

# ALERT SERVICE BULLETIN

ORIGINAL TELEXED TO ALL OPERATORS  
(telex revisions S586 and S604 included)

SUBJECT: NOMAD FUEL SYSTEM - FUEL TANK SELECTOR AND FUEL SHUT-OFF  
PUSH-PULL CABLES - INSPECTION FOR INCORRECTLY CRIMPED  
SLEEVES.

1. Effectivity

All N22 and N24 Series Aircraft fitted with fuel selector cables U2000 LAS-2-() and U2000LA-2-(), i.e. the U2000L series.

2. Compliance

Inspect cable ends for incorrect/loose sleeve within ten hours of receipt of this bulletin.

3. Reason

Incorrectly crimped cable sheath adjustment sleeves can detach from cable sheath when push type loads are applied to cable, allowing lost motion to fuel tank selector valves or fuel shut-off valves. The cable sheath adjustment sleeves are made from brass with one end threaded to take two check nuts for anchoring and adjusting the outer sheath of the cable. The opposite end of the sleeve has four crimp depressions to retain the sleeve to the cadmium plated outer sheath end fitting, which is in turn swaged to the outer sheath.

Two types of cable have been used on Nomad Aircraft.

1. U2000L series which can be identified by black PVC coated outer sheath and hexagonal swaging on outer sheath end fitting.
2. The U2000 series which have uncoated metal outer sheaths and have the outer sheath end fitting completely covered by the threaded

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brass cable sleeve. We are not aware of any defective crimping or swaging on U200C series cables but they should be checked for security during inspection as a precaution.

4. Accomplishment Instructions

4.1 Open wing leading edge doors .

4.2 Refer I.P.C. 28-20-01 Figure 2.

Detail A

Remove clamp block Item 60 to inspect crimping on cable sleeves of Items 34 and 44.

Detail D

Inspect crimping on cable sleeve of Item 43.

NOTE: I.P.C. 28-20-01, Figure 2, Detail A, Item 44, is incorrectly numbered. It should read Item 43, as in Detail C.

Refer Maintenance Manual 28-20-00. Remove fuel selector knob. Remove fuel control panel retaining screws and allow panel to hang clear of overhead console.

Refer I.P.C. 28-20-01 Figure 2.

Inspect crimping on cable sleeves of Items 29 and 34.

NOTE 1: Brass sleeves should be firmly in contact with shoulder on outer sheath end fitting.

NOTE 2: Also inspect cadmium plated outer sheath end fitting to ensure it has been swaged onto the outer sheath of the cable. The swaging process deforms the fitting into a hexagonal section where it passes over the outer sheath.

4.3 Measure distance from inner end of sleeve (at abutment with cadmium plated outer sheath end fitting) to centre of crimp marks near end

of brass sleeve. If this distance is not within 0.31 to 0.33 inches, the sleeve is incorrectly crimped.

- 4.4 Check fit of end fitting of outer sheath in brass sleeve for signs of looseness or axial movement and for longitudinal cracks in between crimp marks.
- 4.5 If cable sleeve is correctly crimped and tight on outer sheath with no visible cracks, lockwire outer sheath end fitting to suitable attachment to prevent outer sheath being pushed out of sleeve. Pass MS20995C-32 (ALT F-32) lockwire twice around cable outer sheath behind end fitting and twist ends down to sheath. Draw wire tautly towards cable end and secure on convenient point. If necessary, drill a 1/8 in dia hole in convenient, non-primary structural member to attach lockwire MS20995C-32 (ALT F-32).
- 4.6 If cable sleeve is incorrectly crimped, and/or cracked but tight on outer sheath end fitting, or if the cable sleeve is correctly crimped but free to rotate on outer sheath end fitting, lockwire as in 4.5 above. Cable to be inspected for security every fifty hours until replaced.
- 4.7 If cable sleeve is loose on outer sheath end fitting but incorrectly crimped, and/or cracked, cable is to be replaced before next flight. If outer sheath end fitting has not been swaged onto outer sheath of cable, cable is to be replaced before next flight.
- 4.8 Refer Maintenance Manual 28-20-00 for assembly and test instructions for fuel selector and fuel shut-off cables and valves.
- 4.9 Refit fuel control panel and fuel selector knob.

## 5. Replacement Parts

### 5.1 Replacement cable part numbers for N22 Series:

- Item 29 - U2000 LAS-2-101 replaced by 1A/N-57-358.
- Item 34 - U2000 LA-2-84 replaced by 1B/N-57-358.
- Item 43 - U2000 LA-2-65 replaced by 1C/N-57-358.

### 5.2 For N24 Series:

- Item 29 - U2000 LAS-2-128 replaced by 1D/N-57-358.
- Item 34 - U2000 LA-2-112 replaced by 1E/N-57-358.
- Item 43 - U2000 LA-2-65 replaced by 1C/N-57-358.

## 6. Temporary Repair Scheme

In the event of an AOG situation resulting from inspection I.A.W. ANMD-28-11 the following approved repair scheme can be used to

temporarily reclaim U200CL series cables with loose sleeves. The scheme requires the insertion of two grub screws through the cable sheath adjustment sleeve to pick up the annular groove in the underlying outer sheath end fitting and is to be accomplished as follows:

- 6.1 Remove threaded cable sheath adjustment sleeve.
- 6.2 Determine distance of groove to shoulder of cable outer sheath end fitting.
- 6.3 Measure same distance from unthreaded end of cable sheath adjustment sleeve.
- 6.4 Drill and tap cable sheath adjustment sleeve two holes 180 degrees apart to accept 6-32 UNC grub screws and remove any swarf.
- 6.5 Offer sheath adjustment sleeve on to cable outer sheath until sleeve abuts shoulder of cable outer sheath end fitting.
- 6.6 Determine and mark positions for grub screw locations in groove of cable outer sheath end fitting.
- 6.7 Remove sheath adjustment sleeve.
- 6.8 Lightly countersink grub screw locations in groove and remove any swarf.
- 6.9 Refit sheath adjustment sleeve and insert the two 6-32 UNC x 1/8 inch long hardened steel cone point grub screws using 242 super nut lock loctite or equivalent.

APPROVAL:

THE INSPECTION AND TEMPORARY REPAIR PROCEDURES DETAILED HEREIN HAS BEEN APPROVED PURSUANT TO AIR NAVIGATION REGULATION 40 AND CONFORMS WITH THE TYPE CERTIFICATE REQUIREMENTS.

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FOR GOVERNMENT AIRCRAFT FACTORIES

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