DST-4®

Dustless Sweeping Technology

GENERAL SPECIFICATIONS

MODEL DST-4® MID-SIZE DUSTLESS REGENERATIVE® AIR SWEEPER

DIESEL AUXILIARY ENGINE / DIESEL CABOVER CHASSIS

SWEEPER AUXILIARY ENGINE

Engine ..... Kubota V2403-CR-TE4B FT4, 4 cyl.
Displacement..... 148.5 in^3 (2.4 L)
Power ..... 56 hp (41.7 kW) @ 2100 RPM
Net torque..... 140 lb-ft (190 Nm) @ 2100 RPM
Air cleaner ..... Heavy duty, w/pre-cleaner, and in-cab air restriction indicator w/gauge.
Oil filter ..... Spin on, full flow
Cooling ..... Liquid
Diesel fuel supplied from chassis fuel tank
Fuel tank capacity..... 30 gal (113 L)
Auxiliary engine protection system
Fuel/water separator with WIF sensor
Fuel filters..... 10 µm primary, 5 µm secondary

BLOWER, RUBBER COATED

Aluminum alloy, high volume, open face turbine
Bearings ..... (2) Anti-friction
Housing ..... Steel w/abrasion resistant, replaceable liner
Drive ..... Heavy duty power band

DUST SEPARATOR, RUBBER LINED

Type..... Cyclonic, multipass, centrifugal separation
Cylindrical area..... 20 x 22.5 in (51 x 57 cm)
Location ..... Adjacent to hopper
Particulate removal achieved through 22.5 in (57 cm) skimmer slot into skimmer hood
Inspection/cleanout port

HOPPER

Capacity (volumetric)..... 4.0 yd^3 (3.06 m^3)
Capacity (useable)..... 3.1 yd^3 (2.37 m^3)
Construction ..... Welded steel plate
Dump door opening ..... 77.25 x 70 in (196 x 178 cm)
Insection door ..... (1) Right side of hopper ..... 8.5 x 8.5 in (21.5 x 21.5 cm)
Dump method ..... Hydraulic tilt
Dump direction ..... Rear
Dump floor angle ..... 37°
Dump height ..... 72 in (183 cm)
Dump clearance height..... 154 in (391 cm)
Dump door hydraulically opened/closed
Hopper screen lifts with door for easy cleaning
Hopper deluge
Abrasion protection package

PICK-UP HEAD

Type..... Dual chamber
Width (inside dimension) ..... 78 in (198 cm)
Pick-up head area ..... 2028 in^2 (1.31 m^2)
Suspension ..... 4 springs, 2 drag links
Skids..... DUO-SKID®, long life carbide
Suction hose diameter..... 12 in (30.5 cm)
Pressure hose diameter ..... 12 in (30.5 cm)
Reverse pick-up head system

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 ..... Steel wire vertical digger 36 in (91 cm)
Variable speed control
Hydraulic tilt..... Twin gutter brooms adjust for curb depth
Floodlights ..... (2) LED
Parabolic mirrors ..... (2) 10.5 in (26.67 cm) dia.

HYDRAULIC SYSTEM

Operates gutter brooms, dump door and pick-up head
Drive ..... Gear driven from auxiliary engine
Flow rate..... 5 GPM (18.925 LPM)
Reservoir ..... 13.5 gal (51.1 L) with 80 mesh suction strainer, sight/temp. gauge, oil cooler
Filter..... 10 µm in-line
Hydraulic oil ..... Extended life 10W ISO 46
Cooler ..... Air to oil
Auxiliary hydraulic system

DUST CONTROL SYSTEM

Water spray nozzles for dust suppression
Pump ..... Electric diaphragm
Reservoirs ..... Polyethylene, 77 gal (291.5 L), total
Filter..... 80 mesh in-line
Low water shut-off ..... Safety shut-off with audible and visual indicator in cab
Spray nozzles..... At gutter brooms and inside hopper
Fire hydrant and garden hose connections
Hydrant fill hose..... 20 ft (6 m)
High output water system

DUSTLESS FILTRATION SYSTEM

An external mounted modular filtration system with automatic BlueLogic® control adjustment
Capacity (volumetric)..... 14 ft^3 (0.40 m^3)
Filters..... (4) MERV 16 Rated w/pre-cleaner
Particulate removal efficiency ≥ 95% of 0.3 µm
Long-life filters, unaffected by wet sweeping conditions.
Filters cleaned by intermittent air pulse
Air compressor ..... Belt driven, liquid cooled, engine lubricated
Compression rate ..... 13.2 CFM (0.37 m^3/minute) @1200 RPM
Shop air connection for air pulse system
Dust box deluge washout system

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. Specific to DST models, BlueLogic also monitors and automatically controls the adjustments for the DST system, requiring no operator adjustments.

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, and DST filters; 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, DST mode, purge system, dust control water system nozzles, safety lights

Exterior Components

Dump switch, BlueLogic Control Modules (BCMs)

SAFETY/WARNING DEVICES

Alternating LED rear flashers (2)
Rear view camera system
Back-up alarm
Hopper safety prop

OPTIONAL EQUIPMENT

Auto Sweep Interrupt (ASI)
Auxiliary hand hose 6 in (15 cm) dia.
Camera/monitor systems
- Standard camera system:
  - Pick-up head view
  - Gutter broom view - left and/or right
- CurbView camera system

Gutter broom drop-down
Hi/Low washdown system
Light bar, cab mounted, LED
Low emissions package (required for South Coast AQMD Rule 1186)
Magnet, front bumper mounted, light duty
Pick-up head curtain lifter
Shop air purge, dust control system
Stainless steel (non-magnetic) options:
- Hopper & dust box:
  - Hopper weldment
  - Dust box
  - Hopper door
  - Skimmer hood assembly
  - Hopper screen assembly
  - Inspection door
  - Suction inlet tube
- Blower housing
- Dust box
- Dust separator
- Hopper inspection door
- Hopper screen
- Auxiliary hand hose hardware

Paint color (other than TYMCO standard white)
Special options are available. Contact your local dealer or TYMCO.

CHASSIS AVAILABLE

Isuzu NQR

South Coast AQMD Rule 1186 PM_{10} Certified, GLOBE Verified ISO 14034 ETV
1-800-258-9626
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