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ERICKSON SPECIFICATION: **ES2002**

TITLE: **GLOBAL DESIGN PROVISIONS FOR 214 B/B-1 AND ST**

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TABLE OF REVISIONS

REV	DESCRIPTION	
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1. SCOPE

For Erickson 214B/B-1 and 214ST helicopters, this specification establishes design provisions that are applicable to all model 214 design data as specified herein. These provisions take precedence over corresponding requirements in the design data unless expressly stated in the data.

2. DOCUMENTS

The following documents form a part of this specification to the extent specified herein. In the event of conflict between Erickson documents referenced herein and the contents of this specification, the contents of this specification shall be considered a superseding requirement.

299-947-739	Drawing Interpretation and General Requirements
BPS 4050	Marking Aircraft Parts
ES2003	Controlled Item Program for 214 B/B-1 and ST

3. DEFINITIONS

Drawing
For the purpose of this specification, refers to the Bell design drawings and procurement specifications which define 10-, 11- and 12-digit P/N's (e.g. XXX-XXX-XXX-XXX). This does not include Bell Standards, Bell Process Specifications, raw material specifications, etc.

Sole Use Drawing
Drawing which defines P/N's that display applicability to model 214 only

Dual Use Drawing
Drawing which defines P/N's that display applicability to 214 and non-214 models

4. NOTES

The following Notes are applicable to all model 214 design:

4.1 Proprietary
The information contained in model 214 design data is the property of Erickson 214 Holdings, LLC, a subsidiary of Erickson Incorporated.

4.2 Erickson in Place of Bell
All references to Bell and entities at Bell shall be considered as Erickson. Bell no longer performs the roles for model 214 that are identified throughout the design.

4.3 Controlled Item Program
Controlled Item Program (Flight Safety, Critical, Primary, and Makes-A parts) per Erickson ES2003 instead of Bell 299-099-797, or the superseded 299-947-478, 299-099-796 and 299-947-140 which are cited by 214 design data.

4.4 Fatigue Control
Fatigue Control per Bell 299-100-840 is not applicable to Erickson model 214. All such references shall be disregarded.

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4.5 Quality System Functions

References to Supplier Quality Requirements Manual (SQRM) are not applicable. For model 214 refer to Erickson Quality System requirements.

4.6 Lined-Through Configurations

Detail parts, assemblies and installations that are lined through in the parts list which defines them are inactive and shall not be manufactured. This does not apply to part numbers that have been relocated to a different parts list of the drawing.

4.7 3-Digit Dash Numbers

Where drawing-defined P/N's are shown as 1- and 2-digit dash numbers, it shall be interpreted that the Erickson P/N has a 3-digit dash with leading zeros, as follows:

Bell 1- or 2-Digit Dash	Erickson 3-Digit Dash
-X	-00X
-XY	-0XY

4.8 Part Mark and Serialization

Part mark per drawing requirements with the following exceptions:

4.8.1 Part Identification

BPS 4050, section 4.1.1, Part Identification, is expanded to include:

a. Parts shall be marked with the Erickson CAGE code which appears in the drawing title block, "9R802", as shown in the table below.

b. Assemblies shall include "ASSY" as shown below.

c. Erickson parts that are made by suppliers shall include the supplier's CAGE code after "MFR-" as shown below.

Made by	Assembly Part	Detail Part
Erickson	9R802ASSYxxx-xxx-xxx-xxx	9R802-xxx-xxx-xxx-xxx
Supplier for Erickson	9R802ASSYxxx-xxx-xxx-xxx MFR-xxxxx	9R802-xxx-xxx-xxx-xxx MFR-xxxxx

4.8.2 Trademark Logo

a. There shall be no Bell, BHTI, etc. trademark or logo applied.

b. BPS 4050, section 4.1.2, BTI Trademark Logo, is not applicable.

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4.8.3 Serialization

a. BPS 4050, sections 4.1.3.1, Supplier Parts, and 4.1.3.2, Bell Manufactured Parts, are not applicable.

b. In BPS 4050, section 4.1.3.5, Physical Serialization Exceptions, the paragraphs 2 and 3 examples of Flight Safety Part serialization are not applicable.

c. Erickson assigned serial numbers are maintained by the Quality Department, and shall appear as shown below. "EACXXXXX" is the serial number. "S/N" shall be marked if an equivalent designator is not available via nameplate, etc.

S/N EACXXXXX

d. Serial numbers for supplier-made parts may be assigned by Erickson in the Purchase Order requirements.

e. If serial numbers are not assigned by PO, then supplier may use internally defined serial numbers provided they are unique and non-repeating for all Erickson P/N's manufactured by the supplier.

f. Serial numbers shall be applied at the earliest possible operational sequence, and re-applied in the event of removal due to processing. Inspection shall be performed immediately after reapplication of serial number in order to verify correctness.

4.9 Drawing Interpretation, General Requirements, Alts/Supersessions

For drawing interpretation and general requirements for model 214 designs, including citation of the approved source list, and the global listings of alternate/superseded parts, processes and materials, see 299-947-739.

4.10 Bell Specifications and Standards

4.10.1 Model 214 Applicability

Erickson model 214 designs include the Bell specifications and standards that are prescribed by design data, and in the revision state that was current on Sep. 8, 2020.

This includes specifications and standards that are applicable to other Bell models, such as Bell Process Specifications (BPS), material, acceptance, and other requirements specifications in the 299-947-XXX series, Bell Standards (BS) and Material Bulletins (MB), etc.

Revisions of these documents that are released by Bell after Sep. 8, 2020 are not applicable to model 214 type design unless reviewed and approved for 214 by Erickson.

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4.10.2 Bell-Approved Variances

Supplier variations, deviations, waivers, etc. which were approved by Bell and active on Sep. 8, 2020 for Bell specifications and standards may be submitted for Erickson consideration via Supplier Technical Assistance Request (STA), EAC form 0134, with a copy of the Bell approval.

a. Design Deviations

If deemed by Erickson Engineering to be an acceptable type design deviation with adequate approval, then the variance may remain active for model 214, for the subject revision of the specification or standard.

Engineering will disposition the STA form as such, and file the Bell-approved variance with the design data.

If previous approval is found to be insufficient, then the variance may be considered by Erickson for design change or be rejected.

b. Quality System Functions

If deemed by Erickson to be a matter of the Quality System rather than type design, then an appropriate entity at Erickson will provide disposition based upon Quality System requirements.

Variances approved by Bell after Sep. 8, 2020 may not be applied to 214 designs. The subject should be submitted to Erickson via STA.

4.10.3 Erickson Changes

When it has been determined that a change is needed for a specification or standard that is applicable to 214 and other Bell models, Erickson shall produce a derivative work with unique identification applicable only to Erickson models.

The derivative work will alternate with or supersede the corresponding Bell specification or standard, and be incorporated into model 214 design as either:

a. Revision of part-specific data in order to update callouts for the specification or standard, or

b. Global deployment via an alternate/supersession listing that is invoked by the drawing interpretation and general requirements specification

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5. DRAWING PROCESSING

The Bell 214 drawings shall be processed by Erickson Engineering as follows prior to use for Erickson manufacture, as well as prior to first revision by Erickson. The revision to be processed is that which was current on Sep. 8, 2020.

FOR ALL DRAWINGS:

(1) There shall be no design change resulting from this processing

(2) Drawing revision remains unchanged

(3) Process all F/D sheets, Separate Application Data (AD), Separate Parts List (PL), Separate Notes List (NL) and Engineering Orders (EO), etc.

(4) Add a decal to the drawing which references this specification in order to facilitate awareness

(5) If Derivative Work P/N's are sub-assembly to 214 B/B-1 or ST P/N's defined by the drawing, then add a DWP Subs Table which clarifies the spares relationships to the corresponding Bell P/N's. Refer to *DWP Subs* below.

(6) Update CAGE, Erickson logo and proprietary statements in borders

(7) Fully redact all Application Data (AD) that is not 214B/B-1 or 214ST

(8) Coordinate with Erickson Trade Compliance to identify Bell Export Control classifications to be redacted from drawing margins

(9) Redact P/N's defined by the drawing which are unique to models other than 214 B/B-1 & ST, based upon Export Class:

- Bell Export Class = Uncontrolled:
  - Line-through part in parts list to inactivate it
  - "X"-out the primary definition bubble in F/D
  - If an assembly, installation, kit, etc., then "X"-out the P/L b.o.m. column
- Bell Export Class = Controlled:
  - Fully redact part from drawing, including information unique to it in P/L, F/D, Notes, etc.

(10) Maintain the resulting master pdf in the PDM vault

(11) Post a pdf copy to the network location for released authority design data

FOR SOLE USE DRAWINGS:

(12) Base drawing number and dash numbers remain unchanged

(continued)

FOR DUAL USE DRAWINGS:

(13) Base drawing number is to be reidentified with a "D" prefix as described in *Derivative Work P/N's* below

(14) Dash numbers remain unchanged

- 214 B/B-1 & ST P/N's that are defined by the drawing and listed in the Parts List with base drawing in the part number shall be changed in P/L to a 3-digit dash number only

6. DERIVATIVE WORK P/N'S

Resulting from terms of the 214 TC Purchase and Sale Agreement, Sep. 8, 2020, this specification establishes that all 214B/B-1 and 214ST P/N's originally defined by Bell Dual Use drawings shall be reidentified as unique P/N's applicable only to Erickson 214 models, with implementation as follows:

6.1 Derivative Work Drawing

As described in *Drawing Processing* above, Dual Use drawings shall be reidentified by the addition of a "D" prefix prior to use for Erickson manufacture. The resulting drawings otherwise retain the original Bell drawing numbers, and are considered Derivative Works.

Derivative Work drawing number: DXXX-XXX-XXX

6.2 Derivative Work P/N (DWP)

214 B/B-1 and ST details, assemblies, installations, etc. that are defined by Derivative Work drawings are considered Derivative Work P/N's (DWP). They retain the original Bell dash numbers.

Derivative Work P/N: DXXX-XXX-XXX-XXX

6.2.1 Dual Use P/N's shall not be manufactured by, or for, Erickson as the original Bell P/N, but only as the DWP.

6.3 Instructions for Continued Airworthiness (ICA)

Upon initial reidentification during *Drawing Processing* above, Erickson DWP's are subject to all of the ICA's for the corresponding Bell P/N, including life limits, routine inspections, damage and repair limits, service and technical bulletins, parts catalogs, etc.

Subsequent Erickson design change activity related to DWP's shall implement changes to ICA's as necessary.

6.4 Airworthiness Directives (AD) and Service Difficulties

Upon initial reidentification during *Drawing Processing* above, Erickson DWP's are subject to FAA AD's, and other service difficulties and safety bulletins that are active for the corresponding Bell P/N.

Note that in order to operate with a DWP in place of a corresponding Bell P/N that is cited within the text of an AD, FAA approval of an Alternate Means of Compliance (AMOC) is required.

7. DWP SUBS

Processing of drawings for Erickson manufacture (described in *Drawing Processing* above) will not add Derivative Work P/N's (DWP) to the Parts Lists, F/D callouts, Notes, etc. of the Next Higher Assy (NHA) drawings which consume them. DWP's may be used in place of the original Bell P/N's without such drawing changes, as follows:

7.1 DWP's are UDOP Spares

7.1.1 DWP's are established by this specification to be UDOP Spares for the corresponding Bell P/N's wherever the Bell P/N's are indicated in design Parts Lists, F/D, Notes, etc.

7.1.2 UDOP is an acronym for the phrase "Upon Depletion of Parts". For Erickson model 214 type design, this indicates that the design (Engineering) has no preference between the original Bell P/N and the DWP spare. This identification as UDOP Spare rather than as Alternate is intended to reflect that manufacture is trending toward the new P/N.

Additionally, the type design is not insistent regarding the near-term implications of the term "depletion". The original Bell P/N may continue to be replenished and used after current stock has been exhausted.

7.2 DWP Subs Table

7.2.1 In order to facilitate awareness of DWP's at the NHA drawing level, a 'DWP Subs Table' will be added to the NHA drawings when processed according to *Drawing Processing* above.

7.2.2 The DWP Subs Table will list all DWP's that are sub-assembly to 214 B/B-1 or ST P/N's defined by the drawing, and indicate the corresponding Bell P/N's for which they are UDOP Spares.

7.2.3 The DWP Subs Table will not reflect whether P/N's are obsolete due to replacement in the design. It will list all DWP's for all 214 B/B-1 or ST design, whether current or obsolete.

One must fully consider Parts List relationships and Drawing Notes in order to understand the current applicability of the original Bell P/N's, and then find their DWP spares (if any) in the DWP Subs Table.

7.2.4 The DWP spares are now considered the primary parts in the design, and the corresponding Bell P/N's are acceptable Alternates.

7.2.5 Revision of DWP NHA drawings by Erickson Engineering may result in incorporation of the DWP's into Parts Lists, F/D callouts, Notes, etc. Once a DWP is incorporated into an NHA drawing as such, it no longer requires listing in a DWP Subs Table on that drawing. If all DWP's are incorporated, then the DWP Subs Table shall be removed.

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7.2.6 Always look for a DWP Subs Table when evaluating drawing data for sub-assembly P/N's that comprise any model 214 P/N.

Since DWP's will typically not appear in Parts Lists, F/D callouts and Notes, one must evaluate whether Bell P/N's have DWP spares when considering the sub-assembly P/N's of all model 214 details, assemblies, installations, etc. The parts are alternates, so there is not risk of using an unapproved part, provided one adheres to par. 7.2.3 above, but for accurate planning and in order to reduce the risk of manufacturing a Dual Use part as the Bell P/N, this is an important evaluation. The DWP Subs Table exists to greatly simplify the task.

8. SOURCE AND SPECIFICATION CONTROL DESIGNS

Bell managed certain changes to source control and specification control designs (SCD) in their ERP system rather than on the face of the design drawings. As a result, Erickson 214 drawings for these parts may be out of sync in relation to existing Bell design approvals. Changes to aspects ranging from supplier name, address, revision of supplier drawing, etc. may have been approved without update of the Bell SCD drawing. In order to avoid unnecessary drawing changes, the following shall apply for Erickson model 214.

8.1 Bell-Approved Differences

For Erickson SCD drawings that remain at the revision level that was current on Sep. 8, 2020, when the corresponding, Bell-approved supplier drawing is in conflict with the Erickson drawing, then it may be submitted to Erickson via Supplier Technical Assistance Request (STA), EAC form 0134, with a copy of the Bell approval and current supplier top drawing.

8.1.1 If deemed by Erickson Engineering to be adequate approval of the differences, then the Bell approval may remain active, and the supplier and Erickson drawings remain in their current state.

Engineering will disposition the STA as such, and file the Bell approval and supplier drawing in the Supplier Technical Data folder in the network location for released authority data.

Upon subsequent revision of the SCD drawing by Erickson, the out of sync differences shall be resolved and the previous Bell approval archived.

8.1.2 If previous approval is deemed to be insufficient, then the issue shall be considered for change of Erickson SCD drawing, supplier design, or both, as applicable.

8.2 Erickson-Approved Design

SCD drawings that have been revised or created by Erickson shall be considered the model 214 design approval for the corresponding supplier designs.

A copy of the supplier current top drawing shall be in the possession of Erickson Engineering, and maintained in the Supplier Technical Data folder in the network location for released authority design data.