

## TOOLING AND GAGING REQUIREMENTS/IDENTIFICATION – Section 19

The following summarizes Powers and Sons LLC processes with respect to any tooling or gaging and Powers and Sons LLC authorized engineering changes to such tooling. It is the responsibility of the tier 1 suppliers to ensure its sub-suppliers comply with these guidelines. All references to tooling apply to gages as well.

- Powers and Sons LLC will buy the first set of perishable tooling designed and considered specific to a Powers and Sons LLC part dimension(s), non-catalog, (i.e., step drills and reamers). However, the supplier will maintain a complete set throughout the program via maintenance and/or replacement by the supplier as a part of the supplier's piece price burden. Any exceptions must be quoted up front and noted on Quote.
- Unique computer software required directly for the production tooling or gaging of the part is considered part of tooling and shall become the property of Powers and Sons LLC. Computer hardware is considered supplier-owned equipment.
- In some cases, tooling may need to be relocated from one supplier to another. During any such tool move, the original supplier is required to keep the tooling in PPAP approved condition. Any changes to the tooling after PPAP, requires an approved Change Request Form from Powers and Sons LLC.
- Parts produced with tooling that have inserts subject to a high rate of wear (i.e., aluminum die castings) that will not provide the program volume, will require a request to Powers and Sons LLC by the parts supplier, for the funds to replace the inserts. This would have to be identified during the quote process.
- Where a part supplier designs, develops or manufactures production tooling or prototype tooling in-house, and the engineering center/tool room is budgeted as a separate profit center, a reasonable profit margin on the cost of design, development, and manufacture of the tools will be allowed. All overhead costs and profit associated with the design and manufacture of special tooling should be included in fully accounted tooling labor rates.
- A Detail Cost Worksheet, on the Tooling Tab, **may be required** prior to a Purchase Order be given to the supplier.
- Powers and Sons LLC does not permit a parts supplier to make a profit on production or prototype tooling designed and manufactured by a tool supplier. Additionally, incremental costs associated with procurement, follow up, etc. are considered to be part of the parts supplier's overhead costs and likewise recovered in the production piece price. Powers and Sons LLC expects that supplier charges actual cost and supplier can supply invoice for outside purchased tools.
- If not used for production, all tooling shall be maintained until request for disposition is submitted and then approved by Powers and Sons LLC in writing. No tooling, under any circumstance, may be disposed of without written authorization from Powers and Sons LLC. Should this occur, then supplier will be responsible to replace the tooling at their expense.

- Tooling PO's are subject to audit. In the event Powers and Sons LLC audits the supplier's tooling cost, it will be necessary to make available supporting documents supporting the costs.
- A tooling audit of all tools at your facility or facilities may be requested at any time. You may be required to send pictures of all Powers and Sons LLC and, or our customer owned tooling at any time. We require you to keep an active list of all of Powers and Sons LLC tools and location.
- We are required as a Tier one supplier to support program and **OEM driven** years of service. You must agree to maintain the tooling for the program and **OEM driven** years of service.
- A supplier is not permitted to use Powers and Sons LLC tooling for the manufacture of parts for other customers without the prior written approval by the Powers and Sons LLC Purchasing Manager. A tooling usage agreement must be obtained to authorize such use.

**Tooling Cost Breakdown**

Part Number	
Print Revision	
Date	
Prepared by	

Operation Number	# of Stations	Tooling Type	Proposed Build Source	Number of Tools	Dimensions of tools	Weight of tools

Design Costs (A)	Out Side Costs (B)	Material Cost ©	Labor Hours	Hourly Rate	Labor Hours x Hourly Rates (D)	Total Cost (A) + (B) +(C) + (D)

**Tooling Capacity**  
 Net Tooling Capacity  
 Based on hours per shift  
 Shifts per day  
 Days per year  
 Tooling Life

**Detailed Tooling Description**

## **Supplier Tool/Gaging Tagging / Marking Requirements And Payment Approval Process**

**Scope:** Tooling at Powers and Sons LLC Suppliers' manufacturing sites.

**Purpose:** Powers and Sons LLC deals with many different customers; each have varying requirements. To address this issue the purchase order for tooling needs to clearly define the marking requirements. If there are any questions, please contact your buyer for clarification.

The purpose of this document is to concisely comply with the customer requirements to enable payment to Powers and Sons LLC from customer resulting in payments to suppliers. Production/Prototype Tooling owned by Powers and Sons LLC and or Powers and Sons LLC customers and located on the premises our supplier or its vendors must be, and remain, permanently tagged or marked to reflect ownership. Suppliers will have to submit photographic evidence of compliance with the tagging/marking requirements when PPAP is submitted to Powers and Sons LLC. Failure to submit acceptable labels, pictures or information will result in a delay in tooling payment by our customer and therefore to supplier. The exact marking will be on the Purchase Order to buy the described tooling. You may be asked to move forward on tooling prior to the Tooling Number availability on Purchase Order – this must be supplied and added prior to PPAP submission to allow for tooling payment.

### **Existing Tool Tagging / Marking Requirements**

During the operational life of the tool, which includes the production of past-model service parts, the physical tag/marking must:

- Remain permanently affixed to the tool
- Remain legible
- Be durable in its manufacturing environment
- Not impair the operation of the tool

Any markings by or referring to any person or entity other than our tagging must be limited to the name of the maker of the tool; no additional information, such as the toolmaker's serial number or address, may be shown on the tool.

### **Specific Requirements**

The permanently affixed tag/marking on the tool must show the following information:

First line: Property of “ ” (Supplied on Purchase Order)

Second line: Tool Order Number - Amendment Number - Line-Item Number (Supplied on Purchase Order)

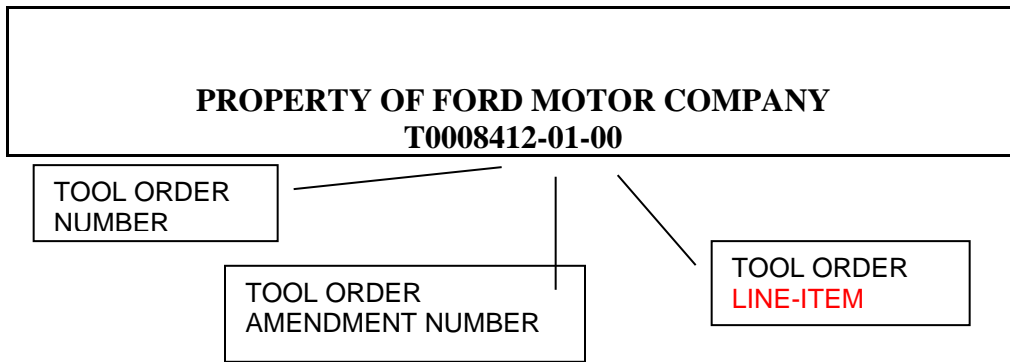
### **Example of Proper Tool Tag for Ford Motor Company:**

Ford Tool Serial Number (Supplied on Purchase Order) – which consists of the following:

Tool Order Number

Tool Order Amendment Number

Tool Order Line-Item Number



**Note: Only by complying with the above tool tagging/marketing requirements and ensuring that there are no prohibited markings on the tool will a Supplier/Powers and Sons be able to answer "yes" to the question on the PSW (Part Submission Warrant), which asks: "Is each Customer Tool properly tagged and numbered?" Example of [Part Submission Warrant](#) attached.**

**Tooling Photographic Verification Requirement for Payment**

Digital photographs:

- 1 – photograph of the entire tool
- 2 – photograph of the tag/marketing that clearly and legibly shows all the required Information
- 3 – photograph of equipment tool will be run on
  - Photographs should be in **jpeg** format. Neither photograph should exceed 100 KB

(Kilobytes) in file size.

- The file name for each photograph must use the following format:  
 TOOL ORDER NUMBER-AMENDMENT NUMBER- LINE ITEM  
 NUMBER\_DATE\_SUPPLIER MANUFACTURING GSDB SITE CODE\_SUPPLIER  
 SITE NAME\_Tag/Tool

For example:

T0008412-01-00\_15Jan08\_GB861\_Acme\_Tool.jpg

T0008412-01-00\_15Jan08\_GB861\_Acme\_Tag.jpg

The site code and name refer to the location of the tool and the Supplier name associated with the site code.

The date should be shown in the DDMonthYY format used in the example above.

(The month name may be abbreviated or spelled out fully, but must not be replaced by a number.)

The subject line of the email should contain the title of the photograph files, minus the "Tool" or "Tag" suffix. Pictures should be sent, via e-mail to the Program Engineer who requested the tooling. The Engineer's name will be referenced on the Purchase Order. The email must also include the name, email address, and phone number of the Supplier contact person and an alternate with whom Accounting can communicate to resolve any discrepancies or answer any questions about the photographs.

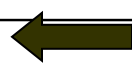
Accounting must verify that the information on the photographs meets the requirements and matches the information on the invoice before it may approve payment of the invoice. In the event a photograph is insufficiently clear or the tag/marketing does not meet the requirements, Accounting will notify the Supplier contact identified in the email and/or the Buyer for any additional information.

- **If the tool order is an amendment and the tool order contains a modified tool, there is no requirement to re-tag the tool or re-submit pictures with the invoice for the modified tool.**
- If the tool order is an amendment and contains a new tool that will require a PSW submission, the new tool will require a tag per these enhanced requirements and the submission of pictures with the invoice.

Certain types of tools cannot be separately tagged or marked due to small size, material, interference with the manufacturing process, or similar constraints. Tools that cannot be individually tagged or marked may be grouped on a single line on the Tool Order, though each tool must be photographed separately. In certain circumstances, when many identical tools are ordered, they may be grouped on a single line, but must be tagged or marked individually. Provided that the Supplier has tagged or marked each of these tools in an identical manner, photographs of only one tool will be sufficient, showing the whole tool in one photograph and the tag/markings on the other. The Supplier should contact its buyer if guidance is needed to determine whether grouping with or without individual tagging or marking is appropriate. In either situation, each tool will be tagged/marked with the same "serial number" as the other tools with which it is grouped.

**Other information Required** – Please submit the dimensions (width, length and height), weight and type of materials used in the construction of the tooling.

## Part Submission Warrant

Part Name _____		Cust. Part Number _____	
Shown on Drawing Number _____		Organization Part Number _____	
Engineering Change Level _____		Date _____	
Additional Engineering Changes _____		Date _____	
Safety and/or Government Regulation <input type="checkbox"/> Yes <input type="checkbox"/> No		Purchase Order No. _____	
Checking Aid Number _____		Weight (kg) _____	
Checking Aid Change Level _____		Dated _____	
<b>ORGANIZATION MANUFACTURING INFORMATION</b>		<b>CUSTOMER SUBMITTAL INFORMATION</b>	
Organization Code _____		Customer Name / Division _____	
Supplier Name _____		Buyer/Buyer Code _____	
Street Address _____		Application _____	
City _____	State _____	Zip _____	Country _____
<b>MATERIALS REPORTING</b>			
Has customer-required Substances of Concern information been reported?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
Submitted by IMDS or other customer format: _____			
Are polymeric parts identified with appropriate ISO marking codes?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a	
<b>REASON FOR SUBMISSION (check at least one)</b>			
<input type="checkbox"/> Initial submission	<input type="checkbox"/> Engineering Change(s)	<input type="checkbox"/> Tooling: Transfer, Replacement, Refurbishment, or additional	<input type="checkbox"/> Correction of Discrepancy
<input type="checkbox"/> Tooling Inactive > than 1 year	<input type="checkbox"/> Change to Optional Construction or Material	<input type="checkbox"/> Sub-Supplier or Material Source Change	<input type="checkbox"/> Change in Part Processing
	<input type="checkbox"/> Parts produced at Additional Location	<input type="checkbox"/> Other - please specify _____	
<b>REQUESTED SUBMISSION LEVEL (Check one)</b>			
<input type="checkbox"/> Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.			
<input type="checkbox"/> Level 2 - Warrant with product samples and limited supporting data submitted to customer.			
<input type="checkbox"/> Level 3 - Warrant with product samples and complete supporting data submitted to customer.			
<input type="checkbox"/> Level 4 - Warrant and other requirements as defined by customer.			
<input type="checkbox"/> Level 5 - Warrant with product samples and complete supporting data reviewed at supplier's manufacturing location.			
<b>SUBMISSION RESULTS</b>			
The results for <input type="checkbox"/> dimensional measurements <input type="checkbox"/> material and functional tests <input type="checkbox"/> appearance tests <input type="checkbox"/> statistical process package			
These results meet all drawing and specification requirements: <input type="checkbox"/> YES <input type="checkbox"/> NO (if NO - Explanation Required)			
Mold / Cavity / Production Process _____			
<b>DECLARATION</b>			
I affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all Production Part Approval Process Manufacturing requirements. I further affirm that these samples were at the production rate of _____ / _____ hours. I also certify that documented evidence of such compliance is on file and available for review. I have noted any deviations from this declaration below.			
EXPLANATION/COMMENTS: _____			
Is each Customer Tool properly tagged and numbered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> n/a 			
Organization Authorized Signature _____		Date _____	
Print Name _____	Phone No. _____	Fax No. _____	
Title _____	Email _____		
<b>FOR CUSTOMER USE ONLY (IF APPLICABLE)</b>			
PPAP Warrant Disposition: <input type="checkbox"/> Approved <input type="checkbox"/> Rejected <input type="checkbox"/> Other _____			
Customer Signature _____		Date _____	
Print Name: _____		Customer Tracking No. (optional) _____	

EXAMPLE ONLY - DO NOT USE