



2010 43QGP Allegro Bus

9/29/2014

114 - FYI – TUTORIAL - HOW TO USE THE “MOTORHOME WEIGHING PROGRAM”.

Over the years the “Motorhome Weighing Program” has developed into a tool for determining how much air pressure is required in each tire to SAFELY carry the weight of each coach wheel position.

The following photo shows a completed spreadsheet ready to be printed.

MOTOR HOME WEIGHING PROGRAM, v15-1

WEIGHT RATINGS FOR COACH, TOAD, HITCH & TOW BAR

Right Front: 7,800 (Tire Pressure), 5,500 (Tire Pressure), 6,650 (Tire Pressure)
 Left Front: 7,800 (Tire Pressure), 5,500 (Tire Pressure), 6,650 (Tire Pressure)
 COACH G.V.W.R.: 50,300 G.C.V.R.: 60,300 TOY BAR: 555 TOAD G.V.W.R.: 5,660

HITCH CAPACITY: 17 VERTICAL: 1,000

AXLE RATING: 22,000 (Right), 13,300 (Left)

***Tire & Size Choices**

- Michelin 235/80R22.5 L
- Michelin 255/80R22.5 L
- Michelin 275/80R22.5 L
- Michelin 295/80R22.5 L
- Michelin 315/80R22.5 L

STEER TIRE SELECTION CELL

295/80R22.5 LRH

CELL. SELECT THE STEER AXLE TIRE SIZE FROM THE LIST IN THE DROP DOWN BUTTON.

DRIVE or TAG TIRE SELECTION CELL

295/80R22.5 LRH

CELL. SELECT THE DRIVE /TAG AXLE TIRE SIZE FROM THE LIST IN THE DROP DOWN

ACTUAL COACH & TOAD WEIGHTS - Tire PSI's are calculated

Right Front: 7,500 (Tire Pressure), 115 (Tire Pressure), 80 (Tire Pressure), 3,800 (Tire Pressure), 2,300 (Tire Pressure)
 Left Front: 7,500 (Tire Pressure), 115 (Tire Pressure), 80 (Tire Pressure), 3,520 (Tire Pressure), 2,300 (Tire Pressure)
 COACH WEIGHT: 38,920 TOAD WEIGHT: 4,450 COMBINED WEIGHT: 43,370

TOWED VEHICLE WEIGHT: 4,450 VERTICAL: 50

AXLE WEIGHTS: 19,320 (Right), 4,600 (Left)

COMPUTED COACH, TOAD, HITCH & TOW BAR LOAD LIMITS

Right Front: 300 (Load Limit), 600 (Load Limit), 4,350 (Load Limit), 600 (Load Limit)
 Left Front: 300 (Load Limit), 362 (Load Limit), 740 (Load Limit), 740 (Load Limit), 4,350 (Load Limit)
 COACH G.V.W.R.: 11,980 G.C.V.R.: 17,530 TOY BAR: 550 TOAD G.V.W.R.: 1,210

TOW HITCH RESERVE: 5,550 VERTICAL: 950

LOAD LIMIT: 2,680 (Right), 3,700 (Left)

% AXLE RATING: 88% (Right), 74% (Left)

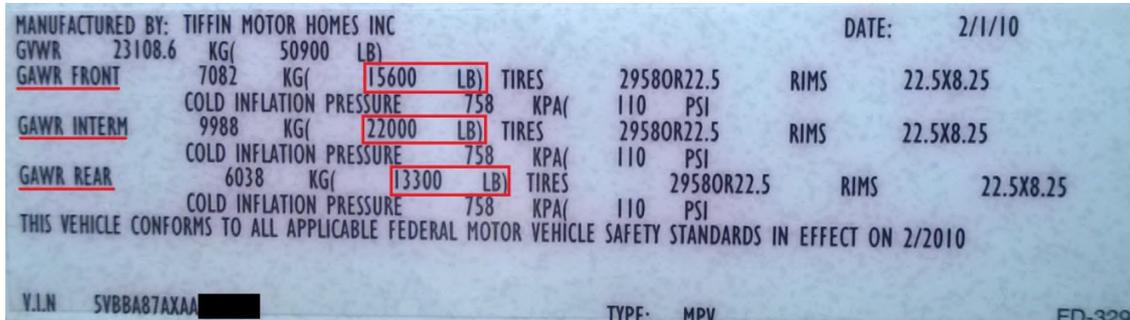
DATE: COACH: 2010 43QGP Allegro Bus TOAD: 2003 Lincoln MKX

6 Wheel Program 8 Wheel Program Tire Specs

*Load values for this program were taken from the latest Michelin RW/TRUCK Load and Inflation Tables. NO safety margin has been added in the calculations. Check your specific tire manufacturer's specifications for MINIMUM TIRE PRESSURE.

There are THREE sections in the program. Section ONE contains data for EACH of the coach's RATED axle carrying capacity, the Toad's GVWR (Gross Vehicle Weight Rating), Hitch Capacity, Vertical Hitch Weight Capacity, and Tow Bar Capacity. The COACH axle rating data is contain on a label usually stuck somewhere near the driver's location, the following

label was stuck on the side of the driver side console. I noted the GAWR for the three axles.



The Toad rating label displayed below is attached to the driver side door post on our toad.



The Hitch Capacity, the vertical Hitch Weight Capacity are attached to the hitch, the Tow Bar Weight, the Towing Capacity of the Tow Bar are attached to the tow bar. This data is inputted into the SIX GREY data cells. Section TWO contains the ACTUAL weights of the individual coach wheel positions, weight of the Towed Vehicle and weight of the tow bar. Section THREE contains the computed information based on the data inputted into section ONE and TWO.

On coaches with TWO axles there are 15 GREY colored cells which allow the data to be changed, 6 GREY cells in section ONE, 6 GREY cells in section TWO and 3 GREY cells in section THREE.

On coaches with THREE axles there are 18 GREY colored cells which allow the data to be changed, 7 GREY cells in section ONE, 8 GREY cells in section TWO and 3 GREY cells in section THREE. The 6 (two axle) or 9 (three axle) coach rated capacity and actual weight GREY colored cells are REQUIRED to compute the MINIMUM AIR PRESSURE necessary per wheel position to SAFELY carry the weight on each wheel position.

The following photos show how to make the necessary tire size changes to determine TIRE AIR PRESSURE for the **STEER** tires.



Photo 1



Photo 2



Photo 3

Photo 1 is part of the normal display of the spreadsheet for the STEER axle, by clicking inside the **RED** cell the display will become that shown in Photo 2. By following the message to “Click on the **BUTTON**”, the display changes to that shown in Photo 3. This is where the STEER tires correct **SIZE** is selected by **CLICKING** on the correct tire size from the seven selections.

Next, the correct tire size for the **DRIVE** and/or **TAG** axle tires needs to be selected.



Photo 4



Photo 5



Photo 6

The selection of DRIVE and/or TAG axle tire size is the same as seen in Photo's 1, 2, and 3 above.

Photo 4 is the normal display of the spreadsheet for the DRIVE/TAG axle, by clicking inside the **BLUE** cell the display will become that shown in Photo 5. By following the message to "Click on the BUTTON", the display changes to that shown in Photo 6. This is where the correct tire size is selected for the DRIVE and/or TAG axle tires the correct tire size is selected by **CLICKING** on the correct size from the SEVEN selections.

The tire data for the seven tires is contained in a separate data sheet labeled (Tire Specs) you can select the spreadsheet to look at that data by clicking on the page tab located at the bottom of the spreadsheet under the **YELLOW** tab.

The data in the "Tire Specs" sheet is contained in 35 Columns (wide) and OVER 17,000 Rows (Tall).

Rather than HIDE the tire data, I decided to allow the spreadsheet user to see the tire data, however the cells in the "Tire Specs" spreadsheet are **LOCKED** to prevent damage to the data entered in the cells and the formulas necessary to compute the **MINIMUM** safe tire air pressure based on the weight **ON** the individual coach wheel position.

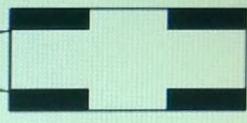
The above photo shows a portion of the data contained in the "Tire Specs" spreadsheet.

There is **ONE** difference in the **TWO** axle and **THREE** axle spreadsheet programs, Tiffin does not manufacture a **THREE** axle coach using the Michelin 265/70R19.5 LRG tires, there for there are **ONLY** six tire size selections in the **THREE** axle program.

A completed spreadsheet for TWO axle coaches is shown below and ready to be printed.

MOTOR HOME WEIGHING PROGRAM, v15-1

WEIGHT RATINGS FOR COACH, TOAD, HITCH & TOW BAR

Right Front		Fill in GRAY CELLS with your Coach/Toad specs				TOW/HITCH CAPACITY	
4,250				3,750			
8,500	<<<< AXLE RATING >>>>			3,750			
4,250				3,750			
Left Front				VERTICAL			
COACH G.V.W.R.: 23,500		G.C.W.R.: 33,500		TOW BAR:		TOAD G.V.W.R.:	

ACTUAL COACH & TOAD WEIGHTS - Tire PSI's are calculated

Right Front		Fill in GRAY CELLS with wheel position weights				TOWED VEHICLE WEIGHT	
3,610	75	Tire Pressure	UL	6,800			
7,600	<<<< AXLE WEIGHTS >>>>			12,960			
3,990	75	Tire Pressure	UL	6,150			
Left Front				VERTICAL			
COACH WEIGHT: 20,550		TOAD WEIGHT: 0		COMBINED WEIGHT: 20,550			

DRIVE TIRES - SET MINIMUM TIRE PRESSURE 75% OF MAXIMUM RATED TIRE PRESSURE

COMPUTED COACH, TOAD, HITCH & TOW BAR LOAD LIMITS

Right Front		GREEN NUMBERS = UNDER LOAD LIMIT				TOW/HITCH RESERVE	
640				350			
900	<<<< LOAD LIMIT >>>>			2,050			
260	88%	% AXLE RATING	88%	675			
Left Front				VERTICAL			
COACH G.V.W.R.: 2,950		G.C.W.R.: 12,960		TOW BAR: 0		TOAD G.V.W.R.: 0	

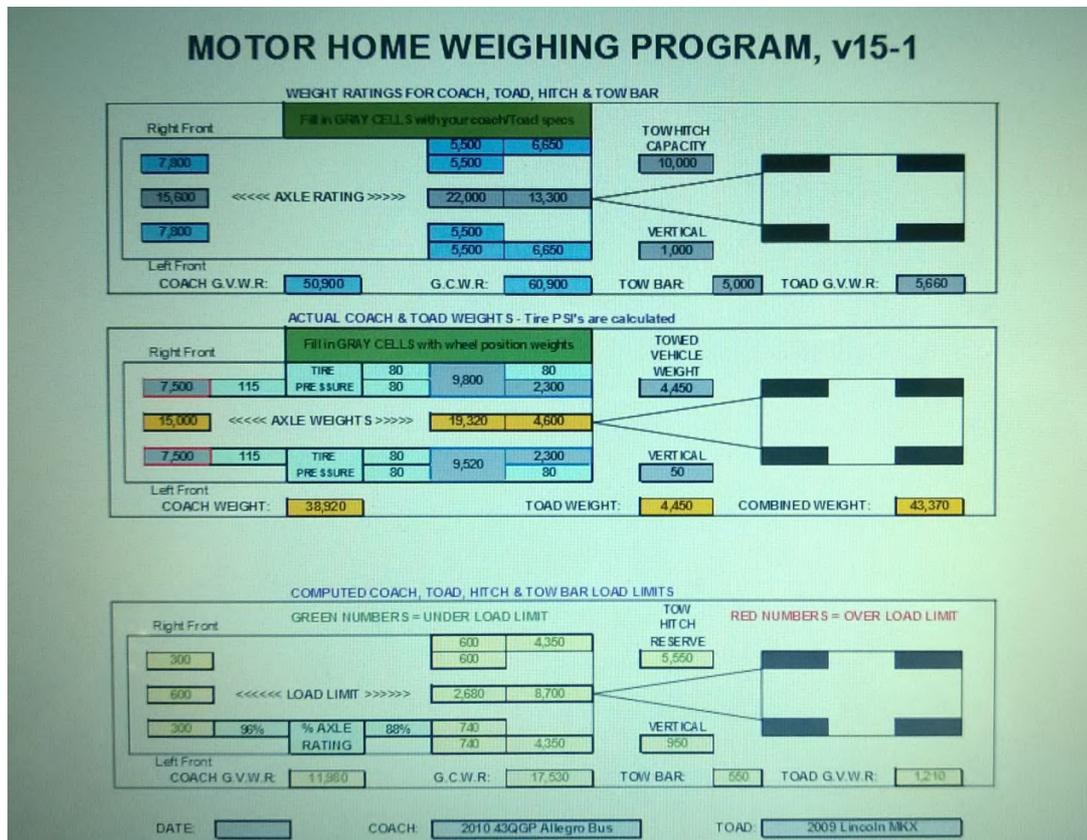
RED NUMBERS = OVER LOAD LIMIT

DATE: 09/01/14 COACH: 2012 32BR Breeze TOAD:

Looking at the photo of the completed spreadsheet shown on page one of this document, you can see three spreadsheet tabs shown in the bottom left corner of the photo. The tabs are labeled, **6 Wheel Program**, **8 Wheel Program** and **Tire Specs**. Clicking on the **6 Wheel Program** tab displays and allows completion for a **TWO** axle coach, clicking on the **8 Wheel Position** tab displays and allows completion for a **THREE** axle coach. The **Tire Spec** tab supplies data for completion of the two spreadsheets. The user will be able to change the data in **15 GREY** colored cells while using the **6 WHEEL PROGRAM** tab, and will be able to change the data in **18 GREY** colored cells while using the **8 WHEEL PROGRAM** tab.

As previously stated **ALL** data cells in the “**Tire Specs**” tab are **LOCKED** to prevent damage to the data or formulas.

The following spreadsheet was completed for a **THREE** axle coach and ready to print.



The above photo displays what you will receive when a completed **8 Wheel Program** spreadsheet is printed.

My intent is to teach other coach owners how to use the Excel Spreadsheet program located at the following link, my hope is coach owners will use the spreadsheet to make sure their coach tires are **SAFELY** inflated so they can have a safe RV experience.

<http://www.tiffinrvnetwork.com/crusingator/Files/File-002.xlsx>