

# MATCHING TOWING PRODUCTS TO YOUR NEEDS

## TO TOW YOU NEED THREE THINGS



**TOW VEHICLE**



**TOWING PACKAGE**



**TRAILER**

The basis of every towing package — and the first thing to select — is the hitch.

Before you begin the hitch selection process, it's important that you realize that the hitch by itself will not provide your customer with the ability to tow. In addition to the hitch, customers must have towing components such as a hitch ball and/or ball mount, wiring, safety chains and automatic transmission cooler in order to safely and legally tow about the customer's tow vehicle and trailer.

### STEP 1: ASK THE RIGHT QUESTIONS

To select the correct hitch for a customer, you need the following information:

#### TOW VEHICLE

Find out the following about the tow vehicle:

- Make and model
- Model year
- Passenger or station wagon, suv, truck or van
- Two or four doors
- Manual or automatic transmission
- Vehicle's maximum towing capacity

#### TRAILER

Then, customize your questions to determine the following about the customer's towing needs:

- Trailer type
- Gross trailer weight
- Tongue weight
- Coupler ball size
- Does your customer's trailer already have safety chains? Are new chains required?
- Where does your customer plan to tow and under what geographic conditions?

### STEP 2: DETERMINE GTW & TW CAPACITIES

The two most important factors in selecting towing equipment are gross trailer weight (GTW) and tongue weight (TW).

#### FOR THE TRAILER:

Gross trailer weight (GTW) is the weight of the trailer fully loaded in its actual towing condition.

GTW is measured by placing the fully loaded trailer on a vehicle scale. The entire weight of the trailer should be supported on the scale as shown in Figure 1.

Tongue weight (TW) is the downward force exerted on the hitch ball by the trailer coupler. In most cases, it is about 10 to 15 percent of GTW.

TW of up to 300 lbs. can be measured on a household scale by resting the trailer coupler on the scale and placing the scale on a box so that the coupler is at its normal towing height. The trailer must be fully loaded and level.

For heavier tongue weights, place a household scale and a brick that's as thick as the scale three feet apart as shown in Figure 2. Set a length of pipe on each and rest a beam across the pipes. Re-zero the scale to correct for the weight of the beam and pipe. Securely block the trailer wheels. Rest the trailer jack on the beam as shown, one (1) foot from the brick and two (2) feet from the scale.

To obtain the TW, multiply the scale reading by three (3). For greater tongue weights, place the scale and brick four (4) feet apart, rest the jack on the beam three (3) feet from the scale and multiply the scale reading by four (4).

#### FOR THE TOW VEHICLE:

Like the trailer, the tow vehicle has a maximum weight capacity it was designed to tow. Its maximum towing capacity can be found in the owner's manual.

