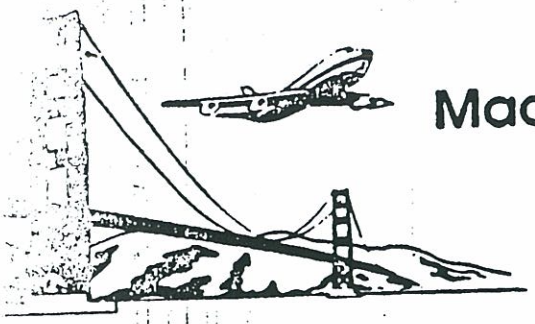

International Association of Machinists & Aerospace Workers

Air Transport Employees, Lodge 1781
1511 Rollins Road Burlingame CA 94010-2305
415-697-8716

August 13, 1991

Mr. Don Pomarico
1181 Blueberry Hill
Brunswick, OH 44212

Dear Don:

I recently had a conversation with the mechanic's at the UAL Hydraulic Shop which has caused me concern. These are the same mechanic's that participated in the component disassembly of the units taken from Flight 585. In every sense of the word they are experts.

During the disassembly of the rudder hydraulic power unit taken from Flight 585 the primary control slide was found jammed in the secondary control slide on the rudder hdyraulic power unit control servo (1PC27-00-XX-017H and 27-00-XX-017F included). The primary slide takes input from the yaw damper through the transfer valve and converts it to rudder movement. The secondary slide takes rudder pedal mechanical movement and converts it to rudder movement. The primary slide moves inside the secondary slide and the secondary slide moves inside the servo body. At no time should there be metal-to-metal contact between the slides or servo body.

It was assumed that impact damage had caused the primary slide to jam inside the secondary slide even though the secondary slide was not jammed in the servo body, nor was there evidence of direct impact damage. In fact, no other part of the rudder hydraulic power unit was jammed. The unit had sustained fire damage and the piston rod was exposed and bent. But internally it disassembled normally, except for the secondary slide.

Examination of the control servo disclosed that the tapered end, which connects to the control arm input, was stuck on the flat surface of the secondary slide. After forcing the primary slide off the flat surface of the secondary slide, the primary slide operated normally inside the secondary slide.

It should be remembered that the aircraft had several write ups on the yaw damper prior to the accident. To my knowledge, no positive reason for these write-ups have been found.

Recently a Boeing 737 experienced a hard over rudder during climb out in Chicago. The rudder hydraulic power unit was disassembled. During disassembly the mechanic's noticed damage to the primary slide on the tapered surface that was similar to damage that was seen on the slide from Flight 585. This damage consisted of nicks, indicating hard metal to metal contact with the secondary slide. The mechanic's also stated that three of the last four rudder hydraulic power units to come through the shop had similar nicks on the primary slide.

This condition gives rise to several questions. Questions which I believe that warrants further investigation by the NTSB.

1. Will a stuck primary slide on the rudder hydraulic power unit cause a hard over rudder condition?

2. Will a stuck primary slide cause a displacement of the secondary slide cause a hard over rudder condition?

3. Would a hard over rudder condition cause a loss of control, as experienced by Flight 585 at the parameters Flight 585 was flying at the time of the accident?

I believe that it is imperative that the NTSB be notified and a complete investigation be done immediately.

Sincerely,

Wayne Gallimore

Wayne Gallimore,
Coordinator, Flight Safety Committee
District Lodge 141 & Local Lodge 1781 - IAMAW
Chairman, Flight Safety Committee
Local Lodge 1781 - IAMAW

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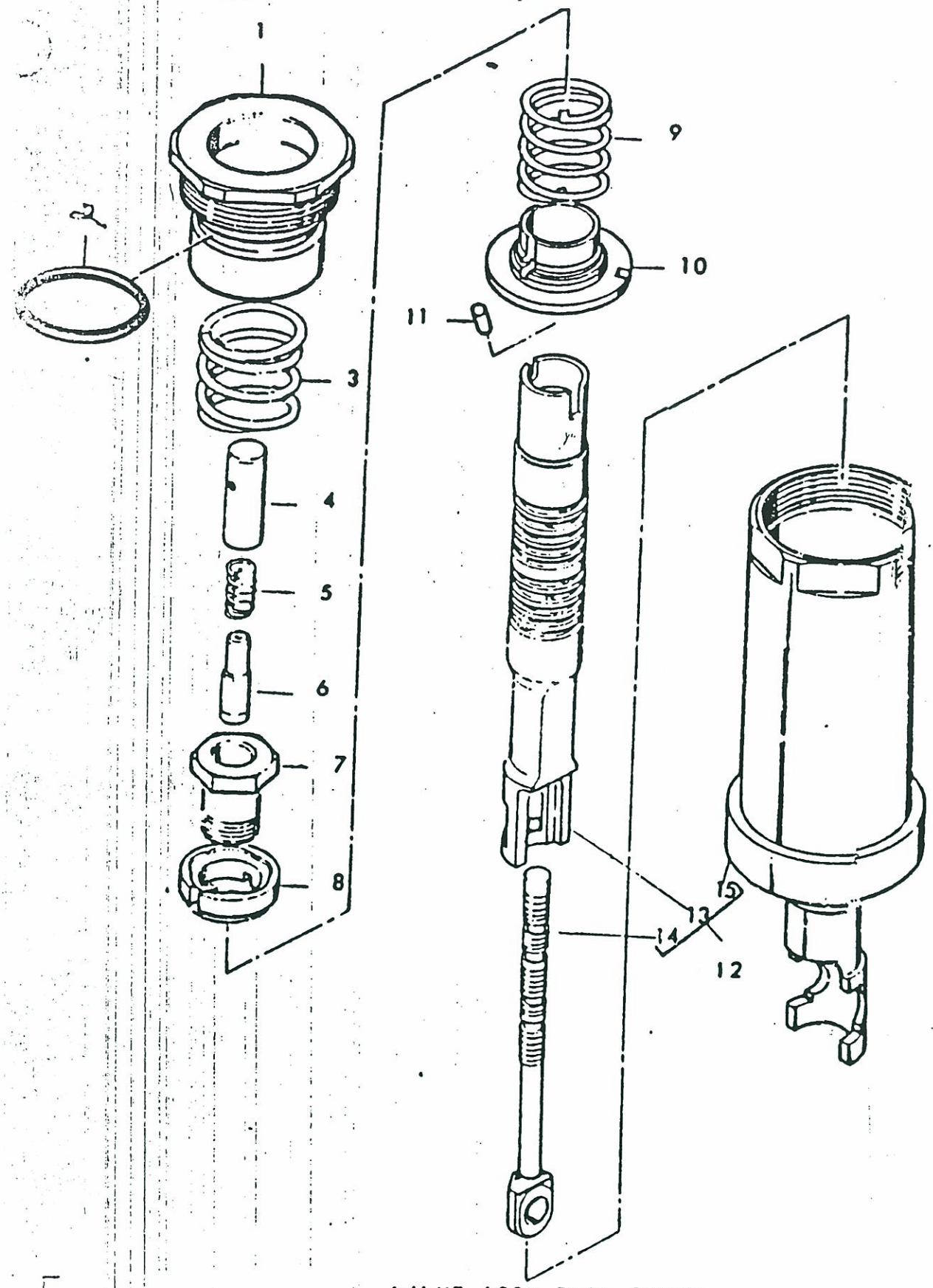

VALVE ASSY-DUAL SERVO

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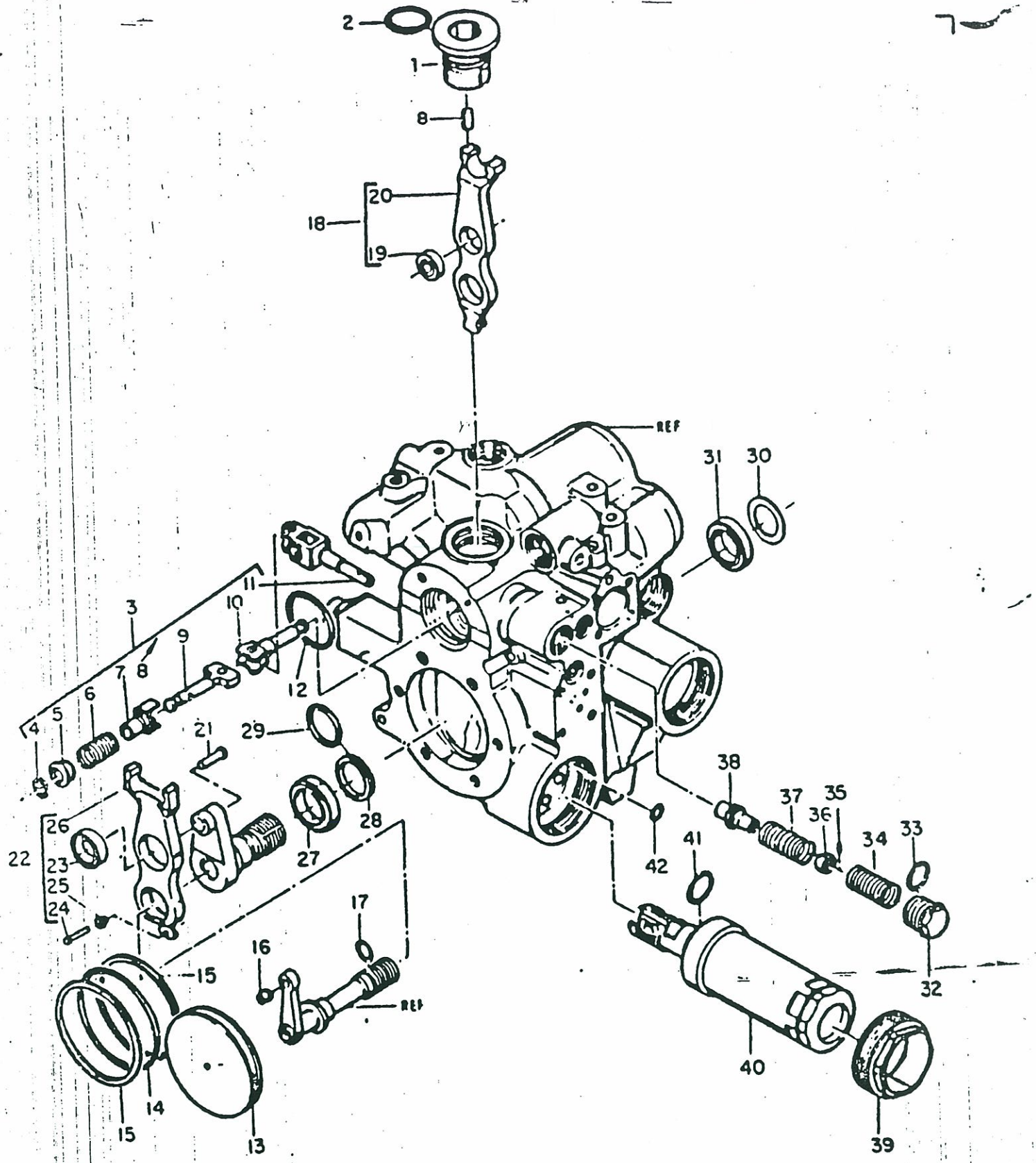

MANIFOLD BUILDUP ASSY-AFT