DynoMiner™ UpHole

Technical Information

Description

The 5.3 tonne DynoMiner UpHole truck is a Mobile Processing Unit (MPU) designed to provide a complete range of gassed bulk explosive products direct to an uphole in an underground production mining application.

The truck consists of a Hino or Volvo 6x4 cab chassis with a nominal 4,260mm wheel base with segregated product tanks and pump systems mounted on the back.

The truck incorporates large product bins, designed to maximise the carrying capacity and thereby minimise turn-around times and an Elevating Work Platform (EWP) for operator access to the work area.

Discharge rates are optimised for 76mm to 102mm diameter blast holes.

Raw Materials carried in the tanks are as follows:

- TITAN® 7000 Series Emulsion
- Gassing Chemicals
- Water

Properties

Products and Densities

The DynoMiner UpHole truck is specifically designed to deliver Dyno Nobel's TITAN 7000 range of water resistant pumpable bulk emulsion explosives. Densities are optimally controlled from 0.8g/cc to 1.25g/cc.

Products are pumped into the uphole using a high pressure pump and hose-pusher system using Dyno Nobel's retract and gassing system technology.

Safety Systems

Low pressure, high pressure and high temperature detection are provided on the discharge of the product pump. On detection of low pressure, high pressure or high temperature during normal running, the pumps are stopped immediately and an indication light on the control panel warns the operator. All product run parameters are monitored by the control system.

An emergency stop is provided at the main panel in the cab and at the control station in the EWP. Complete backup of EWP controls is provided.

Engine bay automated fire deluge system is fitted as standard.

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Control Systems

A complete control system is provided in the EWP and contains all safety shutdowns, flow rate controls and indicators. It is supplemented by a backup panel in the cab of the truck. Product kilograms per hole are recorded.

Vehicle History

The DynoMiner UpHole truck has been developed over a number of years of product experience in both Australia and overseas. The current standard truck has been established as a benchmark design within Dyno Nobel's global operations. The process and control equipment are fabricated and supported through our suppliers. The units are directly supported under DNAP's SAP based maintenance planning, scheduling and controlling system. The DynoMiner UpHole truck meets all licensing requirements.

System Advantages

- Designed to load Dyno Nobel's TITAN 7000 series of emulsion
- Ability to load different densities controllably from 0.8g/cc to 1.2g/cc
- Single-man operation
- Improved brow control
- Minimise backbreak & rehabilitation