



Port & Terminal Technology USA 2023, Savannah Georgia Lecture: Automatic Coupling Systems Dick Eichhorn



Topics

- What is automatic coupling
- Horizontal transport market "trends"
- Case study Rail terminal
- Case study QC ASC/RMG operation
- Case study RMG/RTG CFS operation
- Conclusion



Automatic Coupling

With Aucos Coup (Coupling), tractors can be automatically coupled with braked and illuminated trailers, without the driver leaving the cab to manually connect the brake lines and the power plug.





At the moment of coupling, Aucos Coup automatically transmits the air brake signals and electrical power from the tractor to the trailer.



Automatic Coupling

By reducing the coupling time to zero, Aucos-Couplings reduces the number of trucks needed for your operation and needles to say reduces your operational cost as well.

Another aspect is safety. Our system creates significant higher safety because the driver won't have to leave the cabin anymore.



Self lock coupling system for 5th wheel operations with transmission of air pressure



BENEFITS

- Contribution to the overall safety on the terminal.
- Significant savings on labour costs.
- Efficient use of lesser machines
- Lower maintenance cost.
- Less congestion at the terminal.



Horizontal transport market "trends"

- Increase in container transportation
- increasing stringency in emission
- call for higher efficiency on terminals
- increasing shortage of skilled drivers.
- automate "off-port" solutions



Case study - Rail terminal





Simulation path





Case study Rail terminal





Case study Rail terminal





Case study - Container Freight Station





Case study - Berth operation





Note: Case study TBA Nederland



Case study - Berth operation





Conclusion

Whenever equipment is waiting in the transportation chain

there is loss of productivity, low efficiency and

high Capital- and Operating Expenditures

Automation of "on port" horizontal transport is only

the first step. In a decade or so automation of

"off-port" horizontal transport will be commonplace AUCOS-Systems



SUMMARY

- Contribution to the overall safety
- Significant operational savings
- Efficient use of machines
- Lower maintenance cost.
- Less congestion