Figure 1: Installation Schematic with IO470 Right side of Nose Wheel Well (C-1250922-3 adapter shown for illustration)

Figure 2: Installation Schematic - Primary installation with IO520 or 550. Right side of Nose Wheel Well
BEECH BONANZA MODELS 33, 35 & 36 WITH CONT. 0-104-470, IO520 OR IO550 ENGINE: READ ALL INSTRUCTIONS AND NOTES BEFORE PROCEEDING. COMPATIBILITY WITH OTHER MODIFICATIONS MUST BE DETERMINED BY INSTALLER PER STC "LIMITATIONS AND CONDITIONS".

A-1. PRIMARY INSTALLATION: PUMP/MOTOR ON RIGHT SIDE WHEEL WELL.

1. Install 90° elbow-Pipe to pipe (11) in pump outlet. Install Check valve (14) on elbow. CAUTION: Ensure that flow arrow on check valve points away from pump. Install 90° elbow-Pipe to flare (15) in Check valve. Install Nipple-Pipe to pipe (11) in Pump inlet. Install Suction T-fitting (20) on nipple. Install 45° Elbow-Pipe to flare (18) in forward end of T-fitting.

2. Using Pump Mounting Plate-3.5 x 5.5 (2-1) as template, drill four .203 in. holes.

3. Mount Pump/Motor Assembly using Spacer/Stiften (2-2), Stiffener (2-3) and hardware (5-1, -2 & -3). Note: Item 2-3 (Stiffener) may be mounted either vertical or horizontal and trimmed as necessary.

A-2. SECONDARY INSTALLATION: PUMP/MOTOR ON LEFT NACELLE RIBS.

1. Install Suction T-fitting (21) in Pump inlet, Install 90° fitting-Pipe to flare (19) in side of T-fitting. Install 45° Elbow - Pipe to pipe (13) in Pump outlet. Install Check valve (14) on elbow. CAUTION: Ensure that flow arrow on check valve points away from pump. Install 45° Elbow-Pipe to flare (17) in check valve.

2. Using Mounting Plate-3.0 x 7.0 (3-1) with Mounting brackets (forward and aft) (3-2 & -3) as template, drill four .203 in. holes in nacelle ribs.

3. Mount Pump/Motor Assembly using hardware (5-1, -2 & -3).

B-1 PRIMARY INSTALLATION: INSTALL SUCTION HOSE.

1. Drain engine oil and remove drain plug quick drain.

2. Install Sump Adapter-B with Gasket-Type A (8-3) in drain port. Tighten to 20 foot pounds; torque and safety wire.

3. Install Suction Hose (31). See Note 9 for hose length and configuration.

4. Install quick drain in side port of Suction T-fitting using Gasket-Type A (8-3). Tighten to 20 foot pounds; torque and safety wire.

B-2 SECONDARY INSTALLATION: INSTALL SUCTION HOSE.

1. Drain engine oil and remove drain plug quick drain.

2. Apply very light coat of "Tite Seal" to Gaskets (8-3 & -4). Assemble Sump Adapter-B Type (8-1), Adapter Fitting-B Type (8-2) and Gaskets. Install in sump drain port. Tighten to finger tight.

3. Install Suction Hose (31). See Note 9 for hose length and configuration.

4. Tight sump adapter to 20 foot pounds; torque and safety wire.

5. Install quick drain in aft port of Suction T-fitting using Gasket-Type A (8-3). Tighten to 20 foot pounds; torque and safety wire.

Figure 3: Installation Schematic - Primary installation with IO520 or 550 and C5255 adapter installed under STC SE000050DE. Right side of Nose Wheel Well.

Figure 4: Installation Schematic - Secondary installation with IO520 or 550. Left side on Nacelle Ribs. View looking Downward.
C-1 PRIMARY INSTALLATION IO 470: INSTALL OUTPUT HOSE.

1. Remove Starter and oil filter.
2a. With adapter #1250922 installed, remove 3/8 in. pipe plug from top of oil filter adapter and install 90° Elbow-Pipe to flare (16) in adapter with flare fitting facing forward.
2b. With integral adapter, remove 3/4 in. nipple from adapter (use double nut), install 90° Elbow-Pipe to flare (15) in Filter Adapter-Type G (9-1) and install with Adapter Fitting (9-2) and Gasket-Type G (9-3), rotate to desired position and torque to 35 foot pounds.
3. Install Output Hose (32). See Note 10 for hose length and configuration.
4. Install hose clamp (34) using hardware (5-1, 5-2 & 5-3).

C-2 PRIMARY or SECONDARY INSTALLATION: IO 520 & 550: INSTALL OUTPUT HOSE.
Note: For factory turbocharged engines or to use twin filter on all engines, 2b applies.

1. Remove oil filter
2a. Remove 3/4 in. nipple from engine oil filter adapter (use double nut), install 90° Elbow-Pipe to flare (15) in Filter Adapter-Type G (9-1) and install with Adapter Fitting (9-2) and Gasket-Type G (9-3), rotate to desired position and torque to 35 foot pounds.
2b. Remove filter adapter from engine and install Filter Adapter (10-1) with Gasket (10-2) under STC 1200005DE. Install 90° Elbow-Pipe to flare (15) pointing down.
3. Install Output Hose (32). See Note 10 for hose length and configuration.
4. Install hose clamp (34) using hardware (5-1, 5-2 & 5-3).

Figure 5: Mounting Cross Section - Primary installation on right side of nose wheel well. View Looking Aft.

Figure 6: Mounting Cross Section/Assembly - Secondary installation Left side on Nacelle Ribs. View Looking Aft.
NOTES for Beech Models 33, 35 & 36, Unless otherwise indicated:

1. Do not scale these drawings for dimensions.
2. Break all sharp edges .003 - .005 and remove all burrs and slivers.
3. Dimensions are in inches and tolerances are as shown below.

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4. Apply two coats of zinc chromate primer to all exposed steel - except stainless steel - and aluminum surfaces of fabricated parts not previously plated or anodized, respectively.
5. Complete installation is accomplished using standard practices. There are no special or unique procedures, techniques or fabrications required.
6. Certification basis for this aircraft is CAR 3.
7. Hydraulic hoses must meet the requirements of TSO C53a Type C (Fire resistant). All manufacturers' hoses and hose fittings meeting this standard are authorized. Hose fittings to be installed per hose manufacturer's specifications.

Examples:
A. Hoses with slip on silicone-fiberglass FIRE SLEEVE
   1. Stratoflex 111F, 124F, 156F OR 170F
   2. Aeroquip 303, 666, or 701 with FIRE SLEEVE added
B. Hoses with integral silicone fire protection cover
   1. Stratoflex 124H, 124J or 156H
   2. Aeroquip AE401 or AE466

8. AN, MS, SAE or equivalent steel fittings are authorized. Use sealant on pipe threads only.
10. Pump output hose - 3/8 inch (-6). Length as factory ordered. Confirm length before ordering. Primary installation:
    c. O/I-520/550 with primary adapter. Length = 30 in. Both ends straight
    Secondary installation (O/I-20 only). Length = 24 in. Both ends straight.
11. All wire to be per MIL-W-22759/18. Route wire with existing bundles where possible. Install all switches and fuse holders in accordance with the manufacturer's instructions using hardware furnished with each component. Secure all wires and fuse holder with Ty-wraps.
12. Installation on aircraft with IO 470L engine requires an oil filter adapter for spin oil filter with an internalby-pass valve. Installations with adapter #C1250922-2 or -3 and with modified accessory housing with integral filter adapter are shown in these instructions.
13. Installation on Models 35 through 33 require conversion to a wet sump Continental engine under separate STC.
1. Install Contactor (26) on Pump or on firewall using Hardware (6-1, 2-2 & 3). For mount on firewall, clean connecting surface on aircraft to ensure good electric contact with base of Contactor.

2. Connect one end of Fuse Holder (28-1) to battery side of engine starter relay using no more than 6 inches of 14 Gage Wire (30) and Hing Terminal (40). Connect 14 gage wire to other end of fuse holder and connect to "Bat" terminal on Contactor using Ring Terminal (40) and Insulator (44). Connect opposite terminal on Contactor to "Plus" wire on pump motor using (40, 42 & 44).

3. Connect a 14 gage wire from Negative (-) wire on pump using Butt Splice (43) and to aircraft ground using Flng Terminal (48) and Hardware (4, 5-2 & 5-3). Clean connecting surface on aircraft to ensure good electric contact.

4. Drill ¾ inch hole in dash at designated location. Install optional Switch (23-1) with Switch Placard (23-2). Connect a 22Gage Wire (29) to center terminal on Switch using Butt Splice (42) and to protected side of "Stall Warn" (5 amp) circuit breaker on aircraft primary bus using Bing Terminal (41-1).

5. Connect a 22 gage wire to other terminal on switch, route through firewall and connect to center terminal on Contactor using Ring Terminal (41-2) plus (44).

6. Install Operating Limitation Placard (34) adjacent to Switch.

7. Install Fuse (28-2) and secure fuse holder.
E. PREPARE AIRCRAFT FOR OPERATION AND OPERATE PREOILER.

1. REFILL ENGINE WITH OIL.

2. COMPLETE AIRCRAFT LOG ENTRIES, FAA FORM 337 AND WEIGHT & BALANCE CALCULATIONS. Note: See Flight Manual Supplement for Weight and Balance information.

3. COMPLETE WARRANTY CARD AND RETURN TO OILAMATIC, INC.

F. PREOILER INITIAL OPERATIONAL CHECK

1. Turn aircraft master switch "On" and turn Preoiler switch "On".

2. Check engine oil pressure gage for rise indicating Preoiler has primed and engine is being preoiled.

3. If Preoiler fails to prime within 30 seconds, turn Preoiler "Off", open pump bleed valve ½ turn, turn Preoiler "On" until it primes and oil flows from bleed valve (use hose and container to catch oil), turn Preoiler "Off", tighten bleed valve and operate Preoiler until engine oil pressure stabilizes.

4. Turn Preoiler off and check installation for oil leaks.

5. Refer to Flight Manual Supplement for preoiling prior to engine start.

G. PREOILER MAINTENANCE

1. At each inspection, check hoses, fittings and pump for leaks and for signs of distress.

2. AVOID SPRAYING HIGH PRESSURE WATER OR CLEANING SOLVENTS DIRECTLY ONTO PUMP OR ELECTRIC MOTOR.
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