

This article should be read in conjunction with Bernie's article "[Are You Sitting Comfortably](#)" (20 04, Vol 28, No 3) as we used Bernie's car as the case in question to determine how much deflection in millimetres on the balance beam equated to kilos of weight.

WHAT A WEIGH FOR TRACTIONS

Sunday, 24th of October, I looked out of my hotel window at a cold dark Melbourne morning and thought, "what a day for a concours" but as it sometimes does in Melbourne, the day got better with time.

We arrived at Como North Oval around 9.30a.m. and like cricketers inspected the wicket, after checking with the organizing committee it was agreed that the weigh-in could take place on the pitch, which was the only concreted area available for reasonably accurate readings.

True to their word Vic Roads arrived at 11.00a.m. Derek and Alaine also inspected the wicket and decided that the South Yarra end had the least bias and would suit the job well.

This was my first look at their rather infamous scales, the bane of many a truckie!

We unloaded them and set them up on the pitch and asked all traction owners to line up for their turn on the scales.

In the first hour we checked 13 tractions and 1 CX, its owner was very inquisitive and it showed a 50kg difference from side to side on both front and rear axles but unlike a traction the light readings were both on the right hand side. The tractions which were out by 50kgs displayed light readings diagonally opposed.

The optimum reading seemed to be 300kgs for each front wheel and 250kgs for both rear wheels. Out of the vehicles tested 4 were found to have this reading and as one owner said he was taking his weigh-in sheet home to frame it.

One other was very close with only a minor adjustment needed on the rear axle, one other was within 25kgs on both axles, (the factory tolerance is 30kgs) 5 others were found to be up to 50kgs out and 2 were found to be 100kgs different.

An example of readings for a car with a 100kg difference is: LHF 250kg, RHF 350kg, LHR 300kg, RHR 200kg.

An example of a car with 50kg difference is: LHF 300kg, RHF 250kg, LHR 225kg, RHR 250kg.

All owners were given a copy of their weights on a specially prepared form and the records kept by the club were only to provide general

information for this article as I did not keep any names attached to weight readings as I felt that our privacy statement could be compromised.

The moral of the exercise is, if you have a traction that is sitting uneven, that is leaning or the ride heights are poorly set, then the car may want to corner better one way than the other or it may just be a dog to drive, first of all reset the ride height, then check the weight distribution by either the manner Ian McDermott described in an earlier issue or borrow Bernie's balance beam to check it with, as this has a great impact on your vehicle's handling.

The Vic Roads crews were then treated to lunch and left to continue their days work around 1.30p.m. after being thanked for their efforts and co-operation.

Case Study

With permission from Bernie Hadaway I am publishing the results of weighing his car, after his article in Front Drive "Are You Sitting Comfortably" (Winter 04, Vol 28, No 3.) he noted that the balance beam was deflected 10mm, indicating an imbalance. The weights recorded for Bernie's car were: LHF 275kg, RHF 325kg, LHR 275kg and RHR 200kg. This indicates an imbalance of 50kg across the front axle and 75kg across the rear. If you are to adjust and correct such a problem the ride heights should firstly be accurately checked and any discrepancies rectified. (you will probably find that the difference in ride height will be in line with the weight imbalance, i.e. the car will be leaning towards the heavy side) Remember after adjustment a short run may be necessary to allow the car to settle down again.

If this does not rectify the problem further adjustment is required, the manual states that weight distribution takes precedence over ride height, that is unless the ride height becomes ridiculous then a twisted hull may be the cause.

However as Bernie's car deflected the beam 10mm and was 50kg out, one could assume if the deflection was only 6mm almost certainly you would conclude that the car would be within the 30kg tolerance stated in the manual and not require further adjustment.

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