring.

The first possibility to consider is that the short line market could be even hotter than what the model predicts. It seems clear that the short lines/smaller markets purchased ▶

Sales To Inventory Ratio							
	Mo/Yr	Tie Production	Tie Inventory	Change In Inventory	Tie Purchases	Annual Purchases Rolling Total	Inventory To Sales Ratio
2002	Jan	1,446	13,057	433	1,013	16,029	0.81
	Feb	1,399	13,118	61	1,338	16,278	0.81
	Mar	1,312	12,760	(358)	1,670	16,554	0.77
	Apr	1,370	12,482	(278)	1,648	16,772	0.74
	May	1,359	11,996	(486)	1,845	16,865	0.71
	Jun	1,401	11,735	(261)	1,662	16,732	0.70
	Jul	1,533	11,751	16	1,517	16,870	0.70
	Aug	1,647	11,602	(149)	1,795	17,044	0.68
	Sep	1,611	12,006	404	1,208	17,111	0.70
	Oct	1,893	12,927	922	972	16,935	0.76
	Nov	1,370	13,174	246	1,123	17,215	0.77
	Dec	1,127	13,406	232	895	16,686	0.80
2003	Jan	1,288	13,782	376	912	16,585	0.83
	Feb	1,143	13,748	(34)	1,177	16,424	0.84
	Mar	1,255	13,544	(204)	1,459	16,213	0.84
	Apr	1,525	13,354	(190)	1,714	16,280	0.82
	May	1,439	13,148	(206)	1,645	16,080	0.82
	Jun	1,365	13,037	(111)	1,476	15,894	0.82
	Jul	1,577	13,136	98	1,479	15,856	0.83
	Aug	1,587	12,997	(139)	1,725	15,786	0.82
	Sep	1,651	13,020	23	1,628	16,207	0.80
	Oct	1,725	13,403	383	1,342	16,577	0.81
	Nov	1,378	13,658	255	1,124	16,577	0.82
	Dec	1,280	13,426	(232)	1,512	17,194	0.78
2004	Jan	1,615	14,022	596	1,019	17,301	0.81
	Feb	1,470	14,129	107	1,363	17,487	0.81
	Mar	1,927	14,140	12	1,916	17,943	0.79
	Apr	1,583	14,254	113	1,470	17,699	0.81
	May	1,497	14,284	30	1,467	17,521	0.82
	Jun	1,876	14,384	100	1,776	17,820	0.81
	Jul	1,532	14,343	(41)	1,573	17,914	0.80
	Aug	1,656	14,243	(100)	1,755	17,943	0.79
	Sep	1,789	14,342	99	1,691	18,006	0.80
	Oct	1,655	14,728	386	1,269	17,933	0.82
	Nov	1,373	14,865	136	1,236	18,046	0.82
	Dec	1,366	15,015	150	1,216	17,749	0.85
2005	Jan	1,273	14,898	(117)	1,390	18,120	0.82
	Feb	1,270	14,707	(191)	1,461	18,218	0.81
	Mar	1,451	14,410	(297)	1,748	18,051	0.80
	Apr	1,421	13,951	(459)	1,880	18,460	0.76
	May	1,502	13,984	33	1,469	18,462	0.76
	Jun	1,793	13,988	5	1,788	18,475	0.76
	Jul	1,590	13,927	(62)	1,651	18,553	0.75
	Aug	1,860	14,143	216	1,643	18,441	0.77
	Sep	1,882	14,699	556	1,326	18,077	0.81
	Oct	1,774	14,691	(8)	1,782	18,590	0.79
	Nov	1,786	14,904	213	1,572	18,926	0.79
	Dec	1,661	15,531	626	1,035	18,745	0.83
2006	Jan	1,734	15,747	217	1,517	18,872	0.83
	Feb	1,674	15,890	142	1,532	18,943	0.84
	Mar	2,128	16,178	288	1,840	19,035	0.85
	Apr	1,744	15,981	(197)	1,941	19,097	0.84
	May	2,405	15,711	(269)	2,674	20,302	0.77
	Jun	1,981	15,573	(139)	2,120	20,633	0.75
	Jul	1,609	15,606	33	1,577	20,559	0.76
	Aug	2,169	16,002	396	1,773	20,688	0.77
	Sep	1,967	16,317	316	1,651	21,014	0.78
	Oct	1,724	16,586	268	1,456	20,688	0.80
	Nov	1,713	16,654	68	1,645	20,761	0.80
	Dec	—	—	—	—	—	—

NOTE: The information in this chart is calculated from reported production and inventory numbers by RTA members. This represents more than 95% of the U.S. and Canadian market for wood crossties.

more than 750,000 more ties in 2006 than they did in 2005. This is probably a direct result of the tax credit in place. But, what if they actually bought more than that? That certainly would account for purchasing exceeding an econometric model's output, since the driver for growth—the tax credit—would not be an event consistent with past economic performance.

Another possibility is that over the past few years freight growth on the Class 1s has been capacity constrained. So, the model would tend to base future growth on a slope that is too shallow due to the historical constraints. Under-predicting would also occur if railroads are just now beginning to realize success in removing the constraint with the utilization of new capacity that is accretive to growth.

Other factors that are sure to be weighing in are those driven by historically high oil prices. Coal shipments escalating at a more rapid pace than what has been predicted and the continued packing of truck freight onto rail may be creating demand that is higher than what could have been forecast earlier this year.

It is likely that each of these factors played a role in tie purchases exceeding the model's output of 20.3 million ties.

So, with that background, let the attention turn to what 2007 holds in store for suppliers and railroads.

The RTA model predicts that 2007 will be another banner year for tie demand. Railroad income has continued to surge, and most expect that 2007 will also be a great year for earnings. And, when the cash is available, it tends to flow to maintenance and construction, especially given the capacity constraints on the Class 1s.

Thus, the model predicts growth of actual demand to increase to 21 million ties in 2007. This is about 600,000 more ties than the demand predicted by the same model for 2006.

But the other economic news suggests with the economy slowing that an impact will have to be felt by all sectors, including railroads. Maybe not.

The mix of traffic riding on the rails has changed. And, at least some Class 1 railroads are still turning down freight because of capacity constraints. Railroads are now more than ever insulated from a brief downturn in the economy.

All this suggests that while the growth rate in tie purchases may cool, the actual number of ties in demand for installation may increase.

How will this affect purchases? On the one hand, speculation could lead to the conclusion that nothing will stop this juggernaut. The economy may have the softest of landings and railroads could continue to benefit, building even more capacity and using more ties in new construction and maintenance.

On the other hand, if you are more pessimistic and believe that there is excessive inventory floating out there somewhere, you might buy into the notion that there will be a softening in production by mid-year.

It would be easy to see how this could happen. Some industry observers believe it inevitable, especially if the weather this winter is mild enough to allow continued strong production. A near 23 million tie production rate "feels" unsustainable.

What will a look at a couple of statistics provide in the way of ammunition for both the high and the low case?

The final production number for 2006 is predicted to be 22.5 million ties with an inventory to sales ratio of 0.81. If the model's prediction of 21 million tie purchases for 2007 is accurate, and purchases match production so that the inventory to sales ratio remains at the same 0.81 by the end of 2007, then production would have to fall by 6.7 percent from 22.5 million to 21 million ties during the year. Even if the inventory to sales ratio were to rise to 0.83, then production would still have to come down by 4.4 percent to 21.5 million ties. It is hard to avoid a potential softening if one chooses to believe the model is correct for 2007.

On the other hand, if the demand for wood ties continues to grow at a faster pace than what is predicted, production would need to remain at elevated levels experienced in 2006.

Is there evidence that this could occur? If Dakota Minnesota & Eastern Railroad starts on its construction and rehabilitation project, that could certainly change the demand equation. But, a recent exception

filed with the Surface Transportation Board by BNSF could prolong or even prevent that project's realization.

Rail traffic could grow faster than what is currently predicted. However, the question remains: Will new capacity relieve the constraint that allows for this more rapid growth to occur as soon as 2007?

The short lines could have a huge year, figuring that they should take advantage of what could be the last year of their tax credit. Yet, installs in this market segment are already at historic levels. Will it be another blowout year in the growth of tie demand for short lines?

One factor that could impact what will happen in 2007 is treating plant cylinder time/capacity, which is showing signs of constraint in some areas. There are reports that some plants are at or near capacity. If this constraint manifests or worsens, satisfying demand levels above the model's prediction could be difficult to accomplish.

In another scenario, there is a possible impact created by the supply of creosote. In 2006, tightness in the supply of this preservative caused great consternation for producers trying to meet production goals. And, although creosote suppliers are saying that the supply will be sufficient this year, just how the supply network satisfies all the producers logistically and "just in time" remains to be seen. Supply could proceed like clockwork, or there could be glitches, especially when there is significant dependency on foreign supply. A further question is if tie purchases were to significantly exceed 21 million, would the "planned for" imports of creosote be sufficient to meet that demand?

So, what's the bottom line? The most straightforward, and admittedly conservative approach is to follow the econometric forecast for a 21 million tie demand level for 2007 and accept the possibility that tie procurement may have peaked in 2006.

But, a bullish case suggests something else. If we go back to the model and fully "un-constrain" coal shipments and freight growth, then 2007 could see tie purchases exceed 21.7 million. And that should be more than enough to keep the production/purchasing juggernaut plowing ahead at 2006 levels. And, given the fact that the model may not be "seeing" some of these accelerating factors it is quite possible, even plausible, that this significant jump in purchases could occur. §

2007 RTA Forecast

Millions (000,000 omitted)	
US & Canadian Class 1	16.0-16.7
Short Lines & Other Markets	4.5-4.8
Total Projected Range	20.5-21.5
Forecast	21,000,000