



500x[®]
AIR SWEEPER

GENERAL SPECIFICATIONS



MODEL 500x[®] REGENERATIVE AIR SWEEPER[®]
FINAL TIER 4 AUXILIARY ENGINE/CABOVER CHASSIS

SWEEPER AUXILIARY ENGINE

EngineJohn Deere, 4045 turbo, 4 cyl.
(Final Tier 4)
Displacement.....275 in³ (4.5 L)
Power.....115 hp (86 kW) @ 2200 RPM
Net torque.....373 lb-ft @ 1500 RPM (506 Nm)
Air cleanerHeavy duty, w/pre-cleaner
Oil filterSpin on, full flow
Auxiliary engine fuel tank shared with chassis
Diesel fuel tank capacity.....50 gal (189 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 and separate fuel filter
Open crankcase ventilation (OCV) filter

BLOWER, RUBBER LINED

Aluminum alloy, high volume, open face turbine
PurposeCreates blast and suction
Bearings(2) sealed lifetime lube, anti-friction
HousingIsolation mounted
with abrasion resistant, replaceable liner
Housing sealHeavy rubber section,
non-wiping, spring actuated Tilt-N-Seal[®] design
DriveFixed displacement,
heavy duty, bent axis hydraulic motor

DUST SEPARATOR

TypeCyclonic, multipass,
centrifugal separation
Size.....28 x 48 in (711 x 1219 mm)
Location.....Inside hopper
Particulate removal achieved through dual
skimmer slots into hopper
Abrasion resistant housing w/replaceable liner
Self-opening, self-emptying when hopper tilts

HOPPER, STAINLESS STEEL

Volumetric capacity.....5.7 yd³ (4.3 m³)
Useable capacity4.0 yd³ (3.06 m³)
ConstructionWelded non-magnetic
stainless steel plate w/integral stiffeners
Floor dump angle.....50°
Dump door opening.....68 x 57 in
(1727 x 1448 mm)
Dump door.....Self-locking
Chute.....72 x 48 in (183 x 122 cm)
stainless steel lined
Chute reach.....22 in (56 cm) w/o side shift
Dumping direction.....Right side
Lifting method.....Two stage scissor lift, dual
hydraulic cylinders w/integral holding valves
Lift capacity.....10,000 lbs (4536 kg)
Dump height.....Variable
Minimum24 in (610 mm)
from bottom of chute to ground
Maximum132 in (11 ft) (3353 mm)
from bottom of chute to ground
Overall.....262 in (21 ft 8 in) (6655 mm)
Dump tilt slope.....50°
Hopper screen.....2 piece stainless steel
screen w/access for cleaning top side
Hopper drain system

BROOM ASSIST PICK-UP HEAD (BAH[®])

TypeDual chamber with broom assist
FunctionDelivers air blast and suction
Width87 in (2210 mm)
Pick-up head area3567 in² (2.3 m²)
Broom.....12 x 79 in (305 x 2007 mm)
enclosed in rear of pick-up head

Suspension.....4 springs 2 drag links
Suction hose.....12 in diameter (305 mm)
Pressure hose14 in diameter (356 mm)
Skids.....DUO SKID[®], long-life carbide
Linear actuator - pressure bleeder w/gauge
Integral for leaf/light material pickup
Reverse pick-up head system

GUTTER BROOMS, TWIN, Patented

Standard equipment, includes floodlights and
parabolic mirrors
DriveVariable speed
non-reversible hydraulic motor
Adjustment.....Adjustable for down
pressure, pattern and wear
Down pressureAutomatically
adjusts to requirement
Flexibility.....All directions, integral
anti-damage "swing away" relief valve
Brooms.....43 in dia. (1.1 m) steel wire,
vertical diggers
Hydraulic tilt.....Twin gutter brooms
adjust for curb depth

HYDRAULIC SYSTEM

DriveDirect drive
Blower pump.....Heavy duty variable
displacement piston pump, hydrostatically
drives blower
Sweeper pumpVariable displacement
piston pump, operates gutter brooms, pick-up
head, stabilizers, hopper lift, hopper dump, and
hopper door.
Blower pump flow26 GPM (100 LPM)
Sweeper pump flow11 GPM (42 LPM)
BAH pumpGear pump,
operates Broom Assist Head broom motor
BAH pump flow.....8 GPM (30 LPM)
Reservoir.....34 gal (129 L)
Return filter.....3 micron,
spin-on, in-line return
Charge loop filter10 micron
Vent filter.....10 micron spin-on
Cooler.....Air to oil
integral with auxiliary engine heat exchanger
Hydraulic level/temperature shutdown system
Hydraulic oil filter restriction indicator - in cab
Hydraulic oil sight/temperature gauge
Auxiliary hydraulic system

DUST CONTROL SYSTEM

Water spray nozzles for dust suppression
PumpElectric diaphragm
Reservoirs...Polyethylene, 360 gal (1362 L) total
Filter.....80 mesh stainless steel, in-line
Low water shut-offSafety shut-off
with low water warning light in cab
Spray nozzles:
Pick-up head.....4
Gutter brooms (each).....2
Hopper.....1
Hydrant fill hose w/storage area20 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
to the operator and includes hour meters
(trip and total) for the auxiliary engine, gutter
brooms, pick-up head, blower, water pump,
and BAH broom if applicable; dump cycle
counter, sweeper odometer (records curb
miles swept and sweeping hours), service
reminders, custom reminders, overspeed
warning, low water audible alarm, and OBD.

Interior Components

BlueLogic display, auxiliary fuse panel,
illuminated control switches: pick-up head,
gutter brooms, blower RPM, leaf pressure
bleeder, dump cycle, variable speed gutter
brooms, dust control water system nozzles,
safety lights.

Exterior Components

BlueLogic multiplex modules

STORAGE COMPARTMENT

Location.....Rear left, beneath auxiliary engine
Dimensions.....18 x 18 x 30 in
(457 x 457 x 762 mm)

SAFETY/WARNING DEVICES

BlueLogic Control System utilizes solid-state
proximity switches to help provide several safety
systems: Right and left stabilizers automatically
deploy before raising the hopper and retract
after lowering the hopper, stabilizers down
warning system, transmission interlock when
stabilizers are down, blower actuation interlock,
and minimum dump interlock. Other devices
include alternating LED rear flashers, front
mounted SAE Class 1/California Title 13 amber
beacon light (LED) w/limb guard, back-up
alarm, scissor lift safety props, and shop prop.

OPTIONAL EQUIPMENT

AOD water pump w/washdown hose/spray gun
Abrasion protection package
Air purge, water system
Auto Sweep Interrupt (ASI)
Auxiliary hand hose, 8 in (203 mm) diameter
Camera/monitor system
Engine block heater
Gutter broom, drop down
High output water system
Hi/Low pressure washdown system
Hopper load indicator alarms
Hopper vibrator - electric
Low emissions package (required for South
Coast AQMD Rule 1186)
Magnet, light, standard, or heavy duty
Pick-up head front curtain lifter
Sweeper deluge system, includes hopper and
pick-up head deluge w/6 in (152 mm) cleanout
port
Screen vibrator - pneumatic
Paint color (other than TYMCO standard white)

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

CHASSIS AVAILABLE

Peterbilt 220