

- Double drum winch with a pull force of max. 3,4 to and max. 1,55 to for various usages (regulating, tower equipping, tower erection ...)
- Other pull forces / bigger rope drums on request
- Very compact machine due to the superimposed winches; with stable backstay for a quick and safe anchoring
- Optional with inductive slack-rope safety system
- Robust machine designed for highest reliability, simple operation and minimal maintenance
- Optional operation of the machine via cable or radio remote control => good overview, low noise level and safe position for the operator
- High quality control technique enables inching even under maximum load



#### Technical data of both winches:

- Max. pull force and speed of the lower drum winch:
  - Middle rope layer: 2.800 daN with 30 m/min
  - Inner rope layer: 3.400 daN with 24 m/min
  - Speed continuously adjustable: 0 - 63 m/min
- Max. pull force and speed of the upper winch:
  - Middle rope layer: 1.400 daN with 37 m/min
  - Inner rope layer: 1.550 daN with 34 m/min
  - Speed continuously adjustable: 0 - 40 m/min
- With free wheel device to pull out ropes by hand (without engine)
- Stable rope guiding device with hardened rope rollers
- Optional with no contact slack-rope safety system (functions only with steel ropes) => prevents rope from getting loose and crossed over
- Large rope drums (=> few rope layers => rope preserving) with stable pressure roller for fixing the rope
- Max. rope capacity:  $K=44816$  => e.g. 440 m with rope  $\varnothing$  10 mm or 300 m with rope  $\varnothing$  12 mm

#### Control of the machine:

- The rope can be indefinitely controlled in/out via a hand lever
- Optional with cable remote control with a 10 m cable (functions: rope indefinitely controlled in/out; emergency stop)
- Optional with radio remote control (additional functions: ignition; engine starting)
- Control panel with all instruments to control engine, hydraulic and electrical system
- Both drum winches cannot be operated simultaneously (only possible as special model)

#### Cover:

- Lockable tarpaulin cover (optional with aluminium sheet) protects the diesel engine, the hydraulic and electrical systems => increases the reliability of the machine and is noise reducing

#### Hydraulic driving system:

- A complete driving unit consisting of planetary gear, brake and hydraulic motor is integrated in each rope drum => fully enclosed and therefore requiring minimal maintenance
- 2 automatically activated safety-disc brakes
- High quality control technique enables inching even under maximum load
- Highly effective oil cooling system, electrically activated and controlled via thermostat, designed for extreme operating conditions
- Hydraulic hoses and screw connections with special sealing system for a long service life without leakage

#### Engine:

- Water-cooled diesel engine with 17,6 kW (24 HP) at 2.200 rpm
- Low speed => long service life and low noise level
- 12 V system with high capacity battery for safe starting also at cold temperatures

#### Weight, dimensions and noise level:

- Weight: approx. 1.170 kg (without rope)
- Length x width x height: approx. 3.400 x 1.600 x 1.700 mm
- Low noise level: approx. 74 dB (A)

#### Frame and support:

- Stable steel frame with anchoring eyes
- Central lifting ring for easy loading by crane
- Back support via mechanical backstay for highest stability and fast and easy anchoring; with integrated eyes for anchoring of ropes
- Front support via stable mechanical parking jack

#### Standard chassis:

- 1 axle chassis with rigid axle and non-adjustable height towing bar with ball coupling for car application  
Optional: lighting system, mudguards, height adjustable towing bar with change coupling (for car or truck applications)

#### Optional chassis:

- 1 axle chassis with spring-mounted axle, overrunning brake system, non adjustable height towing bar with ball coupling for car application, parking brake, lighting system, mudguards and registration as high-speed trailer (in Germany up to 80 km/h)  
Optional: height adjustable towing bar with ball coupling (for car or truck applications)

#### Ropes (Optional):

- ST 280 (lower drum winch):
  - High quality steel hoisting rope Ø 10 mm; breaking load: 10.100 daN; anti-twist, galvanized; standard length: 300 m
- ST 210 (upper drum winch):
  - High quality steel hoisting rope Ø 7 mm ; breaking load: 5.000 daN; minimal twist, galvanized; standard length: 300 m
  - High quality braided synthetic fibre ropes Ø 12 mm; breaking load: 7.500 daN; anti-twist; standard length: 300 m
- Other steel or synthetic fibre ropes on request

#### Optional equipment:

- Tyres for high ground clearance and low ground pressure
- Electrical valve version and socket in the control panel => enables the connection of a cable/radio remote control (manual control remains possible as emergency control)
- Cable remote control
- Radio remote control
- No contact slack-rope safety system
- Lockable cover made of thick-walled aluminium sheet
- Large, lockable tool box
- Spare wheel with lockable holding device
- Grounding plate with holding device
- Biodegradable hydraulic oil
- Gasoline engine with manual or electrical start (price reduction)
- Special equipment or special models (with other pull forces) on request



Modifications and errors excepted. Illustrations show in part optional equipment. Technical data varied according to model. Machine performance is calculated at sea level at 20°C.