



CUSHMAN

MODEL: SHUTTLE™ 2
TYPE: ELECTRIC DRIVE CARGO CARRIER
MODEL YEAR: 2017
Part No: 618848



PRODUCT SPECIFICATION

CONFIGURATION HIGHLIGHTS

Precision Drive System™ (PDS): Factory programmable to application

- Solid State continuously variable separately excited speed controller
- Dash mounted direction selector switch (Forward-Neutral-Reverse)
- Anti-roll back, walkaway braking and alarm
- Anti-stall motor protection
- Regenerative 'Pedal Down' and/or 'Pedal Up' braking
- Eight, 6 Volt Deep Cycle
- Full torque, reduced speed reverse
- Inductive throttle sensor
- Diagnostic indicator
- Factory selectable performance options

Battery Charger: 48 VDC, 120 VAC, Underwriters Laboratories (U.L.) Listed, (C.S.A. Certified)

Motor: 48 volt DC shunt wound, brazed armature, solid copper windings. Intermittent Horsepower 18.1 hp (13.5 kW) at 1900 rpm (1hour)

Drive Train: Direct motor shaft connected to transaxle pinion shaft

Electrical System: 48 Volt DC, eight, 6 volt deep cycle storage batteries (107 minute, 225 amp-hour @ 20 hr. discharge rate)

Transaxle: Differential with helical gears

Brakes: Dual rear wheel mechanical self-adjusting drum brakes. Automatic single point park brake release with self-compensating system

PRODUCT OVERVIEW

Dimensions

Overall Length	141.0 in (358 cm)
Overall Width	48.5 in (123 cm)
Overall Height (No Canopy)	48.6 in (123 cm) (Top of steering wheel)
Overall Height (With Canopy)	72.0 in (183 cm)
Wheel Base	93.5 in (237 cm)
Front Wheel Track	34.2 in (85 cm)
Rear Wheel Track	38.0 in (97 cm)
Gnd Clearance @ Differential	4.3 in (11 cm)
Cargo Bed Width	44.0 in (112 cm)
Cargo Bed Length	68.5 in (174 cm)

Vehicle Power

Power Source	48 Volts DC
Motor Type	Shunt Wound
Continuous Horsepower (kW)	2.5 hp (1.9 kW)
Intermittent Horsepower (kW)	18.1 hp (13.5 kW) @ 1900 rpm
Electrical System	48 Volt
Batteries (Qty, Type)	Eight, 6 Volt Deep Cycle
Key or Pedal Start	Pedal Start
Battery Charger	48 V, 120 VAC, UL/CSA
Speed Controller	400 Amp Precision Drive System (PDS)
Drive Train	Motor Shaft Direct Drive
Transaxle	Differential with helical gears
Gear Selection	Dash Mounted Forward-Neutral-Reverse
Rear Axle Ratio	14.7:1

Performance

Seating Capacity	2 Person
Dry Weight	810 lb (370 kg) (Without Batteries)
Curb Weight	1300 lb (590 kg)
Vehicle load capacity	1000 lb (455 kg)
Outside Clearance Circle	25.5 ft (7.8 m)
Intersecting Aisle Clearance	N/A
Ground Speed (Level Ground)	13 mph ± 0.5 mph (21 kph ± 0.8 kph)
Towing Capacity	N/A

Steering & Suspension

Steering	Self-compensating rack and pinion
Front Suspension	Leaf springs with hydraulic shock absorbers
Rear Suspension	Leaf springs with hydraulic shock absorbers
Service Brake	Rear wheel mechanical self-adjusting drum
Parking Brake	Self-compensating, single point engagement
Front Tires	18 x 8.50 - 8 (4 Ply Rated)
Rear Tires	18 x 8.50 - 8 (4 Ply Rated)

Body & Chassis

Frame	Welded steel. DuraShield™ powder coat
Front Body & Finish	Injection molded TPO. Base coat/clear coat
Rear Body & Finish	Steel. Base coat/clear coat
Standard Color	Patriot Blue

Some items shown may be optional equipment



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OPTIONS & FIELD INSTALLED ACCESSORIES (Installation not included)*

Item	Std	Opt	Fld
TIRES & WHEELS:			
Front:			
18 x 8.50 - 8 (4 Ply Rated)	X		
Improved Surface 18 x 8.50 - 8 (Load Range C)		X	
Rear:			
18 x 8.50 - 8 (4 Ply Rated)	X		
Improved Surface 18 x 8.50 - 8 (Load Range C)		X	
Wheel Covers:			
Spoke, Gold		X	
Spoke, Silver		X	

Item	Std	Opt	Fld
COLORS:			
Body Color - Patriot Blue	X		
Body Color - Forest Green		X	
Body Color - Ivory		X	
Body Color - Safety Yellow		X	
Body Color - Black		X	
Body Color - Inferno Red		X	
Body Color - Bright White		X	
Body Color - Flame Red		X	
Body Color - Platinum		X	
Body Color - Burgundy		X	
Body Color - Almond		X	
Body Color - Electric Blue		X	
Body Color - Steel Blue		X	
Body Color - Metallic Charcoal		X	
Body Color - Sunburst Orange		X	
Body Color - British Racing Green		X	

Item	Std	Opt	Fld
Seating			
Seat Color - Oyster	X		
Seat Color - Tan		X	
Seat Color - Gray		X	
Custom Seat Color (upon request)		X	

Item	Std	Opt	Fld
Pin Striping:			
Pewter		X	
Black		X	
Silver		X	

Item	Std	Opt	Fld
OTHER PERFORMANCE:			
Cargo Bed	X		
Front Hydraulic Disc Brakes		X	
Drop Side Rails (as shown in picture)			X
Fender Flare	X		
Brush Guard	X		

Item	Std	Opt	Fld
ELECTRICAL:			
Electrical Other:			
Headlights	X		
Horn	X		
State of Charge Meter	X		
LED Headlights		X	
DC/DC Converter		X	
Hour Meter		X	
Individual Key Switch		X	
Turn Signals with 4-Way Flashers		X	
Unique Group Key Switch		X	

Item	Std	Opt	Fld
Battery Chargers:			
48 VDC Delta-Q, 10 ft (3 m) DC Cord	X		
48 VDC Delta-Q, 18 ft 5.5 m) DC Cord		X	

Item	Std	Opt	Fld
Batteries:			
Batteries Trojan T105	X		
Batteries Trojan T105 w/ Battery Fill System		X	
Batteries Trojan T145		X	
Batteries Trojan T145 w/ Battery Fill System		X	

Item	Std	Opt	Fld
VEHICLE CAB:			
Cab, White (without doors)			X
White Doors, Set			X
Defroster (Cab, Fuse Panel w/Switches req'd)			X
Dome Light (Cab, Fuse Panel w/Switches req'd)			X
Light Kit, Beacon (Cab, Fuse Panel w/Switches req'd)			X
Mirrors (Cab, Fuse Panel w/Switches req'd)			X
Strobe Light (Cab, Fuse Panel w/Switches req'd)			X
Fuse Panel w/Switches			X
Work Light Kit (Cab, Fuse Panel w/Switches req'd)			X

Item	Std	Opt	Fld
WEATHER PROTECTION:			
Sun Canopy (Top) Black			X
Sun Canopy (Top) Beige			X
Sun Canopy (Top) White			X
Windshield Flat			X
Windshield Fold Down			X
Rear View Mirror (Sun Canopy Required)			X

Item	Std	Opt	Fld
TRANSAXLE:			
Limited Slip Differential		X	



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MODEL: SHUTTLE™ 2 EFI
TYPE: GASOLINE POWERED CARGO CARRIER
MODEL YEAR: 2019
Part No: 657077



PRODUCT SPECIFICATION

CONFIGURATION HIGHLIGHTS

Engine: 13.5 hp (10.1 kW) per SAE J1940 standard, 4 cycle, 24.5 ci (401 cc) single cylinder, air-cooled

- **Valve Train:** Overhead valve
- **Lubrication:** Pressurized oil system, spin-on oil filter
- **Balancer:** Internal counter rotating balance shaft
- **Fuel System:** Closed-loop electronic fuel injection
- **Ignition:** Electronic inductive spark
- **Air Cleaner:** Replaceable dry cartridge

Electrical: Starter/Generator, solid-state regulator, 12 Volt maintenance free battery (525 CCA, 85 minute reserve)

Drive Train: Automatic, continuously variable transmission (CVT)

Brakes: Dual rear wheel mechanical self-adjusting drum brakes. Single point park brake release with self-compensating system

Transaxle: Differential with helical gears, ground speed governor, forward/reverse

PRODUCT OVERVIEW

Dimensions

Overall Length	141.0 in (358 cm)
Overall Width	48.5 in (123 cm)
Overall Height (No Canopy)	48.6 in (123 cm) (Top of steering wheel)
Overall Height (With Canopy)	72.0 in (183 cm)
Wheel Base	93.5 in (237 cm)
Front Wheel Track	34.2 in (89 cm)
Rear Wheel Track	38.0 in (97 cm)
Gnd Clearance @ Differential	4.75 in (12 cm)
Cargo Bed Width	44.0 in (112 cm)
Cargo Bed Length	68.5 in (174 cm)

Vehicle Power

Power Source	4 Cycle 24.5 cu in (401 cc)
Valve Train	Single Cylinder OHV
Horsepower (kW)	13.5 hp (10.1 kW)
Electrical System	Starter/Generator. Solid State Regulator
Battery (Qty, Type)	One, 12 Volt Maintenance Free
Key or Pedal Start	Pedal
Air Cleaner	Industrial Rated Dry Filter
Lubrication	Pressurized Oil System
Oil Filter	Spin-On
Cooling System	Air Cooled
Max Fuel Volume	5.24 Gallon (19.8 L) tank
Drive Train	Continuously variable transmission (CVT)
Transaxle	Differential with helical gears
Gear Selection	Forward - Reverse
Rear Axle Ratio	11.42:1 (Forward) 14.35:1 (Reverse)

Performance

Seating Capacity	2 Persons
Dry Weight	884 lb (402 kg)
Curb Weight	926 lb (420 kg)
Vehicle load capacity	1200 lb (545 kg)
Outside Clearance Circle	25.5 ft (7.8 m)
Intersecting Aisle Clearance	N/A
Speed (Level Ground)	14 mph ± 0.5 mph (22.5 kph ± 0.8 kph)
Towing Capacity	N/A

Steering & Suspension

Steering	Self-compensating rack and pinion
Front Suspension	Leaf springs with hydraulic shock absorbers
Rear Suspension	Leaf springs with hydraulic shock absorbers
Service Brake	Rear wheel mechanical self-adjusting drum
Parking Brake	Self-compensating, single point engagement
Front Tires	18 x 8.50 - 8 (4 Ply Rated)
Rear Tires	18 x 8.50 - 8 (4 Ply Rated)

Body & Chassis

Frame	Welded steel. DuraShield™ powder coat
Front Body & Finish	Injection molded TPO
Rear Body & Finish	Steel. Base coat/clear coat
Standard Color	Patriot Blue

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OPTIONS & FIELD INSTALLED ACCESSORIES (Installation not included)*

Item	Std	Opt	Fld
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TIRES & WHEELS:

Front:

18 x 8.50 - 8 (4 Ply Rated)	X		
Improved Surface 18 x 8.50 - 8 (Load Range C)		X	

Rear:

18 x 8.50 - 8 (4 Ply Rated)	X		
Improved Surface 18 x 8.50 - 8 (Load Range C)		X	

Wheel Covers:

Spoke, Gold		X	
Spoke, Silver		X	

COLORS:

Body Color - Patriot Blue	X		
Body Color - Forest Green		X	
Body Color - Ivory		X	
Body Color - Safety Yellow		X	
Body Color - Black		X	
Body Color - Inferno Red		X	
Body Color - Bright White		X	
Body Color - Flame Red		X	
Body Color - Platinum		X	
Body Color - Burgundy		X	
Body Color - Almond		X	
Body Color - Electric Blue		X	
Body Color - Metallic Charcoal		X	
Body Color - Sunburst Orange		X	

Seating

Seat Color - Oyster	X		
Seat Color - Tan		X	
Seat Color - Gray		X	

Pin Stripes:

Pewter		X	
Black		X	
Silver		X	

OTHER PERFORMANCE:

Cargo Bed	X		
Front Hydraulic Disc Brakes		X	
International Shipping, w/o Fender Flair		X	
International Shipping, w/o Front Brushguard		X	
Drop Side Rails			X
Fender Flare	X		
Brush Guard	X		

Item	Std	Opt	Fld
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Electrical:

Headlights	X		
Fuel Gauge		X	
Horn	X		
Low Oil Indicator	X		
Frdm Key Switch	X		
LED Headlights		X	
Tail Lights		X	
Brake Lights		X	
Non Std Frdm Key Switch		X	
Frdm Unique Individual Key Switch		X	
Turn Signals with 4-Way Flashers		X	X
Hour Meter		X	X

TRANSAXLE:

Limited Slip Differential		X	
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WEATHER PROTECTION:

Sun Canopy (Top) Black			X
Sun Canopy (Top) Beige			X
Sun Canopy (Top) White			X
Windshield Flat			X
Windshield Fold Down			X

VEHICLE CAB

Cab - White (without doors)			X
White Doors (Set)			X
Defroster (Cab, Fuse Panel w/Switches req'd)			X
Dome Light (Cab, Fuse Panel w/Switches req'd)			X
Light Kit, Amber Beacon (Cab, Fuse Panel w/Switches req'd)			X
Mirrors (Cab req'd)			X
Strobe Light (Cab, Fuse Panel w/Switches req'd)			X
Fuse Panel w/Switches			X
Work Light Kit (Cab, Fuse Panel w/Switchs req'd)			X