

NAVISTAR, INC.		
Engineering Procedural Standards		<i>NUMBER:</i> EPS-158
<i>TITLE:</i> Visual Component Approval Process (VCAP)		<i>CURRENT ISSUE DATE:</i> June 2011
<i>WRITTEN/REVIEWED BY:</i> J. Siler	<i>APPROVED BY:</i> L. D. Allendorph	<i>SUPERSEDES ISSUE OF:</i> January 2011
PRINTED COPIES OF THIS DOCUMENT MUST BE VERIFIED FOR CURRENT REVISION		
<i>Change Notice:</i> New Release.		

TABLE OF CONTENTS

Introduction	2
Visual Component Approval Process Flow Chart.....	3
Key Process Step Descriptions	4
Design Requirements/Supplier Selection	4
I.D.E.A.L. Surface Approval	4
“First-Shot” Production Parts	4-5
Non-Textured Production Part Evaluation / Documentation / Sign-Off.....	5
Pre-Grain Part Evaluation / Documentation / Sign-Off.....	5-6
Tool Texturing Guidelines	6-7
Electrical Discharge Machining (EDM)	7
Texture Repairs.....	7
Post-Grain Texture Part Evaluation / Documentation /Sign-Off	7-8
MSE-Color & Material Mastering Process / Color Identification Documentation / Color Approval.....	8-10
Color Evaluation / Documentation / Sign-Off.....	10
Color Harmony Review	10
Special Commodities.....	11
Seats:.....	11
Wheels:	11
Ornamentation:	11
Graphic Design Approval Process (VCAP/G)	12
2-D Graphic Design / Documentation / Appearance Approval / Sign-Off	12
Graphics Design Approval Process Flow Chart	13
Design Requirements / Process Kick-Off (Graphics Request Form).....	14
Development Sourcing	14
Installation Drawing Requirements	14
Graphics Appearance Evaluation Documentation / Sign-Off.....	14

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

Final Graphics Release / Sign-Off (AAR/G OK-to-Proceed)	14
Production Graphics Approval (hard part)-AAR/G Sign-Off.....	15
Attachment 1 – IDEAL Form (EPS-158-FM001).....	16
Attachment 2 – Appearance Approval Report Form (EPS-158-FM003)	17
Attachment 3 – Navistar Approved Texture Suppliers	18
Attachment 4 – Color/Material/Standards (CMS) Request Form (EPS-158-FM004).....	19
Attachment 5 – New Product Graphic Request Form (EPS-158-FM005).....	20
Attachment 6 – Appearance Approval Report-G (Graphics) Form (EPS-158-FM006)	21

INTRODUCTION

This document outlines the requirements by which designated suppliers of all interior, exterior, and certain under hood visual components (a.k.a. “decorative components”) must comply in order to achieve the appearance sign-off’s described in the Production Part Approval Process (PPAP). A completed and signed Appearance Approval Report (AAR) obtained from this process must be included in the supplier’s PPAP package.

The following steps cover the Navistar Visual Component Approval Process (VCAP), See also the VCAP Flow Chart on the following page:

- Design Requirements/Supplier Selection
- IDEAL Surface Approval (Appearance sign-off for Tooling)
- Pre-Texture Evaluation Documentation / Sign-Off (AAR)
- Post texture Evaluation Documentation / Sign-Off (AAR)
- Color Evaluation Documentation / Final component AAR Sign-Off

Components must be resubmitted for appearance evaluation and PPAP approval, per guidelines noted in the latest AIAG PPAP manual. Examples include:

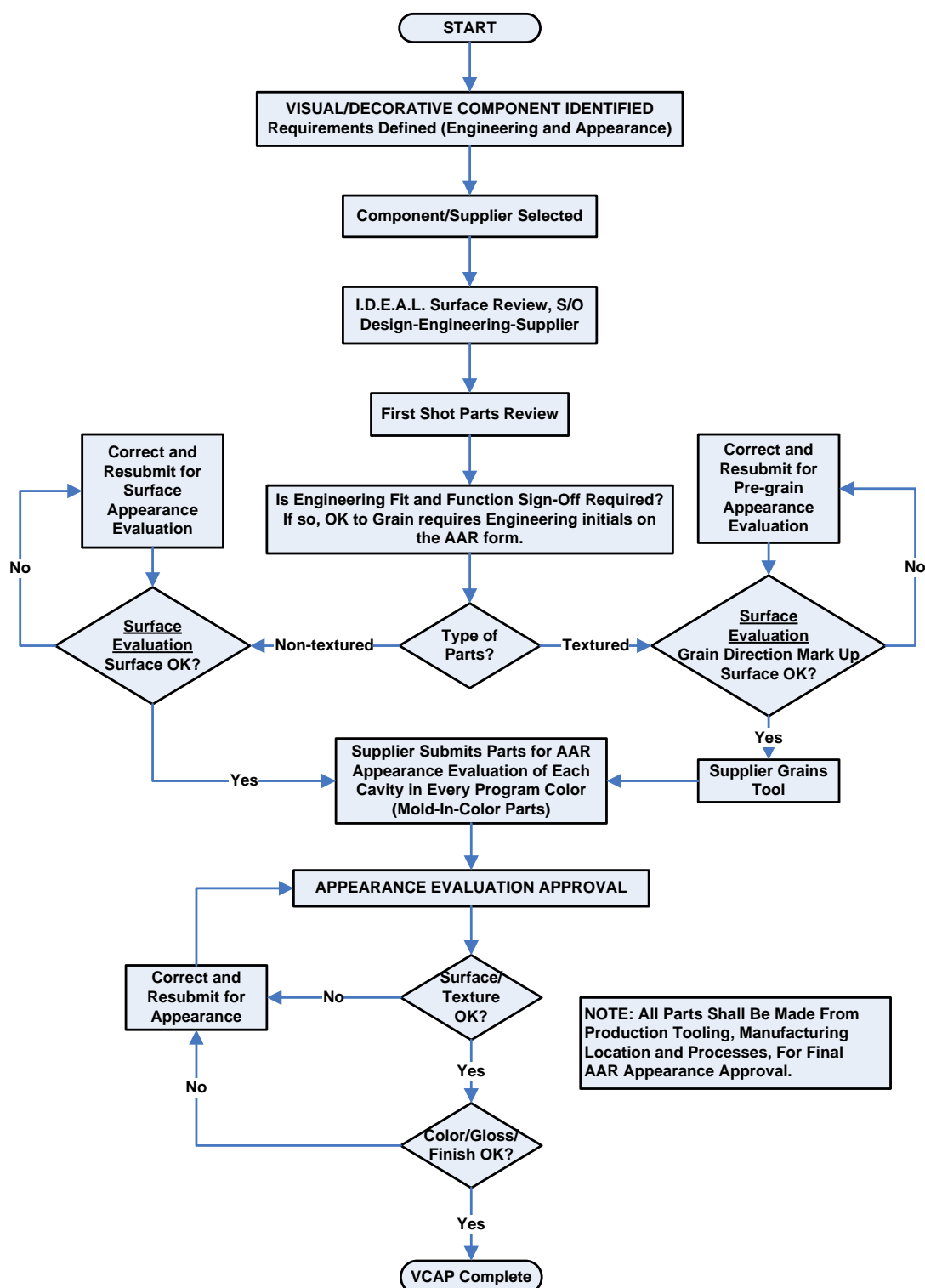
- Material change or material source change
- Re-sourcing of part to another supplier (includes Tier 2, 3, etc.)
- Re-location to another manufacturing facility
- Manufacturing process change that affects appearance
- Design change that affects appearance
- Restoration or repair made to the tool
- Capacity tooling

NOTE:

Under certain circumstances, the AAR resubmission can be waived. Upon request of supplier, Navistar Industrial Design /Craftsmanship will determine this on a case by case basis.

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

VISUAL COMPONENT APPROVAL PROCESS FLOW CHART



NOTE: ALL ASSEMBLIES MUST BE APPEARANCE APPROVED

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

KEY PROCESS STEP DESCRIPTIONS

DESIGN REQUIREMENTS/SUPPLIER SELECTION

Major appearance requirements are outlined in both Navistar's Engineering Concept Sheet and Design Requirements Document (DRD).

The areas covered include:

- Color, Texture, Gloss
- Texture wash-out (if required)
- Parting line location and part line/flash Acceptance Standards.
- General Sink/Flow/"Blush" appearance standards for class A, B, and C surfaces.
- Paint Appearance Standards (for Class A, B, and C surfaces)
- Gap, Margin, and Assembly Tolerances for PIA (Part-In-Assembly) component groups.

This document is co-owned by Industrial Design and Navistar Engineering and tracks all appearance items for a given program, communicating to the supply base Navistar expectations for appearance quality.

I.D.E.A.L. SURFACE APPROVAL

Navistar Industrial Design is responsible for the approval of all decorative/visual components and any additional components that contribute to the appearance of Navistar products.

Navistar Industrial Design/ Craftsmanship personnel are responsible for the approval of all surface data and tooling aids related to visible components. All models (both electronic and physical) will be reviewed for adherence to design intent, surface continuity, and fit to mating parts

The Industrial Design Evaluation and Approval Log (IDEAL) starts the VCAP process, and represents OK-to-Tool for appearance.

A signed IDEAL form (shown on page 16) must accompany the tooling release data for any component designated as an appearance item.

For more information on the IDEAL review process, see the [Industrial Design Process Overview](#), available on the Navistar Supplier Site or internally on the Navistar intranet, the [Industrial Design Process Overview](#).

"FIRST-SHOT" PRODUCTION PARTS

Navistar requires that suppliers of visual / decorative components submit "First Shot" production parts to Industrial Design Craftsmanship for initial surface review and direction. These parts include all visual components manufactured at any facility from production tools. Industrial Design Studio or Craftsmanship personnel will review parts for design intent (i.e. surface, finish, parting lines, flow lines and gate locations). The parts will be marked up, indicating any required improvements. Studio or

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

Craftsmanship will document this direction using the Navistar Appearance Approval Report Form (shown on page 17). Rejected parts must be included in the next Approval Review.

NON-TEXTURED PRODUCTION PART EVALUATION / DOCUMENTATION / SIGN-OFF

The following procedures outline the appearance evaluation/sign-off process for non-textured (mold-in-color, painted/plated/hydrographically finished) parts:

- Supplier submits at least one (1) part from each tool cavity in black or the darkest production color, with a completed Appearance Approval Report (AAR-att. 2.1).
- The appropriate Industrial Design Studio Designer or Craftsmanship representative reviews all parts for design intent (surface, finish, parting lines, flow lines and gate location). If necessary, Studio and / or Craftsmanship personnel will give direction by marking areas on the part requiring improvement, photo-documenting this direction.
 - Parts will be signed-off using the AAR form, and assigned one of three possible designations:
 - APPROVED - Supplier may immediately proceed to paint/plate/finish parts for AAR review.
 - CORRECT AND PROCEED - Supplier must correct all deficiencies noted and then proceed to paint/plate/finish parts for AAR review.
 - CORRECT AND RESUBMIT - Supplier must correct all deficiencies and resubmit parts for approval.

NOTE: Non-textured components that are molded-in-color or painted by the supplier must be AAR approved for color and/or paint quality. Please refer to Color Evaluation / Documentation / Sign-Off on page 10 of this document. Components that are sent to a Navistar facility for painting are still required to meet Quality of Appearance standards, but the supplier's appearance responsibility is limited to the paint-ready surface of the part, as defined by TMS/CEMS Requirements.

All plated / finished components shall be submitted for full appearance approval and will be reviewed using the approved MSE "styling master" as reference. Specific appearance parameters for plated parts can be obtained from the Navistar Supplier website.

PRE-GRAIN PART EVALUATION / DOCUMENTATION / SIGN-OFF

The following procedures outline the pre-grain appearance evaluation/sign-off process:

- Supplier submits at least one (1) part from each tool cavity in black or the darkest production color, with a completed Appearance Approval Report.
- The appropriate Industrial Design Studio Designer or Craftsmanship representative reviews all parts for design intent (surface, finish, parting lines, flow lines and gate location). If necessary,

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

Studio and / or Craftsmanship personnel will give direction by marking areas on the part requiring improvement, photo-documenting this direction.

- Parts will be signed-off using the AAR form, and assigned one of three possible designations:
 - APPROVED TO TEXTURE - Supplier may immediately proceed to texture the tool (pending Navistar Engineering Fit & Function, if required).
 - CORRECT AND PROCEED - Supplier must correct all deficiencies noted and then proceed to texture the tool.
 - CORRECT AND RESUBMIT - Supplier must correct all deficiencies and resubmit parts for “OK-to-Grain” approval

The supplier must retain the pre-grain Appearance Approval Report form and return it with any marked-up pre-grained parts when submitting for post-grain appearance evaluation/sign-off. *Rejected / Marked-Up parts must be available upon request for the next Approval Review.*

PLEASE NOTE:

- ALL visible components must be approved prior to respective assembly/system reviews (e.g. I/P components, door trim panel components, etc.)
- This sign-off designates Appearance pre-grain approval only. Fit & Function Sign-Off may be required by Navistar Engineering. Supplier is not authorized to texture a tool until Industrial Design and (when required) Navistar Engineering have validated the part as “OK-to-Texture”. Texture suppliers are not authorized to texture any visual component tool without Navistar AAR authorization. The signed AAR form must accompany the tool to the approved texture source. See Attachment 3 on page 18 for a sample of a document listing Navistar approved texture suppliers.

TOOL TEXTURING GUIDELINES

Navistar Industrial Design-Color and Trim has the following responsibilities for textures:

- Development of new textures.
- Establishment of master texture standards.
- Approval of tool texture sources by specific texture pattern.
- Approval of grain roller textures
- Distribution of master texture standards.

The following guidelines should be followed to assure the best quality results:

- All texturing (except EDM) are to be performed by Navistar-approved texture sources.

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

- Navistar Industrial Design / Color and Materials will recommend the texture source for each vehicle program. In the case of large / complex programs, texture sourcing may be split among texture sources by texture plan and capability.
- Navistar Craftsmanship has the authority to make any necessary changes or alterations to a texture surface.
- The original texture source should be used for capacity or replacement tools unless an agreement is reached with Navistar Industrial Design Craftsmanship.
- A sample of the current list of approved sources for specific textures is shown on Attachment 3 on page 18.

ELECTRICAL DISCHARGE MACHINING (EDM)

Navistar Industrial Design will not specify any EDM source for texturing. Suppliers interested in using this process for texturing (Stipple patterns only) are required to adhere to the following guidelines:

- Acquire a “Master Stipple Standard” from Navistar Industrial Design Color and Trim.
- Navistar Industrial Design Craftsmanship must approve final burn electrodes. The Engineering Release information must accompany this submission. Please contact the Navistar Industrial Design Craftsmanship representative for further details.

TEXTURE REPAIRS

Surface damage to a tool may require repairs to the texture of that tool and a subsequent surface approval by Navistar Industrial Design / Craftsmanship.

- Welding
- Inserting
- Hand benching

The following two steps must occur to receive IDC approval:

- Submission of part showing surface repair before re-texturing (In some cases, digital photographs may suffice).
- Submission of part after grain repair.

POST-GRAIN TEXTURE PART EVALUATION / DOCUMENTATION /SIGN-OFF


The process for review and sign-off of post-grain and non-textured parts is as follows:

- Submit parts from each cavity run on production tooling, process and Job1 intended manufacturing location, in a program color, to the appropriate Industrial Design Studio /Craftsmanship representative. The number of parts submitted depends on the number of parts the supplier needs “identified” for design intent. Navistar Craftsmanship may choose to retain one (1) submission of each part number.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

PLEASE NOTE:

- GRAPHICS - Any part which contains graphics shall be accompanied by a 1:1 color-correct print of the final art for verification to design intent.
- The Appearance Approval Report (AAR) showing pre-grain approval and all marked-up, pre-grained parts must be available for review with parts submitted for post-grain approval.
- Parts not providing a sufficient standard of appearance quality may be given direction for improvement, as noted on the Appearance Approval Report. This same document must accompany submitted parts after appearance direction has been followed.
- Unless previously agreed, rejected parts must be included in the next approval review.
- The Industrial Design / Industrial Design Craftsmanship representative who reviews the post-grain appearance evaluation submissions will again sign the AAR form reflecting minimum appearance standard for the part (assuming full resolution of all issues).
- The parts approved for appearance will be identified with the Minimum Appearance Standard label (below). These parts must be retained by the supplier for their production and service life, and will be made available for review, upon request by Navistar. At the assembly plant's discretion, an approved part will be retained by the assembly plant.

 MINIMUM APPEARANCE STANDARD	
Rep.	Date
Supplier	Code
Memo	

MSE-COLOR & MATERIAL MASTERING PROCESS / COLOR IDENTIFICATION DOCUMENTATION / COLOR APPROVAL

Navistar Industrial Design-Color and Trim is responsible for the appearance finishes on all commercial (non-military) products produced by Navistar, including but not limited to:

- Fabrics and Carpet
- Leather and Vinyl
- Applied finishes
- Mold-In-Color Plastic Colorant

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

- Hydrographic and In-Mold Decorated patterns and finishes
- All textures associated with visual components, regardless of manufacturing method
- Graphics, Labels and Badges

The process of color/material development and implementation of design intent has several aspects. The following is a brief chronological listing of events that occur to achieve successful color sign-off of production parts.

PRE-C.A. (Pre-Charter Approval) Design Color & Trim presents color and material proposals to Navistar management for review and recommendation. Appearance items are identified by program and appearance direction is formulated.

C.A. (Charter Approval) Design and Craftsmanship direction is established, including the development of new colors, materials, and finishes. This milestone is the kick-off for mastering any new appearance materials and finishes, and the tracking document for this process is the MSE (Material Styling Evaluation) form# NTSQ-0008. Similar in protocol to the AAR process, MSE (att.4) approval is required for all finishes/materials/textures to achieve AAR sign-off.

At the discretion of Navistar Design Management, a Color Harmony Team is established. These teams are formed to proactively drive color, texture, gloss and finish requirements into the product. All Navistar personnel and suppliers having equity in appearance items meet regularly to ensure the NPD Color Harmony Process is successfully accomplished. The Color Harmony Team objectives are to provide a communications link between Program Management, Studio, Engineering, Vehicle Operations, and Suppliers relating to appearance parts (Color, Texture, Gloss); Provide color, texture, and gloss decisions that meet vehicle objectives for appearance, cost and timing; Provide a clear assessment of cost, quality and timing trade-offs at key decision points. Provide system and component level color, texture and gloss verification to design intent.

Navistar Industrial Design establishes Color and Trim Tracking documents, consisting of images of each component / system with color-texture-gloss call-outs. These images provide interactive direction for the Color Harmony Team, and the Industrial Design Requirements Document, which is jointly owned by Navistar Industrial Design and Navistar Engineering.

MSE SIGN-OFF: Chosen suppliers must submit samples of all new finish materials (color, texture, gloss, finish, etc) to Navistar Industrial Design-Color and Trim, for visual mastering approval. Once visual mastering has been established, test data and samples are sent to Navistar-Material's Engineering, for evaluation against all appropriate materials specifications. Proof of successful compliance with all Navistar materials specs should be noted on the appropriate MSE form, with date of certification. Proof of compliance is required for successful AAR sign-off and PPAP completion.

MASTERS DISTRIBUTION: When applicable, interior raw material suppliers produce masters in multiples and ship them to Navistar. All interior masters can be obtained through Navistar Design or Navistar Materials Engineering. The Color/Material/Standards (CMS) Request Form (Attachment 4 on page 19)

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

may be faxed or sent via email to the appropriate Master Distribution contact. Exterior paint masters can be purchased from Navistar paint supplier (Akzo Nobel). Refer to Navistar Supplier Website for up-to-date distribution contact information.

COLOR EVALUATION / DOCUMENTATION / SIGN-OFF

In addition to surface appearance evaluation approval, all components that are in color (including black) require color evaluation approval. The Navistar Appearance Approval Report (AAR) is the same as that used for surface appearance evaluation approval, but is filled specifically for color.

- All parts submitted for color evaluation must have surface appearance AAR approval.
- Parts that require color evaluation approval:
 - New parts in all program colors
 - Carry-over parts in new colors
 - Material change or material source change
- Submissions shall be produced from Job1-intended production tooling, process and manufacturing location. Submissions must include proof of Material Color and Durability from Navistar Material Engineering (see Navistar MSE Handbook).
- Part suppliers must make an appointment with the appropriate Industrial Design Studio /Industrial Design Craftsmanship personnel (Refer to Navistar Supplier Website for contact list)
- Parts approved for color PSW evaluation will be tagged with the Minimum Appearance Standard label. These parts will be retained by the supplier for their active life, and will be made available to Navistar upon request. Rejected parts must be included in the next Approval Review.

COLOR HARMONY REVIEW

Interior and exterior color harmony reviews will also be conducted to ensure overall vehicle harmony. Suppliers may be required to adjust (post-AAR sign-off) their component color at the discretion of the Industrial Design Studio or Industrial Design Craftsmanship representative, based on Color Harmony Team vehicle harmony review results.

Minor color adjustments are allowable without Navistar Materials Engineering approval, provided formulas remain unchanged, except for minor ratio changes. These actions may be required to improve the overall color harmony of the vehicle.

Color Harmony Reviews are conducted as both tabletop / system reviews, as well as fully assembled environment reviews.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

SPECIAL COMMODITIES

SEATS:

- Seat manufacturers are required to establish a Seat Appearance Boundary Book for each vehicle program. This Seat Boundary Book shall include (but is not limited to) pictures of the approved seat assembly in multiple views, close-ups identifying both acceptable and unacceptable conditions identified during the sign-off process, and any other area as requested by the Navistar Design or Craftsmanship Representative. The seat Appearance boundary Book for leather seats should reference a Natural Markings Document, established by the leather supplier, for the specific grain used in their particular program. Agreement must be achieved between the Seat Supplier, Industrial Design Studio or Craftsmanship Representative, Navistar Engineering, Navistar Supplier Development Manager (SDM), and Navistar Incoming Quality. When agreement is met, all parties will sign the seat.
- The manufacturer will then be required to retain this photo catalog for the life of the program. Seat manufacturers with a signed-off Boundary Book are *not* required by Navistar Industrial Design/Craftsmanship to retain seat assemblies for the active life of the program.
- All visible subcomponents must be approved prior to full assembly reviews (e.g. side shields, switches, latches, etc.) The end-item supplier must make all appearance-approved subcomponents available upon request for full assembly reviews.

WHEELS:

- Reference Navistar Wheel Appearance Guidelines on the Supplier Website for defect criteria.
- One sample only is required for appearance approval of multiple cavity cast wheels with a machined surface finish. All subsequent cavities are required to meet the standard established by the approved cavity.

ORNAMENTATION:

- Appearance approval of all ornamentation components for surface quality and image clarity will be obtained by the supplier from Navistar Design / Industrial Design Craftsmanship. Typical components include:
 - Exterior body side moldings
 - Nomenclature (3-Dimensional nameplates, and badges)
 - Instrument cluster assemblies
 - Vinyl graphics (i.e. decorative stripes)
- Appearance approval for the above items will follow the same procedures outlined for interior / exterior components.

<i>NUMBER:</i> EPS-158	<i>TITLE:</i> <i>Visual Component Approval Process (VCAP)</i>	<i>CURRENT ISSUE DATE:</i> June 2011
----------------------------------	---	--

GRAPHIC DESIGN APPROVAL PROCESS (VCAP/G)

2-D GRAPHIC DESIGN / DOCUMENTATION / APPEARANCE APPROVAL / SIGN-OFF

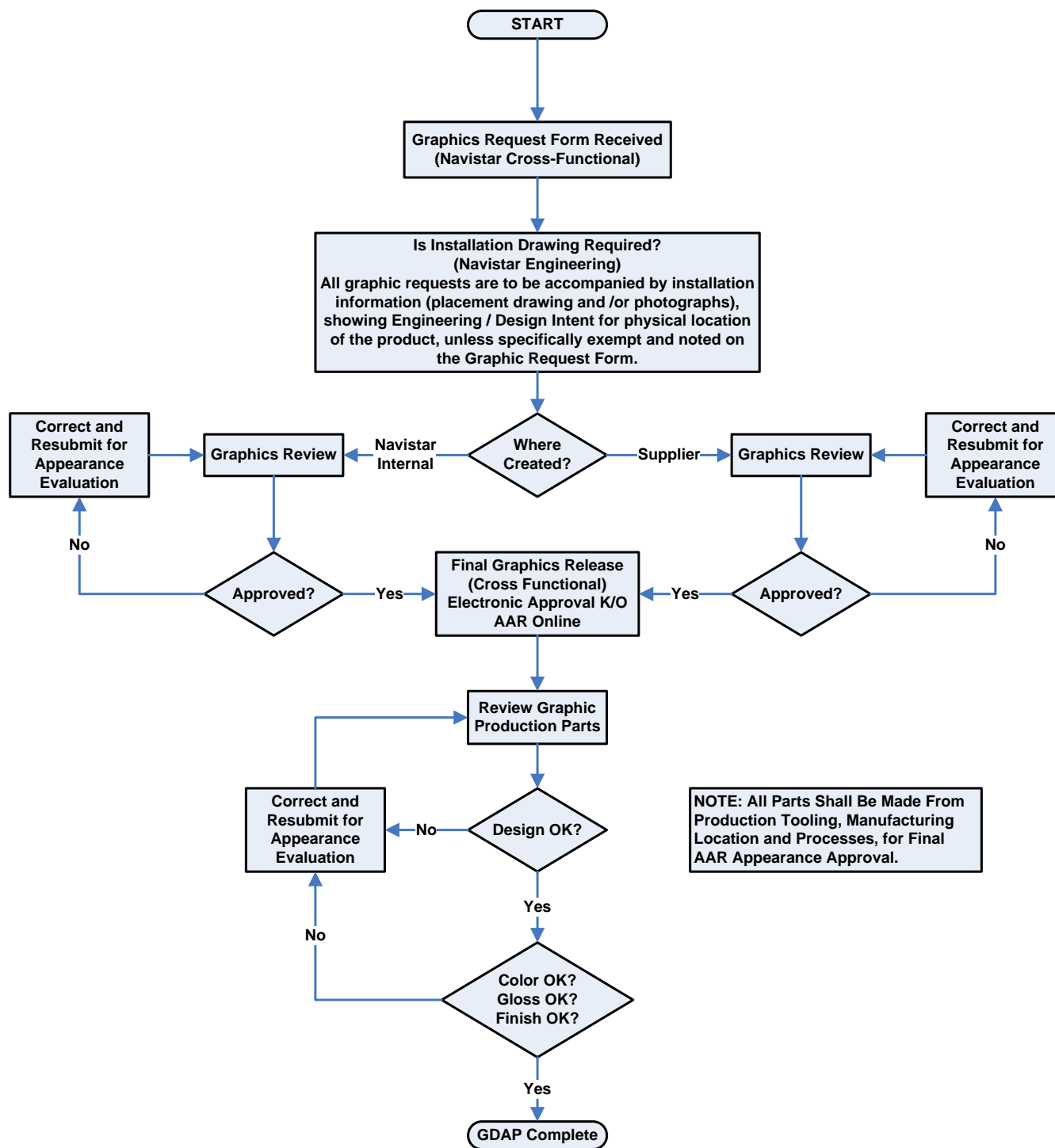
Navistar Industrial Design-Graphics is responsible for the appearance and finish of all commercial (non-military) two dimensional graphics produced by Navistar, including but not limited to:

- Exterior Labels
- Interior Labels
- Graphic communication (i.e. Instrument Cluster faceplates, HVAC controls, Switchgear graphics, etc.)
- Under hood and Chassis Labels, per Navistar Under hood Craftsmanship initiative of 2009/2010.

The following steps cover the Navistar Graphic Design Approval Process (VCAP/G) for 2D graphics. See also the Graphic Design Approval Process Flow Chart on the following page:

- Design Requirements / Process Kick-Off (Graphics Request Form)
- Development Sourcing
- Installation Drawing Requirements
- Graphics Appearance Evaluation Documentation / Sign-Off
- Final Graphics Release / Sign-Off (AAR/G OK-to-Proceed)
- Production Graphics Approval (hard part)-AAR/G Sign-Off

GRAPHICS DESIGN APPROVAL PROCESS FLOW CHART



NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

DESIGN REQUIREMENTS / PROCESS KICK-OFF (GRAPHICS REQUEST FORM)

A New Product Graphic Request Form (Attachment 5 on page 20) shall be generated by Navistar personnel (Customer Service, Marketing, Engineering, etc.). This form initiates the design process and contains the following information:

- Part Number
- Program Number and Program Manager
- Controlling / Releasing Engineer,
- Due Date (Production/Shipping timelines considered)
- Installation information (see below).

Note: The Controlling Engineer shall be responsible for providing all label information content, and compliance with all necessary intents and regulations.

DEVELOPMENT SOURCING

New product graphic artwork shall be created by Navistar Industrial Design (ID), or an approved designated supplier. The design of the graphic shall be in accordance with the guidelines stated in EPS-145, and in the case of outsourced design, are subject to Navistar Industrial Design approval for appearance (see below).

INSTALLATION DRAWING REQUIREMENTS

All graphic requests are to be accompanied by installation information (placement drawing and /or photographs), showing Engineering / Design Intent for physical location of the product, unless specifically exempt and noted on the Graphic Request Form.

GRAPHICS APPEARANCE EVALUATION DOCUMENTATION / SIGN-OFF

Artwork for new product graphics generated by sources other than Navistar Industrial Design:

- Shall be reviewed for design intent and cohesion, by Navistar Craftsmanship Group.
- Will be submitted to Navistar in a Vector Art format (non-rasterized) (PDF file).
- Shall include specifications on all typeface(s), color(s) and sizes(s) utilized in the design.

Note: Regardless of the source generating the artwork, all graphics proposals are subject to review and content approval by the designated Navistar Controlling Engineer.

FINAL GRAPHICS RELEASE / SIGN-OFF (AAR/G OK-TO-PROCEED)

Upon Appearance / Content approval by Navistar, final graphic artwork and an Appearance Approval Report (Attachment 2 on page 17) with "OK to Proceed" sign-off, are released electronically to the designated supplier. Additionally, a "UG" compliant file of the new graphic shall be submitted to the Controlling Engineer for Navistar print updates.

NUMBER: EPS-158	TITLE: <i>Visual Component Approval Process (VCAP)</i>	CURRENT ISSUE DATE: June 2011
---------------------------	--	---

PRODUCTION GRAPHICS APPROVAL (HARD PART)-AAR/G SIGN-OFF

The process for review and sign-off of production labels, and other 2D graphic products is as follows:

- Submit parts from a run on production tooling, process and Job1 intended manufacturing location, to Navistar Industrial Design/Craftsmanship. The number of parts submitted depends on the number of parts the supplier needs “identified” for design intent, but a minimum of three (3) is required. Navistar Industrial Design may choose to retain one (1) submission of each part number.
- Include the AAR/G form (Attachment 6 on page 21), showing authorization to proceed, with this submission.

Submissions will be evaluated for the following appearance criteria:

- Accuracy of the final product to design intent (Released Drawing).
- Craftsmanship of product:
 - Registration
 - Clarity of printing
 - Color match to master swatches
 - Die cut accuracy and consistency, when applicable
- Parts not providing a sufficient standard of appearance quality may be given direction for improvement, as noted on the Appearance Approval Report. This same document must accompany submitted parts after appearance direction has been followed.
- Unless previously agreed, rejected parts must be included in the next approval review.
- The Navistar Industrial Design Craftsmanship representative who reviews the production appearance submissions will again sign the AAR form reflecting minimum appearance standard for the part (assuming full resolution of all issues).
- The parts approved for appearance will be identified with the Minimum Appearance Standard label. These parts must be retained by the supplier for their production and service life, and will be made available for review, upon request by Navistar. At the assembly plant’s discretion, an approved part will be retained by the assembly plant.

NUMBER: EPS-158	TITLE: Visual Component Approval Process (VCAP)	CURRENT ISSUE DATE: June 2011
---------------------------	---	---

ATTACHMENT 1 – IDEAL FORM (EPS-158-FM001)

NAVISTAR® Industrial Design Evaluation & Approval Log (IDEAL)

EPS-158-FM001
Revision: New
Revision Date: 24 Feb 2011

IDEAL IS INCOMPLETE WITHOUT Authorized Signature! IDEAL form records the evaluation and approval of appearance for design intent. Evaluations will be made from digital data and/or tooling aids such as die/cube models, etc. Final surface approval will be made from a complete UG model, and an approved IDEAL form is required for the release of a Decorative Component part for tooling. A Decorative Component is defined as any Class "A" / Class "B" surface, released by Navistar Industrial Design, and other components identified as having appearance attributes. An approved IDEAL form establishes design intent for appearance. Decorative Components cannot be released into production without Navistar Design Appearance Approval, and completion of the Navistar Appearance Approval Report (AAR) Form.

Section 1: Component Identification

Component
PROGRAM NAME / #
PART NUMBER
PART DESCRIPTION

Section 2: Contact Information

NAVISTAR Engineering Contact
RESPONSIBLE ENGINEER / NAME
PHONE
E-MAIL

Section 3: Evaluations & History

Shaded areas to be completed by Industrial Designer. All other cells may be filled out by engineering contact if applicable.

Submission #	Evaluation Date	Evaluation Results	Evaluation ID	Necessary Action

Section 4: Approval for Engineering Release

Any change to the approved design must be submitted and reviewed and documented in section 5 below. ID Confirmation signature means that original approval remains in effect per subject change.

Reference Images (Optional)

AUTHORIZED CUSTOMER REPRESENTATIVE SIGNATURE / INDUSTRIAL DESIGNER	DATE
PHONE	E-MAIL

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: Visual Component Approval Process (VCAP)	CURRENT ISSUE DATE: June 2011
---------------------------	---	---

ATTACHMENT 2 – APPEARANCE APPROVAL REPORT FORM (EPS-158-FM003)



Appearance Approval Report

EPS-158-FM003
Revision: New
Revision Date: 24 Feb 2011

Component	Supplier	Supplier Contact
PART # & NAME	COMPANY NAME	CONTACT NAME
ASSEMBLY NAME/No.		CONTACT PHONE(S)
PROGRAM VEHICLE	SUPPLIER CODE	CONTACT E-MAIL

APPEARANCE EVALUATION

REASON FOR THIS SUBMISSION	<input type="checkbox"/> 1ST SHOT REVIEW	<input type="checkbox"/> ENGINEERING CHANGE (S)	<input type="checkbox"/> SUB-SUPPLIER or MATERIAL SOURCE CHANGE
	<input type="checkbox"/> PRE-TEXTURE	<input type="checkbox"/> TOOLING TRANSFER, REPLACEMENT, REFURBISHMENT, CAPACITY	<input type="checkbox"/> APPEARANCE APPROVAL (FINAL)

Material	Color & Gloss	Texture	ESO FIT & FUNCTION?	PRE-TEXTURE EVALUATION	CUSTOMER REPRESENTATIVE SIGNATURE AND DATE
TYPE:	COLOR ID:	TEXTURE ID:	<input type="checkbox"/> NOT REQ'D <input type="checkbox"/> REQUIRED <input type="checkbox"/> CHECK COMPLETE	CORRECT AND PROCEED	
SUPPLIER:	GLOSS SPEC:	TEXTURE SUPPLIER:	<div style="border: 1px solid black; height: 40px; width: 100%; text-align: center; font-size: 8px;">ENGINEER NAME/INITIAL</div>	CORRECT AND RESUBMIT	
				APPROVED TO ETCH/TOOL/EDM	

COLOR EVALUATION

REVIEW DATE	MSE NUMBER	MASTER DATE	MATERIAL TYPE	MATERIAL SOURCE	HUE				VALUE		CHROMA		GLOSS		METALLIC BRILLIANCE		PART DISPOSITION
					RED	YEL	GRN	BLU	LIGHT	DARK	GRAY	CLEAN	HIGH	LOW	HIGH	LOW	

COMMENTS

SUPPLIER SIGNATURE	DATE	AUTHORIZED CUSTOMER REPRESENTATIVE SIGNATURE	DATE

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: Visual Component Approval Process (VCAP)	CURRENT ISSUE DATE: June 2011
---------------------------	---	---

ATTACHMENT 3 – NAVISTAR APPROVED TEXTURE SUPPLIERS

NAVISTAR

TEXTURE SOURCE AND APPROVAL CROSS-REFERENCE

EPS-158 (VCAP) Attachment 1
Revision Date: JUNE, 2011

S
T
I
P
P
L
E
S

A
N
I
M
A
L

T
E
C
H
N
I
C
A
L

MOLD-TECH											
TEXTURE NAME	NAVI ALPHA CODE	INTERNAL TEXTURE HOUSE CODE	ONTARIO CANADA	MICHIGAN	ILLINOIS	MASS	GEORGIA	SINGAPORE	MEXICO	CHINA SUZHOU	CHINA DONGGUO
STIPPLE 0	S0	MT-11500	X	X	X	X	X	X	X	X	X
STIPPLE 1	S1	MT-11510	X	X	X	X	X	X	X	X	X
STIPPLE 2	S2	MT-11520	X	X	X	X	X	X	X	X	X
STIPPLE 3	S3	MT-11530	X	X	X	X	X	X	X	X	X
STIPPLE 4	S4	MT-1055	X	X	X	X	X	X	X	X	X
STIPPLE 5	S5	MT-11030	X	X	X	X	X	X	X	X	X
STIPPLE 6	S6	MT-11040	X	X							
STIPPLE 7	S7	MT-11050	X	X							
BUTTON STIPPLE	SA	T-1702	U DEV								
BUMPER STIPPLE	SB	T-1703	X								
CRACKLE-A	SC	TH-113									
CRACKLE-B	SD	T-4296									
CRACKLE-C	SE	T-3875									
TARMAC	SF	T-1777	X								
SANDSTONE	SG	T-3338									
PATINA	SH	T-1427	X								

EXAMPLE OF DOCUMENT

REQUEST LATEST REVISION FROM

NAVISTAR INDUSTRIAL DESIGN


DEPARTMENT

* Affiliate
** Restricted usage approved

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: Visual Component Approval Process (VCAP)	CURRENT ISSUE DATE: June 2011
---------------------------	---	---

ATTACHMENT 4 – COLOR/MATERIAL/STANDARDS (CMS) REQUEST FORM (EPS-158-FM004)

		Master Standard Request Form			EPS-158-FM004 Revision: New Revision Date: 29 JUNE 2011	
DATE	SUPPLIER NAME		SUPPLIER CONTACT		SUPPLIER CODE	ORDER STATUS (NAVISTAR TO UPDATE) YELLOW = IN PROCESS GREEN = FILLED
SUPPLIER ADDRESS / SHIP TO						
STREET			FAX NUMBER*			
CITY / TOWN			OFFICE PHONE NUMBER*			
STATE / REGION			MOBILE PHONE NUMBER*			
ZIP / POSTAL CODE			CONTACT E-MAIL			
*For telephone and FAX numbers outside the United States, please include country and city code numbers						
<input type="checkbox"/> LOCAL (supplier pick-up) <input type="checkbox"/> US MAIL <input type="checkbox"/> EXPEDITE - Method						
PROGRAM NUMBER	**MATERIAL TYPE	TEXTURE CODE	COLOR ID CODE	QTY	REQUEST STATUS (NAVISTAR TO COMPLETE)	
**MATERIAL TYPES PLASTIC: Molded in Color (MIC) Texture Master Standards SOFT TRIM: Fabric / Vinyl / Leather PAINT: Metal Paint Panel Standards						
Paint Standard requests are required by Navistar Industrial Design only to ensure adequate quantities of panels are generated per each color/program. Suppliers shall enter on line requests for standards directly from Navistar's paint supplier Akzo.						
• Paint, online requests: http://akzonobel.formbin.com/forms/color						
• Paint, contact Directly: AkzoNobel Car Refinishes 1845 Maxwell Street Troy, MI 48084 Attn: Color Services Phone # - 800-618-1010 Fax # - 248-637-0479 Email: ColorSupport.ANCRNA@akzonobel.com						

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: Visual Component Approval Process (VCAP)	CURRENT ISSUE DATE: June 2011
---------------------------	---	---

ATTACHMENT 5 – NEW PRODUCT GRAPHIC REQUEST FORM (EPS-158-FM005)



Graphics Request Form

EPS-158-FM005
Revision: New
Revision Date: 24 Feb 2011

DATE	Part # & Name	Assembly # & Name	Application & Program #
------	---------------	-------------------	-------------------------

Program Manager	Supplier (if sourced)	
	Company (Tier 1)	
Controlling Engineer	Address	
	CONTACT Name	
Reason For Request	CONTACT E-MAIL	
	Company (Tier 2)	

MATERIAL SPECS	
----------------	--

DESCRIPTION	

Compliance Regulations (doc # or description)	<input type="checkbox"/> Required (Installation documentation must be provided)
---	---

Installation	<input type="checkbox"/> Required (Installation documentation must be provided)	Description	<input type="checkbox"/> Not Required
--------------	---	-------------	---------------------------------------

Timing Requirements for Artwork Delivery (prior to AAR process)
Timing Requirements for Component Delivery (PPAP)

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.

NUMBER: EPS-158	TITLE: Visual Component Approval Process (VCAP)	CURRENT ISSUE DATE: June 2011
---------------------------	---	---

ATTACHMENT 6 - PRODUCTION GRAPHICS APPROVAL (HARD PART) AAR-G FORM (EPS-158-FM006)

NAVISTAR®		Appearance Approval Report - G (Graphics)										EPS-158-FM006 Revision: NEW Revision Date: March 2011						
Component				SUPPLIER						Supplier Contact								
PART # AND NAME				COMPANY NAME (TIER 1)						CONTACT NAME								
ASSEMBLY NAME/#.				TIER 2						CONTACT PHONE(S)								
PROGRAM VEHICLE				SUPPLIER CODE (TIER 1)						CONTACT E-MAIL								
REASON FOR THIS SUBMISSION		<input type="checkbox"/> ARTWORK REVIEW		<input type="checkbox"/> ENGINEERING CHANGE(S)				<input type="checkbox"/> APPEARANCE APPROVAL (FINAL)										
		<input type="checkbox"/> TOOLING TRANSFER, REPLACEMENT, REFURBISHING, CAPACITY		<input type="checkbox"/> SUB-SUPPLIER OR MATERIAL SOURCE CHANGE														
Material		Color & Gloss		ESO FIT & FUNCTION		ARTWORK EVALUATION (ELECTRONIC FORMAT)								CUSTOMER INITIALS & DATE				
TYPE:		COLOR ID:		<input type="checkbox"/> NOT REQ'D <input type="checkbox"/> REQUIRED <input type="checkbox"/> CHECK COMPLETE		<input type="checkbox"/> CORRECT AND PROCEED <input type="checkbox"/> CORRECT AND RESUBMIT <input type="checkbox"/> PROCEED W/SAMPLE GENERATION												
SUPPLIER:		GLOSS SPEC:		ENGINEER NAME/DATE		COMMENTS												
						PROCESS EVALUATIONS (OBJECTIONABLE FINDINGS LISTED BELOW)												
						<input type="checkbox"/> CONTENT <input type="checkbox"/> PRINT CLARITY <input type="checkbox"/> REGISTRATION <input type="checkbox"/> DIE ACCURACY												
						COMMENTS												
REVIEW DATE	COLOR STANDARDS / TARGET				COLOR EVALUATION (OBJECTIONABLE FINDINGS LISTED BELOW)										PART DISPOSITION (PROCESS AND COLOR)	CUSTOMER INITIALS		
	MSE DATE	MASTER DATE	MATERIAL TYPE	MATERIAL SOURCE	HUE				VALUE		CHROMA		GLOSS				METALLIC BRILLIANCE	
					RED	YEL	GRN	BLU	LIGHT	DARK	GRAY	CLEAN	HIGH	LOW			HIGH	LOW
COMMENTS																		
SUPPLIER SIGNATURE				DATE		AUTHORIZED CUSTOMER REPRESENTATIVE SIGNATURE (MUST BE SIGNED FOR FULL APPROVAL)										DATE		

This document is restricted and may not be sent outside Navistar, Inc. or reproduced without permission from Industrial Design. Suppliers are required to assume all patent liability. ©2011 by Navistar, Inc.