



Dearborn Stamping Plant

Description

Unit Load AGVs pickup steel blanks at a load stand in the receiving area and travel about a half mile to a concrete ramp leading to the second floor of the Dearborn Stamping Plant. Once there, blanks are unloaded at another stand for transfer by lift truck to the nearby press for stamping into door panels and hoods.

Stamped parts are fed by belt conveyor to a three lane loading area. There, workers manually load each panel into a mobile rack, which is released to the vertical conveyance system.

Tuggers pulling three trailers each take away the racks of body panels from the pickup station to the work-in-process market where they are staged on three-high racks.

Features

Date Installed:	2003
Vehicle Type:	Unit Load and Tugger
Number of Vehicles:	5 Unit Loads, 8 Tuggers
Load Description:	Steel blanks, stamped door and hood panels
Industry Description:	Automotive Stamping Plant
Guidance Method:	Laser Navigation
Vehicle (Load) Capacity:	30,000 (both Unit Load and Tugger)
SGV Host Controls:	Windows 2000 – SGV Manager
Battery Charging Method:	Opportunity Charging
Guidepath Length:	1 1/8 miles in plant
Building Size:	1.6 million sq. ft. dedicated to door production
Throughput:	12000 door panels per day



SGV Unit Load Carrying Steel Blanks



SGV Tugger with optional Man Aboard platform.

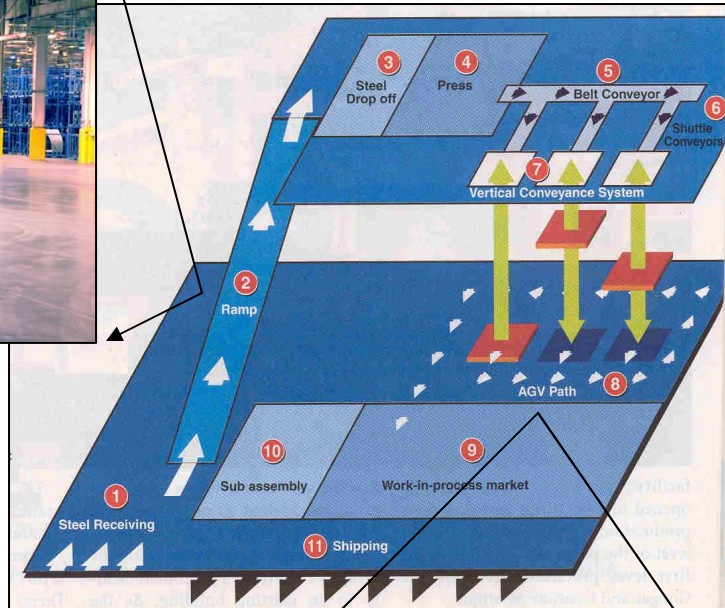
Benefits

- Increased uptime and production time for stamping press
- Flexible solution for plant's changing production demands
- Safe, fork-free, reliable method for delivery of steel blanks and door panels
- Utilization of previously unused plant space

Plant Layout- Detail



Flat Top SGV climbs ramp to deliver steel blanks to the press.



Steps 1, 2, 3 and 4:

On the first floor of the plant, a Unit Load AGV backs into a pickup station where steel blanks are lowered onto its flat deck.

The Unit Load AGV follows a path to a ramp that connects the first floor to the second floor of the facility. It then proceeds to one of two deposit stations where it leaves the steel or transfers it to the press for stamping into door or hood panels.

Steps 5, 6, 7 and 8:

A continuous belt conveyor delivers panels individually from the press to one of three shuttle conveyors. Here, workers manually unload each panel and stack it into a special rack. On the first floor, a Tugger AGV pulls into position alongside the staged racks, which are indexed onto a trailer. Each Tugger pulls three trailers of racks.

Steps 9, 10 and 11:

The Tugger pulls the trailers from the pickup station to the work-in-process market where they are staged on three-high racks to be picked up for assembly and shipment.



SGV Tugger pulling trailers of stamped F-150 hoods.

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