

Butterfield Industries, Inc.

208-466-4622

INSTALLATION INSTRUCTIONS

P/N BI 1013

OIL RESIDUE COLLECTION SYSTEM
KING AIR 200, B200 SERIES

KIT P/N BI 1011-1

11/12/07
REV: C

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IMPORTANT NOTICE

THE BUTTERFIELD INDUSTRIES OIL RESIDUE COLLECTION SYSTEM INSTALLATION HAS BEEN APPROVED BY THE FEDERAL AVIATION ADMINISTRATION (FAA) UNDER SUPPLEMENT TYPE CERTIFICATE (STC)

THIS INSTALLATION MUST CONFORM TO THE FAA APPROVED BUTTERFIELD INDUSTRIES INSTALLATION DRAWINGS AND THE INSTRUCTIONS CONTAINED IN THIS DOCUMENT.

CONFORMITY VERIFICATION OF THE INSTALLED SYSTEM TO THE BUTTERFIELD INDUSTRIES INSTALLATION DRAWINGS AND INSTRUCTIONS IS THE RESPONSIBILITY OF THE INSTALLATION FACILITY.

DEVIATIONS TO THE FAA APPROVED BUTTERFIELD INDUSTRIES INSTALLATION DRAWINGS AND INSTRUCTIONS MUST BE APPROVED BY BOTH THE FAA AND BUTTERFIELD INDUSTRIES. THE INSTALLATION FACILITY IS RESPONSIBLE FOR BOTH COORDINATING AND OBTAINING THAT APPROVAL.

DRAWN		
N. HENNING		08/02/88
CHECKED		
A. ERDAHL		08/31/88
ENGINEER		
J. WHITCOMB		08/31/88
STRESS		
APPROVED		
J. WHITCOMB		08/31/88

BUTTERFIELD INDUSTRIES, INC.
INSTALLATION INSTRUCTIONS
OIL RESIDUE COLLECTION
SYSTEM
KING AIR 200 SERIES AIRCRAFT

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REVISIONS

LTR	DESCRIPTION	APPROVALS
A	<p>REVISION TO ADD A200 SERIES OF AIRCRAFT TO LIST OF APPLICABLE AIRCRAFT FOR THIS KIT REASON: ADDITIONAL KIT APPLICABILITY</p> <p>PRODUCTION INFO: EXISTING INSTALLATIONS SATISFACTORY</p>	<p>CHECKED: J. WHITCOMB 01/27/04</p> <p>APPROVED: W. BUTTERFIELD 01/27/04</p>
B	<p>REVISION TO ADD B200GT/B200CGT SERIES OF AIRCRAFT TO LIST OF APPLICABLE AIRCRAFT FOR THIS KIT REASON: ADDITIONAL KIT APPLICABILTY</p> <p>PRODUCTION INFO: EXISTING INSTALLATIONS SATISFACTORY</p>	<p>APPROVED: W. BUTTERFIELD 11/12/07</p>
C	<p>REVISION TO ADD B200GT/B200CGT SERIES OF AIRCRAFT TO LIST OF APPLICABLE AIRCRAFT FOR THIS KIT REASON: ADDITIONAL KIT APPLICABILTY</p> <p>PRODUCTION INFO: EXISTING INSTALLATIONS SATISFACTORY</p>	<p>APPROVED: W. BUTTERFIELD 11/12/07</p>

Butterfield Industries, Inc.

208-466-4622

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
	SUPPLEMENT TYPE CERTIFICATE	
	TITLE PAGE	2
	REVISIONS	3
	TABLE OF CONTENTS	4
1.0	INTRODUCTION	6
2.0	REQUIRED DOCUMENTATION	6
2.1	BUTTERFIELD SUPPLIED	6
2.2	CUSTOMER SUPPLIED	6
3.0	GENERAL	7
3.1	KIT DESCRIPTION	7
3.2	KIT CONTENTS	8
3.3	TOOLS REQUIRED	8
4.0	AIRPLANE PREPARATION	8
5.0	REMOVALS	9
6.0	KIT INSTALLATION	9

Butterfield Industries, Inc.

208-466-4622

6.1	SUMP ASSY INSTALLATION	10
6.2	HOSE ASSY INSTALLATION	10
6.3	FINAL INSTALLATION	10
6.4	INSPECTION	11
7.0	RETURN TO SERVICE	11
	KIT PACKING LIST	12
	CONTINUED AIRWORTHINESS INSTRUCTION	13

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208-466-4622

1.0 INTRODUCTION

THIS DOCUMENT IS INTENDED TO PROVIDE DETAILED INSTRUCTIONS FOR THE INSTALLATION OF THE BUTTERFIELD INDUSTRIES 'OIL RESIDUE COLLECTION SYSTEM', ON THE KING AIR 200 AND B200 FAMILY OF AIRCRAFT.

2.0 REQUIRED DOCUMENTATION

IN ADDITION TO THIS INSTRUCTION MANUAL, THE FOLLOWING DOCUMENTS WILL BE REQUIRED TO INSTALL THE OIL RESIDUE COLLECTION SYSTEM.

2.1 BUTTERFIELD SUPPLIED DOCUMENTS

THE FOLLOWING DRAWINGS OF THE CORRECT REVISION ARE SUPPLIED AS PART OF THIS DOCUMENTATION.

BI-1011 SHEET 1, 2 AND 3 ENGINE DRAIN SUMP INSTALLATION

BI-1012 DRAWING LIST

2.2 CUSTOMER SUPPLIED DOCUMENTATION

THE FOLLOWING DOCUMENTS OF THE LATEST REVISION IN EFFECT AT THE TIME OF THE KIT INSTALLATION SHALL BE SUPPLIED BY THE CUSTOMER OR THE INSTALLATION FACILITY:

101-590010-19 BEEHCRAFT KING AIR 200
MAINTENANCE MANUAL

FAA-AC 43.13-1A ACCEPTED METHODS, TECHNIQUES AND
PRACTICES FOR AIRCRAFT ALTERATION,
INSPECTION AND REPAIR.

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3.0 GENERAL

THE OIL RESIDUE COLLECTION SYSTEM, PART NUMBER BI-1011-1, IS ELIGIBLE FOR INSTALLATION ON BEECHCRAFT KING AIR 200 AND B200 FAMILY OF AIRCRAFT UNDER AUTHORIZATION OF THESE INSTRUCTIONS AND STC # SA4362NM.

SERIAL NUMBER OF AUTHORIZED AIRCRAFT ARE AS FOLLOWS

BB-2 AND AFTER	MODEL 200 AND B200
BL-1 AND AFTER	MODEL 200C AND B200C
BT-1 AND AFTER	MODEL 200T AND B200T
BN-1 AND AFTER	MODEL 200CT AND B200CT
BC-1 AND AFTER	MODEL A200
BD-1 AND AFTER	MODEL A200
BJ-1 AND AFTER	MODEL A200C
BP-1 AND AFTER	MODEL A200CT
BT-1 AND AFTER	MODEL A200CT
BY-1 AND AFTER	MODEL B200GT
BZ-1 AND AFTER	MODEL B200CGT

PRE-MODIFIED AIRCRAFT MUST CONFORM TO INSTALLATION DRAWING BI-1011 (SHEET 1 "MANIFOLD REMOVAL", SHEET 2 "TYP. HOSE ROUTING").

3.1 KIT DESCRIPTION

INSTALLATION OF THE BUTTERFIELD INDUSTRIES OIL RESIDUE COLLECTION SYSTEM ALLOWS THE COLLECTING OF DRAIN FLUID INTO A SINGLE SUMP ASSEMBLY. THE SUMP HAS A DRAIN VALVE, WHICH CAN BE USED PERIODICALLY TO DRAIN THE TANK. THE SYSTEM WILL ELIMINATE THE OIL MESS ON THE BOTTOM OF THE NACELLE AND ON THE MAIN LANDING GEAR. IT WILL ALSO CLEAN UP THE MESSY OIL SPOTS ON THE HANGAR FLOOR AND RAMP WHEN THE AIRCRAFT IS PARKED. THIS IS A MESS AS WELL AS AN EPA HAZARD.

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208-466-4622

3.2 KIT CONTENTS

THE CONTENTS OF THE BI-1011-1 KIT ARE AS SPECIFIED IN THE LIST OF MATERIALS ON SHEET 1 OF THE DRAWING LISTED IN PARAGRAPH 2.1. ADDITIONALLY, THE KIT CONTAINS A DATA PACKAGE CONTAINING:

- 1) BI 1013 - "INSTALLATION INSTRUCTIONS"
- 2) A COPY OF THE PACKING LIST (PAGE 12)
- 3) DRAWINGS LISTED IN PARAGRAPH 2.1
- 4) ONE COPY OF THE STC

BUTTERFIELD INDUSTRIES SHOULD BE NOTIFIED IMMEDIATELY OF ANY SHORTAGES OR OTHER DISCREPANCIES.

3.3 SPECIALIZED TOOLING REQUIRED

OTHER THAN STANDARD AIRCRAFT TECHNICIAN'S TOOLS, NO SPECIAL TOOLS REQUIRED.

4.0 AIRPLANE PREPARATION

NO SPECIAL AIRPLANE PREPARATION IS REQUIRED PRIOR TO INITIATING INSTALLATION OF THE OIL RESIDUE COLLECTION KIT.

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208-466-4622

5.0 REMOVALS

THE OPERATION DEFINED HERE ARE THOSE NECESSARY TO REMOVE AND ALTER COMPONENTS FROM THE LEFT AND RIGHT HAND NACELLE. THE SEQUENCE OF EVENTS ARE PRESENTED IN A RECOMMENDED SEQUENCE. HOWEVER, THAT SEQUENCE MAY BE ALTERED TO SUIT THE CUSTOMER OR THE INSTALLATION FACILITY.

REF. DRAWING BI-1011 SHEET 1

- 1) GAIN ACCESS TO THE FORWARD SIDE OF THE FIREWALL BY REMOVING COWLING AS REQUIRED.
- 2) DISCONNECT HOSES FROM EXISTING DRAIN MANIFOLD.
- 3) REMOVE AND DISCARD MANIFOLD (101-910099-11) AND THE ATTACHING HARDWARE AS SHOWN.

6.0 KIT INSTALLATION

THE FOLLOWING PARAGRAPHS DEFINE THE INSTALLATION OF THE OIL RESIDUE COLLECTION SYSTEM. THE ACTIVITIES SPECIFIED HEREIN ARE PRESENTED IN A RECOMMENDED SEQUENCE. HOWEVER, THAT SEQUENCE MAY BE ALTERED TO SUIT THE CUSTOMER OR THE INSTALLATION FACILITY. UNLESS OTHERWISE SPECIFIED, INSTALLATION OF ALL HARDWARE SHALL CONFORM TO FAA-AC 43.13-1A.

NOTE: AIRCRAFT MODEL A200 AND EARLY SERIAL NUMBERED AIRCRAFT NOT MODIFIED WITH SERVICE BULLETIN TO DUCT ENGINE VENT LINE THROUGH THE WHEEL WELL WILL REQUIRE THE BI 4000-5 SUMP ASSEMBLY AND WILL REFER TO DRAWING BI 1011-SHEET 3 FOR INSTALLATION.
AN ADDITIONAL HOLE WILL BE REQUIRED IN LOWER COWLING TO ACCOMMODATE VENT TUBE.

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208-466-4622

6.1 SUMP ASSEMBLY INSTALLATION

REF. DRAWING BI 1001 SHEET 2

- 1) POSITION SUMP ASSEMBLY (BI-4000-1) ON THE ENGINE FIREWALL AS SHOWN.

NOTE: THE EXISTING HOLE IN THE COWL MAY REQUIRE ENLARGEMENT TO ACCEPT THE NECK OF THE SUMP ASSEMBLY.

- 2) ATTACH THE SUMP ASSEMBLY WITH TWO BOLTS (AN3H3A) AND WASHERS (AN960KD10) AT TWO EXISTING NUTPLATE LOCATIONS.
- 3) SAFETY-WIRE THE TWO BOLTS AS SHOWN.

6.2 HOSE ASSEMBLY INSTALLATION

CONNECT HOSES TO SUMP ASSEMBLY IN SAME POSITIONS.

6.3 FINAL INSTALLATION

- 1) PERFORM A DETAILED INSPECTION OF ALL WORK ACCOMPLISHED.
- 2) INSTALL ALL COWLING REMOVED TO GAIN ACCESS FOR THE MODIFICATION.

NOTE: DRAIN VALVE MAY BE REMOVED DURING COWLING INSTALLATION AND THEN REINSTALLED.

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208-466-4622

6.4 INSPECTION

THERE IS NO INSPECTION CRITERIA FOR THE SUMP. CHECK CONTINUED AIRWORTHINESS INSTRUCTIONS ON PAGE 13 FOR SUGGESTIONS AS TO PERIODIC MAINTENANCE.

7.0 RETURN AIRPLANE TO SERVICE

- 1) COMPLETE AN APPROPRIATE ENTRY IN THE AIRPLANE LOGBOOK

EXAMPLE: INSTALLED BUTTERFIELD INDUSTRIES OIL
RESIDUE COLLECTION SYSTEM PART
NUMBER 1011-1 AS PER STC SA4362NM.

- 2) COMPLETE THREE COPIES OF FAA FORM 337. INSERT ORIGINAL IN AIRPLANE FLIGHT MANUAL. MAIL ONE COPY TO LOCAL FAA-FSDO AND RETAIN ONE COPY FOR THE INSTALLER
- 3) NO WEIGHT AND BALANCE CHANGE

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PACKING LIST

KIT P/N BI 1011-1

RESIDUE TANK ASSEMBLY	BI 4000-1 OR BI 4000-5 (A200)	2 EA.
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WASHER	AN960KD10	4 EA.
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BOLT	AN 3H3A	4 EA.
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CONTINUED AIRWORTHINESS INSTRUCTIONS

THERE ARE NO SCHEDULED INSPECTION PERIODS FOR ANY COMPONENT OF THE BUTTERFIELD INDUSTRIES 'OIL RESIDUE COLLECTION SYSTEM'.

USE THE FOLLOWING GUIDELINES FOR SUCCESSFUL CONTINUED AIRWORTHINESS.

ANYTIME THE COWLING IS OPEN FOR INSPECTION, THE OIL RESIDUE TANK SHOULD BE INSPECTED FOR CONDITION AND SECURITY.

ALL HOSE CLAMPS TO TANK SHOULD BE INSPECTED FOR CONDITION AND SECURITY.

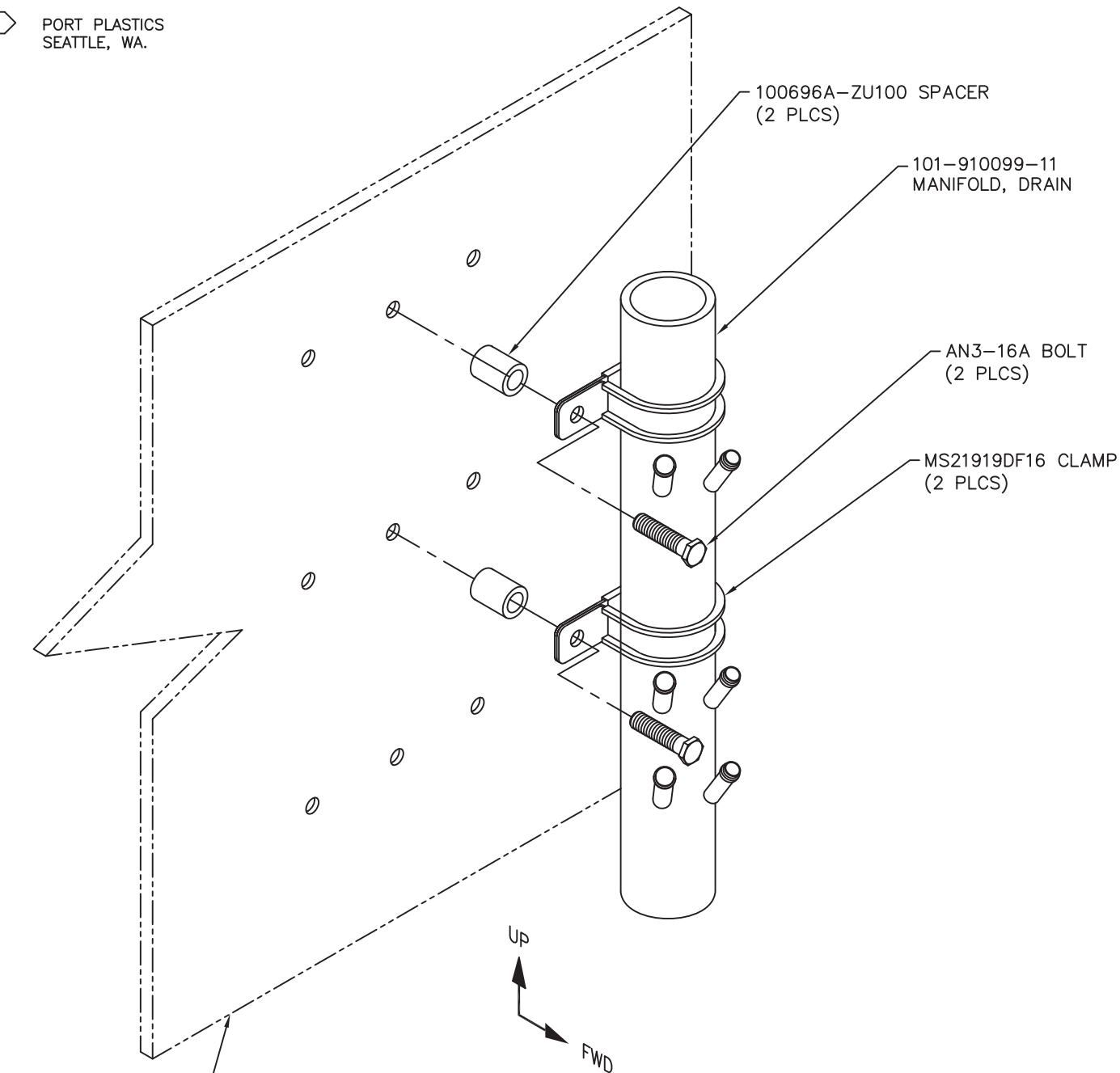
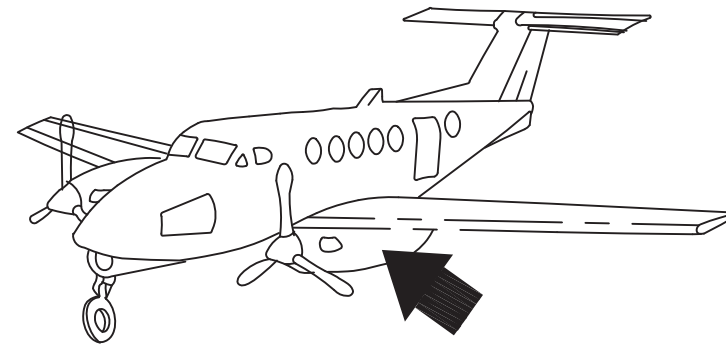
THE TANK SHOULD BE DRAINED ON A PERIODIC BASIS.

IF THE TANK IS NOT DRAINED, THE RESIDUE OIL WILL DRAIN FROM THE OVERFLOW TUBE.

NOTES:

- 1 OPTIONAL HOSE KIT SEE INSTALLATION INSTRUCTIONS
- 2 SLIGHT ENLARGEMENT OF EXISTING HOLE PERMISSABLE FOR CLEARANCE OF DRAIN VALVE AND TUBE.
- 3 INSTALL BOLTS PR EA-AC 43.13
- 4 1552 X 10 CLAMP OPTIONAL TO MS35842-10 UNTIL SUPPLY OF 1552 X 10 IS EXHAUSTED.
- 5 PORT PLASTICS SEATTLE, WA.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	SEE DCN DATED 12-15-88	12-15-88	W.B
B	CONVERTED TO CAD	07-16-17	



QTY REQD	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ZONE	FINISH	PART MARK	ITEM NO.
-	1	-3	HOSE KIT			B	2
-	-	-1	SUMP ASSEMBLY KIT INSTALLATION			B	1
8	MS35842-10	CLAMP				A	14
8	1552 X 10	CLAMP	WEATHER HEAD DIV. OF DANA CORP. CHURUBUSCO, IND.			A	13
42	1538	CLAMP	WEATHER HEAD DIV. OF DANA CORP. CHURUBUSCO, IND.				12
1	F-4040-A	HOSE	3/8 I.D. X 1/2 O.D. TYGON TUBING 12' NOM. LG				11
1	F-4040-A	HOSE	1/4 O.D. X .035 WALL TUBE TYGON TUBING 30' NOM. LG				10
4	AN960KD10	WASHER	ALT: AN960JD10				9
4	AN3H3A	BOLT					8
AR	MS20995-C32	SAFETY WIRE					7
7	BI-4000-3	"Y" FITTING					5
2	BI-4000-1	SUMP ASSEMBLY					4
							3
							6
							7
							8
							9
							10
							11
							12
							13
							14
							15
							16

FIRE WALL (REF)

MANIFOLD REMOVAL
TYPICAL L.H. AND R.H. ENGINES

PART DASH NO.	NEXT ASSY	USED ON	APPLICATION	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES -TOLERANCES- .X ± .1 .XX ± .03 .XXX ± .010 ANGULAR ± 2'	DRAWN R. POYNS 08-31-88	BUTTERFIELD INDUSTRIES. ROCHESTER, MINNESOTA.
					CHECKED MX ANGLE 08-31-88	
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				STRESS	APPVD J.WHITCOMB 08-31-88	
					SCALE 1/1	SIZE DWG NO. BI-1011
					RLSE DATE	REV LTR B
					SHEET 1 OF 2	

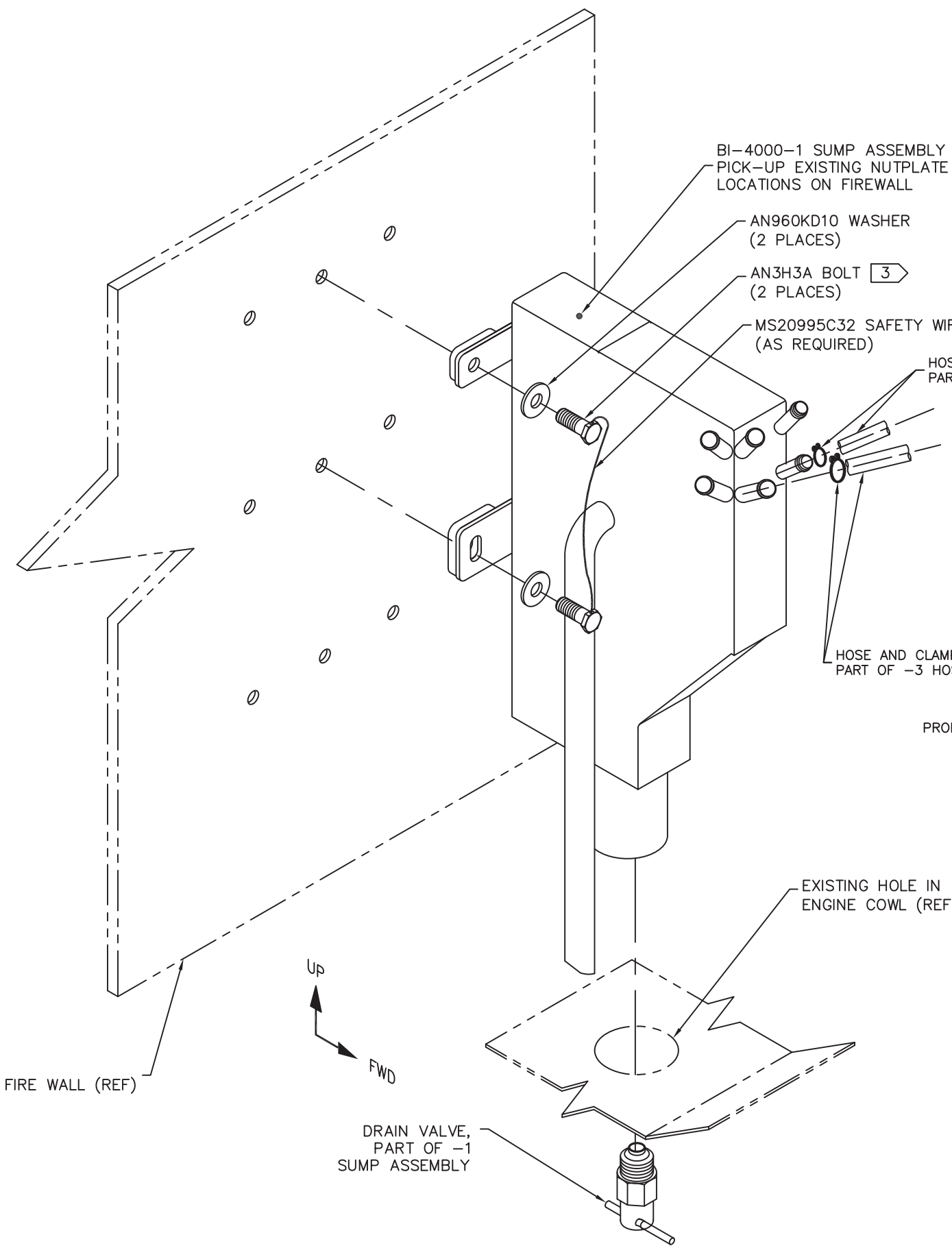
4

3

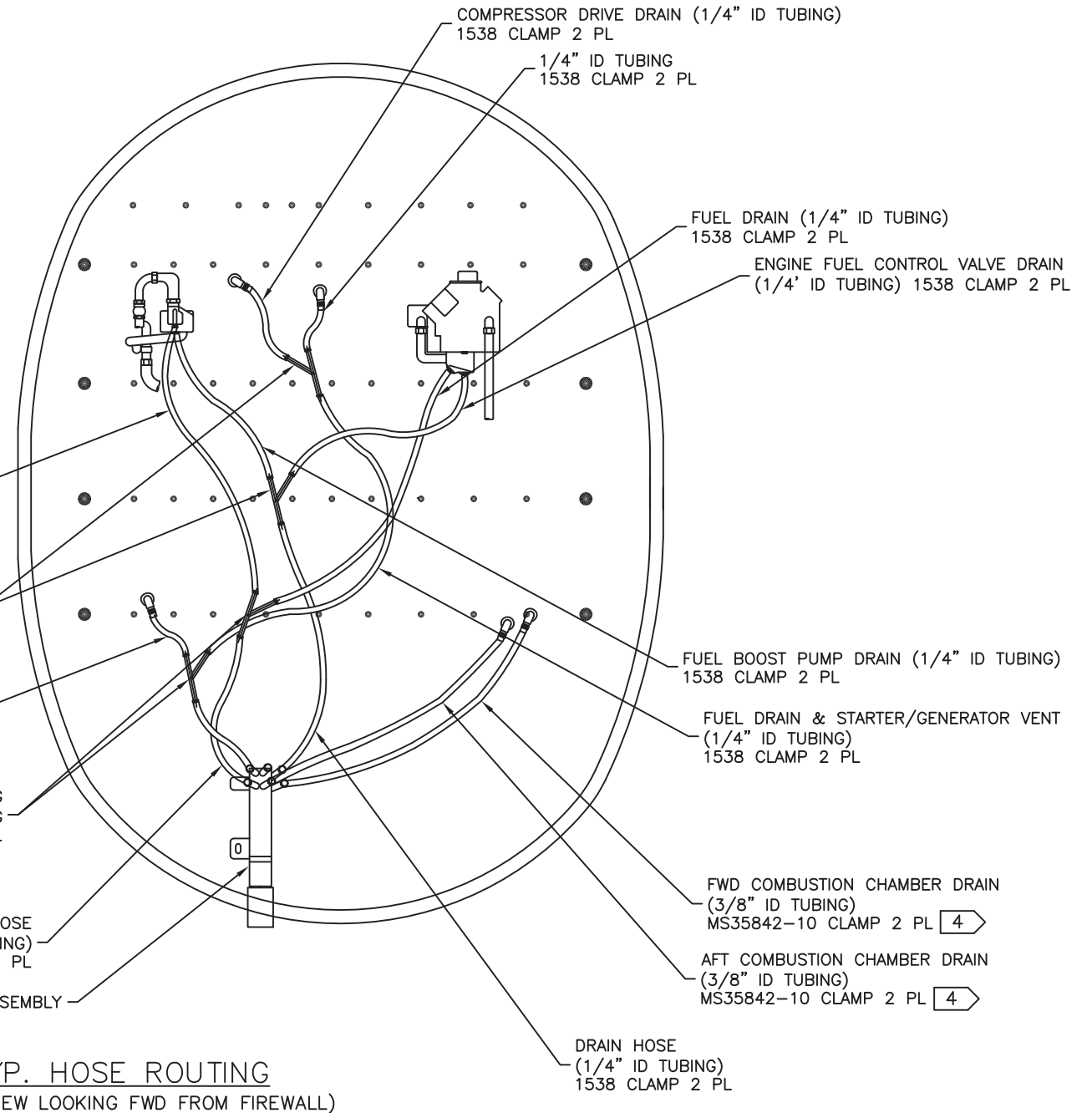
2

1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	SEE DCN DATED 12-15-88	12-15-88	W.Butterfield
B	CONVERTED TO CAD	07-16-17	



-1 DRAIN SUMP KIT INSTALLATION
(INSTALLATION TYP. BOTH ENGINES)

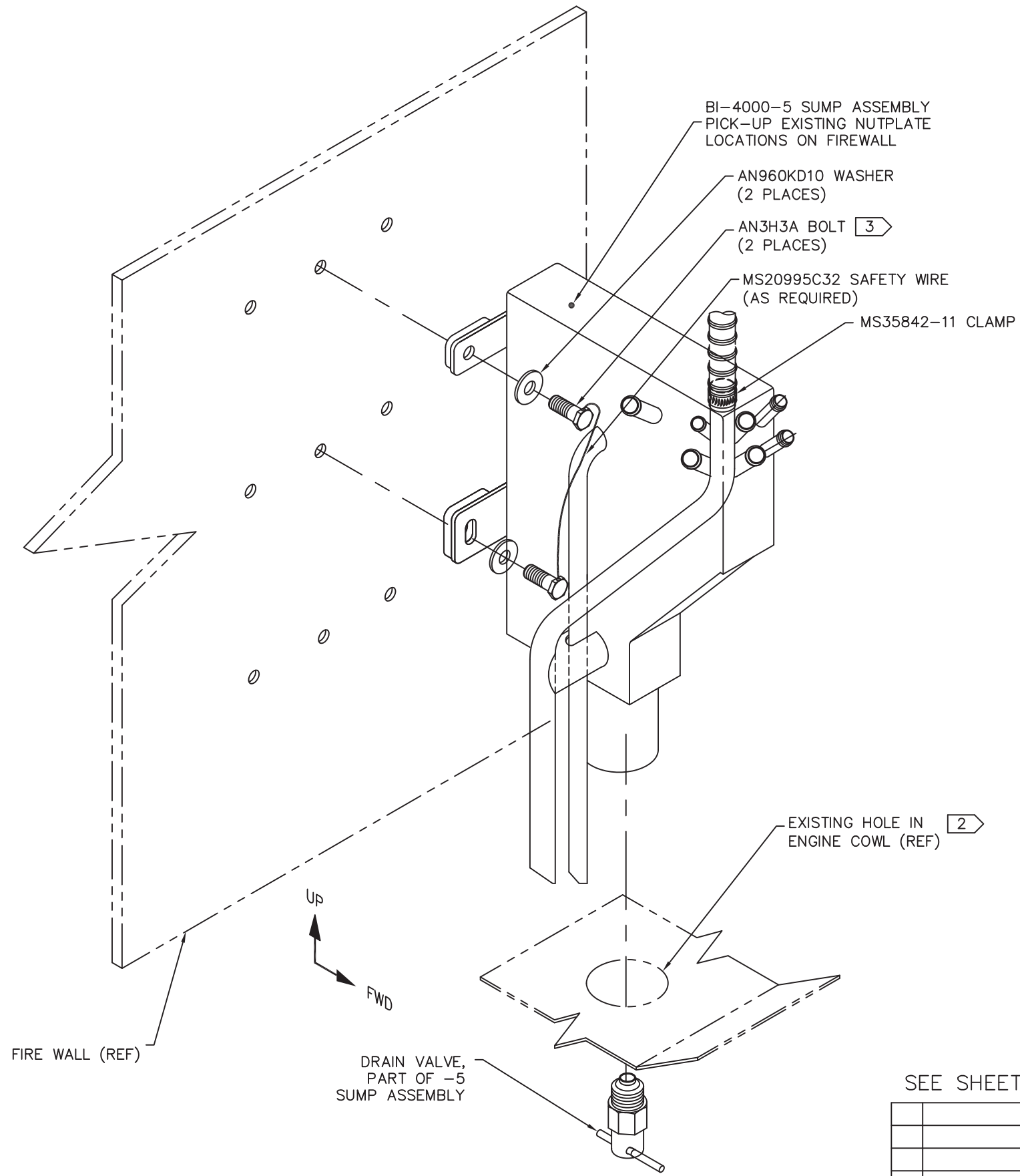


TYP. HOSE ROUTING
(VIEW LOOKING FWD FROM FIREWALL)

SEE SHEET 1 FOR LIST OF MATERIAL, NOTES AND APPLICATION DATA.

PART DASH NO.	NEXT ASSY	USED ON	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES -TOLERANCES- .X ± .1 .XX ± .03 .XXX ± .010 ANGULAR ± 2'	DRAWN R POYNS 08-31-88	BUTTERFIELD INDUSTRIES, INC. ROCHESTER, MINNESOTA.
	APPLICATION			CHECKED MX ANGLE 08-31-88	
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				STRESS	SIZE D DWG NO. BI-1011
				APPVD J. WHITCOMB 08-31-88	SCALE 1/1 RLS DATE SHEET 2 OF 2

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



-5 DRAIN SUMP KIT INSTALLATION
 (INSTALLATION TYP. BOTH ENGINES)
 SEE SHEET 2 FOR HOSE ROUTING

SEE SHEET 1 FOR LIST OF MATERIAL, NOTES AND APPLICATION DATA.

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES -TOLERANCES-		DRAWN BWHITCOMB 01-10-01	BUTTERFIELD INDUSTRIES. ROCHESTER, MINNESOTA.	
.X ± .01		CHECKED JW 02-02-01	ENGINE DRAIN SUMP INSTALLATION	
.XX ± .03		ENGR WB 02-02-01		
.XXX ± .010		STRESS	SIZE DWG NO. BI-1011	
ANGULAR ± 2'		APPVD	SCALE 1/1	REV LTR -
PART DASH NO.		NEXT ASSY USED ON		APPLICATION
				SEE SHEET 1 FOR LIST OF MATERIAL, NOTES AND APPLICATION DATA.
				SCALE 1/1 RLS DATE SHEET 3 OF

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1800 524-3404

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

THERE ARE NO SCHEDULED INSPECTION PERIODS FOR ANY COMPONENT OF THE BUTTERFIELD INDUSTRIES ' OIL RESIDUE COLLECTION SYSTEM'.

USE THE FOLLOWING GUIDELINES FOR SUCCESSFUL CONTINUED AIRWORTHINESS.

ANY TIME THE COWLING IS OPEN FOR INSPECTION, THE OIL RESIDUE TANK SHOULD BE INSPECTED FOR CONDITION AND SECURITY.

ALL HOSE CLAMPS TO THE TANK SHOULD BE INSPECTED FOR CONDITION AND SECURITY.

THE TANK SHOULD BE DRAINED ON A PERIODIC BASIS.

IF THE TANK IS NOT DRAINED, THE RESIDUE OIL WILL DRAIN FROM THE OVERFLOW TUBE.

03/01/11
REV: N/C