

SECTION 204-00: Suspension System — General Information
SPECIFICATIONS

2014 F-150 Workshop Manual
Procedure revision date: 10/25/2013

Material

Item	Specification	Fill Capacity
Motorcraft® Wheel and Tire Cleaner ZC-37-A	—	—

Alignment Specifications

Item	LH	RH	Total/Split
Rear Wheel Drive (RWD)			
Camber	$-0.2^{\circ} \pm 0.75^{\circ}$	$-0.4^{\circ} \pm 0.75^{\circ}$	$0.2^{\circ} \pm 0.75^{\circ}$
Caster	$3.9^{\circ} \pm 1.0^{\circ}$	$4.3^{\circ} \pm 1.0^{\circ}$	$-0.4^{\circ} \pm 0.75^{\circ}$
Total toe (front)	—	—	$0.20^{\circ} \pm 0.20^{\circ}$
Thrust angle (rear)	—	—	$0.0^{\circ} \pm 0.50^{\circ}$
Four-Wheel Drive (4WD) (all except SVT Raptor)			
Camber	$-0.2^{\circ} \pm 0.75^{\circ}$	$-0.4^{\circ} \pm 0.75^{\circ}$	$0.2^{\circ} \pm 0.75^{\circ}$
Caster	$3.8^{\circ} \pm 1.0^{\circ}$	$4.2^{\circ} \pm 1.0^{\circ}$	$-0.4^{\circ} \pm 0.75^{\circ}$
Total toe (front)	—	—	$0.20^{\circ} \pm 0.20^{\circ}$
Thrust angle (rear)	—	—	$0.0^{\circ} \pm 0.50^{\circ}$
Four-Wheel Drive (4WD) (SVT Raptor)			
Camber	$-0.45^{\circ} \pm 0.75^{\circ}$	$-0.45^{\circ} \pm 0.75^{\circ}$	$0.2^{\circ} \pm 0.75^{\circ}$
Caster	$3.7^{\circ} \pm 1.0^{\circ}$	$4.1^{\circ} \pm 1.0^{\circ}$	$0.0^{\circ} \pm 0.75^{\circ}$
Total toe (front)	—	—	$0.20^{\circ} \pm 0.20^{\circ}$
Thrust angle (rear)	—	—	$0.0^{\circ} \pm 0.50^{\circ}$

General Specifications

Item	Specification
Ball Joint Deflection, All Vehicles	
Lower	0-0.8 mm (0-0.032 in)
Upper	0-0.2 mm (0-0.008 in)
Ride Height — Four-Wheel Drive (4WD) Crew Cab	
145-in wheelbase, 3.5L GTDI	
Front	114 mm (4.488 in)
	± 12 mm (0.472 in)
Rear	163 mm (6.417 in)

	± 12 mm (0.472 in)
145-in wheelbase, 3.5L GTDI (Max Trailer Tow)	
Front	116 mm (4.488 in)
	± 12 mm (0.472 in)
Rear	164 mm (6.456 in)
	± 12 mm (0.472 in)
145-in wheelbase, 5.0L	
Front	113 mm (4.448 in)
	± 12 mm (0.472 in)
Rear	163 mm (6.417 in)
	± 12 mm (0.472 in)
145-in wheelbase, 6.2L (Max Trailer Tow)	
Front	107 mm (4.212 in)
	± 12 mm (0.472 in)
Rear	149 mm (5.866 in)
	± 12 mm (0.472 in)
145-in wheelbase, 6.2L (Harley/Lariat Ltd)	
Front	107 mm (4.212 in)
	± 12 mm (0.472 in)
Rear	146 mm (5.748 in)
	± 12 mm (0.472 in)
157-in wheelbase, 3.5L GTDI	
Front	114 mm (4.488 in)
	± 12 mm (0.472 in)
Rear	162 mm (6.377 in)
	± 12 mm (0.472 in)
157-in wheelbase, 3.5L GTDI (Max Trailer Tow)	
Front	113 mm (4.448 in)
	± 12 mm (0.472 in)
Rear	164 mm (6.456 in)
	± 12 mm (0.472 in)
157-in wheelbase, 5.0L	
Front	114 mm (4.488 in)
	± 12 mm (0.472 in)

Rear	160 mm (6.299 in) ± 12 mm (0.472 in)
Ride Height — 4WD Heavy Duty	
Regular cab, 145-in wheelbase, 3.5L GTDI	
Front	110 mm (4.330 in) ± 12 mm (0.472 in)
Rear	198 mm (7.795 in) ± 12 mm (0.472 in)
Regular cab, 145-in wheelbase, 5.0L	
Front	109 mm (4.291 in) ± 12 mm (0.472 in)
Rear	197 mm (7.755 in) ± 12 mm (0.472 in)
SuperCab, 163-in wheelbase, 3.5L GTDI	
Front	115 mm (4.527 in) ± 12 mm (0.472 in)
Rear	182 mm (7.165 in) ± 12 mm (0.472 in)
SuperCab, 163-in wheelbase, 5.0L	
Front	113 mm (4.448 in) ± 12 mm (0.472 in)
Rear	181 mm (7.125 in) ± 12 mm (0.472 in)
Ride Height — 4WD Regular Cab	
126-in wheelbase, 3.7L	
Front	111 mm (4.370 in) ± 12 mm (0.472 in)
Rear	174 mm (6.850 in) ± 12 mm (0.472 in)
126-in wheelbase, 5.0L	
Front	112 mm (4.409 in) ± 12 mm (0.472 in)
Rear	172 mm (6.771 in) ± 12 mm (0.472 in)
145-in wheelbase, 3.5L 2 GTDI	
Front	111 mm (4.370 in)

Rear	± 12 mm (0.472 in) 185 mm (7.283 in) ± 12 mm (0.472 in)
145-in wheelbase, 3.7L	
Front	111 mm (4.370 in)
	± 12 mm (0.472 in)
Rear	190 mm (7.480 in)
	± 12 mm (0.472 in)
145-in wheelbase, 5.0L	
Front	112 mm (4.409 in)
	± 12 mm (0.472 in)
Rear	185 mm (7.283 in)
	± 12 mm (0.472 in)
Ride Height — 4WD SuperCab	
145-in wheelbase, 3.5L GTDI	
Front	113 mm (4.448 in)
	± 12 mm (0.472 in)
Rear	171 mm (6.732 in)
	± 12 mm (0.472 in)
145-in wheelbase, 3.5L GTDI (Max Trailer Tow)	
Front	112 mm (4.409 in)
	± 12 mm (0.472 in)
Rear	172 mm (6.771 in)
	± 12 mm (0.472 in)
145-in wheelbase, 3.7L	
Front	112 mm (4.409 in)
	± 12 mm (0.472 in)
Rear	175 mm (6.889 in)
	± 12 mm (0.472 in)
133-in wheelbase, 5.0L	
Front	111 mm (4.370 in)
	± 12 mm (0.472 in)
Rear	169 mm (6.653 in)
	± 12 mm (0.472 in)

Ride Height — Rear Wheel Drive (RWD) Crew Cab	
145-in wheelbase, 3.5L GTDI	
Front	108 mm (4.251 in)
	± 12 mm (0.472 in)
Rear	162 mm (6.377 in)
	± 12 mm (0.472 in)
145-in wheelbase, 3.5L GTDI (Max Trailer Tow)	
Front	108 mm (4.251 in)
	± 12 mm (0.472 in)
Rear	163 mm (6.417 in)
	± 12 mm (0.472 in)
145-in wheelbase, 3.7L	
Front	114 mm (4.488 in)
	± 12 mm (0.472 in)
Rear	167 mm (6.574 in)
	± 12 mm (0.472 in)
145-in wheelbase, 5.0L	
Front	109 mm (4.291 in)
	± 12 mm (0.472 in)
Rear	163 mm (6.417 in)
	± 12 mm (0.472 in)
145-in wheelbase, 6.2L (Max Trailer Tow)	
Front	103 mm (4.055 in)
	± 12 mm (0.472 in)
Rear	148 mm (5.826 in)
	± 12 mm (0.472 in)
145-in wheelbase, 6.2L (Harley/Lariat Ltd)	
Front	102 mm (4.015 in)
	± 12 mm (0.472 in)
Rear	145 mm (5.708 in)
	± 12 mm (0.472 in)
157-in wheelbase, 3.5L GTDI	
Front	109 mm (4.291 in)
	± 12 mm (0.472 in)
Rear	164 mm (6.456 in)

	± 12 mm (0.472 in)
157-in wheelbase, 3.5L GTDI (Max Trailer Tow)	
Front	108 mm (4.251 in)
	± 12 mm (0.472 in)
Rear	165 mm (6.496 in)
	± 12 mm (0.472 in)
157-in wheelbase, 5.0L	
Front	109 mm (4.291 in)
	± 12 mm (0.472 in)
Rear	162 mm (6.377 in)
	± 12 mm (0.472 in)
Ride Height — <u>RWD</u> Heavy Duty	
Regular cab, 145-in wheelbase, 3.5L GTDI	
Front	114 mm (4.488 in)
	± 12 mm (0.472 in)
Rear	195 mm (7.677 in)
	± 12 mm (0.472 in)
Regular cab, 145-in wheelbase, 5.0L	
Front	113 mm (4.448 in)
	± 12 mm (0.472 in)
Rear	193 mm (7.598 in)
	± 12 mm (0.472 in)
SuperCab, 163-in wheelbase, 3.5L GTDI	
Front	118 mm (4.645 in)
	± 12 mm (0.472 in)
Rear	182 mm (7.165 in)
	± 12 mm (0.472 in)
SuperCab, 163-in wheelbase, 5.0L	
Front	116 mm (4.566 in)
	± 12 mm (0.472 in)
Rear	179 mm (7.047 in)
	± 12 mm (0.472 in)
Ride Height — <u>RWD</u> Regular Cab	
126-in wheelbase, 3.7L	
Front	106 mm (4.173 in)

Rear	± 12 mm (0.472 in) 170 mm (6.692 in) ± 12 mm (0.472 in)
126-in wheelbase, 5.0L	
Front	115 mm (4.527 in)
Rear	± 12 mm (0.472 in) 170 mm (6.692 in) ± 12 mm (0.472 in)
145-in wheelbase, 3.5L GTDI	
Front	112 mm (4.409 in)
Rear	± 12 mm (0.472 in) 186 mm (7.322 in) ± 12 mm (0.472 in)
145-in wheelbase, 3.7L	
Front	113 mm (4.448 in)
Rear	± 12 mm (0.472 in) 186 mm (7.322 in) ± 12 mm (0.472 in)
145-in wheelbase, 5.0L	
Front	107 mm (4.212 in)
Rear	± 12 mm (0.472 in) 182 mm (7.165 in) ± 12 mm (0.472 in)
Ride Height — <u>RWD</u> SuperCab	
145-in wheelbase, 3.5L GTDI	
Front	114 mm (4.488 in)
Rear	± 12 mm (0.472 in) 169 mm (6.653 in) ± 12 mm (0.472 in)
145-in wheelbase, 3.5L GTDI (Max Trailer Tow)	
Front	113 mm (4.448 in)
Rear	± 12 mm (0.472 in) 169 mm (6.653 in) ± 12 mm (0.472 in)

145-in wheelbase, 3.7L	
Front	114 mm (4.488 in)
	± 12 mm (0.472 in)
Rear	174 mm (6.850 in)
	± 12 mm (0.472 in)
145-in wheelbase, 5.0L	
Front	114 mm (4.488 in)
	± 12 mm (0.472 in)
Rear	169 mm (6.653 in)
	± 12 mm (0.472 in)
Ride Height — 4WD (SVT Raptor)	
Regular Cab, 5.4L	
Front	129 mm (5.078 in)
	± 12 mm (0.472 in)
Rear	242 mm (9.527 in)
	± 12 mm (0.472 in)
SuperCab, 6.2L	
Front	130 mm (5.1188 in)
	± 12 mm (0.472 in)
Rear	242 mm (9.527 in)
	± 12 mm (0.472 in)
Crew Cab, 6.2L	
Front	127 mm (4.999 in)
	± 12 mm (0.472 in)
Rear	242 mm (9.527 in)
	± 12 mm (0.472 in)
Tire Inflation	
Tires	See safety certification sticker located on driver door jamb
Vehicle Lean (side-to-side height differences), All Vehicles	
Front — maximum	7 mm (0.28 in)
Rear — maximum	8 mm (0.32 in)

Torque Specifications

Description	Nm	lb-ft

Front Suspension		
Cam bolts	350	258
Stabilizer bar bracket nuts	55	41
Stabilizer bar link lower nuts	80	59
Tie-rod jam nuts	103	76

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