

Transfluid's all-purpose clutch

MARKET demand for a disconnectable, compact dry clutch with high capacity hydraulic pump pads has led Italian power transmission company Transfluid to develop its TowerClutch system.

With applications across various industries, miners have found uses for the TowerClutch in rock crushers, drill rigs and reclaimers, with the system's flexible modular design even making it applicable in the marine industries.

The oil/air actuated dry clutch (HF series) is flanged to the engine through an innovative Stelladrive series splitter box, which mounts to standard engine flywheel and housing connections.

According to Transfluid, the HF actuated clutch is self-adjusting, meaning reduced downtime and maintenance costs.

It contains a multi disc dry clutch that is rigidly connected to the splitter box and has an output shaft capable of transmitting torque either radially by a pulley or in line



with a cardan shaft or flexible coupling.

The splitter box pump pads accommodate standard automotive engine B, C, D, or E hydraulic pumps with the possibility to disconnect each of them by installing the CC650 pump clutch.

The TowerClutch also packs torsional vibrations dampening and compensation for radial and angular misalignment with its flexible coupling mounted on the system's input.

Optional Kevlar friction discs assure machine uptime and extended operating life.

As a self-standing transmission the TowerClutch has its hydraulic block, feed

pump, filter and the MPCB-R5 electronic controller with wire harnesses completely preassembled in a compact user-friendly design that eliminates additional plumbing and wiring.

The MPCB-R5 controller can be wired for single system control or interfaced with the machines main control system in order to integrate remotely controlled e-stop buttons and other features.

The electronic controller softly engages the driven machine, monitors operation parameters, prevents clutch overload and engine stall, and protects the TowerClutch and engine from unexpected failures.

A cure for inertia

ANOTHER generation of equipment from Danish brake systems manufacturer Svendborg is helping equipment operators in a number of fields protect against the laws of physics.

Just like, in those rare situations, when a driver is forced to slam the brakes on in their car, applying overzealous braking pressure to systems such as conveyors, escalators, wind turbines, cranes and the like can result in undue stresses to components.

The SOBO iQ soft braking controller is designed to provide a safe and controlled stop and start-up for machinery operating using hydraulic power units and disc brakes.

Combining various technologies, the system employs digital modulation to provide proportional valve-like accuracy control of brake pressure and, therefore, braking torque.

According to Svendborg Australia technical support manager Noel Plummer, SOBO iQ is a programmable logic control system that can be set to change braking

parameters such as timing.

"An operator might have three conveyors feeding into each other and if they stop the first one the other two feeding into it will overload it," he said.

"So in some situations the operator may need to sequence all of the conveyors to stop at a particular time."

Boasting industry-first three-state digital modulation and a dual-loop pressure/speed control the SOBO iQ system is able to control braking torque by comparing a pre-set speed ramp with feedback on the actual conveyor speed.

Different braking profiles can be accessed for different operation scenarios, while included advanced functions comprise independent overspeed monitoring, rollback, and gearbox and out-of-band monitoring.

Able to be used with a combination of brake types, mounted on both the high and low-speed sides of a conveyor drive, each SOBO control unit can be connected to up to four high pressure units.

The SOBO system and HPU's are also fed into safeguards, including both an electronic and mechanical two-stage backup in case of communication malfunctions or total loss of power to backup systems.

According to Svendborg, this newest version of its SOBO technology is four times faster than previous generations and can be accessed remotely. An optional touch screen is also available for setup and monitoring.



Svendborg's SOBO iQ system.

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