



THE LINCOLN
MOTOR COMPANY



2021
LINCOLN
TOWING GUIDE



THE LINCOLN
MOTOR COMPANY

2021 LINCOLN TOWING GUIDE

TOWING GUIDE CONTENTS

NAVIGATOR	3
AVIATOR	4
NAUTILUS	5
CORSAIR	6
4-WHEEL-DOWN / DOLLY TOWING	7
KNOW BEFORE YOU TOW	8
TRAILER TYPES / HITCHES	9
CALCULATING WEIGHT DISTRIBUTION	10
WEIGHT LIMITS / KNOW YOUR WEIGHTS	11
TOWING BASICS	12

Refined Power and Purposeful Technology Carry the Load

From light to heavy loads, Lincoln incorporates effortless performance and advanced technology to help you work harder and make playing more fun, too. Crossovers, like the Aviator, can tow up to 6,700 lbs. when properly equipped. Navigator lets you enrich your adventures with an available best-in-class¹ tow rating of 8,700 lbs.² for piloting even the toughest towing challenges. And available driver-assist towing technologies let you tow your boat, camper or other road-trip essentials with the utmost of ease and confidence.

¹Class is Large Traditional Premium Utilities based on Lincoln segmentation. ²Navigator RWD models only. Max towing varies based on cargo, vehicle configuration, accessories and number of passengers.

SAE TOWING STANDARD

The Society of Automotive Engineers (SAE) testing standard J2807[®] defines procedures and requirements to determine gross combined weight ratings (GCWR) and to calculate the trailer weight rating (TWR) for any tow vehicle. This standard establishes minimum performance conditions to allow for consistent comparisons between similar class vehicles.



2021 NAVIGATOR

Navigator Black Label in Pristine White

TRAILER TOWING SELECTOR

AUTOMATIC TRANSMISSION		MAXIMUM LOADED TRAILER WEIGHT (lbs.) ¹				
Engine	Axle Ratio	GCWR (lbs.)	NAVIGATOR		NAVIGATOR L	
			4x2	4x4	4x2	4x4
Twin-Turbocharged 3.5L V6	3.73	12,500	6,200	–	–	–
		12,700	–	6,200	–	–
		13,100	–	–	6,600	–
		13,300	–	–	–	6,600
		15,300 ²	8,700 ³	8,300	–	–
		15,500 ²	–	–	8,400	8,100

¹Maximum loaded trailer weight requires weight-distributing hitch. See page 9 for additional information. ²Requires available Class IV Heavy-Duty Trailer Towing Package (536). ³Best-in-Class towing. Class is Large Traditional Premium Utilities based on Lincoln segmentation.

Notes: • Navigator calculated with SAE J2807[®] method.

- Trailer tongue load weight should be 10% of total loaded trailer weight. **Make sure vehicle payload (reduced by option weight) will accommodate trailer tongue load weight and weight of passengers and cargo added to towing vehicle.** Addition of trailer tongue load weight and weight of passengers and cargo cannot cause vehicle weights to exceed rear GAWR or GVWR. These ratings can be found on the vehicle Safety Compliance Certification Label.
- Combined weight of vehicle and trailer cannot exceed listed GCWR.
- Do not exceed the Maximum Loaded Trailer Weight listed.

FRONTAL AREA CONSIDERATIONS

Frontal Area is the total area in square feet that a moving vehicle and trailer exposes to air resistance. The chart below shows the maximum trailer frontal area that must be considered for a vehicle/trailer combination. Exceeding these limitations may significantly reduce the performance of your towing vehicle.

FRONTAL AREA LIMITATIONS/CONSIDERATIONS	WITH
55 sq. ft. (Trailer Frontal Area)	Without Heavy-Duty Trailer Tow Package
60 sq. ft.	With Heavy-Duty Trailer Tow Package

REQUIRED EQUIPMENT

Includes items that must be installed. Your New Vehicle Limited Warranty (see your dealer for a copy) may be voided if you tow without them.

REAR AXLE RATIO CODE

If you do not know the axle ratio of your vehicle, check its Truck Safety Compliance Certification Label (located on the left front door lock facing or the door latch post pillar). Below the bar code, you will see the word AXLE and a two-digit code.

Rear Axle Ratio	Non-Limited Slip	Electronic Limited Slip (eLSD)
3.73	3N	3L

AVAILABLE TRAILER TOWING PACKAGE

EQUIPMENT	Standard	Option Code 536	Option Code 62E
7-Wire Harness & 4-7-Pin Connector	X	Std.	–
Class IV Hitch Receiver	X	Std.	–
Trailer Sway Control	X	Std.	–
Smart Trailer Tow	X	Std.	–
Heavy-Duty Radiator	–	X	–
2-Speed Transfer Case (4x4)	–	X	–
Pro Trailer Backup Assist™	–	X	–
Trailer Brake Controller (TBC)	–	X	–
Electronic Traction Assist (eLSD)	–	–	X

FACTORY-INSTALLED TRAILER HITCH RECEIVER OPTION

Standard on Navigator.

The chart below shows the weight-carrying and weight-distributing capacities of these hitch receivers. (These capacities also are shown on a label affixed to each receiver.)

VEHICLE	Weight-Carrying Max. Trailer Capacity (lbs.) ¹	Max. Tongue Load (lbs.)	Weight-Distributing Max. Trailer Capacity (lbs.) ¹	Max. Tongue Load (lbs.)
Navigator	6,000	600	8,700	870
Navigator L	6,000	600	8,400	840

¹Hitch receivers do not include a hitch ball or ball mounting. You are responsible for obtaining the proper hitch ball, ball mounting, weight-distributing equipment (i.e., equalizing arms and snap-up brackets, sway control system) and other appropriate equipment to tow both the trailer and its cargo load.

Maximum towing capabilities are for properly equipped vehicles with required equipment and a 150-lb. driver and passenger and vary based on cargo, vehicle configuration, accessories, option content and number of passengers. See label on door jamb for carrying capacity of a specific vehicle. For additional information, see your Lincoln Dealer.



2021 AVIATOR

Aviator Reserve in Ocean Drive Blue

TRAILER TOWING SELECTOR

AUTOMATIC TRANSMISSION		MAXIMUM LOADED TRAILER WEIGHT (lbs.)	
Engine	Axle Ratio	Axle Configuration	AVIATOR
Twin-Turbocharged 3.0L V6	3.58	RWD/AWD	5,600 ¹
			6,700 ²
Twin-Turbocharged Grand Touring Plug-in Hybrid ³	3.31	AWD	5,600

¹Aviator does not offer factory-installed towing equipment for this application; only available as aftermarket accessory. ²Requires available Class IV Trailer Tow Package (52Q). ³Plug-in hybrid electric powertrain.

Notes: • Aviator calculated with SAE J2807[®] method.
• Do not exceed the Maximum Loaded Trailer Weight listed.

FRONTAL AREA CONSIDERATIONS

Frontal Area is the total area in square feet that a moving vehicle and trailer exposes to air resistance. The chart below shows the maximum trailer frontal area that must be considered for a vehicle/trailer combination. Exceeding these limitations may significantly reduce the performance of your towing vehicle.

FRONTAL AREA LIMITATIONS/CONSIDERATIONS	WITH
55 sq. ft.	With or Without Class IV Trailer Tow Package

REQUIRED EQUIPMENT

Includes items that must be installed.* Your New Vehicle Limited Warranty (see your dealer for a copy) may be voided if you tow without them.

For towing capacity over 5,000 pounds – Class IV Trailer Tow Package (52Q)

*Check with your dealer for additional requirements, restrictions and limited warranty details.

AVAILABLE TRAILER TOWING PACKAGE

EQUIPMENT	Option Code 52Q
7-Wire Harness & 4-/7-Pin Connector	X
250-Amp Alternator (Gas engine only)	X
Class IV Hitch Receiver	X
Blind Spot Detection with Cross-Traffic Alert and Trailer Coverage	X
Smart Trailer Tow	X
Trailer Sway Control	X

Note: Trailer Towing Package recommended for all vehicles that will be used for towing to help ensure easy, proper connection of trailer lights.

FACTORY-INSTALLED TRAILER HITCH RECEIVER OPTION

Included with Class IV Trailer Tow Package – Option Code 52Q

The chart below shows the weight-carrying capacity of this hitch receiver. (This capacity also is shown on a label affixed to each receiver.)

Weight-Carrying Max. Trailer Capacity (lbs.) ¹	Max. Tongue Load (lbs.)
6,700	670

¹Hitch receivers do not include a hitch ball or ball mounting. You are responsible for obtaining the proper hitch ball, ball mounting, and other appropriate equipment to tow both the trailer and its cargo load.



2021 NAUTILUS

Nautilus Reserve in Silver Radiance

TRAILER TOWING SELECTOR

AUTOMATIC TRANSMISSION		MAXIMUM LOADED TRAILER WEIGHT (lbs.)
Engine	Axle Configuration	NAUTILUS
Turbocharged 2.0L I4	FWD/AWD	1,500
		3,500 ^{1,2}
Twin-Turbocharged 2.7L V6	AWD	2,000
		3,500 ^{1,2}

¹Requires Class II Trailer Tow Package (53G). ²Requires Cargo Utility Package (51U)

Notes: • Nautilus Calculated with SAE J2807[®] method.
• Do not exceed the Maximum Loaded Trailer Weight listed.

FRONTAL AREA CONSIDERATIONS

Frontal Area is the total area in square feet that a moving vehicle and trailer exposes to air resistance. The chart below shows the maximum trailer frontal area that must be considered for a vehicle/trailer combination. Exceeding these limitations may significantly reduce the performance of your towing vehicle.

FRONTAL AREA LIMITATIONS/CONSIDERATIONS	WITH
20 sq. ft. (Base Vehicle Frontal Area)	Without Class II Trailer Tow Package
30 sq. ft.	With Class II Trailer Tow Package

REQUIRED EQUIPMENT

Includes items that must be installed.* Your New Vehicle Limited Warranty (see your dealer for a copy) may be voided if you tow without them.

For towing capacity over 1,500 pounds with 2.0L I4 engine – Class II Trailer Tow Package (53G)

For towing capacity over 2,000 pounds with 2.7L V6 engine – Class II Trailer Tow Package (53G)

*Check with your dealer for additional requirements, restrictions and limited warranty details.

AVAILABLE TRAILER TOWING PACKAGE

EQUIPMENT	Option Code 53G
Trailer Wiring Harness (4-Pin)	X
Hitch Receiver	X
Trailer Sway Control	X

Note: Trailer Towing Package recommended for all vehicles that will be used for towing to help ensure easy, proper connection of trailer lights.

FACTORY-INSTALLED TRAILER HITCH RECEIVER OPTION

Included with Class II Trailer Tow Package – Option Code 53G

The chart below shows the weight-carrying capacity of this hitch receiver. (This capacity also is shown on a label affixed to each receiver.)

Weight-Carrying Max. Trailer Capacity (lbs.) ¹	Max. Tongue Load (lbs.)
3,500	350

¹Hitch receivers do not include a hitch ball or ball mounting. You are responsible for obtaining the proper hitch ball, ball mounting, and other appropriate equipment to tow both the trailer and its cargo load.

Maximum towing capabilities are for properly equipped vehicles with required equipment and a 150-lb. driver and passenger and vary based on cargo, vehicle configuration, accessories, option content and number of passengers. See label on door jamb for carrying capacity of a specific vehicle. For additional information, see your Lincoln Dealer.



2021 CORSAIR

Corsair Reserve in Artisan Blue

TRAILER TOWING SELECTOR

AUTOMATIC TRANSMISSION					MAXIMUM LOADED TRAILER WEIGHT (lbs.)	
Engine	Final Drive Ratio	GCWR (lbs.)			CORSAIR	CORSAIR GRAND TOURING PLUG-IN HYBRID
		FWD	AWD	eAWD		
Turbocharged 2.0L I4	3.81	7,120	7,290	–	2,000 ¹ /3,000 ²	–
Turbocharged 2.3L I4	3.81	–	7,295	–	3,000 ²	–
Atkinson-cycle 2.5L I4	2.91	–	–	7,839	–	3,000 ²

¹Dealership or aftermarket hitch receiver installation can only be rated at 2,000 lbs. (maximum trailer tow capacity on 2.0L engine application). ²Requires factory-installed Class II Trailer Tow Package (18C).

- Notes:**
- Corsair calculated with SAE J2807[®] method.
 - Certain states require electric trailer brakes for trailers over a specified weight. Be sure to check state regulations for this specified weight. **WARNING:** Do not tow a trailer fitted with electric trailer brakes unless your vehicle is fitted with a compatible aftermarket electronic trailer brake controller. Failure to follow this instruction could result in the loss of control of your vehicle, personal injury or death. For additional information and assistance, we recommend that you contact an authorized dealer.
 - Combined weight of vehicle and trailer cannot exceed listed GCWR.
 - Do not exceed the Maximum Loaded Trailer Weight listed.

FRONTAL AREA CONSIDERATIONS

Frontal Area is the total area in square feet that a moving vehicle and trailer exposes to air resistance. The chart below shows the maximum trailer frontal area that must be considered for a vehicle/trailer combination. Exceeding these limitations may significantly reduce the performance of your towing vehicle.

FRONTAL AREA LIMITATIONS/CONSIDERATIONS	WITH
20 sq. ft. (Base Vehicle Frontal Area)	Without Class II Trailer Tow Package
30 sq. ft.	With Class II Trailer Tow Package

REQUIRED EQUIPMENT

Includes items that must be installed.* Your New Vehicle Limited Warranty (see your dealer for a copy) may be voided if you tow without them.

For trailers over 2,000 pounds – Class II Trailer Tow Package (18C)

*Check with your dealer for additional requirements, restrictions and limited warranty details.

AVAILABLE TRAILER TOWING PACKAGE

EQUIPMENT	Option Code 18C
Trailer Harness (4-Pin)	X
Hitch Receiver	X

Note: Trailer Towing Equipment recommended for all vehicles that will be used for towing to help ensure easy, proper connection of trailer lights. Items must be purchased separately to comply with towing weight capacity.

FACTORY-INSTALLED TRAILER HITCH RECEIVER OPTION

The chart below shows the weight-carrying capacity of this hitch receiver. (This capacity also is shown on a label affixed to each receiver.)

Weight-Carrying Max. Trailer Capacity (lbs.) ¹	Max. Tongue Load (lbs.)
3,000	300

¹Hitch receivers do not include a hitch ball or ball mounting. You are responsible for obtaining the proper hitch ball, ball mounting, and other appropriate equipment to tow both the trailer and its cargo load.

Maximum towing capabilities are for properly equipped vehicles with required equipment and a 150-lb. driver and passenger and vary based on cargo, vehicle configuration, accessories, option content and number of passengers. See label on door jamb for carrying capacity of a specific vehicle. For additional information, see your Lincoln Dealer.

Towing your Lincoln vehicle behind a Motorhome



FOUR-WHEEL-DOWN TOWING

Many motorhome owners prefer the practicality of having another vehicle along when they travel. In fact, towing another vehicle behind the motorhome has become more and more popular in recent years. Furthermore, many of those who want to tow another vehicle prefer one that can be easily towed without a dolly or trailer. For safe operation, towed vehicles (or dollies or trailers carrying them) should be equipped with a separate functional brake system. See last page for additional brake information.

Individual vehicles have different restrictions and towing procedures. Contact your dealer for complete details.

Note: Some aftermarket camper centers offer kits which may allow vehicles with automatic transmissions to be flat-towed. Check your new vehicle Warranty Guide, as this could void the warranty of your vehicle.

2021 LINCOLN ELECTRIFIED VEHICLES	Automatic Transmission
Corsair Grand Touring	Yes ^{4,5,6}
Aviator Grand Touring	No

2021 LINCOLN CUVs/SUVs	
Corsair	No
Nautilus Turbocharged 2.0L	No
Nautilus Twin-Turbocharged 2.7L	Yes ^{1,2,3,9}
Aviator	No
Navigator/Navigator L 4x2	No
Navigator/Navigator L 4x4	Yes ^{7,8}

¹Intelligent all-wheel-drive (AWD)/4WD vehicles cannot be towed on a dolly. ²Maximum speed with automatic transmission is 65 mph. ³Start the engine and allow it to run for five (5) minutes at the beginning of each day and every six (6) hours thereafter. ⁴Maximum speed with hybrid transmission is 70 mph. ⁵Select "Stay In Neutral" mode – refer to owner's manual transmission and towing sections to follow procedures. ⁶Start the engine and allow it to run for one (1) minute at the beginning of each day and every six (6) hours thereafter. ⁷Vehicle equipped with optional Heavy-Duty Trailer Tow Package and 2-speed transfer case. ⁸Shift the transfer case in neutral. Refer to owner's manual to follow procedure. ⁹Activate Manual Park Release (MPR) – refer to owner's manual to follow procedure.

TOW-DOLLY TOWING

Tow-dollies allow you to tow your vehicle behind a RV or motorhome if you are unable to four-wheel-down your car, CUV or SUV. Tow-dollies work by elevating the front drive wheels of the vehicle to rest securely on it while the back two wheels stay on the ground. They are not as long as the traditional trailers, which helps make turning corners easy.

Before using the tow-dolly there are a few things you must know before towing. Read the manufacturer's instructions that came with the tow-dolly before towing, loading or unloading the dolly. Attach the appropriate trailer hitch and drawbar hardware to the vehicle for the tow-dolly. Attach the dolly to the drawbar. The dolly should be completely secure and on level ground before the vehicle to be towed is put on or taken off the dolly. Drive the vehicle onto the dolly with its front wheels. Secure the vehicle to the tow-dolly according to the manufacturer's instructions. Follow the instructions for attaching and connecting the auxiliary lights to the back of the vehicle being towed. Test the auxiliary lights to make sure that the turn signals, stop lamps, and running lights work properly.

2021 LINCOLN VEHICLES	FWD	RWD	AWD/4WD
Corsair	Yes	N/A	No ¹
Corsair Grand Touring	N/A	N/A	Yes
Nautilus	Yes	N/A	No ¹
Aviator	N/A	No	No ¹
Navigator	N/A	No	No ¹

N/A – Not Applicable. ¹AWD/4WD vehicles cannot be towed with 2 wheels lifted off the ground.

Know Before You Tow

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, including the weight of any additional cargo and fluids that you will be carrying in the trailer. Also, be sure the vehicle has the proper optional equipment (refer to pages 3–6). Keep in mind that performance can be severely affected on hilly terrain when the minimum acceptable powertrain combination is selected. Consider purchasing a vehicle with a more powerful engine.

AFTER YOU BUY

Before heading out on a trip, check your vehicle owner's manual for break-in and severe-duty maintenance schedules (do not tow a trailer until your vehicle has been driven at least 1,000 miles). Be sure to have your fully-loaded vehicle (including passengers) and trailer weighed so as not to exceed critical weight limits (refer to page 11). 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.

BRAKES

Many states require a separate braking system on trailers with a loaded weight of more than 1,500 pounds. For your safety, Ford Motor Company recommends that a separate functional brake system be used on any towed vehicle, including those dolly-towed or towbar-towed. There are several basic types of brake systems designed to activate trailer brakes:

Electronically Controlled Brakes usually provide automatic and manual control of trailer brakes. They require that the tow vehicle be equipped with a controlling device and additional wiring for electrical power. These brakes typically have a control box installed within reach of the driver and can be applied manually or automatically.

Electric-Over-Hydraulic (EOH) Trailer Brakes are operated by an electrically powered pump that pressurizes a hydraulic fluid reservoir built into the trailer's brake system. Many of the available EOH trailer brake models are compatible with the Lincoln factory installed, dash-integrated Trailer Brake Controller (TBC).

Surge Brakes are independent hydraulic brakes activated by a master cylinder at the junction of the hitch and trailer tongue. They are not controlled by the hydraulic fluid in the tow vehicle's brake system, and the tow vehicle's hydraulic system should never be connected directly to the trailer's hydraulic system.

Be sure your trailer brakes conform to all applicable state regulations. See *Towing Basics* on the last page for additional braking information.

TRAILER LAMPS

Make sure the trailer is equipped with lights that conform to all applicable government regulations. The trailer lighting system should not be connected 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.

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 to prevent the tongue from contacting the ground if a separation occurs. Allow only enough slack to permit full turning – be sure they do not drag on the pavement.

Refer to your owner's manual for safety chain attachment information.

For rental trailers, follow rental agency instructions for hookup of safety chains.

TRAILER WIRING HARNESS

Some vehicles equipped with a factory-installed Trailer Tow Package include a trailer wiring harness and a wiring kit.

This kit includes one or more jumper harnesses (to connect to your trailer wiring connector) and installation instructions.

Trailer Classes

Class I LIGHT-DUTY

2,000-lb. maximum weight (trailer and cargo combined)

Small folding camping trailers and trailers for small boats, motorcycles and snowmobiles

Many Lincoln vehicles can handle easily

Conventional weight-carrying hitch

Class II MEDIUM-DUTY

2,001–3,500-lb. gross trailer weight

Large folding camping trailers, single-axle, small- to medium-length (up to 18-ft.) trailers

Lincoln compact SUVs can be equipped to tow these trailers¹

Conventional weight-distributing 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

Only properly equipped Lincoln SUVs can tow them¹

Conventional weight-distributing hitch not required unless specified for a particular vehicle

Class IV EXTRA-HEAVY-DUTY

Over 5,000-lb. gross trailer weight

Largest travel trailers made for recreation

Only Aviator and Navigator can be equipped to handle trailer weights in this class¹

Most applications require a conventional weight-distributing hitch

¹Refer to pages 3–6 for required equipment.

Trailer Types

FOLDING CAMPING TRAILER

These are very cost effective units providing campers with a comfortable, dry, mobile shelter, plus these added benefits:

Lightweight for easy towing

Simple conventional weight-carrying 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 feet long

Normally towed with a conventional weight-distributing hitch, depending on weight



Hitches

WEIGHT-CARRYING (NON-WEIGHT-DISTRIBUTING)

A weight-carrying (non-weight-distributing) hitch is commonly used to tow small- and medium-sized trailers. Choose a proper hitch and ball, and make sure its location is compatible with that of the trailer. Use a good weight-carrying hitch that uniformly distributes the trailer tongue loads through the bumper and frame (bumper hitch not available with Navigator). Lincoln hitch receivers provide weight-carrying capacities as shown in each chart (refer to pages 3–6). (A label affixed to the hitch receiver provides both the weight-carrying and weight-distributing capacities for each receiver.) You are responsible for obtaining the proper hitch ball, ball mounting and other appropriate equipment to tow both the trailer and load that will be towed.



WEIGHT-DISTRIBUTING

A weight-distributing hitch is used in conjunction with a hitch platform (receiver) to distribute tongue load to all towing vehicle and trailer wheels. Required for certain Class III and all Class IV applications (refer to each chart on pages 3–6).

Weight-distributing hitch platforms are welded or bolted to the vehicle frame. Bolt-on types are recommended because they can be removed.

A properly installed bolt-on weight-distributing hitch platform should not weaken the vehicle or underbody as heat of welding might.

Equalizing arms are connected from the hitch to the trailer's A-frame. They can be adjusted for best towing performance. Lengths of chain are pulled up and tightened to bend spring bars upward, which lifts some of the weight from the rear wheels and transfers weight to the other wheels of the vehicle and trailer.



Calculating Weight Distribution

- 1 Load trailer similar to the way it will be loaded for the trip with 10% tongue load and park on level ground
- 2 Adjust trailer tongue jack to get trailer level or just slightly nose down
- 3 Load tow vehicle similar to the way it will be used for the trip and park vehicle on level ground
- 4 Adjust and secure weight distribution ball mount height per manufacturer's instructions so tow ball is the same height as trailer coupler when trailer is not connected to tow vehicle
- 5 Measure top of front fender lip above the center of the wheel to ground
- 6 Record this value as "H1"



- 7 Connect trailer to tow ball with no weight distribution bars attached (make sure tongue jack is fully retracted)
- 8 Measure top of front fender lip above the center of the wheel to ground
- 9 Record this value as "H2"



- 10 Adjust weight distribution bars per manufacturer's instructions to get tow vehicle top front of fender lip to "Target Height" and making sure trailer is level to slightly nose down
- 11 Complete coupler latching, electrical connections, safety chains and emergency braking system attachments



WEIGHT DISTRIBUTION HITCH SETUP

VEHICLE	WEIGHT DISTRIBUTION CORRECTION FACTOR
Corsair	Not Required
Nautilus	Not Required
Aviator	Not Required
Navigator	50%

CALCULATION

Vehicle =	
H1 =	
H2 =	
Correction Factor =	
Height Change =	(H2) minus (H1)
Reduction Amount =	(Height Change) times (Correction Factor)
Height Change =	(H2) minus (Reduction Amount)
Target Height =	

CALCULATION EXAMPLE

Vehicle =	Navigator
H1 =	37 inches
H2 =	38 inches
Correction Factor =	50%
Height Change =	38" - 37" = 1 inch
Reduction Amount =	1" x 50% = .50 inches
Height Change =	38" - .50" = 37.50 inches
Target Height =	37.50 inches

Weight Limits

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 dealership sales consultant 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 (check with your sales consultant). When towing, trailer tongue load weight is also part of the Cargo Weight.

Payload is the combined maximum allowable weight of cargo and passengers that the vehicle is designed to carry. It is the Gross Vehicle Weight Rating minus the Base Curb Weight.

$$\text{Base Curb Weight} + \text{Cargo Weight} + \text{Passenger Weight} = \text{Gross Vehicle Weight (GVW)}$$

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

GROSS VEHICLE WEIGHT (GVW) is the 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 (including passengers and cargo). This number – along with other weight limits, as well as tire, rim size and inflation pressure data – is shown on the vehicle's Safety Compliance Certification Label (see below), located on the left front door lock facing or the door latch post pillar. **The GVW must never exceed the GVWR.**

GROSS AXLE WEIGHT (GAW) is the total weight placed on each axle (front and 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. For rear GAW, weigh the towing vehicle with trailer attached, but with just the four wheels of the vehicle on the scale. Subtracting front GAW from that amount gives you rear GAW.

GROSS AXLE WEIGHT RATING (GAWR) is the maximum weight to be carried by a single axle (front or rear). These numbers are also shown on the Safety Compliance Certification Label. **The total load on each axle must never exceed its GAWR.**

$$\text{GVW} + \text{Loaded Trailer Weight} = \text{Gross Combination Weight (GCW)}$$

GCW must not exceed GCWR (obtain from charts on pages 3 and 6 or your vehicle owner's manual).

MEASURING TONGUE LOAD WITH COMMERCIAL SCALE

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

Know Your Weights

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 vehicle can handle without risking damage. (Important: The towing vehicle's brake system is rated for 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 is the highest possible weight of a fully-loaded trailer the vehicle can tow (as shown in the Trailer Towing Selector charts on pages 3–6), based on a minimum towing vehicle GVW. It assumes a towing vehicle with any mandatory options, no cargo, tongue load of 10% weight, and driver and passenger (150 lbs. each). Weight of additional options, passengers, cargo and hitch must be deducted from this weight.

Tongue Load 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 load 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 can be severely decreased. Too little tongue load weight can reduce rear-wheel traction and cause instability, which may result in tail wagging or jackknifing.

Tongue load weights must meet the following requirements:*

For trailers up to 2,000 lbs., tongue load not to exceed 200 lbs.

For conventional trailers over 2,000 lbs., tongue load is 10% of loaded trailer weight

Example: For a 5,000-lb. conventional trailer, multiply 5,000 by .10 to obtain a proper tongue load of 500 lbs.

Note: Be sure the addition of tongue load weight does not cause the key towing vehicle weight limits (GVWR and Rear GAWR) to be exceeded. Remember, GVWR and GAWR are found on the vehicle's Safety Compliance Certification Label (shown at right). If either of these limits is exceeded, you should go with a larger vehicle or a smaller trailer.

*Refer to the charts on vehicle pages 3–6 for tongue load recommendations with Lincoln factory-installed trailer hitch receivers.



Towing Basics

Towing a trailer is demanding on your vehicle, your trailer and your personal driving skills.

Follow some basic rules that will help you tow safely and have a lot more fun.

CARGO AND WEIGHT DISTRIBUTION

For optimum handling and braking, the load must be properly distributed

Keep center of gravity low for best handling

Approximately 60% of the allowable cargo weight should be in the front half of the trailer and 40% in the rear (within limits of tongue load weight)

Load should be balanced from side-to-side to optimize handling and 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 up your trailer in an area away from heavy traffic

Know clearance required for trailer roof

Check equipment (make a checklist)

BACKING UP

Back up slowly, with someone spotting near the rear of the 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 steering inputs – slight movement of steering wheel results in much greater movement in rear of trailer

TURNING

When turning, be sure to swing wide enough to allow trailer to avoid curbs and other obstructions.

BRAKING

Allow considerably more distance for stopping with trailer attached

Remember, the braking system of the tow vehicle is rated for operation at the GVWR, not GCWR

If your tow vehicle is a Navigator and your trailer has electric brakes, the optional Integrated Trailer Brake Controller (TBC) assists in smooth and effective trailer braking by powering the trailer's electric or electric-over-hydraulic brakes with proportional output based on the towing vehicle's brake pressure

If you are experiencing trailer sway and your vehicle is equipped with electric brakes and a brake controller, activate the trailer brakes with the brake controller by hand. Do not apply the tow vehicle brakes as this can result in increased sway

PARKING WITH A TRAILER

Whenever possible, vehicles with trailers should not be parked on a grade. However, if it is necessary, place wheel chocks under the trailer's wheels, following the instructions below:

Apply the foot service brakes and hold

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

Once the chocks are in place, release brake pedal, making sure the chocks will hold the vehicle and trailer

Apply the parking brake

Shift automatic transmission into park

With 4-wheel drive, make sure the transfer case is not in neutral (if applicable)

STARTING OUT PARKED ON A GRADE

Apply the foot service brake and hold

Start the engine with transmission in park

Shift the transmission into gear and release the parking brake

Release the brake pedal and move the vehicle uphill to free the chocks

Apply the brake pedal while another person retrieves the chocks

TOWING ON HILLS

Downshift the transmission to assist braking on steep downgrades and to increase power (reduce lugging) when climbing hills.

ACCELERATION AND PASSING

The added weight of the trailer can dramatically decrease the acceleration of the towing vehicle – exercise caution

When passing a slower vehicle, be sure to allow extra distance. Remember, the added length of the trailer must clear the other vehicle before you can pull back in

Signal and 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 – may cause excessive shifting between overdrive and the next lower gear

To eliminate this condition and achieve steadier performance, overdrive can be locked out (refer to the owner's manual)

If excessive shifting does not occur, use overdrive to enhance performance

Overdrive may also be locked out to obtain engine braking on downgrades

When available, select tow/haul mode to automatically eliminate unwanted gear search and help control vehicle speed when going downhill

DRIVING WITH CRUISE CONTROL

Turn off the cruise control with heavy loads or in hilly terrain. The cruise control may turn off automatically when you are towing on long, steep grades. Use caution while driving on wet roads and avoid using cruise control in rainy or winter weather conditions.

TIRE PRESSURE

Underinflated tires get hot and may fail, leading to possible loss of vehicle control

Overinflated tires may wear unevenly and compromise traction and stopping capability

Tires should be checked often for conformance to recommended cold inflation pressures

SPARE TIRE USE

A conventional, identical full-size spare tire is required for trailer towing (mini, compact and dissimilar full-size spare tires **should not** be used; always replace the spare tire with a new road tire as soon as possible).

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

Your vehicle may have reduced performance when operating at high altitudes and when heavily loaded or towing a trailer. While driving at elevation, in order to match driving performance as perceived at sea level, reduce GVWs and GCWs by 2% per 1,000 ft. elevation.

POWERTRAIN/FRONTAL AREA CONSIDERATIONS

The charts in this Guide show the minimum powertrain needed to achieve an acceptable towing performance for the listed GCW of 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 is wise to choose a vehicle with a higher rating

Towing performance is maximized with a low-drag, rounded front design trailer

SELECTING A TRIM SERIES

Your specific vehicle's tow capability could be reduced based on weight of selected trim series and option content.

Note: For additional trailering information pertaining to your vehicle, refer to the vehicle owner's manual.