



## GENERAL SPECIFICATIONS

# MODEL HSP® REGENERATIVE® AIR AIRPORT RUNWAY SWEEPER DIESEL AUXILIARY ENGINE / DIESEL CONVENTIONAL CAB CHASSIS

### SWEEPER AUXILIARY ENGINE

Engine ..... John Deere 4045 turbo FT4, 4 cyl.  
Displacement ..... 275 in<sup>3</sup> (4.5 L)  
Power ..... 99 HP @ 2200 RPM (74 kW)  
Net torque ..... 315 lb-ft @ 1600 RPM (427 Nm)  
Air cleaner ..... Heavy duty, w/pre-cleaner, scavenge vacuum hose, and in-cab air restriction indicator w/gauge.  
Remote oil filter ..... Spin on, full flow  
Auxiliary engine fuel tank shared with chassis  
Diesel fuel tank capacity ..... 51 gal (193 L)  
DEF tank ..... Dedicated  
Capacity (volumetric) ..... 5.4 gal (20.6 L)  
Capacity (useable) ..... 3.8 gal (14.4 L)  
Auxiliary engine protection system  
Fuel/water separator with WIF sensor  
Fuel filters ..... 10 µm primary, 2 µm secondary  
Open crankcase ventilation (OCV) filter

### BLOWER, RUBBER COATED

Aluminum alloy, high volume, open face turbine  
Bearings ....(2) sealed lifetime lube, anti-friction  
Bolt-on housing ..... Steel w/abrasion resistant, replaceable liner  
Drive ..... Heavy duty power band

### DUST SEPARATOR, RUBBER LINED, HIGH CAPACITY

Type ..... Cyclonic, multipass, centrifugal separation  
Size ..... 20 x 61 in cylindrical area (51 x 155 cm)  
Located adjacent to blower within hopper  
Particulate removal achieved through 61 in (155 cm) skimmer slot into skimmer hood  
Separator door opened from hopper exterior  
Abrasion resistant housing w/replaceable wear resistant liner

### HOPPER

Capacity (volumetric) ..... 7.3 yd<sup>3</sup> (5.6 m<sup>3</sup>)  
Capacity (useable) ..... 6 yd<sup>3</sup> (4.6 m<sup>3</sup>)  
Construction ..... Welded steel plate with integral stiffeners  
Floor angle ..... 22°  
Dump door opening ..... 84 x 44 in (213 x 112 cm)  
Dump method ..... Hydraulic with raker bar  
Dump direction ..... Rear  
Dump height ..... 36 in (91.5 cm)  
Inspection doors ..... (1) Each side of hopper  
..... 9.75 x 29 in (25 x 73.5 cm)

### PICK-UP HEAD, HSP, Patented

Type ..... Dual chamber  
Width (inside dimension) ..... 87 in (221 cm)  
Pick-up head area ..... 2784 in<sup>2</sup> (1.79 m<sup>2</sup>)  
Suspension ..... (4) springs, (2) drag links  
Skids ..... DUO SKID®, long-life carbide  
Suction hose diameter ..... 10 in (25 cm)  
Pressure hose diameter ..... 14 in (35.5 cm)  
Pressure bleeder ..... Cable operated

### GUTTER BROOMS, TWIN, Patented

Drive ..... Constant speed non-reversible hydraulic motor  
Adjustment ..... Adjustable for down pressure, pattern and wear  
Down pressure ..... Automatic  
Flexibility ..... Integral anti-damage "swing away" relief valve  
Broom ..... 43 in dia. (109 cm) steel wire, vertical digger  
Floodlights ..... (2) LED  
Parabolic mirrors ..... (2) 10.5 in (26.67 cm) dia.

### HYDRAULIC SYSTEM

Operates gutter broom(s), dump and pick-up head  
Drive ..... Gear driven from auxiliary engine  
Flow rate ..... 8 GPM (30.3 LPM)  
Reservoir ..... 25 gal (94.6 L) w/80 mesh suction strainer, sight/temperature gauge  
Cooler ..... Air to oil integral with auxiliary engine heat exchanger  
Return filter ..... 3 µm in-line  
Vent filter ..... 10 µm spin-on  
Hydraulic oil ..... Extended life 10W ISO 46  
Hydraulic temperature shutdown system w/temperature gauge in cab

### DUST CONTROL SYSTEM

Water spray nozzles for dust suppression  
Pump ..... Electric diaphragm  
Reservoirs ..... Polyethylene 220 gal (833 L), total minimum  
Filter ..... 80 mesh in-line  
Low water shut-off ..... Safety shut-off with audible and visual indicator in cab  
Spray nozzles:  
Around pick-up head ..... 4  
Gutter brooms (each) ..... 2  
Hopper (inside) ..... 1  
Hydrant fill hose w/storage area ..... 20 ft (6 m)

### CONTROL SYSTEM

#### BlueLogic® Control System

Multiplexed electrical system includes hardware and TYMCO designed software that integrates the in-cab controls to the auxiliary engine and all sweeper functions; as well as provides intelligent safety features and on-board diagnostics (OBD) for the auxiliary engine and sweeper through the BlueLogic display.

#### BlueLogic Display

Pedestal mounted touchscreen display provides sweeper and auxiliary engine data and includes hour meters (trip and total) for the auxiliary engine, gutter brooms, pick-up head, blower, and water pump; sweeper odometer (records curb miles swept and sweeping hours), service reminders, custom reminders, overspeed warning, low water audible alarm, dust control system winterization guide, and OBD.

### Interior Components

Pressure bleeder control, BlueLogic display, auxiliary fuse panel, illuminated control switches: pick-up head, gutter brooms, auxiliary engine RPM, dust control water system nozzles, safety lights.

### Exterior Components

Dump switch, BlueLogic Control Module (BCM)

### SAFETY/WARNING DEVICES

Alternating LED rear flashers (2)  
Rear view camera system  
Back-up alarm  
SAE Class 1/California Title 13 amber beacon light with limb guard - LED

### OPTIONAL EQUIPMENT

AOD water pump w/washdown hose/spray gun  
Abrasion protection package  
Additional camera views - pick-up head, left gutter broom, right gutter broom  
Auto Sweep Interrupt (ASI)  
Auxiliary hand hose 8 in dia. (20 cm)  
Auxiliary hand hose hydraulic boom assist  
Auxiliary hand hose catch basin cleaning package  
Auxiliary hydraulic system  
COMDEX (extra water and tool box) 330 gal (1249 L) total capacity  
Gutter broom tilt adjuster(s) (left, right, or twin)  
Gutter broom variable speed  
Gutter broom drop-down  
Hi/Low washdown system  
High output water system  
Hopper deluge system  
Hopper drain system  
Lateral Airflow Nozzle (LAN)  
Linear actuator - pressure bleeder w/gauge  
Liquid Recovery System (LRS)  
Magnet: Light, standard, or heavy duty  
Shop air purge, dust control system  
Spark resistant skids  
Stainless steel (non-magnetic) options:  
Hopper:  
Hopper weldment  
Dump door  
Inspection doors  
Raker plate  
High capacity dust separator  
Hopper screen  
Blower housing  
Hopper drain  
Paint color (other than TYMCO standard white)

*Special options are available. Contact your local dealer or TYMCO.*

### CONVENTIONAL CAB CHASSIS AVAILABLE

International MV607  
Freightliner M2-106