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Dear Ekta

ALLOCATING FREIGHT VEHICLES TO SUSPENSION BANDINGS - CONSULTATION ON A REVISED APPROACH - FREIGHTLINER RESPONSE

Thank you for the opportunity to respond to the consultation on a revised approach on allocating freight vehicles to Suspension Bands. This is the response of Freightliner Group Limited on behalf of Freightliner Limited and Freightliner Heavy Haul Limited.

We appreciate the extra time that Network Rail has given us to respond and the 2 meetings that Network Rail has set up with us. We do note however, that it would have been helpful if these could have been set up earlier as requested in our July 2011 letter, as considerable time in the process has been lost.

Overview

Freightliner does not support the overall proposal made by Network Rail because further work is needed to quantify the impacts on the cost of track damage of different bogie types. The proposal made is a mix of quantified ride force count and un-quantified measurement of the cost impacts to Network Rail. It is fundamental that the whole picture is quantified before changes to the current methodology are made.

Freightliner does not support any retrospective banding of wagons/bandings as this will introduce additional cost for no overall benefits (the wagons will still run).

Freightliner does not support resetting all Suspension factors to 1.00 from the beginning of CP6 as this will result in perversities and the wrong incentives for owners of wagons with poor suspension.

Considerable progress has been made in reviewing the ride force count of the bogies through the Manchester Metropolitan University (MMU) work but there appears to have been no progress at all in actually quantifying the suspension bandings and the accuracy of cost impacts to Network Rail relative to the measured vertical forces of the bogies.

The impact of this is that the operators have increased costs in modeling bogies/wagons to measure the rail force count but the outputs of the modeling will be applied to the still subjective and un-quantified suspension factors that have previously been in place (and of which Network Rail are unable to provide any evidence of their quantification).

Even more seriously freight operators are paying considerably more for the purchase and maintenance of more sophisticated bogies but we do not understand the value of any savings actually made by Network Rail by their use. With the current structure of (only) redistribution of freight track access charges, the non-linearity of Ride force count to discount factor and the considerable element of judgement used to relate band to discount

factor means that we are potentially going **down a path of expensive folly and urge Network Rail to urgently undertake some work to quantify the impacts of different bogies.**

We accept that the current suspension bandings have been in place for about 10 years and have incentivized the purchase of more track friendly suspensions but we are concerned that Network Rail proposal is to continue to use these bandings without any more quantitative work being undertaken on their accuracy, or even a plan to undertake this work.

Therefore we cannot agree with Network Rail's proposals as they stand.

We do not believe that Network Rail's proposal meets the remit laid out in the ORR's conclusions on PR08:

"19.39 Network Rail will need to work quickly to produce a revised banding that can be used as a criteria for deciding the appropriate level of discount that should apply to new suspension types as these are designed through CP4. There is need for timely production of this so that it does not hold up the manufacturing process of new suspension types. Following full industry consultation and our approval, this new table can then be used for assessing new suspension types as they are developed during CP4. We expect (unless there are justified reasons for not doing this) the proposal to include:

- a quantitative measure of the mid point of each band;*
- a quantitative measure of the boundary between each band; and*
- consideration of whether it is appropriate to introduce lateral and longitudinal effects into the suspension banding table.*

19.40 We consider that the incentive driven by the suspension band penalty/discount table is particularly important as this has had, and we expect to continue to have, strong incentive effects on the design and manufacture of suspension types. However, we consider that it can only do this with clear quantified evidence of the output effect needed to qualify for each band. We believe that any form of system based on descriptions/identities of types of current suspension banding would continue the limitations experienced in using the current approach. We expect that the final table will be output based. This means the bogie types qualify for the band based on the force they imply on the network and therefore the relative costs to Network Rail rather than the proposal which locks bogies into particular bands because of their description e.g. friction damped suspension necessarily worse than viscous damped suspension. We also continue to believe that the boundaries between bandings need to be quantified. At the industry workshop held by Network Rail on 3 October 2008 this conclusion was supported but it was also agreed that despite the concerns at the specifics of Network Rail's proposal, the work done by Network Rail and its consultants Manchester Metropolitan University would be a useful step in the process of developing this revised table. Network Rail has agreed to plan the necessary further work."

In summary Network Rail has done half the work necessary and needs to do the other half. We do not think it reasonable to expect operators to pay for expensive models to be run when the outputs of those models are applied to a totally subjective suspension factor adjustment. Even more importantly the industry needs to understand the real costs impacts on track damage caused by different bogie types to ensure that it is going down the right path in the design and purchase of bogies.

MMU Report and proposed methodology

Overall we accept the technical methodologies used by MMU in their report to measure ride force count, and recognize the progress made in correlating vehicle suspension and ride

force count. We do however have some questions, comments and suggestions about how Network Rail propose to apply the MMU model:

The methodology to measure ride force count looks only at the vertical forces of bogies/wagons. The report does not consider the impacts of lateral forces and does not attempt to quantify any affect on track wear they may have. This contradicts the briefings that Network Rail gave to manufacturers a few years ago which has led to certain bogie designs e.g. TF25, BER 25 and ELH optitrack. A quantitative model that only measures vertical forces will encourage different behaviour from the bogie manufacturers in future.

Network Rail does not appear to have adequately considered the impact of lateral forces in the work undertaken even though this was part of the remit from the ORR. Our major concern here is that in a few years Network Rail will change their mind again and lateral forces will be deemed important. It is imperative that the impacts of both vertical and lateral forces are understood so that bogie manufacturers understand clearly how their product impacts on track wear, so they can design optimum products.

We do not think that the consultation makes the proposal very clear and we think it would be helpful to have a further industry workshop with manufacturers so that all parties are clear what role they are expected to play. Further to our meeting we understand that Network Rail's proposal is that each new bogie type is modeled using a range of generic body types and then the results are used to calculate an average Ride Force Count (RFC) from which a suspension factor is derived. This suspension factor is then applied to all wagons with that bogie type, whether they are an existing design or not, unless an operator or wagon manufacturer chooses to model a particular wagon combination. Could Network Rail please confirm that this is the intention of the proposal?

We recognise that Network Rail is trying to simplify the approach of modeling ride force count whilst being able to assess the characteristics of bogies reasonably accurately. We have meet to discuss this and agree that it is difficult to find an approach that gives the right balance of accuracy and cost of modeling wagons. We suggest a few improvements:

We suggest that bogie models are not applied to an overall generic wagons type but are separately modeled under a generic intermodal wagon and a generic bulk wagon, using the average weight and speed of those generic wagon types rather than the maximum weight and speed. Intermodal wagons carry an average gross weight of about 47t and run at an average speed of 46mph compared to bogie bulk wagons that typically gross at 98t loaded and run at an average speed of 35mph.

We also similarly suggest that the average track type used in the model is calculated separately for intermodal and bulk wagons. Whilst even this would still be very simplistic it would recognize that intermodal wagons primarily use major trunk routes of presumably higher quality than the average route whilst bulk services use a broad mix of routes. This is important because the results produced by MMU clearly show that different bogie types have very different impacts on different qualities of track. Indeed different bogie designs are used on intermodal wagons versus bogie wagons for the very reason that the characteristics of these services and the routes they use are very different. The "one type fits all" approach suggested by Network Rail does not reflect these fundamental differences and will not encourage the design of the most efficient bogie for 2 fundamentally different traffic types.

We do not understand why having measured the ride force count by use of a model that any adjustment factor in charges does not directly relate to the ride force count but is then forced into suspension bands. Why not directly relate the impacts to the ride force count i.e. each digit reduction has a small impact? This would reduce arguments with bogie manufacturers who may be arbitrarily on the margins of a particular suspension banding. This is particularly relevant as the separation of bogie types has been "forced" through a non-linear relationship between ride force count and suspension discount factor.

Costs of modeling

We are unhappy that the proposal will result in additional cost being imposed on the rail freight industry either directly or via wagon manufacturers. Such costs and complexities are not borne by our road competitors. We do not see the value in the additional cost as the output from the expensive models will be applied against wholly subjective suspension factors.

In addition it must be recognized that all changing a suspension banding on a wagon does is move that wagon up or down the table of charges relative to other wagons. Assuming the same methodology will be used in CP5 as CP4 the calculation of costs of certain wagon types is merely a relative allocation between wagons. The overall costs recovered by Network Rail would remain the same if all wagons have band 1 suspension or all wagons have band 7 suspension. Therefore as it stands the proposal made by Network Rail adds costs to the rail freight industry without any overall cost savings to the industry (apart from any costs gained within one control period if new wagons or upgraded bogies are introduced during the control period). This is quite a fundamental point with regard to whether Network Rail's proposal offers overall industry value for money. We would be interested to understand whether there are any proposed changes to the model methodology proposed by Network Rail for CP5.

We note that as previously advised it is not necessary at the moment to undertake Vampire modeling to introduce new wagons but wagons can be introduced using ride testing only. We understand that Network Rail foresee that bogie manufacturers will be keen to undertake this modeling as part of the sales process for any new design of bogies. It is very important to us that the bogie manufacturers also share this view and we suggest that an industry meeting with operators and bogie manufacturers is set up by Network Rail to discuss this. We would like to understand how much the bogie manufacturers envisage the proposal costing as it will inevitably be the freight operators or freight customers or end up paying these costs. Any additional costs borne by the rail freight industry only go to erode the industry's competitiveness with road.

Software

It is unclear from the consultation who Network Rail expects to run the software, as stated above is it just the bogie manufacturers? It is not clear whether the software will be provided free of costs, or how much training is needed and how that will be funded.

Timing of Introduction

We welcome the proposal that any new approach will not be introduced earlier than the start of CP5 and that it won't be applied retrospectively.

Freightliner does not support Network Rail's proposal for CP6 to reset all Suspension Factors to 1.00. This would create perverse behaviours as it would mean that anyone with wagons previously awarded a discount would be forced to pay to have their bogie/wagon modeled to retain the benefit (on which they built the business case in the first place) whilst those with wagons paying a premium (or who thought might have to pay a premium in the future) would be incentivised to do nothing and benefit from the 1.00 Suspension Factor.

It must be borne in mind that according to Network Rail's proposal, retrospective application of the methodology will be applied from CP6 and in consequence the costs of any modeling and assessment for "historic" suspension types will fall directly to the operator or owner of the wagon concerned.

We can only see 3 possible ways forward for existing wagons:

- 1) to force the modeling of all wagons
- 2) rate all existing wagons as suspension band 1 (suspension factor 1.098) , which will have virtually the same effect as 1) anyway

3) do nothing and allow existing wagons to continue at their existing suspension factors.

Given that 1) and 2) introduce considerable extra cost to the industry at no overall benefit (these wagons will still exist) 3) seems to us the most sensible way forward for the foreseeable future.

Suggested Way Forward

We do think it is important however that a long term policy is put in place as soon as possible rather than leaving this for the CP6 consultation. Wagons have typical life spans of 35 years so wagon and bogie manufacturers, operators and freight customers need to be able to reasonably plan in to the future and ongoing uncertainty would be unhelpful.

We therefore urge Network Rail to undertake work to understand the real costs of ride force count on track damage as soon as possible and also review what impacts lateral forces have on track costs.

If it is possible for Network Rail to undertake this work, with necessary consultation etc within a reasonable timescale we would in principle support the implementation of both the proposal on ride force count made by Network Rail and properly quantified suspension bandings for the start of CP5.

However, we suggest that until this work is undertaken the existing subjective banding methodology remains. This is by no means ideal and should only be a temporary position. At least the wholly subjective methodology is understood for what it is and it does have the benefit of introducing no additional costs when the benefits of those costs are not understood.

We have raised some considerable and fundamental issues within this letter and therefore we are copying this letter to all other freight operators and the ORR so they have an opportunity to comment on our views.

We are concerned that this is a complex area and that both Network Rail and other freight operators have not had time, or in some cases do not have the expertise to fully understand or review the issues that we have raised.

Freightliner suggests that a meeting is held with Network Rail, the ORR and interested freight operators and bogie manufacturers to discuss the way forward.

Please contact myself if you would like to discuss any issues raised in this response further.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Lindsay Durham'. The signature is written in a cursive, flowing style.

Lindsay Durham
Head of Rail Strategy