

7.1.2. DESCRIPTIVE NOTICE (See Drawing 5454 - 1.2.06 ; 1.2.07 and 1.2.08

The 15 tons winch is constituted essentially by the following elements :

- The drum

A welded and machined construction with grooved ferrule, thread 45 mm on the right, provided for the winding of the cable.

This drum is carried out on a shaft turning on 2 steel bearing blocks with roller-bearings. These roller-bearings are protected by joints and are lubricated by manual permanent lubricators with valves.

- An intermediate shaft

Mounted between 2 steel bearing-blocks equipped with roller bearing, protected by joints and lubricated by manual permanent lubricator with valves. On this shaft, the pinion drives the drum-gear. The pinion is mounted on flutes.

The shaft is driven by :

- A hydraulic motor

With hydraulic power unit, a tank, a filter and a piston pump, and a diesel motor driving the hydraulic motor.

- Brakes

- A reducer

The whole motor + reducer + brake, is mounted overhanging on the winch frame.

- A cable system

Mounted between two sides turning round the drum shaft. It is constituted by 2 horizontal rollers making oscillations on a screw with crossed threads.

The joining is performed by roller-chain under protection case with stretcher-pinions.

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- The metallic frame

which supports the whole of the mechanic elements.

7.1.3. CHARACTERISTICS

Lifting power : 15 tons on one cable

Lifting speed : variable and continuous from 0 to 6 m/mn

Capacity of the drum : 400 m of cable

Non twisting galvanized cable

- Diameter : 41 mm

- Breaking load of the cable : 108 T.

- Number of layers : 6

- Driven by hydraulic engine

Control : by means of local desk

Winch equipped with hydraulic braking system

Weight of the engine group : 1.55 T.

Weight of the winch : 4.85 T.

Weight of the cable : 2.7. T.

Weight of the accessories : 0.3 T.

Total weight of the winch : 9.4 tons

7.1.4. LOAD CONDITIONS

The machinery has to frequently lift its maximum load but normally operates between 1/3 and 2/3 of this load.

7.2. LIST OF THE MAIN ITEMS TO BE STARTED UP

- Diesel engine : DEUTZ F 3L912, 40 HP, 1800 rpm

- Piston pump : DENION

- Drum : ATMO

Local operation and control unit for the winch.

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