

## ENGINE EQUIPMENT ATTACH BRACKETS - MAINTENANCE PRACTICES (PT6A-114/PT6A-114A)

### 1. General

- A. This section gives the removal and installation procedures for the PT6A-114/ PT6A-114A engine equipment attach brackets.

### 2. Power Control Cable Bracket Removal/Installation

- A. Remove Power Control Cable Bracket (Refer to Figure 201).
- (1) Open or remove upper right cowling door.
  - (2) Remove cotter pin (3), nut (4), washers (5), retaining washer (6), spacer (8) and lever arm bolt (10) from rod end (15B). Discard cotter pin, but retain remaining hardware for reinstallation.
  - (3) Remove and retain jamnuts (15A), rod end (15B) and washer (15C) from power control cable.
  - (4) Withdraw power control cable (1).
  - (5) Remove screws attaching power control cable bracket (2) to wiring convolute and retain for reinstallation.
  - (6) Remove power control cable bracket (2) from engine.
- B. Install Power Control Cable Bracket (Refer to Figure 201).
- (1) Position power control cable bracket (2) to wiring convolute and secure using previously retained screws.
  - (2) Install power control cable (1) through hole in power control cable bracket (2).
  - (3) Install jamnuts (15A), rod ends (15B) and washer (15C).
  - (4) Install new MS24665-86 cotter pin (3) and previously retained nut (4), washers (5), retaining washer (6), spacer (8) and lever arm bolt (10) to power control cable (1).
  - (5) Rig power control cable. Refer to Chapter 76, Engine Control Rigging - Adjustment/Test.

### 3. Propeller Control Cable Bracket Removal/Installation

- A. Remove Propeller Control Cable Bracket (Refer to Figure 201).
- (1) Remove cotter pin (3), nut (4), washers (5), retaining washers (6), spacer (8) and bolt (10) from propeller control cable (14) at lever arm (9). Discard cotter pin, but retain remaining hardware for reinstallation.
  - (2) Remove and retain jamnuts (15A), washer (15C), and rod ends (15B) at propeller control cable bracket.
  - (3) Withdraw propeller control cable (14) from propeller control cable bracket (15).
  - (4) Remove three nuts and bolts attaching propeller control cable bracket (15) to engine and retain hardware for reinstallation.
- B. Install Propeller Control Cable Bracket (Refer to Figure 201 ).
- (1) Install three bolts and nuts at holes at bottom of propeller control cable bracket (15) attaching it to engine.
  - (2) Insert propeller control cable (14) through propeller control cable bracket (15).
  - (3) Install jamnuts (15A), washer (15C), and rod ends (15B).
  - (4) Install new MS 24665-86 cotter pin (3), nut (4), washers (5), retaining washer (6), spacer (8) and lever arm bolt (10) to propeller control cable (14).
  - (5) Rig propeller control cable. Refer to Chapter 76, Engine Control Rigging - Adjustment/Test.

### 4. Fuel Condition Control Cable Bracket Removal/Installation

- A. Remove Fuel Condition Control Cable Bracket (Refer to Figure 201).
- (1) Remove screws (11) and washers (15C) retaining fuel condition cable (13) to fuel condition cable bracket (12).
  - (2) Remove fuel condition control cable bracket (12) from engine and retain existing hardware for reinstallation.
- B. Install Fuel Condition Control Cable Bracket (Refer to Figure 201).
- (1) Install fuel condition cable bracket (12) to engine using existing hardware.
  - (2) Install screws (11) and washers (15C) retaining fuel condition cable (13) to fuel condition cable bracket (12).
  - (3) Rig fuel condition cable. Refer to Chapter 76, Engine Control Rigging - Adjustment/Test.

### 5. Emergency Power Cable Bracket Removal/Installation

- A. Remove Emergency Power Control Cable Brackets (Refer to Figure 201 ).

- (1) Remove safety wire from nuts (4) attaching power cable brackets (17) and bracket (18) to screws (11).
- (2) Remove nuts (4), spacers (8) and screws (11), releasing emergency power cable (19). Retain all hardware for reinstallation.
- (3) Remove safety wire from nuts (4) securing emergency power cable brackets (17) to U-bolt (16).
- (4) Remove nuts (4) and U-bolt (16) and retain for reinstallation.
- (5) Remove emergency power cable brackets (17) and brackets (18) from fuel control unit.

**B. Install Emergency Power Cable Brackets (Refer to Figure 201).**

- (1) Install emergency power cable brackets (17) using U-bolt (16), screws (11) spacers (8) and nuts (4). Safety wire nuts.
- (2) Install bracket (18) retaining emergency power control cable (19). Secure with nuts (4). Safety wire nuts.
- (3) Rig emergency power control cable. Refer to Chapter 76, Engine Control Rigging - Adjustment/Test.

**6. Standby Alternator Adjuster Arm Assembly/Mounting Bracket Assembly Removal/Installation (Airplanes 20800001 Thru 20800079)**

**A. Remove Standby Alternator Adjuster Arm Assembly (Refer to Figure 201).**

- (1) Remove alternator (22). Refer to Chapter 24, Standby Electrical System - Maintenance Practices.
- (2) Loosen clamp (29) and remove drain hose (30) and elbow (28A) if installed.
- (3) Remove adapter (28).
- (4) Disconnect line (23C) and union (23B) from drive housing (23). Discard packing (23A).
- (5) Remove ground strap (36) from adjuster arm assembly (25) by removing bolt (37), nut (39) and washer (38). Retain bolt, nut and washer for reinstallation.
- (6) Remove nuts (26) and washers (40) securing drive housing (23) to engine. Discard gasket (24), but retain nuts and washers for reinstallation.
- (7) Remove adjuster arm assembly (25) from engine and discard gasket (24A).

**B. Install Standby Alternator Adjuster Arm Assembly. (Refer to Figure 201.)**

- (1) Using new gasket (24A), installed on aft face of scavenge pump, position adjuster arm assembly (25) over four studs of pump and install second new gasket (24) over studs. Refer to 208 Illustrated Parts Catalog for gasket part numbers.
- (2) Slide drive housing (23) on studs, making sure drive splines are engaged.
- (3) Install nuts (26) and washers (40).
- (4) Using bolt (37), washer (38) and nut (39), install ground strap (36) to adjuster arm assembly (25).
- (5) Using new packing (23A), install union (23B) and connect line (23C). Refer to 208 Illustrated Parts Catalog for packing part number.
- (6) Install adapter (28).
- (7) Connect drain hose (30) to elbow (28A), if installed, and secure with clamp (29) (as needed).
- (8) Install alternator (22). Refer to Chapter 24, Standby Electrical System - Maintenance Practices

**C. Remove Standby Alternator Mounting Bracket Assembly (Refer to Figure 201)**

- (1) Remove alternator (22). Refer to Chapter 24, Standby Electrical System - Maintenance Practices.
- (2) Remove nut (35), three bolts (34) and washers (33). Retain for reinstallation.
- (3) Remove two bolts, nuts, and washers attaching mounting bracket assembly (21) to drain valve bracket mount and retain hardware for reinstallation. Refer to Engine Drain Lines - Maintenance Practices.
- (4) Remove mounting bracket assembly (21) from engine.

**D. Install Standby Alternator Mounting Bracket Assembly (Refer to Figure 201 ).**

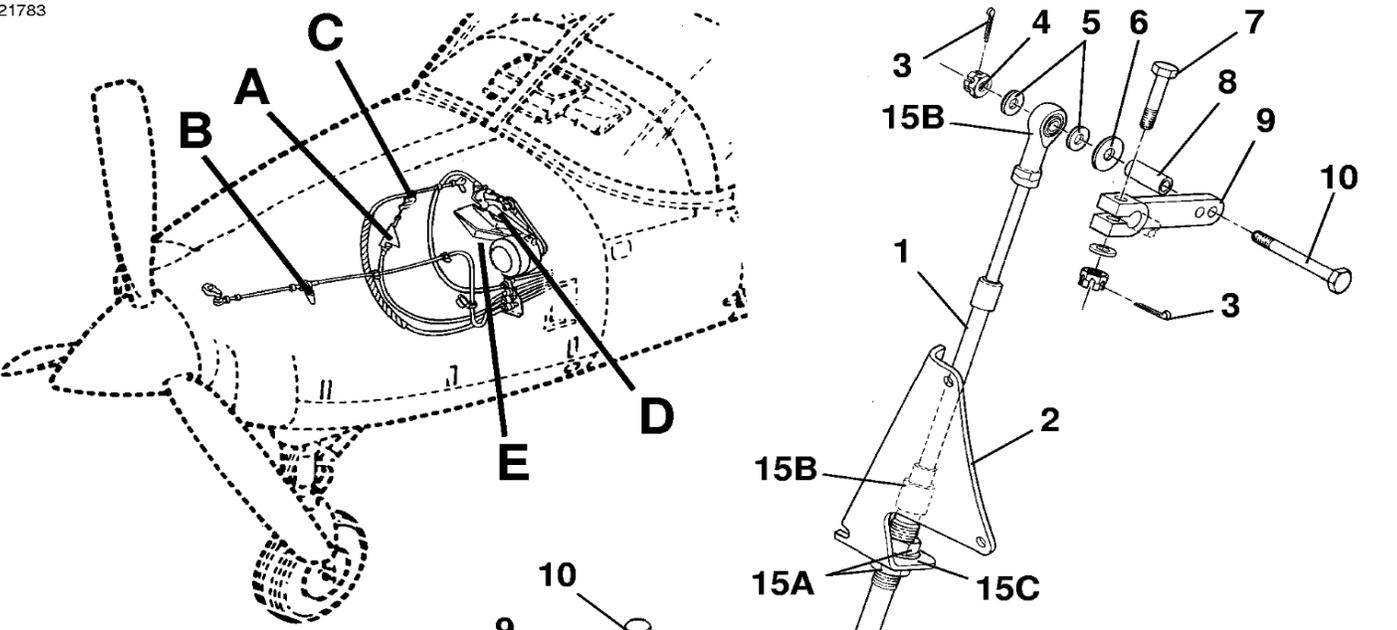
- (1) Position mounting bracket assembly (21) aligning three holes at bottom over three matching holes in base of engine.
- (2) Install nut (35), three bolts (34) and washers (33).
- (3) Position mounting bracket assembly (21) to drain valve mount and secure using previously retained bolts, nuts and washers. Refer to Engine Drain Lines - Maintenance Practices.
- (4) Install alternator (22). Refer to Chapter 24, Standby Electrical System - Maintenance Practices.

## 7. Standby Alternator Adjuster Arm Assembly/Mounting Bracket Assembly Removal/Installation (Airplanes 20800080 and On, and 208B0001 and On)

- A. Remove Standby Alternator Adjuster Arm Assembly (Refer to Figure 201).
- (1) Remove alternator (22). Refer to Chapter 24, Standby Electrical System Maintenance Practices.
  - (2) Loosen ground strap (36) from by removing bolt (37), washer (38) and nut (39). Retain bolt, washer and nut for reinstallation.
  - (3) Remove nuts (26) and washers (40) securing drive housing (23) to engine. Discard gasket (24) but retain nuts and washer for reinstallation.
  - (4) Remove adjuster arm assembly (25) from engine and discard gasket (24A).
- B. Install Standby Alternator Adjuster Arm Assembly (Refer to Figure 201).
- (1) Using new gasket (24A) installed on aft face of scavenge pump, position adjuster arm assembly (25) over four studs of pump and install second new gasket (24) over studs. Refer to 208 Illustrated Parts Catalog for gasket part numbers.
  - (2) Slide drive housing (23) on studs making sure drive splines are engaged.  
**NOTE: Install drive housing (23) with chamfered edge of housing adjacent to adjuster arm assembly (25).**
  - (3) Install washers (40) and nuts (26).
  - (4) Using bolt (37), washer (38) and nut (39), install ground strap (36) to adjuster arm assembly (25).
  - (5) Install alternator (22). Refer to Chapter 24, Standby Electrical System - Maintenance Practices.
- C. Remove Standby Alternator Mounting Bracket Assembly (Refer to Figure 201)
- (1) Remove alternator (22). Refer to Chapter 24, Standby Electrical System - Maintenance Practices.
  - (2) Remove nut (35), three bolts (34) and washers (33). Retain hardware for reinstallation.
  - (3) Remove two bolts, nuts and washer attaching mounting bracket assembly (21) to drain valve mount and retain for reinstallation. Refer to Engine Drain Lines - Maintenance Practices.
  - (4) Remove mounting bracket assembly (21) from engine.
- D. Install Standby Alternator Mounting Bracket Assembly (Refer to Figure 201).
- (1) Position mounting bracket assembly (21) aligning three holes at bottom over matching holes at base of engine.
  - (2) Install nut (35), three bolts (34) and washers (33).
  - (3) Position mounting bracket assembly (21) to drain valve mount and secure using previously retained bolts, nuts and washers. Refer to Engine Drain Lines - Maintenance Practices.
  - (4) Install alternator (22). Refer to Chapter 24, Standby Electrical System - Maintenance Practices.

Figure 201 : Sheet 1 : Engine Equipment Attach Brackets

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- 1. POWER CONTROL CABLE
- 2. POWER CONTROL CABLE BRACKET
- 3. COTTER PIN
- 4. NUT
- 5. WASHER
- 6. RETAINING WASHER
- 7. LEVER ARM CLAMP BOLT
- 8. SPACER
- 9. LEVER ARM
- 10. LEVER ARM BOLT
- 11. SCREW
- 12. FUEL CONDITION CABLE BRACKET
- 13. FUEL CONDITION CABLE
- 14. PROPELLER CONTROL CABLE
- 15. PROPELLER CONTROL CABLE BRACKET
- 15A. JAMNUT
- 15B. ROD END
- 15C. WASHER

**DETAIL A**

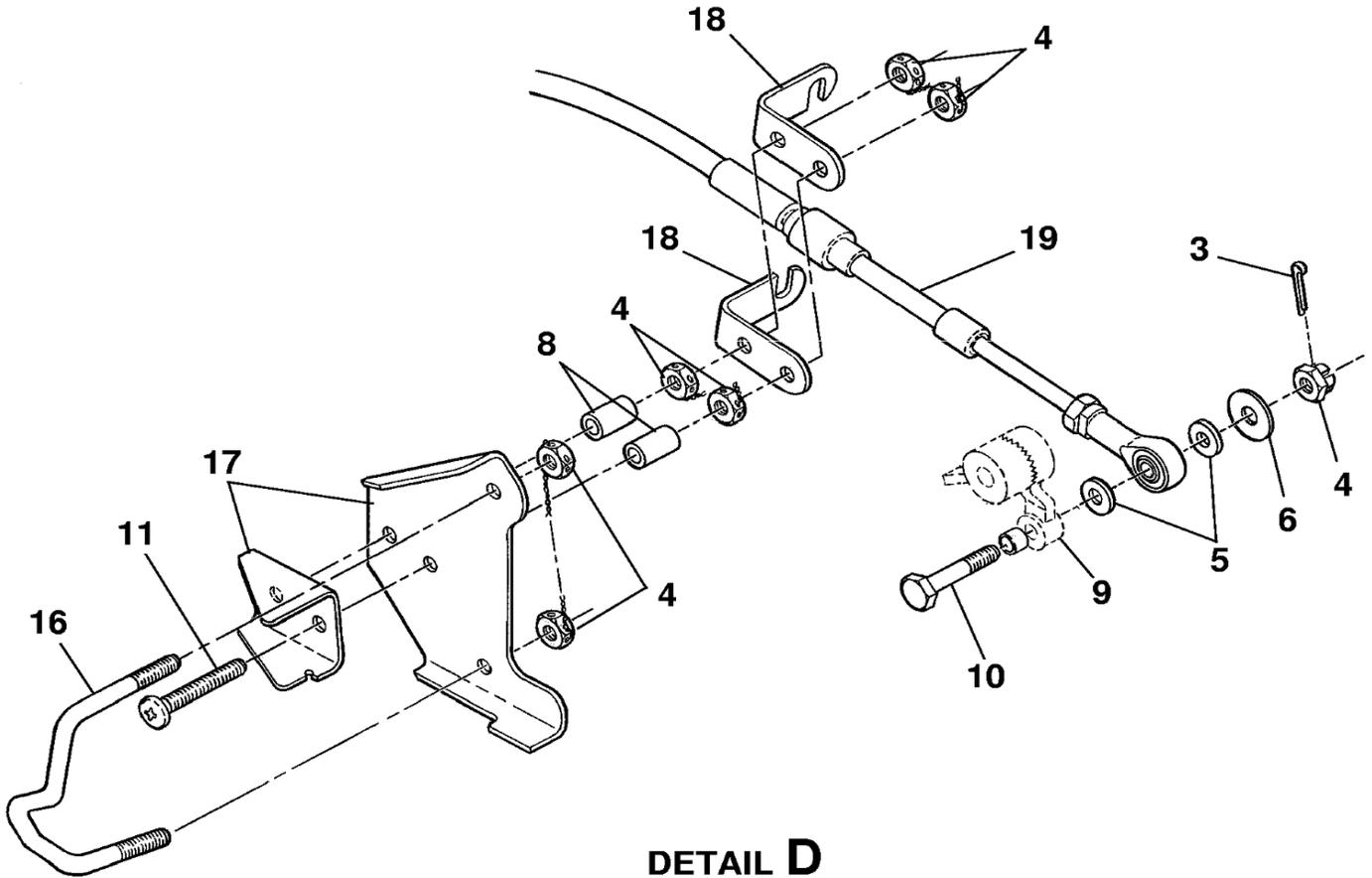
**DETAIL B**

**DETAIL C**

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 A26152007  
 B26152010  
 C26152006

Figure 201 : Sheet 2 : Engine Equipment Attach Brackets

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**DETAIL D**

- 3. COTTER PIN
- 4. NUT
- 5. WASHER
- 6. RETAINING WASHER
- 8. SPACER
- 9. LEVER ARM
- 10. LEVER ARM BOLT
- 11. SCREW
- 16. U-BOLT
- 17. EMERGENCY POWER CABLE BRACKET
- 18. BRACKET
- 19. EMERGENCY POWER CABLE

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Figure 201 : Sheet 3 : Engine Equipment Attach Brackets

