

Case Study – II

Jayaswals Neco Ltd., Raipur – Tap Hole Drilling Machine

Back Ground

Jaswals Neco installed a 600 cuM Blast Furnace supplied by a Chinese Company with most of the critical equipment imported from China. The Tap Hole Drilling Machine had been a Hanging type operated electrically which was laborious and hazardous. The operator found difficulties in opening tap hole while harder clay and having no option but to go for lancing caused delay and incurring significant operating expenses.

The Challenge

The cast house layout at the operator's side had the floor at different elevations. There was hardly any space for a floor mounted Drilling Machine which requires some space at the back while parking. The swiveling of the Drill Machine Boom was impossible in a horizontal plane. It was neither feasible in a vertical plane due to interference with the Tuyer assemblies.

The Solution

After inspecting the cast house ROTAMECH offered a DOUBLE FOLDED Drilling Machine immediately accepted by the customer. The Hydro-pneumatic Drilling Machine was commissioned in 2001 capable of drilling accurately up to 2500 mm for any type of clay [Hydrous & Anhydrous] even with indigenous Drifter.

Benefits

- Fully automatic safe operation by a single operator
- Accurate drilling against any type of clay
- Increased tap hole life
- Easy to operate and maintain
- Reduced down time

Conclusion

The system has been commissioned in 2001 improved the productivity to 120% of the furnace capacity.

Case Study – III

Jindal SW, SiscoI – Tap Hole Drilling Machine

Back Ground

Jindal SW installed a 400 cuM Blast Furnace supplied by a Chinese Company with most of the critical equipment imported from China. The Tap Hole Drilling Machine had been a Hanging type operated electrically which was laborious and hazardous. The operator found difficulties in opening tap hole while harder clay and having no option but to go for lancing caused delay and incurring significant operating expenses.

The Challenge

The cast house layout at the operator's side had the floor at different elevations. There was hardly any space for a floor mounted Drilling Machine, which requires some space at the back while parking. The swiveling of the Drill Machine Boom was impossible in a horizontal plane. It was neither feasible in a vertical plane due to interference with the Tuyser assemblies.

The Solution

After inspecting the cast house ROTAMECH offered a DOUBLE FOLDED Drilling Machine operated in a horizontal plane and immediately accepted by the customer. The Hydro-pneumatic Drilling Machine was commissioned in 2005 capable of drilling accurately up to 2500 mm for any type of clay [Hydrous & Anhydrous] even with indigenous Drifter.

Benefits

- Fully automatic safe operation by a single operator
- Accurate drilling against any type of clay
- Increased tap hole life
- Easy to operate and maintain
- Reduced down time

Conclusion

The system has been commissioned in 2005 improved the productivity significantly since installed at the plant. As an appreciation the customer placed another order for upgrading the existing Mud Gun from to electro-mechanical to Hydraulic driven.