

## **8x4 Hydro Excavator Truck**

### **Chassis Cab:**

UD Quon CG 32 420hp Air Suspension

1. Euro VI
2. Automated Manual ESCOT-VI (AT02612F) transmission
3. Splitshaft driven ancillaries

### **Scope:**

Manufacture a hydro excavation unit with 304L stainless steel vacuum tank.

Detailed Specification:

#### **1. Vacuum Tank**

1.1. The vacuum tank has a 10000 liter capacity, 6000 liter waste, 4000 liter water, is of 304L Stainless Steel construction with a 6mm shell and 6% toro-spherical dished-ends. Rolled channel rings are installed for extra reinforcing to ensure structural integrity and long life.

1.2. Tank tips hydraulically with a 14-ton tipping cylinder, up to 45-degree tipping angle. A burst valve protection.

1.3. The tank features a full opening rear door with hydraulic opening and adjustable hinges, the door fastens with 4 hydraulic operated clamps with mechanical locking to prevent accidental opening while driving. The door is secured in the opening position by a mechanical safety hook to prevent accidental closing during tank cleaning and maintenance procedures.

1.4. The tank door seals with a heavy-duty EPDM seal that is corrosion resistant and offers high mechanical wear resistance.

1.5. The tank is fitted with D150 PN16 ball valve for suction port at the back, a DN150 discharge valve, fitted with cam-lock type fittings with blank covers

1.6. Top mounted manhole for inspection and cleaning.

1.7. The tank door is fitted with swing ball floating level indicator indicating full and empty tank levels.

- 1.8. The tank is fitted with flared spillage chutes at the back to limit spillage during dumping.
- 1.9. The tank is fitted with primary float ball knock out and material deflector on internal suction port.
- 1.10. Pneumatic tank isolation valve with automatic operation to isolate tank during driving to prevent on-road spillage.
- 1.11. Self-aligning vacuum tie-in pipe for low maintenance and to prevent leakage.
- 1.12. The tank is designed for 4 bar pressure and is tested to 1.4 bar.
- 1.13. NDT, 10 x-ray, water fill and pressure test are performed on tank prior to delivery.

## **2. Hydraulic System.**

- 2.1. 60cc Linde or Hawe Hydrolik pump for closed circuit operation, jetting to happen simultaneously with vacuum operation
- 2.2. 80-liter hydraulic tank.
- 2.3. Automated system for clamp, door operation. (1 button push control)
- 2.4. Push button control so that door can only be opened from appropriate operator positions to prevent the chance of injury in case of spillage.
- 2.5. Pneumatic control eliminates the need for electronic safety control.
- 2.6. Lock-out when system not in use to protect against unintended movements of the system.
- 2.7. PTO drive lock-out system to prevent operation during driving

### 3. Accessories and auxiliaries.

- 3.1. The truck is fitted with Rhino plastic mudguards.
- 3.2. Fitted with 3 lockable steel toolboxes to store PPE, material and fittings.
- 3.3. Universal bumper with lights.
- 3.4. Automatic hose reel, DN12 hose with 20-meter hose and manual lance, fan-spray nozzle and roto nozzle.

### 4. Pump drive(s).

- 4.1. Drive to the blower is via OMSI splitshaft.
- 4.2. Drive to high pressure pump is via OMSI splitshaft.

### 5. Vacuum.

- 5.1. Drive
  - 5.1.1. Double Cardan shaft.
- 5.2. Positive displacement blower.
  - 5.2.1. Jurop Helix 750 vacuum pump
  - 5.2.2. 2445CFM free air flow volume and up to 28 hg @ 93% continuous vacuum
  - 5.2.3. Overheating protection for blower unit.
  - 5.2.4. Continuous air injection cooling with silencer featuring removable sound absorbent material and cleanout function.
  - 5.2.5. Re-active / absorbent exhaust silencer with top discharge, sound absorbent material cleanout function.

### 5.3. Filtration.

5.3.1 Deflection plates inside tank.

5.3.2 Stainless steel floating ball primary shut off.

5.3.4 Stainless steel mesh final filter.

5.3.5 Flanged pipe connections for easy cleaning and maintenance.

### 6. High Pressure Side.

6.1. High pressure pump.

6.1.1. Interpump W2141.

6.1.2. 41/min at 210bar.

6.1.3. 75 mm Anjet disc filter.

6.1.4. Adjustable bypass valve (Unloader)

6.1.5. Safety valves for pump protection.

### 7. 150 mm Telescopic Suction Boom:

7.1. Mounted on top of tank.

7.2. 1600 mm telescopic extension.

7.3. 180-degree slew.

7.4. Up/down.

7.5. Isolation valve.

7.6. 150 mm vacuum pipe.

7.7. Autec Remote control with manual override in case batteries are flat.



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## **8. Safety.**

- 8.1. Electric e-stops.
- 8.2. Mechanical locking door clamps to prevent accidental door opening when travelling.
- 8.3. Automatic PTO lockout when driving.
- 8.4. Automatic tank isolation valve when driving.
- 8.5. Detailed decals to indicate component locations.
- 8.7. Two revolving strobe lights fitted on tank for nighttime visibility with a work light at the back.

## **9. Legal.**

- 9.1. Homologated for on road use in New Zealand.
- 9.2. Training included with unit.
- 9.3. 12 Month in-parts warranty on defects and workmanship.
- 9.4. Illustrated maintenance and operations manual.