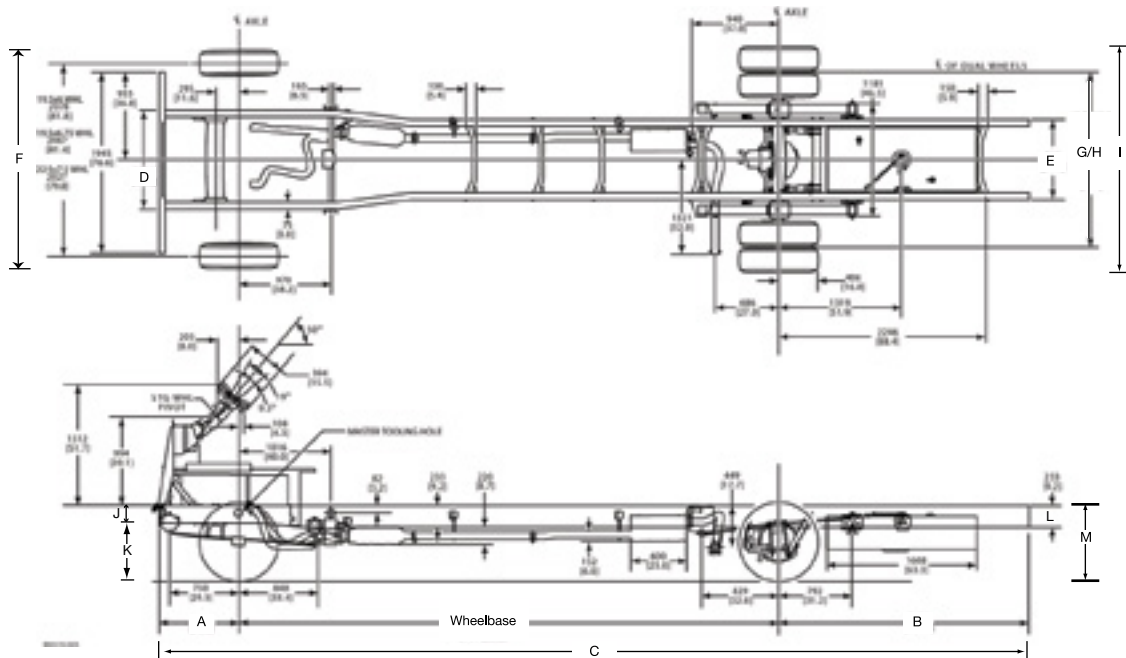


F53 Super Duty Motorhome Chassis

Dimensions

2014



F53 Class A Motorhome Chassis⁽¹⁾

GVWR (lbs.)	16,000	16,000	16,000	18,000	18,000	18,000	18,000	20,500	20,500
Wheelbase (in.)	158.3	178.3	190.3	178.2	190.2	208.2	228.2	208.1	228.1
Code Description (in.)									
A Front Overhang	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3
B Rear Overhang	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8	105.8
C Overall Length	300.1	320.1	332.1	320.1	332.1	350.1	360.1	350.1	360.1
D Front Frame Width	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
E Rear Frame Width	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
F Tire Outside Width (Front)	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6	91.6
G Tire Outside Width (Rear Inner)	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
H Tire Center Width (Rear)	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
I Tire Outside Width (Rear Outer)	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4	95.4
J Frame Front Section Height	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
K Frame Height @ Front Wheel	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3
L Frame Rear Section Height	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
M Frame Height @ Rear Axle	31.6	31.6	31.6	30.8	30.8	30.8	30.8	31.1	31.1

GVWR (lbs.)	22,000	22,000	22,000	24,000	24,000	26,000	26,000
Wheelbase (in.)	208.3	228.3	242.3	242.3	252.3	242.3	252.3
Code Description (in.)							
A Front Overhang	36.3	36.3	36.3	36.3	36.3	36.3	36.3
B Rear Overhang	105.8	105.8	105.8	105.8	105.8	105.8	105.8
C Overall Length	350.1	360.1	374.1	374.1	384.1	374.1	384.1
D Front Frame Width	41.9	41.9	41.9	41.9	41.9	41.9	41.9
E Rear Frame Width	34.0	34.0	34.0	34.0	34.0	34.0	34.0
F Tire Outside Width (Front)	90.7	90.7	90.7	92.6	92.6	92.6	92.6
G Tire Outside Width (Rear Inner)	70.3	70.3	70.3	70.2	70.2	70.2	70.2
H Tire Center Width (Rear)	73.3	73.3	73.3	71.9	71.9	71.9	71.9
I Tire Outside Width (Rear Outer)	95.0	95.0	95.0	95.2	95.2	95.2	95.2
J Frame Front Section Height	7.5	7.5	7.5	7.5	7.5	7.5	7.5
K Frame Height @ Front Wheel	30.5	30.5	30.5	31.2	31.2	31.2	31.2
L Frame Rear Section Height	9.2	9.2	9.2	9.2	9.2	9.2	9.2
M Frame Height @ Rear Axle	34.1	34.1	34.1	35.2	35.2	35.2	35.2

(1) Dimensions @ Strip Chassis.

2014

F53 Super Duty Motorhome Chassis

Dimensions

F53 Class A Motorhome Chassis⁽¹⁾

GVWR (lbs.)	24,000	26,000
Wheelbase (in.)	228.0	228.0
Code Description (in.)		
A Front Overhang	36.3	36.3
B Rear Overhang	105.8	105.8
C Overall Length	360.1	360.1
D Front Frame Width	41.9	41.9
E Rear Frame Width	34.0	34.0
F Tire Outside Width (Front)	92.6	92.6
G Tire Outside Width (Rear Inner)	70.2	70.2
H Tire Center Width (Rear)	71.9	71.9
I Tire Outside Width (Rear Outer)	95.2	95.2
J Frame Front Section Height	7.5	7.5
K Frame Height @ Front Wheel	31.2	31.2
L Frame Rear Section Height	9.2	9.2
M Frame Height @ Rear Axle	35.2	35.2

(1) Dimensions @ Strip Chassis.

F53 Super Duty Motorhome Chassis

Models/Weight Ratings

2014

F53 Class A Motorhome Chassis — GVWR/Payload/GCWR & Trailer Weight/ GAWR/Base Curb Weight

Drive/WB (in.)	Engine/ Trans.	Maximum GVWR (lbs.)	Maximum Payload (lbs.) ⁽¹⁾	Maximum GCWR/Trailer Weight (lbs.)	GAWR (lbs.) ⁽²⁾		Base Curb Weight (lbs.) ⁽³⁾		
					Front	Rear	Front	Rear	Total
4x2 — 158	6.8L/Auto	16,000	9744	23,000/7000	6500	11,000	3063	3193	6256
4x2 — 178	6.8L/Auto	16,000	9722	23,000/7000	6500	11,000	3067	3211	6278
	6.8L/Auto	18,000	11,689	23,000/5000	7000	12,000	3097	3214	6311
4x2 — 190	6.8L/Auto	16,000	9709	23,000/7000	6500	11,000	3069	3222	6291
	6.8L/Auto	18,000	11,649	23,000/5000	7000	12,000	3134	3217	6351
4x2 — 208	6.8L/Auto	18,000	11,588	23,000/5000	7000	12,000	3181	3231	6412
	6.8L/Auto	20,500	14,022	26,000/5500	7000 ⁽⁴⁾	13,500	3217	3261	6478
	6.8L/Auto	22,000	15,353	26,000/4000	8000	15,000	3247	3400	6647
4x2 — 228	6.8L/Auto	18,000	11,520	23,000/5000	7000	12,000	3233	3247	6480
	6.8L/Auto	20,500	13,954	26,000/5500	7000 ⁽⁴⁾	13,500	3269	3277	6546
	6.8L/Auto	22,000	15,267	26,000/4000	8000	15,000	3306	3427	6733
	6.8L/Auto	24,000	16,785	30,000/6000	9000	15,500	3458	3757	7215
	6.8L/Auto	26,000	18,773	30,000/4000	9000	17,500	3458	3769	7227
4x2 — 242	6.8L/Auto	22,000	15,200	26,000/4000	8000	15,000	3348	3452	6800
	6.8L/Auto	24,000	16,718	30,000/6000	9000	15,500	3500	3782	7282
	6.8L/Auto	26,000	18,706	30,000/4000	9000	17,500	3500	3794	7294
4x2 — 252	6.8L/Auto	24,000	16,670	30,000/6000	9000	15,500	3530	3800	7330
	6.8L/Auto	26,000	18,658	30,000/4000	9000	17,500	3530	3812	7342

(1) Load rating represents maximum allowable weight of people, cargo and body equipment and is reduced by optional equipment weight.

(2) Gross axle weight rating is determined by the rated capacity of the minimum component of the axle system (axle, springs, wheels, tires) of a specific vehicle. Front and rear GAWRs will, in all cases, sum to a number equal to or greater than the GVWR for the particular vehicle. Maximum loaded vehicle (including passengers, equipment and payload) cannot exceed the GVW rating or GAWR (front or rear).

(3) Base Curb Weights shown above consider the strip chassis weight with standard equipment, full fuel tank and all other fluids filled to capacity. Optional equipment weights are in pounds as follows: (Front/Total): 19.5" x 6.75" Tires and Wheels (available with 22,000-lb. GVWR only) (-39/-76); Track Bar Heavy-Duty Front Suspension (available with 16,000-lb. GVWR only) (32/32).

(4) Available FGAWR 7500 lbs.

NOTE: Refer to page 94 for Standard Powertrain/Chassis Equipment Specifications.

F53 Chassis Cab/
F59 Commercial Chassis

2014

F53 Super Duty Motorhome Chassis

Standard Powertrain/Chassis Equipment Specifications

F53 Class A Motorhome Chassis⁽¹⁾

DRIVE:	4x2
POWERTRAIN:	
Engine	— Application 50 States
	— Type 6.8L V10 (Includes Cooler)
Transmission	— Type TorqShift Automatic with Tow/Haul Feature (Includes Auxiliary Cooler)
	— Speeds 5-speed Overdrive
AXLES:	
Front Axle	— Type Forged I-beam
	— Capacity (Rating @ Ground) 8000 lbs. with 16,000–22,000-lb. GVWR; 9000 lbs. with 24,000– and 26,000-lb. GVWR
	— King Pin Angle 5.5° (16,000-lb., 22,000-lb. GVWR); 6.5° (24,000-lb., 26,000-lb. GVWR)
	— Caster Angle 4.6° (16,000-lb., 22,000-lb. GVWR); 4.25° (24,000-lb., 26,000-lb. GVWR)
Rear Axle	— Type — Full-floating Full-floating, Dana
	— Capacity (Rating @ Ground) 12,000 lbs. with 16,000–18,000-lb. GVWR, 13,500 lbs. with 20,500-lb. GVWR, 15,000 lbs. with 22,000-lb. GVWR, 17,500 lbs. with 24,000–26,000-lb. GVWR
	— Axle Ratio 4.30 (16,000-lb. and 18,000-lb. GVWR); 5.38 (20,500-lb. and 22,000-lb. GVWR); 6.17 (24,000-lb. and 26,000-lb. GVWR)
BRAKES:	
Front/Rear Disc	— Type Dual Piston Pin Slider Calipers, Bolt-on Adapters, Wraparound Tie Bars (Exc. 66 Rear)
	— Rotor Diameter—Front/Rear 15.55" (16,000-lb. to 22,000-lb. GVWR) 15.0" (24,000-lb., 26,000-lb. GVWR)
Power Assist Unit	— Type Hydro-Boost, 8.19 Boost Ratio (16,000-lb., 18,000-lb. GVWR); Hydro Max, 21.1 Boost Ratio (20,500-lb. to 26,000-lb. GVWR)
Anti-lock System	4-wheel, 3-sensor/3-channel (16,000-lb., 18,000-lb. GVWR); 4-sensor/4-channel (20,500-lb. to 26,000-lb. GVWR)
Parking Brake (Driveline Drum)	Foot-operated, Hand Release
ELECTRICAL:	
Alternator	— Rating 175 Amperes, 2360 Watt ⁽²⁾
Battery	— Type Maintenance-free
	— Rating 78 Amp-hr., 750 CCA
EXHAUST SYSTEM:	— Type L.H. Forward-of-Rear-Axle Exhaust Exit
FUEL TANK:	— Location/Capacity Aft-of-Rear-Axle (Left-hand Side Fuel Fill)/80.0 Gal. (303.2 L)
STEERING:	— Type Power, TRW, TAS 40 Gear (Includes Cooler) (16,000-lb.–22,000-lb. GVWR) TAS 55 (24,000-lb. to 26,000-lb. GVWR)
	— Ratio 18.4:1 (16,000-lb. to 26,000-lb. GVWR)
	— Wheel 17.5" diameter
SUSPENSION:	
Frame	— Type Ladder-type, Single-channel, 36,000 psi Steel (16,000-lb. to 22,000-lb. GVWR); 50,000 psi Steel (24,000-lb., 26,000-lb. GVWR)
	— Section Modulus 9.46 cu. in.
Jounce Bumpers	Front, Variable-rate
Springs, Front	— Type Parabolic Leaf Spring, Single-stage, Constant Rate
	— Rating @ Ground (min.) Refer to page 93 for usage and ratings
Springs, Rear	— Type Parabolic Leaf Spring, Single-stage, Constant Rate
	— Rating @ Ground (min.) Refer to page 93 for usage and ratings
Shock Absorbers	— Gas-pressurized, Front/Rear Bilstein 1.63"
Stabilizer Bars	38.1 mm Front, 35.7 mm Rear 16,000–22,000-lb. GVWR; 38.1 mm Rear 24,000–26,000-lb. GVWR
Track Bar	Front (Standard on 18,000-lb. to 26,000-lb. GVWR; optional on 16,000-lb. GVWR)
TIRES:	— Type Steel-belted Radial, Highway, BSW
	— Size Six, 245/70R19.5G on 16,000-lb., 18,000-lb. GVWR and 20,500-lb. GVWR; six 235/80R22.5G standard on 22,000-lb. GVWR (six 245/70R19.5G optional); six 255/80R22.5G on 24,000-lb. and 26,000-lb. GVWR
WHEELS:	— Type and Size 19.5" x 6.75" Steel with 16,000-lb.–20,500-lb. GVWR, six, 8-hole Disc, 22.5" x 7.5" with 22,000-lb., 24,000-lb., 26,000-lb. GVWR — Polished Aluminum Front and Outer Rear with Steel Inner Rear ⁽³⁾

(1) Includes Electronic Speed Control/Tilt Steering Wheel, Tachometer, 17.5" Black Urethane Steering Wheel, Trailer Tow Prep Wiring and Air Conditioning Prep Package (non-precharged). Shipped with a dunnage box that contains the following: Glove Compartment Bag, Tire Warranty and Warranty Facts Booklet, Incomplete Vehicle and owner **manual**, Rating Plate, Instrument Cluster, Labels/Decals/Tags, Fuel Filler (Hose, Cap, Pipe Assembly, Support, Vent Hose), Wheel Nut Wrench (with spare tire option only), Horn Pad, Dual Electric Horns and Bracket Assembly, Headlight Switch and Knob Assembly, Daytime Running Light Harness.

(2) 175-amp output based on cold performance at 80° F. Actual output is temperature and application dependent.

(3) No spare tire/wheel included with 22.5" wheels.

NOTE: Refer to page 93 for Standard Weight Rating Specifications (GVWR/Payload/GCWR AND Trailer Weight/GAWR/Base Curb Weight).

F53 Super Duty Motorhome Chassis

Technical Specifications

2014

Axles

FRONT AXLE SPECIFICATIONS

Type	Forged I-beam		
GVWR (lbs.)	16,000/18,000/22,000		24,000-26,000
Max. Rating @ Ground (lbs.)	8000		9000
Axle	<div> <div>— Type</div> <div>Monobeam</div> </div>		
	<div> <div>— Material</div> <div>Forged Steel</div> </div>		
	<div> <div>— Spring Centers (in.)</div> <div>41.87</div> <div>38.88</div> </div>		
Ball Joint	Zirked		
Spindle	— Material	Nodular Cast-iron Body with Forged Steel Stem	
Wheel Bearings	— Type	Tapered Roller	

REAR AXLE SPECIFICATIONS

GVWR (lbs.)		16,000/18,000	20,500	22,000	24,000/26,000
Make (Standard)		Dana 80	Dana S110	Dana S130	Dana 17060S
Max. Rating @ Ground (lbs.)		12,000	13,500	15,000	17,500
Type		Full-floating			
Driveline Attachment		1480			SPL90
Housing	— Type	Cast Center	Banjo, Cast Carrier		
	— Cover Attachment	Bolted	Welded		
Section	— Tube Dia. (in.)	4.00	4.33 x 4.26		5.27 x 4.60
Synthetic Lubricant Capacity (pt.)		8.875	13.6		32.0
Spring Centers (in.)		42.48	42.48	42.48	42.48
Wheel Bearings	— Type	Tapered Roller			
Gears	— Type	Hypoid			
	— Material	Alloy Steel			
Ring Gear	— Pitch Dia. (in.)	11.26	12.2		15.4
Pinion	— Mounting	Overhung			Straddle Mount
Differential	— Type	2-pinion		4-pinion	
Axle Shaft	— Spline Minor Dia. (in.)	1.50	1.56	1.61	1.81
	— Spline Major Dia. (in.)	1.57	1.75	1.85	2.0
	— No. of Splines (Hub End)	37	34	36	39

Brakes

HYDRAULIC BRAKE EQUIPMENT SPECIFICATIONS — FRONT/REAR DISC

Type	Axle Usage (lbs.)	Rotor Diameter (in.)		Brake Lining Segment	Area (sq. in.)/ Width (in.)/ Thickness (in.)	Caliper Piston No. Dia. (in.)	Gross Lining Area per Axle (sq. in.)	Total Swept Area per Axle (sq. in.)
		OD	ID					
Front Disc	8000	15.55	10.62	Outboard	13.9/1.81/0.47	Dual/2.36	55.6	361.9
				Inboard	13.9/1.81/0.47			
	9000	15.0	10.12	Outboard	20.4/2.32/0.74	Dual/2.87	81.6	366.6
				Inboard	20.4/2.32/0.74			
Rear Disc	12,000/13,500/ 15,000	15.55	10.62	Outboard	13.9/1.81/0.47	Dual/2.36	55.6	361.9
				Inboard	13.9/1.81/0.47			
	17,500	15.0	10.12	Outboard	20.4/2.32/0.49	Dual/2.60	81.6	366.6
				Inboard	20.4/2.32/0.49			

BRAKE MASTER CYLINDER SPECIFICATIONS

Type	Usage (lbs.)	Bore Dia. (in.)
Dual System, Dash-mounted	16,000, 18,000 GVWR	1.375
	20,500, 22,000, 24,000, 26,000 GVWR	2.0

BRAKE BOOSTER SPECIFICATIONS

Make/Type	Usage (lbs.)	Booster Type	Boost Ratio
Dash-mounted	16,000, 18,000 GVWR	Hydro Boost	8.19
	20,500, 22,000, 24,000, 26,000 GVWR	Hydro Max	21.1

F53 Super Duty Motorhome Chassis

Technical Specifications cont'd

Cooling Systems

COOLING SYSTEM SPECIFICATIONS

Radiator													
		Core Size (in.)						Cooling System Capacity qts. (liters)	Fan Specifications				
Engine	Cooling	Trans. Usage	Frontal Area (sq. in.)	Height	Width	Thick.	Rows of Tubes	Fins Per Inch		In-Tank Trans Cooler	Type	No. of Blades	Blade Dia. (in.)
6.8L (415) 3V SEFI V10	Standard	All	857	28.4	30.19	1.42	1	17.8	27.5 (26)	Standard	Plastic	8	20.0

AUXILIARY AUTOMATIC TRANSMISSION OIL COOLER APPLICATIONS

Engine	Transmission	Cooler — No. of Plates
6.8L (415) 3V SEFI V10	5-speed Automatic Overdrive	33

Fuel System

FUEL SYSTEM DATA

Electronic Fuel Injection	Sequential Multiport Fuel Injection
Fuel Pump	Single Electric-in-tank High Pressure
Fuel Filter	In-tank Large Capacity (One)
Air Cleaner	Dry Element, Replaceable

Steering

STEERING SPECIFICATIONS

Wheelbase (in.)	Power Steering ⁽¹⁾	Turning Diameter (ft.)		
	Gear Ratio	Curb-to-Curb		
		16,000–22,000-lb. GVWR w/19.5" wheels	22,000-lb. GVWR w/22.5" wheels	24,000–26,000-lb. GVWR w/22.5" wheels
158.0	18.4:1	45.4	—	—
178.0	18.4:1	49.7	—	—
190.0	18.4:1	52.2	—	—
208.0	18.4:1	56.1	63.7	—
228.0	18.4:1	60.3	68.6	60.6
242.0	18.4:1	63.3	72.0	66.8
252.0	18.4:1	—	—	69.5

(1) Power steering fluid cooler is standard.

Suspensions

FRAME SPECIFICATIONS

Wheelbase (in.)	No. of Crossmembers	Maximum Side Rail Section (Height x Width x Thickness) (in.) ⁽¹⁾	Section Modulus (cu. in.)	16K–22K	24K–26K
				Yield Strength (psi)	Yield Strength (psi)
158.0	7	9.16 x 3.00 x .025	9.46	36,000	—
178.0	7	9.16 x 3.00 x .025	9.46	36,000	—
190.0	7	9.16 x 3.00 x .025	9.46	36,000	—
208.0	8	9.16 x 3.00 x .025	9.46	36,000	—
228.0	9	9.16 x 3.00 x .025	9.46	36,000	50,000
242.0	9	9.16 x 3.00 x .025	9.46	36,000	50,000
252.0	9	9.16 x 3.00 x .025	9.46	—	50,000

(1) Measured to inside of metal.

SHOCK ABSORBER SPECIFICATIONS

Type	Usage	Front			Rear		
		No. Used	Piston Dia. (in.)	Type	No. Used	Piston Dia. (in.)	Type
Bilstein	Std.	2	1.63	Gas-pressurized	2	1.63	Gas-pressurized

F53 Super Duty Motorhome Chassis

Technical Specifications cont'd

2014

Suspensions cont'd

SPRING SPECIFICATIONS — FRONT LEAF

Combined Rating @ Ground (lbs.)	Number of Leaves	Total Thickness (in.)	Overall Length (in.)	Width (in.)	Deflection Rate ⁽¹⁾ (lbs. per in./spring)
7000	2	3.38	63.00	4.00	550
7500	2	3.38	63.00	4.00	650
8000	2	3.47	63.00	4.00	693
9000	3	3.31	63.00	3.00	750

(1) Single-stage, constant rate springs.

SPRING SPECIFICATIONS — REAR LEAF

Combined Rating @ Ground (lbs.)	Number of Leaves	Total Thickness (in.)	Overall Length (in.)	Width (in.)	Deflection Rate ⁽¹⁾ (lbs. per in./spring)
11,000	3	3.88 (w/Spacer)	64.00	4.00	950
12,000	3	3.88 (w/Spacer)	64.00	4.00	1120
13,500	3	2.44 (w/o Spacer)	64.00	4.00	1350
15,000	3	2.48 (w/o Spacer)	64.00	4.00	1350
15,500	4	3.31 (w/o Spacer)	64.00	4.00	1700
17,500	4	3.31 (w/o Spacer)	64.00	4.00	1850

(1) Single-stage, constant rate springs.

Tires and Wheels

TIRE SPECIFICATIONS

Size	Tread Type & Sidewall	Tire Manufacturer	Rim Width (in.)	Section Width (in.) ⁽¹⁾	Ply/ Load Rating	Inflation Press. (psi)	Load Limits @ Max. Inflation Press. (lbs.)	Static Loaded Radius (in.)	SAE Revolutions per Mile @ 45 mph
245/70Rx19.5	Highway-BSW	Goodyear	6.75	9.94	12/G	95 ⁽²⁾	3890/3655	15.30	633
235/80Rx22.5	Highway-BSW	Michelin	7.5	9.2	14/G	90	4140/3765	17.40	556
255/80Rx22.5	Highway-BSW	Michelin	7.5	9.9	14/G	100	4975/4525	17.90	541

(1) Tire and rim maximum width.

(2) 16,000–20,500 GVWR = 82 psi, 20,500 GVWR with 7500 FGAWR and 22,000 GVWR = 95 psi.

WHEEL SPECIFICATIONS

Wheel Type	Wheel Size	Nominal Offset (in.)	No. of Studs	Bolt Circle mm (in.)	Max. Wheel Capacity Load (lbs. @ ground)
Steel	19.5" x 6.75" RW	5.50	10	225 (8.85)	4000
Polished Aluminum (Front/Outer Rear)	22.5" x 7.5" RW	6.28	8	275 (10.83)	7300
Steel (Inner Rear)	22.5" x 7.5" RW	6.20	8	275 (10.83)	5000

F53 Super Duty Motorhome Chassis

Technical Specifications cont'd

Transmission

AUTOMATIC TRANSMISSION SPECIFICATIONS

Make/Type	Ford TorqShift 5-Speed Automatic Overdrive
Ratios (to 1):	
1st	3.11
2nd	2.20
3rd	1.55
4th	1.00
5th	0.71
Reverse	2.88
Converter Torque Ratio @ WOT Stall	1.86
Fluid Capacity (qts.)	19.0
Gearset	Spur
Oil Cooler	Oil to Air and In-tank
Oil Filter	Internal
Converter Size & Type	12" PCM Controlled Clutch Apply

F59 Super Duty Commercial Chassis Cab

Dimensions

2014

F59 Commercial Chassis Cab⁽¹⁾

Wheelbase (in.)	158.3	178.2	208.3
GVWR (lbs.)	16,000	16,000	19,500
Code Description (in.)			
A Front Overhang	36.3	36.3	36.3
B Rear Overhang	105.8	105.8	105.8
C Overall Length	300.1	320.1	350.1
D Front Frame Width	41.9	41.9	41.9
E Rear Frame Width	34.0	34.0	34.0
F Tire Outside Width (Front)	90.5	90.5	90.5
G Tire Outside Width (Rear Inner)	72.4	72.4	72.4
H Tire Center Width (Rear)	74.0	74.0	73.3
I Tire Outside Width (Rear Outer)	94.0	90.4	94.0
J Frame Front Section Height	7.5	7.5	7.5
K Frame Height @ Front Wheel	28.3	28.3	30.5
L Frame Rear Section Height	9.2	9.2	9.2
M Frame Height @ Rear Axle	31.6	30.8	34.1

(1) Dimensions @ GVWR.

F59 Commercial Chassis Cab⁽¹⁾

Wheelbase (in.)	158.3	178.3/190.3	208.3
GVWR (lbs.)	19,500	19,500	22,000
Code Description (in.)			
A Front Overhang	36.3	36.3	36.3
B Rear Overhang	105.8	105.8	105.8
C Overall Length	300.1	320.1/332.1	350.1
D Front Frame Width	41.9	41.9	41.9
E Rear Frame Width	34.0	34.0	34.0
F Tire Outside Width (Front)	90.5	90.5	91.6
G Tire Outside Width (Rear Inner)	72.4	72.4	72.8
H Tire Center Width (Rear)	74.0	74.0	73.3
I Tire Outside Width (Rear Outer)	94.0	94.0	95.4
J Frame Front Section Height	7.5	7.5	7.5
K Frame Height @ Front Wheel	31.9	32.2	34.75
L Frame Rear Section Height	9.2	9.2	9.2
M Frame Height @ Rear Axle	34.6	34.9	39.1

(1) Dimensions @ Stripped Chassis.

2014

F59 Super Duty Commercial Chassis Cab

Model/Weight Ratings

F59 Commercial Stripped Chassis – GVWR/Payload/GCWR & Trailer Weight/ GAWR/Base Curb Weight

Drive/WB (in.)	Engine/ Transmission	Maximum GVWR (lbs.)	Maximum Payload (lbs.) ⁽¹⁾	Maximum GCWR/ Trailer Weight (lbs.)	GAWR (lbs) ⁽²⁾		Base Curb Weight (lbs.) ⁽³⁾		
					Front	Rear	Front	Rear	Total
4x2 — 158	6.8L/Auto	16,000	10,141	23,000/7000	6500	11,000	3012	2847	5859
	6.8L/Auto	19,500	13,534	26,000/6500	7000	13,500	3155	2811	5966
4x2 — 178	6.8L/Auto	16,000	10,107	23,000/7000	6500	11,000	3149	2744	5893
	6.8L/Auto	19,500	13,519	26,000/6500	7000	13,500	3156	2825	5981
4x2 — 190	6.8L/Auto	19,500	13,456	26,000/6,500	7000	13,500	3167	2877	6044
4x2 — 208	6.8L/Auto	19,500	13,363	26,000/6500	7000	13,500	3185	2952	6137
	6.8L/Auto	22,000	15,664	26,000/4000	8000	15,000	3234	3102	6336

(1) Load rating represents maximum allowable weight of people, cargo and body equipment and is reduced by optional equipment weight.

(2) Gross axle weight rating is determined by the rated capacity of the minimum component of the axle system (axle, springs, wheels, tires) of a specific vehicle. Front and rear GAWRs will, in all cases, sum to a number equal to or greater than the GVWR for the particular vehicle. Maximum loaded vehicle (including passengers, equipment and payload) cannot exceed the GVW rating or GAWR (front or rear).

(3) Base curb weights shown above consider the strip chassis weight with standard equipment, full fuel tank and all other fluids filled to capacity.

Available equipment weights are in pounds as follows: (Front/Total): Pull Out Ramp Prep Package (available with 208" wheelbase only) (50/85)

F59 Super Duty Commercial Chassis Cab

Standard Powertrain/Chassis Equipment Specifications

2014

F59 Commercial Stripped Chassis

DRIVE:		4x2
POWERTRAIN:		
Engine	— Application	50 States
	— Type	6.8L V10
Transmission	— Type	TorqShift Automatic with Tow/Haul Feature
	— Speeds	5-speed Overdrive
AXLES:		
Front Axle	— Type	Forged Steel I-beam
	— Capacity (Rating @ Ground)	8000 lbs.
	— Kingpin Angle	5.5°
	— Caster Angle	4.6°
Rear Axle	— Type — Full-floating	Full-floating
	— Capacity (Rating @ Ground)	12,000 lbs. (16,000-lb. GVWR), 13,500 lbs. (19,500-lb. GVWR) and 15,000 lbs. (22,000-lb. GVWR)
	— Axle Ratio	4.30 (16,000-lb. GVWR), 4.88 (19,500-lb. GVWR), 5.38 (22,000-lb. GVWR)
BRAKES:		
Front/Rear Disc	— Type	Dual Piston Pin Slider Calipers, Bolt-on Adaptors, Wraparound Tie Bars
	— Rotor Diameter—Front/Rear	15.55"
Power Assist Unit	— Type	Hydro-Boost (16,000-lb. and 19,500-lb. GVWR); Hydro Max (22,000-lb. GVWR)
Anti-lock System		4-wheel, 3-sensors/3-channel (16,000-lb. and 19,500-lb. GVWR); 4-wheel, 4-sensors/4-channel (22,000-lb. GVWR)
Parking Brake (Driveline Drum)		Trans-mounted, Foot-operated, Hand Release
ELECTRICAL:		
Alternator	— Rating	175 Amperes, 2360 Watt
Battery	— Type	Maintenance-free
	— Rating	78 Amp-hr., 750 CCA
EXHAUST SYSTEM:	— Type	L.H. Forward-of-Rear-Axle Exhaust Exit
FUEL TANK:	— Location/Capacity	Aft-of-Rear-Axle (Left-hand Side Fuel Fill)/40-gallon
STEERING:	— Type	Power, TRW, TAS 40 Gear (Includes Cooler)
	— Ratio	18.4:1
	— Wheel	17.5" diameter
SUSPENSION:		
Frame	— Type	Ladder-type, Single-channel, 36,000 psi Steel
	— Section Modulus	9.46 cu. in.
Jounce Bumpers		Front, Variable Rate
Springs, Front	— Type	Parabolic Leaf Spring, Single-stage, Constant Rate
	— Rating @ Ground (min.)	Refer to page 100 for Usage and Ratings
Springs, Rear	— Type	Parabolic Leaf Spring, Single-stage, Constant Rate
	— Rating @ Ground (min.)	Refer to page 100 for Usage and Ratings
Shock Absorbers	— Type/Size (Dia.)	Gas-pressurized (Front/Rear)/2.20" Sachs Twin-Tube
Stabilizer Bars		38.1 mm Front/35.7 mm Rear
TIRES:	— Type	Steel-belted Radial, Highway, BSW
	— Size	Six, 225/70R19.5G (16,000-lb./19,500-lb. GVWR); six 245/70R19.5G (22,000-lb. GVWR)
WHEELS:	— Type and Size	Six, 10-hole Disc, 19.5" x 6.0" (16,000-lb. and 19,500-lb. GVWR); Six, 10-hole Disc, 19.5" x 6.75" (22,000-lb. GVWR)

F59 Super Duty Commercial Chassis Cab

Technical Specifications

Axles

FRONT AXLE SPECIFICATIONS

Make		Westport
GVWR (lbs.)		16,000/19,500/22,000
Max. Rating @ Ground (lbs.)		8000
Axle	— Type	Monobeam
	— Material	Forged Steel
	— Spring Centers (in.)	41.87
Ball Joint		Zirked
Spindle	— Material	Nodular Cast-iron Body with Forged Steel Stem
Wheel Bearings	— Type	Tapered Roller

REAR AXLE SPECIFICATIONS

GVWR (lbs.)		16,000	19,500	22,000
Make (Standard)		Dana 80	Dana S110	Dana S130
Max. Rating @ Ground (lbs.)		12,000	13,500	15,000
Type		Full-floating		
Driveline Attachment		1480		
Housing	— Type	Cast Center	Stamped Banjo, Cast Carrier	
	— Cover Attachment	Bolted	Welded	
Section	— Tube Dia. (in.)	4.00	4.33 x 4.26	
Synthetic Lubricant Capacity (pt.)		8.875	13.6	13.6
Spring Centers (in.)		42.48		
Wheel Bearings	— Type	Tapered Roller		
Gears	— Type	Hypoid		
	— Material	Alloy Steel		
Ring Gear	— Pitch Dia. (in.)	11.26	12.2	12.2
Pinion	— Mounting	Overhung		
Differential	— Type	2-pinion		4-pinion
Axle Shaft	— Spline Minor Dia. (in.)	1.50	1.56	1.61
	— Spline Major Dia. (in.)	1.57	1.75	1.85
	— No. of Splines (Hub End)	37	34	36

Brakes

HYDRAULIC BRAKE EQUIPMENT SPECIFICATIONS — FRONT/REAR DISC

Type	Axle Usage (lbs.)	Rotor Diameter (in.)		Brake Lining Segment	Area (sq. in.)/ Width (in.)/ Thickness (in.)	Caliper Piston No. Dia. (in.)	Gross Lining Area per Axle (sq. in.)	Total Swept Area per Axle (sq. in.)
		OD	ID					
Front Disc	8000	15.55	10.62	Outboard	13.9/1.81/0.47	Dual/2.36	55.6	361.9
				Inboard	13.9/1.81/0.47			
Rear Disc	12,000/13,500/ 15,000	15.55	10.62	Outboard	13.9/1.81/0.47	Dual/2.36	55.6	361.9
				Inboard	13.9/1.81/0.47			

BRAKE MASTER CYLINDER SPECIFICATIONS

Make/Type	Usage (lbs.)	Bore Diameter (in.)
Dual System	16,000, 19,500	1.375
	22,000	2.0

BRAKE BOOSTER SPECIFICATIONS

Make/Type	Usage (lbs.)	Booster Type	Boost Ratio
Dash-mounted	16,000/19,500	Hydro Boost	8.19
	22,000	Hydro Max	21.1

F59 Super Duty Commercial Chassis Cab

Technical Specifications cont'd

2014

Cooling Systems

COOLING SYSTEM SPECIFICATIONS

Engine	Cooling	Trans. Usage	Radiator										
			Frontal Area (sq. in.)	Core Size (in.)			Rows of Tubes	Fins per Inch	Cooling System Capacity qts. (liters)	In-Tank Trans Cooler	Fan Specifications		
				Height	Width	Thick.					Type	No. of Blades	Blade Dia. (in.)
6.8L 3V SEFI V10	Standard	All	857	28.4	30.19	1.42	1	17.8	27.5 (26)	Standard	Plastic	8	20.0

AUXILIARY AUTOMATIC TRANSMISSION OIL COOLER APPLICATIONS

Engine	Transmission	Cooler—No. of Plates
6.8L 3V V10	5-speed Automatic Overdrive	33

Fuel System

FUEL SYSTEM DATA

Electronic Fuel Injection	Sequential Multiport Fuel Injection
Fuel Pump	Single Electric-in-tank High Pressure
Fuel Filter	In-tank Large Capacity (One)
Air Cleaner	Dry Element, Replaceable

Steering

STEERING SPECIFICATIONS

Wheelbase (in.)	Power Steering ⁽¹⁾	Turning Diameter (ft.)
	Gear Ratio	Curb-to-Curb
158.0	18.4:1	45.4
178.0	18.4:1	49.7
190.0	18.4:1	52.2
208.0	18.4:1	56.1

(1) Power steering fluid cooler is standard.

Suspensions

FRAME SPECIFICATIONS

Wheelbase (in.)	No. of Crossmembers	Maximum Side Rail Section	Section Modulus (cu. in.)	Yield Strength (psi)
		(Height x Width x Thickness) (in.) ⁽¹⁾		
158.0	8	9.16 x 3.00 x 0.25	9.46	36,000
178.0	8	9.16 x 3.00 x 0.25	9.46	36,000
190.0	8	9.16 x 3.00 x 0.25	9.46	36,000
208.0	9	9.16 x 3.00 x 0.25	9.46	36,000

(1) Measured to inside of metal.

SHOCK ABSORBER SPECIFICATIONS

Type	Usage	Front			Rear		
		No. Used	Piston Dia. (in.)	Type	No. Used	Piston Dia. (in.)	Type
Sachs Twin-Tube	Std.	2	2.20	Gas-pressurized	2	2.20	Gas-pressurized

F59 Super Duty Commercial Chassis Cab

Technical Specifications cont'd

Suspensions cont'd

SPRING SPECIFICATIONS — FRONT LEAF

Combined Rating @ Ground (lbs.)	Number of Leaves	Total Thickness (in.)	Overall Length (in.)	Width (in.)	Deflection Rate ⁽¹⁾ (lbs. per in./spring)
6500	2	2.73	63.00	4.00	510
8000	2	2.73	63.00	4.00	585

(1) Single-stage, constant rate springs.

SPRING SPECIFICATIONS — REAR LEAF

Combined Rating @ Ground (lbs.)	Number of Leaves	Total Thickness (in.)	Overall Length (in.)	Width (in.)	Deflection Rate ⁽¹⁾ (lbs. per in./spring)
12,000	2	3.82	64.00	4.00	1425
15,000	3	3.07	64.00	4.00	1850

(1) Single-stage, constant rate springs.

Tires and Wheels

TIRE SPECIFICATIONS

Size	Tread Type & Sidewall	Tire Manufacturer	Rim Width (in.)	Section Width (in.) ⁽¹⁾	Ply/ Load Rating	Inflation Press. (psi)	Load Limits @ Max. Inflation Press. (lbs.)	Static Loaded Radius (in.)	SAE Revolutions per Mile @ 45 mph
225/70R19.5	Highway-BSW	Continental	6.0	8.22	14/G	85-100 ⁽²⁾	3640/3490	14.96	647
245/70R19.5	Highway-BSW	Goodyear	6.75	9.94	12/G	95 ⁽²⁾	3890/3655	15.30	633

(1) Tire and rim maximum width.

(2) 16,000 GVWR = 85 psi, 19,500 GVWR = 95 psi (front) and 100 psi (rear).

WHEEL SPECIFICATIONS

Wheel Type	Wheel Size	Nominal Offset (in.)	No. of Studs	Bolt Circle mm (in.)	Max. Wheel Capacity Load (lbs. @ ground)
Steel	19.5" x 6.0" RW	5.35	10	225 (8.85)	3750
Steel	19.5" x 6.75" RW	5.50	10	225 (8.85)	4000

F59 Super Duty Commercial Chassis Cab

Technical Specifications cont'd

2014

Transmission

AUTOMATIC TRANSMISSION SPECIFICATIONS

Make/Type	Ford TorqShift 5-Speed Automatic Overdrive
Ratios (to 1):	
1st	3.11
2nd	2.20
3rd	1.55
4th	1.00
5th	0.71
Reverse	2.88
Converter Torque Ratio @ WOT Stall	1.86
Fluid Capacity (qts.)	19.0
Gearset	Spur
Oil Cooler	Oil to Air and In-tank
Oil Filter	Internal
Converter Size & Type	12" PCM Controlled Clutch Apply