

The system starts with an initial state and it returns after each cycle to the same state (i.e. the same machines are loaded, others ones are idle and the travelling crane position is restored). One example of initial state consists in a ready part on each D1, D2 and T2 and no part on T1. When one of the two ladles has finished on D1 or D2 (suppose D2) and one of the two converters C1 or C2 (suppose C2) is idle, the travelling crane transferred the full foundry ladle from D2 into C2 (movement 1) and goes immediately back to T1 with the foundry ladle empty, it moves from T1 to T2 empty and it transferred the full foundry ladle from T2 to D2 (movement 2). The travelling crane moves from D2 to D1 empty and it transfers the full foundry from D2 to C1 (movement 6) and comes back to T2 with the ladle empty. It moves empty from T2 to T1 and it transferred the ladle from T1 to D1 (movement 9) and finally it moves empty to D2. It is obvious that it returns to its initial state.

