

Towing Information Conclusions

*145" 4x4 used where applicable

- 5,000 lbs. tow rating for the bumper
- 7,000 lbs. tow rating without tow or max tow (tow tech does not exceed this)
 - 6,000 lbs for 2.7L
- Trailer Tow and, Max Trailer Tow, HDPP or 122WB get a solid stabilizer bar
- Ecoboost 3.5L WITH Trailer Tow or above and Powerboost WITH OR WITHOUT any tow package get a larger radiator

General Towing Info

TOWING EQUIPMENT

It is essential that your vehicle includes any optional equipment needed to best perform its expected towing tasks. This equipment falls into two categories: **Required and Recommended**.

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.

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

Transit Connect

For trailers over 1,500 pounds – Class I Trailer Tow Package (53T)

Edge

For trailers over 1,500 pounds – Class II Trailer Tow Package (53G) and AWD

RECOMMENDED EQUIPMENT

(where not required)

Includes items that can make towing easier, and are strongly recommended for strenuous towing conditions. A weight-carrying hitch is recommended for all vehicles towing trailers less than 5,000 pounds. See pages 40 and 41 for weight-distributing hitch towing requirements.

Bronco Sport

For trailers over 1,500 pounds – Class II Trailer Tow Package (53B)

Escape

For trailers over 2,000 pounds – Class II Trailer Tow Package (536)

Bronco

For trailers over 2,000 pounds – Class II Trailer Tow Package (53Q)

Explorer

For trailers over 3,000 pounds – Class III Trailer Tow Package (52T)

Expedition

For trailers over 6,000 pounds – Class IV Heavy-Duty Trailer Tow Package (536)

Transit

For trailers over 5,000 pounds – Heavy-Duty Trailer Tow Package (53B)

Ranger

For trailers over 3,500 pounds – Trailer Tow Package (53R)

F-150 Pickup

For trailers over 5,000 pounds – Trailer Tow Package (17T, 53A, 53B) or Max Trailer Tow Package (53C)

F-250 Pickup

For 20,000-pound conventional tow rating – High-Capacity Trailer Tow Package (535) with 18" All-Season or 20" All-Terrain Tires

F-450/F-550 Chassis Cab

For 37,000/40,000-pound GCWR on F-550; 35,000-pound GCWR on F-450 – High-Capacity Trailer Tow Package (535)

For a listing of all CUV/SUV/Truck standard and optional towing equipment, see chart on the next page.

Tow Ratings (EcoBoost/PowerBoost)

F-150

F-150 King Ranch® SuperCrew 4x2 in Agate Black

CONVENTIONAL TOWING

MAXIMUM LOADED TRAILER WEIGHT (lbs.)

Towing capability will be reduced based on trim series, option content and payload. Prior to making final vehicle selection, reference the Towing Basics information on the last page of this Towing Guide. See dealer and reference "eSourceBook" Job Aid "Spec'ing F-Series Trucks for Towing".

Automatic Transmission			REGULAR CAB				SUPERCAB				SUPERCREW®			
Engine	Axle Ratio	GCWR (lbs.)	4x2 122.8" WB	4x4 141.5" WB	4x4 122.8" WB	4x4 141.5" WB	4x2 145.4" WB	4x4 164.1" WB	4x4 145.4" WB	4x4 164.1" WB	4x2 145.4" WB	4x4 157.2" WB	4x4 145.4" WB	4x4 157.2" WB
2.7L GTDI V6 ⁴	3.15	12,200	7,600	—	—	—	—	—	—	—	—	—	—	—
		12,300	—	7,600	—	—	—	—	—	—	—	—	—	—
		12,600	—	—	—	—	7,700	7,600	—	—	—	—	—	—
		12,700	—	—	—	—	—	—	—	—	7,700	—	—	—
		12,800	—	—	—	—	—	—	—	—	—	7,800	—	—
		12,200	7,600	—	—	—	—	—	—	—	—	—	—	—
	3.55	12,300	—	7,600	—	—	—	—	—	—	—	—	—	—
		12,500	—	—	7,700	—	—	—	—	—	—	—	—	—
		12,600	—	—	—	7,700	7,700	7,600	—	—	—	—	—	—
		12,700	—	—	—	—	—	—	—	—	7,700	—	—	—
		12,800	—	—	—	—	—	—	7,600	—	—	7,800	—	—
		12,900	—	—	—	—	—	—	—	—	—	—	7,700	—
	3.73	13,200	8,600	—	—	—	—	—	—	—	—	—	—	—
		13,300	—	8,600	8,500	8,400	8,400	8,300	8,100	—	8,300	8,300	8,100	—
		14,800 ¹	—	10,000	—	—	—	—	—	—	—	—	—	—
		15,000 ¹	—	—	—	—	10,000	—	—	—	—	—	—	—
		15,100 ¹	—	—	—	10,000	—	10,000	—	—	10,000	10,000	—	—
		15,300 ¹	—	—	—	—	—	—	10,100	—	—	—	—	—
3.5L GTDI V6 ⁵	3.31	15,400 ¹	—	—	—	—	—	—	—	—	—	10,100	—	—
		16,100	—	11,200	—	—	—	—	—	—	—	—	—	—
		16,200	—	—	—	—	11,000	—	—	—	—	—	—	—
		16,400	—	—	—	11,200	—	—	—	—	—	—	—	—
		16,500	—	—	—	—	—	11,200	11,100	—	11,200	—	—	—
		16,600	—	—	—	—	—	—	—	—	—	11,300	—	—
	3.55	16,800	—	—	—	—	—	—	—	11,200	—	—	11,300	11,200
		16,100	—	11,200	—	—	—	—	—	—	—	—	—	—
		16,200	—	—	—	—	11,000	—	—	—	—	—	—	—
		16,400	—	—	—	11,200	—	—	—	—	—	—	—	—
		16,500	—	—	—	—	—	11,200	11,100	—	11,200	—	—	—
		16,600	—	—	—	—	—	—	—	—	—	11,300	—	—
	3.73	16,800	—	—	—	—	—	—	—	11,200	—	—	11,300	11,200
		17,500 ²	—	—	—	—	12,300	—	—	—	—	—	—	—
		17,700 ²	—	—	—	—	—	—	12,300	—	—	—	—	—
		17,900 ²	—	13,000	—	12,700	—	—	—	—	—	—	—	—
		19,300 ²	—	—	—	—	—	—	—	—	14,000	—	—	—
		19,400 ²	—	—	—	—	—	14,000	—	13,800	—	14,000	13,900	13,800
3.5L Hybrid V6 ⁵	3.73	18,400 ^{2,3}	—	13,300	—	13,100	—	—	—	—	—	—	—	—
		19,400 ^{2,3}	—	—	—	—	—	14,000	—	13,800	—	14,000	—	—
		19,500 ^{2,3}	—	—	—	—	—	—	—	—	—	—	—	13,800
	3.55	16,700	—	—	—	—	—	—	—	—	11,000	—	—	—
		16,800	—	—	—	—	—	—	—	—	—	11,100	—	—
		18,400 ²	—	—	—	—	—	—	—	—	12,700	12,700	—	—
	3.73	17,000	—	—	—	—	—	—	—	—	—	—	11,000	11,000
		18,400 ²	—	—	—	—	—	—	—	—	—	—	12,400	12,400

1 Requires 2.7L EcoBoost® Payload Package (622). **2** Requires Max Trailer Tow Package (53C). **3** Requires Heavy-Duty Payload Package (627). **4** Do not exceed a trailer weight of 6,000 lbs. (2,721 kg) or 36 sq. ft. (3.4 sq. m) trailer frontal area with only the Class IV hitch (53B), without the Trailer Tow Package (53A). **5** Do not exceed a trailer weight of 7,000 lbs. (3,175 kg) or 36 sq. ft. (3.4 sq. m) trailer frontal area with only the Class IV hitch (53B), without the Trailer Tow Package (53A).

Notes:

- Calculated with SAE J2807® method.
- Do not exceed trailer weight of 5,000 lbs. when towing with bumper only.
- Combined weight of vehicle and trailer cannot exceed listed GCWR.
- Do not exceed the Maximum Loaded Trailer Weight listed.
- Trailer tongue load weight should be 10% of total loaded trailer weight. **Make sure vehicle payload (reduce 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.

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 Ford Dealer.

Tow Guide Chart

CUV/SUV/TRUCK TOWING EQUIPMENT & TRAILER TOWING PACKAGES

1,000 Mustang

5

Model (Option Code)	F-150 (Std.)	F-150 (17T)	F-150 (53B)	F-150 (53A)	F-150 (53C)
7-Wire Harness & 4-/7-Pin Connector	-	-	X	X	X
7-Wire Harness (Blunt Cut) with Relay	-	-	-	-	-
Trailer Wiring Harness (4-Pin)	X	-	-	-	-
Trailer Module	-	-	-	-	-
Trailer Wiring Provision	-	-	-	-	-
Hitch Receiver (See chart on page 41)	-	-	X	X	X
Aux. Auto Trans. Oil Cooler	-	-	-	-	-
Radiator Upgrade	-	-	-	-	-
Smart Trailer Tow Connector	-	X	X	X	X
Trailer Brake Wiring/Feed Kit	-	-	-	-	-
Upgraded Rear Axle	-	-	-	-	X
Increased GCW (6.7L)	-	-	-	-	-
Upgraded Rear Bumper	-	-	-	-	X
Tow/Haul Mode	X	S	S	S	S
2-Speed Automatic 4WD	-	-	-	-	-
Ultimate Trailer Tow Camera System	-	-	-	-	-
Trailer Brake Controller	-	X	-	X	X
Trailer Sway Control	X	S	S	S	S
Trailer Reverse Guidance	-	X	-	-	-
360-Degree Camera	-	X	-	-	-
Lane Keeping Alert	-	-	-	-	-
Tailgate LED	-	X	-	X	X
Pro Trailer Backup Assist	-	X	-	X ⁵	X ⁵
36-Gallon Fuel Tank	-	-	-	-	X ⁶
Full-Size Spare Tire	X	S	S	S	S

17T: Tow Technology Package

53A: Trailer Tow Package

53B: Class IV Receiver

53C: Max Trailer Tow Package

763: “360-degree Camera” includes trailer reverse guidance and requires “trailer tow” or “max trailer tow”

¹ Available with 2.0L EcoBoost[®] I4 or 2.7L I4 PowerBoost[™] I4 only. ² Available with twin-scroll 2.0L EcoBoost I4 only and AWD only. Standard on ST. ³ 4x4 only. ⁴ Includes relay system for backup/B+ running lights. ⁵ Not included on XL 100A. ⁶ Not available with 3.0L Power Stroke[®] or 3.5L PowerBoost[™] engines. ⁷ F-350 DRW/F-450 only. ⁸ In-cab, no controller (SRW). ⁹ Requires 6.7L diesel engine. ¹⁰ Required on XL. ¹¹ XL model only. ¹² Not included if Trailer Brake Controller is ordered. ¹³ Not available on Cutaway or Chassis Cab models.

notes: • Content may vary depending on model, trim and/or powertrain. See your Ford Dealer for specific content information.
• Trailer Towing Package recommended for all light trucks that will be used for towing to help ensure easy, proper connection of trailer lights.

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 Ford Dealer.

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★ 360-Degree Camera Package (req. Trailer Tow Pkg (53A) or Max Trailer Tow Pkg (53C); inclu. Trailer Reverse Guidance)
Note: reqs. Mirrors 54R or 54Y on 300A and Mirrors 54Y or 59S on 301A

763

Stabilizer Bar Specs

- Tow/Max Tow/HDPP Required for Solid Stabilizer Bar

Stabilizer Bar	Position/Diameter/Type	Front/36 mm/hollow ⁽¹⁾
TIRES:	Type	Steel-belted radial all-terrain
	Size	Five 235/75R17 BSW less 8,200-lb. GVWR; five LT245/75R17E BSW with 8,200-lb. GVWR
	Spare Tire Carrier	Rear underframe, winch-type with safety catch (locking-type, lock cylinder in rear bumper opened by ignition key)
WHEELS:	Type and Size	Four 17" x 7.5" gray styled steel with same-size steel spare (6-hole disc); five 17" x 7.5" 7-lug steel (7-hole disc) with 8,200-lb. GVWR

(1) All 122" WB models get a stiffer 36 mm solid **stabilizer bar** along with models equipped with either the Trailer Tow Package (53A) or the Max Trailer Tow Package (53C). Models with the Heavy-Duty Payload Package (627) get a 36 mm solid **stabilizer bar** as well.

- NOTE:** Refer to Weight Ratings for Standard & Available Weight Rating Specifications (GVWR/Payload/Spring & GAWR/Base Curb Weight).
- NOTE:** Specifications and descriptions contained within are based upon the most current information available at the time of release. Content subject to change.

Radiator Specs

2021 F-150 > Specs > Powertrain

Cooling System Specifications

Engine	Radiator Usage	Frontal Area ⁽¹⁾ (sq. cm)	Core Size (mm)			Rows of Tubes	Fins Per dm	Cooling System Cap. (liters)	Fans	
			Height	Width	Core				Diameter (Left/Right) (mm)	No. of Blades (Left/Right)
3.3L V6	Standard	4,000	454.3	880	26	56	75	12	375/395	5/7
2.7L EcoBoost V6	Standard	4,000	454.3	880	26	56	75	14.3	375/395	5/7
	Trailer Tow ⁽²⁾	4,000	454.3	880	32	56	75			
5.0L V8	Standard	4,000	454.3	880	26	56	75	12.5	375/395	5/7
3.5L EcoBoost V6	Standard	4,000	454.3	880	26	56	75	13.5	375/395	5/7
	Trailer Tow ⁽³⁾	4,000	457.4	880	28	61	85			
3.0L Power Stroke V6 Turbo Diesel	Standard	4,000	454.3	880	32	56	75	13.0	375/395	5/7
3.5L PowerBoost V6 Full Hybrid	Standard	4,000	457.4	880	28	61	85	14.5 High Temp loop 6.8 Low Temp loop	375/395	5/7
	Trailer Tow ⁽³⁾	4,000	457.4	880	28	61	85			5/7

- (1) Based on front face area of the radiator.
- (2) Trailer tow class Heavy CICAЕ.
- (3) Trailer tow class Heavy CICAЕ, Max CICAР and SuperMax CICAQ.

NOTE: Specifications and descriptions contained within are based upon the most current information available at the time of release. Content subject to change.

Brake System Specs

- Max Tow and HDPP get larger rear brakes and upgraded parking brake

2021 F-150 > Specs > Chassis

Brake System Specifications

	Standard	Heavy-Duty	With Heavy-Duty Payload or Max Trailer Tow Package
Description	Power vented disc with Anti-lock Braking System (ABS), Electronically controlled Brake Boost and Automatic Emergency Braking (AEB)		
Front Specifications			
Rotor Material	Nitro Tough Iron		
Rotor Size (dia. x thickness) (mm)	350 x 34		
Swept Area (sq. mm)	51,547		
Caliper Description	Sliding-caliper, Dual-piston		
Caliper Piston Dia. (x2; mm)	51		
Rear			
Rotor Material	Nitro Tough Iron		
Rotor Size (dia. x thickness) (mm)	336 x 20		350 x 24
Caliper Description	Sliding-caliper, Single-piston with electric Integrated Parking Brake (eIPB)		
Caliper Piston Dia. (mm)	54/2.13		
Swept Area (sq. mm)	40,998		42,997
Electric Parking Brake Rating (kN)	18.5	25.5	

Axle Specs

- Max tow should get a 9.75 ring gear (though 4150 GAWR isn't specifically called out so we don't know if it is the ¾ float HD axle)

2021 F-150 > Specs > Chassis

Rear Axle Specifications

Series/Model		F-150 4x2			F-150 4x4		
Gross Axle Weight Rating (GAWR) (lbs.)		3,400-3,800	3,800-4,050	4,800 ⁽¹⁾	3,400-3,800	3,800-4,050	4,800 ⁽¹⁾
Make		Standard/electronic-locking		Electronic-locking	Standard/Electronic-locking		Electronic-locking
Axle Ratios (:1)		3.15, 3.31, 3.55, 3.73	3.31, 3.55, 3.73	3.55, 3.73	3.15, 3.31, 3.55, 3.73	3.31, 3.55, 3.73	3.55, 3.73
Ring Gear	Pitch Diameter (in.)	8.80	9.75	9.75HD	8.80	9.75	9.75HD
Housing	Type	Cast center					
	Cover Attachment	Bolted					
	Cover Seal Method	RTV Silicone	Gasket				
Lubricant Capacity (pt.)		4.0-4.15		4.5-4.65	4.0-4.15		4.5-4.65
Wheel Bearings	Type	Straight roller					
Gears	Type	Hypoid					
	Material	Alloy steel					
Pinion	Mounting	Overhung					
Differential	Type	2-pinion					
	Bearings	Tapered roller					

(1) With Heavy-Duty Payload Package.

NOTE: Specifications and descriptions contained within are based upon the most current information available at the time of release. Content subject to change.

Weight Ratings — 4x4

Cab Style/Drive/ WB (in.)	Engine	Max. GVWR (lbs.)	Max. Payload (lbs.) ⁽¹⁾	Max. Total ARC Weight (lbs.) ⁽²⁾	Max. GAWR (lbs.) ⁽³⁾		Base Curb Weight (lbs.)		
					Front	Rear	Front	Rear	Total
Regular Cab 4x4 122.8	3.3L PFDI V6	6,050	1,775	580	3,000	3,400	2,549	1,726	4,275
	2.7L EcoBoost	6,150	1,705	598	3,150	3,400	2,677	1,764	4,441
	5.0L PFDI	6,400	1,835	583	3,150	3,800	2,769	1,795	4,564
Regular Cab 4x4 141.5	3.3L PFDI V6	6,325	1,960	673	3,150	3,400	2,691	1,672	4,363
	2.7L EcoBoost	6,435	1,885	699	3,300	3,400	2,837	1,709	4,546
	2.7L EcoBoost ⁽⁴⁾	6,800	2,125	704	3,300	3,800	2,874	1,798	4,672
	5.0L PFDI	6,950	2,300	752	3,375	4,150	2,887	1,763	4,650
	3.5L EcoBoost	7,050	2,360	735	3,300	4,150	2,839	1,851	4,690
	5.0L PFDI ⁽⁵⁾	7,850	3,050	674	3,400	4,800	2,895	1,902	4,797
	3.5L EcoBoost ⁽⁵⁾	7,850	3,035	665	3,400	4,800	2,882	1,932	4,814
SuperCab 4x4 145.4	3.3L PFDI V6	6,480	1,880	736	3,375	3,400	2,754	1,844	4,598
	2.7L EcoBoost	6,500	1,745	825	3,600	3,400	2,874	1,881	4,755
	2.7L EcoBoost ⁽⁴⁾	7,000	2,165	852	3,600	3,800	2,894	1,937	4,831
	5.0L PFDI	7,050	2,240	888	3,600	3,800	2,929	1,881	4,810
	3.5L EcoBoost	7,050	2,190	883	3,600	3,800	2,907	1,953	4,860
	3.0L V6 Diesel	7,050	1,840	800	3,900	4,050	3,135	2,072	5,208
SuperCab 4x4 164.1	5.0L PFDI	7,150	2,205	899	3,650	4,150	2,929	2,012	4,941
	3.5L EcoBoost	7,150	2,125	892	3,600	4,150	2,898	2,127	5,025
	5.0L PFDI ⁽⁵⁾	7,850	2,765	782	3,750	4,800	2,975	2,107	5,082
	3.5L EcoBoost ⁽⁵⁾	7,850	2,740	770	3,750	4,800	2,969	2,137	5,106
SuperCrew 4x4 145.4	3.3L PFDI V6	6,470	1,765	786	3,450	3,400	2,809	1,896	4,705
	2.7L EcoBoost	6,600	1,760	842	3,600	3,400	2,916	1,922	4,838
	2.7L EcoBoost ⁽⁴⁾	6,900	1,965	903	3,600	3,800	2,937	1,994	4,931
	5.0L PFDI	7,050	2,135	939	3,650	3,800	2,976	1,936	4,912
	3.5L EcoBoost	7,050	2,100	934	3,650	4,150	2,944	2,004	4,948
	3.0L V6 Diesel	7,050	1,805	871	3,900	4,050	3,126	2,117	5,243
	3.5L PowerBoost V6 Full Hybrid	7,350	1,830	846	3,900	4,150	3,253	2,264	5,517
SuperCrew 4x4 157.2	5.0L PFDI	7,150	2,135	870	3,850	4,150	3,098	1,916	5,014
	3.5L EcoBoost	7,150	2,155	938	3,750	4,150	3,011	1,984	4,995
	5.0L PFDI ⁽⁵⁾	7,850	2,650	824	3,750	4,800	3,115	2,084	5,199
	3.5L EcoBoost ⁽⁵⁾	7,850	2,640	813	3,750	4,800	3,099	2,110	5,209
	3.0L V6 Diesel (TOD 4x4)	7,100	1,805	876	3,900	4,050	3,196	2,096	5,292
	3.5L EcoBoost V6 Full Hybrid	7,350	1,810	890	4,050	4,150	3,332	2,208	5,540

Resources

- <https://madocumentupload.marketingassociates.com/api/Document/GetFile?v1=5641570&v2=111920092100&v3=60&v4=caea1d9003ba93502f51201d1cadadd0f9dda860921822f9ad19a054&v5=False>
- <https://www.f150gen14.com/forum/attachments/2021-f-150-source-book-pdf.831/>
- https://www.fleet.ford.com/content/dam/aem_fleet/en_us/fleet/towing-guides/2021_Ford_RVandTrailerTowingGuide.pdf
- https://www.f150gen14.com/forum/attachments/2021-ford-f-150-owners-manual-version-1_om_en-us_09_2020-pdf.2795/