

SERVICE



LETTER

Service Letter No. 514

September 19, 1968

Subject: Flight Control Cable Systems

Models Affected: PA-31 and PA-31-300 Navajo

Serial Numbers Affected: 31-2 and up

Compliance Time: During 100 hour inspections
(reference PA-31 periodic inspection report)

Purpose: To insure proper operation of the flight control cable systems and to assure security of the various control cable guard devices.

Instructions: During the 100 hour inspection periods the flight control cables should be thoroughly inspected to insure that the cables are properly routed and have adequate clearance from all airframe members, tubes, wiring and other components.

Control cable pulleys should be inspected to assure that they are free to rotate and that the cable guards are properly installed.

Three types of cable guard pins (see "Typical Cable Guard Installations" sketch, attached) are used:

1. AN392 clevis pin with cotter pin retention;
2. Pin drilled at both ends with cotter pin retention;
3. NAS427 tubular guard pin.

The AN392 clevis pin should be installed completely through the pulley brackets, with the head up and a properly installed cotter pin on the lower end. The straight pin that is used with a cotter pin in each end should be checked for penetration through each pulley bracket and for proper cotter pin installation. The NAS427 pin is a split type pin (similar to a roll pin) with a flange on one end and a spring tab on the other. The flange prevents "fall through" and the spring tab prevents "back out."

(over)

PIPER AIRCRAFT CORPORATION, LOCK HAVEN, PA., U. S. A.

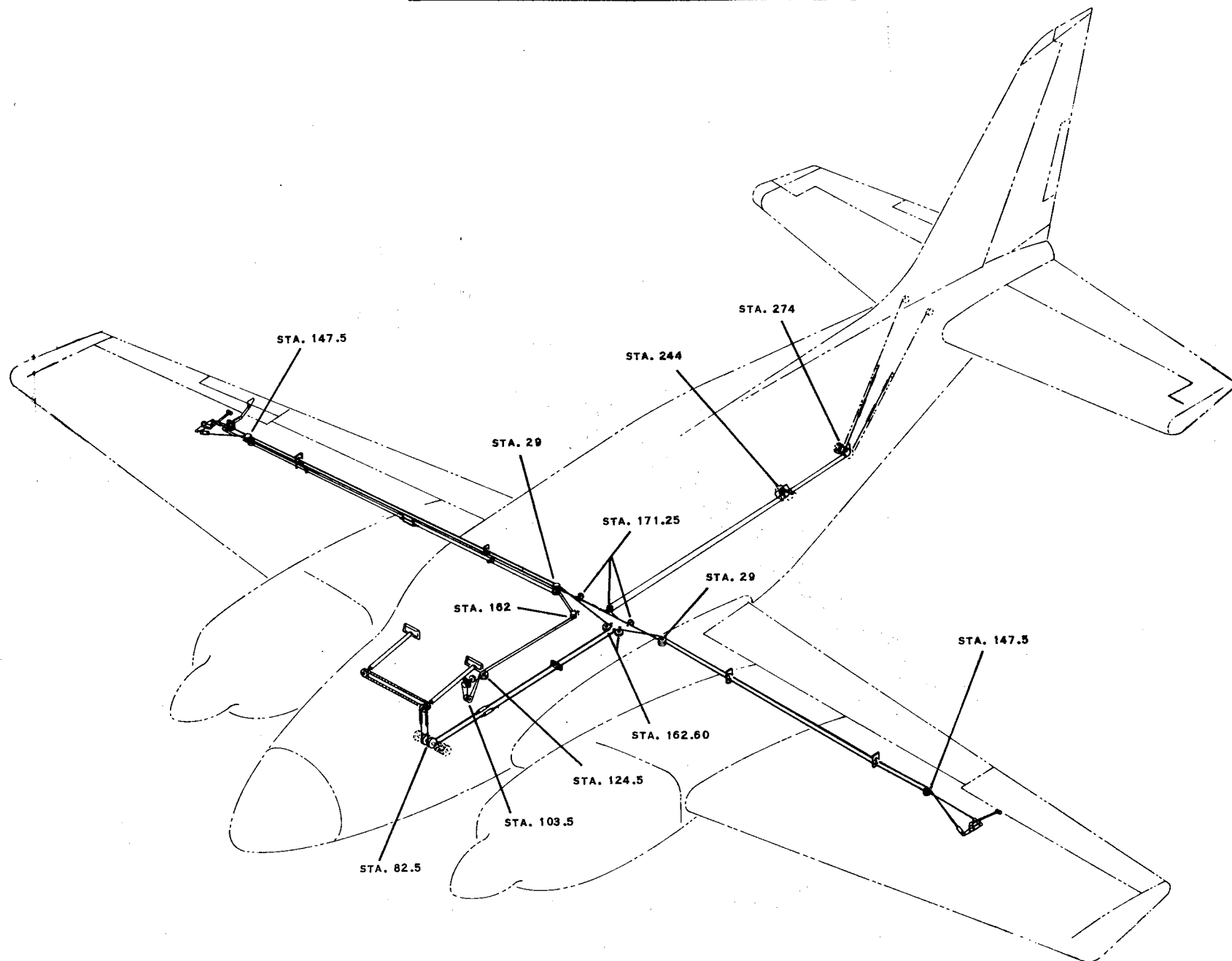
Instructions: (Continued)

During normal inspection intervals these pins should be inspected to insure that they are in place; i.e., completely through both sides of the pulley bracket. When observing vertically installed pins, the flanged end must be up and the tab end down; horizontally installed pins, in most cases the flanged end should be outboard, and the tab end inboard. It should be ascertained that the guard pins are secure in the holes, and that all cable guards should be positioned correctly per attached "Typical Cable Ground Installation" sketch.

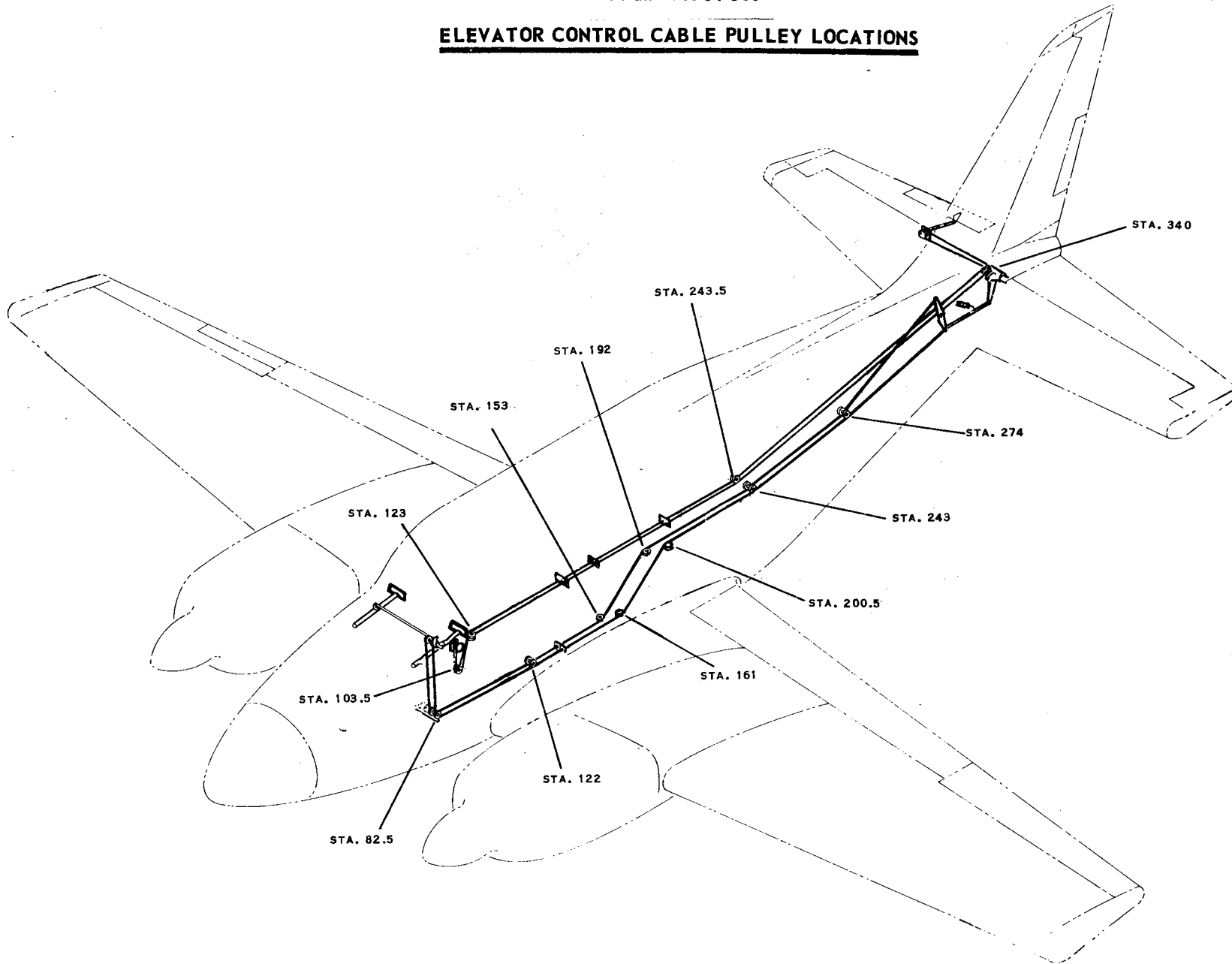
NOTE

1. Sketches depicting (1) Aileron, (2) Elevator, and (3) Rudder Control Cable Pulley locations; and (4) Typical Cable Guard Installations are attached to this letter.
2. This inspection procedure is described in the PA-31 Service Manual and must be accomplished with utmost care.

PA-31 and -31-300
AILERON CONTROL CABLE PULLEY LOCATIONS

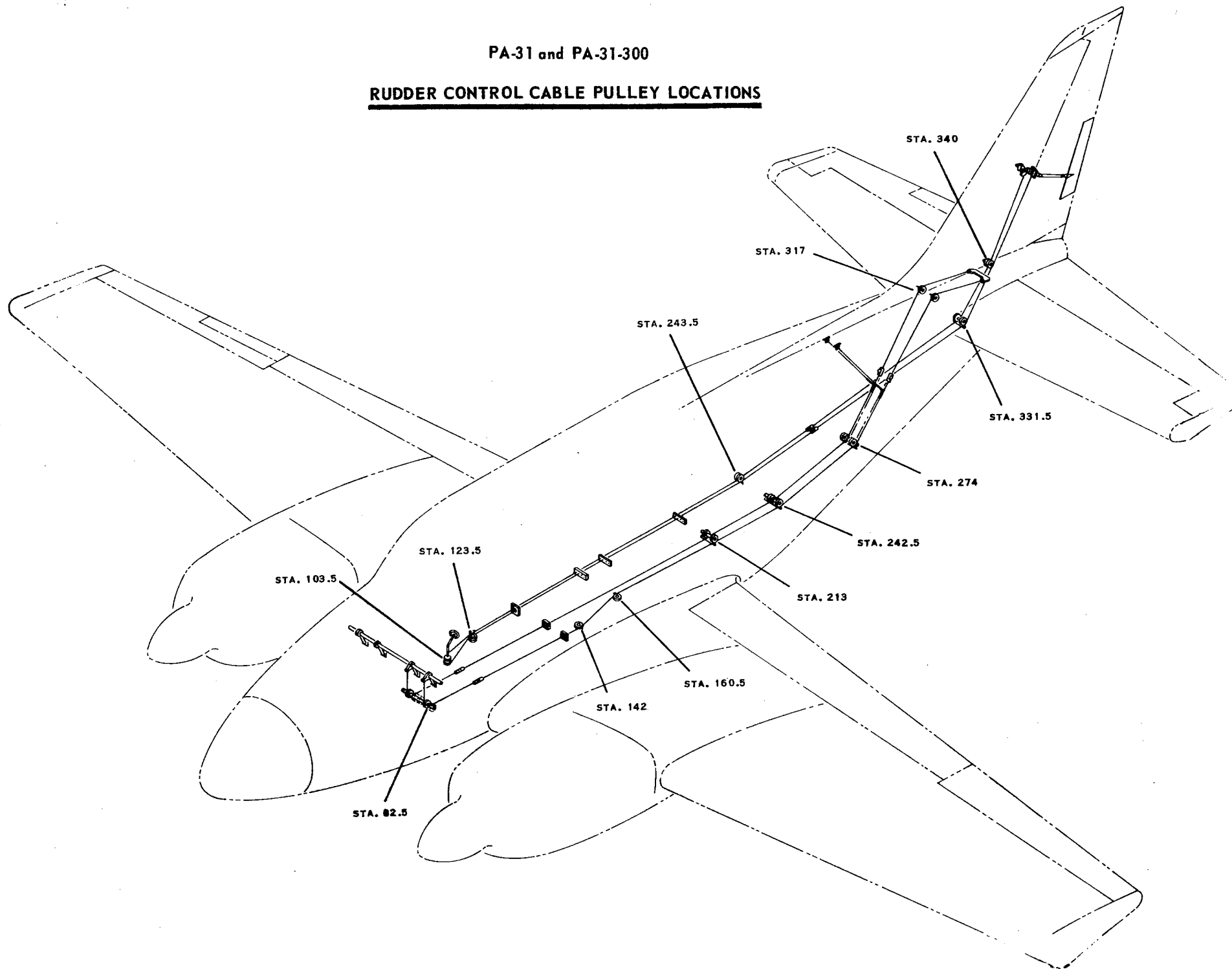


PA-31 and PA-31-300
ELEVATOR CONTROL CABLE PULLEY LOCATIONS

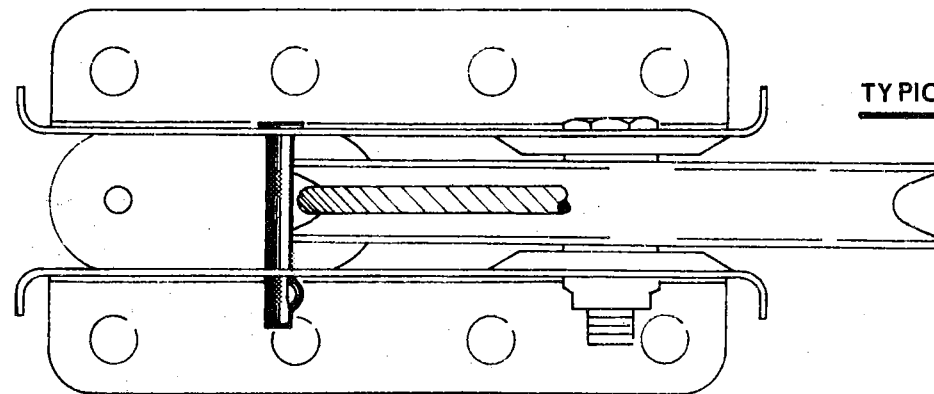


PA-31 and PA-31-300

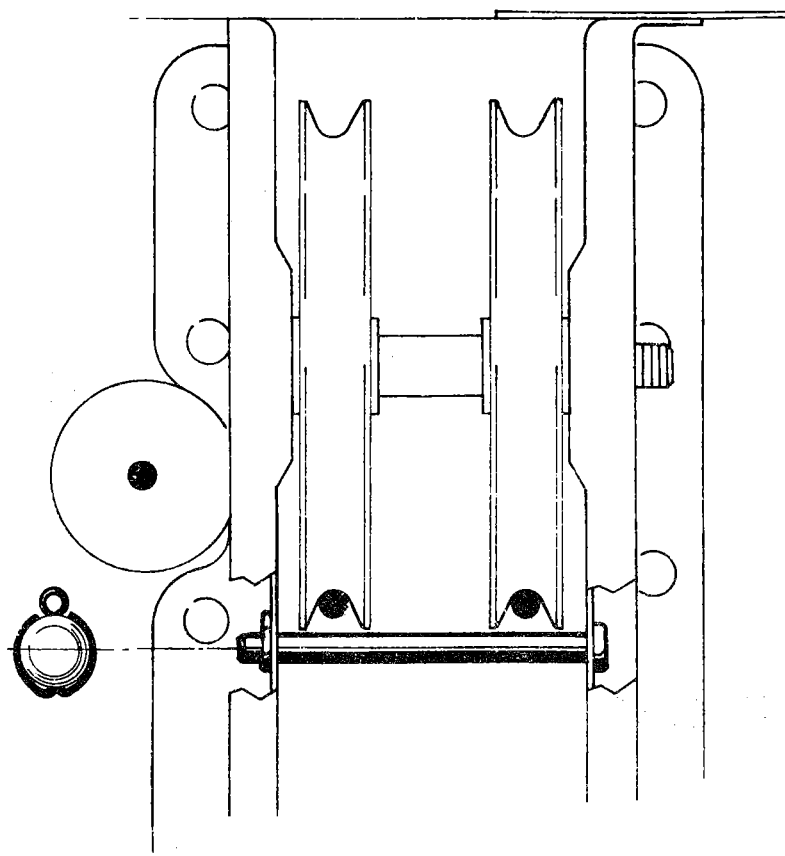
RUDDER CONTROL CABLE PULLEY LOCATIONS



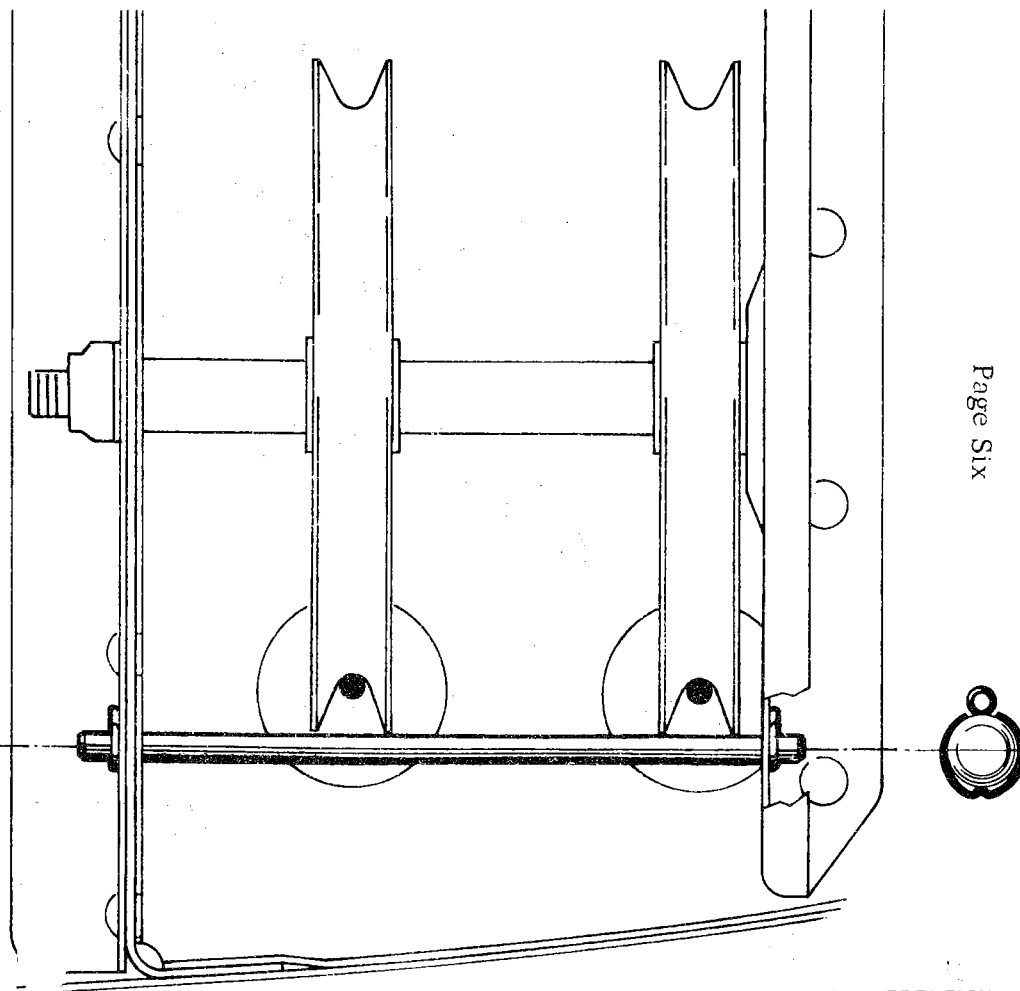
TYPICAL CABLE GUARD INSTALLATIONS



NAS427 TUBULAR GUARD PIN



92 CLEVIS PIN WITH COTTER PIN RETENTION



PIN DRILLED AT BOTH ENDS WITH COTTER PIN RETENTION