



2. TECHNICAL SPECIFICATIONS OF WINCHES

2.1 TECHNICAL SPECIFICATION No 000349-1

ELECTRIC BOW WINCH FOR OLS HANDLING

2.1.1 1 off electric driven winch type TW 750 F

- One rope drum to accommodate 30m of 25mm dia. tag line + 50m of 60mm hawser section + 100m of 116mm dia. hawser section. Drum barrel / flange dia 630 / 1500 mm, length 1400 mm. Drum cylinder and flanges to have ample strength for operation with rope as well as wire. Drum is provided with a clutch which is normally fixed (bolted) to engaged position but in emergency case the drum can be released from the drive by opening the clutch mechanism.

- Hydraulic operated band brake with stainless steel lining, static capacity 90 ton at outer layer. Partial engagement by springs. Full brake capacity is obtained by both hydraulic pressure and springs (50% / 50%). Thus, in case of lack of whole hydraulic pressure approx. 50% brake capacity is available.

- line pull:

1 st layer:	75 ton at 0 - 10 m/min
	37 ton at 0 - 20
outer layer:	50 ton at 0 - 15 m/min
	25 ton at 0 - 30 m/min

- dynamic braking with electric drive:

1 st layer:	86 ton at 0 - 10 m/min
outer layer:	57 ton at 0 - 15 m/min

- Drive gear: one closed gearbox, squirrel cage electric motor with built-in electromagnetic brake and tacho, 136 kW, duty class S2-30 min. Gears and bearings inside gearbox with oil bath / splash lubrication, gearbox provided with a CJC off-line filtration unit of ample size.

- Last gear transmission of open type (a gear rim bolted on drum flange). A protective cover with inspection hatch and grease catching provided. Open gears lubricated by lubrication wheels with automatic lubricating system.

- All gear wheels (enclosed/open) are hardened and ground helical gears.



-Smaller parts e.g. small pipes ≤ 25 mm dia., nipples, fittings, hose ends, connectors, bolts and screws ≤ 20 mm etc. to be of stainless steel 316.

- weight approx. 8,6 tonnes.

2.1.2 1 off spooling gear

Hydraulically operated spooling gear for separate installation. Maximum side force 20 ton. A spooling carriage on stainless steel 316 sliding shafts is moved by a hydraulic motor via a robust chain transmission. The opening between rollers is fixed for a 116 mm dia. hawser.

2.1.3 1 off frequency control unit type DK132CX4A

- for max. 50° C ambient: room temperature
- power supply 440 volt, 60 Hz

2.1.4 2 off water cooled resistor banks

2 off 100% capacity resistor banks are provided. In case of single unit failure full power operation is secured.

- capacity each: 136 kW continuous operation
- water flow for each: 130 l/min minimum
- inlet water pressure: 2 bar
- inlet water temperature 38 °C, either fresh or seawater
- dimensions each 1378 x 642 x 512 mm.

2.1.4 1 off local control column

- one IP56 deck mounted control column for control of winch and spooling gear.
- controls for winch and spooling gear:
 - * drum rotation speed and direction control handle
 - * spooling gear speed and direction control handle
 - * rope launched length
 - * line tension

2.1.5 1 off remote control box

- for mounting in wheel house
- controls for winch and spooling gear:
 - * drum rotation / spooling gear control handle
 - * rope launched length
 - * line speed
 - * line tension



- * motor RPM, overspeed alarm and automatic shut-down
- * hydraulic power pack start / stop with running light
- * hydraulic failure alarm

2.1.6 1 off auxiliary hydraulic power pack

- small unit for hydraulic band brake and spooling gear, with automatic stand-by pump. A CJC off-line filtration unit of ample size is provided.

2.1.7 1 set spare parts

- spare parts according to manufacturer's standard for 2 years operation are included. Preliminary spare parts list enclosed.

2.1.8 Additional spare parts

The following major spares are optional (intended for two winches):

- * 1 off spare electric motor with magnetic brake (136 kW)

2.2 GENERAL TECHNICAL SPECIFICATION OF ELECTRIC MOTORS AND FREQUENCY CONVERTERS

2.2.1 ELECTRIC MOTOR

Maker:	Loher AG
Type:	ABHA-315SB-04C+SFB100
Power:	136 kW
Duty:	S2 – 30 min/S3-25%
Voltage:	3 x 440 V, 60Hz
Nominal current:	210A
Synchronous speed:	1800 rpm
Asynchronous speed:	1790 rpm
Maximum speed:	3600 rpm
Ambient temperature:	-30 - + 45 °C
Insulation class:	F
Temperature rise:	Acc. class F
Protection:	IP56
Lubrication:	Regreasing facility
Temperature sensor:	3 x thermistor
Heating:	220 VAC 990W, element type ACM 8BW
Cable entry:	Glands included



2.2.2 FREQUENCY CONVERTER

Maker:	VACON
Type:	132CX4A0N0
Power:	136 kW
Voltage:	3 x 440 V, 60Hz
Current:	
Ambient temperature:	max 50 °C
Construction:	Standing on the floor
Dimensions:	
Protection:	IP21
Heat dissipation:	approx. 3 kW with full load
Cooling:	Ventilation fans included, air flow approx. 1000 m ³ /hour
Cable entry:	From below, side, front or back
Main switch:	Not included