



KONGSBERG
AUTOMOTIVE

Supplier Logistics Manual

Kongsberg Automotive



Enhancing the driving experience

February 2015

Preface

The supply chain organization at Kongsberg Automotive contributes to manufacturing excellence in quality, cost and delivery to the customer. In particular, the supply chain function assures the on-time delivery of component material and shipment of finished goods at the lowest cost.

Continued improvement in our global supply chain systems is and will continue to be a competitive advantage for Kongsberg Automotive.

1 INTRODUCTION

1.1 Purpose

This logistics manual (“Logistics Manual”) has been created to assist our suppliers in understanding the expectations and logistics requirements when supplying goods to Kongsberg Automotive.

The purpose of this document is to clarify the requirements that Kongsberg Automotive (“KA”) has on the suppliers with regard to logistics / supply chain management.

1.2 Scope

The document describes the minimum requirements for which the supplier has responsibility. However, system improvements that exceed the requirements specified in this document are always encouraged.

The requirements presented in this document and all related documents, are provided as a complement to, and do not replace or alter any Purchase Agreement, the Kongsberg Automotive General Purchasing Conditions (“KA GPC”), Supplier Quality Manual, or requirements included in applicable engineering drawings, specifications or other contractual documents.

Specific logistics details to be defined in the Blanket Purchase Order, or a Logistics Agreement between the legal entities of supplier’s delivery location and KA’s receiving location, as applicable.

1.3 Application

The expectations and requirements described in this manual apply to all suppliers of serial production products supplying to an affiliate or subsidiary of Kongsberg Automotive Holding ASA (such affiliate or subsidiary and Kongsberg Automotive Holding ASA are collectively and individually hereinafter referred to as “Kongsberg Automotive” or “KA”). Suppliers must meet all applicable requirements specified herein. Acceptance of any and/or all purchase orders constitutes acceptance by the supplier to comply with the requirements in this document.

1.4 Implementation

Suppliers are responsible for the development, documentation, implementation and maintenance of their processes to support the requirements in this document. The suppliers are encouraged to implement MMOG/LE as a guideline for their supply management process.

2 LOGISTICS ORGANISATION

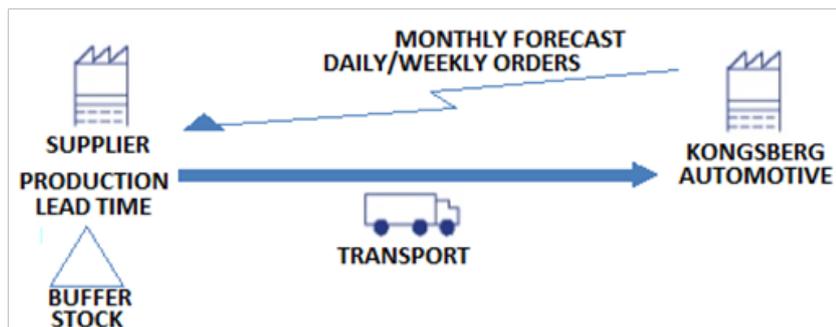
Supplier should set up an independent and professional logistics management department and establish a corresponding clear and complete organizational structure. The departments will directly report to senior management of the company.

For each position in the logistics department, there is a detailed job responsibility described and approved by the management personnel with signature.

3 PROCESS DEFINITION

3.1 Delivery Model

The delivery model describes the physical flow of material between supplier and Kongsberg Automotive plant.



Details regarding organization of the process between KA and the supplier are defined in the Logistics Agreement.

3.2 Communication

Questions and inquiries regarding delivery dates, current delivery situations and the location of the dispatched goods must be answered by the supplier immediately, or within a time agreed with Kongsberg Automotive material specialist in charge.

For the handling of purchase orders and deliveries, the permanent contact persons and their substitutes shall be named in writing. These must be able to make decisions competently and reliably and take the necessary actions within the relationship between the customer and the supplier.

3.3 Contact List

Supplier must deliver all contact details including names, e-mail addresses and phone numbers for all people involved in supply chain process. Same type of details is presented by Kongsberg Automotive in the same document.

If needed, contact details of forwarder must be filled in as well.

Contact details to be reviewed and updated as soon as any personnel change appears.

4 ELECTRONIC DATA INTERCHANGE (EDI)

4.1 Means of EDI

Kongsberg Automotive has a target to achieve 100% Electronic Data Interchange between Kongsberg Automotive and the Supplier to eliminate manual interference in the information flow. It is the intention of the Parties to render their exchange of information more effective by replacing the flow of paper between them with EDI. The manual interference is often causing considerable delays and severe errors that can cause expensive and urgent actions from Kongsberg Automotive and the Supplier. This guide details the usage of EDI to ensure that Kongsberg Automotive and the Supplier can communicate in a flawless way that is understood and agreed by the Parties.

Electronic communication shall be implemented, including sending and receiving capabilities with all suppliers, sub-contractors and logistic providers.

The supplier shall have the capability to interface with the Kongsberg Automotive receiving plant through one of the following solutions:

- Full EDI (preferred):
 - Based on automotive standards and practice in the applicable region
 - Refer to Kongsberg Automotive EDI specification for more detailed information (EDIFACT DELFOR D97A).
- Web-EDI:
 - KA Web-EDI solutions as defined per region

Please contact edisupport@ka-group.com for any questions regarding EDI set-up for your company.

4.2 Delivery Notification

Electronic Delivery Notification (Advanced Shipment Notification (ASN) or Despatch advise message (DESADV)) must be delivered at the moment of truck departure from supplier plant. It is used by Kongsberg Automotive to monitor the materials in transit and to simplify the receiving procedure.

Timely and accurate submission of electronic Delivery Notification is required for improvement of supply chain effectiveness.

Electronic Delivery Notification submission is an important input for the evaluation of supplier delivery performance.

5 DELIVERY SCHEDULES

5.1 Applicable Calendar

Supplier is expected to support collections based on Kongsberg's Automotive working calendar (working days, holidays, factory shut-downs), defined by KA in an appendix to the Logistics Agreement. If the supplier plant is on holiday, the supplier must take special action to ensure that all documents are printed and parts are prepared on time for collection or delivered on date mentioned in schedules (depending on Incoterms).

5.2 Delivery Time and Quantity

Kongsberg Automotive requires all suppliers to provide 100% on-time delivery performance with the correct quantity, documentation, packaging and labeling. Monitoring of performance levels in this area will be ongoing with

formal reporting on a monthly basis (see section 10). To further clarify this, we consider unauthorized early or late deliveries and partial or over shipments to be unacceptable. The quantity shipped per order or release cannot vary from specified quantity without the consent of the material specialist who is responsible at the receiving plant.

5.3 Acceptance of Delivery Schedules

Supplier is obliged to review received schedules from Kongsberg Automotive and alert Kongsberg Automotive material specialist in charge within 24h in case of facing any constraint in fulfilling the demand. Otherwise, the supplier is considered as able to meet Kongsberg Automotive needs.

6 CAPACITY MANAGEMENT

6.1 Manufacturing Capability

Suppliers are expected to have the resources necessary (people, property, facilities, equipment, and materials) to supply the products required to meet Kongsberg Automotive's production schedule. Supplier is obliged to inform KA material specialist, logistics manager, operational buyer by mail within 24h from identification of the constraint.

6.2 Capacity

Suppliers to Kongsberg Automotive shall be able to provide a weekly capacity as defined in Project documentation. Generally this capacity shall be met by maximum 2 shifts per day and 5 days per week.

Please note that any capacity figures, provided by Kongsberg Automotive to Supplier, are for planning purpose only and do not represent a binding commitment.

6.3 Flexibility

If not otherwise agreed in writing, in order for Kongsberg Automotive to be able to meet our customers' fluctuating demands, it is required that the suppliers have the flexibility to meet week over week schedule changes of $\pm 15\%$. This will normally be balanced over time.

The above requirement is valid during the stable production phase. During ramp-up and phase out of parts the flexibility must be increased so it is adapted to the lower level of production.

The flexibility requirement can generally be met by keeping a safety stock, see 6.4.

6.4 Safety Stock

If required by KA due to supplier performance, the supplier agrees to keep safety stock in order to meet Kongsberg Automotive's requirements with regard to Flexibility. Details on the safety stock will be defined in the Logistics Agreement.

6.5 Consignment Stock

In certain cases, depending on transport time, type of product etc. it might be recommended that the supplier sets up a Consignment Stock at, or close to, Kongsberg Automotive plant. Details for this will then be agreed in a separate Consignment Stock Agreement.

7 PACKAGING

7.1 Packaging Proposal

Proposal of packaging for each part number is presented by supplier and approved by Kongsberg Automotive after packaging trial. The proposed packaging is defined for each part number separately in the Packaging Proposal Form (an appendix to the Logistics Agreement), which is to be signed by supplier and approved by Kongsberg Automotive.

7.2 Packaging Guideline

Proposed packaging shall be in accordance to Kongsberg Automotive Standard Packaging List, which provides an overview of possible container dimensions and types. For standardization reasons, deviations from this catalogue are only possible in justified exceptional cases and must not cause additional costs for Kongsberg Automotive.

General Requirements:

- There must be only one part number per container
- All parts must be shipped in a standard off-the-shelf packaging if appropriate
- Packaging must be able to withstand international shipments overseas
- Total palletized weight must not to exceed 1000 kg (or in line with the legal requirements in the country of use)
- Unit load sizes should be sized to optimize the density in a sea container and must not exceed 107 cm

Box Requirements:

- Boxes must have all readable barcode labels facing out
- Boxes must be affixed to the pallet by stretch-wrap or banding
- A box cannot extend beyond the edges of the pallet; the corners of the carton must be supported by the deck board of the pallet
- Carton boxes must be of appropriate corrugated board strength to ensure pack integrity based on the size and weight of the container and the shipping method
- All containers must be able to withstand, at minimum, the weight of a pallet of like parts double stacked upon it inside a sea container
- If additional stacking strength is needed, corner posts are to be used
- Corner posts must be affixed to the corrugated carton

Pallet Requirements:

- Pallets must have four-way forklift entry
- Pallets must be of durable construction; no pine pallets are allowed
- Pallets must be sized correctly to optimize the density per sea container and in order to fit the carton(s)
- Returnable pallets are to be used where economically feasible

Other Requirements:

- Components with “sensitive” surface must be packed with protective material
- ESD (Electrostatic Discharge) protection and VCI (Vapor Corrosion Inhibitor) must be used when appropriate
- Moisture Resistant Adhesive (MRA) is recommended for all corrugated shipping overseas
- All wooden material packaging (especially pallets) shall be according to IPPC (International Plant Protection Convention) standards

7.3 Returnable Packaging

If returnable packaging is requested from Kongsberg Automotive or our customers this will be defined in RFQ and in Logistics Agreement (or purchase order).

7.4 Change of Packaging

In case of necessity to redefine or change packaging, Packaging Proposal Form must be filled in once more and sent to Kongsberg Automotive for approval.

8 LABELS AND DOCUMENTS

8.1 Label Requirements

The adherence to labeling requirements will be continuously monitored. Non-compliance may result in an administrative claim.

Labels must be according to automotive standard (see www.aiag.org or www.odette.org)

8.2 Prototype and Pre-series Labels

For any delivery of prototype or pre-series parts, as well as in case of engineering change new batches must be marked with special labels, which are placed in a highly visible area and have a different color.

8.3 Documents

All shipments must be accompanied by appropriate documentation. Documentation may include, but not limited to, packing slip, bill of lading, NAFTA certificates or other needed documentation depending on area, commercial invoices and hazardous materials information. A Delivery Notification must be attached to one of the skid/pallet in each shipment.

9 TRANSPORT

9.1 Delayed Notification

Delayed notification of the forwarding company by the supplier can cause postponements, which can in turn lead to shortages. Proof of any late notification is provided by the forwarding company. Any costs for expedited shipments shall be paid by supplier.

9.2 Disruptions

All disruptions must be notified to the material specialist in Kongsberg Automotive and the forwarding company immediately, giving the reason for and type of disruption.

9.3 Emergency Shipments

Expedited shipments at Kongsberg Automotive expense must be always agreed with the material specialist in charge in writing.

10 DELIVERY PERFORMANCE

Kongsberg Automotive is monitoring supplier delivery performance with reporting on a monthly basis. Every delivery is compared with last release of the schedules and evaluated based on following rules:

- Score for delivery date on target: 0,5
- Score for delivery quantity on target: 0,5
- Maximum score per delivery 1,0

$$\text{Delivery performance} = \frac{\text{Score date on target} + \text{Score quantity on target}}{\text{Total number of deliveries}}$$

Example:

| | | QUANTITY | |
|------|-----|----------|-----|
| | | OK | NOK |
| DATE | OK | 100% | 50% |
| | NOK | 50% | 0% |

If a production line is shut down due to poor quality, late delivery, or incorrect quantity on any shipment, the supplier will be responsible for compensation as defined in KA GPCs.

11 LOGISTICS CLAIM

11.1 Logistics Non-compliance

Any deviation with regard to Kongsberg Automotive requirements on time, quantity, documentation, packaging, labeling is considered a Logistics non-conformance.

The following types of claims can be registered:

Quantity:

- Actual delivered quantity deviates from requested quantity in current schedule

Date:

- Actual delivery date deviates from requested delivery date in current schedule

Part number:

- Delivered wrong part number or mixed parts

Document:

- There is discrepancy in quantity between physical delivery and delivery documents
- Missing documents
- Wrong information of documents

Label:

- Missing label.
- Label with wrong information

Delivery Notification/ASN

- Missing Delivery Notification/ASN
- Wrong information sent in Delivery Notification/ASN

Packaging:

- Packaging not according to approved Packaging Instruction
- Damaged packaging

Communication:

- Lack of effective communication with supplier

For all such cases, supplier will be notified with an administrative claim. Number of claims will be measured and included in Supplier performance reporting.

11.2 Delay Claims

If suppliers fail to deliver parts as per the given time and quantity, which makes Kongsberg Automotive suffer from production stoppage, retrofit, production adjustment and order placed with a third party, the supplier shall compensate Kongsberg Automotive according to the KA GPC. The standard claim values are set by each KA plant.

12 SUPPLIER ESCALATION PROCESS

12.1 Purpose of Supplier Escalation Process

The supplier escalation process is a formalized method of working, when handling supplier related problems in Kongsberg Automotive production and projects. The intention is to monitor supplier performance data, to prioritize and to focus on poor performers and to use a structured approach to problem solving, with the target to improve supplier performance.

12.2 Escalation Criteria, Levels and Consequences

This is an overview over the Logistics Supplier Escalation levels and consequences:

| Esc. level | Criteria | Status | Impact |
|------------|---|-----------------------------|--|
| 2 | <ul style="list-style-type: none"> • Action plan from normal non-conformance handling not followed and/or not sufficient in order to solve problem or • Repeated level 1 issues or • Delivery issue disturbing KA production | Conditionally Approved (CA) | New business can be awarded under certain conditions |
| 3 | <ul style="list-style-type: none"> • Action plan from level 2 not followed or not sufficient in order to solve problem or • Repeated disturbances to KA production or • Delivery issue disturbing KA's customer's production | New Business on Hold (NBH) | New business cannot be awarded |

12.3 Expectations on the Supplier

The supplier is expected to ensure that there are resources dedicated to working on the issue causing the escalation. The supplier must confirm the reception of the letter, provide, recovery plan, root cause analysis and action plan, and participate in follow-up meetings as requested by Kongsberg Automotive.

There shall be targets set for the supplier to achieve, in order to close the escalation. When these targets are met the supplier will be de-escalated.

13 END OF PRODUCTION (EOP)

At the EOP of a product, Kongsberg Automotive expects the supplier to contribute to minimizing the risk for obsolescence. This means that the supplier must plan to consume safety stock before EOP. The previously agreed min. order quantity (MOQ) can then be revised by Kongsberg Automotive based on actual demand.

Kongsberg Automotive commits to communicating product end dates as soon as they are known.

13.1 Claims

The supplier commits to informing Kongsberg Automotive about its claim related to the end of production of a part, based on their inventory (components and finished products), and the applicable Material Authorization times. Any acceptance from Kongsberg Automotive regarding costs for obsolete material does not free the supplier from providing spare parts according to the agreement, or gives the supplier the right to scrap any tool owned by KA or KA's customer, unless explicitly approved by KA in writing.

13.2 Material Authorization

Unless otherwise agreed in writing, the Kongsberg Automotive general authorization times are applicable:

| Authorization | Liability period | Delivery Schedule Release Code |
|----------------------------------|---------------------|--------------------------------|
| Fabrication authorization (FAB) | 2 weeks (day 1-15) | 1 |
| Raw material authorization (RAW) | 6 weeks (day 16-45) | 2 |
| Forecast only | Day 46- | Blank |

The authorization means that, should the demands drop, Kongsberg Automotive accepts liability for the material produced or purchased within the defined FAB and RAW authorization times. This does not mean that the periods are fixed.

In the event that obsolescence occurs due to discontinuation of a part, the highest RAW and FAB authorizations must be identified through reviewing the schedule release history. Kongsberg Automotive does not accept liability for any raw material or produced parts outside the RAW and FAB authorizations.

14 SUB-CONTRACTING

All subcontractors are obliged to report scrap quantity to KA at least once per month, in order to correctly track the inventory being under KA ownership. The report shall contain information on number of scrapped parts with explanation of reasons.

15 EMERGENCY SITUATIONS – CONTINGENCY PLAN

A contingency plan must be defined in order to secure continued supply of goods to Kongsberg Automotive, should the supplier enter into an emergency situation. The contingency plan shall be a appendix to the Logistics Agreement.

16 MMOG/LE SELF ASSESSMENT

Materials Planning and Logistics (MP&L) is the process of managing the procurement, movement, and storage of materials, parts, and finished goods (and the related information flows) throughout the organization through the timely and cost-effective fulfillment of orders.

The Materials Management Operations Guideline/Logistics Evaluation (MMOG/LE) is an assessment tool jointly created by the Automotive Industry Action Group (AIAG), Odette representatives, OEM representatives, and automotive suppliers, in order to assist organizations in developing and implementing world class MP&L processes. It defines recommended business practices for the supply chain management processes of automotive industry suppliers, and is intended to establish a common definition of materials practices to facilitate effective communication between supply chain partners.

The purpose of the MMOG/LE, as well as the reasoning behind the deployment of this by KA, is to produce one common material planning and logistics evaluation that can be used by the supplier and customer throughout the product life cycle, including the early development phases.

MMOG/LE self-assessment is part of logistics evaluation. Suppliers to Kongsberg Automotive are encouraged to use MMOG/LE as a self assessment tool, and it is recommended to follow a training course in MMOG/LE with a certified training society, before self-assessment.

Kongsberg Automotive reserves the right to field an inspection mission to examine the supplier's MMOG/LE implementation and to take part in logistics reviews to monitor the supplier's logistics action plans. MMOG/LE documentation is available on Odette and AIAG web site.

17 RELATED DOCUMENTS

All related documents, as well as our requirement documents (Kongsberg Automotive General Purchasing Conditions and Kongsberg Automotive Supplier Quality Manual) are available through Kongsberg Automotive Internet site:

www.kongsbergautomotive.com/for_suppliers/

The related documents are:

- Kongsberg Automotive Standard Packaging List
- EDIFACT DELFOR D97A
- FO-IT-006-KA EDI Parameter Form
- FO-LG-003-KA Contact List
- FO-LG-004-KA Packaging Proposal Form
- FO-LG-005-KA Premium Freight Approval Request
- FO-LG-006-KA Scrap Inventory Report
- FO-LG-007-KA Emergency Situation - Contingency Plan



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