The Fifth Dimension: The Supplier & OEM Interface

Steve Walukas
Vice President
Corporate Quality
DaimlerChrysler Corporation
The Fifth Dimension
The Supplier & OEM Interface

- DaimlerChrysler Overview
- The Chrysler Group Results
- The Chrysler Group’s Product Offensive
- Internal and External Interface
DaimlerChrysler Overview

THE AUTOMOTIVE BUSINESS AND AUTOMOBILE-RELATED SERVICES ACCOUNT FOR 99% OF DAIMLERCHRYSLER'S REVENUES

<table>
<thead>
<tr>
<th>Mercedes Car Group</th>
<th>Chrysler Group</th>
<th>Commercial Vehicles</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercedes-Benz</td>
<td>Chrysler</td>
<td>Freightliner</td>
<td>Financial Services</td>
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<tr>
<td>Maybach</td>
<td>Jeep</td>
<td>Mercedes-Benz Trucks</td>
<td>DaimlerChrysler Bank</td>
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<tr>
<td>smart</td>
<td>Dodge</td>
<td>Mercedes-Benz Vans</td>
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<td></td>
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<td>Buses &amp; Coaches</td>
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<td>Powersystems</td>
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DaimlerChrysler’s Strategy is Based on Four Strategic Pillars

- **Global Presence**
- **Strong Brand Portfolio**
- **Innovation & Technology Leadership**
- **Broad Product Range**
Extensive Research Capabilities

Permanent staff 1,600 scientists plus
1,000 doctoral/diploma candidates/junior staff
Disciplined Product Development Processes

Product Strategy

Development System

Continuous Improvement

Product Strategy

Development System

Continuous Improvement

Disciplined Product Development Processes

Product Executive Committee

Product Innovation Team

- Regulatory Changes (PEC)
- Quality Improvement (Monthly Review)
- Cost Reduction (Bi-weekly Component Teams)
Worldwide Manufacturing Locations
The Chrysler Group’s Transformation

By Leveraging our Global Enterprise, The Chrysler Group’s New Generation of Vehicles Shares the Ultimate in:

- Innovation
- Quality
- Styling
- Environment
- Value
- Safety
2004 Calendar Year Product Offensive

- **PT Cruiser Convertible**
- **Town & Country**
- **300C**
- **Crossfire Roadster**
- **SRT-6 Roadster**
- **SRT-6 Coupe**
- **Caravan**
- **Wrangler Unlimited**
- **Magnum**
- **Dakota**
- **Liberty Diesel**
- **Liberty Refresh/Renegade**

**Timeline:**
- **2004: 1st Quarter**
  - SRT-10
  - Durango
- **2004: 2nd Quarter**
  - Crossfire Roadster
  - 300C
- **2004: 3rd Quarter**
  - SRT-6 Roadster
  - SRT-6 Coupe
- **2004: 4th Quarter**
  - Liberty Diesel
- **2005: 1st Quarter**
  - Liberty Refresh/Renegade
Product Offensive 2004 – 2007

25 New vehicles to market
in 36 months
Chrysler Group: Strategic Transformation

CHRYSLER GROUP HAS SHOWN SIGNIFICANT PROGRESS REDUCING WARRANTY CONDITIONS AND EXPENSES

Goal: Best in Class by 2007
2004 Consumer Reports

PT Cruiser
Toluca Assembly Plant

Jeep Liberty
Toledo North Assembly Plant

Chrysler Sebring
Sterling Heights Assembly Plant

Dodge Stratus
Sterling Heights Assembly Plant
J.D. Power IQS - Results

2004 Chrysler Group Top Quartile Models

- Dodge Stratus Coupe
- Dodge Neon
- Chrysler PT Cruiser
- Dodge Ram Pickup HD
- Dodge Caravan/Grand Caravan
2004 Harbour Report

- Command Performance:
- Chrysler Group is Most-Improved Automaker in The Harbour Report 2004
- 7.8 % improvement
- Set new industry benchmark in transmission productivity
2004 Focus

- Emphasis on Warranty Improvements
- Launch Management
- Prevention of Problems
- Speed of Problem Resolution
- Durability / Reliability / 3/36 Warranty
- Improve Internal and External Collaboration
The Extended Enterprise Collaboration

Internal Departments
- Design
- Engineering
- Manufacturing
- Procurement & Supply
- Sales & Marketing
- Finance

Shareholders

Dealers
- NADA
- Dealer Councils
- Dealer Advertising Associations

External Organizations
- AIAG
- VDA/ISO
- JAMA

Labor
- UAW (U.S.A.)
- CAW (Canada)
- El Sindicato (Mexico)
- Management

DaimlerChrysler

Suppliers
- Production Parts
- Tooling & Equipment
- Service & Parts

Financial Institution
- Analyst
- Credit, DaimlerChrysler
- Bank

Government Agencies
- EPA
- NHTSA
Importance of Collaboration

- We rely on our partners to:
  - Provide perfect parts and services
  - Efficiently design & produce parts & services
  - Proactively look for better standards, methods, parts, products, and services
  - Continuously strive for improvement
  - Provide innovative methods and technology
  - Delight the customers through passionate execution of requirements and customer wants
The Fifth Dimension: The Supplier OEM Interface

DaimlerChrysler Corporation
Scott R. Garberding
Vice President
Supplier Quality
The Suppliers’ role is key within Chrysler Group

- 1,300 Top Parent Suppliers
- 64,000 purchased production components
- $26 Billion annual buy

Our performance directly relates to the performance of our supply base.
Primary Root Cause for Critical PRISMs

- Inadequate Process Control Method: 51
- Process Control Method Not Followed: 39
- Inspection and Testing: 11
- Design Control: 10
- Control of Nonconforming Product: 8
- Handling, Storage, Packaging and Presentation: 3
- Part Identification and Traceability: 2
Primary Root Cause for Critical PRISMs

75% of all defects are due to Process Non-Conformance
Global Supplier Quality Initiatives

Layered Process Audit

Quality Funnel

Restructured Process Sign-Off

Forever Requirements Revision

Source Package Revision

Best Practices Feedback

CDS Quality Gates

Improve Process
What is a Layered Process Audit (LPA)?

- LPA is an ongoing system of process checks that verify proper methods, settings, operator craftsmanship, error proofing devices and other inputs are in place to ensure a defect free product.

- LPA’s assure that defined methods and work instructions are utilized, problem solving solutions are held in place, and all process issues are identified and quickly correctly.
How does an LPA Work?

- Audits are conducted regularly by all levels of supervision
- Non-conformances are immediately addressed
LPA - Frequency Plan

- **Plant Manager**: 1 X Week
- **Area Management**: 2 X Week
- **Production Supervisor**: 1 X Shift

- Encourages Management Involvement
- Encourages Operator Feedback
- Establishes Accountability
LPA Benefits

- Reduces
  - Build variation based on work standardization
  - End-of-line inspection
  - Part defects

- Improves
  - First time through capability
  - Morale

- Facilitates
  - Operator training
  - Management/operator interface

- Reinforces
  - Safety regulations
LPA Success at Kokomo Transmission Plant

Repair Inventory vs First Time Capability vs LPA

KTP Now conducting 6700 Process Layered Audit Checks

Weekly # of LPA Checks / Week

Repair Inventory

0 Process Layered Audits

180

5400

1800

FTC

First Time Through (%)
A Layered Process Audit (LPA) is a quality improvement business system involving multiple layers of management. It consists of regularly scheduled reviews of all elements in a manufacturing/assembly process to ensure that equipment is being properly maintained, error proofing is working, and proper craftsmanship and/or build techniques, from standardized work instructions, are being followed. Utilization of LPA will result in more disciplined processes and improve overall quality. Most Chrysler Group Powertrain facilities are already using LPA.

I am writing to you because I am asking that all supplier manufacturing facilities providing parts to one or more of Chrysler Group’s Powertrain plants deploy LPA. Within the next few weeks, your plant and quality managers will be receiving correspondence which will provide additional information about LPA training. The course work will be conducted at the DaimlerChrysler Technology Center during the next Supplier Training Week scheduled for May 10 through 14. This training will satisfy your company’s training requirements and, more importantly, will assist you in beginning to implement the LPA procedure in your plant. I am moving to make LPA a mandate for suppliers to the Powertrain plants in the third quarter of 2004.

The Chrysler Group is in the process of finalizing implementation of LPA in all of its powertrain plants. It is my goal to have Chrysler’s LPA program in place at all supplier facilities by the fall of 2004. The Layered Process Audit is a system to ensure that we build the best quality product together.

I appreciate your company’s, and your personal, support on this matter.

Sincerely,

P. Rosenfeld
Executive Vice President
Procurement & Supply

August 6, 2004
Supplier Interface – LPA Compliance Verification

Compliance Form

- Summary of training, implementation, and LPA results/compliance
- One form per supplier location to be submitted monthly to SQ Specialist

### Layered Process Audit Compliance Report

<table>
<thead>
<tr>
<th>Supplier Name</th>
<th>Supplier Code</th>
<th>City</th>
<th>State/Prov.</th>
<th>Country</th>
<th>Month</th>
<th>Year</th>
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<tbody>
<tr>
<td>DCX SQ Specialist</td>
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#### Training & Implementation Summary

<table>
<thead>
<tr>
<th>Staff</th>
<th>Top Management</th>
<th>Mid-Level Management</th>
<th>Line Supervisors</th>
<th>LPA Trained</th>
<th>LPA Implemented</th>
<th>Countermasure</th>
<th>Comments</th>
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#### Audit & System Development

<table>
<thead>
<tr>
<th>Audit &amp; System Developed</th>
<th>LPA System &amp; Infrastructure Established</th>
<th>% of DCX Lines utilizing LPA</th>
<th>Countermasure</th>
<th>Comments</th>
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#### Monthly Compliance Summary

<table>
<thead>
<tr>
<th>Line / Operation / Number / Name / Description</th>
<th>LPA 1</th>
<th>LPA 2</th>
<th>LPA 3</th>
<th>LPA 4</th>
<th>LPA 5</th>
<th>LPA 6</th>
<th>LPA 7</th>
<th>LPA 8</th>
<th>LPA 9</th>
<th>DCX TOTAL</th>
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<tbody>
<tr>
<td>Top Management (1/ week)</td>
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<td>Mid-Level Management</td>
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<td>Line Supervisors (1/ shift)</td>
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<td>Error Proofing (1/day)</td>
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<table>
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<tr>
<th>Frequency</th>
<th>In Compliance</th>
<th>In Progress</th>
<th>Not Started</th>
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<tr>
<td>Submitted By: ______________________</td>
<td>Approved By: _____________________</td>
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<tr>
<td>Date Submitted: ____________________________</td>
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30
Layered Process Audit

Proven successful internally

- Expanding Collaboration to our Supply base
- Not asking Suppliers to do something we are not
- Training available to all Chrysler suppliers
- Low investment – significant quality return
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