Modern Yard Management

West Michigan Supply Chain Conference
Blair Y. Thomas and Eric Bentley
March 11, 2015
Agenda

• What is Yard Management?
• Program Structure
• Case Study
• Lessons Learned
• Video
Yard Management oversees the movement of trucks, trailers, and inventory in the yard of a manufacturing facility, warehouse, or distribution center.
Poor management of yard resources can lead to:

– Cost Overruns
– Productivity Loss
– Obsolete/spoiled Inventory
– Dock Congestion
– Safety/Security Concerns
What is Modern Yard Mgmt?

• Modern Yard Management (MYM) integrates yard performance into overall supply chain metrics
  – Bridges the gap(s) between transportation and warehousing, production, or both

• MYM Benefits
  – Cost Savings
  – Increased Visibility
  – Increased Productivity
• An effective Modern Yard Management program contains three key components:
Inbound Activity
- Appt Log
- Trailer Check In
- Inspection
- Location Assignment
- Yard to Door Moves
- Paperwork Receipts

Intra-Campus Activity
- Yard Check
- Door to Door Moves
- Yard to Yard Moves
- Clean Trailer Process
- Driver Productivity
- Trailer Dwell Time
- Detention

Outbound Activity
- Appt Log
- Bill Of Lading
- Sealing Trailers
- Door to Yard Moves
- Trailer Check Out
- Dock Scheduling

What GOALS do you have for success in these processes?
Process Name: Inbound Process
Process Owner: Facility Manager
Purpose: Properly account for goods received into any Columbian warehouse location
• Stakeholders
  – Facility Management
  – T&W, Traffic, Shipping & Receiving, etc
  – Senior Management
  – Customer Service

• Roles
  – Driver
  – Window Clerk
  – Guard
  – Yard Checker
  – Supervisor(s)
  – Warehouse Assoc.
  – IT
  – Ops Mgmt
• Key factors to consider when staffing Modern Yard Management Roles:
  – Expectation Setting
  – Training
  – Change Management
  – Communication
  – Metrics
Available Yard Management Systems

- ERP Systems
  • Known interface
  • Little additional investment
  • Integrates with Accounting/AP

- WMS or TMS Systems
  • Known interface
  • Little additional investment
Available Yard Management Technology

– Stand-Alone YMS Systems

• More robust functionality
• Better reporting capability
• Cross-discipline responsibilities
• History retention
• Customer/Carrier visibility options
• SaaS is frequently an option
Desktop Benefits

- Lower barrier to entry ($$)
- Standardizes office procedures
- Controls trailer inventory and status
- Scheduling dock activity

Mobile Benefits

- In-Cab tablets
- Direct driver communication
- Real-time updates and metrics
- Mobile yard check
- Work queue
- Driver productivity
The Challenge

Decrease transportation spend & increase activity.

Considerations

• Multi site manufacturing locations
• Customer Run Central Dispatch
• 3PL shuttle switch operation
• 3pl supplies trailers, Drivers, power equipment, maintenance
• Just In Time (JIT) Scheduling
## Case Study - Analysis

### Analysis : Step 1 - Identify the cost drivers

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Driver labor

- Time study completed
- 20% of time spent in dispatch office
  - Switch lists
  - Waiting in line
- 5% of time spent waiting for trailers to be sealed
  - Waiting on dock personnel

Goal

1. Increase time spent in truck.
2. Keep the wheels moving.
Case Study - Analysis

Trailer Costs

- Multi site locations for trailers
- Tracked via YMS
- Dwell time calculated manually (trailer turns)
- Yards over 100% capacity

Goal

Reduce spend on trailer assets by turning trailers more frequently.
Central Dispatch Costs

Multiple Plant dispatchers feed a central dispatch

- Utilize spreadsheets to prioritize loads
- Dispatch creates “switch lists” and/or utilize radio

Goal 3

Eliminate central dispatch costs and redeploy personnel.
Case Study - Analysis

Power Equipment Costs

- Shuttle bobtails at nearly 35%
- Plants want to physically see shuttle and switch in their yards-mindset
- Not mobile-site dedicated
- 10-15% of time wasted waiting for next move

Goal

Reduce unnecessary power equipment.
Challenge: Decrease Transportation Spend

Goal 1
Reduce Driver Down-time

Goal 2
Increase Trailer Turns

Goal 3
Eliminate central dispatch

Goal 4
Reduce Power Equipment

Solution

1. Deploy In-Cab YMS Technology
2. Develop Priority Move System
3. Redeploy Central Dispatch Resources
4. Right-Size Equipment Fleet
Case Study - Obstacles

• Resistance by central dispatch
  – Eventual elimination of jobs
  – Loss of control

• Resistance by plants
  – Drivers are mobile
  – Change internal processes

• Drivers
  – Change in process
  – No longer “get to know” plant staff
  – Must control flow without verbal direction
• Tactical – How’d we do it?
  – Develop introductory meetings & set expectations
    • Drivers
    • Manufacture
  – Learn current processes
  – Develop new processes and ensure flow
  – Develop and rollout training
  – Rollout
  – Manage expectations
  – Develop IT infrastructure and Hardware
Case Study - Solution

• Hardware
  – Home made clips
  – Cyberpower 400 Watt inverters
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| **Cust Ref #**         |                  |
| **PO#**                | 35631120 - 39280047|
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| **Seal Number**        |                  |
| **Seal Intact?**       |                  |
| **Customer**           |                  |
| **Vendor**             | Social Circle GA |
| **Pieces**             | 6727             |
| **Pallets**            | 52               |
| **Weight**             | 40165            |

**Movement Info**

| **Facility**          |                  |
| **Area**              |                  |
| **Move To**           | K1 Yard          |
| **Comments**          | Metal Seal       |

**Close**  **Inbound Unit**
## Pending Moves

### Report Time: 03/09/15 10:43

| Open Move Requests | Start Date: 3/8/2015 | End Date: 3/9/2015 |

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Safety /// Legendary Customer Service /// Respect /// Performance /// Agility
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Case Study - ROI

1. Utilize shuttle switching metrics to determine ROI
2. Total trailer pool cost reduction
3. Ability to track utilization and volume to set schedules
4. Reduction in total driver labor costs
5. Elimination of Central dispatch costs
6. Created capacity-no additional resources
Case Study - ROI

Pre Deployment

- Drivers: 46%
- Customer Dispatch: 12%
- Fuel: 12%
- Trailers: 6%
- Switchers: 6%
- Tractor: 8%
- Admin: 9%
- Other: 9%
Case Study - ROI

Performance Metrics

- **29% increase** in customer activity due to growth
- **17% increase** in Switcher productivity resulting in a **26% reduction** in cost per move
- **45% reduction** in trailer assets
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<td>5% savings in driver labor</td>
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• Increased efficiencies
  – Reduction of training time for dispatchers
  – Increased visibility of equipment
  – Productivity reporting and monitoring
  – Ability to flex resources quickly
Lessons Learned

• Yard Management is a Discipline
• Define Your Goals
• Define Your Processes
• Project Management is Key
• Think Strategically, Act Tactically
• Measure Your Success