

C.G. Martin Co., Inc.

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Quality Control Manual

PURPOSE

The purpose of this manual is to inform purchasers and suppliers of material of C.G. Martin Co. Inc.,'s minimum quality requirements.

PROCEDURE

C.G. Martin Co.. Inc., will meet or exceed the defined requirements for each element listed below:

PURCHASER'S PURCHASE ORDER REVIEW

C.G. Martin Co. Inc., will review all Purchaser's purchase orders, accompanying specifications and/or drawings to ensure that:

- A. The requirements are adequately defined, either by documented purchase order or by verbal means.
- B. Any differences between the purchase order and quote are resolved.
- C. C.G. Martin Co. Inc., has the capability to meet the purchase order requirements.

COMPANY'S PURCHASE OF MATERIAL

- I. Plate steel will be ordered to ASME and/or ASTM standards.
- II. A written purchase order will be issued to Supplier, with a copy to Inventory Control and a copy to Shop. The purchase order will include:
 - A. Purchase order number.
 - B. Date of purchase.
 - C. Required delivery date.
 - D. Vendor.
 - E. Shipping instructions and FOB point.

- F. Quantity.
- G. Description of plate steel, including thickness, width, length, weight and grade of material.
- H. Cost.
- I. Note any special restrictions.
- J. Reference if purchased for stock or special order. If special order, show customer number and work order number, if possible.

PRODUCT IDENTIFICATION AND TRACEABILITY

C.G. Martin Co. Inc., will identify product by suitable means during all stages of production and delivery to ensure positive identification as being supplied to Purchaser. Examples of suitable means of identification are tagging, marking, stamping, storage location, or presence of associated paperwork.

I. IDENTIFICATION AND TRACEABILITY WHEN RECEIVING MATERIAL

A. BY TRUCK:

1. When Inventory Control receives a copy of a purchase order for material incoming by truck, a Material Log-In Sheet (MLS) will be issued to the Shop Foreman (or an employee authorized by the Shop Foreman) along with a copy of the purchase order.

The MLS will include:

- a. Date and time issued and initials of preparer.
- b. Vendor.
- c. Purchase order number, grade, thickness, and weight of each plate.

2. Unloading

After a piece count, trucks may be unloaded and Bill of Lading signed “*subject to inspection and approval of material and MTR’s.*” Employee responsible for unloading the truck will note date and initial the MLS.

3. Inspection

- a. Material is then inspected for:
 - 1) Size (thickness, width, length)
 - 2) Visible imperfections, i.e. flatness
 - 3) Heat number, piece number (if applicable), mill and grade
 - 4) All applicable ASTM/ASME marking requirements
- b. The employee inspecting the material will record the size, heat number, piece number (if applicable), mill and grade on the MLS and will note date and time and initial MLS. Discrepancies or imperfections will also be noted on the MLS.

- c. All paperwork (Bill of Lading/Packing List, MTR's, MLS, etc.) will then be given to Inventory Control.
4. Inventory Control will verify the information from the MLS with the Purchase Order and MTRs. MTRs will be verified to meet ASTM/ASME specifications. If MTRs cannot be verified, the plate will be held separately from inventory for disposition (see non-conforming material).
5. Non-conforming material
 - a. Any discrepancies or imperfections noted on MLS will be reported to the Purchasing Manager and/or Quality Manager for disposition.
 - b. Any plate in question will be held separately from inventory and marked "do not use" until released by Purchasing Manager and/or Quality Manager.
 - c. If the plate is not acceptable, it will be marked "rejected" and held separately from inventory until Purchasing Manager makes arrangements with Seller to return the material. The Inventory Clerk will note "rejected" on the MLS and will give a copy to the Shop Foreman (or an employee authorized by the Shop Foreman). The original MLS will be retained in the office.
6. Each approved plate and corresponding MTR will be assigned an internal plate number for identification purposes. (A36 plates which share the same MTR and heat number may be assigned one internal plate number.) Assigned plate numbers will be noted on the MLS along with date, time and initials of Inventory Control clerk. The MLS will then be given to the Shop Foreman (or employee authorized by Shop Foreman.) The assigned plate will be marked on materials and noted on the MLS by date and time and employee's initials. MLS will then be returned to Inventory Control.
7. Inventory Control will indicate by date, time and initialing MLS that material is ready to be placed into inventory. The original MLS will be kept on file in the office and a copy given to Shop Foreman.

B. BY RAIL:

1. When Inventory Control receives notification by the rail company that a rail car is ready to be spotted, a Rail Car Notification form (including date, time and initials of the one who received the notification) is given to Shop Foreman (or an employee authorized by Shop Foreman).
2. When the rail car is spotted, the rail car number, date, time and employee's initials are noted on the Rail Car Notification form and the form is returned to Inventory Control.
3. Inventory Control will match the rail car number with shipping notice from the mill.

A Material Log-In Sheet (MLS) will be given to Shop Foreman (or an employee authorized by Shop Foreman) with the following information:

- a. Date and time and initials of preparer.
- b. Mill, date shipped and vehicle number.
- c. Purchase order number, plate number, grade, thickness, and weight of each plate.

4. Unloading

After reviewing the MLS and noting that piece count matches pieces on rail, authorized employee(s) may now unload the rail car, noting on the MLS the date, time and initials of employee responsible for unloading.

5. Inspection

- a. Material is then inspected for:
 - 1) Size (thickness, width, length)
 - 2) Visible imperfections, i.e. flatness
 - 3) Heat number, piece number (if applicable), mill and grade
 - 4) All applicable ASTM/ASME marking requirements
- b. The employee inspecting the material will record the size, heat number, and piece number next to the grade and internal plate number assigned and listed on the MLS. Discrepancies or imperfections will also be noted on the MLS. The MLS will then be initialed, dated, and time noted and returned to Inventory Control.

6. Inventory Control will verify the information from the MLS with the Purchase Order and MTRs. MTRs will be verified by Inventory Control to meet ASTM/ASME specifications. If MTRs cannot be verified the plate will be held separately from inventory for disposition. (See non-conforming material.)

7. Non-conforming material

- a. Any discrepancies or imperfections noted on the MLS will be reported to the Purchasing Manager and/or Quality Manager for disposition.
- b. Any plate in question will be held separately from inventory and marked "do not use" until released by Purchasing Manager and/or Quality Manager.
- c. If the plate is not acceptable, it will be marked "rejected" and held separately from inventory until Purchasing Manager makes arrangements with Seller to return the material. The Inventory Clerk will note "rejected" on the MLS and will give a copy to the Shop Foreman (or an employee authorized by Shop Foreman). The original MLS will be retained in the office.

8. Each approved plate and corresponding MTR will be marked with an internal plate number for identification purposes. Inventory Control will make note on the MLS that material has been accepted and a copy given to the Shop Foreman. Material may now be placed into inventory.
9. Inventory Control will notify the rail company by telephone and by fax when the rail car has been unloaded and is ready to be picked up. The date and time will be noted on the MLS and initialed by Inventory Control.

II. PRODUCTION

A. CUTTING TICKET

1. A cutting ticket will be issued in triplicate to the shop and will include:
 - a. Work order number assigned.
 - b. Customer identification number.
 - c. Purchase Order Number & Date.
 - d. Expected ship date and mode of shipping.
 - e. Description of plate to be cut including:
 - 1) Size
 - 2) Grade
 - 3) Tagging required
 - 4) Any notes specific to the particular job
 - 5) Drawing number and attached copy of drawing with burn program number.
2. Cutting ticket will be distributed to burn areas.
 - a. Plate meeting the requirements of the cutting ticket will be chosen.
 - b. When traceability of materials is a specified requirement of the purchase order or product drawing, plate will be positively identified through all phases of production.
 - 1) Plate number, heat number, piece number, mill and heat code (if applicable) will be documented on cutting ticket. Burner will initial on cutting ticket each item cut
 - 2) Heat number, piece number and mill or heat code (an internally assigned and documented number or symbol specific to the particular heat number, piece number and mill) will be copied from the plate to each cut part
 - a. Cut parts may be transferred to another table for marking and deburring; however, only one heat may be transferred at a time and must have accompanying cutting ticket
 - b. If required by Purchaser's purchase order, parts will be marked with a color or a code specific to the job and documented on the cutting ticket prior to transferring to another table

B. INSPECTION

Final inspection of material prior to delivery which will include as a minimum:

1. Dimensional inspection to ensure compliance with product drawing or specification.
2. Visual inspection for damage, deterioration, surface imperfections or defects.
3. Accuracy and legibility of identification and markings.
4. The cutting ticket will be initialed by operator.

C. DELIVERY RECORD/BILL OF LADING AND MTRs

Prior to shipping of material, Inventory Control will:

1. Verify plate number, heat number, piece number, mill and heat code (when applicable) with the corresponding MTR on file.
2. Verify compliance to Purchaser's purchase order and material specifications.
3. Prepare a Delivery Record/Bill of Lading to be signed upon receipt of material. Delivery Record/Bill of Lading will include:
 - a. Work order number.
 - b. Purchase order number.
 - c. Ship date.
 - d. Description of material including size and grade. Description will also include heat number, piece number and mill when required by specifications of Purchaser's purchase order.
 - e. Any notes or tagging as may be required by Purchaser's purchase order.

CONTROL OR NONCONFORMING PRODUCT

C.G. Martin Co. Inc., will identify nonconforming product to ensure that product which is not in compliance with Purchaser's purchase order of material specifications is not delivered until appropriate disposition is made.

- A. Product that is nonconforming to Purchaser's purchase order or material specifications but is suitable to return to inventory will:
 1. Be marked with heat, piece number (if applicable), grade and mill.
 2. Have any markings removed that identify product to a specific purchase order.
 3. Be returned to inventory.
- B. Product that is nonconforming to Purchaser's purchase order and is not suitable to return to Company's stock (i.e. too small) will be placed in the scrap bin immediately.

- C. Nonconforming product proposed for delivery by C.G. Martin Co. Inc., which is not in compliance to Purchaser's purchase order or material specifications (i.e. blow holes) will be brought to the attention of Purchaser's Purchasing or Quality Departments.
- D. The cutting ticket will have record of nonconforming product and disposition of nonconforming product so C.G. Martin Co. Inc.,'s record of inventory may be adjusted accordingly.

HANDLING, STORAGE, PACKAGING, PRESERVATION, AND DELIVERY

Plates are loaded and unloaded using overhead cranes and/or forklifts. Load capacities are noted and will not be exceeded.

Plates are stored indoors and are thereby preserved and protected against damage or contamination during storage.

Plates may be shipped on a flat bed truck and will be separated with wooden boards. Smaller parts may be palletized and wrapped in plastic or banded. Any special packaging or delivery requirements or Purchaser's purchase order will be met.

CONTROL OR QUALITY RECORDS

I. MATERIAL TEST REPORTS (MTRs)

A. Prior to shipping of material, Inventory Control will

- 1. Verify plate number, heat number, piece number, mill and heat code with the corresponding MTR on file.
- 2. Verify compliance to Purchaser's purchase order and material specifications.

B. A certified copy of the original MTR will be provided with shipment when required by Purchaser's purchase order.

II. CUTTING TICKETS

The original cutting ticket will be kept in the customer's work order file.

III. DELIVERY RECORDS

The signed delivery record will be stored in customer's work order file.

IV. LOG-IN/INSPECTION

The initial log-in and inspection paperwork will be kept in C.G. Martin Co. Inc.'s purchase order file.

V. MAINTENANCE AND STORAGE OF QUALITY RECORDS

Quality records identified by the purchase order or material specifications will be maintained, stored and filed for a minimum of five (5) years. Records will be retrieved upon request of Purchaser.

MATERIAL LOG IN SHEET (TRUCK)

SUPPLIER: _____

DATE REC'D _____

QTY	P.O.#	PLATE#	GRADE	DESCRIPTION	WEIGHT	HEAT NO.	SLAB NO.	REMARKS

UNLOADED: _____ DATE: _____ TIME: _____ INITIALS _____

INSPECTED: _____ DATE: _____ TIME: _____ INITIALS _____

PLATE NUMBERS ASSIGNED _____ DATE: _____ TIME: _____ INITIALS _____

MARKED PLATE#S _____ DATE: _____ TIME: _____ INITIALS _____

READY TO PUT IN INVENTORY _____ DATE: _____ TIME: _____ INITIALS _____

MATERIAL LOG IN SHEET (RAIL)

MILL: _____ DATE SHIPPED _____ VEHICLE # _____

P.O.#	PLATE#	GRADE	DESCRIPTION	WEIGHT	HEAT NO.	SLAB NO.	REMARKS

PLATE NUMBERS ASSIGNED DATE: TIME: INITIALS

UNLOADED: DATE: TIME: INITIALS

INSPECTED: DATE: TIME: INITIALS

NOTIFIED _____
AT TSU TO P/U
RAIL CAR DATE: TIME: INITIALS

MARKED
PLATE#S DATE: TIME: INITIALS

READY TO PUT
IN INVENTORY DATE: TIME: INITIALS
