



**NITEHAWK<sup>®</sup>**  
SWEEPERS

OPERATIONS  
& MAINTENANCE TRAINING



# Component Identification and Functionality

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## HYDRAULIC SYSTEM

*(See section 3 of Owner's Manual)*

### GENERAL KNOWLEDGE:

- Hydraulic Fluid - AW 46
- System PSI – 3500 psi

NOTES:

### ENGINE COMPARTMENT:

- Pump / Mount / Shield
- Belt / Pulley / Tensioner
- Compensator / Proportioning Valve
- Supply / Pressure / Case Drain Lines
- Resettable Circuit Breaker(Osprey)

NOTES:

## MID CHASSIS – DRIVERSIDE

- Pressure Filter / Bypass Indicator
- Manifold (Detailed in Section 3 Owners Manual)
- Directional Valves / Relief Valves / Manual Overrides / Manifold Labels
- Curb Broom Hydraulic Circuit / Accumulator, Dump Valve / Motor / Check Valves
- Pickup Head Hydraulic Circuit / Cylinders / Check Valves
- Hopper Hydraulic Circuit / Cylinders / Check Valves
- Fan Circuit / Motor
- Fan Coupling / Bearings

NOTES:

## REAR CHASSIS

- Dump Cylinders and Counter Balance Valves
- Lockout device installation point

NOTES:

## MID CHASSIS – PASSENGER SIDE

- Reservoir / Sight Gauge / Breather Filter / Return Filter Indicator
- Fluid Drain (1/2" socket)
- Passenger Curb Broom Circuit (If Installed)
- Resettable Circuit Breaker (Raptor)

NOTES:

# SWEEPER SYSTEM / COMPONENT IDENTIFICATION

*\*some items listed are options*

- HD Front Bumper
- LED Front Work Light
- LED Bumper Flashers / Center Strobe
- Controls – Function and Adjustment (Section 4 Owners Manual)
- Curb Broom – Adjustment (Section 5 Owners Manual)
- Work Lights
- 3" Handheld Air Blower
- Water System (nozzles / pump / strainer / drain)
- Drag Bars / Pickup Head / Skids / Springs
- Intake / Exhaust Tubes
- Fan / Coupling / Bearings
- Fire Extinguisher
- Hopper / Hopper Indicator Switch
- Hopper Drain
- Inspection Doors
- Rear Door
- Toolboxes / Lights / Light Controls
- Dump Door / Drop Prop
- Magnets

NOTES:

## CHASSIS

- Backup Camera
- Fuel Fill
- Spare Tire

NOTES:

# Basic Operation

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Road Mode / Sweep Mode

Power Settings (Memory Function)

Work Lights

Beacons

Water System

Raising and lowering the pick-up head

Curb Broom(s)

Dumping the hopper

Retract All Function

NOTES:

# Sweeping - Best Practices

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Use mirrors – chains – cylinders to make sure head fully extended, completely on ground

Normal Sweeping at 50 – 80 % power (light debris – dust, litter, dry leaves, etc)

Heavy Sweeping at 90 - 100 % power (wet leaves, dirt, gravel, rock)

Curb brooms ALWAYS use at 100% power setting

Do not back up with curb broom down

Eyes up when using curb brooms – avoid fixation

Use backup camera to view debris swept/missed

Max speed of 10 mph while sweeping head is in the down position

Sweep in right hand circles, towards the middle

Keep buildings, curb areas on the driver's side

To extend the life of the brooms, use them only against curb lines and buildings.

NOTES:

# Sweeper Operations / Maintenance

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## BEST PRACTICES

*(See section 5 of Owner's Manual)*

Curb Broom Speed Adjustment (if needed)

Curb Broom Angle Adjustment (Manual)

Curb Broom Turnbuckle Adjustment (1 x Month)

Curb Broom – Replace at approx. 5"

Flaps / Head - Adjust at ¼" gap between ground, replace at 6" from top of head / bottom of rear flap

1. Skid Plate Adjustment

2. Skid Spacer Adjustment

Breather Filter "Sock"

Toolbox – HD Wire & Pliers, Ratchet Straps

Fluid changes – Syphon Pump (rather than drain)

NOTES:



# DAILY INSPECTION AND ANNUAL MAINTENANCE SCHEDULE

<i>Recommended Daily Inspection</i>	<i>Looking For</i>
Tires	Flats, punctures, abnormal wear patterns
Mirrors	Proper adjustment and visibility
Lights	Proper operation
Hydraulic Pump	Belt, pump and mount aligned, no leaks
Hydraulic Fluid Level	Fluid is visible on reservoir sight gauge, fluid is clean
Hydraulic Hoses/Manifold/Cylinders	No evidence of leaks
Skids, Plates, Bolts	Aligned properly and no damage
Head and Drag Bars	Aligned properly and no damage
Hopper and Dump Frame	No visible cracks, warping or damage
Broom Wear	Proper length of bristles, smooth operation
10" Hoses (intake/exhaust)	No holes or tears, clamps properly secured

NOTES:

# Live Sweeper Training

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Lights and Safety

Power Settings

Driving Speed for Debris

Curb Broom Operation and Speed

Pickup Head

Water System

Hopper Dump

Sweeping Patterns

NOTES:

# Parts to Stock

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NECESSITY	RECOMMENDED
Pump Belt	Bearings
Brooms	Skids / Skid Plate / Bolts
Fan Coupling Insert	Flaps / Skid Spacers
Drag Bars / Bolts	Spare Head
Breather Filter	Hydraulic Filters (pressure and suction)
Exhaust/Intake Tubes	Fan / Curb Broom Motor
Hydraulic Fluid AW46	Hopper / Inspection Door / Dump Door Seals

NOTES: