



GENERAL SPECIFICATIONS



MODEL HSP® REGENERATIVE® AIR AIRPORT RUNWAY SWEEPER DIESEL AUXILIARY ENGINE / DIESEL CABOVER CHASSIS

SWEEPER AUXILIARY ENGINE

Engine John Deere 4045 turbo FT4, 4 cyl.
Displacement 275 in³ (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 yd³ (5.6 m³)
Capacity (useable) 6 yd³ (4.6 m³)
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)
Insection 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 in² (1.79 m²)
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)
Linear actuator - pressure bleeder w/gauge
Integral for leaf/light material pickup

GUTTER BROOM, 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 micron in-line
Vent filter 10 micron 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
330 gal (1249 L) total
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

BlueLogic display, auxiliary fuse panel, illuminated control switches: pick-up head, gutter brooms, auxiliary engine RPM, pressure bleeder, 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
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)
Liquid Recovery System (LRS)
Low emissions package (required for South Coast AQMD Rule 1186)
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.

CABOVER CHASSIS AVAILABLE

Peterbilt 220
Autocar Xpert