



TRIUMPH Supply Chain Management Procedure

SCMP 5.2 — Supplier Performance Measurement

Revision Level: H

Released Date: 03/27/2024

Effective Date: 04/05/2024

1. Process Owner

- 1.1. TRIUMPH Quality Management and TRIUMPH Supply Chain Management (TGSCM). No changes may be made to this document without the approval of TSCM leadership. TSCM leadership may delegate this authority as needed to accommodate absences and vacancies.

2. Applies To

- 2.1. TRIUMPH Supply Chain Management, TRIUMPH Supplier Quality Management and TRIUMPH Companies as noted in the TRIUMPH Supplier Quality Assurance Manual (SQAM).

3. Purpose

- 3.1 To define the methodology for measuring TRIUMPH Supplier performance for delivery and quality performance

4. Reference Documents

- 4.1. SCMP 2 1 Supplier Corrective Action
- 4.2. SCMP 2.2 — Supplier Performance Improvement Program
- 4.3. SCMP 8.1 Supplier Product Conformity Assessments
- 4.4. SQAM001 — TRIUMPH Supplier Quality Assurance Manual
- 4.5. TSCMT 5.2 Quality Data Upload
- 4.6. TSCMT 5.3 Delivery Data Upload
- 4.7. Form SCMP 5.2 (a) OTD Delivery Data Template
- 4.8. Form SCMP 5.2 (b) OTIF Delivery Data Template
- 4.9. Form SCMP 5.2 (c) Quality Data Template
- 4.10. Form SCMP 5.2 (d) Group Nonconformance Codes
- 4.11. OTIF Upload Instructions, Power Point Presentation, dated, 06/14/22

5. Definitions and Acronyms

- **Delivery Data On-Time Delivery (OTD)** -Data that reflects a Supplier's pieces received on time versus the total number of pieces received over a given period
- **On-Time in Full (OTIF)** - Data that reflects a Supplier's delivery lines received on time in full versus the total number delivery lines received per PO line-item details. Metric is reported monthly
- **Quality Data-** Data that reflects a Supplier's quality performance over a given period
- **SCMP-** Supply Chain Management Procedure
- **TSCMT-** TRIUMPH Supply Chain Management Training
- **UOM-** Unit of Measure



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6. Responsibilities

- 6.1 TRIUMPH Purchasing, Quality and Supply Chain Management will gather, organize, and upload for the subsequent rating and review of Supplier delivery and quality performance in compliance with the requirements of this document.

Other responsibilities are defined in the body of this procedure.

7. Procedure

7.1 Delivery Data Submissions Requirements

- 7.1.1 Each reporting period (one month), TRIUMPH Companies shall upload data to the TRIUMPHsupplysource.com web portal for calculation of the cumulative delivery metric.

- OTD will be uploaded between the 1st and the 5th business day of the month.
- OTIF will be uploaded by the 4th business day of the calendar month.

Note: OTIF Reporting Month is defined as the 26th calendar day of the previous month to the 25th calendar day of the current month.

- 7.1.2 OTD data shall be formatted in accordance with Form SCMP 5.2 (a) OTD Delivery Data Template format and uploaded in accordance with TSCMT 5.3. OTIF data shall be formatted in accordance with Form SCMP 5.2 (b) OTIF Delivery Data Template format and uploaded in accordance with OTIF Upload Instructions, Power Point Presentation, dated, 06/14/22, located in Q-Pulse and the TRIUMPH Portal under the 'Upload', Delivery Data- OTIF.

- 7.1.3 The full submission shall include the requested data resulting from any direct material receipt transaction in the reporting period.

- 7.1.4 Note that no calculation of actual delivery metrics is required. The system infrastructure will calculate the delivery metrics for each TRIUMPH Companies and at the TRIUMPH cumulative level.

7.2 Quality Data Submissions Requirements

- 7.2.1 Each reporting period (one month), TRIUMPH Companies shall upload data to the TRIUMPHsupplysource.com web portal for calculation of the cumulative quality metric between the 6th and the 10th business day for the previous month's Supplier performance.

- 7.2.2 Quality data shall consist of all rejection activity chargeable to a supplier regardless of point of detection, i.e., at Supplier, receiving, in-process, stock purge, etc. Data for the corrective action and notification of escape components of the scorecard come directly from the Supplier Portal E-



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SCAR and E-NOE utilities. For E-SCAR and E-NOE, no manual data upload is required.

- Note that no calculation of actual quality metrics is required. The system infrastructure will calculate the quality metrics for each TRIUMPH Company and at the TRIUMPH cumulative level.
- The data shall be formatted in accordance with Form SCMP 5.2, (b) Supplier Quality Performance Template format and uploaded in accordance with TSCMT 5.3.
- TRIUMPH Supplier Defect Codes are maintained on Form SCMP 5.2 (c).
- For reject quantities where the non-conformance is being uploaded to capture COPQ only, e.g., supplier submitted non-conformance; enter "0" for the rejected quantity in the corresponding template cell.
- Cost of Quality charge as defined in Section 4 of the SQAM001:
 - TRIUMPH will determine the need to impose a \$300 (USD) administrative charge for each nonconformance document chargeable to a TRIUMPH Supplier

At the discretion of the TRIUMPH business unit:

- A rework/repair charge (USD) for each part requiring rework/repair by TRIUMPH or TRIUMPH Customer personnel, (amount as determined by actual/estimated rework/repair cost) or,
- Part and / or material charges (USD) per purchase order or contract pricing for each part and / or material scrapped at TRIUMPH Companies its customer (amount as determined by scrap cost).
- Additional charges may also apply where parts or materials, as supplied by TRIUMPH and/or its customer, require scrapping at the Supplier because of the Suppliers actions (amount as determined by scrap cost).

7.3 Supplier Contested Data

- 7.3.1 Within 10 days after issuance of Supplier performance reports, TRIUMPHsupplysource.com allows Suppliers to contest a delivery (OTD) or quality data metrics. Suppliers may submit an electronic appeal concerning specific issues via TRIUMPHsupplysource.com. The



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appropriate TRIUMPH Company shall review and disposition the appeal within 10 days of the Supplier submittal.

Each missed OTIF purchase order line is contested automatically once the data is uploaded. Cause codes can be designated at time of upload or via TRIUMPHsupplysource.com. Cause codes are defined as follows:



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PO line goes from Not On Time to On Time			PO line remain Not On Time		
Triumph Liability			Supplier Liability		
T1	Delayed at book in	Based on evidence, for example, Fedex arrival Jul 1st, booked in/onto the system Jul 15th.	S1	Capacity / Planning	Supplier has capacity issue to produce on time. Supplier has issue to prioritize production, shelf life not well managed, ...
T2	PO management	PO due date/Commit date not properly maintained on the system PO raised inside LT...	S2	Manufacturing	machine breakdown, tool broken, un-planned maintenance, Utility issues, Labor issues (e.g. strike, absenteeism, Covid), Weather
T3	Transportation delay	Pending on the Incoterm, to be used if the transportation is under Triumph. Need to have evidence that the shipment was done on time.	S3	Transportation delay	Pending on the Incoterm, to be used if the transportation is under Supplier. Valid even if the shipment was done on time.
T4	Demand Fluctuation	Demand been changed in a too short period of time (for example, shipment was already on the way).	S4	Documentation issue	Triumph Goods Received are not able to book in due to missing / incorrect documentation
T5	Triumph as a Sub-tier late	Supplier was waiting for Triumph to provide CFM (Customer Furnished Material), and cause production to be delayed. Supplier was waiting for a inspection report (e.g. Cyient), where we instructed them to use Cyient... and caused the shipment to be delayed.	S5	Supplier Sub-tier late	Raw material, chemical processes, heat treatment, component, machining, sub-tiers late causing delay to final delivery to Triumph.
T6	Technical / Drawing / Spec issue	Supplier was waiting for Triumph to provide drawings, spec, and caused production to be delayed. Drawing issue (dimensions, tolerances, missing). Specification clarity, causing delay.	S6	Scrap and re-work	Internal quality failure causing delay to final delivery to Triumph.
T7	Test failure / internal reject	Parts failed test at Triumph, but they conform to the drawing.	S7	Quality	Parts rejected by Triumph
T8	Other Triumph liability	cause cannot be found in above categories, and need to be specified.	S8	Other Supplier liability	cause cannot be found in above categories, and need to be specified.

7.4 Supplier Delivery Performance Review

7.4.1 Supplier delivery performance will be calculated on the following purchase order types:

- Discrete purchase orders where a delivery date is specified for an associated purchase order line item.
- Deliveries of any materials (direct materials) on a discrete purchase order with a specified delivery date on the associated purchase order line item
- Deliveries of any materials (direct materials) that are triggered by a pull system that is associated with a discrete purchase order or for which a purchase order line item with a delivery date is generated at the time the pull signal is issued to the supplier
- Deliveries of parts sent for outside processing or subcontract operations that are sent out to the supplier under a discrete purchase order or for which a purchase order line item with a delivery date is generated at the time the part goes out for the process/operation
- Indirect materials and services, new production introduction (NPI) and First Article Inspection (FAI) line items are exempt and are not required to be measured



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- 7.4.2 “On-Time” for the purpose of supplier performance calculation will be based on the contracted due date on the purchase order. This is the original on-dock date TRIUMPH and the supplier agreed to when the purchase order was issued and acknowledged formally by the supplier.
- TRIUMPH Companies shall specify contracted due dates on all purchased orders as the required on-dock date. (Suppliers and sites must not accept a supplier ship date as a purchase order due date.)
 - It is understood that the contracted-on dock date may be changed after the purchase order is issued if such a change is agreed formally between TRIUMPH and the supplier. These changes should be made in accordance with the site-specific business practices and procedures and the new contract date should ALWAYS be entered into the site ERP system. It will be the supplier’s responsibility to ensure the new contract date is updated prior to shipping.
- 7.4.3 On-Time Delivery (OTD) performance ratings will be calculated as a 12-month rolling average of “Percentage On-Time”
- 7.4.3.1 Delivery performance ratings will be calculated as the number of pieces received on time versus the total number of pieces received from a supplier in a rolling 12-month period (i.e., reporting period)
- 7.4.3.2 The percent delivered on time calculation will be as follows:
- $(\text{Total pieces received on time for a reporting period}) / (\text{Total pieces received for same reporting period}) = \% \text{ delivered on time}$
 - The resulting % delivered on time calculation is a measurement of total number of PIECES received on time versus total number of PIECES received
- 7.4.4 On-Time in Full (OTIF) delivery performance ratings will be calculated as a 6-month cumulative rolling average “On-Time in Full”
- 7.4.4.1 Delivery performance ratings will be calculated as the delivery lines received on time in full versus the total number delivery lines received from a supplier in a rolling 6-month period (i.e., reporting period)
- 7.4.4.2 The On-Time in Full calculation will be as follows:
- $(\text{Total delivery lines received at minimum 95\% complete for a reporting period}) / (\text{Total delivery lines for same reporting period}) = \% \text{ On Time in Full}$
 - The resulting % delivered On Time in Full calculation is a measurement of total number of DELIVERY LINES received in full on time versus total number of DELIVERY LINES received



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7.4.5 Units of measure will not affect the calculation. Any one UOM will be viewed as one PIECE

7.4.6 OTD and OTIF delivery performance of Supplier is rated as follows:

OTD/OTIF Performance Level	Supplier Rating
100%	Exceptional
96% - 99.9%	Acceptable = GREEN
90% - 95.9%	Marginal = YELLOW
89.9% and lower	Unsatisfactory = RED

7.5 Supplier Quality Performance Review

7.5.1 The Supplier Quality Scorecard is calculated based on six independent equally weighted components as follows:

- 6-month cumulative delivered Quality Yield rating (percentage of supplied materials / services which meet all specified requirements).
 - Example: 1 piece nonconforming /1500 pieces delivered= 99.93% acceptance yield
- 12-month cumulative Cost of Quality with respect to an estimate or actual Cost of Quality as determined by each respective TRIUMPH Company (COQ / receipt dollars shown as a percentage).
 - Example: \$300 cost/ \$10,000 receipt value = 3% Cost of Quality (COQ)
- Supplier Corrective Action (E-SCAR) First Time Yield (percentage of corrective action responses for previous 12 months that were found acceptable on initial review).
- Corrective action (E-SCAR) Response on Time (percentage of corrective action responses that were submitted on or prior to due date for previous 12 months)
- 12 Month cumulative Notification of Escapes (E-NOE) (number of notifications submitted by the Supplier in the previous 12 months)
- Latest Month Number Notification of Escapes (E-NOE) submitted by the Supplier in latest month.

7.5.2 Distinct nonconformances reported by the Supplier shall not be counted against



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the Supplier's cumulative yield rating but may impact the Cost of Poor-Quality percentage. Repeat nonconformances, which at the judgment of TRIUMPH Companies Quality, that are not adequately addressed by the Supplier utilizing corrective action may be counted against the Supplier's quality rating by raising an eSCAR. Negative trends or duplications in the Supplier's reported nonconformances may also be given due attention and consideration as a reflection of the Supplier's corrective action process viability.

7.5.3 The Supplier Quality Scorecard methodology is available to the Suppliers via the TRIUMPH Supplier Quality Assurance Manual. The Supplier Quality Risk level (shown below ranging in value from 1 to 5, with 1 being low risk and 5 being high risk) is calculated based on evenly weighting the Supplier's performance in each of the six individual components described in section 7.5.1. For the purposes of calculating the risk score, red = 5, yellow = 3 and green = 1 (the total is divided by the number of components rated).

NOTE: If a component has no data to report, then the field will reflect "N/A" and the risk calculation will be adjusted accordingly.

7.5.4 When logged in as a TRIUMPH Company, the Supplier Quality Scorecard will display the performance for that TRIUMPH company as shown in Figure 1.

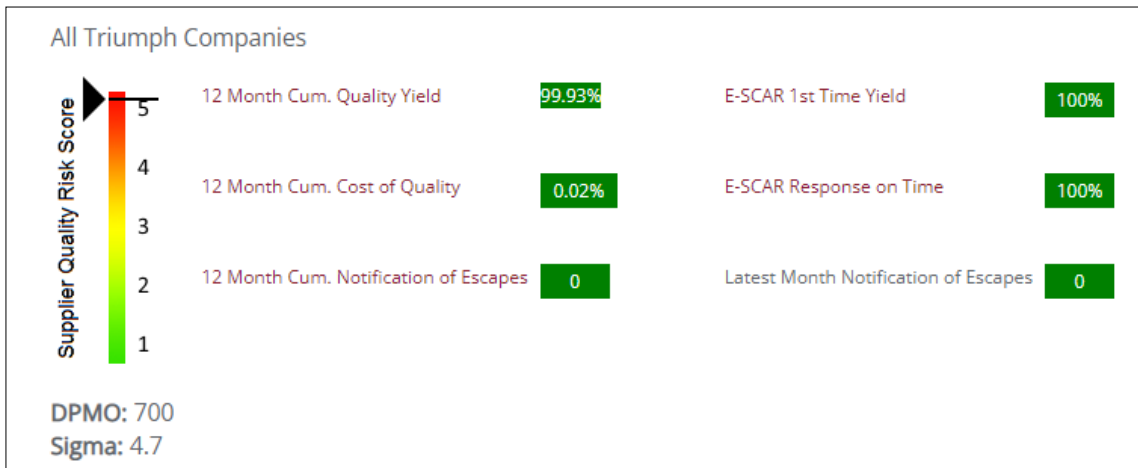


Figure 1 – Supplier Quality Scorecard



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7.6 Supplier Overall Risk Scorecard

7.6.1 The Supplier Overall Risk Scorecard is calculated based on five independent components with unique weighting based on business needs as follows:

- Business Impact- Total amount of business impact (potential revenue impact) identified from each site as defined and documented within the Delivery Assurance Tracking process per SCMP 9.2.
- 6-month Number Notification of Escapes (E-NOE) submitted
- 6-month cumulative delivered Quality Yield rating (percentage of supplied materials / services which meet all specified requirements).
- 6-month OTIF Performance
- 6-month Supplier Corrective Action (E-SCAR) Total number written

7.6.2 The weighting and thresholds for the individual Supplier Overall Risk Scorecard are reflected in Table 1.

KPI's (6 Months)	Green Threshold	Yellow Threshold	Red Threshold
Business Impact	0	>\$0<\$500K	\$500K or More
NOE Count	0	1	2 or More
Quality Yield	100% - 99.50%	99.49% - 98.0%	97.99% - Less
OTIF	100% - 96.0%	95.9%-90.0%	89.0%- less
Total ESCAR's	1 - 2	3 - 5	6 or more
Risk Score	0 - 1.67	1.68 - 3.35	3.36 & Higher

KPI's (6 Months)	Weights		
Business Impact	0	8	10
NOE Count	0	7	9
Quality Yield	0	6	8
OTIF	0	6	8
Total ESCAR's	1	2	3

Table 1 - Supplier Overall Risk Scorecard Component Weights & Thresholds

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7.6.3 Supplier Overall Risk Scorecard will be displayed per Figure 2 within the supplier portal and the overall Risk Level will be displayed on the supplier scorecard. It is suggested that TRIUMPH Companies review Suppliers rated as yellow or red to determine if any detrimental trends are developing.



Figure 2 – Supplier Overall Risk Scorecard

7.6.4 Examples of recommended actions to consider when reviewing supplier risk levels and trends, but not limited to:

- Initiate a performance-based E-SCAR to the Supplier in accordance with SCMP 2.1.
- Initiate a SPIP in accordance with SCMP 2.2.
- Conduct an appropriate audit and/or assessment
- Monitor performance for negative trend.
- Remove delegation if applicable.
- Mandate payment for source inspection in accordance with the SQAM001 requirements.
- Coordinate with other TRIUMPH cross-company suppliers impacting the business
- Conduct a quarterly performance review of their direct part / material and processing Suppliers using the Supplier Quality Scorecard.



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8. Required Forms

- 9.1 SCMP 5.2 (a) — Supplier Delivery Performance Template
- 9.2 SCMP 5.2 (b) — Supplier Quality Performance Template
- 9.3 SCMP 5.2 (c) — TRIUMPH Supplier Nonconformance Codes

9. Required Records

- 10.1 Delivery and Quality performance data
- 10.2 Delivery or Quality contested data notifications

10. Training Materials

- 11.1 TSCMT 5.2 Quality Data Upload
- 11.2 TSCMT 5.3 Delivery Data Upload
- 11.3 OTIF Upload Instructions, Power Point Presentation, dated, 06/14/22

11. Revision History

Revision Level	Description of Change	Effective Date
Original	New Document	10 September
A	Document wide changes too widespread to indicate via change bars	01 April 2014
B	Revise para. 7.1.7 to reflect +3 days late	27 March 2014
C	Revised entire document to reflect new risk-based Supplier Quality Scorecard	05 October 2015
D	Revised to remove reference to Business Unit and replace with TRIUMPH Company (s)	14 April 2017
E	Add AS9100 Linkage and update Process Owner	24 September 2018
F	Revised Section 7.4 to clarify OTD and OTIF delivery performance. Corrected performance verbiage in 7.4.6 to align with SQAM001.	14 January 2022
G	New Revision Supersedes Revision F. Most sections changed to incorporate OTIF and the New Risk Score.	09 January 2023



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H	Revised section 7.1.2 to include verbiage for OTIF Delivery Data template and instructions, added 4.7 to 4.11 to Reference Documents, & added 11.3 to Training Materials.	27 March 2024
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12. Approvals (Authorizing Signatures on File- QMS database, Q-Pulse)

**Vice President, Quality
Director, Supplier Development**