



500x[®]
AIR SWEEPER

GENERAL SPECIFICATIONS



**MODEL 500x[®] HIGH DUMP REGENERATIVE[®] AIR STREET 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 115 hp (86 kW) @ 2200 RPM
Net torque..... 373 lb-ft @ 1500 RPM (506 Nm)
Air cleaner Heavy duty, w/pre-cleaner, and
in-cab air restriction indicator w/gauge.
Oil filter Spin 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 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
Housing Patented, isolation mounted, steel
with abrasion resistant, replaceable liner
Housing seal Heavy rubber section,
non-wiping, spring actuated Tilt-N-Seal[®] design
Drive Fixed displacement,
heavy duty, bent axis hydraulic motor

DUST SEPARATOR, RUBBER LINED

TypeCyclonic, multipass,
centrifugal separation
Size.....28 x 48 in (71 x 122 cm)
Location.....Inside hopper
Particulate removal achieved through dual 48 in
(122 cm) 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
Dump door opening.....68 x 57 in
(173 x 145 cm)
Dump door.....Hydraulically self-locking
Chute72 x 48 in (183 x 122 cm)
stainless steel lined
Chute reach.....22 in (56 cm) w/o side shift
Dump direction Right side
Lifting method Two stage scissor lift, dual
hydraulic cylinders w/integral holding valves
Lift capacity.....10,000 lbs (4536 kg)
Floor dump angle.....50
Dump height Variable
Minimum24 in (61 cm)
from bottom of chute to ground
Maximum132 in (11 ft) (335 cm)
from bottom of chute to ground
Overall.....262 in (21 ft 8 in) (665.5 cm)
Hopper screen2 piece stainless steel
screen w/access for cleaning top side
Hopper drain system

BROOM ASSIST PICK-UP HEAD (BAH[®])

Type.....Dual chamber with broom assist
Width87 in (221 cm)
Pick-up head area3567 in² (2.3 m²)
Broom.....12 x 79 in (30.5 x 200.5 cm)
enclosed in rear of pick-up head
Suspension.....(4) springs, (2) drag links

Suction hose.....12 in diameter (30.5 cm)
Pressure hose14 in diameter (35.5 cm)
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

DriveVariable speed
non-reversible hydraulic motor
Adjustment.....Adjustable for down
pressure, pattern and wear
Down pressure Automatic
Flexibility..... Integral
anti-damage "swing away" relief valve
Brooms43 in dia. (109 cm) steel wire,
vertical diggers
Hydraulic tilt..... Adjust for curb depth
Floodlights (2) LED
Parabolic mirrors(2) 10.5 in (26.67 cm) dia.

HYDRAULIC SYSTEM

DriveDirect drive
Blower pump.....Heavy duty variable
displacement piston pump, hydrostatically
drives blower
Blower pump flow rate 26 GPM (100 LPM)
Sweeper pump Variable displacement
piston pump, operates gutter brooms, pick-up
head, stabilizers, hopper lift, hopper dump, and
hopper door.
Sweeper pump flow rate.....11 GPM (42 LPM)
BAH pump Gear pump
BAH pump flow rate..... 8 GPM (30 LPM)
Reservoir 34 gal (129 L)
Return filter 3 µm,
spin-on, in-line return
Charge loop filter 10 µm
Vent filter..... 10 µm spin-on
Hydraulic oil..... Extended life 10W ISO 46
Cooler..... Air to oil
integral with auxiliary engine heat exchanger
Hydraulic level/temperature shutdown system
w/ temperature gauge in cab
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-off Safety shut-off
with audible and visual indicator in cab
Spray nozzles:
Pick-up head.....4
Gutter brooms (each).....2
Hopper1
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,
water pump, and BAH broom; dump cycle
counter, 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, blower RPM, pressure bleeder,
dump cycle, variable speed gutter brooms, dust
control water system nozzles, safety lights.

Exterior Components

BlueLogic Control Modules (BCMs)

STORAGE COMPARTMENT

LocationRear left, beneath auxiliary engine
Dimensions.....18 x 18 x 30 in
(46 x 46 x 76 cm)

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 inclinometer, alternating LED
rear flashers, front mounted SAE Class 1/
California Title 13 amber beacon light (LED) w/
limb guard, rear view camera system, back-up
alarm, scissor lift safety props, dump door/tilt
cylinder safety props, and shop prop.

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 (20 cm) diameter
Gutter broom, drop down
High output water system
Hi/Low washdown system
Hopper load indicator alarms w/gauge
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
Shop air purge, dust control system
Sweeper deluge system, includes hopper and
pick-up head deluge w/6 in (15 cm) cleanout
port
Screen vibrator - pneumatic
Paint color (other than TYMCO standard white)

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

CHASSIS AVAILABLE

Peterbilt 220