HERMAN KRIEL
M: +64 27 437 2620
E: herman@hercomachinery.com

JAKE SCHEFFER
M: +64 27 437 2620
E: jake@hercomachinery.com

Compact Hydro Excavation Truck

Chassis Cab:

UD Croner, 280hp leaf spring Suspension

1. Euro V

2. Six-speed Allison Automatic transmission

3. Splitshaft PTO

4. Aluminum Wheels

Scope:

Manufacture a vacuum jetting unit with 304L stainless steel vacuum tank.

Detailed Specification:

1. Vacuum Tank

1.1. The vacuum tank has a 6000-liter capacity, 4000-liter waste and 2000-liter water, is of 304L Stainless Steel construction with a 4.5mm 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 6-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 DN100 gate valve for suction port at the back, a DN100 discharge valves, fitted with cam-lock type fittings with blank covers.

HERMAN KRIEL
M: +64 27 437 2620
E: herman@hercomachinery.com

JAKE SCHEFFER
M: +64 27 437 2620
E: jake@hercomachinery.com

1.6. Single separator design in tank with side entry for removing debris as well as top mounted manhole for inspection and cleaning, 150 mm suction port for portable vacuum tanks on both sides.

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. Also protruding bumper to hose reel protrusion.

1.9. Two revolving strobe lights fitted on tank for nighttime visibility with a work light at the back for nighttime operation.

1.10. The tank is fitted with primary float ball knock out and material deflector on internal suction port.

1.11. Pneumatic tank isolation valve with automatic operation to isolate tank during driving to prevent on-road spillage.

1.12. Self-aligning vacuum tie-in pipe for low maintenance and to prevent leakage.

1.13. The tank is designed for 4 bar pressure and is tested to 1.4 bar.

1.14. NDT, 10 x-ray, water fill and pressure test are performed on tank prior to delivery.

2. Hydraulic System.

2.1. 11cc closed center system to drive suction boom, tipping and door

2.2. 80-liter hydraulic tank with oil cooler.

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.

HERMAN KRIEL
M: +64 27 437 2620
E: herman@hercomachinery.com

JAKE SCHEFFER
M: +64 27 437 2620
E: jake@hercomachinery.com

3. Accessories and auxiliaries.

3.1. The truck is fitted with NZ-made Rhino mudguards.

3.2. Cone Holder to hold 6no cones.

3.3. Manual hose reel, DN12 hose with 20-meter hose and manual lance, 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 Kardan shaft with bolt on shaft guard and access for inspection and grease maintenance.

5.2. Positive displacement blower.

5.2.1. Jurop Helix 300 Tri lobe positive displacement blower.

5.2.2. 1088 cubic feet per minute free air flow volume and up to -90 kPa (Gauge) continuous pressure.

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. Side chassis mounting easy access and optimal weight distribution.

5.2.6. 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.

5.3.3 Debris separator in tank.

5.3.4 Stainless steel mesh final filter.

HERMAN KRIEL
M: +64 27 437 2620
E: herman@hercomachinery.com

JAKE SCHEFFER
M: +64 27 437 2620
E: jake@hercomachinery.com

5.3.5 Flanged pipe connections for easy cleaning and maintenance.

6. High Pressure Side.

6.1. High pressure pump.

6.1.1. Udor plunger pump, bent axis piston hydraulic drive.

6.1.2. 32 lpm @ 200 bar.

6.1.3. 75 mm Anjet disc filter.

6.1.4. Continuous pressure regulation via unloader valve, protects against unintended nozzle blockages, etc.

6.1.5. Safety valves for pump protection.

7. 125 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. 125 mm vacuum pipe with camlock male fitting.

7.7. 3no 100mm diameter, 2.5m long lightweight suction hoses with cam lock ends, stowed in bespoke bin on side of truck.

7.8. 1no 125mm diameter, 1.2m long aluminum extension with female camlock fitting.

7.9. Autec Remote control (100m range)

HERMAN KRIEL
M: +64 27 437 2620
E: herman@hercomachinery.com

JAKE SCHEFFER
M: +64 27 437 2620
E: jake@hercomachinery.com

8. Safety.

8.1. Electric e-stops for vacuum operation.

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.

9. Legal and after sale service

9.1. Homologated for on road use in New Zealand as a class 2 licensed vehicle (17500kg GVM)

9.2. Training included with unit.

9.3. 12 Month in-parts warranty on defects and workmanship.

9.4. Illustrated maintenance and operations manual.

9.5. Ongoing fleet management and maintenance solutions.