

### Shuttlewagon Recommended Service and Maintenance Inspection

Customer:	Signature Financial	Date:	2/10/2020
Address:		Serial Number:	NVX 502513054
City:		Model Number:	NVX 5025
Contact:	STEVE PORT	Hours:	3739.1
		Phone:	1-845-225-0158
		Fax:	

Inspection Performed By: Mobile Services & Equipment Inc.

Engine	Hours	Caterpillar	Cummins
Oil	250		
Oil Filter	250	X	X
Fuel Filter	500	X	X 12/2/19 ✓
Fuel Separator	500	X	X ✓
Fuel Inlet screen	250	X	NA ✓
Coolant	2000	X	NA ✓
Air Cleaner Indicator	250	X	X ✓
Belt Condition	250	X	X ✓
Check for Leaks: Operators should check before each shift starts		X	X ✓
Coolant Overflow Bottle (level)	250	X	X ✓
Radiator hoses and connections	250	X	X ✓
Fuel lines	250	X	X ✓
Exhaust System (clamps and connections)	250	X	X ✓
Intake System (clamps and connections)	250	X	X ✓
Engine Mounts (missing nuts, bolts, or cracks)	250	X	X ✓
Engine Idle:	250	X	X FRONT NEW ✓
Low RPM: 804	250	X	X
High RPM: 2575	250	X	X
	250	X	X

Note Comments:  
AIR/ENGINE OIL/FUEL FILTERS ALL NAPA BRAND  
ENGINE OIL IS BLACK (NEED OIL CHANGE)  
ENGINE OIL PRESSURE TOPSE  
DATE CHANGED ON ENGINE OIL FILTER IS 12/2/19

Transmission	Hours	
Oil		
Oil Filter	1000	New
Suction Screen (Clean)	500	New
Transmission Mounts (missing nuts, bolts, or cracks)	1000	✓
Check U-Joints for wear (Front and Rear)	250	New ✓
Check for Leaks:	250	✓
Hose connections	250	✓
Output Shaft Seals	250	✓
Torque Converter Seal	250	✓
Transmission to Hydraulic Pump Seal	250	✓
Transmission Pump Pressure	250	✓
Converter Pressure	1000	
Clutch Pressure	1000	
Stall (RPM)	1000	
Cooler Operation	250	
Cooler Fan On (Degrees)	250	
Cooler Fan Off (Degrees)	250	
Four Wheel Drive (Engages)	250	
Grease Drive Lines (U-Joints and Slip Yokes)	250	
Note Comments:	250	

ENTIRE UNIT Needs Grease

Front Axle / Tires / Wheels			Hours	
Front Axle Lube Oil			2000	
Right Front Planetary Lube Oil			2000	✓
Left Front Planetary Lube Oil			2000	✓
Steering Cylinders Bushings (Play)			250	✓ ✓ ✓ ✓ ✓ ✓
Steering Knuckle Bushings (Play)			250	
Tie Rod Ends (Lose, Cracks, Bent, Missing Hardware)			250	
Upper King Pin Bushings (Play)			250	
Lower King Pin Bushings (Play)			250	
Axle Mounting Brackets (Cracks, Lose, Missing Hardware)			250	
Axle Mounting Bolts (Cracks, Lose, Missing Hardware)			250	✓
Straight Ahead Assembly (Oiled, Adjusted, Working)			250	✓
Front Tire Alignment (Toe In)			250	✓
Check Brake Rotors (Wear and Condition)			250	✓
Check Brake Pads			250	✓
Check Brake Calipers for Leaks			250	new
Check Tires	Left Front		250	✓
	Air Pressure	100	250	
	Tread Condition	50%	250	
	Lug Bolts (Missing)		250	
	Lug Nuts (Missing)		250	
	Lug Nuts Torque		250	
Breather Caps			250	✓
Note Comments:				

Rear Axle / Tires / Wheels			Hours	
Rear Axle Lube Oil			2000	
Right Rear Planetary Lube Oil			2000	
Left Rear Planetary Lube Oil			2000	✓
Steering Cylinders Bushings (Play) (Four Wheel Steer Units)			250	✓ ✓ ✓ ✓ ✓ ✓
Steering Knuckle Bushings (Play) (Four Wheel Steer Units)			250	
Tie Rod Ends (Lose, Cracks, Bent) (Four Wheel Steer Units)			250	
Upper King Pin Bushings (Play) (Four Wheel Steer Units)			250	
Lower King Pin Bushings (Play) (Four Wheel Steer Units)			250	
Axle Mounting Brackets (Cracks, Lose, Missing Hardware)			250	
Axle Mounting Bolts (Cracks, Lose, Missing Hardware)			250	✓
Straight Ahead Assembly (Oiled, Adjusted, Working)			250	✓
Check Brake Rotors (Wear and Condition)			250	✓
Check Brake Pads			250	✓
Check Brake Calipers for Leaks			250	new
Oscillating Bracket Stops (Cracks, Adjustment)			250	✓
Oscillating Bracket Bolts (Missing Hardware)			250	✓
Oscillating Bracket Pins/Bushings (Worn)			250	✓
Check Tires	Left Rear		250	✓
	Air Pressure	95	250	
	Tread Condition	50%	250	
	Lug Bolts (Missing)		250	
	Lug Nuts (Missing)		250	
	Lug Nuts Torque		250	
Breather Caps			250	✓
Note Comments:				
TIRES GROOVE at 50% wear along with deep cuts				
AND TIRE Tread Lugs MISSING				

**Hydraulic System**

	Hours	
Hydraulic Oil	2000	
Pressure Filter	500	✓
Return Filter	500	✓
Hydraulic Tank Breather (Clean)	500	✓ TANK New
Check for Leaks (Valves, Cylinders, and Hoses)	250	✓
Pump Standby Pressure (Check)	1000	
Pump Maximum Pressure (Check)	1000	
System Relief Valve Setting (Check)	1000	
Load Sense Pressure (Check)	1000	
Excess Flow (Check)	1000	
Compressor Motor Pressure (Check)	1000	
Accumulator Pressure Pre-Charge (Check)	1000	
Check Accumulator System Function	250	
Check Low Hydraulic Pressure Warning Lights/Buzzers (in cab)	250	✓
Check Down Control Handles for correct positioning (not slipping)	250	✓
Check Steering Lock (Locking)	250	✓
Check Rail Hydraulic Pressure Gauges for Calibration	250	✓
Check Front Coupler (Right and Left)	250	✓
Check Rear Coupler (Right and Left)	250	✓
Check Rail Operation	250	✓
Check Road Operation	250	✓
Note Comments:		

**Rail Gear Assembly Front and Rear**

	Hours	
Rail Wheel Alignment (Check)	250	✓
Rail Wheel Gauge (Specifications)	250	✓
Rail Wheel Flange (Thickness)	250	✓
Rail Wheel Bearings (Inspection and Repack)	1000	✓
Rail Wheel Seals (Replace)	1000	
Rail Wheel Bearings (Play or lose)	250	✓
Rail Wheel Bearings Torque	1000	✓
Rail Arm Bushings (Wear)	250	✓
Rail Pivot Arm Operation (Free Movement)	250	✓
Grease Fittings:		
Rail Wheels	250	
Rail Arms	250	
Rail Cylinders	250	
Continuity Check (Rail Wheel to Rail Wheel)	250	
Left Front to Right Front	250	
Left Rear to Right Rear	250	✓
Note Comments:		

Left Bear, Rear Rail cylinder pin and bearing needs replacement, bearing missing, possible worn hole in rail arm.

Electrical System			Hours	
Batteries (clean and inspect)			250	
Neutral Start			250	✓
Dash Lights			250	Non Operable
Parking Lights			250	✓
Step Lights			250	✓
Brake Lights			250	New
Turn Signals			250	✓
Emergency Flashers			250	N/A
Rail Wheel/Coupler Lights (Front and Rear)			250	N/A
Back Up Alarm			250	New
Transmission Gear Display (All Gears)			250	✓
Fourth Gear Lock Out (Installed)			250	✓
All Gauges			250	✓
Warning Lights and Buzzers:			250	✓
High Hydraulic Temperature		Light/Buzzer	250	✓
Low Hydraulic Pressure		Light/Buzzer	250	✓
High Transmission Temperature		Light/Buzzer	250	✓
Low Air Pressure (65 PSI and Below)		Light/Buzzer	250	✓
Accumulator Charge Light		Light	250	✓
Parking Brake Light		Light	250	✓
Engine Diagnostics System	Caterpillar	Cummins	250	
Engine Diagnostic Light	x	x	250	
Engine Warning	x	x	250	✓
Engine Maintenance	x	x	250	✓
Intake Heater	x		250	
Wait to Start		x	250	
Water In Fuel		x	250	
Strobe Light			250	
Headlights (Front and Rear Hi/LO Beams)			250	✓
Windshield Wipers (Front and Rear)			250	✓
Windshield Washers (Front Only)			250	✓
Heater Controls			250	✓
Defroster Fans (Front and Rear)			250	BLOWER NOT WORKING
Throttle Switch (Front and Rear)			250	New
Dome Lights (Front and Rear)			250	✓
Alternator Ampere Test			250	New- NON OPERABLE
			13.9 V	

Note Comments:

WORK LIGHT SWITCHES INDICATOR LIGHTS NON OPERABLE  
 → NOTE \* Lights stay ON after unit is stopped and Key Out.  
 - Center Cab Dome light is New but Non operable  
 - Both Map Lights NON operable  
 - Dash Lights NON operable

Air System		Hours	
Air Horn		250	
Air Governor (PSI)		250	✓
Auxiliary Air Compressor Switch (PSI)		250	
Air Ride Seat		250	
Front Foot Brake Valve (Operational)		250	✓
Rear Foot Brake Valve (Operational)		250	✓
Coupler Release (Front and Rear)		250	
Service Air Pressure (120 PSI)		250	See Coupler Notes
Rail Air Reservoir Pressure (105-120 PSI)		250	✓
Rail Air Train Brake E-Stop (On-Dump)		250	✓
Rail Air Train Brake Control Valve (45 PSI-90 PSI)		250	✓
Train Brake Shutoff Valves Working (End of Shuttlewagon)		250	✓
Rail Air Brake Glad Hand Hoses (Leaks or Cuts)		250	✓
Rail Air Brake Glad Hand Hoses Seals (Leaks or Cuts)		250	✓
Air Tank Condensate Drains (Moisture)		250	✓
One Gallon Rail Air Tank Manual Drain (Moisture)		250	✓
Note Comments:	<i>AIR KNIFE TANK SEVERELY RUSTED - AIR KNIFE SYSTEMS NOW OPERABLE</i>		

Couplers Front and Rear		Hours	
Coupler Stops		250	
Coupler Housing		250	✓
Coupler Wear Bar		250	✓
Coupler Hold Down Bracket		250	✓
Coupler Top Plate		250	✓
Coupler Top Plate Bolts		250	✓
Coupler Lift Mechanism		250	✓
Coupler Lock Mechanism		250	See Notes
Coupler Head		250	See Notes
Coupler Pin Retainer and Locking Bolt		250	✓
Coupler Pin		1000	✓
Coupler Eyebolt		1000	✓
Coupler Urethane Spring		1000	✓
Coupler Follower Plates		1000	✓
Grease Fittings:		250	✓
Coupler Box Retaining Pin		250	
Coupler Wear Bar		250	✓
Coupler Eyebolt Pin		250	✓
Coupler Knuckle Slide		250	✓
Coupler Slides		250	✓
Note Comments:	<i>Rear Coupler Lock/Unlock Cylinders Now Operable *Needs Grease* Front &amp; Rear</i>		

Remote Air Compressor		Hours	
Oil	PAO Compressor Oil	3000	N/A
	Standard Compressor Oil (Synthetic)	1000	
Air Filter	(check at regular scheduled maintenance intervals)	250	
Note Comments:			

Air Dryers		Hours	
Filters		1000	
Inspection		1000	
Inspection Rebuild		10,800	
Expelo /Exhaust Valves (Both)			✓ New Filter
Note Comments:			

Cab and Body Exterior		Hours	
Master Cylinder		250	
Windows (Cracked)		250	✓
Steps (Bent or Damaged)		250	✓
Mirrors (Broken or Missing)		250	NEW
Hand Rails (Bent or Damaged)		250	✓
Cab (Damaged, Bent, or Leaking)		250	SEVERE RUST AT BASE SEVERE RUST / BENT
Paint (Condition)		250	
Wing Walk (Condition)		250	
Note Comments: INDICATOR PIN ON MASTER CYLINDER WAS POPPED OUT. CAB BENT AT WINDOWS / DAMAGE			

Cab Interior		Hours	
Windshield Washer Reservoir		250	
Seat Condition and Adjustment		250	
Seat Belts		250	✓
Window Slides		250	✓
Doors (Locks, Latches, Weather Stripping)		250	✓
Floor Mat (Condition)		250	✓
Head Liner (Sagging or Lose)		250	✓
Material Side Pannels (Lose or Missing)		250	N/A
Note Comments: DOOR STOP STRAP MISSING BOLTS AND PLATE			

Sanders		Hours	
Sanders (Operational)		250	
Sander Tubes (Missing)		250	✓
Sanders (Full of Dry Sand)		250	SEE NOTES
Sander Caps (Missing)		250	
Note Comments: Right Rear Metal Sander TUBE WORN THROUGH FROM TIRE. Needs Adjustment and Replacement			

Options (IF Applicable)	Hours	
Central Lube	250	
Rail Wheel Flange Lubricators (grease sticks)	250	
Extended Coupler's	250	N/A
Spark Arrestor	250	N/A
Air Conditioner	250	✓
Spotlight	250	BLOWER NOT WORKING
Radio Remote Control	250	NON OPERABLE
Convertor Pressure Gauge	250	N/A
Ampere Gauge	250	
Speedometer	250	
Snow Plow	250	
Note Comments:	250	N/A
Spot Light sitting on cab Floor. Not mounted		

**Additional Comments or Recommendations:**

- \* Pressurized Cab Filter Housing cannot be serviced due to rusted screws and system missing hose elbow to blower housing.
- \* Cab air Filter housing on front of cab needs servicing.

