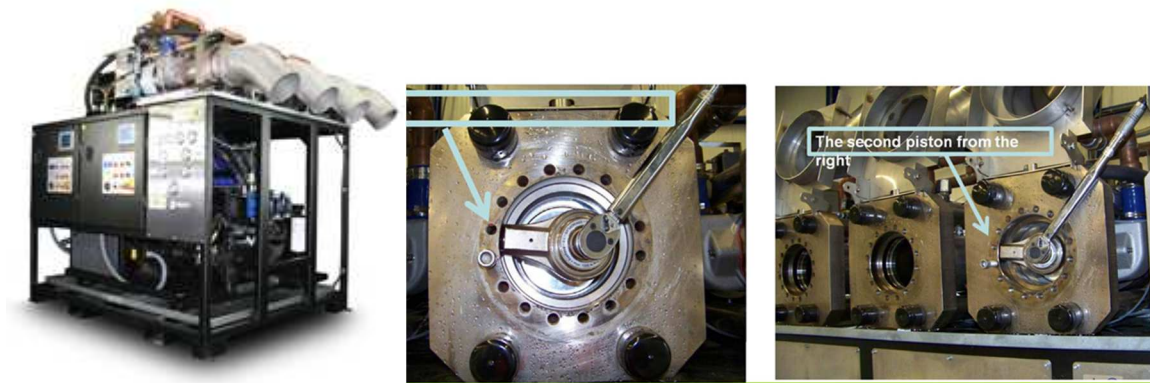


Other source' report "Contractor maintenance - Dry ice pellet machine – Lost time injury & amputation"



- ✓ n.b.: Dry ice pellet machine produces dry ice pellets, i.e. solid CO₂; liquid CO₂ is expanded in a chamber which has a piston at one hand, whilst the other one has a holed matrix: when- after a set time- the chamber is filled with dry ice, the piston starts compressing the CO₂ snow against the matrix, thus producing small dry ice pellets.

- ✓ History case:

Two contractor service technicians carried out work on a dry ice pellet machine, which was set on "Maintenance mode", protected by a password; one mechanic was adjusting the piston and the other mechanic was turning slowly the crankshaft which is necessary to adjust the piston: during this activity the mechanic who was adjusting the piston got his left forefinger stuck between the piston and the piston outlet gate. The nail and the top of the forefinger were torn off and left in the piston outlet; contractor had the top of his finger cut off.

- ✓ Causes

1. Insufficient risk assessment considering mechanical movement of machine by one individual while other is exposed to hazard.
2. Inadequate consideration of controls required- and to be considered- at time of issue of a Work Permit in case of service contractor controlled maintenance.
3. Inadequate definition of requirements as part of local Work Permit Procedure.
4. Injured person was a junior (green hair) and had insufficient training and knowledge related to the hazards he was dealing with.

- ✓ Preventive measures

1. Risk assessment reviewed and updated and new process of pre-work risk assessment has been implemented.
2. Contractor has revised their training procedures.
3. Implemented a process of common work permit across all business units (best practice).