



CUSHMAN

MODEL: SHUTTLE™ 4
TYPE: ELECTRIC POWERED PERSONNEL CARRIER
MODEL YEAR: 2012
Part No.: 618850



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: Delta Q, 48 VDC. H120/230 VAC 50/60 Hz. Underwriters Laboratories (U.L.) Listed, (C.S.A. Certified)

Motor: 48 volt DC shunt wound, brazed armature, solid copper windings. Intermittant 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	135.0 in (343 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 (86.7 cm)
Rear Wheel Track	38.0 in (97 cm)
Gnd Clearance @ Differential	4.3 in (11 cm)
Cargo Box Width (inside)	42.5 in (108 cm)
Cargo Box Length (inside)	32.0 in (80 cm)
Cargo Box Depth (inside)	11.5 in (29 cm)
Cargo Box Capacity	9 cu ft (.25 m3)
Cargo Box material	Wood Stake Sides

Rear Axle Ratio 14.7:1

Performance

Seating Capacity	4 Person
Dry Weight	720 lb (325 kg) (Without Batteries)
Curb Weight	1210 lb (545 kg)
Bed Load Capacity	400 lb (180 kg)
Vehicle load capacity	1198 lb (540 kg)
Outside Clearance Circle	25.5 ft (7.8 m)
Intersecting Aisle Clearance	N/A
Speed (Level Ground)	13 mph ± 0.5 mph (21 kph ± 0.8 kph)

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	Links 18 x 8.50 - 8 (4 Ply Rated)
Rear Tires	Links 18 x 8.50 - 8 (4 Ply Rated)

Body & Chassis

Frame	Welded steel. DuraShield™ powder coat
Body & Finish	Injection molded TPO
Seat Pod	Fiberglass & Gelcoat
Standard Color	Patriot Blue

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 VDC Delta Q, 120/230 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

Some items shown may be optional equipment



CUSHMAN

OPTIONS & FIELD INSTALLED ACCESSORIES (Installation not included)*

Item	Std	Opt	Fld	Item	Std	Opt	Fld
TIRES & WHEELS:				Miscellaneous:			
Front:				DC/DC Converter		●	
Links 18 x 8.50 - 8 (4 Ply Rated)	●			Batteries Trojan T145-Lo Profile		●	
USA Trail 18 x 8.50 - 8 (Load Range C)		●		Batteries Trojan T125-Lo Profile		●	
Rear:				Batteries Trojan T105	●		
Links 18 x 8.50 - 8 (4 Ply Rated)	●			Batteries Trojan T145 w/ Battery Fill System		●	
USA Trail 18 x 8.50 - 8 (Load Range C)		●		Batteries Trojan T125 w/ Battery Fill System		●	
Wheel Covers:				Batteries Trojan T105 w/ Battery Fill System		●	
Spoke, Black & Gold		●		Brake Lights		●	
Spoke, Black & Silver		●		Head Lights	●		
Chrome 6 in (15 cm)		●		Horn	●		
Chrome 8 in (20 cm)		●		Hour Meter		●	
COLORS:				Individual Key Switch		●	
Body Color - Patriot Blue	●			Unique Group Key Switch		●	
Body Color - Hunter Green		●		Turn Signals with 4-Way Flashers		●	
Body Color - Champagne		●		State of Charge Meter	●		
Custom Body Color		●		LED Headlights		●	
Pin Stripes:				Turn Signals		●	
Pewter		●		OTHER PERFORMANCE:			
Black		●		Ash Tray		●	
Silver		●		Front Disc Brakes		●	
Seating:				Rear View Mirror (Sun Canopy Required)			●
Seat Color - Gray		●		WEATHER PROTECTION:			
Seat Color - Black		●		Sun Canopy 118 in (300 cm) (Champagne)			●
Seat Color - Oyster	●			Windshield Flat			●
Seat Color - Brown		●		Windshield Fold Down			●
Seat Color - Tan		●		TRANSAXLE			
Seat Color - White		●		Limited Slip Differential			●
Custom Seat Color		●					
ELECTRICAL:							
Battery Chargers:							
48 VDC PowerWise™, 120 VAC, UL & CSA	●						
48 VDC PowerWise™ SCR, 120 VAC, 50/60 Hz (Japan)		●					
48 VDC PowerWise™, 230 VAC, 50 Hz		●					
48 VDC Delta-Q, 10 ft (3 m) DC Cord		●					
48 VDC Delta-Q, 18 ft (5.5 m) DC Cord		●					
Battery Charger Delete		●					