



Balanced Loads = Higher MPG = \$\$\$

Among the numerous factors affecting fuel efficiency, including weight, terrain, wind direction & speed, tire pressure and vehicle condition, is **load balance**. Load balance is one of the few factors that can be controlled directly by the driver. A well balanced load will give the best possible MPG. While an unbalanced load, whether heavy on the drive tires or the trailer tandems, will have a surprisingly adverse effect on fuel efficiency regardless of the weight or distance pulled, even when all the other factors are favorable. Mathematically calculating how far and which direction to move the tandems is a fast and accurate way to achieve load balance. Below are some recommended steps for making a load balanced and legal. Do keep in mind the bridge laws of each state the load will pass through and do not exceed the limits of the most stringent states.

STEP 1 – If the trailer is unsealed, check the load weight on the BOL and how much of the trailer is used for the load. If the load is light, slide the tandems as far forward as legally possible. If the load is heavy, but doesn't fill the trailer, place the rear wheels directly under the rear most part of the load, if possible. This will ensure the drives and tandems are sharing the load. If the tractor is equipped with a drive wheel air suspension pressure gauge, slide the tandems until the needle is on the 60 mark as an initial starting point. Unless the trailer was loaded by an amateur, the load should be pretty close to balanced.

STEP 2 – Scale the load. Check the gross weight to ensure it doesn't exceed 80,000 lbs. Check the steer, drive and trailer weights. If the steer tires exceed 12,000 lbs, check with dispatch & the shop to see what your tires can support. If the drive or trailer weights are over 34,000 lbs, don't worry, that is what balancing is for.

STEP 3 – Balance the load mathematically. This is done by subtracting the lower axle weight from the higher axle weight and then divide the difference by 2. You only want to move ½ of the difference to the lighter axle. Determine how many holes and which direction to move the tandems. On standard trailers with a 6 inch space between holes, each hole represents approximately 300-400 lbs.



The information for this newsletter was submitted by a fellow DCM Transport driver. There are 2 examples shown on the back from one of our "heavy load" customers and the results after balancing each load. **Please take the time to review this information and sign the back.**



... is the lucky winner of the gift certificate this month for turning in her signed newsletter.

IMPORTANT NOTICE

We are in the process of updating the list of macros for the Qualcomm boxes. Once this is completed, we will begin re-training all drivers. Thank you in advance for your patience during this transition.



EXAMPLE 1

	Initial Weigh		Reweigh Amounts
Steer	11140	Steer	11240
Drive	32660	Drive	33760
Trailer	34760	Trailer	33600
Gross	78560	Gross	78540

BALANCE MATHEMATICALLY AND REWEIGH

Calculation: $34760 - 32660 = 2100 \div 2 = 1050$ (3 or 4 holes)

Solution: Slide tandems 3 or 4 holes to the **rear** to place $\frac{1}{2}$ the difference (1050 lbs.) on the drive suspension.

Action: Reweigh to ensure the trailer is below 34,000 lbs. and load is as close to balanced as possible.

Further Action: Repeat the calculation if the drive and tandem weights are still too far apart and reweigh to check results before getting on the road. In this example, no further action is required. A difference of 160 lbs. is a well-balanced load. Notice the steers.

EXAMPLE 2

	Initial Weigh		Reweigh Amounts
Steer	11080	Steer	11220
Drive	34280	Drive	33380
Trailer	32620	Trailer	33340
Gross	77980	Gross	77840

BALANCE MATHEMATICALLY AND REWEIGH

Calculation: $34280 - 32620 = 1660 \div 2 = 830$ (2 holes)

Solution: Slide tandems **forward** 2 holes to place more weight on the tandems.

Action: Reweigh to ensure the drives are below 34,000 lbs. and load is as close to balanced as possible.

Further Action: None required. A 40 lb. difference between the drives and tandems is near perfect. Notice the steer weight hardly moved.

In conclusion ... the first load went to Newport, MI and the second to Woodlawn, OH. In both cases, the driver was able to maintain at least 8.2 MPG going 62 MPH.

Would you enjoy a 3 cent per mile pay raise? The DCM MPG bonus program can make it a reality ... it's up to you!! Balance your loads, keep your tire pressure up and drive sensibly.

Let me see ... what can I or my wife spend my bonus on this month?

I have read and understand the above information regarding "Balanced Loads & Higher MPG".

Signature

Date