

NOM : PRENOM :

GRILLE D'EVALUATION

1.3. EPREUVE PRATIQUE EN ATELIER OU SUR AVION

Durée : 3 heures
Coef. : 5

OPERATION A EFFECTUER : ..ATA..28..POMPE..DE..GAVAGE.....

UTILISATION DE LA DOCUMENTATION	/10 pts
PREPARATION DU POSTE DE TRAVAIL /SECURITE	/20 pts
ETABLISSEMENT GAMME DE TRAVAIL	/ 20 pts
DEPOSE DE L'ORGANE	/ 30 pts
VERIFICATION DE L'ORGANE	/ 30 pts
POSE DE L'ORGANE	/ 30 pts
AUTO CONTROLE ESSAIS	/ 30 pts
REMETTRE EN SITUATION DE VOL	/ 20 pts
RENDRE COMPTE/A.P.R.S.	/ 10 pts
TOTAL	/200 pts

Ramener la note sur 20 : /

Nom et Prénom du notateur :

Signature :

ACADEMIE DE GRENOBLE		SESSION 2002	
EXAMEN : CAP Mécanicien Entretien Avions option T2		DUREE: 3 h	
Epreuve : Epreuve Pratique en Atelier ou sur Avion		COEFFICIENT:5	
ECHELLE :	Nb. Tirages :	SUJET	2
			FEUILLE: _____

MAINTENANCE MANUAL

FUEL BOOST PUMP - REMOVAL/INSTALLATION

General

A. Removal/installation procedures for all boost pumps are the same. There are four boost pumps in the inboard lower surface of each wing and two boost pumps in the aft auxiliary tank equipment bay on airplanes equipped with auxiliary tank. Access to any wing tank pump is made through its respective fuel boost pump access panel. Access to auxiliary tank pumps is through equipment access panel in aft end of auxiliary tank.

2. Equipment and Materials

- A. Catch containers - for draining residual fuel
- B. Aliphatic Naphtha - TT-N-95 (Ref 20-60-3)
- C. Bonding meter (Ref 20-20-1 I/C)
- D. Bottle, Boost Pump Priming - F80203-1 (Fig. 402)

3. Remove Fuel Boost Pump (Fig. 401)

- A. Provide electrical power (Ref 24-22-00 MP).
- B. Close all engine fuel shutoff valves and fuel crossfeed manifold valves.
- C. Open applicable fuel boost pump, all manifold valve and all engine shutoff valve circuit breakers on circuit breaker panel P6. Attach DO-NOT-CLOSE identifier to opened circuit breakers.
- D. Remove applicable fuel boost pump access panel in wing lower skin. If auxiliary tank pump is to be removed, remove fuel equipment access panel (Ref 28-14-11 R/I).
- E. Manually close boost pump removal valve.
- F. Disconnect electrical plug from fuel boost pump (Fig. 401).
- G. With suitable catch container under boost pump drain cock, open drain plug and drain fuel from boost pump.
- H. Support boost pump and remove lower bolt from each mounting clamp.
- I. Slide mounting clamps down and swing them out, as necessary, to clear boost pump flange.

NOTE: If clamps stick, apply additional manual pressure. It is normally unnecessary to loosen or remove shoulder bolt in clamp upper end elongated slot.

- J. Pull boost pump straight back from mounting face until free then lower pump through access opening.

NOTE: O-rings on boost pump ports form sliding seals in the mating fittings, this may make it necessary to exert extra pressure when pulling pump free.

To prevent pump from striking the wall of pump cavity, when seals release the pump, tape a suitable firm rubber pad to the structure where the pump would strike.

MAINTENANCE MANUAL

4. Install Fuel Boost Pump

- A. Clean all machined surfaces on boost pump mounting flange and mating surfaces (Ref 20-01-22 C/P). Remove all oxidization deposits and other foreign material then wipe dry with lint-free cloth.
- B. Ensure part number of replacement fuel boost pump is identical to part number of removed fuel boost pump.

NOTE: Different boost pumps are externally identical except for electrical connector.

- C. Fit new O-rings, lightly lubricated with fuel, into grooves on boost pump inlet, outlet and vent ports.
- D. Check that boost pump drain is closed.
- E. Hold pump with inlet port up and pour approximately 1/2 pint of fuel into pump, carefully rotate pump to installed position and allow excess fuel to run out of pump.
- F. Lift boost pump into dry bay through wing access opening or onto mounting plate in auxiliary tank equipment bay, carefully insert end of boost pump ports into their mating fittings.
- G. Push boost pump straight in until pump flange is snugly against mating surface.
- H. Push up one of the mounting clamps until its lower bolt can be inserted.
- I. Install lower mounting bolt and tighten 50 to 70 pound-inches.
- J. Repeat steps H and I for remaining clamp.
- K. Check electrical bond between boost pump and airplane structure per 20-20-1 I/C. Resistance shall not exceed 0.0002 ohm.
- L. Connect electrical connector to boost pump. Do not force if electrical connector does not mate; check that correct boost pump is being installed.
- M. Manually open boost pump removal valve.
- N. Check that fuel tank contains at least 700 pounds or 350 kilograms of fuel.
- O. Remove DO-NOT-CLOSE identifier and close circuit breakers on panel P6 for pump low pressure warning lights and applicable boost pump circuit.

MAINTENANCE MANUAL

- P. Check that applicable main tank boost pump low pressure warning light is illuminated.
- (1) The auxiliary fuel tank boost pump low pressure warning lights are only illuminated upon fuel runout with boost pump switches in ON position. (Refer to 28-31-0 and 28-42-0 A/T for low pressure warning light test.)
- Q. Place applicable fuel boost pump switch, on third crewman's panel, to ON position.
- R. Listen for sound of pump motor.
- S. Verify that applicable pump low pressure warning light goes out when pressure builds up.

NOTE: If pump can be heard but low pressure light does not go out, pump was not adequately primed before installation and must be reprimed.

- T. Place applicable fuel boost pump switch to OFF position.
- U. If warning light did go out in step S, proceed to step X. If warning light did not go out in step S, proceed with step V.
- V. Reprime pump by one of the following methods.
- (1) Open drain in bottom of pump casing until fuel runs out of drain, then close drain.

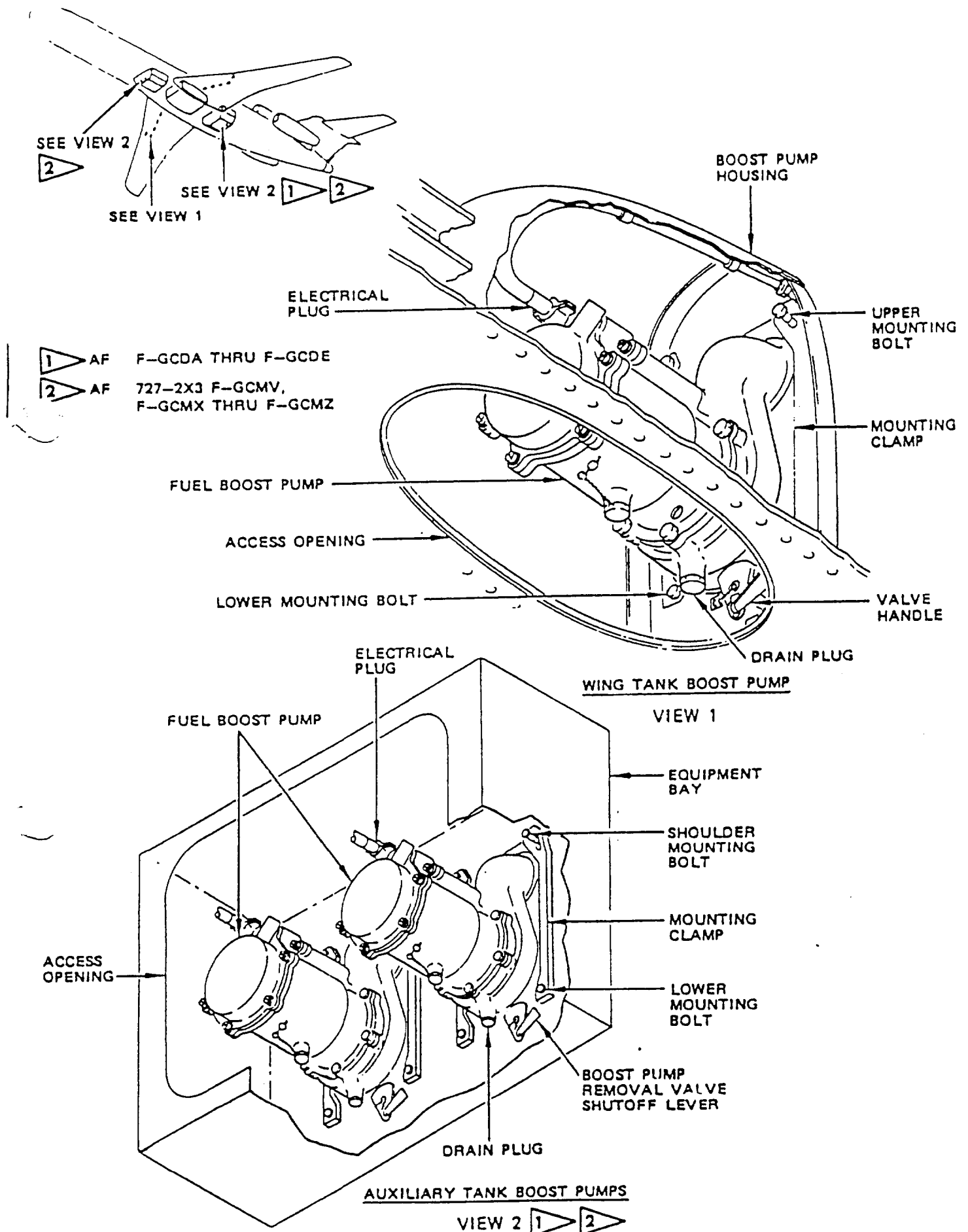
NOTE: This step may not consistently reprime the pump if low fuel levels exist in the tank. In those cases, proceed with step (2).

- (2) Using pressure type oil can or plastic squeeze bottle, inject fuel into pump through pump drain until fuel runs out of drain (Fig. 402).

- W. Repeat steps P thru U.
- X. Install boost pump access panel.

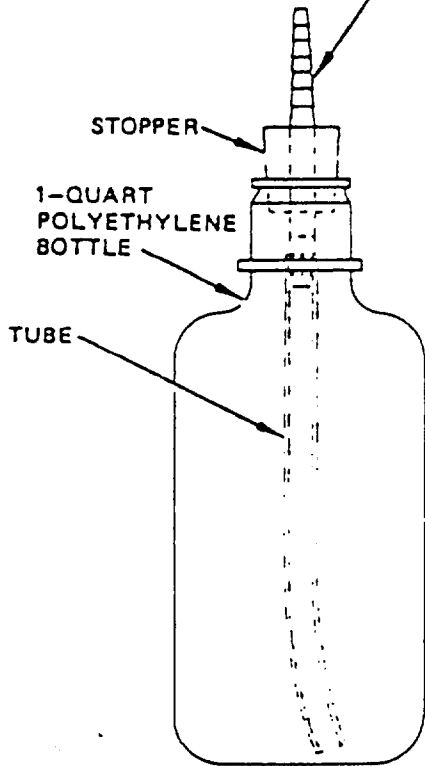
NOTE: Ensure that boost pump removal valve is open before installing boost pump access panel.

- Y. Remove electrical power if no longer required.

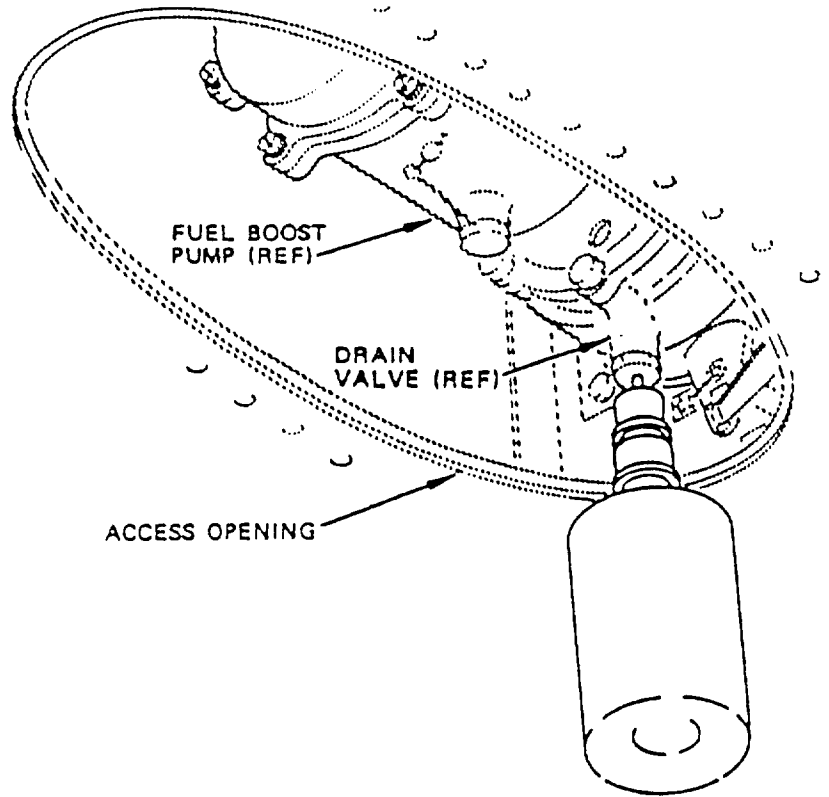


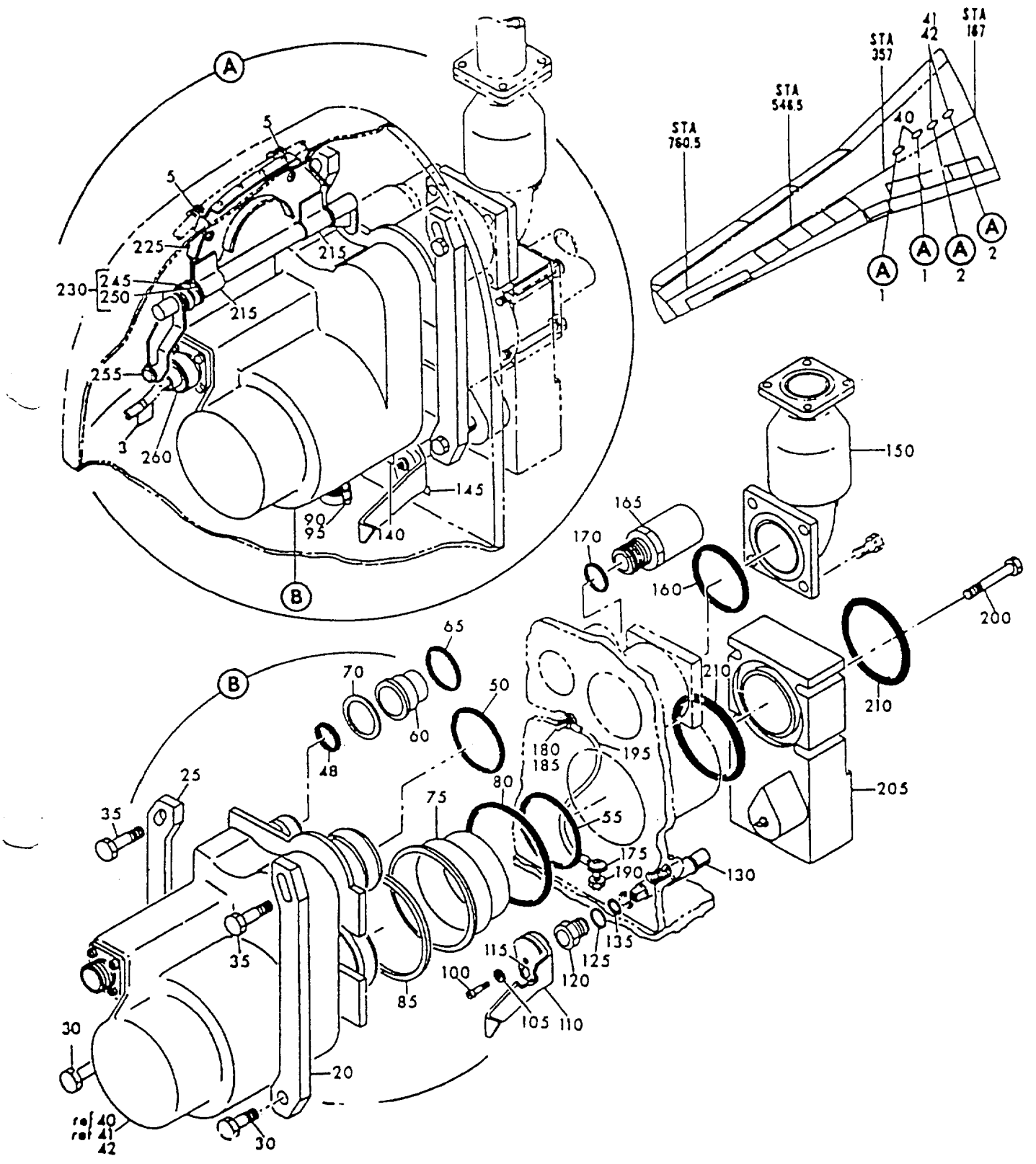
Fuel Boost Pump Installation
Figure 401

NO. 351 CONNECTOR
PHARMASEAL LABORATORIES
GLENDALE, CALIFORNIA 91201



F80203-1





PUMP INSTL-FUEL BOOST
FIGURE 1



PARTS CATALOG

FIG.	ITEM	PART NUMBER	1234867 NOMENCLATURE	EFFECT FROM TO	UNITS PER ASSY
R	1	65-16705-1	PUMP INSTL-FUEL BOOST (TANK NO. 1 AND 3) (SEE 57-10-00 FIG. 2 FOR NHA)	021999	RF
R	1	65-16705-1	PUMP INSTL-FUEL BOOST (TANK NO. 1 AND 3) (VARIABLE DWG 65-16705-2) (SEE 57-10-00 FIG. 2 FOR NHA)	001020	RF
	2	65-16705-1	PUMP INSTL-FUEL BOOST (TANK NO. 2) (SEE 57-10-00 FIG. 2 FOR NHA)	101999	RF
	2	65-16705-1	PUMP INSTL-FUEL BOOST (TANK NO. 2) (VARIABLE DWG 65-16705-2) (VARIABLE DWG 65-16705-3) (SEE 57-10-00 FIG. 2 FOR NHA)	001099	RF
	5	BACC10DK5	. CLAMP ATTACHING PARTS		2
	- 10	NAS603-8	. SCREW		2
	- 15	NAS679A3W	. NUT		2
	20	69-17327-1	. CLAMP		1
	25	69-17327-3	. CLAMP ATTACHING PARTS		1
	30	NAS1304-8W	. BOLT		2
	35	6-84527-1	. BOLT-CLAMP SHLD REPLS 6-84527 *** *** 6-84527 I/W 6-84527-1 FOR 727 AND 737 ONLY		2
	35	6-84527	. BOLT-CLAMP SHLD RPL BY 6-84527-1 *** *** 6-84527 I/W 6-84527-1 FOR 727 AND 737 ONLY		2
	40	10-60533-1	. PUMP	001017 019999	1
	41	10-60533-1	. PUMP	001020 101999	1
R	41	10-60533-3	. PUMP	021099	1
	42	10-60533-1	. PUMP- (DELETED BY PAA REQUEST)	018018	1
	42	10-60533-3	. PUMP- (ADDED BY PAA REQUEST)	018018	1
	43	10-60533-1	. PUMP- (DELETED BY SB 32-0348)	018018	1
	43	10-60533-3	. PUMP- (ADDED BY SB 32-0348)	018018	1
	48	MS29513-113	. PACKING		1
	50	MS29513-224	. PACKING		1
	55	MS29513-226	. PACKING		1
	60	66-12938-1	. SLEEVE-VAPOR DISCH SEAL RPL BY 66-12938-2 I/W		1
	65	MS29513-119	. PACKING		1
	70	NAS669-118	. RING		1
	75	66-12937-1	. SLEEVE-INLET SEAL		1
	80	MS29513-333	. PACKING		1
	85	NAS669-281	. RING		1
	90	BACC40L52	. COCK-DRAIN		1
	95	MS29512-04	. PACKING		1
	100	NAS1352-08H7P	. BOLT		1
	105	AN960P08	. WASHER		1
	110	69-26865-13	. HANDLE ASSY-SHUTOFF VALVE REPLS 69-26865-9 *** RPL BY 69-26865-13 I/W *** 69-26865-13 MAY REPLACE 69-26865-9	001013 101999	1
	110	69-26865-15	. HANDLE ASSY-SHUTOFF VALVE REPLS 69-26865-13 I/W REPLS 65-26865-11 I/W	014099	1
	115	69-26865-7	. MARKER-ALUMINUM FOIL, BOOST PUMP FUEL SHUTOFF VALVE HANDLE		1
R	120	66-4841-1	. BUSHING-REMOVAL VALVE SHAFT		1
	125	MS29512-06	. PACKING		1
	130	60-4329-2	. SHAFT-OVERRIDE		1
	135	MS29513-010	. PACKING		1
	140	BACMI0L00-1SE	. MARKER-ALUMINUM FOIL, CLOSED	021999	1
	140	BAC27DFS48	. MARKER-ALUMINUM FOIL, CLOSED	001020	1
	145	BACMI0L00-1SC	. MARKER-ALUMINUM FOIL, OPEN	021999	1
	145	BAC27DFS41	. MARKER-ALUMINUM FOIL, OPEN	001020	1
	150	10-60526-1	. VALVE-CHK ATTACHING PARTS		1
	-155	NAS1304-5W	. BOLT		4

MISSING ITEM NUMBERS ARE NOT APPLICABLE

-ITEM NOT ILLUSTRATED



PARTS CATALOG

FIG. ITEM	PART NUMBER	1234567	NOMENCLATURE	EFFECT FROM TO	UNITS PER ASSY
1	160	MS29513-228	. PACKING		1
	165	10-60534-1	. VALVE-VENT CHK		1
	165	2352474L	. VALVE-VENT CHK (V99240) (OPT 10-60534-1)	I/W (V99240)	1
	170	MS29512-08	. PACKING		1
	175	NAS603-7	. SCREW		1
	180	NAS603-9	. SCREW		1
	185	AN960D10L	. WASHER		1
	190	NAS679A3W	. NUT		1
	195	MS25083-2888	. JUMPER ASSY		1
	200	NAS1304-27W	. BOLT		4
	205	10-3061-1	. VALVE ASSY-MANUALLY OPERATED SHUTOFF REPLS 10-3061-3	I/W	1
	210	MS29513-228	. PACKING		2

MISSING ITEM NUMBERS ARE NOT APPLICABLE

-ITEM NOT ILLUSTRATED