

Honesty and Integrity | Good Corporate Citizenship | Open Communication | Continuous Improvement



Material Planning & Logistics Supplier Manual

People Finding A Better Way®





1. Introduction

The purpose of this material planning & logistics Manual is to help Suppliers understand Dana's expectations when supplying goods to Dana Incorporated, including its subsidiary and affiliated companies ("Dana").

1.2 Scope

The Manual describes the minimum requirements for which the Supplier has responsibility. However, system improvements that exceed the requirements specified in this Manual are strongly encouraged.

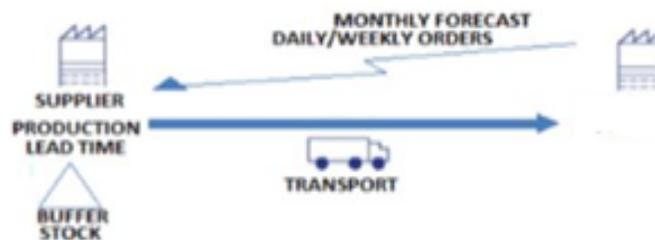
The requirements presented in this document are provided to complement and NOT to replace or alter any purchase order or purchase contract separately executed and/or implemented between Dana and the Supplier (collectively, "Purchase Agreement."). In the event of any irreconcilable difference between this Manual and any Purchase Agreement, the Purchase Agreement will supersede and govern. Dana rights and remedies in this manual are in addition to any rights and remedies afford to Dana under applicable law.

1.3 Application

The expectation and requirements described in this Manual apply to all active production Suppliers that support Dana Suppliers supply products (interchangeably, "parts" or "products" or "material"). must comply with the all applicable requirements specified herein.

1.4 Delivery Model

The delivery model below describes the general physical flow of material between the Supplier and Dana.



1.5 Communication

Questions and inquiries regarding delivery dates, current delivery situations, major equipment downtime, and supply gaps shall be communicated to Dana immediately if it is believed by the Supplier that material delivery risk is likely to occur.

1.6 Contact List

Supplier must maintain updated contact information in Dana1Source. All contact details including names, email addresses, phone numbers.

2 Electronic Data Interchange (EDI)

2.1 Means of EDI

Dana expects 100% EDI compliance between Dana and the Supplier to eliminate manual interference in the information flow. Supplier and Dana will exchange their information in the most effective and efficient manner by replacing emailed requirements, facsimiles, and paper copies. Manual interference often causes



considerable delays and possible errors that can be expensive and risk supply disruption to Dana customers. This Manual will detail the usage of EDI to ensure that Dana and the Supplier can communicate effectively.

The Supplier shall maintain the capability to interface with Dana's receiving plants through one of the following solutions:

- Direct EDI
- Web based– EDI (SAP – Fiori Portal)/One Network OMS
- Dana sites that do not utilize Fiori or One Network will provide direction on demand communication

Please contact your plant representative for any questions regarding EDI arrangement for your company.

2.2 Demand

Suppliers must be able to receive demand (i.e. 830 release) from the Dana plants via EDI.

2.3 Forecast

Dana will issue raw material forecasts that are predictive figures to provide Suppliers the opportunity to plan their production for 52 weeks. This should NOT be treated as a commitment unless the released requirements fall within any agreed-upon lead times specified in a Purchase Agreement.

“Forecast” does not mean “commitment to buy” and is subject to change based on demand.

2.4 Delivery Notification (ASN)

** Suppliers must provide ASNs to those Dana sites that utilize direct EDI or web-based EDI*

Electronic Delivery Notification (Advanced Shipment Notification (ASN - 856)) must be delivered within 30 minutes of the truck's departure. It is used by Dana to monitor the materials in transit and to simplify the receiving process here in Dana.

Timely and accurate submission of electronic delivery notification (ASN) is required for improvement of supply chain effectiveness.

Failure to comply with electronic delivery notification (ASN) will result in \$250 charge back per incident to the Supplier. It is required the Supplier have direct or web-based EDI capability to submit electronic delivery notification (ASN).

3 Delivery Schedules

3.1 Calendar

The Supplier is expected to support Dana plant working calendar (working days, holidays, factory shut downs). If the Supplier intends to take a holiday, the Supplier must take action to ensure material delivery is protected and will not jeopardize production at Dana or any intermediary delivery point.

3.2 Delivery Time and Quantity and Paperwork

Dana requires all Suppliers to maintain 100% on-time delivery performance with the correct quantity, documentation (ASN & Bill of Lading), and packaging/labeling. Unauthorized early or late deliveries or over shipments are unacceptable. Over shipments may result in excess material being returned to the Supplier at Supplier's cost. Unless otherwise agreed by between Supplier and Dana in writing, the quantity shipped per



release may not vary from specified quantity unless its due to package size that has been approved by Dana in advance.

4 Capacity Management

4.1 Manufacturing Capability

Suppliers must have the necessary resources (people, property, equipment, and materials) to supply the products required to meet Dana's orders in accordance with Dana's production schedule. The Supplier is required to inform the Dana plant material representative in charge within 24 hours in the event of any situation where Supplier is unable to satisfy Dana's orders. Otherwise, it will be understood that the Supplier is able to meet Dana's orders.

4.2 Material Flexibility

Unless otherwise agreed in a Purchase Agreement or other mutually signed agreement, Suppliers must meet weekly capacity planning volumes ("CPV") identified by Dana within a 5 day work week and if necessary use the weekend to have the flexibility to meet week-over-week schedule changes.

4.3 Safety Stock

Upon notification from Dana to the Supplier based on Supplier's delivery performance or other possible contingencies, the Supplier shall maintain, safety stock in finished goods to meet Dana requirements. This figure will be determined by the Dana receiving plant(s).

4.4 Emergency Situations

In the event of a material shortage, the Supplier must provide a material recovery plan with specific information on how the Supplier will satisfy past-due shipments and catch up to current releases. If premium freight is required due to Supplier's non-excusable delay in delivery, Supplier will assume financial responsibility through Dana's Supplier charge back process.

4.5 Delivery Disruptions

Supplier must immediately notify the Dana plant material planner of all actual or potential delivery disruptions by either phone or email no later than one day after discovery of a situation in which a line disruption is possible.

Notification does not relieve the Supplier of its responsibility and obligation to supply parts identified in the Dana release schedule. The Dana plant material planner may (but is not obligated) to reschedule, cancel or modify the release schedule or quantities due. Under such circumstances, written confirmation about the change will be issued by the Dana plant material planner. The Supplier must make all necessary arrangements to recover, (including organize overtime, organize special delivery, airfreight, etc.), to ensure the quantity of products and delivery date identified by the Dana plant material planner is achieved.

All costs incurred by Dana associated with failure to meet delivery schedules (whether as originally established or modified) will be charged to the Supplier including, but not limited to overtime, special deliveries, etc.



5 Labeling and Documents (North America Light Vehicle Only unless established otherwise in a Supply Agreement)

5.1 Dana Standard Label Requirements

It is the responsibility of the Supplier to ensure that all products are correctly identified with labels or tags affixed to each container. Labels are preferred, although tags can be approved for use by the receiving site. The term "label" will be used to represent either tag or label in this Manual.

Unless a different standard is communicated to Supplier by the receiving Dana plant location, the following labeling standard will apply:

All bar codes shall be type 3 of 9 (Code 39) and will require a Start and Stop Code. The quiet zone should be at least .25" (6mm) in width.

Barcodes shall be .50" (13mm) in height and have a preferred ratio of 3.1 and X-dim width of 15 mil. Where the preferred size is not possible, barcodes should be at least .25" (6mm) in height, have a ratio no less than 2.5:1 and an X-dim width no less than 9 mil.

All bar code fields shall be valid and scan correctly. Equipment is available to verify that the bar codes meet the quality requirements as documented in the AIAG guidelines. Use of statistical process control (SPC) is recommended.

Labels shall be white in color with black printing. Labels should be a minimum in size of 4.0 inches (100mm) high by 6.0 inches (150mm) wide.

Specific label placement requirements are listed below:

- **Tote Labels:** Totes require two (2) identical bar code labels; they shall be attached to the sides/ends of the tote, in the framework provided.
- **Small Cartons:** Small, palletized cartons require two (2) identical bar code labels, attached on adjacent corners.
- **Tubs/Baskets/Boxes:** Large metal tubs, wires baskets, crates or pallet boxes require two (2) identical bar code labels, attached on adjacent corners.
- **Master Labels:** Master Labels shall be attached on either end of the pallet that has an opening for a forklift. Master labels shall never be placed on top of the pallet. If the pallet is film-wrapped, the Master Label should be attached to the film. If the material on the pallet extends to the full length of the pallet and the Master Labels are damaged, the facility may ask the Supplier to take the necessary steps to protect the labels.
- **Mixed Loads:** A pallet with mixed part numbers shall have a Mixed Load Label attached to either end of the pallet. Additionally, a pallet with mixed part numbers shall have one Master Label per part number, per lot number heat code.
- **Banding:** If the pallet consists of multiple containers banded together, the banding shall not cover the Master Labels; and should avoid covering tote or carton labels when possible.

6 Packaging/Dunnage

6.1 Submission Documents

The below "Supplier Packaging Specification" (SPS) form, must be completed and submitted by Supplier for the Dana receiving plant for packaging approval. In the event of a packaging shortage, alternative packaging must be approved in advance by the Dana receiving plant.

http://Supplier.dana.com/sdManual/files/newfiles2011/Supplier_Packaging_Specification_Form.xls



6.2 General Packaging Requirements:

The Supplier is responsible for:

- Development of all protective packaging, unless determined by receiving Dana plant or Dana Purchasing, with a goal to establish a beneficial value stream.
- Proposed packaging must be approved by Dana Purchasing and the Dana receiving plant Materials Manager.
- Supplier will provide packaging, which is suitable to provide protection, to withstand the rigors of truck transportation for LTL and TL shipping. All packaging must be in good order with no broken slates or missing structures.
- All International / Intercontinental shipments (including shipments destined for Mexico through Laredo) must comply with ISPM 15 shipping standards for packaging.

Failure to comply to instructions above could result in a \$250 administration fee per incident

6.3 Dana Owned Returnable Containers

- Maintaining clean returnable containers.
- Storing returnable packaging in manner that protect it from excessive environmental exposure (dust, moisture, direct sunlight, etc.)
- Development of returnable packaging proposals that have an expendable option as a contingency for returnable shortages, production bank builds, premium shipments, etc. Supplier is responsible to quote, develop, test/validate and obtain approval from receiving Dana plant prior to implementing any such solution.
- Supplier shall report all improperly loaded dunnage received from the issuing Dana location. Such communication shall occur no later than two business days following the receipt and shall include the date of receipt, picture of container, along with supplemental pictures to identify the correct source.

7 Miscellaneous.

7.1 Management of Revision Changes

In the event of a product revision not accompanied by a part number change, Supplier must communicate the inventory level of the prior variation of the product, provide an estimated effective date of the revised product, and exhaust all available stock if such action is allowable per Dana's change management process. If obsolescence occurs, it is the Supplier's responsibility to quarantine the old stock to avoid potential material contamination. The first shipment of the newly revised product must have a visible label on each pallet or box. Supplier shall send an email notification to their plant contact at the Dana plant receiving location upon first such shipment.

7.2 Returns, non-conformant parts

Dana may elect to return the Non-Conforming Product to Supplier and have Supplier, at its cost and directed by Dana, replace the returned Non-Conforming Product with a replacement Product to be delivered to Dana in accordance with Dana's instructions.



8 Logistics

8.1 Supplier Compliance and Shipping Instructions for Dana North America (United States, Mexico, and Canada)

Effective upon start of serial production, all orders must be shipped per weekly release quantities and are subject to PPAP requirements, EDI, Bar Code, Dunnage and Standard Pack.

8.2 Supplier Requirements:

- All Dana paid shipments must be entered into Dana's authorized Transportation Management System (TM System). Any Ad Hoc / Non-Baseline shipments will need to be communicated via the **Shipment File Upload (SFU)** and sent via **email** to the destination / paying Dana facility's representative.
- Once the shipment is approved and entered into the TM system then the Supplier will receive and email with the ME # (Unique shipment number). It is the Supplier's requirement to be put the ME # for their shipment on all the shipping paperwork.
- All Ad Hoc shipments / Non-Baseline shipments / changes to baseline routes need to be communicated via email or phone to the destination plant's representative. Cutoff time for these communications is Wednesday 14:00 destination plant time. Failure to do so may result in an administrative charge being charged to your Supplier.
- All necessary paperwork must be completed and accurate prior to service provider showing up for pickup.
- All Supplier material will be ready for pickup at window time.
- All Supplier shipping documents (BOL, Packing Slip, etc....) must contain the TMS ME # (Dana's Shipment #) on it.
- Supplier will allow service provider's driver onto dock to inspect, count, and label (if necessary) material prior to loading onto the trailer. If not, the Supplier will be held accountable for shortages and damages. If Supplier's facility does not allow drivers on the dock, Supplier must communicate this information to danainbound@transplace.com.
- Supplier must use the service provider (carrier and mode) identified in the routing guide, by Dana's Lead Logistics Provider (LLP), or by the Ordering Dana Plant.
- Supplier will notify Dana's destination plant or LLP a minimum of **24 hours** before scheduled pickup on any exceptions. (i.e. material not ready, additional material being shipped, not shipping the agreed quantities, etc...)
- Supplier will contact Dana's LLP operational team when a service provider is 30 minutes late for a scheduled pickup.
- Any Supplier requirements that will be shipped late must be communicated to the Dana receiving plant contacts as well as Dana's LLP representatives.
- Supplier will consolidate multiple Less than Truckload (LTL) shipments that are going to the same consignee on same day into a single order.
- Supplier will communicate all exceptions to Dana's destination plant or LLP immediately for resolution.
- All necessary documentation must be provided on International / Intercontinental shipments to provide entry into the ship to destination.



- Any deviation without authorization resulting in excess freight charges will be debited back to the Supplier.

Failure to comply to instructions above could result in a \$250 administration fee per incident

- Example(s)
 - Supplier does not put the TMS ME # on their Bill of Lading. Supplier would be debited \$150 for failure to follow above instructions.
 - Example: Supplier used an unapproved carrier that resulted in an increase cost to Dana of \$100. The Supplier would be debited \$250 for failure to follow instructions.

8.3 Additional Instructions for Commercial Vehicle (CV) Suppliers that the use" One Network" Order Management Solution (OMS)

- Suppliers for Dana's CV Business Unit using OMS to enter an Advanced Shipping Notice (ASN) or EDI 856 must also ensure that there is a corresponding shipment in the TM system. If there is not a shipment in the TM system, then the Supplier will need to log into the TMS system with the TMS logon and enter the shipment details as describe above.

8.4 Shipping Instructions and Mode Selection

Truckload (TL)

- Truckload Ground Criteria:
 - Shipments greater than 20,000 lbs. to 44,500 –OR- more than 20 linear feet to 53' feet.
- Instructions:
 - Baseline Shipping Schedule – (Planned Truckload Shipments) If Supplier utilizes TL on a standard weekly schedule, Supplier must arrange a Baseline Shipping Schedule with the receiving Dana facility. This is considered a "Planned Load" with specific pickup and delivery time windows. The Baseline Shipping Schedule is confirmed every Wednesday by 23:59 PM for the following week.
 - Unplanned Truckload Shipments: Drop in shipments or unplanned loads require prior Dana notification and approval. Supplier must notify the receiving Dana plant that it is scheduling an unplanned load. Unplanned loads must be communicated to the ordering Dana Plant 24 hours in advance. Please contact your Dana plant material planner.
 - Supplier must include the TMS ME Load Number on the Bill of Lading.

Premium Shipments

- Instructions
 - All premium shipments will be scheduled by the paying plant's team members. Please contact them if you need a premium shipment that Dana is paying for.
 - All premium shipments by a Dana team member will be scheduled through Active-on-Demand via their website or by calling 800-872-5387.
 - All Supplier-caused premium shipments will be flagged for premium recovery of costs and debited back to the Supplier. Reason Codes RCMC= Customer issue, RCSQ= Supplier Quality or RCSU = Supplier Behind Schedule.



Less than Truckload (LTL)

- LTL Ground Criteria:
 - Shipments weighing 151 lbs. to 20,000 lbs. -AND- is less than 20' linear feet.
- Instructions:
 - All shipments that are in Dana's TMS will be schedule for pickup the next day.
 - Suppliers must allow for a minimum 2-hour pickup window.
 - LTL service is not guaranteed, if picked up on time it will deliver by 1700 on delivery date based on individual carrier transit for the lane.
 - Weekend (Saturday/Sunday) and holiday pickups and deliveries are not available with this service.
- Paperwork: Supplier Shall:
 - Use commodity descriptions associated with the provisions of the National Motor Freight Classification- NMFC.
 - These descriptions should be noted on the bill of lading and include Dana FAK 50 - example.
 - Automotive Parts Item 18540 Sub 1: Drive shafts without universal joints, with or without yokes class 60 = Dana FAK 50.
 - Use one Bill of Lading Per Destination: Consolidate one days' worth of shipments onto one Bill of Lading for each destination.
 - Hazardous materials should be classified, packaged, labeled and shipped by DOT regulations. MSDS sheets must be provided.
 - Write "Service Requested" on the bill of lading. Example = Economy or Priority.
 - Include the TMS ME Load Number on the Bill of Lading.

Parcel – Small Package Freight

- Suppliers are authorized to arrange Small Parcel shipments per the below instructions:
- Parcel Freight Criteria:
 - Shipments can only be 150lbs or less.
 - Suppliers can only ship a max of 1 shipment per day and 3 shipments per week to the same destination.
- Instructions: Only Ship via FedEx. www.fedex.com
 - Shipment cannot be shipped on a pallet.
 - Shipment can be contained in multiple cartons.
 - If shipping multiple cartons, use one FedEx Label per shipment.
 - Include the address on each carton and number them "1 of X" cartons.
 - Verify correct address on label to avoid additional charges.
 - Verify you have the correct FedEx Account number for the receiving Dana Plant.





- All shipments destined for Mexico through Laredo must be shipped to Dana's broker warehouse in Laredo as follows:

GONTOR Forwarding Corp.
c/o Dana XXXX (Dana Mexico Plant)
13713 Unitec Dr.
Laredo, Texas 78045
Tel (956) 729 49 00 Ext 4960
Attn: Victor Anaya

- Shipments destined for Mexico to Dana Chihuahua plants must be shipped to Dana's broker warehouse in El Paso as follows:

IBCA
c/o Dana Chihuahua
9620 JOE RODRIGUEZ STE 3
EL PASO, TX 79927, US

8.5 Paperwork Requirements – Order Entry

Bill of Ladings ("BOL") Requirements:

- All BOLs must contain the following reference points:
 - TMS ME Load Number, example 888777
 - BOL #
 - Shipping Weight
 - Pallet Count
 - Piece Count
 - Item description(s)
 - proper freight classification(s)
 - 'Bill To' address
 - Proper Payment Term (Prepaid, Collect, or 3rd Party)
- All 'Special Instructions' that are provided in the shipment communication detail

NOTE: Missing information may cause delays and additional costs to Dana. The Supplier will be responsible for any additional costs for improper or uncomplete BOLs.

- 'Bill To' Notes:
 - All '3rd Party Bill To' BOLs must list the Dana Paying Facility.
 - All BOLs include the "Consignee or ship to" address.
- For all Collect and 3rd Party Bill To shipments, Supplier BOLs must contain one of the following "Freight Payment Bill To" addresses:

US & Canada Shipments TL & LTL

Dana Global Logistics
c/o Transplace
P.O. Box 425



Lowell, AR 72745

Intra-Mexico Shipments

TRANSPLACE DE MEXICO S DE RL DE CV

RFC: TME080527TY3

DR ANTONIO VERA #2 PISO 12

COL. SAN JERONIMO

C.P.64640

MONTERREY N.L. MEXICO

Cross-Border Shipments

TRANSPLACE MEXICO LLC

EAST POINT DRIVE #11302-A

SUITE 500, S/C,

LAREDO, TEXAS - USA

ZIP CODE 78045

8.6 Additional Requirements

Special Reference Points:

- Dana Ref #: Dana reference # for the shipment (customer order #).
- Shipper BOL: Supplier must put TMS's ME Load Order Number on their BOL.
- Shipper Billing Ref. #: Use the TM System's ME Load Order Number.
- Commercial Invoice Number: Essential reference # for all Border crossing shipments to facilitate the shipment match at border.
- Carrier PRO Number: LTL carrier tracking number.
- Carrier Communication Comments Only: Comments updated by user in this field will print on the load tender as instructions for carrier to follow.
 - Multiple Shipments (LTL) - Shipments within the same day to the same consignee must be consolidated:
 - Use commodity descriptions associated with the provisions of the National Motor Freight Classification. These descriptions should be noted next to the commodity descriptions on the BOL.
 - Example: Driveshaft Item 18540 Sub 1 without universal joints, with or without jokes Class 60 or Sub 2 with Universal joints Class 85. = FAK 50
- Hazmat Materials - Must be classified, packaged, labeled and shipped by DOT regulations.
 - Material Safety Data Sheets (MSDS) - Must be sent with the shipment and to Customs Compliance prior to the shipment of liquids or lubricants.

International Customs Documents

- Must accompany all international shipments and are the Supplier's responsibility.
 - If shipping Machinery across any borders, please provide information to prove Country of Origin.