



# 500x<sup>®</sup>

AIR SWEEPER

## GENERAL SPECIFICATIONS



# MODEL 500x<sup>®</sup> HIGH DUMP REGENERATIVE<sup>®</sup> AIR STREET SWEEPER

## DIESEL AUXILIARY ENGINE / DIESEL CABOVER CHASSIS

### SWEEPER AUXILIARY ENGINE

Engine ..... John Deere 4045 turbo FT4, 4 cyl.  
 Displacement..... 275 in<sup>3</sup> (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 and separate fuel filter  
 Open crankcase ventilation (OCV) filter

### BLOWER, RUBBER LINED

Aluminum alloy, high volume, open face turbine  
 Bearings ....(2) sealed lifetime lube, anti-friction  
 Housing ..... Isolation mounted, steel  
 with abrasion resistant, replaceable liner  
 Housing seal ..... Heavy rubber section,  
 non-wiping, spring actuated Tilt-N-Seal<sup>®</sup> design  
 Drive ..... Fixed displacement,  
 heavy duty, bent axis hydraulic motor

### DUST SEPARATOR

Type ..... Cyclonic, 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 yd<sup>3</sup> (4.3 m<sup>3</sup>)  
 Useable capacity ..... 4.0 yd<sup>3</sup> (3.06 m<sup>3</sup>)  
 Construction ..... Welded 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  
 Dump 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  
 Minimum ..... 24 in (610 mm)  
 from bottom of chute to ground  
 Maximum ..... 132 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<sup>®</sup>)

Type ..... Dual chamber with broom assist  
 Width ..... 87 in (2210 mm)  
 Pick-up head area ..... 3567 in<sup>2</sup> (2.3 m<sup>2</sup>)  
 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 hose ..... 14 in diameter (356 mm)  
 Skids..... DUO SKID<sup>®</sup>, long-life carbide  
 Linear actuator - pressure bleeder w/gauge  
 Integral for leaf/light material pickup  
 Reverse pick-up head system

### GUTTER BROOMS, TWIN, Patented

Includes LED floodlights and parabolic mirrors  
 Drive ..... Variable speed  
 non-reversible hydraulic motor  
 Adjustment..... Adjustable for down  
 pressure, pattern and wear  
 Down pressure ..... Automatic  
 Flexibility ..... All directions, integral  
 anti-damage "swing away" relief valve  
 Brooms ..... 43 in dia. (1.1 m) steel wire,  
 vertical diggers  
 Hydraulic tilt..... Gutter brooms adjust for curb  
 depth

### HYDRAULIC SYSTEM

Drive ..... Direct drive  
 Blower pump..... Heavy duty variable  
 displacement piston pump, hydrostatically  
 drives blower  
 Sweeper pump ..... Variable displacement  
 piston pump, operates gutter brooms, pick-up  
 head, stabilizers, hopper lift, hopper dump, and  
 hopper door.  
 Blower pump flow rate ..... 26 GPM (100 LPM)  
 Sweeper pump flow rate ..... 11 GPM (42 LPM)  
 BAH pump ..... Gear pump,  
 operates Broom Assist Head broom motor  
 BAH pump flow rate..... 8 GPM (30 LPM)  
 Reservoir ..... 34 gal (129 L)  
 Return filter..... 3 micron,  
 spin-on, in-line return  
 Charge loop filter ..... 10 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  
 Pump ..... Electric 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  
 Hopper ..... 1  
 Hydrant fill hose w/storage area ..... 20 ft (6 m)

### CONTROL SYSTEM

**BlueLogic<sup>®</sup> 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; 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, leaf pressure  
 bleeder, dump cycle, variable speed gutter  
 brooms, dust control water system nozzles,  
 safety lights.

### Exterior Components

BlueLogic Control Modules (BCMs)

### 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, 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 (203 mm) diameter  
 Gutter broom, drop down  
 High output water system  
 Hi/Low pressure 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 (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