

Nomad

SERVICE LETTER

00-1

NOMAD FUEL SELECTOR SYSTEM RIGGING

INSTRUCTIONS

Insert Service Letter 00-1 into the service letter binder and annotate the index accordingly.

CONTENTS

A. Introduction

ASTA has become aware of a number of aircraft in the Nomad fleet with fuel selector systems which are misaligned and/or difficult to operate. The following problems have been noted:

1. Stiffness or binding of the fuel selector system,
2. Incorrect indexing of the directional flow valve racks relative to the valve pinions/ports,
3. Misalignment of the cockpit fuel selector knob detent positions compared to the knob position markings,
4. Misalignment of the directional flow valves when the cockpit fuel selector knob is set to its position markings.

These problems could cause a potentially dangerous situation and must be rectified.

B. Inspection

The following inspections should be performed during the next scheduled service.

1. Stiffness of the fuel selector system.

The cockpit fuel selector knob should be easy to rotate with one hand through the full range of the knob's motion. In addition, it should be possible to feel all three detent positions of the knob as it is rotated through its range. Stiffness in the system must be rectified (Ref para C.1.) before the inspection steps 2 or 3 are performed.

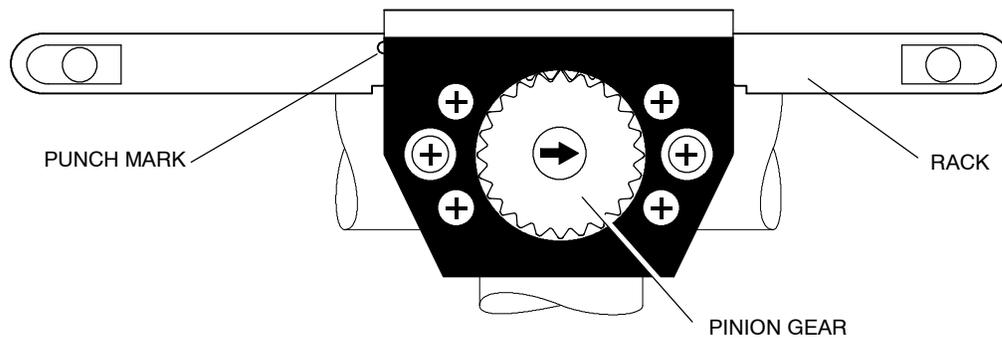
2. Incorrect indexing of the directional flow valve racks relative to the valve pinions/ports.

The small arrow visible at the centre of the directional flow valve pinion gear should point outboard towards the wing tip when the punch mark on the forward surface of the valve rack is aligned with the side of the rack housing (Ref Figure 1). The valve racks must be correctly located before inspection check 3 may be performed .

3. Misalignment of the cockpit fuel selector knob.

With the fuel selector knob in its middle detent position (Ref Figure 2), the tip of the Knob should align to within 0.25 inches of the marking adjacent to the word 'BOTH'.

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NOTE:
WHEN THE PUNCH MARK IS AT POSITION SHOWN,
ARROW MUST POINT TO WING TIP.

LOOKING AFT - LH VALVE SHOWN

Figure 1 Directional Flow Valve

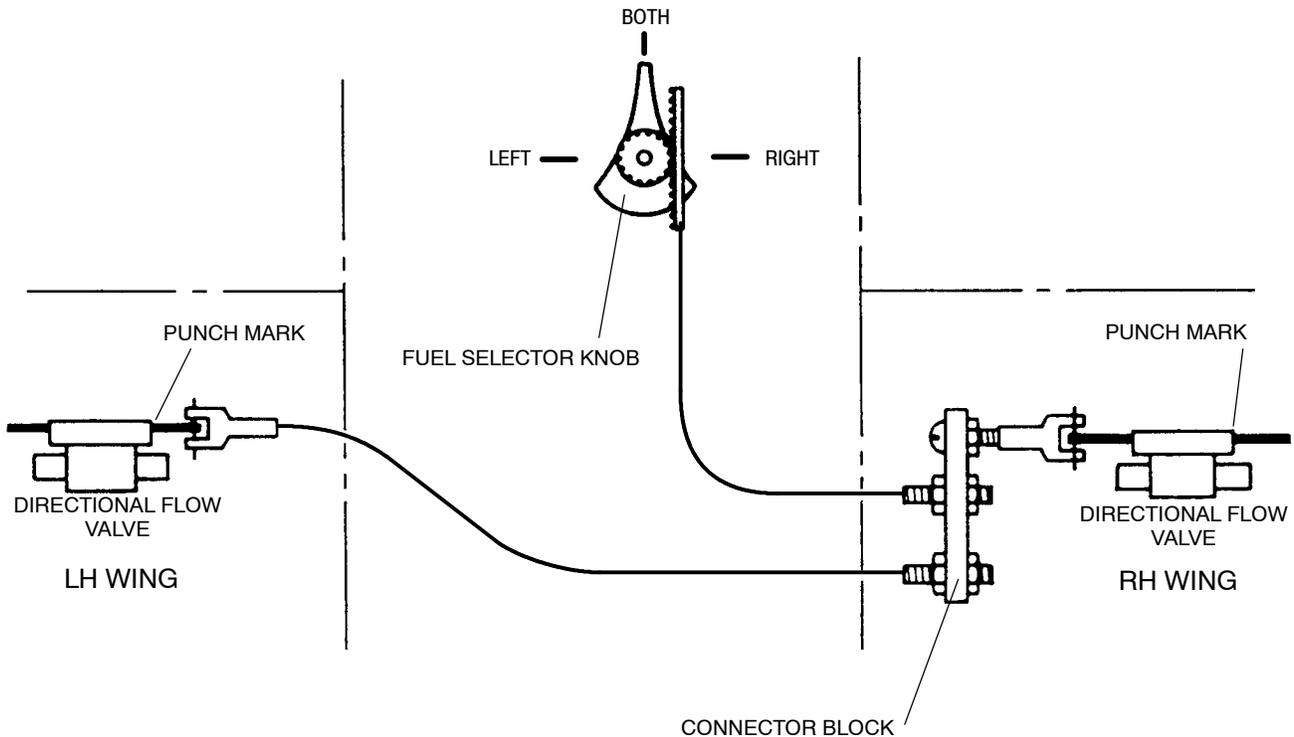


Figure 2 Rigging - Fuel Selector System

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4. Misalignment of the directional flow valves.

The racks of the directional flow valves should align to within 0.065 inches of their centre positions when the fuel selector knob is rotated to its middle position ('BOTH') from either the LH or RH positions (Ref Figure 2). The centre position of the valves is determined using the punch mark on the forward face of the valve rack. When the valve is centred, the punch mark aligns with the side of the valve rack housing (Ref Figure 1).

NOTE

To measure rack position relative to the valve centre position when the punch mark is within the rack housing, mark the rack level with the side of the housing using a sharp pencil. Pull the valve rack to enable the distance between the pencil and punch marks to be measured.

C. Corrective Action

Ref: Maintenance Manual chapter 28-20-00

1. Stiffness of the fuel selector system.

The following possible causes of stiffness should be investigated and rectified:

- (a) Service Bulletin NMD-28-19, which modifies the routing of the fuel selector cables, has not been incorporated,
- (b) Poor condition, lubrication or routing of the fuel selector cables,
- (c) Directional flow valves are mounted such that the control cable ends do not pull in line with the valve racks,
- (d) Directional flow valve racks and pinions require cleaning and re-lubrication,
- (e) Fuel selector control rack and pinion requires cleaning and re-lubrication,
- (f) Directional flow valves are binding.

2. Incorrect indexing of the fuel selector valve racks relative to the valve pinions/ports.

Remove the valve rack housing and its dust cover. Re-install these parts with the valve rack positioned as described in the inspection section of this letter.

3. Misalignment of the cockpit fuel selector knob.

Locate the cockpit fuel selector knob in its middle detent position. Remove the knob and let the selector shaft drop slightly to release its pinion gear from the rack. Re-position the selector shaft so that the selector knob, when re-installed, points to within 0.25 inches of the marking adjacent to the word 'BOTH'.

4. Misalignment of the directional flow valves.

Adjust fuel selector cable ends as required to achieve the requirements of the inspection section of this letter.

VIC BIBBY

TECHNICAL SERVICES MANAGER