

TDM

TROY DESIGN & MANUFACTURING CO.



TROY DESIGN & MANUFACTURING

SUPPLIER QUALITY & MATERIALS MANUAL

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INTRODUCTION:

This document is intended to assist our current suppliers and potential new suppliers with the basis for understanding and complying with the quality and materials expectations of TDM.

PURPOSE:

This document establishes the minimum quality requirements for all suppliers of production and non-production parts and materials whether the products being furnished are provided by the supplier directly or are purchased from sub-tier suppliers.

CORPORATE STRUCTURE

FACILITIES



**Sheldon Road Plant (SRP)
(Corporate Headquarters)
14425 Sheldon Rd
Plymouth, MI 48170**



**Chicago Modification Center (CMC)
3400 E 126th Pl
Chicago IL 60633
773-646-0804**

BUSINESS SCOPE

Troy Design and Manufacturing designs and manufactures prototype automotive tools, parts and assemblies. It also produces low volume stampings and designs fixtures and production stamping dies. It provides body system verification services along with related tooling and fixtures and up-fits production vehicles for the police market and other commercial applications.

TDM's QUALITY POLICY STATEMENT

We will meet and surpass the requirements and expectations of our customers as their supplier, our associates as their employer, our suppliers as their customers and our communities as their neighbor.

TDM's ENVIRONMENTAL POLICY

Troy Design and Manufacturing is committed to carrying out its business in an environmentally friendly manner. We will comply with all local, state and federal regulations through education, training, maintenance and continual improvement. We will develop and maintain an Environmental Management System (EMS). We will develop goals that work towards reducing and preventing pollution by minimizing waste and increasing recycling efforts where possible. We will accomplish the above with management commitment and employee involvement by reviewing the procedures and plans on a continual basis. We will structure the organization in such a manner as to include representation from all areas of the company. The Troy Design and Manufacturing Statement of Corporate Environmental Policy is available to our local communities, customers and suppliers.

TDM's MISSION STATEMENT

In support of TDM's Quality and Environmental Policies, we will meet and surpass and continually improve on the requirements and expectations of:

Our Customers as their supplier: We strive to understand our customers and their businesses. We must recognize the value they place on each element of the products and services we offer and we strive to continually improve that value.

Our Associates as their employer: We strive to provide safe working conditions, promote teamwork, involvement and empowerment and provide an atmosphere which encourages creativity and raises motivation. Our associates enhance our creativity, intelligence and culture and determine our integrity and reputation.

Our Suppliers as their customer: We work closely with our suppliers to understand their needs. We help them understand the value we place on each element of the products and services they offer and through partnership, continually improve that value to better serve our customers.

Our Community as their neighbors: We strive to be sensitive to our neighbors. We must provide safe products and use environmentally sound and healthy processes and Facilities. We must be conscious of how we affect our surroundings and strive to be a positive asset to the community.

** All TDM employees will act with integrity and adhere to the highest standards of ethical business practices with customers, employees, suppliers and everyone else whom we are served by.

QUALITY REQUIREMENTS

AIAG Requirement Manuals

TDM's suppliers will utilize all of the AIAG manuals (available through the Automotive Industry Action Group website www.aiag.org) as the standard when delivering product to TDM. This includes, but is not limited to:

- Advanced Product Quality Planning (APQP)
- Measurement System Analysis (MSA)
- Design Failure Mode Effects Analysis (DFMEA)
- Process Failure Mode Effects Analysis (PFMEA)
- Statistical Process Control (SPC)
- PPAP



PPAP

All PPAP submissions will be submitted following all the requirements contained in the AIAG PPAP manual Fourth Edition. Any questions will be forwarded to the respective program manager for clarification. PPAPs will be submitted to level 3 unless otherwise directed in writing. TDM may have requirements beyond AIAG's PPAP manual. An interim PPAP which allows a supplier to ship product before final PPAP approval will require written timing and corrective action. Interim approval will be signed by TDM personnel and quality contact from the supplier. All PPAP submissions will adhere to the Customer-Specific Requirements for use with PPAP 4.0 which can be found on the IAOB/customer specific website below.

<http://www.iafglobaloversight.org/oem-requirements/customer-specific-requirements/>

Restricted and Hazardous Substances

Suppliers will conform to all TDM and industry, local, state and federal laws and safety regulations pertaining to any restricted and or hazardous substances. Specific IMDS (International Material Data System) forms must be submitted Online to the IMDS website prior to PPAP submission.

Corrective and Preventive Actions

When requested by TDM the supplier will respond to quality issues using the 8-D format with initial containment response due back to TDM within 24 hours and disposition of material due within 72 hours. The final 8D is due within 15 days with final corrective action. All 8-Ds will require 3 month follow up (TDM on site verification may be required) to verify permanent corrective action is still in place. Written confirmation will be required. In the event that a sort is necessary and the supplier cannot provide on site sorting within 24 hours, they must contract an approved sorting company to certify all stock at the TDM location

Containment Process and Plan

Documented containment plans will be required in the event that a supplier is jeopardizing any part of the TDM production build. Implementation of a containment plan will be determined by TDM and signed off by both the supplier and TDM.

Certifications

All Suppliers to TDM must be on the TDM Approved Supplier List. Supplier's capability and performance will be evaluated using one or more of the following criteria:

- ISO/TS 16949 3rd party certification
- ISO 9000 3rd party certification
- Self-Assessment using AIAG QSA assessment questionnaire
- On-site review of supplier capabilities based on key QSA criteria
- Compliance with customer accreditation requirements

Critical Suppliers

A supplier may be put on the TDM probationary supplier list. This may occur for one of the following reasons:

- No certification or plans to be certified
- Poor delivery and or quality performance

Removal from probationary supplier list will be determined by documented corrective action to problem (delivery or quality), verification of corrective action and ongoing performance to substantiate corrective action is effective.

Charge Backs

If it is determined that a Supplier's defective part(s) incurs costs for scrap, rework, sorting, freight, etc. then the Supplier may be responsible for these costs. TDM reserves the right to commence rework and/or sorting with the cost being charged back to the Supplier. The standard TDM hourly rate will be charged to the supplier for all sorting and rework performed.

- If the Supplier's defective material causes an assembly to be scrapped then the cost of the scrapped assemblies may be charged to the Supplier.
- If the Supplier's defective material causes TDM's customer to scrap or rework then the cost of the scrap or rework may be charged to the Supplier.
- If the Supplier's defective material causes TDM's customer to issue a debit to TDM, then this amount may be charged to the Supplier.
- If TDM personnel are required to travel to a Customer's facility due to a quality issue resulting from the Supplier's defective material, then all travel expenses relating to the trip may be charged to the Supplier. The examples above are not all inclusive. TDM reserves the right to charge all costs resulting from a Supplier's defective material including premium freight. The Supplier has the right to appeal a charge from TDM. The final decision will be at the discretion of TDM.

MATERIALS MANAGEMENT for TDM SRP

Suppliers are required to ship the right parts in the right quantity in the right container to the right location at the right time, every time to support assembly and manufacturing plant build schedules. To ensure that this is accomplished, the TDM MP&L Team has identified several key practices/functions that are expected from all suppliers. These requirements will cover specific areas as noted below and are subject to change at any time. Questions or Concerns should be directed to the TDM MP&L Team.

NOTE: Non-production parts and materials will not be required to adhere to AIAG or other standard requirements such as PPAP unless specifically requested in writing.



Shipping - TDM Facilities

- Prototype Parts shipped to TDM Sheldon Road facility must be packaged to ensure part integrity.
- If applicable, right and left hand parts must be packaged separately.
- All parts in each shipment to TDM must be wire tagged showing: Supplier name – Full part number - Current E/C level – Part description -Program ID, Purchase order number and Part number bar code (39 bar code)
- Each shipment container must be tagged showing: Supplier name – Full part number - Current E/C level – Part description - Program ID, Purchase order number and Part number bar code (39 bar code)
- Shipping documents must have: Supplier name – Full part number - Current E/C level – Part description -Program ID, Purchase order number and Part number bar code (39 bar code)

Shipping - TDM Facilities

When shipping materials to TDM facilities please follow the Box Label example below:



Bar codes ARE NOT required at this time when shipping to TDM FACILITIES. However, the container label should look similar to the label shown above.

Box/Container labels must have the following information displayed:

1. Complete part number including E/C level
2. Location of final part destination (use GSDB code)
3. Serial Number (should represent the shipper doc number)
4. Purchase order number
5. Part Description
6. Quantity shipped
7. Total boxes shipped

8. Supplier Code

Supplier Performance – Suppliers will be scored on the following performance criteria:

- Timeliness requesting shipping documents
- Timeliness returning shipping documents and POD's
- Tagging
- Packaging
- Impounds
- Any discovery work that requires TDM participation

Supplier Contacts

All suppliers are required to submit the following to the proper TDM contacts as listed below:

(These contacts should be those who have a direct responsibility with requesting Packaging & Tagging Requirements for product being shipped to any TDM Facility):

1. Contact Name
2. Contact Email
3. Contact Phone
4. Contact Name Back up
5. Contact Email Back up
6. Contact Phone Back up

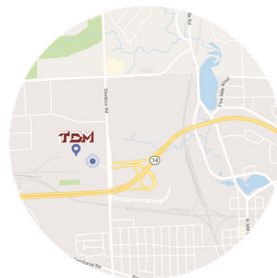
These contacts will be those who TDM MP&L will contact if there are any issues or concerns with materials shipped to a TDM Facility.

TDM Receiving Location:

Troy Design and Mfg Co

GSDB Code: T896B 14425 Sheldon Road

Plymouth, Mi 48170



TDM Receiving Hours:

TDM – Sheldon Road

Monday through Friday 6:00am – 8:00pm

Saturday – 6:00am – 12:00pm (need 24 hour notice - see MP&L Team contacts)

TDM MP&L Contacts:

Steve Randazzo

TDM MP&L Manager

Email: Srandaz2@ford.com

Jonas Maironis
TDM MP&L Shipping
Email: Jmaironi@Ford.com

Nick Honeycutt
Receiving & LVP shipping
Email: Nhonetcu@troydm.com

SHIPPING - DOCUMENTATION DIRECT TO TDM CUSTOMERS

Advanced Shipping Notification (ASN):

Suppliers are required to send their company shipping document to the PCD (Parts Coordination & Distribution) Team. This document should represent what materials the supplier is planning to ship –complete with Part Number Description and Quantities.

- If shipping to a specific Ford Purchase order for TDM it must be identified on the ASN Document along with proper Line Code.
- The Shipping Document sent by the supplier should represent the invoice that will be sent for payment.
- There is a 3 hour minimum time frame required when requesting shipping documents
- All TDM Shipping Documents must have a stamped or signed POD (Proof of Delivery) from final customer delivery.
- Scanned POD's are preferred – send all POD's to Parts Coordinator unless communicated otherwise.
- All TDM shippers must be returned to the TDM PCD Team no later than 48 Hours after being sent to the supplier (Unless other arrangements have been made and approved by TDM PCD Team)
- TDM Shippers cannot be manually changed for any reason unless pre-authorized by TDM PCD Team

Supplier Responsibilities

It is the supplier's responsibility to follow up with the TDM single point of contact to ensure receipt of the TDM Purchase Order Number.

- Suppliers are responsible for correcting issues with materials that are shipped to wrong locations or impounded for any reason. In such a case it is the suppliers' responsibility to contact the TDM PCD Team and advise on the impound reason and timing to amend issue.
- In most cases suppliers will have 24 hours to correct any impound issues.
- Unless otherwise noted, it is the supplier's responsibility to package and tag materials to the final customer's expectations. If needed, please contact the TDM Parts Coordinator for specific customer requirements.

- It is the supplier's responsibility to notify the TDM PCD Team if any shipping documents are voided for any reason. If this occurs, suppliers must write void across the shipping document and send to the TDM Parts Coordinator.

TDM PCD Contacts:

Cynthia Hinzman

Parts Coordination & Distribution Supervisor

Email: chinzma1@troydm.com

Nastasia McClive

Parts Controller

Email: nmcclive@troydm.com

MATERIALS MANAGEMENT for CHICAGO MODIFICATION CENTER (CMC)

Shipping to TDM CMC

- Parts shipped to the TDM CMC facility shall be packaged to ensure part integrity.
- Shipping containers and standard packs shall be approved by TDM CMC and remain consistent – variation in packaging may result in rejection unless previously authorized due to expedite or balance out situations.
- Each part number shall be packaged separately; mixed parts in the same shipping container may result in rejection.
- Each part shall be packed in standard pack quantities – partials may result in rejection unless previously authorized due to expedite or balance out situations.
- Each shipping container shall be labeled in compliance with the AIAG/ODETTE standard format as specified below.
- Each shipping container shall be labeled with two (2) 4"x6" labels on adjacent sides.
- Mixed pallets (multiple part numbers in separate shipping containers on the same pallet) are acceptable due to freight constraints, but are discouraged. When mixed pallets are shipped they shall be clearly identified "MIXED LOAD" and labeled with each part number
- New model parts including revision levels, engineering changes, prototype parts and special build components shall be identified with the "TDM NEW MODEL LABEL" on all four
- (4) sides of each shipping container for the first two (2) shipments. (Label provided below)
- Shipping documents shall contain: Complete part number – prefix-base-suffix including current engineering revision level and color ID, part description, quantity of parts, ship date, cumulative quantity shipped (where applicable) purchase order number, and a unique shipper number.



- ASN (Advance Shipment Notification) shall be transmitted for each shipment when it departs the supplier facility. Currently TDM CMC receives ASN via email to the MP&L Team at the contacts listed below. Each ASN shall contain the estimated time of arrival for the shipment.

rwebbe17@ford.com
twisor@ford.com
jtrappan@ford.com
mpierso4@ford.com

TDM CMC Label Standards

- All shipping containers shipped to TDM CMC shall be labeled in compliance with the AIAG (Automotive Industry Action Group) standard format. A brief summary of the AIAG format and an example are provided below. For a complete detail of the North American Standard, log on to the AIAG website (www.aiag.org).
- All labels shall be 4 inches by 6 inches in size, self-adhesive and white in color unless otherwise specifically instructed.
- Each shipping container shall be labeled with two (2) labels on adjacent sides.
- If a pallet contains multiple shipping containers each container shall be labeled with individual quantities and the pallet shall be labeled with a master label stating total pallet quantity.

Example of an AIAG container label below (blank):

SUPP (V)	
QTY (Q)	CONTAINER GROSS WGT LOT DATE SHIFT WC
PART (P)	
STR.LOC 1	LINE FEED LOC 2
SERIAL NO (S)	TO DOCK CODE CUST
MADE IN	W/T/D ENG ALERT EF436H

Example of an AIAG container label below (completed):

SUPPLY I DWH ADDRESS		T510C		CONTAINER	
CITY		14		ST39	
EA		31		DATE	
21SEP2012		LOT		SHIFT	
DG13 - 7E063 - AB		WVC			
PART					
STR LOC 1		LINE FEED LOC 2			
51566A - P		TO TROY DESIGN & MFG.		DOCK CODE	
PLT SKD SB FR RH		CUST			
SERIAL NO 01147414		TIME			
MADE IN USA		ENG ALERT			

- Contact Name
- Contact Email
- Contact Phone
- Shipping address
- Contact Name Back up
- Contact Email Back up
- Contact Phone Back up

** These contacts will be those who TDM MP&L will contact if there are any issues or concerns with materials shipped to a TDM Facility.

Supplier Responsibility

It is the responsibility of the supplier to ship the released quantities on schedule.

If the schedule cannot be met for any reason the supplier shall contact the TDM CMC MP&L group to make arrangements for special delivery to support TDM CMC production including premium expedited freight at the supplier's expense.

It is the responsibility of the supplier to schedule and arrange pick up of released parts with confirmed carriers and to insure pick up will make delivery on time. Suppliers will be contacted to set up a 'shipping pick up window' outside of expedite situations.

TDM Facilities – Charge Backs

Suppliers that send material or parts to a TDM facility that are impounded for any reason will have 24 Hours to clear the impound or charge back can occur.

Any material or parts that remain impounded more than 24 hours will be cleared automatically by TDM and/or returned to the supplier at the supplier's expense.

Suppliers who are unable to clear impound for any reason must contact the MP&L Team within the 24 Hour period with an alternate suggestion to correct issue.

- Each shipping label shall contain the following information:
- Part prefix
- Part base
- Part suffix containing revision level
- Part number code 39 (3 of 9) bar code (P) is the identifier
- Description of part
- Date of manufacture
- Line code (if applicable)
- Supplier name
- Supplier GSDB code
- Quantity code 39 bar code (3 of 9) (Q) is the identifier
- Other customer specific information as required on a case-by-case basis

Supplier Performance – Suppliers will be scored on the following performance criteria:

- ASN Timeliness – ASN sent prior to shipment
- On time delivery
- Labeling standards
- Packaging
- Document accuracy
- Impounds
- Unmet schedules
- Shipping Discrepancies
- Any discovery work that requires TDM participation
 - All supplier deliver performance will be tracked through Metric Stream online supplier interactive software. It is the supplier's responsibility to gain access and log into the Metric Stream system, input data, and corrective action as specified. For initial supplier set up, contact Lisa Osbourne losbor28@troydm.com

Note: an 8D (or other corrective/preventive action documentation) can be requested in the event of inadequate performance in any of the above areas.

Supplier Contacts

All suppliers are required to submit the following contact information to the Proper TDM CMC contacts as listed below (These contacts should be those who have a direct responsibility with requesting Packaging / Tagging Requirements for Product being shipped to any TDM Facility):

IMPOUND REASON CODES

<u>CODE</u>	<u>DESCRIPTION</u>
01	PARTS I.D. TAGS MISSING
02	CONTAINER I.D. LABEL MISSING
03	MISSING / INCORRECT PAPERWORK WITH SHIPMENT
04	P.O. NUMBER NOT ON PAPERWORK
05	PART NUMBER NOT ON P.O.
06	PART NUMBER ON RECEIVED GOODS DOESN'T MATCH P.O.
07	INCORRECT RECEIVING LOCATION
08	IMPROPER PACKAGING
09	DAMAGED MATERIAL
10	SHORTAGES
11	OVERAGES
12	OTHER - TO BE SPECIFIED IN SDR (SUPPLIER DESCREPENY REPORT)

TDM CMC Receiving Location

Troy Design and Mfg (T488P)
Chicago Modification Center
3400 E 126th Pl Chicago, IL 60633

Receiving Hours

Monday-Friday

6:00am – 3:00pm

4:00pm – 11:30pm

(3:00pm – 4:00pm requires advance notification)

Saturday Receiving – requires advance notification

TDM CMC MP&L Contacts

Richard Webber

CMC MP&L Superintendent

Email: rwebbe17@ford.com

Jay Trappani

Shipping & Receiving Coordinator

Email: jtrappan@ford.com

Mark Pierson

CMC Material Analyst

Email: mpierso4@ford.com

