



Cusco Hydro Excavator with a Boom
EQ #: 10331

PRODUCT DESCRIPTION

Cusco DOT Hydro Excavator with a Boom

TANK CAPACITY:

3000 USG + 3% Outage

DESIGN:

Design shall withstand 25-PSI internal pressure and 15 PSIG external pressure and shall meet all the requirements of Section VIII Division 1 of the A.S.M.E. Boiler and Pressure Vessel Code. National Board Registered. Tank to be designed and constructed in full compliance with Transportation Specifications TC 407/412 - Including boom.

HEAD MATERIAL:

0.3125 SA516-70

SHELL MATERIAL:

0.3125 SA516-70

TANK DIAMETER:

78" OD

OPERATING TEMPERATURE:

-20 to 200 degrees F

HYDROSTATIC TEST PRESSURE:

40.0 PSIG

PRESSURE RELIEF:

4" SS Girard pressure vent, 25 PSIG setting mounted top of tank.

PRIMARY SHUT-OFF:

Dual 8" flanged outlets with dual 12" stainless steel float balls.

BAFFLE:

One anti surge baffle mounted on reinforcing pad.

RINGS:

Circumferential reinforcement rings with tank support feet.

LIQUID LEVEL INDICATOR:

Stainless Steel construction rotary float gauge with 6" float ball assembly located on front driver side with grab handle and up position tie back.

REAR DOOR:

Hydraulic full opening rear door assembly with 6 heavy duty door bolts, neoprene rubber rear door gasket, dual double acting side mounted hydraulic cylinders and safety brace.

SUCTION VALVE:

6" ANSI Betts air operated valve, with Betts actuator 6" sand pipe / deflector plate assembly, aluminum Kamlock fittings mounted on rear head. Note Sand pipe to be slotted and covered with expanded metal on side facing the head.

DISCHARGE VALVE:

6" ANSI Betts air operated valve with Betts actuator and aluminum Kamlock fittings mounted on rear head

ISOLATION VALVE:

Dual 8" air operated butterfly valve between primary shut off and cyclone with controlled by manual air switch

FILTRATION SYSTEM

Dual 20" diameter cyclones mounted on 20" diameter drop box with side swing clean out

3" brass drain valve and aluminum Kamlock Fittings

Cusco 30" diameter final filter assembly installed for the protection of blower with 20" diameter stainless steel 100 micron filter.

BLOWER SPECIFICATIONS:

Roots DVJ 1021 Blower 5184 CFM free air rating, 4100 CFM @ 18" Hg, 27" Hg maximum vacuum

SILENCERS:

12" intake and 14" exhaust silencers.

BLOWER PIPING:

Dual 8" Diameter with 8" quick disconnect rubber boot assemblies.

BLOWER VALVING:

6" manual butterfly vacuum relief vale and 12" incline check valve assembly.

BLOWER FLUSH SYSTEM:

Diesel fuel supply line with valve separate diesel fuel tank.

DRIVE:

Driven from air shift transfer case.

HYDRAULIC RESERVOIR:

Mounted on hydraulic dump sub-frame with suction strainer, diffuser, fill cap, hydraulic oil filters and sight glass.

HYDRAULIC DUMP SYSTEM:

Full length hydraulic dump sub-frame with 20 ton, double acting dump cylinder, rear dump pivot assembly and safety brace.

VIBRATOR:

Hydraulic vibrator assembly mounted on bottom of tank with reinforcing pad, heavy duty mounting channel and pressure relief valve.

HYDRAULIC CONTROLS:

3-spool valve body for control of vibrator, rear door and hydraulic dump. Hydraulic pressure gauge on valve body.

GAUGES:

Hydro Ex gauge panel assembly with tank vacuum / pressure gauge, filter element vacuum gauges, tachometer, throttle control, diesel flush control and cooler over ride. Panel to be located on the driver side of unit near hydraulic controls.

SIDE TRAYS:

Full-length side toolboxes with polished stainless steel doors for storage / fender assembly with anti-sail mud-flaps and rear tire skirt, installed both side of tank. Complete with lockable fold down doors and seal. Full length splash guard to installed between side tray and Subframe.

TRIM:

12" wide walkway assembly, full length located on driver side with safety railing and ladder. Rear section of the catwalk to have fold down rail to allow boom to operate on driver side of vehicle. Heated stand up locker installed on passenger's side behind cab for work clothes and cutting wands.

WATER TANK CAPACITY:

Separate dual 500 USG located in front of waste tank compartment, permanently attached to Subframe (does not dump with waste tank).

4" diameter cross over line

4" Diameter Drain Valve

2" Diameter Water System Feed Valve

Water Tank Re-Circulating System.

HIGH PRESSURE WASH SYSTEM:

Cat 3560 water pump with suction strainer, pressure relief valve, Two (2) steam rated hydraulic rewind hose reels c/w at least 75' 3/8" high pressure hose.

Complete wash pump and reels mounted on passenger side, in a painted steel insulated cabinet with 2 high capacity bus heaters and polished Stainless Steel doors installed, light and small hose access doors for hose reels.

Includes handgun, steam wand and digging wand with 3000 PSI ball valve and female quick disconnects

WASH SYSTEM OPERATION:

Wash to be set-up to run one or both hose reels at the same time for hot water only not steam. Water system to be set to maximum 3000 psi and 20 GPM.

NOTE: Water Pump to operate at same time as blower.

HOT WATER SYSTEM:

980,000 BTU/hr. Burner with Steam kit and 3000 Watt 110 Volt inverter with additional outlet in burner cabinet.

Diesel fuel filter system with water separator

Water supplied from was system.

Burner mounted in heated cabinet, exhaust stack for burner.

Glycol flush tank included for winterizing system c/w air purge system.

FILL CONNECTION:

2" fill line on curb side with anti-siphon air gap protection, Y type suction strainer and valve, located for easy access for cleaning and fill connection.

LIQUID LEVEL INDICATOR:

Three (3) 2" sight glasses installed on each tank.

BOOM:

8" Cusco TC 407/412 hydraulic boom assembly mounted rear 270 degree rotation with 25 feet reach, 6-Way pendant control (up/down, rotation, extension), 8" suction hose with band lock hose fitting.

6" SS Kamlock and cap for easy access for cleaning and a 6" air operated vent valve is to be installed in the blower piping, close to the blower, to vent the tank instead of isolating the boom.

Boom Isolation valve to be controlled via manual air switch located near control panel.

Vent valve control to be on boom pendants.

NOTE:

1. Hydraulic boom controls, mounted on boom, to be protected from damage due to tree branches passing over top of truck.

2. Boom hose to be attached to boom at base with band lock fitting for easy removal and replacement in the field.

BOOM CONTROLS:

Wireless boom controls in addition to wired pendant controls

LIGHTING:

DOT LED Moisture proof lighting

(3) Lower Lamp Assembly

Dual Upper Turn and brake lamp assembly

(5) Side Marker lights on side tray

(3) in a row clearance markers

Clearance Lamps

Reflectors

Upper license plate mount and light assembly

(1) Rear Amber Strobe Beacon

6 total Flood Lights. (4) Rear Facing rectangular halogen flood lights, (2) on rear door and 1 on each side of tank at front. (1) at blower control area and (1) at wash system work area.

(1) Rear Traffic Advisory Arrow Board

BUMPER:

DOT rear bumper for protection of external valves with platform/step assembly and rear dirt shield.

TUBE HOLDERS:

(2) Tube Holders installed, one on each side of tank, to hold (2) 8"x60" aluminum suction tubes each. (Included 8" tubes with Band lock connections (4) in total).

HEATED JACKETED VALVE:

Heated jacketed assemblies for all loading and drain valves.

CHAIN HANGERS:

(2) Sliding chain hangers, one mounted each side complete with locking bar.

FIRE EXTINGUISHER:

20 lbs. ABC Extinguisher mounted on driver's side.

DOORS:

All doors to be polished stainless steel.

PAINTING

The entire tank and body of the vacuum system shall be sandblasted and primed with two (2) coats of primer and painted with two (2) coats of single stage Sherwin Williams paint.

CHASSIS

2016 Western Star 4900SB TriDrive Chassis, Cummins ISX 500 HP Engine, Eaton Fuller RTLO-16918B Manual Transmission