



Alberta truck axle changes offer the promise of reduced haul costs

Trucking and forest companies in Alberta are hailing the decision to move toward greater use of 9-axle and 10-axle log trucks as a major step forward to reducing haul costs and improving the competitiveness of the province's forest industry.

By Tony Kryzanowski

While Alberta has approved 9 and 10-axle log truck configurations for travel on public roads and new increased axle weight allowances for six different existing log haul configurations, log haul contractors using 8-axle units may want to dig out their calculators and speak with their clients before making any drastic changes to more axles in the short term.

Productivity for existing fleets will increase from 3 to 11 tonnes per load in winter depending on the configuration.

James Sinnett, FPInnovations researcher for transportation, says haul contractors changing from 8-axles to 10-axles will be able to haul roughly 25 per cent more payload. Based on extensive evaluations conducted by FPInnovations and accepted by Alberta Transportation, winter payloads for 8 and 9-axle log trucks will also increase between 5 and 15 per cent, depending on the exact configuration.

The issue of bridge weight restrictions is presenting more challenges to industry than first thought. Industry is unlikely to make a major transition, especially to the 10-axle configuration in the short term, except in specific areas where bridge weight restrictions are not an issue, there are few steep grades to contend with, and it makes economic sense.

“The industry went into it knowing that the bridge limitations were there and there would be very limited areas that they could transport the logs at those weights,” says Kim Durdle, Acting Director for Transport Engineering at Alberta Transportation. “They were well aware of that when we first started.”

She explained that whenever a log haul contractor is given a permit for a particular configuration and payload, Alberta Transportation provides them with maps of where exactly they can, and can not, travel.

Since the announcement of the new approved log truck configurations and higher payloads, Alberta Transportation has requested an engineering analysis of bridges on strategic routes identified partially through industry input, especially in northern Alberta, to determine if they can or can not handle the higher payloads now approved for 8-axle trucks, as well as the 9 and 10-axle configurations. If bridges can't handle the new payloads, the consultant handling the analysis will then provide Alberta Transportation with an estimate on how much it will cost to upgrade the bridge. The province will then evaluate whether or not to spend the money based on a detailed cost benefit analysis, and industry input will be included as part of the decision making process.

“We're breaking new ground here,” says Durdle. “When these bridges were built, these configurations weren't in existence.” Alberta Transportation is generating a map for log haul contractors to show where 9 and 10-axle truck use would be acceptable in the province, given the information that is currently available.



Alberta is the first province to approve use of the 9 and 10-axle log truck configuration on public roads. At present, 8-axle log trucks are the standard, and it seems that there will still be a place for them in the industry for the foreseeable future. They will remain the standard for tree length log hauls, which use hayracks to transport logs instead of the B-trains typically used in transporting cut-to-length logs.

FPIinnovations worked with Alberta Transportation to analyze the new configurations, leading up to their approval by the province starting in July 2009. Since then, however, feedback from industry indicates that the bridge weight restriction issue will definitely influence how quickly industry will adopt the increased axle configurations. Some areas of the province have many more bridges to contend with than other areas.

Despite this restriction on travel in some areas, both log haul trucking and forest companies are hailing the decision to move toward greater use of 9-axle and 10-axle log trucks as a major step forward to reducing haul costs and improving the competitiveness of Alberta's forest industry.

"Transportation costs are 35 per cent of our woodlands budget," says Randy McNamara, Alberta-Pacific Forest Industries (Al-Pac) director of chip and biomass procurement. "It's a huge expense, so if we can find some places in that area to save money, then that is where we have to go in today's economy."

The bridge issue, however, has caused the company to consider its timeline for implementation.

"We're taking a good, honest look here as to what our benefit will be and over what time period," says McNamara. He expects that it could take three to five years, and even longer in some cases, depending on when certain bridges are prioritized for upgrading.

"It's pretty hard to ask a contractor to buy new equipment if he's only able to maximize its potential 30 to 40 per cent of the time," he says.

Larry Lefebvre, general manager for the trucking division at the Minhas Group of companies, says the company is definitely in favor of the change. It operates 40 log trucks throughout north-central Alberta, and offers contract services including logging, yard management, and log haul services to just about every major forest company operating in that area of the province. It was among the first companies certified to operate 9 and 10-axle trucks on public roadways and has used them particularly in the summer months when weight limits per axle are reduced.

By using 9-axle trucks, the company expects to increase its payload by 10 per cent on average.

"So, you are taking one in every 10 trucks off the road," Lefebvre says. That reduces the amount of traffic on the highway and the requirement for drivers, which has been an issue in the past, especially when the oilpatch is busy. The need for fewer trucks also reduces fuel consumption and greenhouse gas emissions.

Lefebvre, McNamara and FPIinnovations are on the industry/government task force that investigated the possibility of using the 9 and 10-axle configuration on highways. It was part of an overall competitiveness review that Alberta Sustainable Resource Development (ASRD) launched as a result of an outcry from industry starting in 2007 concerning costs



associated with forest industry operations in the province.

The spotlight fell on log haul truck configurations because it was something the province could address quickly.

Many forest companies operating in northern Alberta, such as Ainsworth, Tolko, Daishowa-Marubeni (DMI), West Fraser and others were asking the provincial government to review log truck haul configurations. Also, Ainsworth already had a positive experience using 10-axle tridem trucks and B-trains to transport logs on a private log haul road through the bush to supply the now idled Footner Forest Products oriented strandboard (OSB) plant near High Level. The companies combined forces and asked the Alberta government to study the concept and consider allowing the 9 and 10-axle configurations on public roadways.

“I think the Alberta government has to be given a lot of credit for making this happen,” says Lefebvre. “Within a year, they broke the box open.”

Thankfully for truckers, there will be a period of transition to make the leap to 9 or 10-axles. It’s expected that most truckers not operating tridem trucks will switch to 9-axles by simply adding an axle to a B-train first.

“The 9-axle is really a middle-of-the-road configuration,” says Lefebvre. “The talk among a lot of the truckers out there is that it might be the dominant configuration on the road rather than the 10-axle.”

Whether 9 and 10-axle usage becomes widespread throughout Canada will depend on local terrain, road designs and restrictions, and load restrictions on local bridges. But there is no denying that over time, the same amount of wood could be hauled with fewer loads to Alberta’s sawmills, pulp mills, and engineered wood operations.

Saskatchewan has already made some changes to its winter weight payloads based on the work done by FPInnovations in Alberta, and it’s expected that provinces most likely to follow Alberta’s lead over the short term will be those with similar terrain.