

WORKSHEET #9 - WIDE SEGMENTED SCALES

Travel Trailers and Tow Vehicles

INSTRUCTIONS		
Position Tow Vehicle and Travel Trailer so that axles are centered on separate scale segments. This worksheet is used for scales that have sufficient room to allow you to reposition the Tow Vehicle and Trailer so that only half of each Vehicle is on the scale. This will allow calculation of Vehicle weight by corner. Weight data will be collected with WDH disconnected and connected. All weights recorded in pounds (lbs).		
TOW VEHICLE ONLY WEIGHT – COMPLETELY ON SCALE		
Enter Steer Axle GAW.	1.	
Enter Drive Axle GAW.	2.	
Calculate Uncoupled Tow Vehicle GVW: $(1+2=3)$.	3.	
TOW VEHICLE ONLY WEIGHT – HALF VEHICLE ON SCALE		
LEFT	Enter appropriate side of Steer Axle on the scale. Subtract that value from line 1 and enter the opposite side axle weight.	RIGHT
LEFT	Enter appropriate side of Drive Axle on the scale. Subtract that value from line 2 and enter the opposite side axle weight.	RIGHT
COUPLED TOW VEHICLE - TRAVEL TRAILER ATTACHED WEIGHT DISTRIBUTING HITCH NOT CONNECTED COMPLETELY ON SCALE		
Enter Steer Axle GAW.	4.	
Enter Drive Axle GAW.	5.	
Enter Travel Trailer GAW:	6.	
Calculate Coupled Tow Vehicle GVW: $(4+5=7)$	7.	
COUPLED TOW VEHICLE - TRAVEL TRAILER ATTACHED WEIGHT DISTRIBUTING HITCH NOT CONNECTED HALF ON SCALE		
LEFT	Enter appropriate side of Steer Axle on the scale. Subtract that value from line 4 and enter the opposite side axle weight.	RIGHT
LEFT	Enter appropriate side of Drive Axle on the scale. Subtract that value from line 5 and enter the opposite side axle weight.	RIGHT
LEFT	Enter appropriate side of Trailer Axle on the scale. Subtract that value from line 6 and enter the opposite side axle weight.	RIGHT





**COUPLED TOW VEHICLE - TRAVEL TRAILER ATTACHED
WEIGHT DISTRIBUTING HITCH CONNECTED
COMPLETELY ON SCALE**

Enter Steer Axle GAW.	8.
Enter Drive Axle GAW.	9.
Enter Travel Trailer GAW:	10.
Calculate Coupled Tow Vehicle GVW: (8+9=11)	11.

**COUPLED TOW VEHICLE - TRAVEL TRAILER ATTACHED
WEIGHT DISTRIBUTING HITCH CONNECTED
HALF ON SCALE**

LEFT	Enter appropriate side of Steer Axle on the scale. Subtract that value from line 8 and enter the opposite side axle weight.	RIGHT
LEFT	Enter appropriate side of Drive Axle on the scale. Subtract that value from line 9 and enter the opposite side axle weight.	RIGHT
LEFT	Enter appropriate side of Trailer Axle on the scale. Subtract that value from line 10 and enter the opposite side axle weight.	RIGHT

CALCULATIONS

Enter Tow Vehicle Steer Axle GAWR as indicated on the Tow Vehicle MWL.	12.
Tow Vehicle Steer Axle GAW (line 1), (line 4) and (line 8) MUST each be less than Steer Axle GAWR (line 12).	 Verify
Enter Tow Vehicle Drive Axle GAWR as indicated on the Tow Vehicle MWL.	13.
Tow Vehicle Drive Axle GAW (line 2), (line 5) and (line 9) MUST each be less than Drive Axle GAWR (line 13).	 Verify
Enter Trailer GVWR as indicated on the Trailer MWL.	14.
Calculate Trailer Tongue Weight. Subtract the GVW of Uncoupled Tow Vehicle (line 3) from the Coupled Tow Vehicle GVW (line 7): (7-3=15).	15.
Calculate Trailer GTW. Add Trailer Tongue Weight (line 15) and the Travel Trailer GAW (line 6). (15+6=16)	16.
Travel Trailer GTW (line 16) MUST be less than the Travel Trailer GVWR (line 14).	 Verify
Enter the Tow Vehicle GCWR from the Tow Vehicle MWL.	17.
Calculate GCW. Add Tow Vehicle GVW (line 7) and the Travel Trailer GAW (line 6). (6+7=18).	18.
The GCW (line 18) MUST be less than the GCWR of the Tow Vehicle (line 17). If not, the Tow Vehicle and Travel Trailer exceed their designed combined maximum weight rating and this MUST be resolved.	 Verify

