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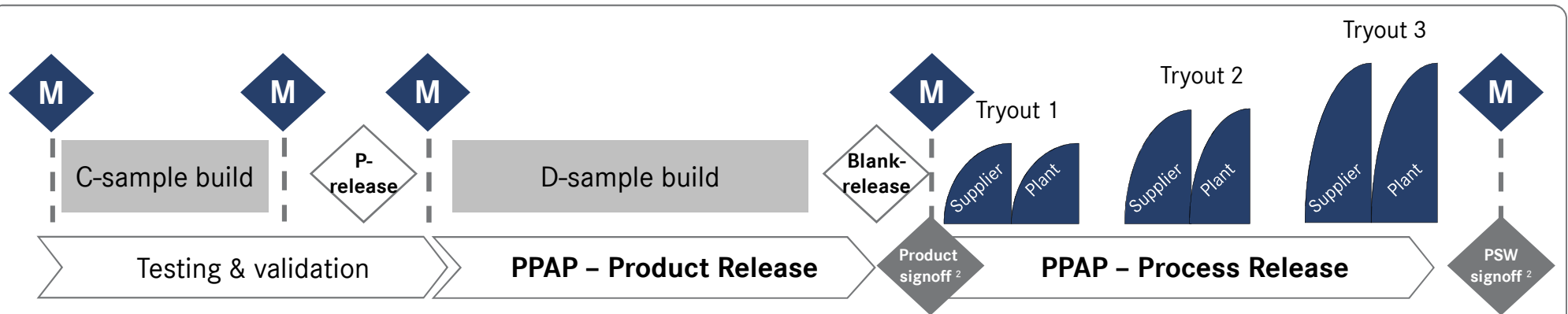
Production Part Approval Process



BHARATBENZ

Daimler India Commercial Vehicles Pvt Ltd.

PPAP process for local series parts¹ as per CVDS 2.0



- ▶ DICV Supplier Management will function as sole coordinator for local purchased parts PPAP.
- ▶ Pre-requisite for PPAP product release is on time **“P-release”** of drawings and LON/contract for series supplier.
- ▶ Pre-requisite for PPAP process release is on-time **“Blank-release”** of drawings.
- ▶ **Product sign-off** is done by SCMQ after successful PPAP part ¹⁾ and **can start as soon as parts are “P-released”**.
- ▶ Signing of **Part Submission Warrant** (PSW) marks the final step of the PPAP after successful completion of PPAP part ²⁾ process release. PSW sign-off **can start as soon as parts are “Blank-released”**.

M Major milestone in Project series

¹ Import parts, DICV in-house parts or after sales parts will follow a different process.

² Product sign-off as well as PSW sign-off can have status “approved”, “conditionally approved” or “rejected”.

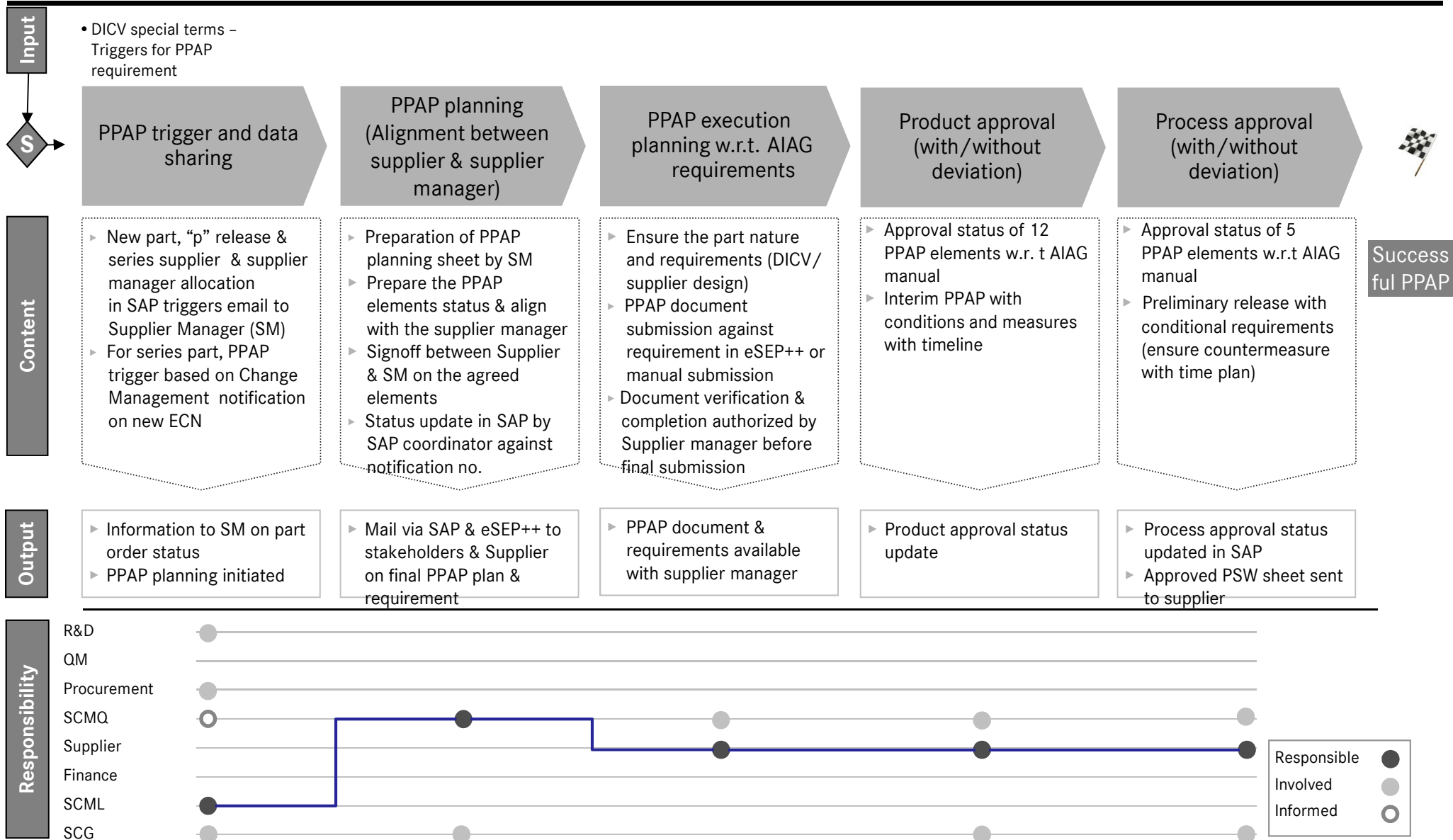
Overview of the 18 PPAP elements as per AIAG

No	Elements description	4	Product release (part 1)	3	Process release (part 2)	2
1	Design record		●		●	
2	Engineering change documents		●		●	
3	Customer engineering approval		●		●	
4	Design FMEA		●		●	
5	Process flow diagrams				●	
6	Process FMEA				●	
7	Control plan				●	
8	Measurement System Analysis (MSA)		●		●	
9	Dimensional results		●		●	
10	Material, performance test results		●		●	
11	Initial process studies				●	
12	Qualified laboratory documentation		●		●	
13	Appearance approval report		●		●	
14	Sample products		●		●	
15	Master sample		●		●	
16	Checking aids		●		●	
17	Records of compliance (customer specific)				●	
18	Part Submission Warrant (PSW)	Shared with supplier after Product & Process release completed				

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Process Description-No. / Production Part Approval Process

Production Part Approval Process



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Process Description-No. / Production Part Approval Process

Detailed process – Output documents

1) PPAP planning sheet

2) Approved Product signoff

3) Signed PSW

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Production Part Approval Process - Planning Sheet

Supplier Name: Brakes India SM Name: _____
Supplier Code: 90500363 SM Contact: _____
Supplier contact: 91-44-26526527 SM email: _____
Supplier email: Kesavan.Seshadri@brakesindia.co.in Reason: _____
Part Number: ZB DRUM 12 01, 13 01, 04 01, 05 01, 06 01, 07 01, 08 01, 09 01, 10 01, 11 01, 12 01, 13 01, 14 01, 15 01, 16 01, 17 01, 18 01 Part Name: ZB DRUM

Product date: _____ ZGS level: _____
Process date: _____ Process Quantity: _____

Requested submission level: _____
Level 3 - Warrant with product samples and complete supporting data submitted to DICV

S.No.	Requirements	Level 1	Level 2	Level 3	Level 4
1	Design Records	R	S	S	*
	- for proprietary components/details	R	R	R	*
	- for all other components/details	R	S	S	*
2	Engineering Change Documents, if any	R	S	S	*
3	Customer Engineering Approval, if required	R	R	S	*
4	Design FMEA	R	R	S	*
5	Process Flow Diagrams	R	R	S	*
6	Process FMEA	R	R	S	*
7	Control Plan	R	R	S	*
8	Measurement System Analysis Studies	R	R	S	*
9	Dimensional Results	R	S	S	*
10	Material, Performance, Test Results	R	S	S	*
11	Initial Process Studies	R	R	S	*
12	Qualified Laboratory Documentation	R	S	S	*
13	Appearance Approval Report	R	S	S	S
14	Sample Product	R	S	S	*
15	Master Sample	R	R	R	*
16	Checking Aids	R	R	R	*
17	Records of Compliance With Customer-Specific Requirements	S	S	S	*

To be filled by SAP coordinator

SAP notification number: _____ Da

S = Submit to DICV
R = Retained by supplier at appropriate locations, including manufacturing, and make readily available to DICV upon request
* = The supplier shall retain at appropriate locations, and submit to customer upon request

Note: This form does not constitute a waiver from any of the requirements of PPAP, unless specifically designated as a waiver submission of requirements in an instance other than that of an initial award. Not all requirements may be applicable in every case.

If any requirements cannot be met by the supplier, it is the supplier's responsibility to complete and submit a request for a waiver deviation request and number of parts affected and/or length of time needed.

Version 2.0 PPAP planning sheet

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Product Notification number (SAP): _____

PPAP - Product release signoff sheet

DICV Part Name: ZB DRUM BRAKE RA PNEU / RS 4, VL 4 S, RT 4-BIL- Document Rev. Level: 1 Dated: 01/05/01, 03/02, 04/02, 05/01, 13/01, 04/01, 05/01, 03/02, 04/02, 05/01 Part ZGS (Rev): ZGS: _____
DICV Drawing number: _____ Supplier Part number: _____ Sup. Rev. Level: _____
Tooling PO Number: _____ Purchase Order No.: _____ Weight (kg): 1.000

Additional Engineering Changes: _____ Dated: _____
Checking Aid Number: _____ Engineering Change Level: _____ Dated: _____

ORGANIZATION MANUFACTURING INFORMATION

Brakes India 90500363 Daimler India Commercial Vehicles Axle Assy
Organization Name Vendor code Customer Name Division
Padi Sankaran.S sankaran.s@daimler.com
Street Address Customer Contact customer email
Chennai Tamil Nadu ZIP HDT 25T,31T,40T & 49T
City State Zip Application Variants

Kesavan.Seshadri kesavan.seshadri@brakesindia.co.in
Supplier contact Supplier email

Note: Does this part contain any restricted or reportable substances? Yes No
Are plastic parts identified with appropriate ISO marking codes? Yes No

REASON FOR SUBMISSION

Initial submission Change to Optional Construction or Material
 Engineering Change(s) Sub-Supplier or Material Source Change
 Tooling, Transfer, Replacement, Refurbishment, or Additional Change in Part Processing
 Correction of Discrepancy Parts produced at Additional Location
 Tooling inactive > than 1 year Other - please specify

REQUESTED SUBMISSION LEVEL FOR PRODUCT RELEASE

Level 1 Level 2 Level 3 Level 4 Level 5

PPAP Element - product requirements

Design Records Material, Performance tests
 Engineering Change Documents Qualified laboratory documents
 Customer engineering approval Appearance Approval report
 Design FMEA Sample products
 Measurement system analysis studies Master Sample
 Dimensional results Checking aids

Feedback required from other departments

Yes No

As the required feedback has been received from the required departments before signoff

Yes No

DECLARATION

I affirm that the PPAP elements required for product release has been reviewed & verified with the supplier as per DICV requirement.
Based on the review & verification, the product release is Approved / Conditionally approved / Rejected.
Comments (To be filled if status given as conditional or rejected): _____

List Molds / Cavities / Production Processes: _____
Supplier Manager Name: _____ Date: _____
Supplier Manager Signature: _____ Phone No.: _____
E-Mail: _____

FOR DICV USE ONLY

PPAP Warrant Disposition: Approved Rejected Interim Approval
Interim valid till: (dd/mm/yyyy) _____
Customer Signature: _____ Date: _____
Print Name: _____

Version 2.0 #DICV/SCM/PPAP/PSW18

Company Name or logo _____ Product notification number (SAP): _____
Process notification number (SAP): _____

Part Submission Warrant - Element 18

Truck Industry

DICV Part Name: Clutch hose Document Rev. Level: 1 Dated: 0-Jan-00
DICV Part Number: A4004004000 Part ZGS (Rev): 1
DICV Drawing number: _____ Supplier Part number: _____ Sup. Rev. Level: _____
Tooling PO Number: _____ Purchase Order No.: _____ Weight (kg): 1.0000

Additional Engineering Changes: _____ Dated: _____
Checking Aid Number: _____ Engineering Change Level: _____ Dated: _____

ORGANIZATION MANUFACTURING INFORMATION

ABC 12345678 Daimler India Commercial Vehicle SCMQ
Organization Name Vendor code Customer Name/Division
xxxxxyyy supplier@manager.com
Street Address Customer Contact Customer email
Chennai Tamil Nadu 600001 Rigid
City State Zip Application
44445555 abc@xyz.com
Supplier contact Supplier email

Note: Does this part contain any restricted or reportable substances? Yes No
Are plastic parts identified with appropriate ISO marking codes? Yes No N/A

REASON FOR SUBMISSION

Initial submission Change to Optional Construction or Material
 Engineering Change(s) Sub-Supplier or Material Source Change
 Tooling, Transfer, Replacement, Refurbishment, or Additional Change in Part Processing
 Correction of Discrepancy Parts produced at Additional Location
 Tooling inactive > than 1 year Other - please specify

REQUESTED SUBMISSION LEVEL (Check one)

Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
 Level 2 - Warrant with product samples and limited supporting data submitted to customer.
 Level 3 - Warrant with product samples and complete supporting data submitted to customer.
 Level 4 - Warrant and other requirements as defined by customer.

(check) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
 Level 5 - Warrant with product samples and complete supporting data reviewed at supplier's manufacturing location.

DECLARATION

I affirm that the samples represented by this warrant are representative of our parts and have been made to the applicable customer drawings and specifications and are made from specified materials on regular production tooling with no operations other than the regular production process. I also certify that documented evidence of such compliance is on file and available for review.

EXPLANATION/COMMENTS: _____

List Molds / Cavities / Production Processes: _____
Organization Authorized Signature: _____ Date: _____
Print Name: _____ Phone No.: _____ Fax No.: _____
Title: _____ E-Mail: _____

FOR CUSTOMER USE ONLY

PPAP Warrant Disposition: Approved Rejected Interim Approval
Interim valid till: (dd/mm/yyyy) _____
Customer Signature: _____ Date: _____
Print Name: _____

Version 2.0 #DICV/SCM/PPAP/PSW18

Critical points to be ensured during PPAP document submission

S.No.	Description	Responsible
1	PPAP planning sheet – Details required – Plan, Outlook dates, Level confirmation, Process quantity acknowledgement. Agreement between DICV and Supplier before PPAP activities begin.	Supplier SCMQ
2	PPAP Workbook V 2.0 is the current version to be used. PSW sheet and certain elements modified as per DICV requirement.	Supplier
3	DFMEA & PFMEA – Process Flow Diagram, FMEA & Control plan – Interlinking to be ensured by the supplier. No threshold limit on RPN as per AIAG 4 th Edition of PPAP – Recommended actions to be taken for highest Severity, reduction on Occurrence & Detection to be ensured through actions.	Supplier
4	Awareness on Re-PPAP criteria by the supplier. Requirement listed in DICV Special terms. Things to do (PPAP initiation, Document update, Information flow to SCMQ, frequency of revision)	Supplier SCMQ
5	New requirement added in Record of Compliance section in PPAP workbook – Tooling list details, all tools used during PPAP completion to be listed which will be tracked for Re-PPAP trigger.	Supplier
6	DICV Special Terms – Copy to be attached along with the PPAP documents submitted to supplier manager. Terms to be understood and agreed	Supplier
7	During submission of PPAP documents – Cardboard folder to be used (preferred). Label format available with Supplier Manager for standardization of document storage.	Supplier SCMQ