



AF2903 Road Construction and Maintenance

Placement of Hot Mix Asphalt

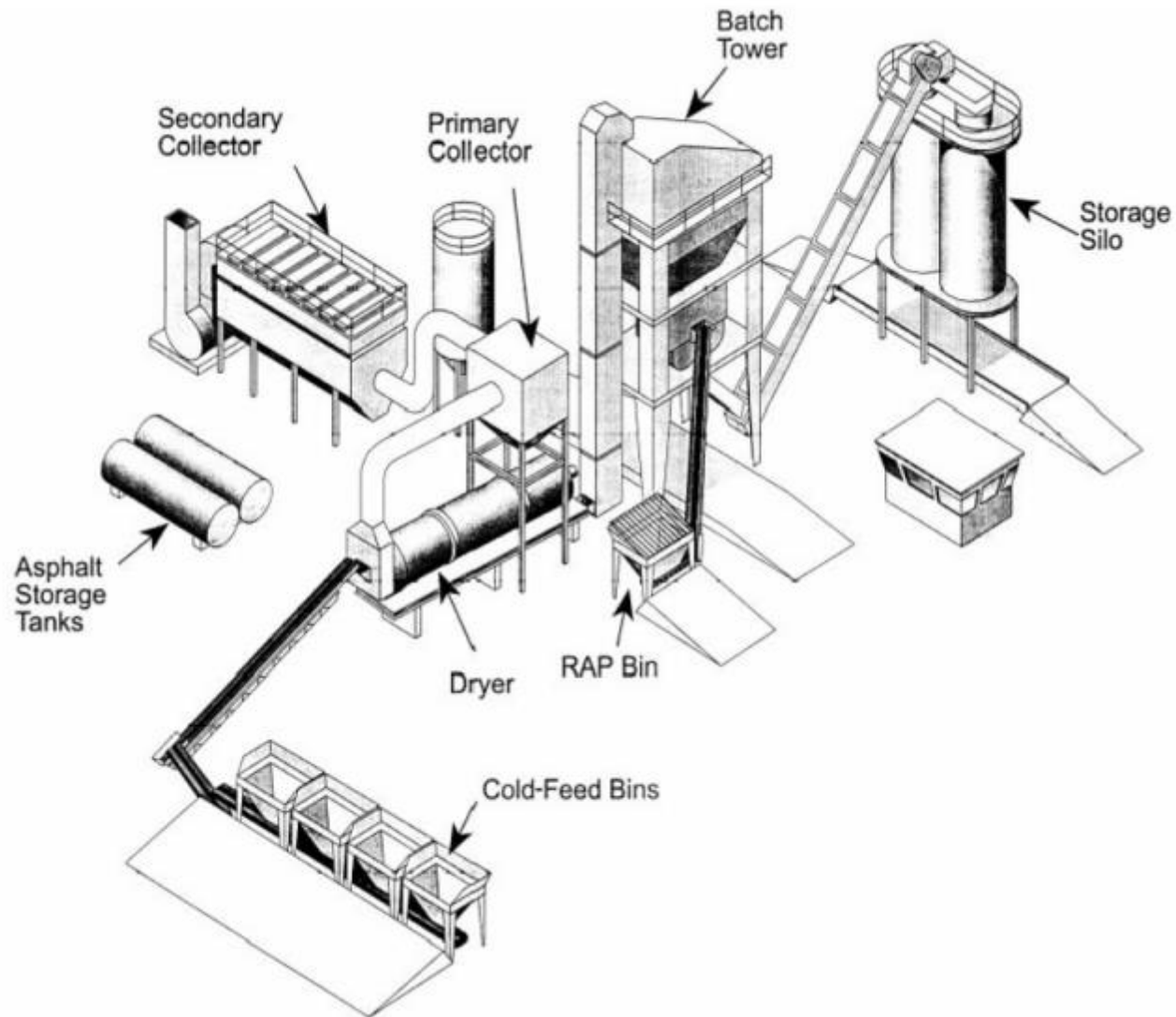
Royal Institute of Technology
Stockholm, April 23rd 2013

Dr. Alvaro Guarin

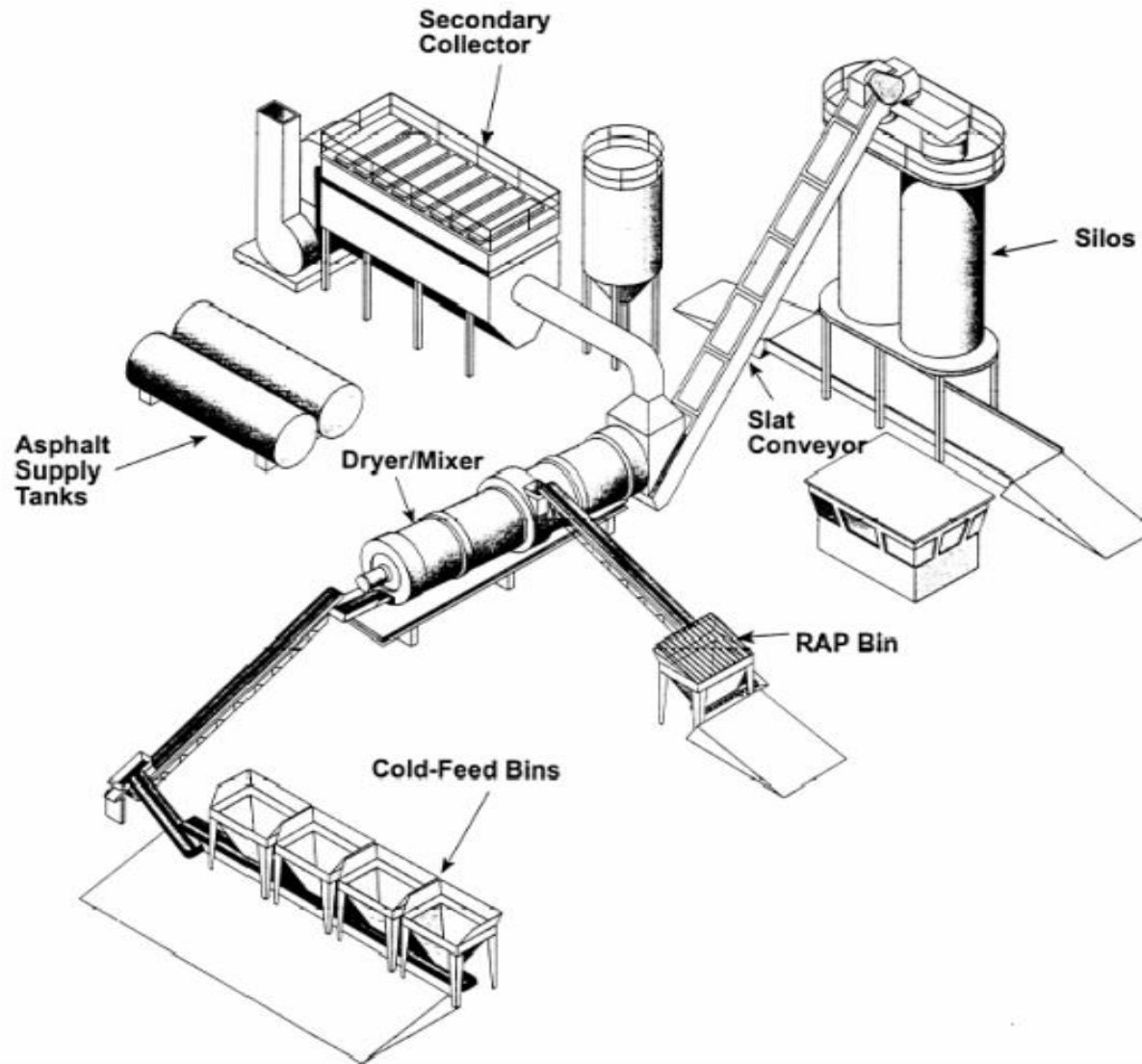
Highway and Railway Engineering
Department of Transportation Science



Asphalt Production (Batch Plant)



Asphalt Production (Continuous Plant)



Asphalt Production



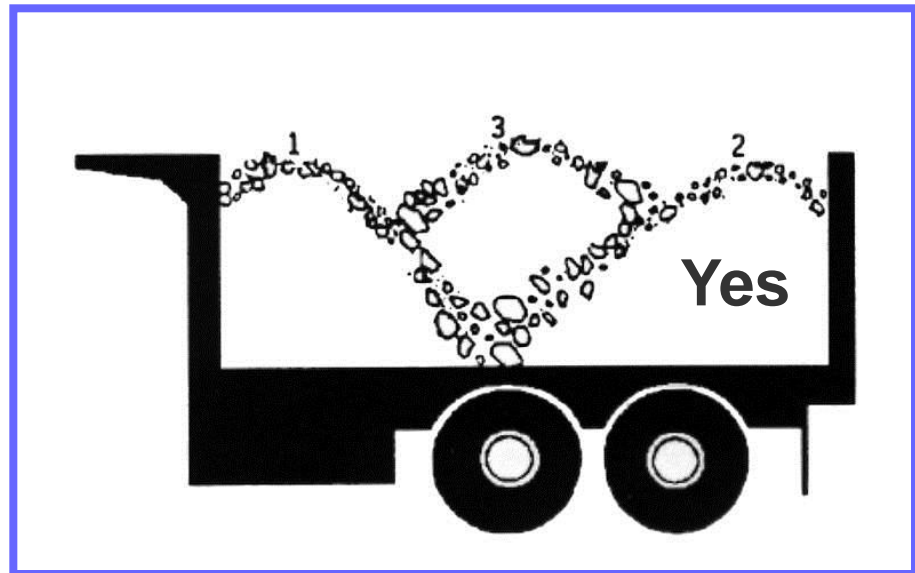
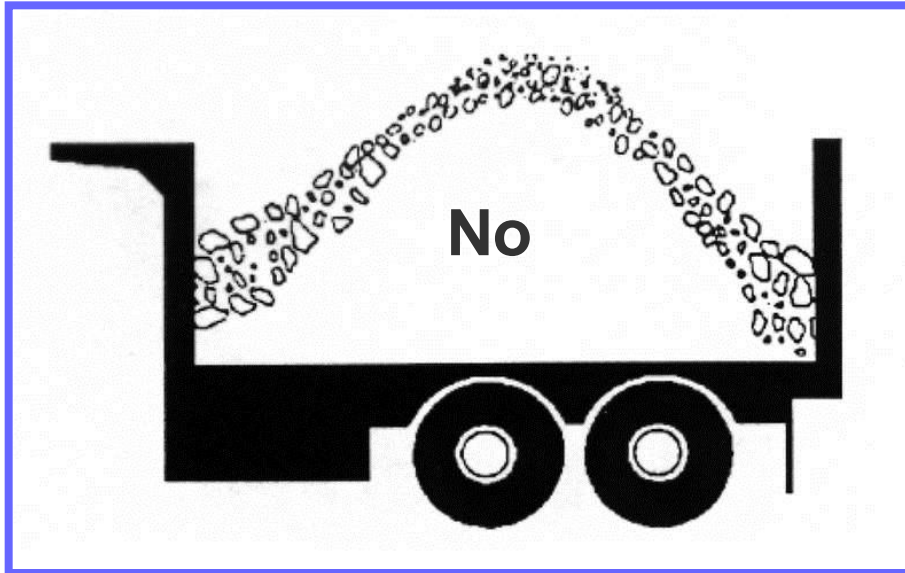
Asphalt Production



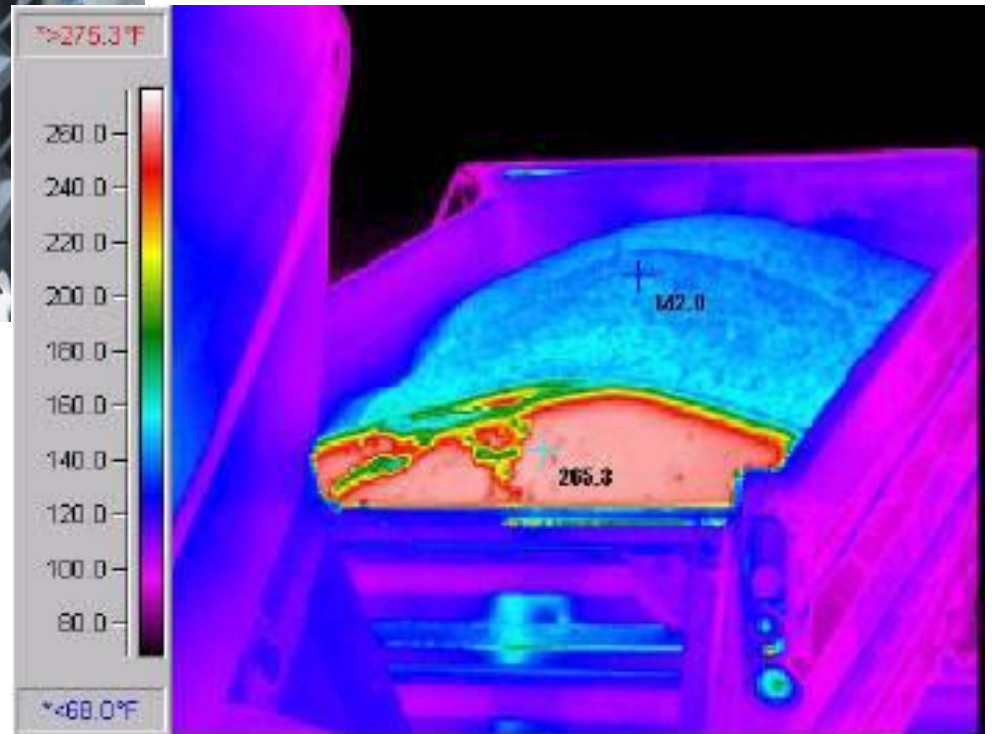
Asphalt Production



Control segregation



Tarping Loads



Bottom Dump truck



Live Bottom Truck



End Dump Truck



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Materials Transfer Vehicle



Materials Transfer Vehicle



Self Propelled Paving Machine



**THE BASIC
PRINCIPLE
HAS NOT
CHANGED
MUCH**



Types of Pavers



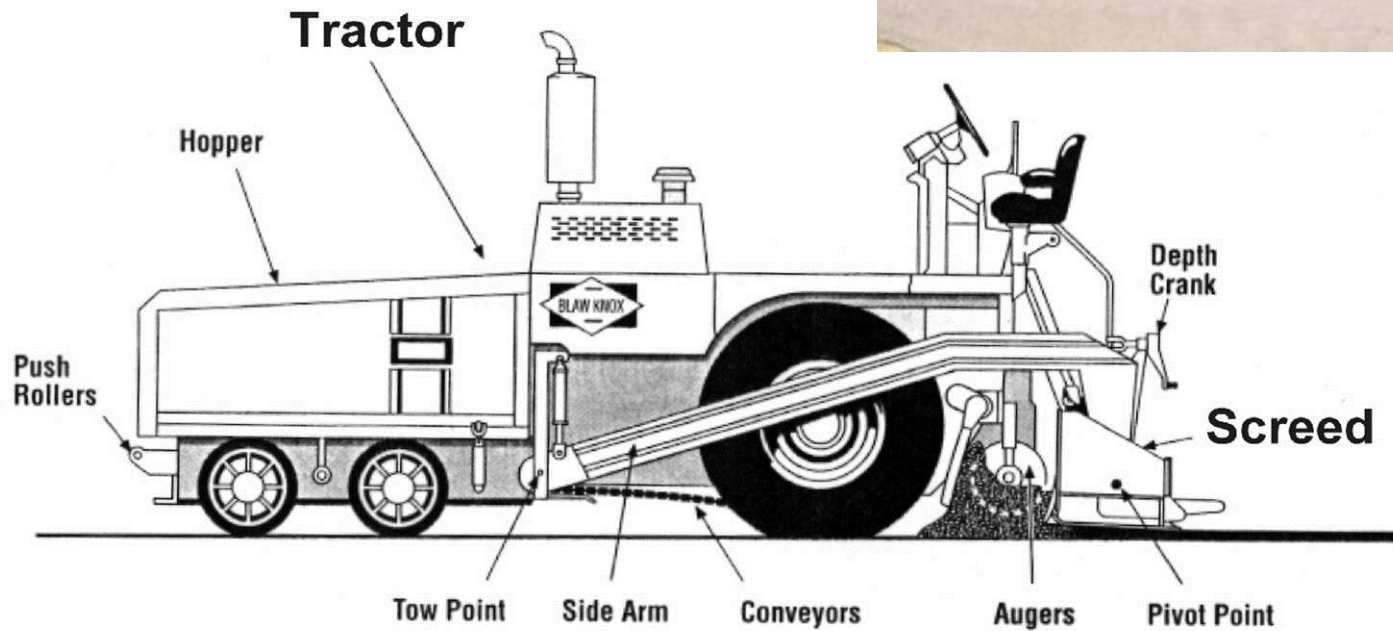
Wheel type

Types of Pavers

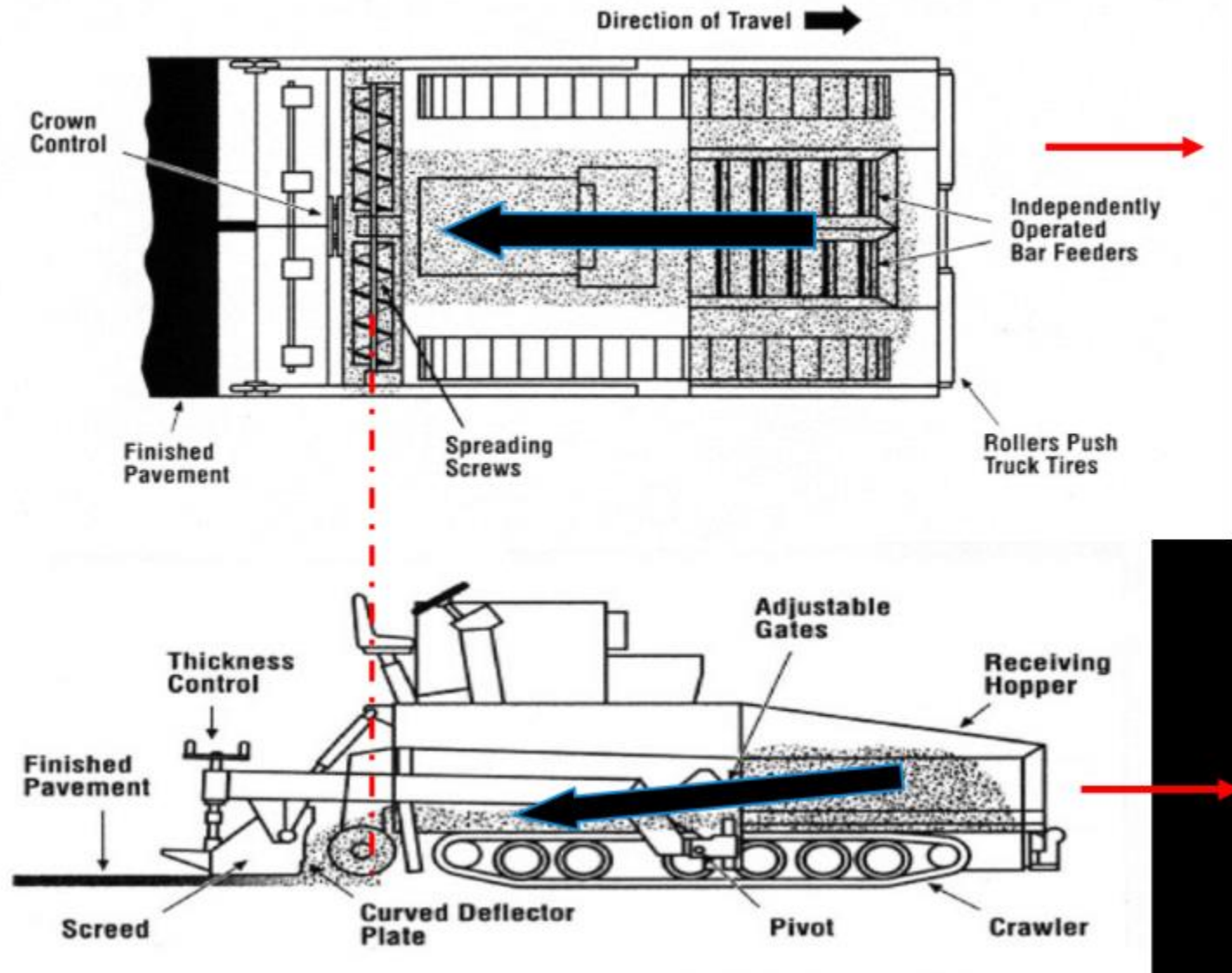


Track type

Pavers (Key parts)



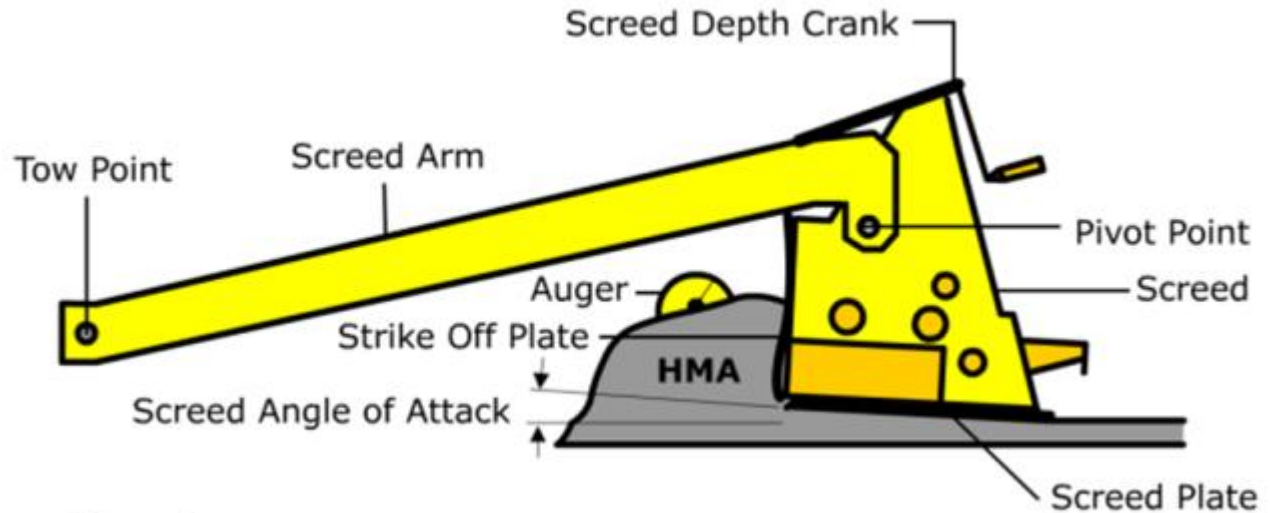
Material Flow



Paver Operation



Operational Principles of the Screed

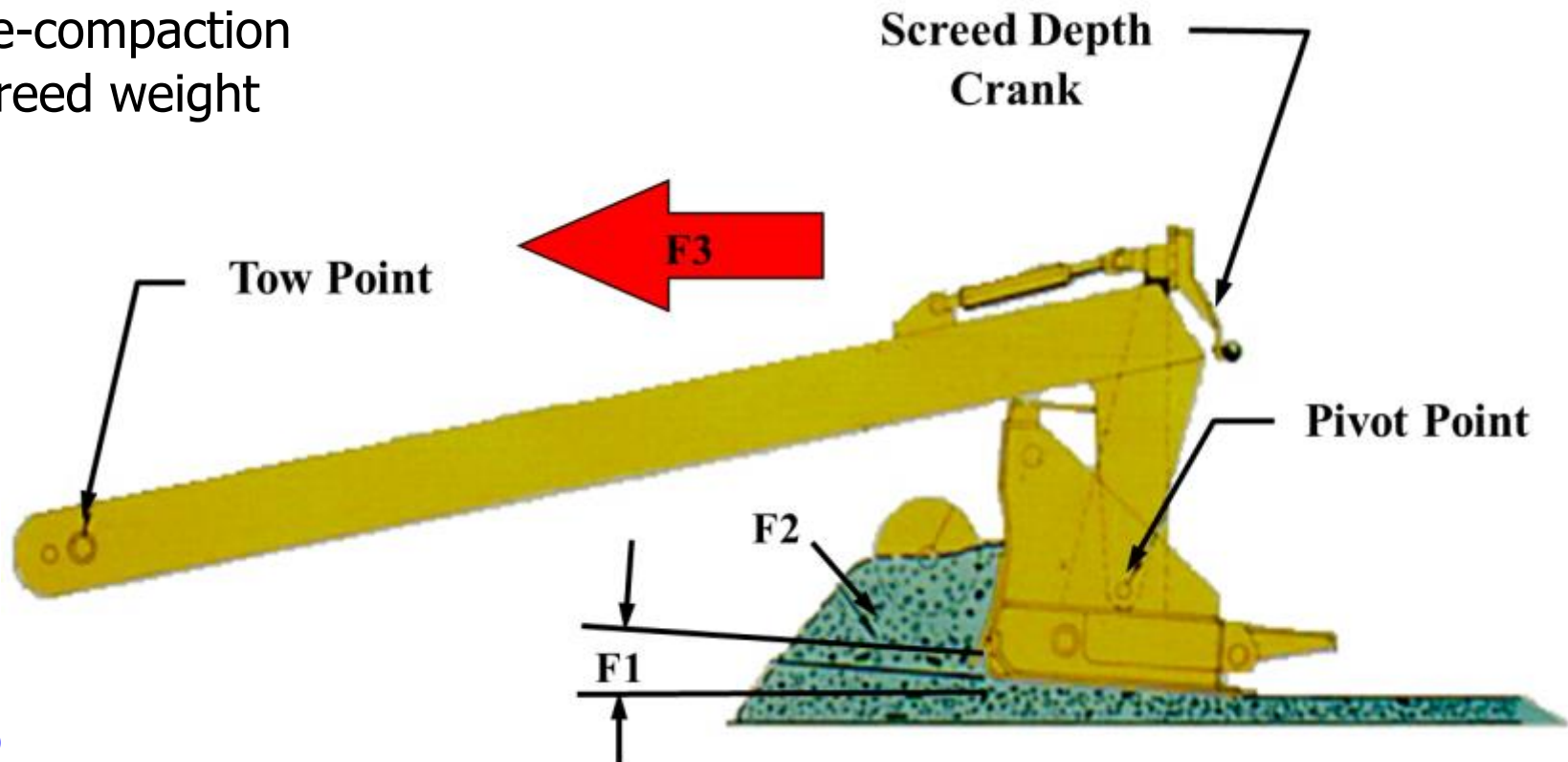


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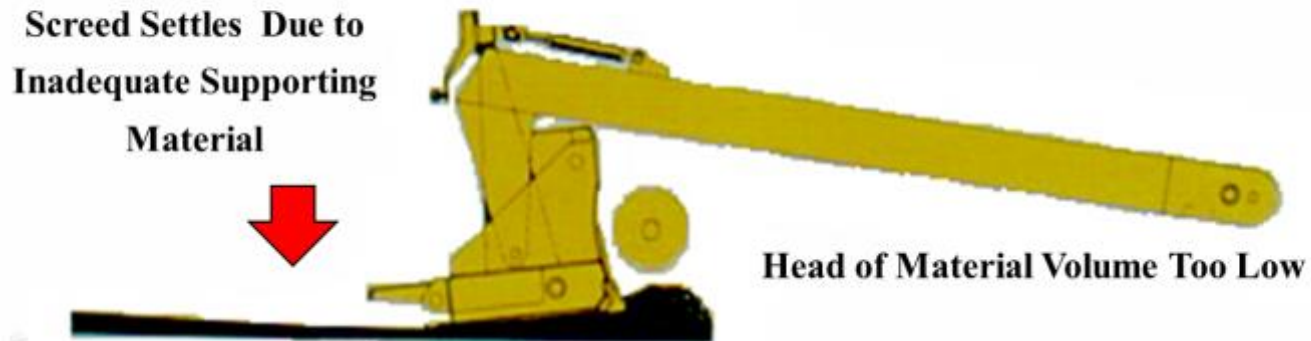
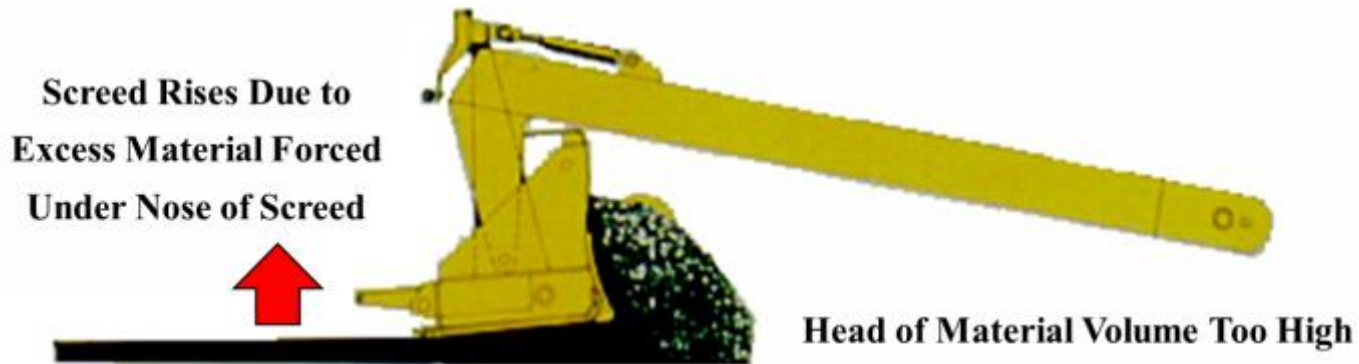
- Self-leveling concepts
- Screed response versus distance
- Forces acting on a screed

Main Forces Acting on Screed

- Speed of paver
- Head of material
- Angle of attack
- Other forces
 - Pre-compaction
 - Screed weight



Head of Material (Screed)





Types of Grade Reference

- Stringline
- Mobile reference
- Joint matching shoe
- Sonic sensor
- Laser guided controls

Stringline



Mobile Reference



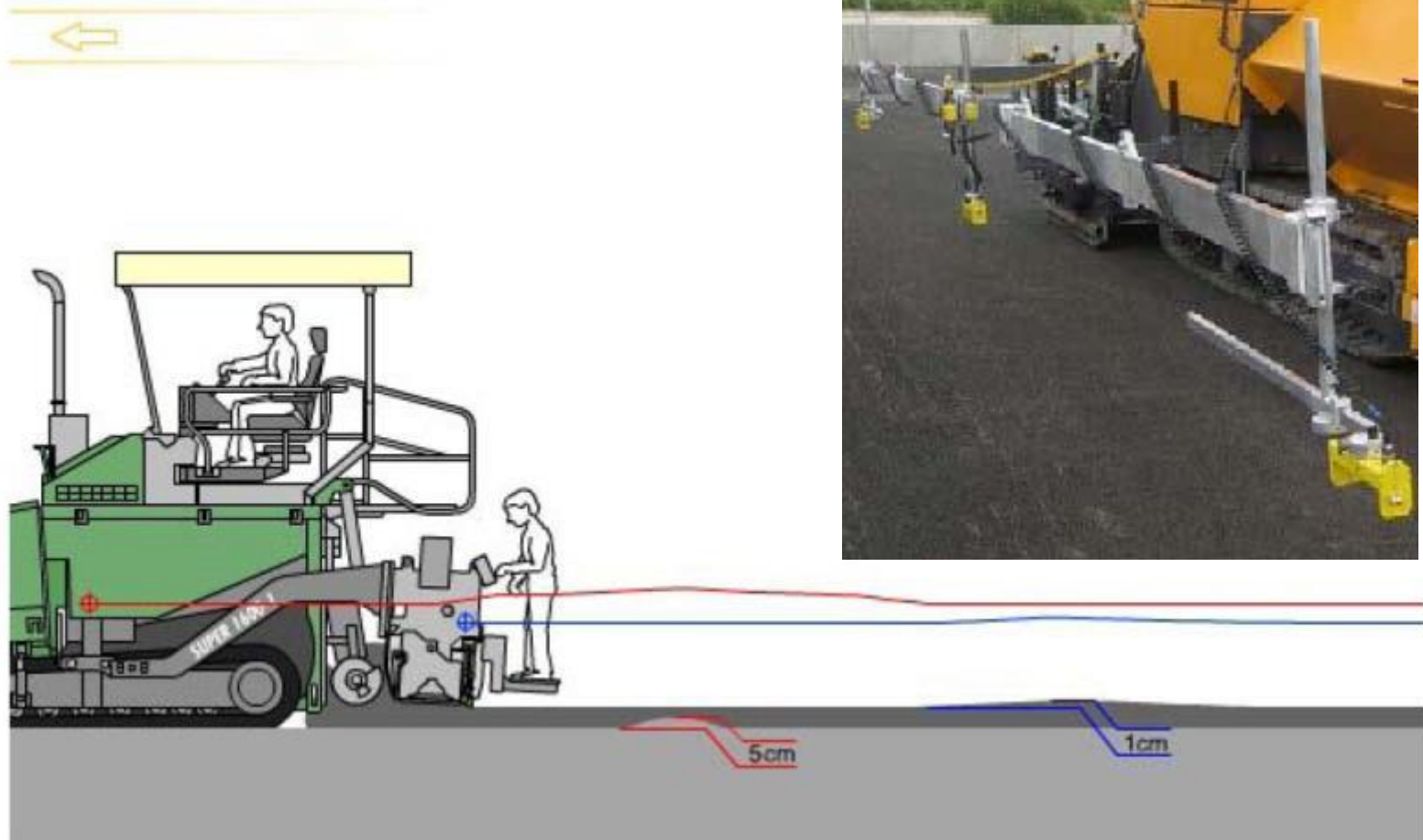
Joint Matching Shoe



Sonic Sensor



Laser guided controls



Mixture Laydown Problems



Mixture Laydown Problems



Questions?

