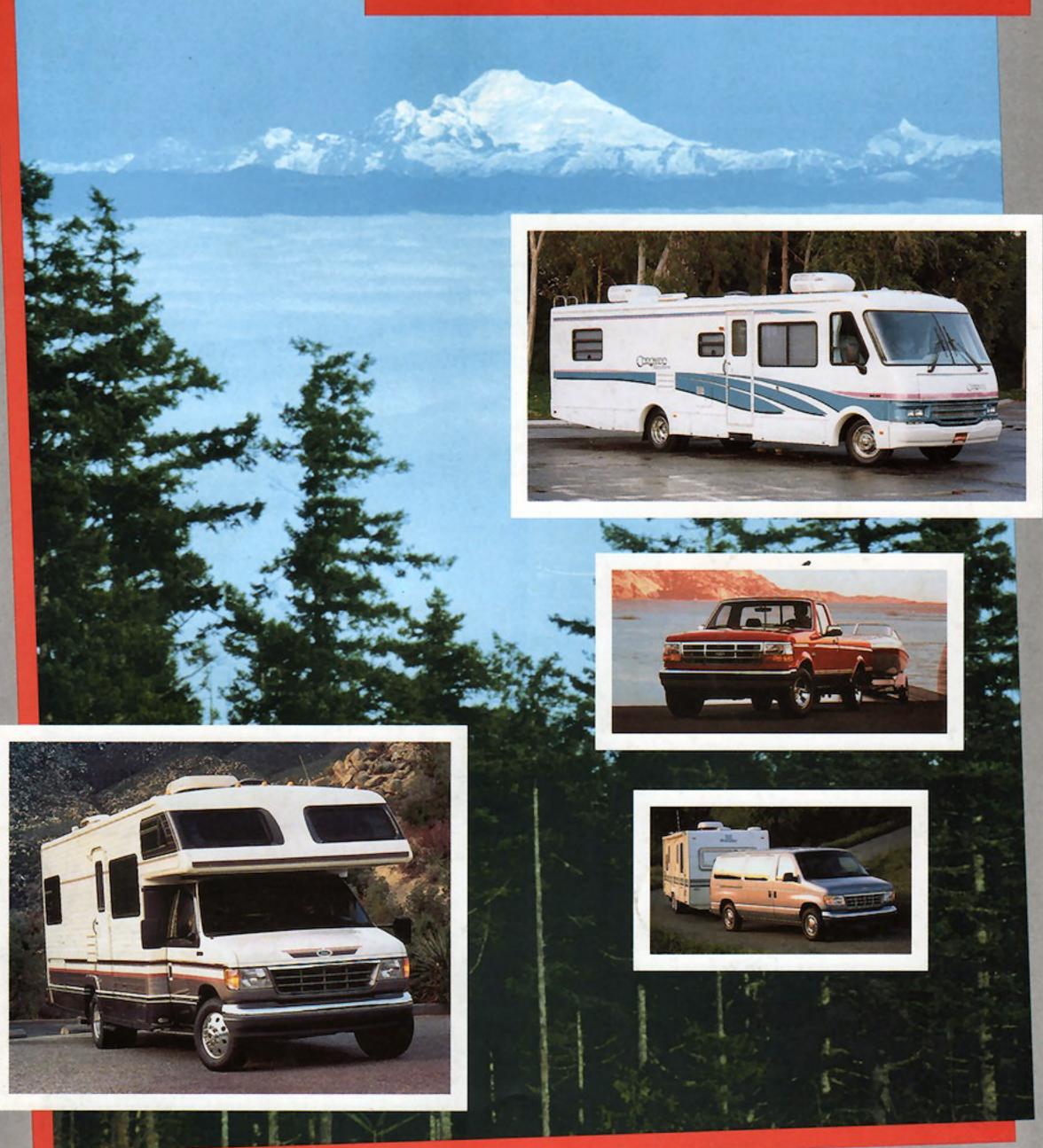
1995

Ford Recreation Vehicle and Trailer Towing Guide



### FORD — YOUR FIRST CHOICE IN RV AND TRAILER TOWING

When you think RV or trailer towing, there are many good reasons to consider Ford first:

- Extensive Selection No matter what your need, there's a Fordpowered vehicle or chassis that's just right for the job.
- Experience Every vehicle in our lineup is backed by many years of RV and towing experience.
- Performance Ford's comprehensive powertrain selection has been engineered to handle the rigors of RV and towing use.
- Quality and Reliability Ford is proud of the reputation it has earned through the years.

#### CONTENTS: Class A Motor Home Chassis ..... Class C Motor Home Chassis ..... Towing a Ford Vehicle Behind Your Motor Home ..... 5 Van Conversions/Van Campers/ Club Wagon/Windstar/ Aerostar Wagon ..... 6-7 Slide-In Campers..... Ford Vehicles for On/Off-Highway RV Fun..... Things to Know Before You Tow...... 10-13 **Trailer Towing Selector** Cars, Ranger, Explorer...... 14 F-Series, Bronco...... 15 F-Series Fifth-Wheel...... 16 · Econoline Van, Club Wagon, Windstar, Aerostar..... 17 Required/Recommended Trailer Towing Equipment..... 18 Frontal Area Restrictions ..... 19 Trailering Tips..... 20

# FORD PRODUCTS ARE AVAILABLE FOR ALL MAJOR RV CATEGORIES



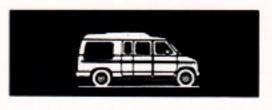
#### Conventional Motor Homes (Class A)

- Self-contained RV camping/travel vehicles with a living unit entirely constructed on a specially designed vehicle chassis. Ford's offering is:
- F-Super Duty Class A Motor Home Chassis
  - Sets the standard in motor home chassis design
  - 15,200-lb. and 17,000-lb. Gross Vehicle Weight Ratings (GVWR)
  - 25,000-lb. Gross Combination Weight Rating (GCWR)



#### Compact or Mini Motor Home (Class C)

- Built on a cutaway van chassis includes van cab section. Ford's entry is:
- Econoline E-350 RV Cutaway Chassis
  - Only full-frame chassis in the industry
  - Overwhelming Class C chassis sales leader
  - Accepts wide variety of motor home bodies
  - Wheelbases up to 176 inches and up to 11,500-lb. GVWR



#### Van Conversions/Van Campers - Van

converters use a full-size van chassis to create travel/camping units with special equipment and comfort features. Ford offers:

- Econoline Van
  - America's best-selling full-size van for over 15 years\*
  - Trendsetting aero styling and functional features
  - Rugged body-on-frame construction provides solid foundation for full-size conversions



**Slide-In Truck Camper** – Designed for carrying in a pickup truck bed, these units can be easily removed to use the truck for other purposes. Ford F-Series pickups are ideal for slide-in camper use.



**Trailers** – A wide range of trailer types are available for RV use: folding campers, conventional travel trailers, boat/ATV/ snowmobile haulers, and fifth-wheel travel units – in a broad range of sizes,

floor plans and furnishing levels. Properly equipped Ford vehicles provide towing power for trailers up to 12,500 lbs.

Based on cumulative calendar year registrations from 1979 through June, 1994.



Econoline Van Conversion



F-150 XLT SuperCab 4x4



Class A Motor Home on F-Super Duty Chassis



Bronco Eddie Bauer



F-350 XLT 4x2 DRW Crew Cab

### CLASS A MOTOR HOME CHASSIS

#### Ford F-Super Duty Class A Motor Home Chassis

If you're looking for a Class A motor home, this is the chassis for you. It offers the industry's latest technology and features – plus renowned Ford toughness. Features include:

- 15,200-lb. and 17,000-lb. Gross Vehicle Weight Ratings (GVWR)
- 25,000-lb. Gross Combination Weight Rating (GCWR) for excellent towing capability (8,000 lbs. maximum trailer weight at 17,000 lbs. GVWR)
- 7.5L EFI V-8 engine offering 245 horsepower and 400 lbs.-ft. of torque for plenty of power and performance
- Electronically controlled 4-speed automatic overdrive transmission
- 4-wheel power disc brakes
- Strong truck-type frame
- 75-gallon fuel tank for extended cruising range
- Extra wide and long springs for riding comfort
- Large-diameter front and rear shock absorbers and stabilizer bars contribute to ride control



F-Super Duty Class A Motor Home Chassis

## CLASS C MOTOR HOME CHASSIS

### Ford Econoline RV Cutaway Chassis

The Econoline cutaway chassis is the industry's overwhelming sales leader in the Class C category, and it shares the Econoline Van's aero styling and functional features. It remains the industry's only full-frame chassis, offering an unmatched selection of features including:

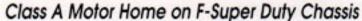
- Up to 11,500-lb. GVWR
- Three wheelbase choices 138, 158 and 176-inch
- The largest gas and diesel engines in its class 7.5L
   EFI V-8 and Power Stroke 7.3L DI Turbo Diesel V-8
- Electronically controlled 4-speed automatic overdrive transmission
- Out-front engine design allows spacious cab with easy access to "living area" and ease of ingress/egress
- 4-wheel anti-lock brakes
- Twin-I-Beam independent front suspension (with caster/camber adjustment), front stabilizer bar and gas-pressurized shock absorbers for smooth, comfortable ride
- Steel ladder-type frame with six crossmembers
- 35-gallon fuel tank standard; 55-gallon tank optional
- Van-like driver position with ergonomic instrument panel and controls



Econoline Class C Motor Home Chassis

### More Motor Homes are Built on Ford Chassis Than any Other Make\*







Class C Motor Home on Econoline RV Cutaway Chassis

### All Motor Homes Built on a Ford Chassis Are Backed by Nationwide Service Support – When and Where You Need It!

To help provide worry-free travel, Ford offers the following chassis and powertrain service support for all motor homes with a Ford chassis:

- More than 2,000 Ford Dealers across the country with factoryauthorized technicians to serve your motor home chassis service needs.
- Nationwide Customer Service locations for quick parts availability.
- Ford Motor Home Service Directory lists all dealership locations and phone numbers. (Call 1-800-245-7343 for a copy.)

 Ford Motor Home Owners Service Locator Hotline (1-800-444-3311) provides 24-hour, 7-day-a-week assistance in contacting a dealership, arranging a service appointment and providing a dealership contact person name. It also can assist in locating towing service, if needed.

**Note:** All 1994-95 Ford Motor Home Chassis are covered by the free Roadside Assistance program for the duration of the normal limited warranty period.

# TOWING A FORD VEHICLE BEHIND YOUR MOTOR HOME

Many motor home owners enjoy the convenience of having another vehicle along when they travel. In fact, towing another vehicle behind the motor home has become more and more popular in recent years. For safe operation, towed vehicles, or dollies or trailers carrying them, should be equipped with a separate functional brake system. See the information on towing on pages 10-12 and Trailering Tips on the back cover.

Many of those who want to tow another vehicle prefer one that can be easily towed without a dolly or trailer. The Ford car and truck models shown in the chart at right can be towed with all four wheels down.

#### Ford Cars and Trucks Approved for "Four-Wheel-Down" Towing

Ford Cars	Manual Transmission	Automatic Transmission
Aspire	Yes	No
Escort	Yes	No
Mustang	Yes	No
Probe	Yes	No
Taurus (SHO only)	Yes	No
Ford Trucks		
Ranger 4x2	Yes	No
Ranger 4x4	Yes**	Yes**
Explorer 4x2	Yes	No
Explorer 4x4	Yes	No
F-Series 4x4	Yes**	Yes**
Bronco 4x4	Yes**	Yes**

<sup>&</sup>quot;Manual transfer case only (not Touch Drive Electric Shift).

Note: Different vehicles have different restrictions and towing procedures. Contact your Ford Dealer or refer to the specific vehicle Owner Guide for complete details.

### VAN CONVERSIONS

Van conversions have become an increasingly popular choice for numerous recreation uses – from camping to simply traveling in enhanced comfort and style. Converters offer an extensive selection of styles, designs and luxury furnishings on Econoline vans. Typical features include:

- Quad Captain's Chairs
- Seat/bed
- TV/videotape player
- Large vista windows
- Special seat and interior trim
- Unique exterior paint/tape treatment, plus running boards
- And much more



Econoline has been a top choice for full-size van conversions. It offers aerodynamic styling and advanced functional features – including a driver-side air bag\*, plus the basic features that have made it so popular:

- Sturdy body-on-frame construction ... a Ford exclusive
- Choice of Regular or Super Van models
- Three engine choices on E-150 vans ... 4.9L EFI I-6, 5.0L EFI V-8 and 5.8L EFI V-8
- Three transmission choices on E-150 ... 3-speed automatic or two electronically controlled 4-speed automatic overdrives (E4OD or 4R70W)
- Excellent towing capabilities ... up to 6,600 pounds on E-150 when properly equipped
- Unique out-front engine design for greater cab roominess, more convenient underhood servicing, and ease of ingress/egress
- Exclusive Twin-I-Beam independent front suspension for both ruggedness and smooth ride – plus adjustable caster and camber
- 4-wheel anti-lock brakes



**Econoline Van Conversion Interior** 

\* To supplement safety belts. Always buckle up.



**Econoline Van Conversions** 

#### Improved Conversion Quality

Working as a team, Ford Division and its authorized converters are continuously improving van conversion quality and customer satisfaction. Converters must meet specific Ford quality standards and process controls.

### ECONOLINE CLASS B VAN CAMPERS

Econoline vans also provide an excellent basis for Class B camper units. Converters offer models equipped with sleeping, kitchen and bathroom facilities, as well as 110-volt hookup, fresh water storage and/or city water hookup. They typically include a high roof that provides greater comfort by allowing occupants to stand up inside.



Econoline Class B Van Camper

# Plus — Club Wagon, Windstar and Aerostar Offer Versatility and Comfort for Recreational Applications

Ford offers an outstanding variety of factory-produced "passenger vans" that are ideally suited to recreational driving. They all offer a big selection of passenger-oriented features – plus choices regarding size and functional features.

#### Club Wagon

Ford's full-size, rear-wheel-drive entry shares most of the rugged functional features of the Econoline Van. Noteworthy Regular Club Wagon features include:

- · Seating for up to 8 passengers
- Exceptional cargo space
- Towing capability up to 6,600 pounds
- Standard driver-side air bag\* and three-point safety belts for all outboard seating positions
- Standard 4-wheel anti-lock brakes
- Ergonomically designed instrument panel and controls
- Standard bucket seats, Dual or Quad Captain's Chairs (depending on trim level)
- Rear Seat/Bed option
- Compact Disc player option
- Remote keyless-entry/anti-theft system (optional on XLT/Chateau only)



Regular Club Wagon Chateau

#### Windstar

Ford's all-new, front-wheel-drive Windstar establishes a whole new standard by which all other minivans will be judged. It offers sleek styling, an ideal size for passengers and cargo, plus the smoothest ride in its class, for a confident, secure driving experience. Major features include:

- Standard V-6 engine and electronic 4-speed automatic transaxle
- Standard dual air bags\* and 4-wheel anti-lock brakes
- Spacious 7-passenger seating arrangement

- Towing capability up to 3,500 pounds (when properly equipped)
- Over 23 cu. ft. of cargo room behind the rear seat, plus 2ndand 3rd-row bench seats remove easily to provide a 144-cu. ft. cargo area
- Low step-in height
- Rear radio controls including two headphone jacks
- Optional remote keyless entry system
- Dual or Quad bucket seats (depending on trim/equipment package)



Windstar LX Wagon

#### Aerostar

Aerostar is ideal for customers who prefer a minivan with rearwheel (or optional all-wheel) drive. Available in both regular and extended-length versions, Aerostar Wagon offers greater towing capability, and higher driving position than front-wheel-drive minivans. Additional important Aerostar features include:

- Two powerful V-6 engines with automatic overdrive transmission.
- Seating for seven passengers
- Towing capability up to 4,400 pounds
- Standard rear-wheel anti-lock brakes
- Standard driver-side air bag\*
- Up to 167.7 cu. ft. of cargo capacity in extended-length model

To supplement safety belts. Always buckle up.

### SLIDE-IN CAMPERS FOR F-SERIES PICKUPS

If you're looking for a camper, and also need the unique functional capabilities of a full-size pickup, a slide-in camper may be perfect for your RV needs. Use the pickup as a hauler during the week, then simply slide in the camper when you're ready to go camping.

The chart below shows the wide selection of F-Series models available for slide-in camper use. They offer these major functional features:

- Choice of 2- or 4-wheel drive
- Choice of Regular, Super or Crew Cab models
- Single- or dual-rear-wheel models
- Engine choices up to a 7.5L EFI V-8 or the Power Stroke 7.3L DI Turbo Diesel offering 210 horsepower and 425 lbs.-ft. of torque

#### **Camper Body Installation**

Ford Motor Company recommends that all full-height slide-in

### SLIDE-IN CAMPER SELECTOR

Use the chart below to select the proper F-Series Pickup/ Camper Combination:

- Combined weight of vehicle, camper body, occupants and cargo must not exceed Gross Vehicle Weight Rating (GVWR).
- Cargo Weight Rating is the maximum allowable weight for the camper unit, cargo and options on the vehicle. It assumes a base vehicle without options, but with a passenger (150-lb.) at each available seating position.
   Vehicle option weights and center-of-gravity information are available in the Ford Pickup Truck Consumer Information Sheet (see your Ford Dealer).
- Camper Package (not Trailer Towing Package) required for all applications.
- If you intend to pull a trailer in addition to carrying your camper, see the F-Series Trailer Towing Selector on page 15.



F-350 XLT 4x2 Crew Cab

camper bodies be directly attached to the vehicle frame structure.

- It is required that no additional holes be drilled through the vehicle frame side rail horizontal flanges.
- It is suggested that outrigger-type "L" brackets be attached to the frame's vertical web to which the camper body can be conveniently attached.
- A 5-foot-long 2x4 or 4x4 wood spacer is recommended between the headboard of the pickup box and the forward edge of the camper floor, resting the spacer on the pickup box bed to prevent contact of the fully installed camper with the pickup box headboard or taillight rear pillars.

#### Camper Center-Of-Gravity Information

- All Styleside pickups that are qualified for slide-in camper bodies will have the camper center-of-gravity included on the Consumer Information Sheet, which is placed in the vehicle's glovebox.
- Data is calculated for each individual truck, based on options included with the vehicle.
- If the vehicle is not qualified for camper usage, the Consumer Information Sheet will state that the vehicle is not

recommended for camper usage, and no center-of-gravity data will be shown.

Silde-in Camper L	Data F-Series Pickups
Minimu	ım Equipment
GVWF	R Cargo Weight

		- 1/1	minimum	Edaibilient		
Model		W.B.	GVWR (lbs.)	Cargo Weight Rating (lbs.)	Engine	Recommended Axle Ratio
F-250	4x2 Reg. Cab	133.0"	6,600	1,805	V-8 (1)	Std.
F-250	4x2 Reg. Cab	133.0"	8,600	3,524	V-8	Std. (2)
HD	4x2 SuperCab	155.0°	8,800	3,250	V-8	Std. (2)
	4x4 Reg. Cab	133.0"	8,600	3,081	Std.	Std. (2)
	4x4 SuperCab	155.0°	8,800	2,689	Std.	Std. (2)
F-350	4x2 DRW Reg. Cab	133.0"	10,000	4,439	Std.	Std. (2)
	4x2 DRW SuperCab	155.0°	10,000	3,808	Std.	Std.
	4x2 SRW Crew Cab	168.4"	9,200	2,949	Std.	Std. (2)
	4x2 DRW Crew Cab	168.4"	10,000	3,624	Std.	Std. (2)
	4x4 Reg. Cab	133.0"	9,000	3,467	Std.	Std. (2)
	4x4 Crew Cab	168.4"	9.200	2.590	Std.	Std. (2)

5.0L (302-CID) V-8 with 5-speed manual overdrive transmission not available for camper applications.
 4.10 with 5.8L (351-CID) EFI V-8.

### F-Series Camper Package Content

- Super Engine Cooling
- Trailer Wiring Harness
- Heavy-Duty Turn Signal Flasher
- Handling Package
- Heavy-Duty Battery (84 AH) (Gas engines only)
- Heavy-duty front springs (if not already computer selected as standard equipment)

Note: High-capacity rear springs will be substituted for front/rear stabilizer bars on F-250 HD 4x4 models with 7.3L Turbo Diesel engine.

# FORD VEHICLES FOR ON/OFF-HIGHWAY RV FUN

Ford also offers a large selection of tough, sporty trucks that are perfect for RV excitement - on or off highway:







Bronco XLT

### Ranger Pickup

America's best-selling compact pickups\* offer substantial improvements for 1995, including an even-more-contemporary interior and numerous major functional upgrades (see list below). Ranger continues to provide plenty of opportunities for all kinds of on- or off-highway driving enjoyment with a broad selection of 4x2 and 4x4 models. Ranger features contemporary aerodynamic styling and sporty wheel flares for the 4x4 models. Major functional features include:

- New standard driver air bag\*\* and adjustable-height shoulder belts
- Choice of Regular or SuperCab models with seating for up to five passengers
- Three engine choices from a 2.3L fuelinjected dual-plug I-4 (with horsepower increased from 98 to 112 for 1995) to a 160-horsepower 4.0L EFI V-6
- 5-speed manual or a new electronic 4-speed automatic overdrive transmission
- Can be equipped to tow trailers up to 6,000 lbs.
- New four-wheel anti-lock brakes (std. on 4x4s, opt. on 4x2s)

#### Bronco

The Bronco 4x4 has been the best-selling full-size utility truck in America for the past 16 years.\* It's built to take all the punishment off-highway use can dish out – and let you have fun doing it. Its long list of outstanding features includes:

- Choice of two multi-port fuel-injected V-8 engines – 5.0L and 5.8L
- 5-speed manual or 4-speed automatic overdrive transmission
- Can be equipped to tow trailers up to 7,000 lbs.
- Standard 4-wheel anti-lock brakes (ABS)
- Standard driver-side air bag\*\*
- Optional Touch Drive electric shift for 2WD/4WD High "on-the-fly" shifting

### Explorer †

The best-selling compact sport utility vehicle\* has gotten even better for 1995, with major styling, feature and functional upgrades (see list below). At the same time, Explorer continues to offer distinctive 2- and 4-door models – both available with 2- or 4-wheel drive. It offers a unique blend of utility vehicle versatility, and, for 1995, even more car-like comfort and convenience. Major features include:

- New standard driver and front passenger air bags\*\*
- Rugged body-on-frame construction
- Seating for up to six passengers (4-door)
- Standard 160-horsepower 4.0L EFI V-6 engine
- 5-speed manual or a new electronic
   4-speed automatic overdrive transmission
- Can be equipped to tow trailers up to 5,300 lbs.
- New Control Trac system automatically engages the 4-wheel drive, as required, when set in "4WD AUTO" mode
- Standard 4-wheel disc brakes with 4-wheel anti-lock system (ABS)

For More Information on Any of Ford's Vehicle Lines, See the Appropriate Brochure at Your Ford Dealership.

<sup>\*</sup>Based on 1994 calendar year manufacturer's reported retail deliveries by segment through June, 1993.

<sup>&</sup>quot;To supplement safety belts. Always buckle up.

<sup>†</sup> Available January, 1995.

# THINGS TO KNOW BEFORE YOU TOW

#### **Weight Considerations**

Probably the single most critical factor in trailer towing is weight, since overloading a vehicle can put you in danger by reducing braking capability. It also places undue stress on components and can lead to shortened service life or failure.

#### Before you Buy

If you are selecting a vehicle that will be used for towing, you should determine the approximate weight of the trailer you intend to tow. When determining the weight of the trailer, include the weight of any additional cargo and fluids that you will be carrying in the trailer.

#### After You Buy

Before heading out on a trip (remember, do not tow a trailer until your vehicle has been driven at least 500 miles), be sure to have your fully loaded vehicle (including passengers) and trailer weighed to make sure that none of the critical weight limits (listed below) are exceeded. If any of these limits are exceeded, cargo should be removed from the vehicle and/or trailer until all weights are within the specified limits.

#### Weights to Check

- Base Curb Weight is the weight of the vehicle including a full tank of fuel and all standard equipment. It does not include passengers, cargo or any optional equipment. Your Ford dealership salesperson can give you this number for the vehicle(s) you are considering.
- Cargo Weight includes all weight added to the Base Curb Weight – including cargo and optional equipment (consult salesperson). When towing, trailer tongue weight also is part of the Cargo Weight.
- Payload is the combined, maximum allowable weight of cargo and passengers that the truck is designed to carry. It is Gross Vehicle Weight Rating minus the base curb weight.
- Gross Vehicle Weight (GVW) is Base Curb Weight plus actual Cargo Weight plus passengers. It is important to remember that GVW is not a limit or specification ... it is the actual weight that is obtained when the fully loaded vehicle is driven onto a scale.
- Gross Vehicle Weight Rating (GVWR) is the maximum allowable weight of the fully loaded vehicle (Base Curb Weight plus passengers plus cargo). This number along with other maximum safe vehicle weights, as well as tire, rim size and inflation pressure are shown on the vehicle's Safety Compliance Certification Label, located on the left front door lock facing or the door latch post pillar. The vehicle's measured GVW must never exceed the GVWR.
- Gross Axle Weight (GAW) is the total weight placed on each axle (front or rear). To determine the Gross Axle Weights for your vehicle and trailer combination, take

your loaded vehicle and trailer to a scale. With the trailer attached, place the front wheels of the vehicle on the scale to get the front GAW. To get the rear GAW, weigh the towing vehicle with the trailer attached, but with just the four wheels of the vehicle on the scale. You get the Rear GAW by subtracting the front GAW from that amount.

- Gross Axle Weight Rating (GAWR) is the total weight each axle (front or rear) is capable of carrying. These numbers also are shown on the Safety Compliance Certification Label. The total load on each axle must never exceed its GAWR.
- Gross Combination Weight (GCW) is the weight of the loaded vehicle (GVW) plus the weight of the fully loaded trailer. It is the actual weight obtained when the vehicle and trailer are weighed together on a scale.
- Gross Combination Weight Rating (GCWR) is the maximum allowable weight of the towing vehicle and the loaded trailer including all cargo and passengers that the powertrain can handle without risking costly damage. (Important: The towing vehicle's brake system is rated for safe operation at the GVWR NOT GCWR. Separate functional brake systems should be used for safe control of towed vehicles and for trailers weighing more than 1,500 lbs. when loaded.) The measured GCW must never exceed the GCWR.
- Maximum Loaded Trailer Weight (as shown in the Trailer Towing Selector charts) is the highest possible weight of a fully loaded trailer the vehicle can tow, based on a minimum towing vehicle GVW. It assumes a towing vehicle with mandatory options, no cargo, and driver (150-lb.) only. Weight of additional options, passengers and cargo must be deducted from this weight.

#### Sample Truck Safety Compliance Certification Label (Refer to actual label on your vehicle) Front GAWR Rear GAWR **GVWR** MFD.\BY FORD MOTOR CO DATE: 12/93 FRONT GANR: 3020 LB REAR GAMR: 5300 LB WITH 2404KG HTIN LT 235/85R 16D 16x6K TIRES TIRES | LT 235/85R 16D RIMS | 16x6K RIIS AT 44 PSI COLD AT 65 PSI COLD THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF HANUFACTURE SHOWN ABOVE. \*\*\*\*\*\*\*\*\*\*\*\*\* F0083 T0112 VIN: 1FTBF25G 5 KLA 00000 EXTERTOR PAINT COLORS | DSO HB | TYPE-GVM | BODY | TRANS | ANLE | TAPE | SPRINGS F252 LG4 TFOTA-15204A10-AA

### WEIGHT COMPUTATIONS

Base Curb Weight

- + Cargo Weight
- + Passenger Weight

Gross Vehicle Weight (GVW)

**GVW** 

+ Loaded Trailer Weight

Gross Combination Weight (GCW)

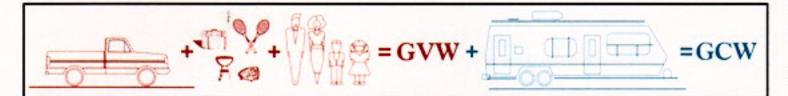
GVW must not exceed GVWR (obtain from Safety Compliance Certification Label on the left front door lock facing or the door latch post pillar).

GCW must not exceed GCWR (obtain from charts in this section or your vehicle's Owner Guide).

for a 3,000-lb. trailer, for example, multiply 3,000 by .10 and .15 to obtain a tongue load range of 300 to 450 lbs. For a fifth-wheel trailer, multiply 3,000 by .25 to arrive at a tongue load of approximately 750 lbs.

To measure actual tongue load, disconnect the trailer and place only the tongue - with the coupler at hitch ball height - on a scale. If the tongue load exceeds the upper weight limit, move more of the trailer contents rearward to achieve the recommended tongue load. If the tongue load is less than the lower limit, shift the load forward.

To determine the proper tongue load



The charts on pages 14-17 include both GCWR and Maximum Loaded Trailer Weights for 1995-model Ford cars and light trucks. The weights are listed for each powertrain and axle ratio combination. If you are not sure of your vehicle's axle ratio, check the Rear Axle Code on your vehicle's Safety Compliance Certification Label (see sample), and then refer to the Rear Axle Code chart in the Trailer Towing section of your vehicle's Owner Guide.

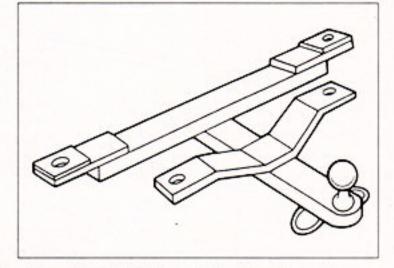
 Tongue Weight is another critical measurement that must be made before towing. It refers to the amount of the trailer's weight that presses down on the trailer hitch. Too much tongue weight can cause suspension/drivetrain damage, and can press the vehicle down in back causing the front wheels to lift to the point where traction, steering response and braking are severely decreased. Too little tongue weight can actually lift the rear of the vehicle, reducing rear-wheel traction and causing instability which may result in tail wagging or jackknifing.

For proper handling, tongue loads must meet the following requirements:

- For trailers up to 2,000 lbs., tongue load should not exceed 200 lbs.
- For trailers over 2,000 lbs., tongue load should be 10-15% of trailer weight.
- For fifth-wheel trailers, tongue load should be approximately 25% of trailer weight.

#### **Hitches**

When towing, it is vital that the proper hitch be used. There are two basic types of hitch that you should know about:



 Load-Carrying (Non-Equalizing) Hitch — Bolts directly to the vehicle bumper and/or frame. Commonly used to tow small and medium-sized trailers.

Ford load-carrying rear step bumpers are rated for the following maximum loads. The F-Series tubular bumper is Class I only.

Vehicle	Class	Total Trailer GVW (Lbs.)	Tongue Weight (Lbs.)
Ranger	ı	2,000	200
Explorer	11	3,500	350
Bronco	III (Limited)	4,000	400
F-Series	III	5,000	500
Econoline	III	5,000	500

 Load-Equalizing Hitch — Used in conjunction with a hitch platform (receiver), distributes tongue weight to all towing (continued)



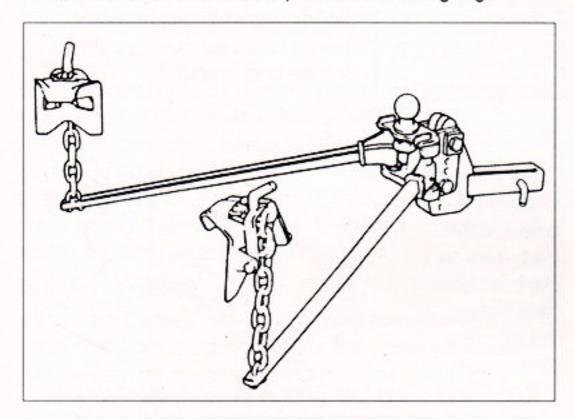


# THINGS TO KNOW BEFORE YOU TOW (continued)

vehicle and trailer wheels. Load-equalizing hitches are only "required" for Class IV applications. They generally are not used for loads under 5,000 lbs. unless a particular vehicle application specifically requires it.

Equalizer hitch platforms are welded or bolted to vehicle underbody:

- Bolt-on types are recommended because they can be removed.
- Properly installed bolt-on equalizer hitch platform will not weaken vehicle or underbody as heat of welding might.



Spring bars are connected from hitch to trailer's A-frame, and are adjusted for best towing performance:

- Lengths of chain are pulled up and tightened to bend spring bars upward:
  - lifts some of weight from rear wheels
  - transfers weight to other wheels of vehicle and trailer

#### **Brakes**

- Most states require brakes on trailers weighing over 1,500 lbs. when loaded. For your safety, Ford Motor Company urges that a separate functional brake system be used on any towed vehicle, including those dolly-towed or towbar-towed.
- There are basically three types of trailer brake activation:

#### Electronically controlled electric

- Provides automatic and manual control of electric trailer brakes
- Requires the vehicle to be equipped with:
  - controlling device, and
  - additional wiring to supply the electrical power

#### 2. Hydraulically controlled electric

- Trailer brakes are applied in proportion to brake pedal pressure
- Should not be connected directly to vehicle's brake system

#### 3. Surge (hydraulic)

- Independent hydraulic brakes activated by a master cylinder at the junction of the hitch and trailer tongue.
- Be sure your trailer brakes conform to Federal and local regulations.

#### **Safety Chains**

- Always use safety chains when towing. Safety chains are used to retain connection between the towing and towed vehicle in the event of separation of the trailer coupling or ball.
- Cross chains under the trailer tongue and allow enough slack for turning corners.
- See your vehicle's Owner Guide for safety chain attachment information.
- When using a frame-mounted trailer hitch, attach the safety chains to the frame-mounted hitch using the recommendations supplied by the hitch manufacturer.
- For rental trailers, follow rental agency instructions for hookup of safety chains.

#### **Trailer Lamps**

 Make sure the trailer is equipped with lights that conform to Federal and local regulations. Do not connect a trailer lighting system directly to the lighting system of the vehicle. See a local recreational vehicle dealer or rental trailer agency for correct wiring and relays for the trailer and heavy-duty flashers.

#### **Trailer Wiring Harness**

- Vehicles equipped with a factory-installed Trailer Towing Package include a trailer wiring harness and a wiring kit.
- This kit is packaged in a cardboard box and includes one jumper harness (to connect to your trailer wiring connector) and installation instructions.

For Additional Information
You Should Know Before Towing,
Be Sure to Read the Trailering Tips
on Back Cover.

### THREE BASIC RV TRAILER TYPES



#### **Folding Camping Trailer**

Relatively inexpensive units providing campers with a comfortable, dry mobile shelter, plus these added benefits:

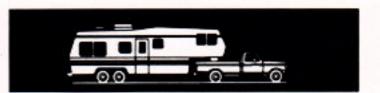
- Lightweight for easy towing (usually range from 300 to 2,000 lbs.)
- Simple load-carrying (non-equalizing) hitch is usually sufficient for towing
- · Compact, low-profile traveling package
- Easily maneuverable generally 8 to 16 feet long



#### **Conventional Travel Trailer**

Generally larger, rigid construction units offering more of the conveniences of home, including such features as kitchen sink, dinette, shower, refrigerator and flush toilet. Additional benefits include:

- Widely varied levels of roominess, comfort and luxury – depending on the towing capacity of your vehicle ... and your budget
- Sizes usually range from 12 to 35 ft. long
- Towed with a load-equalizing hitch



#### Fifth-Wheel Trailer

Provide the same types of accommodations as a conventional travel trailer, but with these unique characteristics:

- The forward raised portion is designed to extend over the box of a pickup truck
- Attaches to the truck via a fifth-wheel hitch mounted in the pickup bed
- Offers the advantages of improved weight distribution and towing dynamics, since some trailer weight is directly over the towing vehicle

# FOUR TRAILERING CLASSES

#### Class I - Light-Duty

- 2,000-lb. maximum weight (trailer and cargo combined)
- Folding camping trailers and trailers for small boats, motorcycles and snowmobiles
- Many Ford vehicles can handle easily
- · Load-carrying (non-equalizing) hitch

#### Class II - Medium-Duty

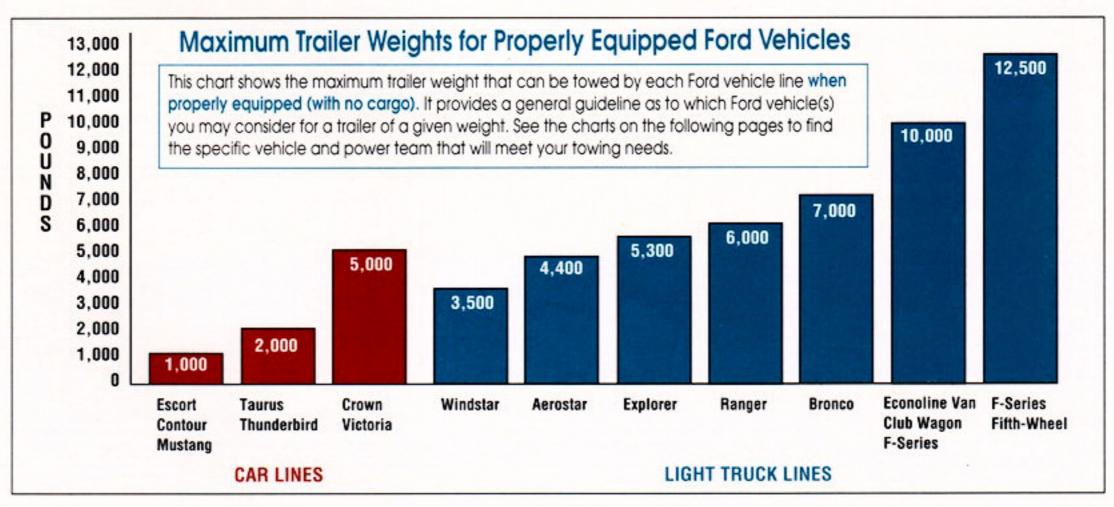
- 2,001-3,500-lb. gross trailer weight
- Single-axle, small- to medium-length (up to 18 ft.) trailers
- Crown Victoria and Ford trucks can be equipped to tow these trailers
- Load-equalizing hitch not required unless specified for a particular vehicle

#### Class III - Heavy-Duty

- 3,501-5,000-lb. gross trailer weight
- Dual-axle or large single-axle travel trailers
- Crown Victoria with optional Trailer Towing Package and most properly equipped Ford trucks can tow them
- Load-equalizing hitch not required unless specified for a particular vehicle

#### Class IV - Extra-Heavy-Duty

- 5,001-10,000-lb. gross trailer weight (F-250 HD/F-350 pickups can be equipped to pull fifth-wheel trailers up to 12,500 lbs.)
- Largest travel and fifth-wheel trailers made for recreation
- Econoline Vans, Club Wagons, F-Series Pickups and Broncos can be equipped to handle these trailers
- Load-equalizing or fifth-wheel hitch required



### FORD CAR AND COMPACT TRUCK TRAILER TOWING SELECTOR

#### **Ford Cars**

To use this chart, find the car line across the top, then read down that column to find the maximum weight that car and engine can tow.

The charts on the following pages show the maximum trailertowing capabilities of all Ford car and light truck models with every available power team. Be sure to also check the REQUIRED/RECOMMENDED EQUIPMENT charts on page 18.

Car Line -	Escort	Contour	Mustang	Taurus	Thunderbird (1)	Crown Victoria		
Towing Class	Light-Duty I (2)(3)	Light-Duty (2)	Light-Duty (2)	Light-Duty I	Light-Duty I	Light-Duty I	Heavy-Duty III	
Max. Gross Trailer Wt. (lbs.)	1,000	1,000	1,000	1,000/2,000 (4)	2,000	2,000	5,000 (5)	
Max. Tongue Load (lbs.)	100	100	100	100/200 (4)	200	200	750	
Minimum Engine	1.9L 4-Cyl.*	2.0L 4-Cyl.*	3.8L V-6*	3.0L V-6 (4)	3.8L V-6*	4.6L V-8	4.6L V-8	

<sup>(1)</sup> Supercharged engine not to be used for trailer towing. (2) Frontal area under 20 square feet. (3) Automatic transmission not to be used for trailer towing. (4) When towing on roads with steep grades or moderate but long sustained grades (5 miles or more) or when ambient temperatures exceed 100 degrees F., vehicle speed should not exceed 45 MPH in both cases. Trailer towing with the manual transmission SHO model is restricted to a maximum gross trailer weight of 1,000 lbs. and a maximum trailer tongue load of 100 lbs. Trailer towing with the automatic transmission SHO model is not permitted. (5) Requires Trailer Towing Package and Load Equalizing Hitch.

\* Auxiliary transmission oil cooler recommended for automatic transmission during long-distance hauling (greater than 50 miles). NOTE: Probe and Aspire not recommended for trailer towing.

#### **Ford Compact Trucks**

Use this chart to locate vehicle's GCWR and trailer weight with a variety of power team combinations:

- Select automatic or manual transmission section.
- Find the column for the truck model you want.
- Read down that column to determine the maximum loaded trailer weight that can be towed with the engine/ axle ratio combinations listed at left. (If you live in California, Massachusetts or a High Altitude area, check with your Ford Dealership to be sure the desired powertrain/axle ratio is available in your area.)
- The GCWR column shows the maximum allowable combined weight of vehicle, trailer and cargo (including passengers).
- Maximum Loaded Trailer
   Weight assumes towing
   vehicle with mandatory
   options, no cargo and driver
   (150-lb.) only. Weight of
   additional options,
   passengers and cargo must
   be deducted from this
   weight.
- Be sure to also check the Required/Recommended Equipment charts on page 18.

		ım	T	Luaueu	ITAILET V	Veight (L	2276.57	utomati	c iransıı	11221011		1000	2770000	
					-	Ra	nger						lorer	
	Axle	GCWR		Regi	ılar Cab			Supe	erCab		2-0	oor	4-0	oor
Engine	Ratio	(Lbs.)	4x2*	4x4	Splash 4x2	Splash 4x4	4x2*	4x4	Splash 4x2	Splash 4x4	4x2	4x4	4x2	4x4
2.3L	3.73	5,300			2,000									
EFI I-4	3.73	5,500	2,300											
3.0L	3.45	7,000	3,700											
EFI V-6	3.73	5,400			2,000									
	3.73	5,700							2,000					
	3.73	7,500	4,000	3,900		3,900	4,000	3,600		3,700				
	4.10	8,000		4,400		4,400		4,100		4,200				
4.0L	3.08	5,400			2,000									
EFI V-6	3.08	5,800							2,000					
	3.08	6,000	2,700				2,400							
	3.27	7,000									3,000	2,800		
	3.27	7,500		3,800		3,800		3,600		3,600			3,300	
	3.55	5,400			2,000									
	3.55	5,800							2.000					
	3.55	8,000									4,000	3,800		
	3.55	8,500											4,300	4,000
	3.55	9,500	6,000				5,900			12				
	3.73	9,000									5,000	4,800		
	3.73	9,500	-	5,800		5,800		5,600		5,600			5,300	5,000
			Maximu	m Loade	d Trailer	Weight	(Lbs.)	Manual	Transm	ission				
2.3L	3.08		(1)		(1)									
EFI I-4	3.45		(1)											
interiore.	3.73	4,800	1,600		(1)		1,300							
	4.10	4,800		1,300		<u>.</u>								
3.0L	3.45	5,000	1,800				1,500							
EFI V-6	3.73	5,300			2,000									
	3.73	5,700							2,000					
	3.73	6,000	2,800	2,400		2,500	2,500	2,100		2,200				
4.0L	3.08	5,000	1,700		1,600		1,500		1,300					
EFI V-6	3.27	6,000		2,000		2,000		2,000		2,000	2,000	1,800	1,800	
KRONKO DE	3.55	5,400			2,000									
	3.55	5,700					-		2,000					
	3.55	6,500										2,300		2,100
	3.55	7,000	3,700				3,400							
	3.73	7,000		3,400		3,400		3,000		3,100	3,100	2,800	2,800	2,600

Models with optional Splash Special Handling Suspension are limited to Maximum Trailer Weights shown below the Splash 4x2 columns

<sup>(1)</sup> Not available for trailer towing.

# FORD F-SERIES AND BRONCO TRAILER TOWING SELECTOR



#### F-150 XLT Regular Cab 4x2

Use the chart below to select the F-Series or Bronco model and powertrain that best meets your towing needs:

- Select automatic or manual transmission section.
- Determine which F-Series cab design you prefer or Bronco.
- Find the column for the truck series and drive system (4x2 or 4x4) you want.
- Read down that column to find the maximum loaded trailer weight that can be towed with the engine/axle ratio combination listed at left. (If you live in California, Massachusetts or a High Altitude area, check with your Ford Dealership to be



#### Bronco XLT

sure the desired powertrain/axle ratio is available in your area.)

- The GCWR column shows the maximum allowable combined weight of vehicle, trailer and cargo (including passengers) for this engine/axle ratio combination.
- Maximum Loaded Trailer Weight assumes towing vehicle with mandatory options, no cargo and driver (150-lb.) only. Weight of additional options, passengers and cargo must be deducted from this weight.
- If you are selecting a vehicle, be sure to also check the Required/Recommended Equipment charts on page 18.

				UMIXAN	M LUAD	ED THAI	LER WE	IGHT (L	BS.) A	UTOMA	TIC TRA	NSMISS	ION					
					Regu	lar Cab F	Pickup				Sup	erCab P	ickup		Crev	w Cab Pi	ckup	Bronco
ENGINE	AXLE RATIO	GCWR (LBS.)	F-150 4x2	F-150 4x4	F-250 4x2	The state of the state of	F-250 HD 4x4	F-350 4x4	F-350 DRW 4x2	F-150 4x2	F-150 4x4	F-250 HD 4x2	F-250 HD 4x4	F-350 4x2 DRW	F-350 4x2 SRW	F-350 4x2 DRW	F-350 4x4	4x4
4.9L EFI I-6	3.08	9,000	4,600	(1)						4,300								
	3.31	9,500	5,100							4.800								
	3.55	10,000	5,600	5,300	5,300					5,300								
	4.10	11,000				6,200						6,000						**
5.0L EFI V-8	3.08	9,000	4.700															
	3.31	11,500		6.900							6,700							
	3.55	11,500	7,100	6,800						6.800	6,600							6.600
	4.10	12,500			7,800													
5.8L EFI V-8	3.08	10,000	5,500	5,200						5,300								
	3.55	11,500			6,700	6,500	6,200	6,200	6,400			6,300	5,900		6,000	5,800	5,600	
	3.55	12,000	7,500	7,200						7,300	7,100							7,000
	4.10	13,000			8,200	8,000	7,700	7,700	7,800			7,800	7,400		7,500	7,300	7,100	
	4.10	9,900(2)	5,000(2)															
7.3L V-8 DI	3.55	16,000				10,000	10,000	10,000				10,000	10,000		9,900		9,400	
Turbo Diesel	4.10	20,000				10,000	10,000	10,000	10,000			10,000	10,000	10,000	10,000	10,000	10,000	
7.5L EFI V-8	3.55	15,000				9,900	9,600	9,500				9,600	9,300		9,300		8,900	
	4.10	18,500				10,000	10,000	10,000	10,000			10,000	10,000	10,000	10,000	10,000	10,000	
				MAXII	NUM LO	ADED T	RAILER	WEIGHT	(LBS.)	- MANU	AL TRA	NSMISS	ION					
4.9L EFI I-6	2.73	6,250	(1)															
	3.08	6,450	2,100	1,900						1,900	1,600							
	3.31	7,125	2,800	2,500						2,600	2,300							
	3.55	7,800	3,500	3,200	3,200					3,200	3,000							
	4.10	10,000				5,200												
5.0L EFI V-8	3.08	6,450	2,200															
	3.55	7,800	3,500	3,200	3,200					3,200	3,000							3,000
	4.10	10,000			5,400													
5.8L EFI V-8	3.55	11,500				6,500	6,200	6,200			77	6,300	6,000					
	4.10	13,000				8,000	7,700	7,700	7,800			7,800	7,500		7,500	7,300	7,100	
7.3L V-8 DI	3.55	14,500				8,900	8,600	8,500				8,700	8,300		8,400		7,900	
Turbo Diesel	4.10	17,000				10,000	10,000	10,000	10,000		742	10,000	10,000	10,000	10,000	10,000	10,000	
7.5L EFI V-8	3.55	12,000				6,900	6,600	6,500				6,700	6,300		6,300		5,900	
	4.10	16,000				10,000	10,000	10,000	10,000			10,000	10,000	10,000	10,000	10,000	9,900	

# FORD F-SERIES FIFTH-WHEEL TRAILER TOWING SELECTOR

The biggest RV towing jobs can be handled by a Fifth-Wheel F-Series model – 12,500-lb. trailer weight and 20,000-lb. GCWR for a pickup, and up to 26,000-lb. GCWR for the F-Super Duty Chassis Cab.

Use the appropriate chart to determine which model and powertrain combination best meets your towing needs:

- Select automatic or manual transmission section
- Determine which cab design you prefer
- Find the column for the truck series and drive system (4x2 or 4x4) you want.
- Read down that column to find the maximum loaded trailer weight that can be towed with the engine/axle ratio combination listed at left. (If you live in California, Massachusetts or a High Altitude area, check with your Ford Dealership to be sure the desired powertrain/axle ratio is available in your area.)
- The GCWR column shows the maximum allowable combined weight of vehicle, trailer and cargo (including passengers) for this engine/axle ratio combination.
- Maximum Loaded Trailer Weight assumes towing vehicle with mandatory options, no cargo and driver (150-lb.) only. Weight of additional options, passengers and cargo must be deducted from this weight.
- Be sure to also check the Required/ Recommended Equipment charts on page 18.

		MA	XIMUM	LOADE	TRAIL	R WEIGH	II (LBS.)	AUTO	MATIC TR	ANSMIS	SION			
					Regu	lar Cab P	ickup				Sup	erCab Pic	kup	
ENGINE	AXLE RATIO	GCWR (LBS.)	F-150 4x2	F-150 4x4	F-250 4x2	F-250 HD 4x2	F-250 HD 4x4	F-350 4x4	F-350 DRW 4x2	F-150 4x2	F-150 4x4	F-250 HD 4x2	F-250 HD 4x4	F-350 4x2 DRW
4.9L	3.08	9,000	4,600	(1)						4,300				
EFI I-6	3.31	9.500	5,100							4,800				
	3.55	10,000	5,600	5,300	5,300					5,300				
	4.10	11,000				6,200						6,000		
5.0L	3.08	9.000	4,700											
EFI V-8	3.31	11,500		6,900							6,700			
	3.55	11,500	7,100	6,800						6,800	6,600			
	4.10	12,500			7,800									
5.8L	3.08	10,000	5,500	5,200						5,300				
EFI V-8	3.55	11,500			6,700	6,500	6,200	6,200	6.400			6,300	5,900	
- 10 Color	3.55	12,000	7,500	7,200						7,300	7,100			
	4.10	13,000	_		8,200	8,000	7,700	7,700	7,800			7,800	7,400	
7.3L V-8 DI	3.55	16,000				10,500	10,100	10,000				10,200	9,800	
Turbo Diesel	4.10	20,000				12,500	12,500	12,500	12,500			12,500	12,500	12,500
7.5L	3.55	15,000				9,900	9,600	9,500				9,600	9,300	
EFI V-8	4.10	18,500				12,500	12,500	12,500	12,500			12,500	12,500	12,500
			MAXIN	IUM LO	ADED TR	AILER W	EIGHT (LI	BS.) M	ANUAL T	RANSMI	SSION			
4.9L EFI 1-6	4.10	10,000				5,200								
5.0L EFI V-8	4.10	10,000			5,400									
5.8L EFI V-8	3.55	11,500				6,500	6,200	6,200				6,300	6,000	
	4.10	13,000				8,000	7,700	7,700	7,800			7,800	7,500	
7.3L V-8 DI	3.55	14,500				8,900	8,600	8,500				8,700	8,300	
Turbo Diesel	4.10	17,000				11,400	11,100	11,000	11,200			11,200	10,800	11,000
7.5L EFI V-8	3.55	12,000				6,900	6,600	6,500				6,700	6,300	
	4.10	16,000				10,900	10,600	10,500	10,700			10,700	10,300	10,400

Not available for trailer towing.

			Crev	w Cab Pi	ckup		Ch	assis C	ab	
ENGINE	AXLE RATIO	GCWR (LBS.)	F-350 4x2 SRW	F-350 4x2 DRW	F-350 4x4	F-350 4x2 SRW	F-350 4x4 SRW	F-350 4x2 DRW	F-350 4x4 DRW	F- SUPER DUTY
4.9L EFI I-6	4.10	11,000				6,600		6,200		
5.8L EFI V-8	3.55	11,500	6,000	5,800	5,600	6,900		6,600		
	4.10	13,000	7,500	7,300	7,100	8,400		8,000		
7.3L V-8 DI	3.55	16,000	9,900		9,400	10,900	10,400			
Turbo Diesel	4.10	20,000	12,500	12,500	12,500	12,500	12,500	12,500	12,500	
	5.13	22,000								12,500
7.5L EFI V-8	3.55	15,000	9,300		8,900	10,300	9,800			
	4.10	18,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	
	4.63	22,000								12,500
	5.13	26,000			-				-	12,500
MAX	KIMUM	LOADED	TRAILER	WEIGHT	(LBS.)	MANI	JAL TRA	NSMIS	SION	
4.9L EFI 1-6	4.10	10,000				5,600		5,200		
5.8L EFI V-8	3.55	11,500				7,000				
	4.10	13,000	7,500	7,300	7,100	8,500		8,000		
7.3L V-8 DI	3.55	14,500	8,400		7,900	9,400	8,900			
Turbo Diesel	4.10	17,000	10,900	10,700	10,400	11,900	11,400	11,400	10,900	
	5.13	19,000								12,500
7.5L EFI V-8	3.55	12,000	6,400		5,900	7,300	6,800			
	4.10	16,000	10,400	10,100	9,900	11,300	10,800	10,900	10,400	
	4.63	22,000								12,500
	5.13	26,000								12,500

# FORD FULL-SIZE/COMPACT VAN TRAILER TOWING SELECTOR

#### **ECONOLINE VAN/CLUB WAGON/RV CUTAWAY**

				Regula	r Van			Super Van	8	C	lub Wago	n	<b>RV Cutaway</b>
Engine	Axle Ratio	GCWR (Lbs.)	E-150	E-250	E-250 HD	E-350	E-250	E-250 HD	E-350	Regular	HD Regular	Super	at 11,500-lb GVWR
4.9L EFI I-6	2.73	(1)	(1)					1000					
	3.08	9,000	4,000							3,600			
	3.31	10,000	5,000							4,600			
	3.54	10,000		4,700	4,700		4,600	4,600					
	3.55	10,000	5,000							4,600			
	3.73	10,500		5,100	5,100	4,900	5,000	5,000	4,900		4,700	4,400	
5.0L EFI V-8	3.31	11,500	6,600							6,200		-	-
5.8L EFI V-8	3.54	11,500				5,700			5,700		5,400	5,100	
	3.55	12,000	6,900							6,600			
	3.73	13,000		7,600	7,500		7,400	7,400					
	4.09	13,000				7,200			7,200		6,900	6,600	1,500
7.3L V-8 DI	3.55	16,000				9,600			9,700		9,400	9,100	
Turbo Diesel	4.10	20,000				10,000			10,000		10,000	10,000	8,500
7.5L EFI V-8	3.55	15,000				9,000			9,100		8,800	8,500	
STERONO STATE OF THE STATE OF T	4.10	18,500				10,000			10,000		10,000	10,000	7,000

<sup>(1)</sup> Not available for trailer towing.

Use the appropriate chart to select the vehicle/powertrain/axle ratio combination that best meets your trailer towing needs:

- Find the model column across the top.
- Read down that column to find the maximum loaded trailer weight that can be towed with the engine/axle ratio combination listed at left. (If you live in California, Massachusetts or a High Altitude area, check with your Ford Dealership to be sure the desired powertrain/axle ratio is available in your area.)
- The GCWR column shows the maximum allowable combined weight of vehicle, trailer and cargo (including passengers) for this engine/axle ratio combination.
- Maximum Loaded Trailer Weight assumes towing vehicle with mandatory options, no cargo and driver (150-lb.) only. Weight of additional options, passengers and cargo must be deducted from this weight.
- Be sure to also check the Required/ Recommended Equipment charts on page 18.

#### WINDSTAR/AEROSTAR

	Axle	GCWR	Wind	star		ar-Length rostar	Extended-Lengti Aerostar Wagon		
Engine	Ratio	(Lbs.)	Wagon	Van	2WD Van	2WD Wagon	2WD	4WD	
3.0L	3.73	7,500			3,900	3,600	3,500		
EFI V-6	3.98*	6,550	2,000	2,000					
3.8L EFI V-6	3.37	6,550**	2,000**	2,000					
4.0L	3.27	7,500					3,400		
EFI V-6	3.55	8,500					4,400		
	3.73	8,500						4,200	

See your dealer for availability of the 3.0L EFI V-6 engine. \*\* 7,500 lbs. GCWR/3,500 lbs. Maximum Loaded Trailer Weight with optional Trailer Towing Package only. (See your dealer for availability.)

# REQUIRED/RECOMMENDED TRAILER TOWING EQUIPMENT

It is essential that you make sure your vehicle includes any optional equipment that may be needed to best perform its expected towing tasks. This equipment falls into two categories:

- Required Equipment includes all items that must be installed on the vehicle if it is to be used for towing ... your New Vehicle Limited Warranty may be voided if you tow without them.
- Recommended Equipment includes items that can make towing easier ... they are strongly recommended for strenuous towing conditions.

#### **Required Equipment**

Crown Victoria

 For Trailers Over 2,000 lbs. – Heavy-Duty Trailer Towing Pkg.

Windstar Wagon

 For Trailers Over 2,000 lbs. – 3.8L Engine with Trailer Towing Package. (See your dealer for availability.)

Ranger

 For Trailers Over 2,000 lbs. – Super Engine Cooling OR Air Conditioning. Also Payload Package #2 on Ranger Regular Cab models.

Econoline Van/Club Wagon

 For Trailers from 2,000-3,500 lbs. (With 4.9L/5.0L/5.8L Engines) – Heavy Duty Service Package (NA on Club Wagon) OR Air Conditioning OR Trailer Towing Package.

### CROWN VICTORIA Trailer towing package

- 5,000-lb. capacity
- Dual exhaust (210 hp. engine)
- Heavy-duty battery
- Rear air suspension
- Auxiliary transmission oil cooler
- Conventional spare tire
- 3.27 Traction-Lok axle (except with Anti-Lock Braking System)
- Heavy-duty U-joint
- Trailer towing wiring harness
- Power steering oil cooler
- Engine oil cooler
- Extra cooling

### Recommended Equipment (Where Not Required)

	Ford	Windstar	Aerostar	Ranger	Explorer	Bronco	F-Series	F-Series 5th Wheel	Econoline Van	Club
Aftermarket Auxiliary Transmission Oil Cooler	X(a)	-	-	-	-	-	_	-	_	_
Super Engine Cooling	-	-	-	X(b)	-	-	Х	Х	-	-
Step Bumper (c)	-	-	-	X	X(d)	X(e)	X(f)	-	X(f)	X(f)
Load-Carrying Hitch (g) (Trailers Under 5,000 lbs.)	х	х	х	x	х	х	х	-	х	x
Load-Equalizing Hitch (g) (Trailers Over 5,000 lbs.)	-	_	-	x	x	х	х	-	х	х
Trailer Towing Package	-	-	X	-	Х	Х	Х	Х	X	Х

(a) Recommended for long-distance, high-speed towing with automatic transmission on Crown Victoria, Thunderbird, Mustang, Escort, Contour and Taurus Light-Duty applications. (b) Also included with air conditioning. (c) Ford tubular rear bumpers are rated at 2,000 lbs. maximum trailer weight. (d) For trailers under 3,500 lbs. with standard rear bumper. (e) For trailers under 4,000 lbs. with Rear Step Bumper. (f) For trailers under 5,000 lbs. with Rear Step Bumper. (g) Always refer to vehicle Owner Guide for specific towing capacities.

> For Trailers Over 3,500 lbs. – Heavy Duty Service Package (NA on Club Wagon) OR Air Conditioning with Handling Package OR Trailer Towing Package.

F-Series (Including 5th-Wheel)

- For Trailers from 2,000-3,500-lbs. Super Engine Cooling OR Trailer Towing Package.
- For Trailers Over 3,500 lbs. Super Engine Cooling with Handling Package OR Trailer Towing Package.

#### Bronco

For Trailers Over 2,000 lbs. – Trailer Towing Package.

### **Ford Truck Trailer Towing Packages**

MODEL	Aerostar	Bronco	F-Series	Econoline Van (b)	Club Wagon (b)	Explorer
Super Engine Cooling	-	Х	X	X	х	-
Heavy-Duty Battery	-	X	- X	-	-	-
Trailer Wiring Harness	X(a)	X	X	X	Х	Х
Heavy-Duty Flasher System	X	X	X	-	-	Х
Handling Package	-	-	X	Х	Х	-
Rear Stabilizer Bar	-	Х	-	-	-	-
Quad Front & HD Rear Shock Absorbers	-	Х	-	-	-	-
Limited Slip Rear Axle w/ Axle Ratio Upgrade	X	-	-	-	-	-
Dual Electric Horns	-	-	-	Х	-	-

(a) Class I type. (b) Class I package content shown. Class II/III/IV package includes Class I items plus: electric brake controller tap-in capability, 7-way blade-type RV trailer plugs (bumper-mounted), relay system for back-up/B+/running lights, heavy-duty alternator. (c) Included with certain powertrain combinations. NOTE: Content may vary depending on model, trim and/or powertrain. See your Ford Dealer for specific content information.

NOTE: Trailer Towing Package recommended for all light trucks that will be used for towing, to ensure easy, proper connection of trailer lights.

### Windstar Wagon Trailer Towing Package\*

- Rated at 7,500 lbs. GCWR
- 84 AH Battery
- Auxiliary Engine Oil Cooler
- 25-Gallon Fuel Tank
- Heavy-Duty Halfshafts
- Power Steering Oil Cooler
- Trailer Wiring Harness
- Conventional Full-Size Spare Tire
- Auxiliary Transmission Oil Cooler
- \* See your dealer for availability

# FRONTAL AREA RESTRICTIONS

Frontal area is the total area in square feet that a moving vehicle and trailer exposes to air resistance. The chart shows the limitations that must be considered in selecting a vehicle/trailer combination.

Vehicle Line	Frontal Area Not to Exceed	With	
Escort/Contour/Mustang	20 sq. ft.	All applications	
Windstar Van/Wagon	Base Vehicle Frontal Area	3.0L* OR 3.8L Without Trailer Towing Pkg.*	
	32 sq.ft.	3.8L With Trailer Towing Pkg.*	
Aerostar Van/Wagon	50 sq.ft.	All Applications	
Explorer	50 sq.ft.	All Applications	
Ranger	Base Vehicle Frontal Area	2.3L <b>OR</b> 3.0L/MT/3.45 ratio <b>OR</b> 3.0L/MT/3.73 or AT without Super Cooling or air conditioning and Reg. Cab Payload Pkg. No. 2 <b>OR</b> 4.0L/MT/3.08 <b>OR</b> 4.0L/MT/3.27 3.55 or 3.73 or AT without Super Cooling or air conditioning and 4x2 Reg. Cab Payload Pkg. No. 2	
	50 sq.ft.	3.0L/MT/3.73 or AT combined with Super Cooling or air conditioning and Reg. Cab Payload Pkg. No. 2 <b>OR</b> 4.0L/MT/3.27, 3.55 or 3.73 or AT combined with Super Cooling or air conditioning and 4x2 Reg. Cab Payload Pkg. No. 2	
Econoline/Club Wagon/ RV Cutaway	Base Vehicle Frontal Area	Without H.D. Service Pkg., air conditioning or Trailer Towing Pkg.	
	60 sq.ft.	With H.D. Service Pkg., air conditioning, Trailer Towing Pkg., 7.3L Diesel or 7.5L	
Bronco/F-Series	Base Vehicle Frontal Area	Without Super Cooling or Trailer Towing Pkg.	
	60 sq.ft.	With Super Cooling or Trailer Towing Pkg.	

KEY: MT = Manual Transmission

AT = Automatic Transmission ★ See your dealer for availability.



Regular Club Wagon XLT

### TRAILERING TIPS

Trailer towing is a special driving experience which places extra demands on your driving skills. We have included a few basic tips that you should know in order to transport your trailer and its contents safely, comfortably and without abusing the towing vehicle:

Weight Distribution

 For optimum handling, the trailer must be properly loaded and balanced.

 Keep center of gravity low for best handling.

 Approximately 60% of the cargo weight should be in the front half of the trailer and 40% in the rear (within limits of Tongue Weight).

 Load should also be balanced from side to side for good handling and proper

tire wear.

 Load must be firmly secured to prevent shifting during cornering or braking, which could result in a sudden loss of control.

**Before Starting** 

 Before setting out on a trip, practice turning, stopping and backing your trailer in an area away from heavy traffic.

Backing

 Back slowly, with someone outside at rear of trailer to guide you.

 Place one hand at bottom of steering wheel and move it in the direction you want the trailer to go.

 Make small corrections ... slight movement of steering wheel results in much greater movement in rear of trailer.

Braking

- Allow considerably more distance for stopping with trailer attached. (See page 10)
- If you have a manual brake controller, "lead" with trailer brakes, if possible.
- To correct trailer side-sway, touch trailer brakes momentarily without using vehicle brakes.

Downgrades and Upgrades

 Downshifting assists braking on downgrades and provides added power at the drive wheels for climbing hills.

Parking with a Trailer

- Vehicles with trailers should not be parked on a grade. However, if it is necessary to park on a grade, place wheel chocks under the trailer's wheels as follows:
  - Apply the foot service brakes and hold.

 Have another person place the wheel chocks under the trailer wheels on the downgrade side.

 Once the wheel chocks are in place, release foot service brakes, making sure that the chocks are holding the vehicle and trailer.

Apply the parking brake.

- Shift the transmission into P (PARK) with an automatic transmission and make sure it is latched there. If your vehicle has a manual transmission, put the gearshift lever in R (REVERSE). NOTE: With 4-wheel drive, make sure the transfer case is not in N (NEUTRAL) (where applicable).
- To start, after being parked on a grade:
   Apply the foot service brake and hold.
  - Start the engine with the gearshift selector lever in P (PARK) on automatic transmissions or N (NEUTRAL) on manual transmissions.

 Shift the transmission into gear and release the parking brake.

- Release the foot service brakes and move the vehicle uphill to free the wheel chocks.
- Apply the foot service brakes and hold while another person retrieves the chocks.

#### **Passing**

- If you must pass a slower vehicle, be sure to allow extra distance ... remember, you have the added length of the trailer which must clear the other vehicle before you can pull back in.
- Make your pass on level terrain with plenty of clearance.
- If necessary, downshift for improved acceleration.

#### Driving with an Automatic Overdrive Transmission

- With certain automatic overdrive transmissions, towing – especially in hilly areas and with heavier trailers – may result in excessive shifting between overdrive and the next lower gear.
- If this occurs, it is recommended that the overdrive gear be locked out to eliminate the condition and provide steadier performance (see your vehicle's Owner Guide for information).
- When there is no excessive shifting, use the overdrive gear for best fuel economy.
- Overdrive also may be locked out to obtain 3rd-gear engine braking on downgrades.

**Driving with Speed Control** 

 When driving uphill with a heavy load, significant speed drops may occur.

- A speed drop of more than 8 to 14 mph will, by design, cancel the automatic speed control.
- Temporarily resume manual control through the vehicle's accelerator pedal until the terrain levels off.

#### **Tire Pressure**

- Underinflated tires get very hot and can lead to tire failures and possible loss of vehicle control.
- Overinflated tires can cause uneven tire wear.
- Tires should be checked often for conformance to cold inflation pressures recommended on the Safety Compliance Certification Label for original equipment tires.

#### Spare Tire Use (Car Applications)

- Conventional full-size spare tire is:
   Included with Heavy-Duty Trailer
  - Towing Package

     Required for Class II and Class III
    trailer towing
- Mini-spare tires:
  - Should not be used ...
    - as a conventional road tire, or
    - while towing Class II or Class III trailers
  - Are intended only ...
    - for emergency and limited mileage use
    - until conventional tire is available

#### On the Road

- After about 50 miles, stop in a protected location and double-check:
  - Trailer hitch attachment
  - Lights and electrical connections
- Trailer wheel lug nuts for tightness
- Engine oil ... check regularly throughout trip.

High Altitude Operation

 Since gasoline engines lose power at a rate of 3% to 4% per 1,000 ft. elevation, a reduction in gross vehicle weights and gross combination weights of 2% per 1,000 ft. elevation is recommended for improved performance.

#### Powertrain Considerations

- The charts in this guide show the minimum engine size needed to move the gross combination weight of the tow vehicle and trailer.
- Under certain conditions, however, (e.g., when the trailer has a large frontal area that adds substantial air drag or when trailering in hilly or mountainous terrain) it's wise to choose a larger engine.

NOTE: For additional trailering information pertaining to your Ford vehicle, refer to the vehicle's Owner Guide.



