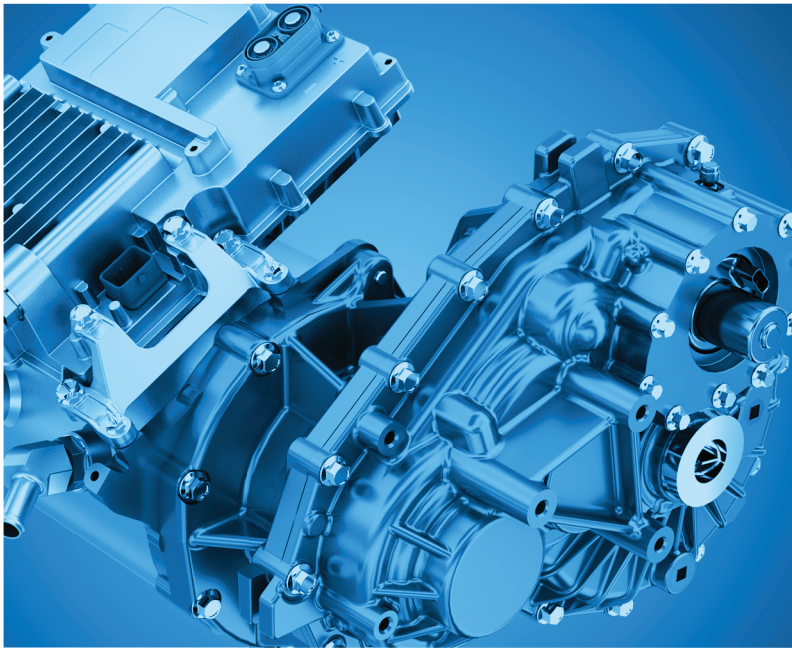
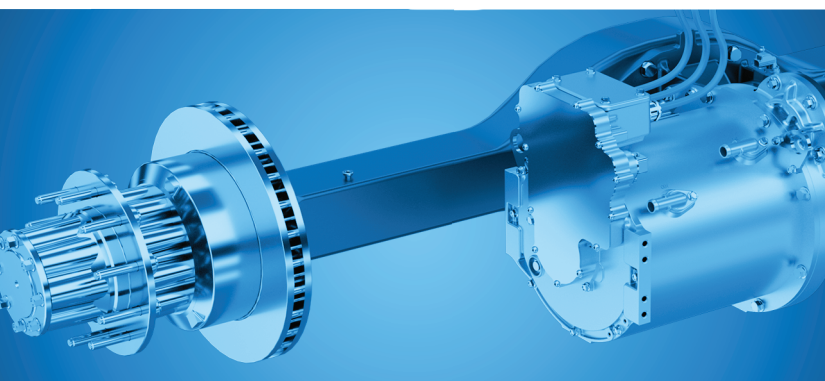
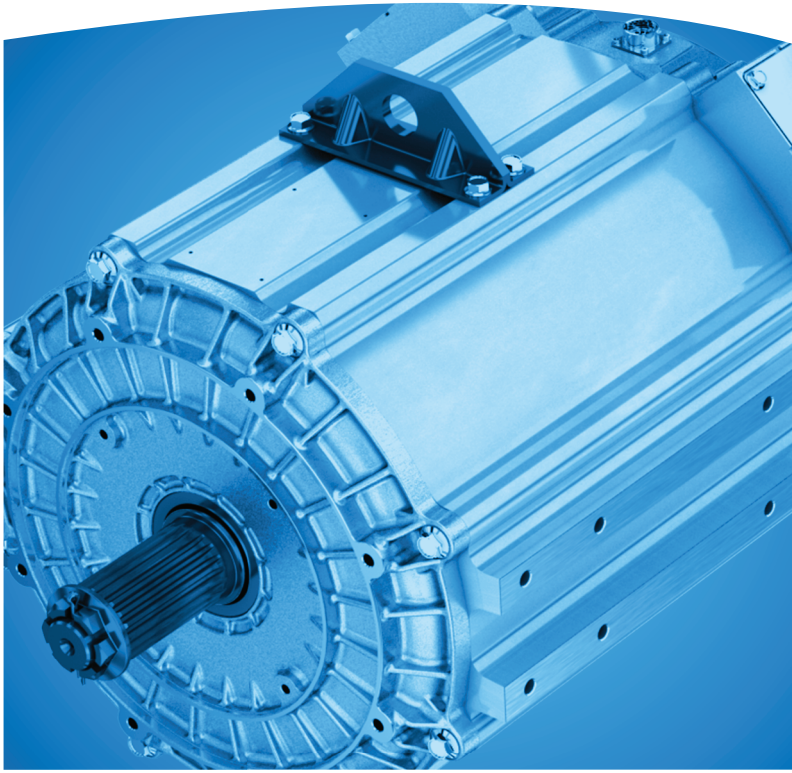
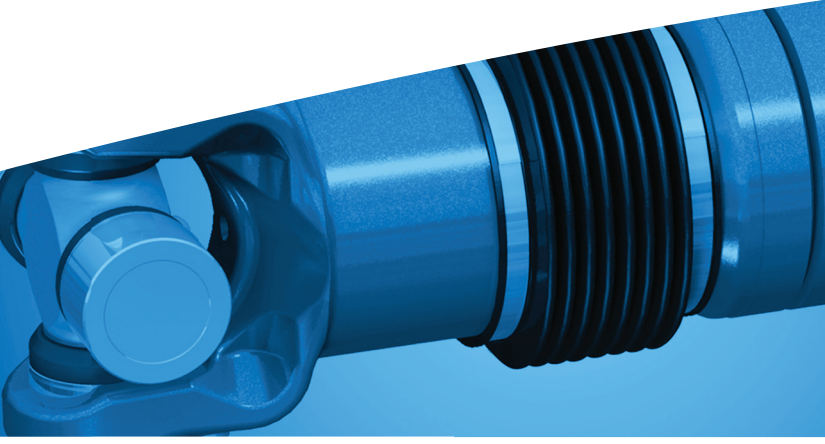


Spicer® Axle, Driveshaft, and Electrified Systems

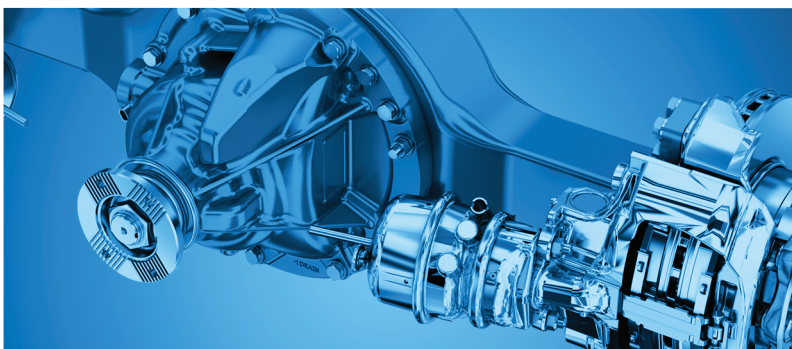
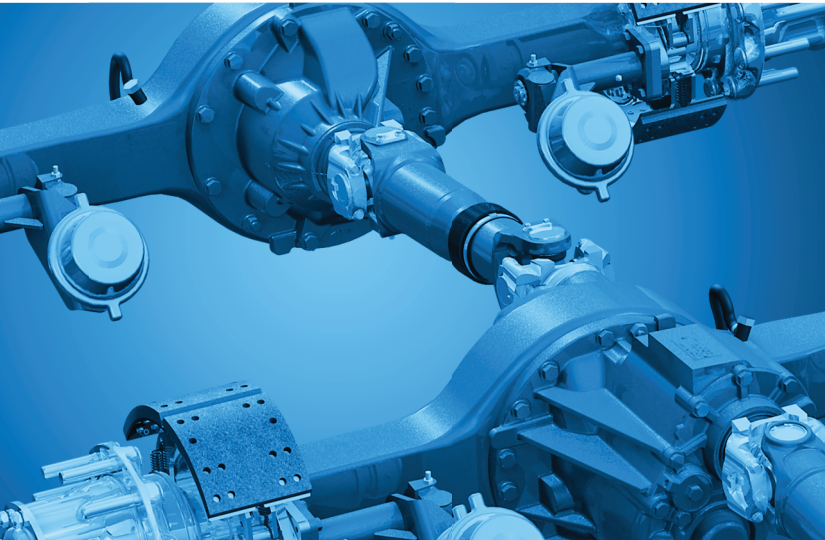


SPICER®
Drivetrain Products



Specifications Guide

2023



Specifications Guide

Drive Axle

- Introduction 1
- Drive Axle: Heavy- and Medium-Duty – General Information 2
- Drive Axle: Heavy- and Medium-Duty – Applications 3–4
- Drive Axle: Heavy-Duty – Specifications 5–7
- Drive Axle: Medium-Duty – Specifications 8
- Drive Axle: e-Drive Units and Axles 9
- Lubrication Intervals 9

Steer Axle

- Steer Axle: Heavy- and Medium-Duty – General Information 10
- Steer Axle: Heavy- and Medium-Duty – Applications 11
- Steer Axle: Heavy- and Medium-Duty – Specifications 12
- Lubrication Intervals 13

Driveshaft

- Driveshaft: Heavy- and Medium-Duty – General Information 14
- Driveshaft: Heavy- and Medium-Duty – Technical Information 15
- Spicer Life® Series Heavy-Duty Driveshaft Specifications 16–18
- Spicer Life® Series Medium-Duty Driveshaft Specifications 19–22
- Lubrication Intervals 23

Electric Products

- Electric Products – General Information 24
- Dana TM4® SUMO 25 – 26
- Dana TM4® CO150 27
- Dana TM4® CO150-HVF 28
- Dana TM4® CO300 Inverter 29
- Dana TM4® BCI20 30 – 31

Service and Support

- Online Support 32
- Warranty Requirements 33

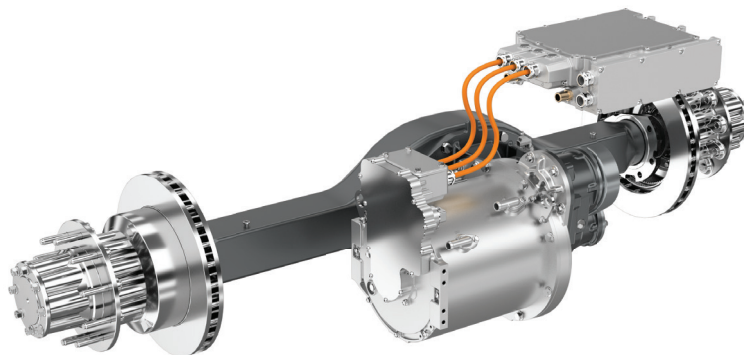


EFFICIENCY THROUGH INNOVATION

Our Innovation Keeps You Moving

Efficiency Through Innovation

As a world leader in drivetrain technology, Dana is focused on keeping your business optimized and running strong. From breakthrough, patented technologies to industry-leading innovations, our commercial-vehicle products increase durability, reliability, and efficiency. See us in action at dana.com/cv.

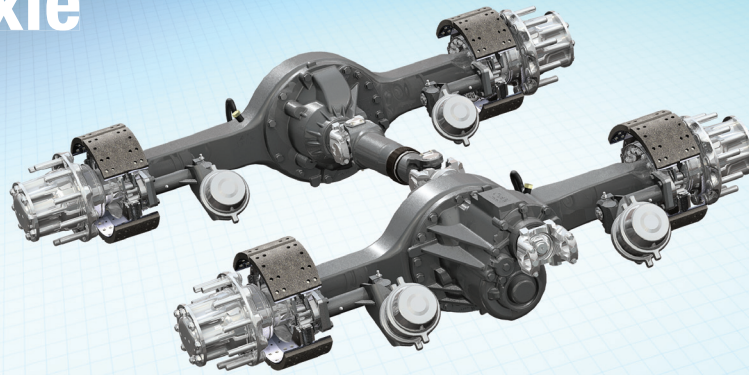


Reducing Operating Costs to Increase Bottom Lines

Armed with cutting-edge information and superior under-the-vehicle knowledge, our Dana Nationwide Support Team is committed to helping customers increase efficiencies to increase profits. From supplying the latest information and technical support tools to servicing your drivelines quickly and cost efficiently, you'll be happy we're on your side.



Drive Axle

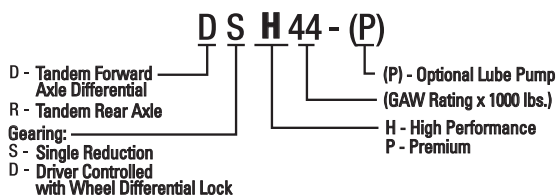
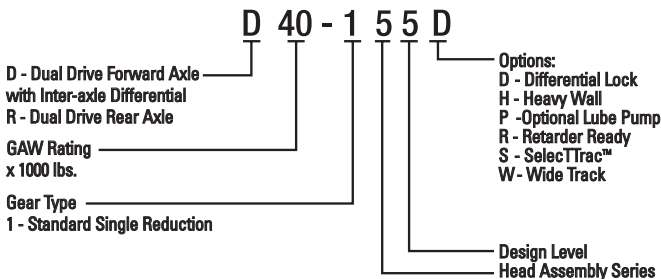


General Information – Heavy- and Medium-Duty

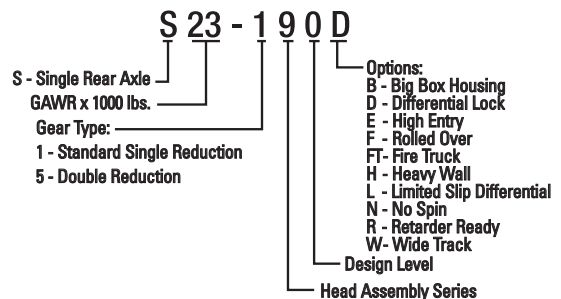
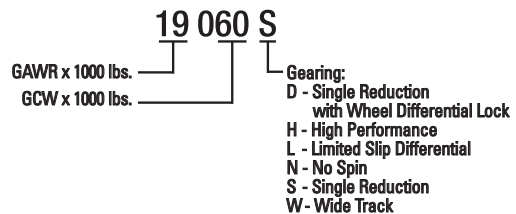
As a world leader in innovative axle technology, Dana provides a full line of the most efficient light-duty, medium-duty, heavy-duty, and specialty rear axle products available for commercial-vehicle applications. Our exclusive combination of patented technologies and designs ensures long service life, reduced maintenance, and more durable axle products.

Nomenclature

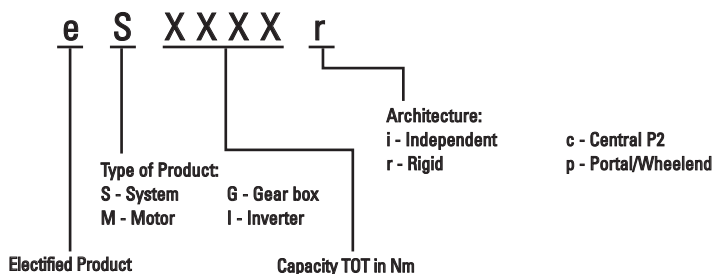
Tandem Drive Axle



Single Drive Axle



e-Drive Units and Axles



Drive Axle

Applications – Heavy- and Medium-Duty

Tandem Drive Axles

Model	Description	Max. GAW lbs. [kg]	Linehaul	Heavy Haul	Logging	Mining	Oil Field	Construction	City Delivery	School Bus	Rescue	Refuse	Recreational	Intercity Coach
D40-155/156	AdvanTEK® 40	40,000 [18,144]												
DSH40	High Performance-40	40,000 [18,144]												
DSH44	High Performance-44	44,000 [19,958]												
D40-172	Super 40	40,000 [18,144]												
D46-172	Vocational	46,000 [20,865]												
D50-172	Vocational	50,000 [22,680]												
D52-190	Vocational	52,000 [23,587]												
D60-190	Vocational	60,000 [27,216]												

Double Reduction

D46-590P	Helical	46,000 [20,865]												
D52-590P	Helical	52,000 [23,587]												
D60-590P	Helical	60,000 [27,216]												

Tridem

T69-172HP	Heavy-Duty	69,000 [31,298]												
T78-190P	Heavy-Duty	78,000 [35,380]												
T78-590P	Heavy-Duty	78,000 [35,380]												

BLUE AREAS INDICATE AVAILABILITY.

Drive Axle

Applications – Heavy- and Medium-Duty

Single Drive Axles

Model	Description	Max. GAW lbs. [kg]	Linehaul	Heavy Haul	Logging	Mining	Oil Field	Construction	City Delivery	School Bus	Rescue	Refuse	Recreational	Intercity Coach
S14-110	Medium-Duty	14,000 [6,350]												
S16-130	Medium-Duty	16,000 [7,257]												
S17-140	Medium-Duty	17,000 [7,711]												
S19-140	Medium-Duty	19,000 [8,618]												
S20-140	Medium-Duty	20,000 [9,072]												
S21-140	Medium-Duty	21,000 [9,525]												
21060S	Medium-Duty	21,000 [9,525]												
22060S	Medium-Duty	22,000 [9,979]												
23060SH	Medium-Duty	23,000 [10,433]												
S21-172	Heavy-Duty	21,000 [9,525]												
S21-175	Heavy-Duty	21,000 [9,525]												
S23-172	Heavy-Duty	23,000 [10,433]												
S23-175	Heavy-Duty	23,000 [10,433]												
S23-190	Heavy-Duty	23,000 [10,433]												
S25-172	Heavy-Duty	25,000 [11,340]												
S25-175	Heavy-Duty	25,000 [11,340]												
S26-190	Heavy-Duty	26,000 [11,793]												
S30-190	Heavy-Duty	30,000 [13,608]												

Double Reduction

S23-590	Heavy-Duty	23,000 [10,433]												
S26-590	Heavy-Duty	26,000 [11,793]												
S30-590	Heavy-Duty	30,000 [13,608]												
S35-590 FT	Heavy-Duty	35,000 [15,876]												

BLUE AREAS INDICATE AVAILABILITY.

Drive Axle

Heavy-Duty Drive Axle

Spicer® Single Reduction Single Drive Axles

Axle Model	Ratings		Ratios	Axle Shaft			Nominal Ring Gear Diameter in. [mm]	Axle Housing			Spindle Type	Options							
	Max. GAW lbs. [kg]	Max. GCW HWY lbs. [kg]		Body Diameter in. [mm]	Number of Splines	Spline Diameter in. [mm]		Box Section Width in. [mm]	Box Section Height in. [mm]	Wall thickness in. [mm]		SelectTrac™	Differential Lock	Electromagnetic Retarder	No Spin Differential				
S21-172	21,000 [9,525]	100,000 [45,359]	3.07, 3.21, 3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83	2.06 [52]	46	2.35 [60]	17.3 [440]	4.61 [117]	5.24 [134]	0.43 [11]	R								
S21-175	21,000 [9,525]	115,000 [52,000]	1.95, 2.05, 2.16, 2.31, 2.47, 2.64, 2.85, 3.07, 3.42				Requires 0.5 [12.5] wall thickness												
S21-190	21,000 [9,525]	125,000 [56,699]	3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17, 7.83																
S23-172		100,000 [45,359]	3.07, 3.21, 3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14																
S23-175	23,000 [10,433]	115,000 [52,000]	1.95, 2.05, 2.16, 2.31, 2.47, 2.64, 2.85, 3.07, 3.42	2.25 [57]	49	2.35 [60]	17.9 [455]					Requires 0.5 [12.5] wall thickness							
S23-190		125,000 [56,699]	3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17, 7.83	2.06 [52]	46		18.5 [470]												
S25-172	25,000 [11,340]	100,000 [45,359]	3.07, 3.21, 3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14	2.25 [57]	49	2.35 [60]	17.3 [440]					5.31 [135]	5.91 [150]	0.50 [12.5]	R				
S25-175	25,000 [11,340]	115,000 [52,000]	2.47, 2.64, 2.85, 3.07, 3.42				17.9 [455]												
S26-190	26,000 [11,793]	125,000 [56,699]	3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17, 7.83				18.5 [470]												
S30-190	30,000 [13,608]			46			0.63 [16]												
S35-190FT	35,000 [15,875]	53,000 [24,040]	3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14	2.24 [57]	46	2.35 [59.6]		5.32 [135]	5.91 [150]	0.63 [16]	W								

Rating is subject to Dana engineering application approval.

Spicer High Entry Single Reduction Single Drive Axles

Axle Model	Ratings		Ratios	Axle Shaft			Nominal Ring Gear Diameter in. [mm]	Axle Housing			Spindle Type	Options										
	Max. GAW lbs. [kg]	Max. GCW HWY lbs. [kg]		Body Diameter in. [mm]	Number of Splines	Spline Diameter in. [mm]		Box Section Width in. [mm]	Box Section Height in. [mm]	Wall thickness in. [mm]		Differential Lock	Electromagnetic Retarder	No Spin Differential								
S21-172E	21,000 [9,525]	100,000 [45,359]	3.07, 3.21, 3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17	2.06 [52]	46	2.35 [60]	17.7 [450]	4.61 [117]	5.24 [134]	0.43 [11]	R											
S23-172E	23,000 [10,433]											125,000 [56,699]	3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17, 7.83	17.7 [450]	0.43 [11]							
S23-190E																						
S25-172E	25,000 [11,340]	100,000 [45,359]	3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17				2.25 [57]					17.7 [450]										
S26-190E	26,000 [11,793]	125,000 [56,699]	3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17, 7.83	2.25 [57]	46	2.35 [60]	18.5 [470]					5.31 [135]	5.91 [150]	0.63 [16]	R							
S30-190E	30,000 [13,608]																					
S35-190EFT	35,000 [15,875]	53,000 [24,040]	3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14													2.24 [57]	46	2.35 [59.6]		5.32 [135]	5.91 [150]	0.63 [16]

Rating is subject to Dana engineering application approval.

BLUE AREAS INDICATE AVAILABILITY.

Drive Axle

Heavy-Duty Drive Axle

Spicer® Single Reduction Tandem Drive Axles

Product	Axle Model	Ratings		Ratios	Axle Shaft			Nominal Ring Gear Diameter in. [mm]	Axle Housing			Wheel-end Series	Options			
		Max. GAW lbs. [kg]	Max. GCW** Turnpike lbs. [kg]		Body Diameter in. [mm]	Number of Splines	Spline Diameter in. [mm]		Box Section Width in. [mm]	Box Section Height in. [mm]	Wall thickness [mm]		Thickwall Housing	Differential Lock	SelectTrac™	Pump
AdvantTEK® 40	D40-155	40,000 [18,144]	145,000 [65,771]	2.26, 2.39, 2.47, 2.53, 2.64, 2.79, 2.93	1.88 [48]	41	2.10 [53]	15.75 [400]	4.61 [117]	5.24 [134]	0.43 [11]	R	0.43 [11]		Requires 0.43 [11] wall thickness	
	D40-156			2.93, 3.08, 3.23, 3.36, 3.42, 3.55, 3.70, 3.91									0.43 [11]	Requires 0.43 [11] wall thickness		
High Performance-40	DSH40		143,000 [64,864]	3.08, 3.25, 3.36, 3.42, 3.55, 3.70, 3.90, 4.11, 4.33, 4.63, 4.88, 5.29, 5.57, 6.17, 6.50				15.7 [400]			0.43 [11]					
High Performance-44	DSH44	44,000 [19,958]	72,000 [32,659] GVW	3.25, 3.36, 3.42, 3.55, 3.70, 3.90, 4.11, 4.33, 4.63, 4.88, 5.29, 5.57, 6.17, 6.50, 7.17							0.50 [12.5]		STD			

Rating is subject to Dana engineering application approval. ** For 3% max. grade.

Spicer Single Reduction Heavy Tandem and Tridem Drive Axles

Axle Model	Ratings		Ratios	Axle Shaft			Nominal Ring Gear Diameter in. [mm]	Axle Housing			Spindle Type	Options					
	Max. GAW lbs. [kg]	Max. GCW HWY lbs. [kg]		Body Diameter in. [mm]	Number of Splines	Spline Diameter in. [mm]		Box Section Width in. [mm]	Box Section Height in. [mm]	Wall thickness in. [mm]		Differential Lock	Pump	Electromagnetic Retarder	No Spin Differential		
D40-172	40,000 [18,144]	160,000 [72,575]	3.07, 3.21, 3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83	2.06 [52]	46	2.35 [60]	F 17.7 [440] R 17.3 [440]	4.61 [117]	5.24 [134]	0.43 [11] 0.50 [12.5]	R						
D46-172	46,000 [20,865]																
D50-172	50,000 [22,680]																
D52-190P	52,000 [23,587]	225,000 [102,058]	3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17, 7.83	2.25 [57]					18.5 [470]	5.31 [135]	5.91 [150]	0.63 [16]	W				
D60-190P	60,000 [27,216]																
T69-172HP*	69,000 [31,298]	160,000 [72,575]	3.07, 3.21, 3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14	2.06 [52]					F 17.7 [440] R 17.3 [440]	4.61 [117]	5.24 [134]	0.63 [16]	R	STD			
T78-190P*	78,000 [35,380]	240,000 [108,862]	3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.78, 5.25, 5.38, 5.57, 6.14, 6.83, 7.17, 7.83	2.25 [57]					18.5 [470]	5.31 [135]	5.91 [150]						

Rating is subject to Dana engineering application approval. * Tridem axle configuration.

BLUE AREAS INDICATE AVAILABILITY.

Drive Axle

Heavy-Duty Drive Axle

Spicer® Double Reduction Single Drive Axles

Axle Model	Ratings		Ratios	Axle Shaft			Nominal Ring Gear Diameter in. [mm]	Axle Housing			Spindle Type	Options	
	Max. GAW lbs. [kg]	Max. GCW HWY lbs. [kg]		Body Diameter in. [mm]	Number of Splines	Spline Diameter in. [mm]		Box Section Width	Box Section Height	Wall thickness		Electromagnetic Retarder	Differential Lock
S23-590	23,000 [10,433]	125,000 [56,699]	4.75, 4.99, 5.19, 5.44, 5.70, 5.98, 6.34, 6.65, 7.30, 7.48, 7.75, 8.55, 9.51, 9.97, 10.90	2.25 [57]	46	2.35 [60]	18.5 [470]	4.61 [117]	5.24 [134]	0.50 [12.5]	W		
S26-590	26,000 [11,793]									0.63 [16]			
S30-590	30,000 [13,608]							0.87 [22]					
S35-590FT	35,000 [15,875]	58,000 [26,308]	4.75, 4.99, 5.19, 5.44, 5.70, 5.98, 6.34, 6.65	2.24 [57]		2.35 [59.6]		[139]	[171]				

Rating is subject to Dana engineering application approval.

Spicer Double Reduction Tandem and Tridem Drive Axles

Axle Model	Ratings		Ratios	Axle Shaft			Nominal Ring Gear Diameter in. [mm]	Axle Housing			Spindle Type	Options	
	Max. GAW lbs. [kg]	Max. GCW HWY lbs. [kg]		Body Diameter in. [mm]	Number of Splines	Spline Diameter in. [mm]		Box Section Width	Box Section Height	Wall thickness		Pump	Differential Lock
D46-590HP	46,000 [20,865]	240,000 [108,862]	4.75, 4.99, 5.19, 5.44, 5.70, 5.98, 6.34, 6.65, 7.30, 7.48, 7.75, 8.55, 9.51, 9.97, 10.90	2.25 [57]	46	2.35 [60]	18.5 [470]	4.61 [117]	5.24 [134]	0.63 [16]	R		
D52-590P	52,000 [23,587]							5.31 [135]	5.91 [150]				
D60-590P	60,000 [27,216]							5.63 [143]	6.73 [171]	0.87 [22]	W		
	70,000 [31,751]							5.31 [135]	5.91 [150]	0.63 [16]			
T78-590P*	78,000 [35,380]												

Rating is subject to Dana engineering application approval. * Tridem axle configuration.

BLUE AREAS INDICATE AVAILABILITY.

Drive Axle

Medium-Duty Drive Axle

Spicer® Single Reduction Single Drive Axles

Axle Model	Ratings		Ratios	Axle Shaft			Nominal Ring Gear Diameter in. [mm]	Axle Housing			Spindle Type	Options			
	Max. GAW lbs. [kg]	Max. GCW HWY lbs. [kg]		Body Diameter in. [mm]	Number of Splines	Spline Diameter in. [mm]		Box Section Width in. [mm]	Box Section Height in. [mm]	Wall thickness in. [mm]		Differential Lock	Parking Brake	Trac-Lok	No Spin Differential
S14-110*	14,000 [6,350]	35,000 [15,876]	3.07, 3.31, 3.58, 3.73, 3.91, 4.10, 4.30, 4.44, 4.56, 4.78, 4.88, 5.13, 5.38, 5.57, 5.86, 6.14, 6.50	1.57 [40]	34	1.75 [44]	11.8 [300]	4.25 [108]	4.25 [108]	0.39 [9.5]	Varies by OEM				
S16-130*	16,000 [7,257]	40,000 [18,144]		1.61 [41]	36	1.89 [48]	12.2 [310]								
S17-140*	17,000 [7,711]	50,000 [22,680]	3.31, 3.36, 3.42, 3.58, 3.73, 3.91, 4.10, 4.30, 4.56, 4.88, 5.29, 5.57, 6.14, 6.50	1.81 [46]	39	2.00 [51]	13.4 [340]	4.61 [117]	5.24 [134]	0.39 [9.5]	L				
S19-140*	19,000 [8,618]														
S20-140*	20,000 [9,071]										R				
S21-140*	21,000 [9,525]														
21060S ◇	21,000 [9,525]	60,000 [27,216]	3.36, 3.55, 3.70, 3.90, 4.11, 4.33, 4.63, 4.88, 5.29, 5.57, 6.17, 6.50, 7.17	1.88 [48]	41	2.10 [53]	15.4 [391]	4.61 [117]	5.24 [134]	0.43 [11]	R				
22060S ◇	22,000 [9,979]														
23060SH ◇	23,000 [10,433]									R					

Rating is subject to Dana engineering application approval. * GenTech™ gearing is standard for this model. ◇ Optional GenTech™ gearing for coach and bus applications available on this model.

BLUE AREAS INDICATE AVAILABILITY.

Drive Axle

e-Drive Units & Axles

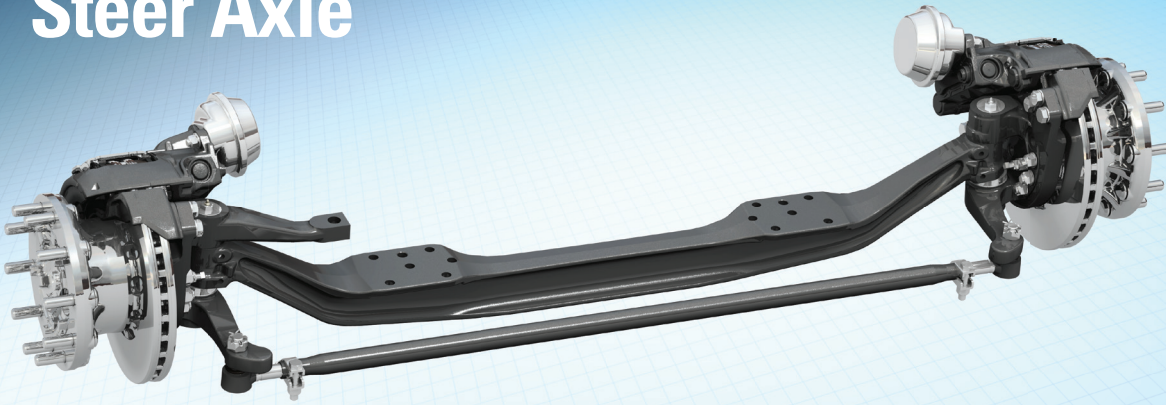
Application	Model	Max. GVW lbs. [kg]	Max. GAWR lbs. [kg]	Max. Speed mph [kph]	Peak Power kW	Max. Output Torque Nm
Light Commercial Vehicle	eS4500i	4,189 [1,900]	2,646 [1,200]	14,000 rpm	180	4,500
Light Commercial Vehicle, Mini Bus	eS5700r	16,535 [7,500]	7,716 [3,500]	43 [69]	130	5,700
Medium-Duty Truck, Medium Bus	eS9000r	23,500 [10,659]	15,500 [7,030]	75 [120]	237	9,000

Drive Axle

Lubrication Intervals – Heavy- and Medium-Duty

Spicer® Drive Axle Lubrication Intervals				
Synthetic or Mineral	Lubricant	SAE	Linehaul	On/Off-Hwy
Synthetic	SHAES-256	75W-90 FE 75W-90 XFE 75W-90 XFE 75W-85	500,000 mi (800,000 km) or 5 years (whichever comes first)	120,000 mi (193,000 km) or 1 year (whichever comes first)
Mineral Base	MIL-L-2105E/J02360, API GL-5 Gear oil, MIL-PRF-2105E	75W, 75W-90, 75W-140, 80W-90, 85W-140	120,000 mi (193,000 km) or 1 year (whichever comes first)	60,000 mi (96,500 km) or 1 year (whichever comes first)

Steer Axle

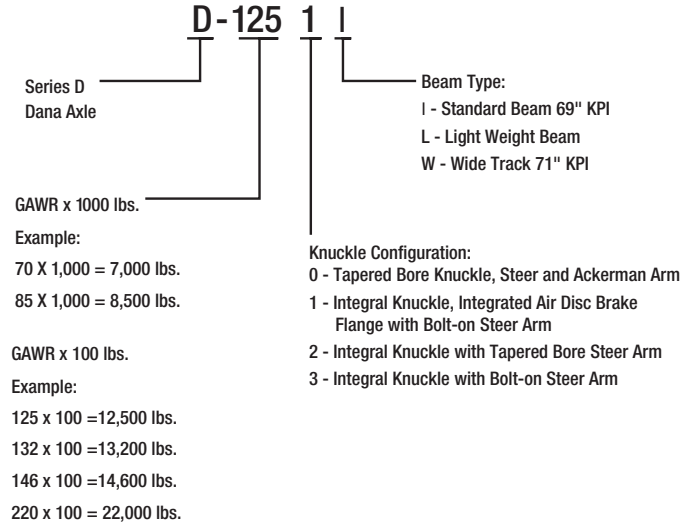
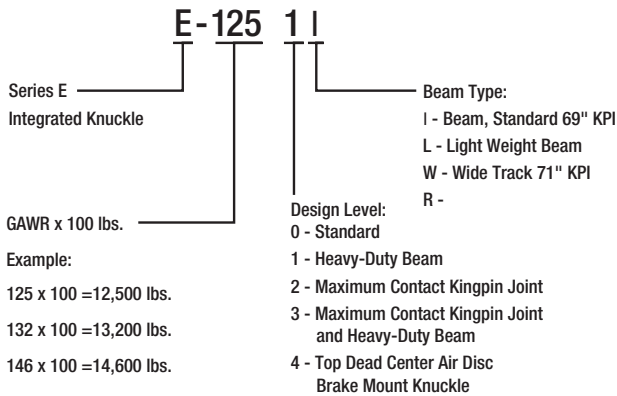


General Information – Heavy- and Medium-Duty

At Dana, our world-class innovations offer the highest efficiencies in a full line of medium-duty, heavy-duty, and specialty axle products for all commercial-vehicle applications. As a world leader in front axle technology, we provide our customers with the most versatile, durable, and reliable steer axles on the market.

Nomenclature

Steer Axle



Steer Axle

Applications – Heavy- and Medium-Duty

Steer Axles

Model	Description	Max. GAW lbs. [kg]	Linehaul	Heavy Haul	Logging	Mining	Oil Field	Construction	City Delivery	School Bus	Rescue	Refuse	Recreational
D-700 – D-850	Medium-Duty	8,500 [3,856]											
E-1002 – E-1252	Linehaul	12,500 [5,670]											
E-1203, E-1322, E-1462	Linehaul/Severe Service	14,600 [6,622]											
D-1001 – D-1461	Linehaul/Severe Service	14,600 [6,622]											
D-2000F, D-2200F	Severe Service	22,800 [10,342]											

BLUE AREAS INDICATE AVAILABILITY.

Steer Axle

Heavy- and Medium-Duty

Spicer® Integral Arm Steer Axles

Nominal Load Rating lbs. [kg]	Model	Light-Weight Beam	Beam Width** (KPI) in. [mm]	Beam Drop in. [mm]			LMS™ Hub Option	Bearing Cone Inner / Outer*
				3.5 [89]	3.74 [95]	5.0 [127]		
10,000 [4,536]	E-1002I		69.0 [1753]				HM212049/ 3782	
	E-1002W		71.0 [1803]					
12,500 [5,670]	E-1252I		69.0 [1753]					
	E-1252W		71.0 [1803]					
			71.5 [1816]					
13,200 [5,987]	E-1322I		69.0 [1753]					
	E-1322W		71.0 [1803]					
			71.5 [1816]					
14,600 [6,622]	E-1462I		69.0 [1753]					
	E-1462W		71.0 [1803]					
			71.5 [1816]					
10,000 [4,536]	D-1001I		69.0 [1753]					HM212049/ 3782
	D-1001W		71.0 [1803]					
			71.5 [1816]					
12,500 [5,670]	D-1251I		69.0 [1753]					
	D-1251W		71.0 [1803]					
			71.5 [1816]					
13,200 [5,987]	D-1321I		69.0 [1753]					
	D-1321W		71.0 [1803]					
			71.5 [1816]					
14,600 [6,622]	D-1461I		69.0 [1753]					
	D-1461W		71.0 [1803]					
			71.5 [1816]					

* Standard bearing numbers shown. Does not apply with LMS hub. ***"W" version models provide additional turning angle. Beam width dimension contingent on vehicle manufacturer.

Spicer Conventional Arm Steer Axles

Nominal Load Rating lbs. [kg]	Model	Beam Width (KPI) in. [mm]	Beam Drop in. [mm]			LMS™ Hub Option	Bearing Cone Inner/Outer
			3.5 [89]	3.74 [95]	5.0 [127]		
7,000 [3,175]	D-700F	71.0 [1803]				N/A	JM207049A/ 25877
8,000 [3,629]	D-800F	71.0 [1803]					
8,500 [3,856]	D-850F	71.0 [1803]					
20,000 [9,072]	D-2000F	68.0 [1727]				N/A	6461A/ 555S
	D-2000W	70.66 [1795]			5.24 [133]		
22,800 [10,342]	D-2200F	68.0 [1727]					
	D-2200W	70.66 [1795]			5.24 [133]		

BLUE AREAS INDICATE AVAILABILITY.

Steer Axle

Lubrication Intervals – Heavy- and Medium-Duty

Spicer® Steer Axle Lubrication Intervals		
Application	Vocation Description	Lubrication Interval King Pin Bushing/Tie Rod End
Linehaul On-highway or turnpike, linehaul and general freight	Long distance transport of various types of freight in high mileage operation (min 60,000 miles or 96,000 km/year)	50,000 miles / 80,000 km
Medium-Duty Ambulance, fire, city delivery, school bus, motor home, transit	Medium-duty lower mileage operation, less than 60,000 miles or 96,000 km/year – 100% of operation on road surfaces of concrete, asphalt and maintained gravel	30,000 miles / 48,000 km
On / Off Highway Construction, yard spotters, refuse	Medium & heavy-duty low-mileage operation, less than 30,000 miles or 48,000 km/year with 50% or less off-road operation	10,000 miles / 16,000 km
Off Highway Construction, logging, oil field, heavy haul	Heavy-duty low-mileage operation, less than 30,000 miles or 48,000 km/year with 50% - 80% off-road operation	5,000 miles / 8,000 km or 100 hrs.
Severe Service Mining, construction, logging, oil field, heavy haul	Severe-duty operation	50 hrs.

Notes:

1. The above lube intervals are for general guidance and may need to be adjusted. More severe applications/occurrences will require more frequent lubrication.
2. Do not mix with sodium-based grease.
3. #1 grade is used for extra cold environments.

We recommend genuine Spicer® lubricants.

Driveshaft

High Torque, Low RPM Applications

Handling heavy loads over the long haul has never been easier or more efficient, thanks to Dana's Spicer Life® Series driveshafts. Now enhanced to offer even greater torque, durability, and savings, SPL® products offer 70 percent more power density than their nearest competitor and a 40 percent increase in bearing life. No other U-joint meets the needs of high-efficiency truck applications better than the SPL U-joint. This product is now available with a service-free option for even greater savings.

Spicer Life® Series Operating Parameters

Series	Max. Momentary Joint Angle	Standard Slip		Rotating Diameter of Universal Joint		Rotating Diameter of End Yoke	
SPL140	25°	110 mm	4.33 in	160 mm	6.30 in	174 mm	6.22 in
SPL170				185 mm	7.28 in		
SPL170 I/A	45°	150 mm	5.91 in			193 mm	7.60 in
SPL250	25°	110 mm	4.33 in	193 mm	7.62 in		
SPL250HD							
SPL250 Lite HT	45°	150 mm	5.91 in	185 mm	7.28 in		
SPL250 I/A							
SPL350	25°	110 mm	4.33 in	206 mm	8.11 in	219 mm	8.62 in
SPL350HD							
SPL350 Lite							
SPL350 Lite HT							

Tubing Sizes for Spicer Life® Series

Series	Torque Rating		Tubing OD		Wall Thickness	
	(lbs. ft.)	Nm				
SPL140	10,326	14,000	107 mm	4.21 in	3.5 mm	.138 in
SPL140HD	11,063	15,000	110 mm	4.33 in	5 mm	.197 in
SPL170	12,539	17,000	126 mm	4.96 in	3 mm	.118 in
SPL170HD	14,751	20,000	128.5 mm	5.06 in	4.25 mm	.167 in
SPL170 I/A	11,063	15,000	116.7 mm	4.59 in	4.57 mm	.180 in
SPL250	16,595	22,500	128.5 mm	5.06 in	4.25 mm	.167 in
SPL250HD			130 mm	5.12 in	5 mm	.197 in
SPL250 Lite HT	18,439	25,000	118.6 mm	4.67 in	5.2 mm	.205 in
SPL250 I/A	15,489	21,000	128.5 mm	5.06 in	4.25 mm	.167 in
SPL350	22,127	30,000	138.5 mm	5.45 in	4.25 mm	.167 in
SPL350HD	25,815	35,000	140 mm	5.51 in	5 mm	.197 in
SPL350 Lite HT	22,127	30,000	120.2 mm	4.73 in	6 mm	.236 in

Journal Cross and Bearing Kits

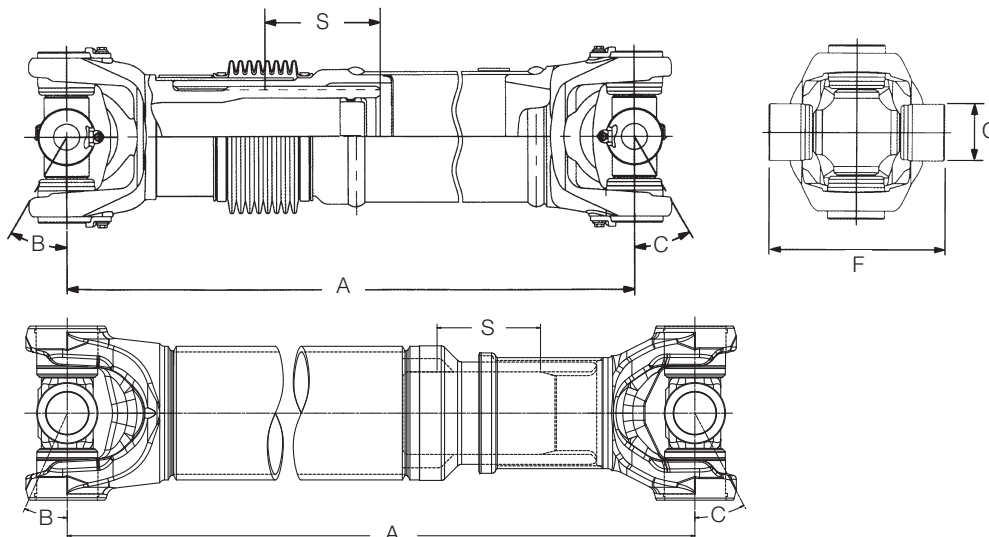
Series	U-Joint Kit for Quick Disconnect™ End Yoke
SPL140	SPL140X
SPL140SF	SPL140SFX
SPL170	SPL170-4X
SPL170SF	SPL170-SF4X
SPL250	SPL250-3X
SPL250SF	SPL250-SF3X
SPL350	SPL350X
SPL350SF	SPL350SFX

Driveshaft

Spicer Life® Series – Heavy-Duty

Slip Between Center Driveshaft

Driveshaft Assembly Part Number	Minimum Length Collapsed Centerline to Centerline of Cross "A"		Slip Joint End			Tight Joint End			U-Joint Span "F"		Bearing Cup Diameter "G"	
			Slip "S"		Maximum Angle "B"	Tube Size		Maximum Angle "C"				
	mm	in	mm	in		mm	in		mm	in	mm	in
SPL140 140DS55007 140DS55007F	430	16.93	110	4.33	25°	107.0 x 3.5	4.21 x .138	25°	139	5.46	49	1.93
SPL140HD 140DS55001 140DS55001F						110.0 x 5.0	4.33 x .197					
SPL170 170DS55001C 170DS55001F	440	17.34	110	4.33	25°	126.0 x 3.0	4.96 x .118	25°	164	6.46	55	2.16
SPL170HD 170DS5502C 170DS5502F						128.5 x 4.25	5.06 x .167					
SPL170I/A 170IA55010C 170IA55010F	528.6	20.81	150	5.91	45°	116.7 x 4.57	4.59 x .180	45°				
SPL250 250DS55002C 250DS55002F	450.3	17.73	110	4.33	25°	128.5 x 4.25	5.06 x .167	25°	163	6.42	60	2.37
SPL250HD 250DS5503C 250DS5503F						130.0 x 5.0	5.12 x .197	25°				
SPL250 I/A 250IA55001C 250IA55001F	507.7	19.99	150	5.91	45°	128.5 x 4.25	5.06 x .167	45°	163	6.42	60	2.37
SPL350 350DS55001 350DS55001F	468	18.43	110	4.33	25°	140 x 5.0	5.51 x .197	25°	172	6.77	65	2.56
SPL350 HD 350DS55002 350DS55002F						138.5 x 4.25	5.45 x .167					
SPL350 Lite HT 350DS55004 350DS55004F	465.8	18.34	110	4.33	25°	120.2 x 6	4.73 x .236	25°				

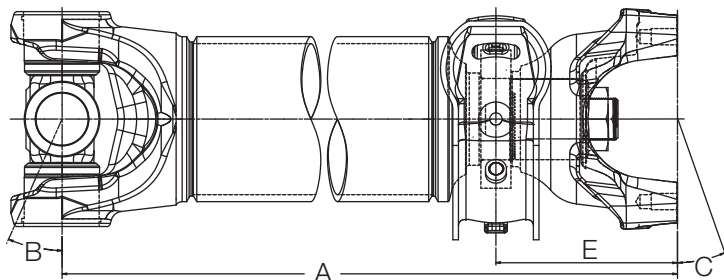
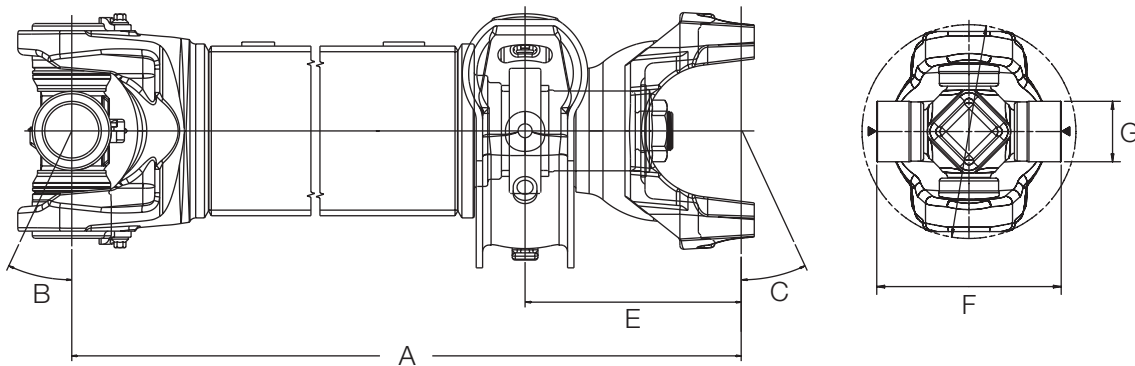


Driveshaft

Spicer Life® Series – Heavy-Duty

Fixed Yoke Coupling Shaft Assembly with Center Bearing

Coupling Shaft Assembly Part Number	Minimum Length Centerline of Cross to Centerline of End Yoke "A"		Maximum Angle "B"	Tube Size		Centerline of Bearing to Centerline of End Yoke "E"		Maximum Angle "C"	U-Joint Span "F"		Bearing Cup Diameter "G"	
	mm	in		mm	in	mm	in		mm	in	mm	in
SPL140 140CS54025 140CS54025F	350	13.79	25°	107.0 x 3.5	4.33 x .138	152	5.98	25°	139	5.46	49	1.93
SPL140HD 140CS54013 140CS54013F				110.0 x 5.0	4.33 x .197	154	6.08					
SPL170 170CS54018C 170CS54018F	368	14.50	25°	126.0 x 3.0	4.96 x .118	160	6.30	25°	164	6.46	55	2.17
SPL170HD 170CS5405C 170CS5405F				128.5 x 4.25	5.06 x .167							
SPL250 250CS54002C 250CS54002F	382	15.05	25°	128.5 x 4.25	5.06 x .167	164	6.46	25°	163	6.42	60	2.37
SPL250HD 250CS5403C 250CS5403F				130.0 x 5.0	5.12 x .197							
SPL350 350CS54001 350CS54001F	371.2	14.61	25°	138.5 x 4.25	5.51 x .197	156.2	6.15	15°	172	6.77	65	2.56
SPL350HD 350CS54002 350CS54002F				140.0 x 5.0	5.45 x .167							



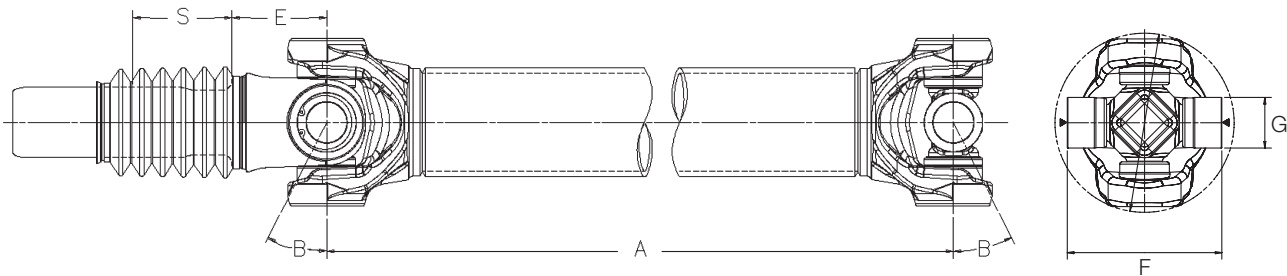
Driveshaft

Spicer Life® Series – Heavy-Duty – SPL® Lite Series

Outboard Slip Driveshaft

Driveshaft Assembly Part Number	Minimum Length Centerline of Cross to Centerline of Cross "A"		Maximum Angle "B"	Tube Size		Slip "S"		Centerline of Cross to Shoulder of Yoke Shaft "E"		U-Joint Span "F"		Bearing Cup Diameter "G"	
	mm	in		mm	in	mm	in	mm	in	mm	in	mm	in
SPL250 Lite HT 250DS85001 250DS85001F	286	11.26	25°	118.6 x 5.2	4.67 x .205	110	4.33	101.3	3.99	163	6.42	60	2.37
SPL350 Lite HT 350DS85002 350DS85002F	290.5	11.44		120.2 x 6.0	4.73 x .236			105	4.13	172	6.77	65	2.56

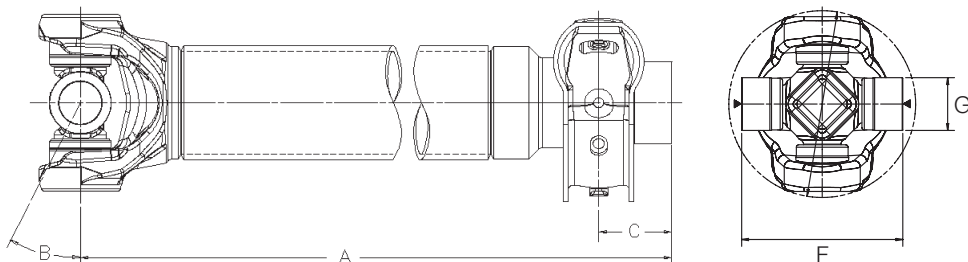
For additional configurations, contact Spicer Driveshaft Engineering for specific application information.



Outboard Slip Coupling Shaft Assembly with Center Bearing

Coupling Shaft Assembly Part Number	Minimum Length Centerline of Cross to End of Shaft "A"		Maximum Angle "B"	Tube Size		Centerline of Center Bearing to End of Sleeve "C"		U-Joint Span "F"		Bearing Cup Diameter "G"	
	mm	in		mm	in	mm	in	mm	in	mm	in
SPL250 Lite HT 250CS50001 250CS50001F	364.5	14.35	25°	118.6 x 5.2	4.67 x .205	76.5	3.01	163	6.42	60	2.37
SPL350 Lite HT 350CS50002 350CS50002F	366.5	14.4		120.2 x 6.0	4.73 x .236			172	6.77	65	2.56

For additional configurations, contact Spicer Driveshaft Engineering for specific application information.



Driveshaft

Spicer Life® Series – Medium-Duty

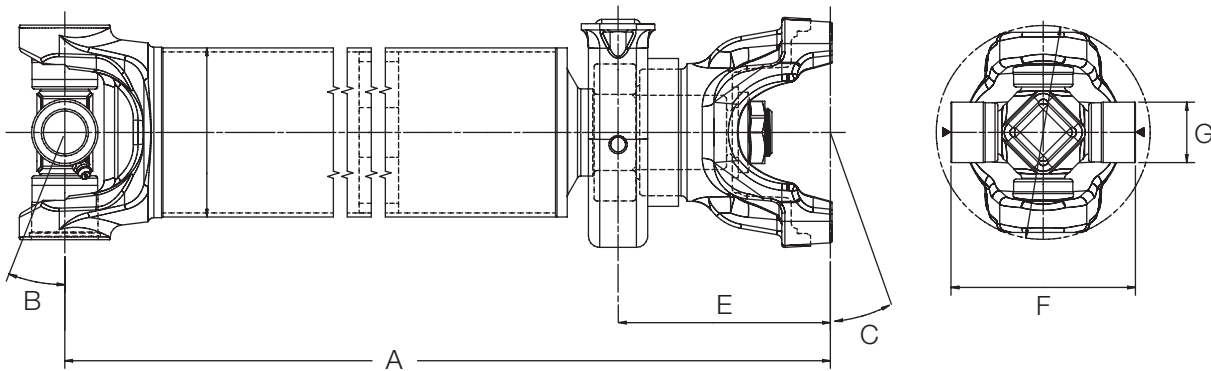
Medium-Duty Service Kits

Driveshaft Series	U-Joint Kit	Kit Type
SPL55	SPL55-1X	Re-Lube
SPL55XS	SPL55X	Pre-Lube
SPL70	SPL70-1X	Re-Lube
SPL70XS	SPL70X	Pre-Lube
SPL100	SPL100-1X	Re-Lube
SPL100XS	SPL100X	Pre-Lube

Fixed Yoke Coupling Shaft

Coupling Shaft Assembly Part Number	Minimum Length Centerline to Centerline of Cross "A"		Maximum Angle "B"	Tube Size		Centerline of Bearing to Centerline of End Yoke "E"		Maximum Angle "C"	U-Joint Span "F"		Bearing Cup Diameter "G"	
	mm	in		mm	in	mm	in		mm	in	mm	in
SPL55 055CS54002	233	9.17	22°	88.9 x 2.11	3.50 x .083	112	4.39	22°	106	4.19	35	1.37
SPL55XS 055CS54002G												
SPL70 070CS54003	249	9.80	26°	88.9 x 2.41	3.50 x .095	120	4.71	22.5°	126	4.96	35	1.37
SPL70XS 070CS54003G												
SPL100 100CS54001	289	11.39	25°	101.6 x 2.41	4.00 x .095	115	4.52	13.5°	126	4.96	41	1.63
SPL100XS 100CS54001G												

For additional configurations, contact Spicer Driveshaft Engineering for specific application information.



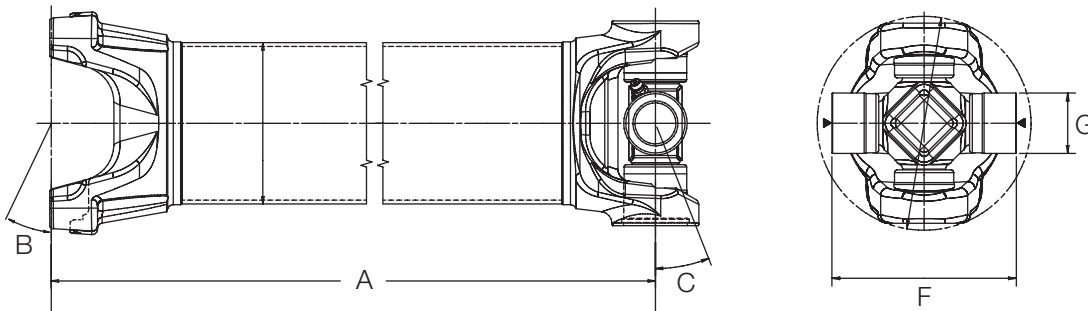
Driveshaft

Spicer Life® Series – Medium-Duty

Driveshaft

Driveshaft Assembly Part Number	Minimum Length Centerline of Cross to End Yoke "A"		Maximum Angle "B"	Tube Size		Maximum Angle "C"	U-Joint Span "F"		Bearing Cup Diameter "G"	
	mm	in		mm	in		mm	in	mm	in
SPL55 055DS05002	160	6.28	25°	88.9 x 2.11	3.50 x .083	22°	106	4.19	35	1.37
SPL55XS 055DS05002G										
SPL70 070DS05002	168	6.62	25°	88.9 x 2.41	3.50 x .095	26°	126	4.96	35	1.37
SPL70XS 070DS05002G										
SPL100 100DS05001	206	8.00	23.5°	101.6 x 2.41	4.00 x .095	14.5°	126	4.96	41	1.63
SPL100XS 100DS05001G										

For additional configurations, contact Spicer Driveshaft Engineering for specific application information.



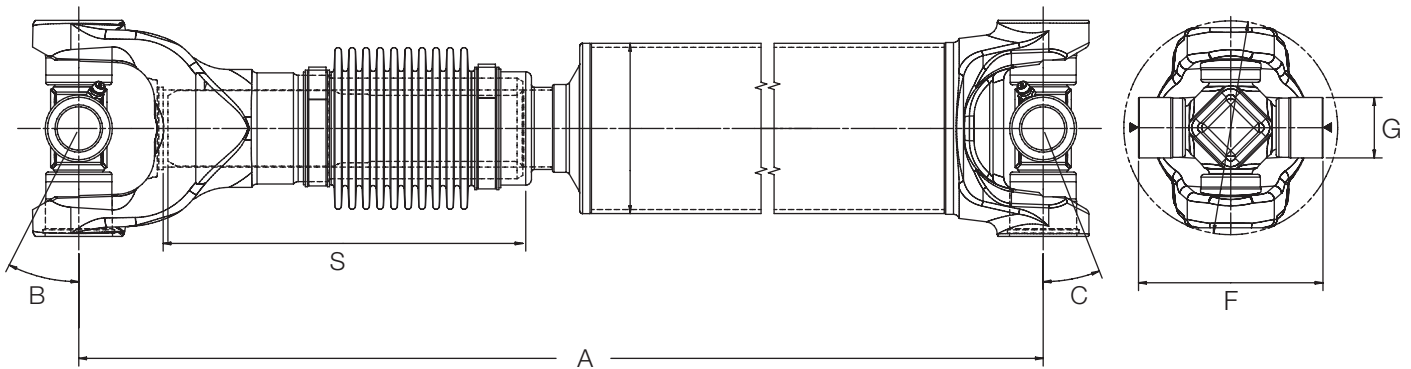
Driveshaft

Spicer Life® Series – Medium-Duty

Slip Between Center Driveshaft

Driveshaft Assembly Part Number	Minimum Length Collapsed Centerline to Centerline of Cross "A"		Slip Joint End			Tight Joint End			U-Joint Span "F"		Bearing Cup Diameter "G"	
			Slip "S"		Maximum Angle "B"	Tube Size		Maximum Angle "C"				
	mm	in	mm	in		mm	in		mm	in	mm	in
SPL55 055DS55005	356	14.00	110	4.33	27°	88.9 x 2.11	3.50 x .083	22°	106	4.19	35	1.37
SPL55XS 055DS55005G												
SPL70 070DS55006	366	14.41	110	4.33	25°	88.9 x 2.41	3.50 x .095	26°	126	4.96	35	1.37
SPL70XS 070DS55006G												
SPL100 100DS55002	421	16.58	110	4.33	25°	101.6 x 2.41	4.00 x .095	25°	126	4.96	41	1.63
SPL100XS 100DS55002G												

For additional configurations, contact Spicer Driveshaft Engineering for specific application information.



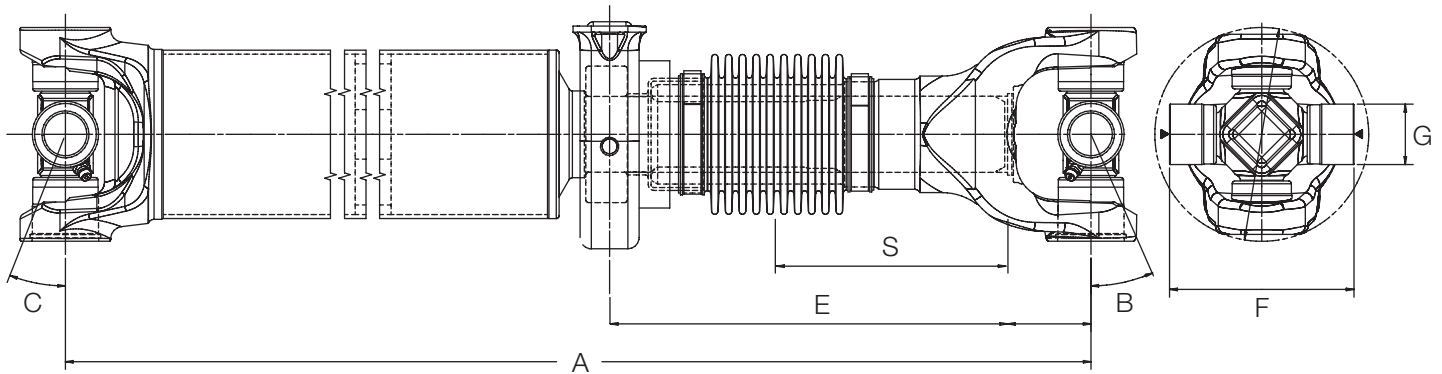
Driveshaft

Spicer Life® Series – Medium-Duty

Outboard Slip Coupling Shaft

Driveshaft Assembly Part Number	Minimum Length Collapsed Centerline to Centerline of Cross "A"		Slip Joint End			Tight Joint End					U-Joint Span "F"		Bearing Cup Diameter "G"	
			Slip "S"	Max. Angle "B"	Centerline of Bearing to Centerline of Slip Yoke Collapsed "E"		Tube Size		Max. Angle "C"					
	mm	in			mm	in	mm	in		mm	in	mm	in	
SPL55 055CS55002	375	14.77	110	4.33	22°	254	9.84	88.9 x 2.11	3.50 x .083	22°	106	4.19	35	1.37
SPL55XS 055CS55002G														
SPL70 070CS55002	390	15.34	110	4.33	26°	260	10.25	88.9 x 2.41	3.50 x .095	26°	126	4.96	35	1.37
SPL70XS 070CS55002G														
SPL100 100CS55001	449	17.66	110	4.33	25°	273	10.75	101.6 x 2.41	4.00 x .095	25°	126	4.96	41	1.63
SPL100XS 100CS55001G														

For additional configurations, contact Spicer Driveshaft Engineering for specific application information.



Driveshaft

Lubrication Intervals – Heavy- and Medium-Duty

Spicer® Driveshaft Lubrication Intervals*				
Series	City	On-Hwy	Linehaul	On/Off-Hwy
Spicer® 10 Series™ (1480 thru 1810 and SPL90) Slip members also require lubrication.	8,000 mi (12,800 km) or 3 months (whichever comes first)	15,000 mi (24,000 km) or 3 months (whichever comes first)	15,000 mi (24,000 km) or 3 months (whichever comes first)	8,000 mi (12,800 km) or 3 months (whichever comes first)
Spicer Life® Series – Medium-Duty (SPL55, 70 and 100) Slip members are booted and permanently lubricated.	25,000 mi (40,000 km) or 6 months (whichever comes first)	25,000 mi (40,000 km) or 6 months (whichever comes first)	25,000 mi (40,000 km) or 6 months (whichever comes first)	25,000 mi (40,000 km) or 6 months (whichever comes first)
Spicer Life® Series – Medium-Duty (SPL140) Standard Spicer Life® Series U-joint. Slip members are booted and permanently lubricated.	25,000 mi (40,000 km) or 6 months (whichever comes first)	100,000 mi (160,000 km) or 6 months (whichever comes first)	100,000 mi (160,000 km) or 6 months (whichever comes first)	25,000 mi (40,000 km) or 6 months (whichever comes first)

Spicer Life First Lubrication Cycle*				
Spicer Life – Heavy-Duty (SPL170, 250 and 350) Extended lubrication U-joints. After initial miles (kilometers) or time is reached, the joints must be relubricated. Slip members are booted and permanently lubricated.	100,000 mi (160,000 km) or 1 year (whichever comes first)	350,000 mi (560,000 km) or 3 years (whichever comes first)	350,000 mi (560,000 km) or 3 years (whichever comes first)	100,000 mi (160,000 km) or 1 year (whichever comes first)

Spicer Life Relubrication Cycle*				
Spicer Life – Heavy-Duty (SPL170, 250 and 350) Extended lubrication U-joints. Once greased, this relubrication interval must be followed. Slip members are booted and permanently lubricated.	25,000 mi (40,000 km) or 6 months (whichever comes first)	100,000 mi (160,000 km) or 6 months (whichever comes first)	100,000 mi (160,000 km) or 6 months (whichever comes first)	25,000 mi (40,000 km) or 6 months (whichever comes first)

*We require relubrication with lithium-based grease meeting NLGI Grade 2 specifications as well as ASTM D4950 "LB" specifications.



For premium results, use a synthetic lubricant like Spicer® Ultra-Premium Grease.

NOTE: We recommend that all driveshafts be inspected for wear and damage every time the vehicle is serviced. This includes any scheduled and/or unscheduled maintenance that occurs within the driveshaft lube intervals.

City is defined as all applications that require a minimum of 90% of operation time within the city limits.

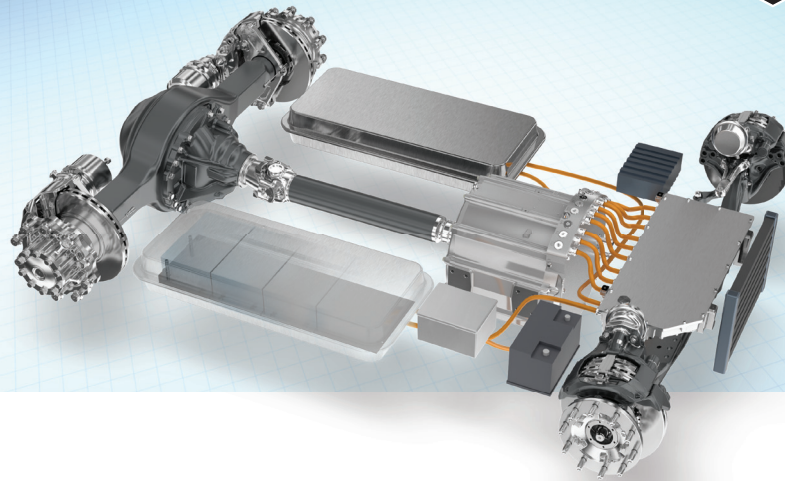
On-Highway is defined as all applications requiring less than 10% of operating time on gravel dirt or unpaved roads.

Linehaul is defined as 100% of operation time on smooth concrete or asphalt.

On/Off-Highway is defined as all applications operating primarily on paved roads, but requiring more than 10% of operating time on gravel, dirt, or unpaved roads.

We recommend genuine Spicer® lubricants.

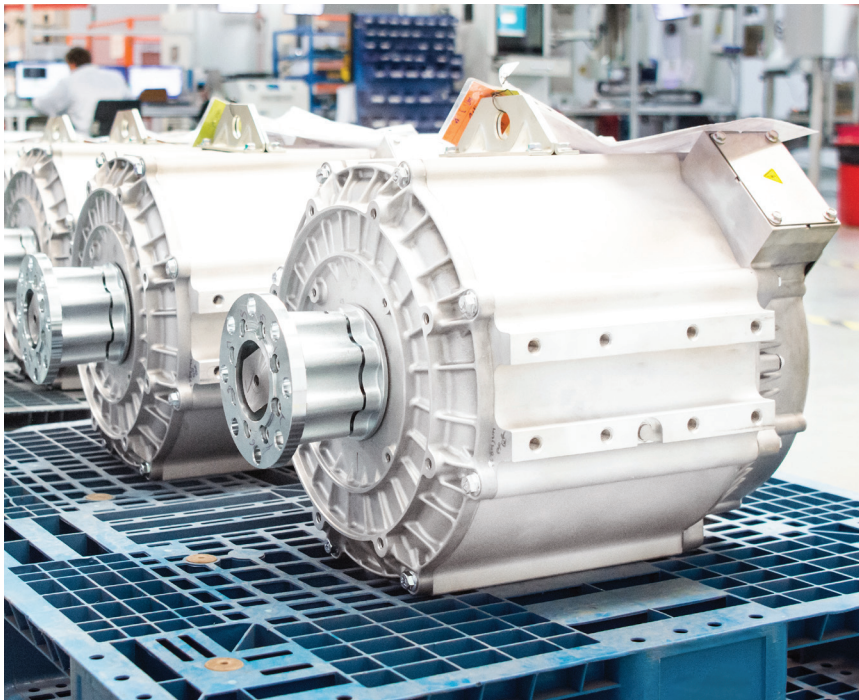
e-Powertrain Products



General Information

Supported by a legacy of innovation in conventional drivetrains, Dana has the electrified system solutions to meet any OEM's needs wherever they are in their electrification development.

Dana TM4[®] SUMO



Applications

- City buses
- Delivery trucks
- Tow tractors
- Mining
- Marine applications
- Shuttles
- Other heavy duty vehicles

SPECIFICATIONS

600 Vdc, 30 seconds or more, 45°C

	MOTOR + INVERTER	PHASES	PEAK POWER (kW)	CONTINUOUS POWER (kW)	PEAK TORQUE (Nm)	CONTINUOUS TORQUE (Nm)	MAX OPERATING SPEED (RPM)
SUMO MD	SUMO MD HV1500-3P	3	162	100	1590	680	3250
	SUMO MD HV1800-3P	3	170	100	1775	680	3250
	SUMO MD HV2200-3P	3	215	145	2430	1275	2700
	SUMO MD MV2500-6P	6	230 ¹	115	2500	1140	3000
	SUMO MD HV3000-6P	6	235	145	3100	1055	3000
	SUMO MD HV2400-6P	6	240	120	2300	605	3500
	SUMO MD HV2100-6P	6	250	130	2150	685	3500
	SUMO MD HV2200-6P	6	255	190	2355	990	3700
	SUMO MD HV2600-6P	6	265	155	2760	970	3500
SUMO HD	MOTOR + INVERTER	PHASES	PEAK POWER (kW)	CONTINUOUS POWER (kW)	PEAK TORQUE (Nm)	CONTINUOUS TORQUE (Nm)	MAX OPERATING SPEED (RPM)
	SUMO HD HV2700-9P	9	250	195	2700	2060	3375
	SUMO HD HV3400-9P	9	250	195	3400	2060	2450

¹350 Vdc, 30 seconds, 45°C
Specifications are subject to change

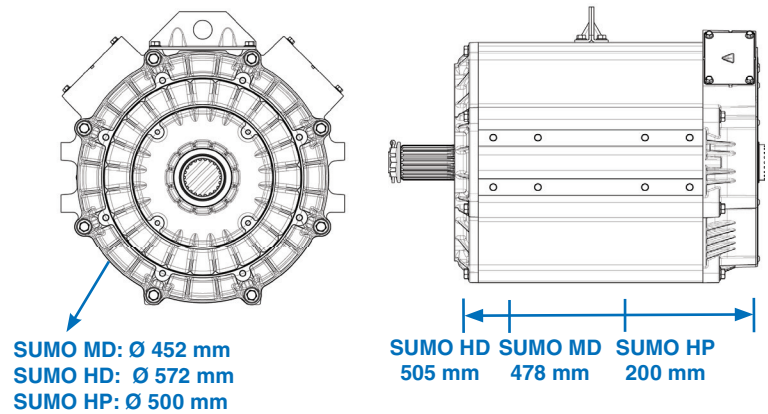
Dana TM4[®] SUMO



WEIGHT AND DIMENSIONS

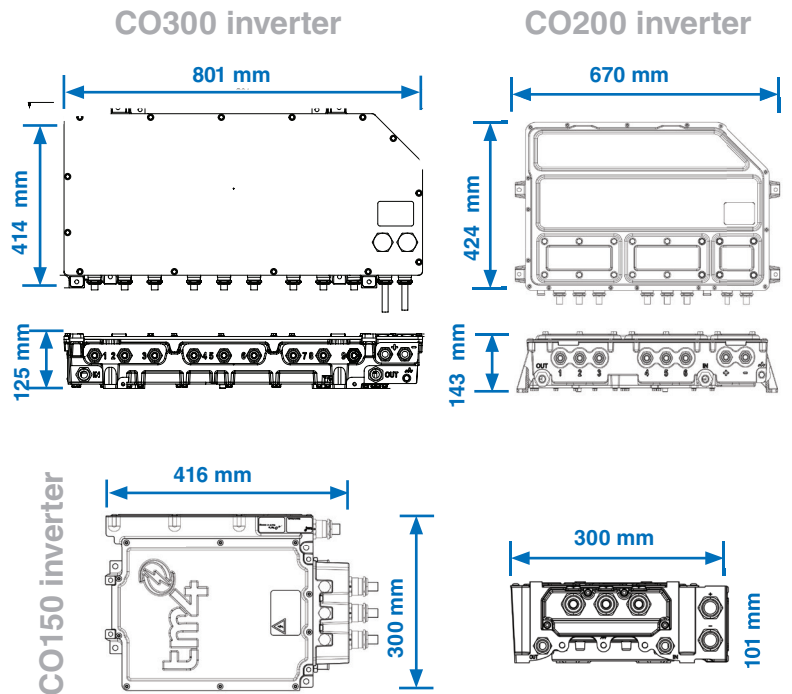
SYSTEM	PART	WEIGHT (kg)	LENGTH (mm)
SUMO HD-9P	LSM280 motor	340	505
	CO300 inverter	36	801
SUMO MD-6P	LSM200 motor	212	478
	LSM140 motor	180	419
SUMO MD-3P	CO200 inverter	26	670
	LSM110 motor	180	411
	CO150 inverter	11	416

Motors/generators



STANDARDS

Automotive components	AEC-Q100 AEC-Q101 ACE-Q200
Electromagnetic compatibility EMC	Main automotive international standards
System protection	IP6K5 (IP69K optional)
Toxic materials and flammability	ROHS, ELV, UL94-VO



Dana TM4[®] CO150



INVERTER FEATURES

HARDWARE FEATURES

- 3-phase motor controller/inverter
- High power and current densities
- Uses Reflex[™] gate driver technology
- Four-quadrant operation
- Multiple resolver/encoder compatibility
- Multiple terminal options
- High efficiency
- Variable switching frequency
- HV connectors with Hazardous Voltage Interlock Loop (HVIL) and keying for maintenance and operational safety

OTHER

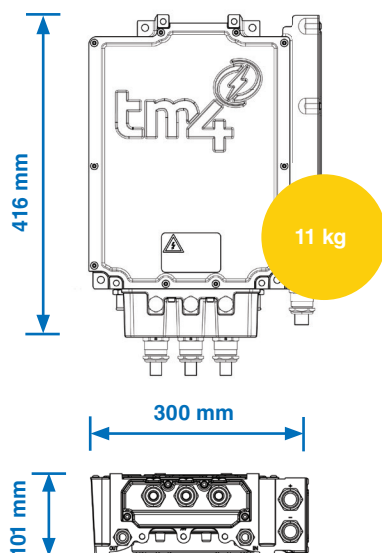
- The CO150 is also offered as an auxiliary inverter

SPECIFICATIONS

INVERTER	Max electrical output power	Max output current	Max blocked rotor current	Max electrical frequency	Performance voltage
CO150	180 kW ¹	615 Arms	650 Adc	1.25 kHz	320-450 Vdc
CO150-HV*	200 kW ²	425 Arms	450 Adc	750 Hz	500-750 Vdc

Specifications are subject to change
¹450Vdc, 30 seconds, 65°C
²750Vdc, 30 seconds, 65°C
 *Versions up to 800V soon available

DIMENSIONS



SOFTWARE FEATURES

- Sinusoidal motor current
- Temperature sensing for system derating and alarms
- Communication fault detection
- CAN 2.0b communication interface
- Torque or speed control
- Advanced control algorithm for optimal power module usage and efficiency
- Compatible with Dana TM4's ODIN advanced diagnostic software suite

MULTI-PHASE OPTION

Dana TM4 also offers its CO200 6 phase and CO300 9 phase inverters as an alternative for high power electric & hybrid vehicle motor / generator control needs.



CO200



CO300

Dana TM4[®] CO150-HVF



INVERTER FEATURES

HARDWARE FEATURES

- High power and current densities
- Uses Reflex[™] gate driver technology
- Configurable voltage and frequency
3-phase output
- High efficiency (97.5%)
- Uses proven CO150 motor controller platform
- CAN communication

SOFTWARE FEATURES

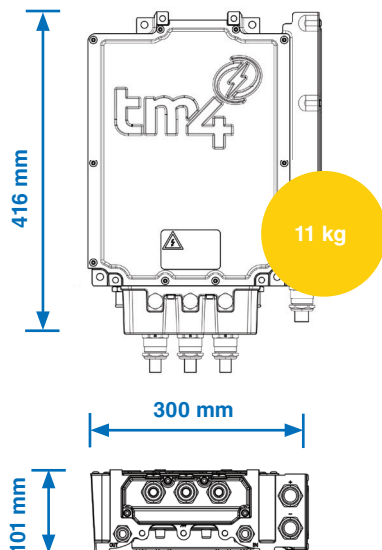
- Temperature sensing for system protection
- Advanced diagnostic capabilities
(Dana TM4 ODIN)
- Switching fault detection
- Client configurable parameters
 - AC V/f ratio
 - AC current limit
 - DC voltage limits
 - Load parameters
- Dynamic control over CAN
 - Soft start/stop
 - AC frequency (open loop speed control of AC motors)
 - Field rotation direction

SPECIFICATIONS

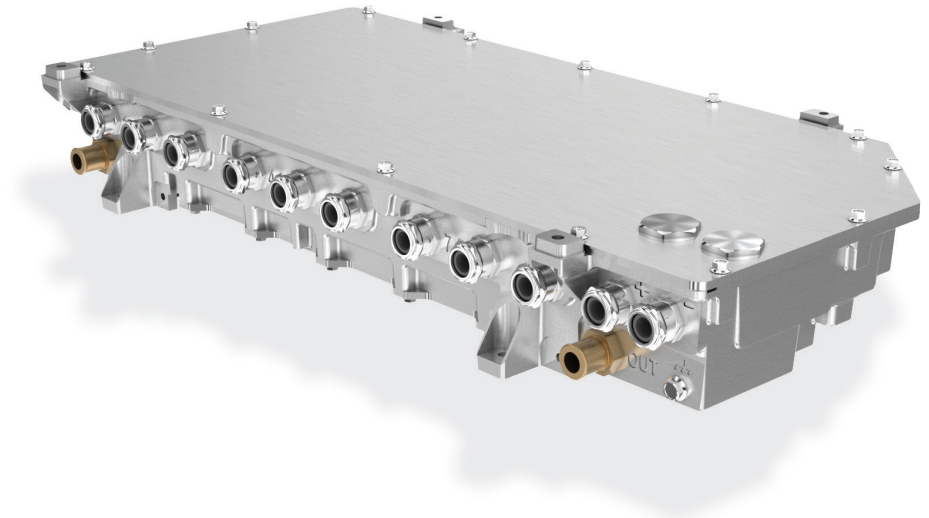
INVERTER	Max electrical output power	Max output current	Operating battery voltage	Output frequency	Auxiliary supply voltage (nominal)	Max switching frequency
CO150-HVF	200kVA	350 Arms	300-750 Vdc	0-500 Hz	12-24 Vdc	16 KHZ

Specifications are subject to change

DIMENSIONS



Dana TM4[®] C0300 Inverter



Inverter Features

- 9-phase motor controller/inverter
- High power and current density
- Uses Dana TM4[®] REFLEX[™] gate driver technology
- Multiple resolver/encoder compatibility
- Operating voltage: 500-750 VDC
- Four-quadrant operation
- High efficiency
- Variable switching frequency
- Compatible with brushless resolvers (Tamagawa, LTN, and others)

Software Features

- Sinusoidal motor current
- Temperature sensing for system derating and alarms
- Compatible with Dana TM4[®]'s ODIN advanced diagnostic software suite
- Communication fault detection
- CAN 2.0b communication interface
- Torque or speed control
- Advanced control algorithm for optimal power module usage and efficiency

Dana TM4[®] BCI20



SPECIFICATIONS

Charger mode

Characteristics	450 VDC	800 VDC*
Charging control modes	Power DC Voltage DC Current AC Current	
AC input		
Operational voltage range	96-264 V _{AC}	
Max current	80 A _{RMS}	
Efficiency	>92%	
Power Factor	>98%	
DC output		
Output power	15 kW @ 208 V _{AC} 18 kW @240 V _{AC}	
Operational voltage range	200-450 V _{DC}	400-850 V _{DC}
Protection	Over & Undervoltage shutdown Overcurrent protection Thermal derating	

Inverter mode

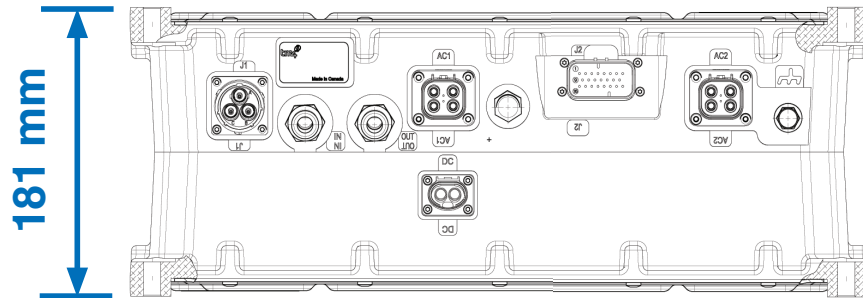
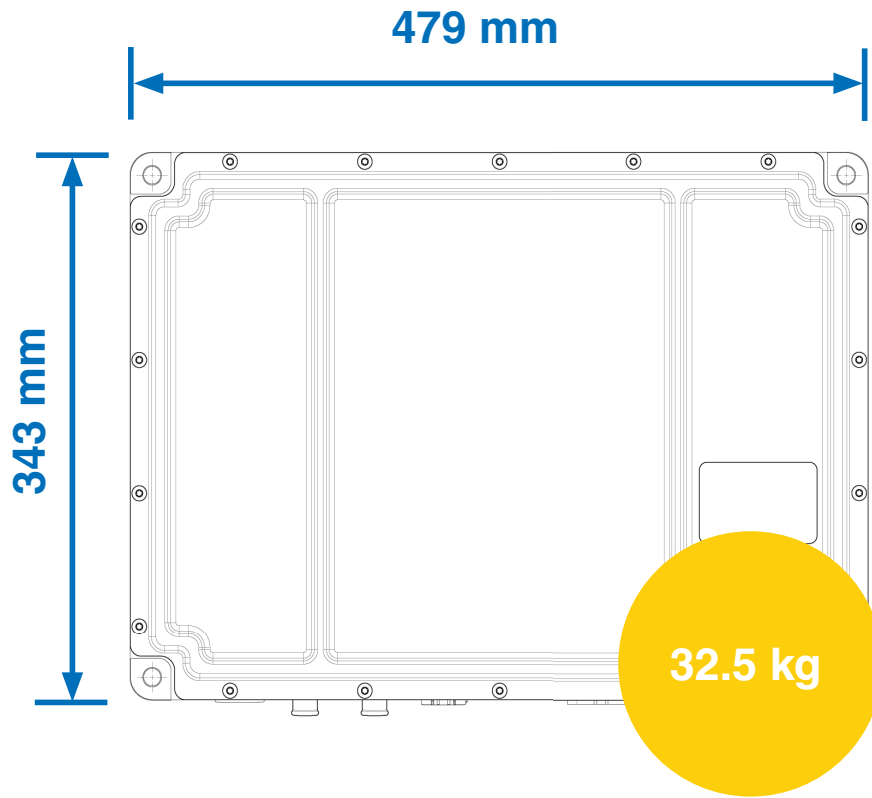
Characteristics	450 VDC	800 VDC*
Output control mode	V/f	
AC output		
Line-line voltage (3 phases)	10 to 240 V _{RMS}	
Number of outputs	2 (independent)	
Power	9 kVA per output	
Frequency	1 to 500 Hz	
Maximum current	27 A _{RMS}	
Efficiency	>90%	
DC input		
Operational voltage range	200-450 V _{DC}	400-850 V _{DC}
Protection	Over & Undervoltage shutdown Overcurrent protection Thermal derating	

Standards	
Standards	FCC part 15, CISPR25, ISO11452-4, ISO7637-2/-3, ISO16750-2, IEC 61000-6-1, ISO 10605, IEC 61851-21, IEC61851-1, SAE 61861-1
EVSE compatibility	SAE J1772
Insulation	AC to chassis: 1500 V _{ac} DC to chassis: 2600 V _{ac} AC to DC: 1900 V _{ac} (MV) or 2600 V _{ac} (HV)

Environmental & cooling features	
Coolant temperature Ambient temperature Storage temperature	-40°C to 85°C
Cooling system	40% water / 60% glycol
Ingress protection	IP67
Shock & vibration standards	GMW3172

*preliminary (available Q2 2018) Specifications are subject to change

DIMENSIONS



Service and Support



Online Support

Dana Support 24 Hours a Day at dana.com/cv

Our website is your “virtual” Dana support vehicle. Whether you are a truck maker, dealer, distributor, owner or driver, you can find instant answers when you need them most.

On dana.com/cv you can quickly and conveniently find:

- The latest service updates
- The Dana literature library
- Approved Dana lubricants
- Warranty information

Information at Your Fingertips

Bookmark dana.com/cv to your web browser today. This will help you quickly access our comprehensive website containing valuable service material whenever you need it.

You can also sign up for the free Dana e-newsletter.

You'll receive automatic Dana drivetrain updates to keep you in the know with money-saving and money-making news.

Training

Our expert and onsite drivetrain consultants are the most experienced in the business. We're here to help you with any of your drivetrain needs.

Aftermarket

Our support team helps keep your vehicles running like new with aftermarket support. We can offer a wide range of solutions to fit your needs, from genuine to value-added replacement parts.

Specs and More

From detailed product information to unparalleled customer support, dana.com/cv has everything you need for your business.



EXPERT SUPPORT

- Dedicated call center
- Dedicated applications and engineering contacts
- Localized inventory for truck down support
- Training resources
- Detailed product analysis



24-HOUR AVAILABILITY

- Online access to technical and product literature
- Electronic application approval requests
- Anytime access to digital product tutorials



WARRANTY SUPPORT

- Strong coverage
- Equitable repair times
- Extended protection plan service
- Dana real-time warranty process



TECHNOLOGY LEADERS

- Direct access to a world leader in drivetrain technology
- Award-winning technologies
- Next generation support tools

Service and Support

Warranty Requirements

Warranty

From the instant you develop drivetrain specifications, the Dana team provides easy-to-understand warranty coverage based on the vehicle's intended use, which means fairer and faster warranty administration.

Matching Coverage to Use

Dana plans set the standard for the most comprehensive drivetrain warranty coverage in the trucking industry. The Dana Warranty Manual gives a comprehensive look at what drives Dana Warranty Coverage for the U.S. and Canada. By matching the vehicle type to the job to be performed, the Dana Warranty Manual accurately and fairly aligns warranty coverage.

Warranty Claim Procedures and Guidelines

Filing a warranty claim can be a confusing process that oftentimes leads to reduced or rejected claims if some or all of the requirements are not met. To receive your maximum reimbursement in a timely manner, be sure to read through the Claim Procedures section of the Warranty Manual before you begin the warranty claim process.

Dana Real-Time Warranty

The Dana Real-Time Warranty System saves time for more than 800 dealers in the U.S. and Canada with over-the-phone warranty claim approval and online claim status tracking. warranty.dana.com

Dana Support System

The Dana Call Center plays a major role in the support of Dana products. The Call Center is made up of two different teams: the General Tech Team and the Real-Time Warranty Team.

You can reach a Call Center Representative from anywhere in North America by dialing 1-877-777-5360.

Extended Protection Plans

Expanded Lineup of Extended Protection Plan Offerings from Dana

Keeping your truck on the road is critical to your livelihood. Dana Extended Protection Plans give you peace of mind knowing that, despite increasing parts and labor costs, or how severe the work conditions are, you can repair your truck to its original standard of quality.

Dana offers Extended Protection Plans for axles and 100% of parts and labor on all warrantable failures. For a relatively modest investment, you can rest easy knowing that Dana is there to support you throughout the life of your truck. You choose the protection that meets your needs.

Packages

Full coverage is provided for all Spicer® heavy- and medium-duty drive axles.

EPP - Steer Axles (PDF)

EPP - Drive Axles (PDF)

All Vocations – Extended Protection Plans cover all drivetrain components, regardless of the severity of use in your industry, including logging and mining vehicles.

Single Year Coverage Available – Dana Extended Protection Plans may be purchased for as little as a single year, so you do not have to purchase coverage for longer than you expect to own your vehicle.

Warranty Coverage for U.S. and Canada Only

Please contact your Dana Representative for additional information at 1-877-777-5360.

Benefits

Full Warranty Protection

Full parts and labor on warrantable failures.

Service Available at All OEM Dealer Facilities

With our Extended Protection Plans, you are never far from parts and service, with over 3,500 dealers in the U.S. and Canada.

Genuine Parts

All replacement parts will be genuine Dana parts, so you know your repaired vehicle will have the same outstanding quality it had when it was first purchased.

Simple Payment Options

You can purchase a Dana Extended Protection Plan by rolling it into the financing of your new vehicle, or simply fill out the online registration form and pay by check. Peace of mind has never been easier to obtain.

Protection from Cost Inflation

Your Extended Protection Plan covers all repairs to your vehicle's drivetrain, regardless of increases in parts or labor that are certain to occur over time. One simple payment now can save you substantial repair charges in the future.

Enhanced Resale Value

Repairing your vehicle with genuine Dana parts increases its resale value. Plus, your extended warranty coverage is transferable, further enhancing your resale value.



SPICER®

Drivetrain Systems

Axles
Driveshafts
Transmissions

VICTOR REINZ®

Sealing Products

Gaskets and Seals
Cylinder-Head Cover Modules
Thermal-Acoustical Protective Shielding

LONG®

Thermal Products

Transmission Oil Coolers
Engine Oil Coolers
Battery Coolers



e-Drive Systems

e-Powertrain
System Software and Controls



About Dana Incorporated

Dana is a world leader in highly engineered solutions for improving the efficiency, performance, and sustainability of powered vehicles and machinery. Dana supports the passenger vehicle, commercial truck, off-highway, and industrial markets as well as industrial and stationary equipment applications. Founded in 1904, Dana employs thousands of people on six continents who are committed to delivering long-term value to customers.

About Dana Commercial Vehicle Systems

Dana serves commercial-vehicle customers worldwide with over 40 facilities and five technical centers in 11 countries that design, market, and manufacture complete systems for medium and heavy-duty trucks.

We continuously illustrate our commitment to the commercial-vehicle industry by introducing new products with enhanced, award-winning technologies, including Spicer® axles and driveshafts; Victor Reinz® sealing systems; Long® thermal-management products; and Spicer® Electrified™ e-Powertrain products.

We back our offerings with world-class after-sales support and genuine service parts manufactured to the same high standards as original-equipment products to maximize the return on investment for your commercial vehicle.

For spec'ing or service assistance, call 1-877-777-5360 or visit our website at dana.com/cv

Dana Commercial Vehicle Driveline Technologies

3939 Technology Drive
Maumee, Ohio, USA 43537
dana.com/cv



SPICER®

Drivetrain Products

Application Policy

Capacity ratings, features, and specifications vary depending upon the model and type of service. Application approvals must be obtained from Dana; contact your representative for application approval. We reserve the right to change or modify our product specifications, configurations, or dimensions at any time without notice.

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