1.0 SCOPE

1.1 This specification establishes the part protection requirements for F-5E, F-5F, F-5G, & T-38 Fatigue Critical Parts.

1.1.1 Fatigue Critical Parts listed in Table I are identified in process specification QC-30.

TABLE I – FATIGUE CRITICAL PARTS

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>NOMENCLATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-10304</td>
<td>Longeron</td>
</tr>
<tr>
<td>14-11262</td>
<td>Bulkhead Inst.</td>
</tr>
<tr>
<td>14-11273</td>
<td>Former Assembly</td>
</tr>
<tr>
<td>14-11304</td>
<td>Longeron</td>
</tr>
<tr>
<td>14-11611</td>
<td>Longeron</td>
</tr>
<tr>
<td>14-20001</td>
<td>Bolt</td>
</tr>
<tr>
<td>14-20003</td>
<td>Bolt</td>
</tr>
<tr>
<td>14-23240</td>
<td>Spar</td>
</tr>
<tr>
<td>14-23252</td>
<td>Spar Assembly</td>
</tr>
<tr>
<td>14-23404</td>
<td>Rib</td>
</tr>
<tr>
<td>14-23449</td>
<td>Spar</td>
</tr>
<tr>
<td>14-23502</td>
<td>Skin, Wing</td>
</tr>
<tr>
<td>14-23529</td>
<td>Bracket</td>
</tr>
<tr>
<td>14-23530</td>
<td>Bracket</td>
</tr>
<tr>
<td>14-26107</td>
<td>Hinge, Assembly</td>
</tr>
<tr>
<td>14-27209</td>
<td>Hinge – F.S. 86.5</td>
</tr>
<tr>
<td>14-27211</td>
<td>Hinge – F.S. 116.5</td>
</tr>
<tr>
<td>14-50240</td>
<td>Bracket, Engine Mount</td>
</tr>
<tr>
<td>14-50252</td>
<td>Plate, Engine Mount</td>
</tr>
<tr>
<td>14-50274</td>
<td>Plate, Engine Mount</td>
</tr>
<tr>
<td>18-10051</td>
<td>Bolt – F.S. 284.0</td>
</tr>
<tr>
<td>18-10638</td>
<td>Longeron – F.S. 135.0 – 284.0</td>
</tr>
<tr>
<td>18-32323</td>
<td>Support Hinge</td>
</tr>
<tr>
<td>2-20003</td>
<td>Bolt – Att Attach, Wing to Fus.</td>
</tr>
<tr>
<td>2-23204</td>
<td>Rib</td>
</tr>
<tr>
<td>2-23240</td>
<td>Spar, Cntr. Wing</td>
</tr>
<tr>
<td>2-23252</td>
<td>Spar</td>
</tr>
<tr>
<td>PART NUMBER</td>
<td>NOMENCLATURE</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>2-31406</td>
<td>Skin, Vertical Stabilizer</td>
</tr>
<tr>
<td>3-11413</td>
<td>Longeron – Attach., Dorsal</td>
</tr>
<tr>
<td>3-20001</td>
<td>Bolt, Shoulder – Fwd. Attach., Wing to Fus.</td>
</tr>
<tr>
<td>3-32323</td>
<td>Hinge, Horiz. Stabilizer</td>
</tr>
<tr>
<td>3-23502</td>
<td>Skin, Wing</td>
</tr>
<tr>
<td>40-10304</td>
<td>Longeron – Upper F.S. 182.92 – 284.0</td>
</tr>
<tr>
<td>40-10901</td>
<td>Bolt, Upper Attach. Spl. – F.S. 284.0</td>
</tr>
<tr>
<td>40-10902</td>
<td>Bolt, Horz. Stabilizer</td>
</tr>
<tr>
<td>40-11261</td>
<td>Bulkhead, Nacelle – F.S. 341.37</td>
</tr>
<tr>
<td>40-11262</td>
<td>Bulkhead, Nacelle – F.S. 341.0</td>
</tr>
<tr>
<td>40-11271</td>
<td>Former – Upper F.S. 379.91</td>
</tr>
<tr>
<td>40-11304</td>
<td>Longeron – Upper F.S. 284.0 – 341.37</td>
</tr>
<tr>
<td>40-11611</td>
<td>Longeron – Dorsal F.S. 270.47 – 487.5</td>
</tr>
<tr>
<td>40-11612</td>
<td>Deck Instl., Dorsal</td>
</tr>
<tr>
<td>40-12227</td>
<td>Former – Upper F.S. 478.0</td>
</tr>
<tr>
<td>40-12229</td>
<td>Former – Upper F.S. 487.5</td>
</tr>
<tr>
<td>40-12233</td>
<td>Former – Upper F.S. 506.25</td>
</tr>
<tr>
<td>40-12235</td>
<td>Former – Upper F.S. 515.25</td>
</tr>
<tr>
<td>40-12255</td>
<td>Support Assembly – Horiz. Stabilizer Structure</td>
</tr>
<tr>
<td>40-12331</td>
<td>Trunion Fitting, Horizontal Stabilizer – F.S. 536.0</td>
</tr>
<tr>
<td>40-23502</td>
<td>Skin, Lower Wing</td>
</tr>
<tr>
<td>40-50221</td>
<td>Mount – Engine Thrust, Self-Adjusting</td>
</tr>
<tr>
<td>40-50222</td>
<td>Adapter, Mount – Eng. Thrust, Self-Adjusting</td>
</tr>
<tr>
<td>40-50240</td>
<td>Mount, Fixed – Engine Thrust</td>
</tr>
<tr>
<td>40-50251</td>
<td>Barrel, Turnbuckle – Rear Mount</td>
</tr>
<tr>
<td>40-50950</td>
<td>Bearing, Plain, Rod End – Rear Engine Mount</td>
</tr>
<tr>
<td>50-10304</td>
<td>Longeron – Upper F.S. 182.92-284.0</td>
</tr>
<tr>
<td>6-23252</td>
<td>Spar – Left Side, Right Side F.S. 25.231 – 64.80</td>
</tr>
<tr>
<td>6-23419</td>
<td>Rib Attach. – Wing to Fuselage, Left Side, Right Side</td>
</tr>
<tr>
<td>8-23402</td>
<td>Skin, Lower Main Wing</td>
</tr>
</tbody>
</table>

1.2 This document is applicable to Northrop Grumman procurement, warehousing manufacturing, in-plant and offsite transportation and storage operations, and to supplier packaging, handling and transportation operations specified herein when referenced on Engineering Drawings, Specifications, Manufacturing Operation Sheets and Purchase Orders.
2.0 APPLICABLE DOCUMENTS

2.1 The following documents, of the same issue in effect on the date of initiation for bid or request for proposal, form a part of this specification to the extent specified herein.

2.1.1 Government

2.1.1.1 VV-L-800 Lubricating Oil, General Purpose, Preservative (Water Displacing, Low Temperature)

2.1.1.2 MIL-P-17667 Paper, Wrapping Chemically Neutral (Noncorrosive)

2.1.1.3 MIL-B-121 Barrier, Material, Greaseproofed, Waterproof, Flexible (Grade “A” Paper)

2.1.1.4 L-P-378 Polyolefin (Polyethylene) Film 4-Mil Commercial Grade

2.1.1.5 PPP-C-1752 Polyethylene Foam, Unicellular

2.1.1.6 PPP-P-291 Paperboard, Wrapping and Cushioning

2.1.1.7 A-A-1898 Cushioning Material, Cellulosic

2.1.1.8 PPP-C-795 Cushioning, Cellular, Plastic Film

2.1.1.9 ASTM D5118, ASTM D1974 Boxes, Shipping, Corrugated Fiberboard

2.1.1.10 PPP-T-495 Tubes, Mailing, and Filing

2.1.2 Commercial

2.1.2.1 Commercial Grade Felt Sheet (Padding) 1/2 Inch

2.1.3 Military Aircraft Systems Division

2.1.3.1 FP-68 Application of Corrosion Preventive Compounds

2.1.3.2 P-430 Preservation Requirements

2.1.3.3 P-6950 2000 and 7000 Series Aluminum Alloy Material and Parts

2.1.3.4 QC-30 Inspection of Fatigue Critical Parts

2.1.3.5 P-900 F-20, T-38, and F-5 Main Wing Skins and Vertical Stabilizer Skins

2.1.3.6 P-200 Packaging in One Carton or Corrugated Box

2.1.3.7 (Deleted)

2.1.3.8 (Deleted)

2.1.3.9 P-600 Packaging in One Corrugated Box – Large or Bulky Parts

2.1.3.10 P-700 Packaging in One Wood or Wood-Reinforced Box – Large, Heavy, or Bulky Parts

2.1.4 Other Publications

2.1.4.1 Uniform Freight Classification
3.0 REQUIREMENTS

3.1 Materials

3.1.1 Interleaf and wrap for clean and dry parts shall be paper, chemically neutral, MIL-P-17667, Type I.

3.1.2 Interleaf and wrap for preserved parts shall be barrier material, greaseproofed, MIL-B-121, Grade “A” or plastic film (4 mil, clear) L-P-378.

3.1.3 Paperboard, wrapping and cushioning shall be in accordance with PPP-P-291, Type I, Style 1, neutral, per MIL-P-17667

3.1.4 Corrosion preventive compound shall be VV-L-800 oil (FP-68 approved products) as specified.

3.1.5 Cushioning materials shall be cellulosic (KIMPAC), PPP-C-843, or polyethylene foam, 2-pound density, PPP-C-1752, or Aircap, MIL-C-81013, Type II.

3.1.6 Corrugated fiberboard boxes shall be in accordance with ASTM D5118, ASTM D1974.

3.1.7 Paint shall be International Safety Orange Sherwin Williams-Kem Lustral P-65E2 or equivalent.

3.2 General Handling, Storage, and Transportation

3.2.1 All parts through all phases of manufacturing operations shall be stored indoors in such a manner that they are protected from rain, fog, and corrosive environments.

3.2.2 All parts shall be packaged and handled individually to ensure that parts do not contact each other and the vehicles, rack, and accumulation containers utilized to handle the parts.

3.2.3 Gang loading or stacking of parts in containers, racks, dollies, or other transportation, staging or storage vehicles is not permitted.

3.2.4 Outdoor storage of fatigue critical parts is not permitted.

3.2.5 Fatigue critical parts shall be transported in specified packaging and handling containers or vehicles. Substitute packaging and handling methods shall be authorized by Packaging Engineers only.

3.2.6 “PK” containers, specified in paragraph 3.3, shall be uniquely color coded and identified for fatigue critical parts use.

3.2.6.1 All fatigue critical parts containers shall be painted as follows:

“INTERNATIONAL SAFETY ORANGE”
Sherwin-Williams-Kem Lustral F-65E2 or equivalent

3.2.6.2 All fatigue critical parts containers shall be identified (stenciled) in black 1-inch high letters as follows:

“FATIGUE CRITICAL
HANDLE WITH CARE”

3.3 Detailed Part Protection at Northrop Grumman and Suppliers

3.3.1 P/N 14-10304, Longeron

Supplier Packaging: Package individually in 5 in. x 4 in. x 103 in. I.D., 275-lb. test, style FOL fiberboard carton with tape closure. Stencil carton on two sides with 1-in. black letters:

“SPK-22701, FATIGUE CRITICAL – HANDLE WITH CARE, P/N 14-10304.”

Supplier Packing: Overpack several packaged parts in corrugated or lumber box in accordance with Part Protection Specification P-600, or P-700.

Northrop Grumman Part Protection: Retain supplier carton “SPK-22701” through manufacturing and stores operations.
3.3.2 P/N 14-11262, Bulkhead Inst.
Supplier Packaging: Package individually in 38 in. x 29 in. x 5-1/2 in. I.D., 275-lb. test, style FOL fiberboard carton with tape closure. Stencil carton on two sides with 1-in. black letters: “SPK-22704, FATIGUE CRITICAL – HANDLE WITH CARE, P/N 14-11262.”
Supplier Packing: Overpack several packaged parts in corrugated or lumber box in accordance with Part Protection Specification P-600, or P-700.
Northrop Grumman Part Protection: Retain supplier carton “SPK-22704” through manufacturing and stores operations.

3.3.3 P/N 14-11273, Former Assembly
Supplier and Northrop Grumman Packaging, Packing, and Part Protection
Same as for P/N 14-11262, Bulkhead, except:
Carton Size = 21 in. x 13 in. x 6 in.
Stencil = Carton No. SPK-22705 and P/N 14-11273

3.3.4 P/N 14-11304, Longeron
Supplier and Northrop Grumman Packaging, Packing, and Part Protection
Same as for P/N 14-10304, Longeron, except:
Carton Size = 4 in. x 3 in. x 53 in.
Stencil = Carton No. SPK-22706 and P/N 14-11304

3.3.5 P/N 14-11611, Longeron
Supplier and Northrop Grumman Packaging, Packing, and Part Protection
Same as for P/N 14-10304, Longeron, except:
Carton Size = 4 in. x 3 in. x 173 in. (telescopic)
Stencil = Carton No. SPK-22707 and P/N 14-11611

3.3.6 P/N 14-20001, Bolt
Supplier Packaging: Package individually in 4-mil. thick polyethylene bag with pressure or heat seal closure. Place an identification label in each bag. The label shall contain the part number and the following statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”
Supplier Packing: Overpack several packaged parts into corrugated fiberboard shipping container in accordance with Part Protection Specification P-200 for shipment to Northrop Grumman.
Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores operations.

3.3.7 P/N 14-20003, Bolt
Supplier and Northrop Grumman Packaging, Packing, and Part Protection
Same as for P/N 14-20001, Bolt.

3.3.8 P/N 14-23240, Spar
Northrop Grumman Part Protection: (Part is manufactured complete at Northrop Grumman)
Package individually in 6 in. x 4 in. x 55 in. ID, 275-lb. test, style FOL fiberboard carton with tape closure. Stencil carton on two sides with 1-in. black letters: “SPK-22717, FATIGUE CRITICAL – HANDLE WITH CARE, P/N 14-23240.”
3.3.9 P/N 14-23252, Spar Assembly
Supplier and Northrop Grumman Packaging, Packing, and Part Protection
Same as for P/N 14-10304, Longeron, except:
Carton Size = 7 in. x 5 in. x 50 in.
Stencil = Carton No. SPK-22716 and P/N 14-23252

3.3.10 P/N 14-23404, Rib
Supplier and Northrop Grumman Packaging, Packing, and Part Protection
Same as for P/N 14-11262, Bulkhead, except:
Carton Size = 39 in. x 9 in. x 5-1/2 in.
Stencil = Carton No. SPK-22710 and P/N 14-23404

3.3.11 P/N 14-23449, Spar
Supplier and Northrop Grumman Packaging, Packing, and Part Protection
Same as for P/N 14-11262, Bulkhead, except:
Carton Size = 36 in. x 14 in. x 5-1/2 in.
Stencil = Carton No. SPK-22711 and P/N 14-23449

3.3.12 P/N 14-23502, Skin, Wing
Northrop Grumman Packaging: Preserve (VV-L-800 oil) and protect part in accordance with P-900,
except utilize PK-22712 container.
Northrop Grumman to Supplier and Return: Transport in special skin van or utilize PK-22712.
Northrop Grumman Finished Parts: Store in floor-mounted peg racks – trailing edge or wing center
section resting on the padded shelf of rack. Padding shall be minimum 1/2-in. felt or polyethylene foam.
Use edge protection per P-900 as required.

3.3.13 P/N 14-23529, Bracket
Northrop Grumman Part Protection: (Part is manufactured complete at Northrop Grumman) Package
individually in 4-mil. thick polyethylene bag with pressure or heat seal closure. In each bag, place an
identification label containing the part number and the statement: “FATIGUE CRITICAL – HANDLE
WITH CARE.” Retain package through manufacturing stores operations.

3.5.14 P/N 14-23530, Bracket
Supplier Packaging: Package individually in minimum 4-mil. thick polyethylene bag with pressure
or heat seal closure. Place an identification label in each bag showing the part number and
the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”
Supplier Packing: Overpack several packaged parts into a corrugated fiberboard carton in accordance
with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop Grumman.
Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores
operation.

3.3.15 P/N 14-26107, Hinge Assembly
Northrop Grumman Part Protection: (Part is manufactured complete at Northrop Grumman)
Same as for P/N 14-23529, Bracket.
3.5.16 P/N 14-27209, Hinge – F.S. 86.5

Supplier Packaging: Apply contact preservative to part in accordance with Northrop Grumman Part Protection Specification P-430-14. Package individually in 4-mil. thick polyethylene film or MIL-B-121 Grade “A” paper wrap or bag. Place an identification label on package. The label shall contain the part number and the following statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: Overpack several packaged parts into corrugated fiberboard shipping container in accordance with Part Protection Specification P-200 for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Retain supplier’s protection up to paint and process operations. After paint and process, package parts individually in clean, 4-mil. minimum thick polyethylene bags. Place an identification label in each bag showing the part number and the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”

3.3.17 P/N 14-27211, Hinge – F.S. 116.5

Supplier and Northrop Grumman Part Protection: Same as for P/N 14-27209, Hinge.

3.3.18 P/N 14-50240, Bracket, Engine Mount

Northrop Grumman Part Protection: (Part is manufactured complete at Northrop Grumman) Package individually in 4-mil. thick polyethylene bag with pressure or heat seal closure. In each bag place an identification label containing the part number and the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.” Retain package through store operations.

3.3.19 P/N 14-50252, Plate, Engine Mount – Fabricate Into Assembly P/N 14-50251

Northrop Grumman Packaging: (Fabricate and assemble complete at Northrop Grumman) Package individually in 4-mil. thick polyethylene bag with pressure or heat seal closure. In each bag, place an identification label showing the part number and the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”

Northrop Grumman Packing: Overpack several bagged parts into a corrugated fiberboard carton in accordance with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Maintain Northrop Grumman packaging for delivery to stores or production.

3.3.20 P/N 14-50274, Plate, Engine Mount

Fabricate into assembly PN 14-50271.

Northrop Grumman Packaging, Northrop Grumman Packing, and Northrop Grumman Part Protection: Same as for P/N 14-50252.

3.3.21 P/N 18-10051, Bolt – F.S. 284.0

Northrop Grumman Part Protection: (Part is manufactured complete at Northrop Grumman) Package individually in 4-mil. thick polyethylene bag with pressure or heat seal closure. Place an identification label in each bag. The label shall contain the part number and the following statement: “FATIGUE CRITICAL – HANDLE WITH CARE.” Retain package through stores operations.

3.3.22 P/N 18-10638, Longeron – F.S. 135.0 – 284.0

Supplier and Northrop Grumman Packaging, Packaging, and Part Protection
Same as for P/N 14-10304, Longeron, except:
Carton Size = 7 in. x 5 in. x 151 in. (telescopic)
Stencil = Carton No.
SPK-22715 and P/N 18-10638
3.3.23 P/N 18-32323, Support Hinge
Supplier Packaging: The required carton shall be 11 in. x 3-1/2 in. x 55 in. I.D., 275-lb. test, style FOL fiberboard; and the following additional marking is required. Stencil carton on two sides with 1-in. black letters: “SPK-22718, FATIGUE CRITICAL – HANDLE WITH CARE, P/N 18-32323.”
Northrop Grumman Parts Protection: Reuse supplier carton SPK-22718 through delivery to stores or production.

3.3.24 P/N 2-20003, Bolt - Aft Attach, Wing to Fus.
Supplier Packaging: Package individually in min. 4-mil. thick polyethylene bag with pressure or heat seal closure. Place an identification label in each bag showing the part number and the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”
Supplier Packing: Overpack several packaged parts into a corrugated fiberboard carton in accordance with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop Grumman.
Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores operations.

3.3.25 P/N 2-23204, Rib (T-38)
Supplier Packaging: Package individually in 9 in. x 6 in. x 39 in. I.D., 275-lb. test, style FOL fiberboard carton with tape closure. Stencil carton on two sides with 1-in. black letters: “SPK-22708, FATIGUE CRITICAL – HANDLE WITH CARE, P/N 2-23204.”
Supplier Packing: Overpack several packaged parts in corrugated or lumber box in accordance with Part Protection Specification P-600, or P-700.
Northrop Grumman Part Protection: Retain supplier carton SPK-22708 through manufacturing and stores operations.

3.3.26 P/N 2-23240, Spar, Cntr. Wing (T-38)
Supplier Packaging: Package individually in 6 in. x 4 in. x 50 in. I.D., 275-lb. test, style FOL fiberboard carton with tape closure. Stencil carton on two sides with 1-in. black letters: “SPK-22709, FATIGUE CRITICAL – HANDLE WITH CARE, P/N 2-23240.”
Supplier Packing: Overpack several packaged parts in corrugated or lumber box in accordance with Part Protection Specification P-600, or P-700.
Northrop Grumman Part Protection: Retain supplier carton SPK-22709 through manufacturing and stores operations.

3.3.27 P/N 2-23252, Spar, 44% (T-38)
Supplier Packaging: Package individually in 7 in. x 5 in. x 44 in. I.D., 275-lb. test, style FOL fiberboard carton with tape closure. Stencil carton on two sides with 1-in. black letters: “SPK-22713, FATIGUE CRITICAL – HANDLE WITH CARE, P/N 2-23252.”
Supplier Packing: Overpack several packaged parts in corrugated or lumber box in accordance with Part Protection Specification P-600, or P-700.
Northrop Grumman Part Protection: Retain supplier carton SPK-22713 through manufacturing and stores operations.
3.3.28  P/N 2-31406, Skin, Vertical Stabilizer
Supplier Packaging: Preserve (VV-L-800 oil) and protect part in accordance with P-900, except utilize PK-22702 container for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Preserve and protect in accordance with P-900, utilizing PK-22702 for delivery to stores or production.

Store finished skins in peg racks with padded shelf on rack. Padding shall be minimum 1/2-in. felt or polyethylene foam.

3.3.29  P/N 3-11413, Longeron - Attach., Dorsal
Supplier Part Protection: Apply VV-L-900 preservative oil (bare surfaces). Package in MIL-B-121 Grade “A” wrap. Pack in corrugated container per specification P-200. Label or identify container with part number and stencil: “FATIGUE CRITICAL – HANDLE WITH CARE.”

Northrop Grumman Part Protection: Retain supplier protection until paint and process of part. After paint and process, package in corrugated container or single-face corrugated wrap. Stencil container with part number and statement: “FATIGUE CRITICAL - HANDLE WITH CARE.”

3.3.30  P/N 3-20001 Bolt, Shoulder – Fwd. Attach., Wing to Fus.
Supplier Packaging: Package individually in minimum 4-mil. thick polyethylene bag with pressure or heat seal closure. Place an identification label in each bag showing the part number and the statement “FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: Overpack several packaged parts into a corrugated fiberboard carton in accordance with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores operations.

3.3.31  P/N 3-32323, Hinge, Horiz. Stabilizer
Supplier Packaging: Required carton shall be 11 in. x 3-1/2 in. x 55 in. I.D. 275-lb. test, style FOL fiberboard. The following additional marking instructions are required. Stencil carton on two sides with 1-in. high black letters: “SPK-22718, FATIGUE CRITICAL – HANDLE WITH CARE, P/N 3-32323.”

Northrop Grumman Parts Protection: Reuse supplier carton SPK 22718 through delivery to stores and operations.

3.3.32  P/N 3-23502 Skin, Wing
Northrop Grumman Packaging: Preserve (VV-L-800 oil) and protect part in accordance with P-900, except utilize PK 22714 container.

Northrop Grumman to Supplier and Return: Transport in special skin van or utilize PK-22714.

Northrop Grumman Finished Parts: Store in floor-mounted peg racks – trailing edge or wing center section resting on the padded shelf of rack. Padding shall be minimum 1/2-in. felt or polyethylene foam and edge protection per P-900.
3.3.33 P/N 40-10304, Longeron – Upper F.S. 182.92 – 284.0

Supplier Packaging: Package individually in 275-lb. minimum test, FOL style fiberboard carton with tape closure. Cushion or wrap as required with neutral material. Stencil carton on two sides in 1-in. black letters: “PK 40-10304, FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: As required by applicable freight regulations (para 2.1.4.1), overpack several packaged parts in one shipping container.

Northrop Grumman Parts Protection: Retain supplier’s packaging, restoring as necessary to meet the requirements of this specification.

3.3.34 P/N 40-10901, Bolt, Upper Attach Spl. – F.S. 284.0

Supplier Packaging: Package individually in 4-mil. thick polyethylene bag with pressure or heat seal closure. Place an identification label in each bag. The label shall contain the part number and the following statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: Overpack several packaged parts into corrugated fiberboard shipping container in accordance with Part Protection Specification P-200 for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores operations.

3.3.35 P/N 40-10902, Bolt, Horiz. Stabilizer

Supplier Package, Supplier Packaging and Northrop Grumman Parts Protection: Same as for P/N 40-10901.

3.3.36 P/N 40-11261, Bulkhead, Nacelle – F.S. 341.37

(Part is manufactured complete at Northrop Grumman)

Northrop Grumman Part Protection: Use PK-22753 to transport between manufacturing operations.

3.3.37 P/N 40-11262, Bulkhead, Nacelle – F.S. 341.0

Same as for P/N 40-11261.

Northrop Grumman Parts Protection: Same as for P/N 40-11261.

3.3.38 P/N 40-11271, Former – Upper F.S. 379.91

Supplier Packaging: Package individually in 275-lb. minimum test, FOL style fiberboard carton with tape closure. Cushion or wrap as required with neutral material. Stencil carton on two sides in 1-in. black letters: “P/N 40-11271, FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: As required by applicable freight regulations (para. 2.1.4.1), overpack several packaged parts in one shipping container.

Northrop Grumman Parts Protection: Retain supplier’s packaging, restoring as necessary to meet the requirements of this specification.

3.3.39 P/N 40-11304, Longeron – Upper F.S. 284-341.37

Supplier Packaging: Package individually in 275-lb. minimum test, FOL style fiberboard carton with tape closure. Cushion or wrap as required with neutral material. Stencil carton on two sides in 1-in. black letters: “P/N 40-11304, FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: As required by applicable freight regulations (para. 2.1.4.1), overpack several packaged parts in one shipping container.

Northrop Grumman Parts Protection: Retain supplier’s packaging, restoring as necessary to meet the general requirements of this specification.
3.3.40 P/N 40-11611, Longeron – Dorsal F.S. 270.47-487.5

Supplier Packaging: Protect part in accordance with specification P-6950. Enclose each part in neutral material and put into individual mailing tubes per PPP-T-495, or equivalent, or into individual end opening cartons fabricated of min. 275-lb. test corrugated fiberboard. Stencil tubes or cartons near each end with 1-in. black letters as follows: “P/N 40-11611, FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: Pack several packaged parts into one wood, or cleated plywood box acceptable for transport by common carrier.

Northrop Grumman Part Protection: Retain supplier’s packaging, restoring as necessary to meet the general requirements of this specification. Use any adequate rigid container to move the individually packaged parts through Northrop Grumman operations. DO NOT MIX WITH OTHER PARTS.

3.3.41 P/N 40-11612, Deck Instl., Dorsal

Northrop Grumman Parts Protection: Use PK-22752 to transport between manufacturing operations and for sheltered storage.

3.3.42 P/N 40-12227, Former – Upper F.S. 478.0

Northrop Grumman Parts Protection: (Part is manufactured complete at Northrop Grumman) Package individually in 275-lb. test, FOL style fiberboard carton with tape closure. Stencil carton on two sides in 1-in. letters: “FATIGUE CRITICAL – HANDLE WITH CARE, P/N 40-12227.”

3.3.43 P/N 40-12229, Former – Upper F.S. 487.5

Northrop Grumman Parts Protection: (Part is manufactured complete at Northrop Grumman) Package individually in 275-lb. test, FOL style fiberboard carton with tape closure. Stencil carton on two sides in 1-in. letters: “FATIGUE CRITICAL – HANDLE WITH CARE, P/N 40-12229.”

3.3.44 P/N 40-12233, Former – Upper F.S. 506.25

Northrop Grumman Parts Protection: (Part is manufactured complete at Northrop Grumman) Package individually in 275-lb. test, FOL style fiberboard carton with tape closure. Stencil carton on two sides in 1-in. letters: “FATIGUE CRITICAL – HANDLE WITH CARE, P/N 40-12233.”

3.3.45 P/N 40-12235, Former – Upper F.S. 515.25

Northrop Grumman Parts Protection: (Part is manufactured complete at Northrop Grumman) Package individually in 275-lb. test, FOL style fiberboard carton with tape closure. Stencil carton on two sides in 1-in. letters: “FATIGUE CRITICAL – HANDLE WITH CARE, P/N 40-12233.”

3.3.46 P/N 40-12255, Support Assembly – Horiz. Stabilizer Structure

Northrop Grumman Parts Protection: (Part is manufactured complete at Northrop Grumman) Cushion in neutral material. Package individually in 4-mil. thick polyethylene bag with pressure, heat seal, or tape closure. In each bag, place an identification label that contains the part number and the following statement: “P/N 40-12255, FATIGUE CRITICAL – HANDLE WITH CARE.” Retain individual package through stores operations. Transport packaged parts in a suitable rigid container but DO NOT MIX WITH OTHER PARTS.
3.3.47  P/N 40-12331, Trunion Fitting – Horiz. Stab. F.S. 536.0
Supplier Packaging: Package individually in 275-lb. minimum test, FOL style fiberboard carton with
tape closure. Cushion or wrap as required with neutral material. Stencil carton on two sides in l-in.
black letters: “P/N 40-12331, FATIGUE CRITICAL – HANDLE WITH CARE.”
Supplier Packing: As required by applicable freight regulations (para. 2.1.4.1), overpack several
packaged parts in one shipping container.
Northrop Grumman Parts Protection: Retain supplier’s packaging, restoring as necessary to meet the
requirements of this specification.

3.3.48  P/N 40-23502, Skin, Lower Wing
Northrop Grumman Packaging: (During fabrication) Preserve (VV-L-800 oil) and protect part per
P-900, except utilize PK-22712 container.
Northrop Grumman Supplier and Return: Transport in special skin van, or on special wing skin
transporter, or utilize PK-22712.
Northrop Grumman Finished Part: Store on padded floor racks, or on special wing skin transporter. Use
edge protection per P-900 as required.

Supplier Packaging: Package individually in 275-lb. minimum test, FOL style fiberboard carton with
tape closure. Cushion or wrap as required with neutral material. Stencil carton on two sides in l-in.
black letters: “P/N 40-31403, FATIGUE CRITICAL – HANDLE WITH CARE.”
Supplier Packing: As required by applicable freight regulations (para. 2.1.4.1), overpack several
packaged parts in one shipping container.
Northrop Grumman Parts Protection: Retain supplier’s packaging, restoring as necessary to meet the
requirements of this specification.

3.3.50  P/N 40-33323, Torque Tube – Horiz. Stab.
Supplier Packaging: Package individually in 275-lb. min. test, FOL style fiberboard carton with tape
closure. Cushion or wrap as required with neutral material. Stencil carton on two sides in l-in. black
letters: “P/N 40-33323, FATIGUE CRITICAL – HANDLE WITH CARE.”
Supplier Packing: As required by applicable freight regulations, overpack several packaged parts in one
shipping container.
Northrop Grumman Parts Protection: Retain supplier’s packaging, restoring as necessary to meet the
requirements of this specification.

3.3.51  P/N 40-50221, Mount – Engine Thrust, Self-Adjusting
Northrop Grumman Packaging: Package individually in 4-mil. thick polyethylene bag with pressure or
heat seal closure. In each bag, place an identification label showing the part number and the statement:
“FATIGUE CRITICAL – HANDLE WITH CARE.”
Northrop Grumman Packing: Overpack several bagged parts into a corrugated fiberboard carton in
accordance with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop
Grumman.
Northrop Grumman Part Protection: Maintain Northrop Grumman packaging for delivery to stores or
production.
3.3.52 **P/N 40-50222, Adapter, Mount – Eng. Thrust, Self-Adjusting**

Supplier Packaging: Package individually in minimum 4-mil. thick polyethylene bag with pressure or heat seal closure. In each bag, place an identification label showing the part number and the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: Overpack several bagged parts into a corrugated fiberboard carton in accordance with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores operations.

3.3.53 **P/N 40-50240, Mount, Fixed – Engine Thrust**

Supplier Packaging: Package individually in minimum 4-mil. thick polyethylene bag with pressure or heat seal closure. In each bag, place an identification label showing the part number and the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: Overpack several bagged parts into a corrugated fiberboard carton in accordance with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores operations.

3.3.54 **P/N 40-50251, Barrel, Turnbuckle – Rear Mount**

Supplier Packaging: Package individually in minimum 4-mil. thick polyethylene bag with pressure or heat seal closure. In each bag, place an identification label showing the part number and the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: Overpack several bagged parts into a corrugated fiberboard carton in accordance with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores operations.

3.3.55 **P/N 40-50950, Bearing, Plain, Rod End – Rear Engine Mount**

Supplier Packaging: Package individually in minimum 4-mil. thick polyethylene bag with pressure or heat seal closure. In each bag, place an identification label showing the part number and the statement: “FATIGUE CRITICAL – HANDLE WITH CARE.”

Supplier Packing: Overpack several bagged parts into a corrugated fiberboard carton in accordance with Northrop Grumman Part Protection Specification P-200 for shipment to Northrop Grumman.

Northrop Grumman Part Protection: Retain supplier packaging through manufacturing and stores operations.

3.3.56 **P/N 50-10304 – Longeron – Upper F.S. 182.92-284.0**

Supplier Packaging, Packing and Northrop Grumman Parts Protection: Same as for P/N 40-10304, except stencil “P/N 50-10304” on carton.
3.3.57 P/N 6-23252, Spar 44% – Left Side, Right Side F.S. 25.231 – 64.80
Supplier Packaging: Package individually in 275-lb., minimum test FOL style fiberboard carton with tape closure. Cushion or wrap as required with pH neutral material. Stencil carton on two sides in 1-in. black letters: “P/N 6-23252, FATIGUE CRITICAL – HANDLE WITH CARE.”
Supplier Packing: As required by applicable freight regulations (para. 2.1.4.1), overpack several packaged parts in one shipping container.
Northrop Grumman Parts Protection: Retain supplier’s packaging, restoring as necessary to meet the requirements of this specification.

3.3.58 P/N 6-23419, Rib Attach. – Wing to Fuselage, Left Side, Right Side
Supplier Packaging: Package individually in 275-lb., min. test, FOL style fiberboard carton with tape closure. Cushion or wrap as required with neutral material. Stencil carton on two sides in 1-in. black letters: “P/N 6-23419, FATIGUE CRITICAL – HANDLE WITH CARE.”
Supplier Packing: As required by applicable freight regulations (para. 2.1.4.1), overpack several packaged parts in one shipping container.
Northrop Grumman Parts Protection: Retain supplier’s packaging, restoring as necessary to meet the requirements of this specification.

3.3.59 P/N 8-23402, Skin – Lower Main Wing
Northrop Grumman Packaging: (During fabrication) Preserve (VV-L-800 oil) and protect part per P-900, except utilize PK-22714 container.
Northrop Grumman Supplier and Return: Transport in special skin van, or on special wing skin transporter, or utilize PK-22714.
Northrop Grumman Finished Part: Store on padded floor racks or on special wing skin transporter. Use edge protection per P-900 as required.

4.0 PRODUCT QUALITY PROVISIONS
4.1 Product Quality shall maintain surveillance of the receipt, storage, preservation, packaging, handling and transportation of all parts covered by this specification to ensure compliance with the requirements herein.
4.2 Product Quality shall inspect and request corrective action on all deficiencies.
4.3 Inspection, in addition to that described herein, shall be performed as determined by physical evidence such as wetness, contamination, inadequate packaging or protection.
4.4 Inspection shall verify that parts are protected against corrosive environment during all manufacturing operations.
4.5 Parts and packaging that, upon receipt, exhibit evidence of wetness, corrosion, or physical damage shall not be accepted if delivered by supplier vehicle. If delivered by common carrier, the shipment shall be accepted, an exception noted on the freight bill, and the shipment rejected and subsequently returned to the supplier at his expense.
4.6 Product Quality shall conduct periodic audits of suppliers, distributors/jobbers, and subcontractors to ensure compliance with the requirements of this specification.
4.7 Inspection shall verify that all material to be transported within or between facilities, including suppliers, is protected and packaged in accordance with this specification.
4.8 A periodic audit inspection of stored materials shall be performed per applicable Product Quality Work Instructions to ensure compliance with this specification.
5.0 PREPARATION FOR DELIVERY

5.1 This section is not applicable to this specification.

6.0 NOTES

6.1 Information pertaining to, or additional copies of, this document may be obtained from:

Northrop Grumman Corporation
Military Aircraft Systems Division
Support Equipment and Transportability Engineering
Orgn 7E80/W2
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El Segundo, CA 90245-2804