

Hydraulic machine of maintenance Knife crusher

DESCRIPTION

- The hydraulic knife crusher is an hydraulic machine making it possible to carry out the maintenance of fast and slow rotating system hydraulic and to manage the associated safety measures
- Support for activities of adjustments, diagnosis and replacement of failing hydraulic components, improvement of the system
- Machine being able to be used only or joined with the mixer/mixing MMH 102
- The machine is delivered supplements, instrumented, with technical file and manual teaching.
- Material of industrial type.
- Teaching concerned: Maintenance of the industrial systems and complementary mentions in hydraulics

Noncontractuelles illi



TEACHING APPLICATIONS *

- Adjustment of the hydraulic components for obtaining the nominal conditions of work of the machine.
- Implementation of measures of the characteristics flow and pressure for activities of adjustment and diagnosis
- Modification of the hydraulic installation for improvement of the operation of the machine
- Autonomous operation or on line (with MMH 102 and 103)

Revision A

Technical description and activities of maintenance on crusher:

Structure

- Aluminium Frame anodized on wheels with brake section 90 * 45mm
- Structure of the system of crushing out of sheet steels/assemblies screwed
- Characterisation supplements with protected openings coupled to security chain of the machine
- Dust-protecting Aspiration

Mechanical description of the feeding system of waste:

- 1 belt conveyer motorized lg 1000mm approximately
- rotor with teeth motorized to force the power supply of the crusher
- transmission of power on the conveyer and the rotors with multiple teeth by pinion and roller chain
- 1 hydraulic engine approximately 50 Cm3 for drive of the conveyer and the rotors

Mechanical description of the system of crushing:

- 1 hydraulic engine with drain of 7cm3
- 1 steel rotor of diameter 200mm of 260mm of width equipped with 4 knives and turning with 3000tr/min
- Guidance in rotation by ball bearings
- Swing drive by hoop of tightening making office of torque limiter/detection of slip coupled with the security chain.
- Chip disposal in a specific chute towards vat or mixer MMH 102.
- 1 Hydraulic engine

Sensors:

- Pressure gauge controller on crushing engine
- Inductive Sensors of rotation coupled to module allowing to manage null speed, the slip of the torque limiter as well as the speed of crushing

Supervision (option):

- visualization of the state of the pre-actuators
- representation by diagrammatic hydraulics and emulation of posting of the magelis
- complete piloting/started/put moving of the machine
- reading of instantaneous measurements number of revolutions

Electric structure:

- general disconnecting switch of power supply modulates standard safety PREVENTA coupled with the sensors of safety and emergency stopping of the machine.
- circuit breaker and differentials for protection
- piloting of the machine since the button manufacture located on the box
- posting number of revolutions on desk
- piloting, parameter setting and assistance with the diagnosis by standard IHM magelis
- Schneider automat with analogical chart
- piloting of control by instruction automat/velocity measurement retransmitted with the chart of regulation
- possibility of substituting this direct order by order since supervision/connection on standard connector sub D for locking on box (RS485)

Description of the hydraulic components in initial version:

- 1 power station with engine 5.5 kw
- tank of 75L with level gauge and thermometer with contact
- coupled pumps (3 and 20L/min)
- 2 solenoid valve block assemblies 4/2
- 1 solenoid valve block assembly 4/3 (for piloting 2 feel feeding system)
- 1 volumetric governor 3 ways with numerical chart of regulation
- 1 block speed for emergency braking of the rotor
- 1 filter return with clogging indicator
- 3 limitings device of pressure (100-250 bars)
- establishment cetop 3 and components cartridge

Activities for crusher

- Adjustment of the limitings device of pressure for control of the braking and acceleration times of the rotor
- Adjustment of volumetric governor for control of the downtimes of the machine in emergency stop
- Integration of a device of regulation of flow proportional controlled on the speed of crushing
- Integration of a block speed to allow the emergency braking of the rotor
- Replacement of distributor 4/2 by distributor 4/3 to allow the inversion of the direction of walk of the feeding system
- Analysis of operation by measurement speed and tensions of instruction and controlled (measurement on banana plugs standard doubles puit)

UTILITIES: Electricity: 400 VAC will tetra/20A mini 50 Hz

VOLUME of INSTALLATION WRAPS NET (LxIxH in mm): 2200x2000x1900/400kg