



# SERVICE BULLETIN

No. 515

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

"Modification DOA EA-1 Approved"

January 17, 1977

S/M

Subject:

Control Cable Ball Joint Retainer Installation

Models Affected:

Serial Numbers Affected:

PA-23-250 (6 place) Aztec .....	27-2505 to 27-7754054 Inclusive
PA-24-250 and PA-24-260 Comanche .....	24-3642, 24-4000 to 24-5047 Inclusive
PA-24-400 Comanche .....	26-2 to 26-148 Inclusive
PA-25-260 Pawnee .....	25-4415 to 25-7756037 Inclusive
PA-31, PA-31-300 and PA-31-325 Navajo ..	31-2 to 32-7712017 Inclusive
PA-31-350 Navajo Chieftain .....	31-5001 to 31-7752039 Inclusive
PA-31T Cheyenne .....	31T-7400002 to 31T-7720012 Inclusive
PA-30 Twin Comanche .....	30-1 to 30-2000 Inclusive
PA-39 Twin Comanche .....	39-1 to 39-155 Inclusive

Compliance Time: At the next regularly scheduled inspection interval, not to exceed the next 100 hours of operation.

Purpose: There have been a few reports received from the field describing inadvertent detachment of the engine controls (i.e., throttle, prop governor and/or mixture) at the control cable ball joint attachment assembly. Failure of this ball joint assembly renders the particular control system inoperative. Although these ball joint attachment assemblies are subject to routine inspection, per published Piper inspection data, excessive wear - over a prolonged period of operation - in conjunction with inadequate inspection of this area - can permit detachment of the ball joint "ball" from its mating socket.

This service release announces availability of a safety device (retainer) that, when installed on the ball joint assembly, prevents disengagement of the ball from the socket (attached sketch/instruction sheet illustrates a typical ball joint assembly retainer installation).

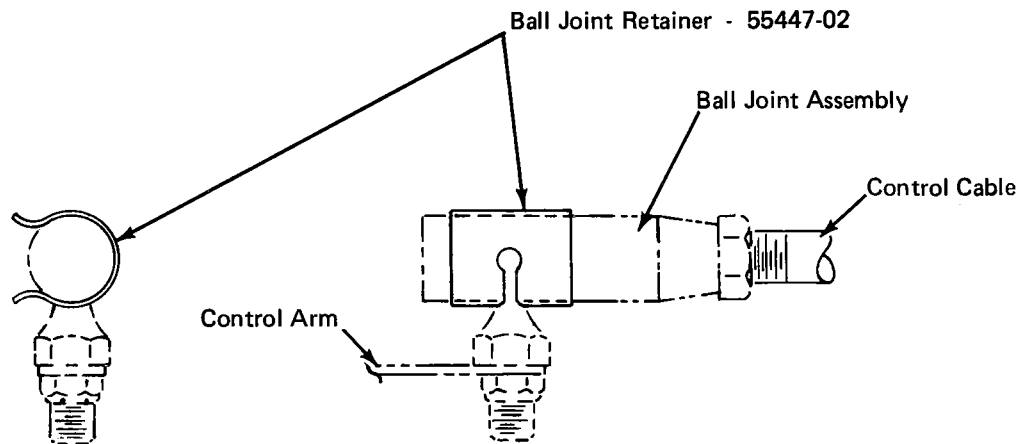
Instructions: Refer to attached sketch/instruction data.

Material Required: Refer to attached sketch/instruction data, "model", "control cable" and "quantity per airplane" to determine the quantity required of Piper Part No. 55447-02, Ball Joint Retainer, @ suggested unit list price \$ .08C.

Availability of Parts: Your Piper Field Service Facility.

Effectivity Date: This service release is effective upon receipt.

Summary: Please contact your Piper Field Service Facility to make arrangements for compliance with the provisions of this service release in accordance with Compliance Time, above. Although installation of the ball joint retainers described in the body of this service release is not intended as a substitute for thorough, periodic inspections of engine control system control cable ball joint attachments, it does provide additional system integrity by preventing inadvertent separation of the ball joint attachment. Material cost and installation time are minimal.



TYPICAL BALL JOINT RETAINER INSTALLATION

### INSTRUCTIONS

1. Install ball joint retainer 55447-02, as shown above, to the control cable ball joint assemblies located in the engine compartment. See list below for appropriate model, control cable and quantity per airplane.

MODEL	CONTROL CABLE	QUANTITY PER AIRPLANE
PA-23-250 (Six Place) (All except models with Lycoming Turbocharger)	Throttle Control and Prop. Governor Control	4
PA-23-250 (Six Place) (Models with Lycoming Turbocharger)	Throttle Control, Prop. Governor Control and Mixture Control	6
PA-24-250 & PA-24-260 (All except models with fuel injection)	Prop. Governor Control	1
PA-24-250 & PA-24-260 (Models with fuel injection)	Throttle Control, Prop. Governor Control and Mixture Control	3
PA-24-400	Throttle Control and Prop. Governor Control	2
PA-25-260 (With constant speed prop.)	Prop. Governor Control	1
PA-30, 39, 31-300, 31, 31-325 & 31-350	Throttle Control, Prop. Governor Control and Mixture Control	6

2. Install ball joint retainer 55447-02, as shown above, to the control cable ball joint assemblies located in the engine compartment and cockpit fuel control panel for the PA-31T. See list below for control cable and quantity.

CONTROL CABLE	QUANTITY PER AIRPLANE
Start Control	2
Fuel Cross Feed Control, Left Fuel Shut-Off and Right Fuel Shut-Off Control (Ser. Nos. 31T-7400002 to 31T-7620032 incl.)	3

3. Make proper logbook entry of Service Bulletin Compliance.