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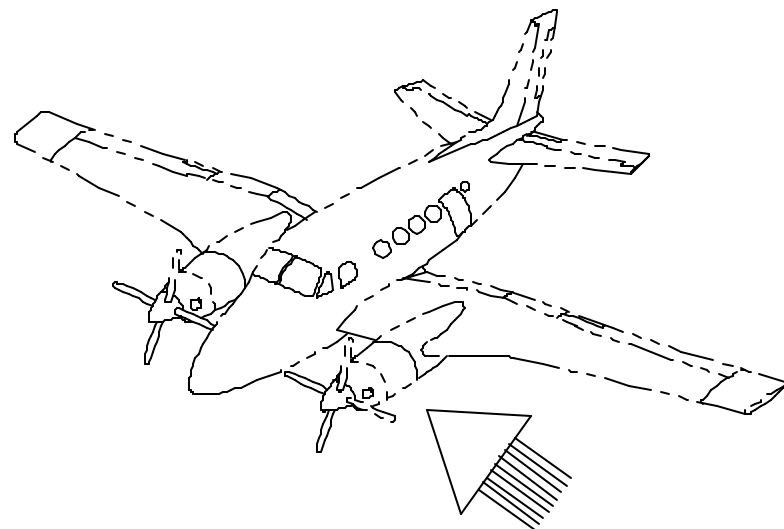
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NOTES:

- 1 SLIGHT ENLARGEMENT OF HOLE PERMISSABLE FOR CLEARANCE OF DRAIN VALVE AND TUBE.
- 2 INSTALL BOLTS PER EA- AC43.13
- 3 ALTERNATE PART NUMBER: AN960JD10

| REVISIONS | | | |
|-----------|--|------------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | REVISED ITEMS 10, 15 & 18 QTY WAS 4 REVISED APPLICATION BLOCK | 04- 28- 03 | |



-1 OIL RESIDUE COLLECTION SYSTEM

SEE SHEET 2

| QTY REQD | PART OR IDENTIFYING NO. | NOMENCLATURE OR DESCRIPTION | MATERIAL SPECIFICATION | ZONE | FINISH | PART MARK | ITEM NO. |
|----------|-------------------------|------------------------------|--|------|--------|-----------|----------|
| | | | | | | | 20 |
| | | | | | | | 19 |
| 8 | CS125- 1032- 8CR | STUD | CLICK BOND CARSON CITY, NEVADA | | | | 18 |
| AR | F- 4040A | HOSE | 3/8" I.D. 1/2 O.D. TYGON TUBING UNIVERSAL PLASTIC, SEATTLE, WA. | | | | 17 |
| AR | CB200 | ACRYLIC ADHESIVE | CLICK BOND CARSON CITY, NEVADA. | | | | 16 |
| 8 | MS20500- 1032 | NUT | | | | | 15 |
| 16 | NAS1922- 0075- 1 | CLAMP | | | | | 14 |
| 4 | MS21919- G18 | CLAMP | | | | | 13 |
| 4 | MS21919- G16 | CLAMP | | | | | 12 |
| 8 | MS35842- 11 | CLAMP | | | | | 11 |
| 8 | AN960KD10 | WASHER | ALT: AN960JD10 | | | | 10 |
| | | | | | | | 9 |
| AR | MS20995- C32 | SAFETY WIRE | | | | | 8 |
| | | | | | | | 7 |
| 2 | BI- 2001- 12 | HOSE | 36.0" LONG SNOOK INC. GRANDHAVEN, MI. | | | | 6 |
| 2 | BI- 2001- 10 | HOSE | 21.5" LONG SNOOK INC. GRANDHAVEN, MI. | | | | 5 |
| 2 | BI- 2201- 1 | SUMP KIT ASSEMBLY | | | | | 4 |
| 2 | BI- 2301- 1 | SEPARATOR ASSEMBLY | | | | | 3 |
| | | | | | | | 2 |
| - 1 | - 1 | OIL RESIDUE COLECTION SYSTEM | | | | | 1 |

| | | | | | |
|---|-----------|---------------|------------|--|------------------|
| UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES | | DRAWN B. W. | 01- 01- 03 | BUTTERFIELD INDUSTRIES. ROCHESTER, MINNESOTA. | |
| -TOLERANCES- | | CHECKED J. W. | 01- 01- 03 | | |
| .X ± .1 | | ENGR | | OIL RESIDUE COLLECTION SYSTEM INSTALLATION | |
| .XX ± .03 | | STRESS | | | |
| .XXX ± .010 | | | | SIZE D | DWG NO. BI- 2001 |
| ANGULAR ± 2° | | | | REV LTR A | |
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| PART DASH NO. | NEXT ASSY | USED ON | | SHEET 1 OF 5 | |

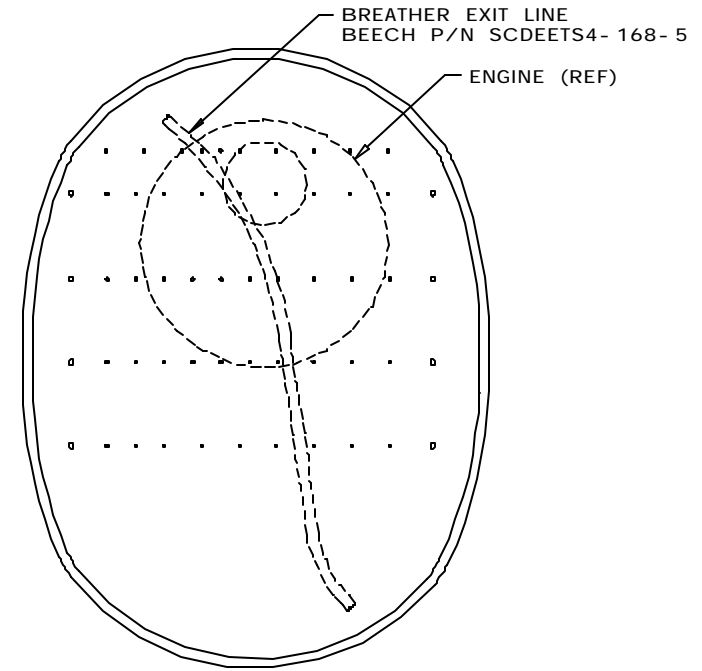
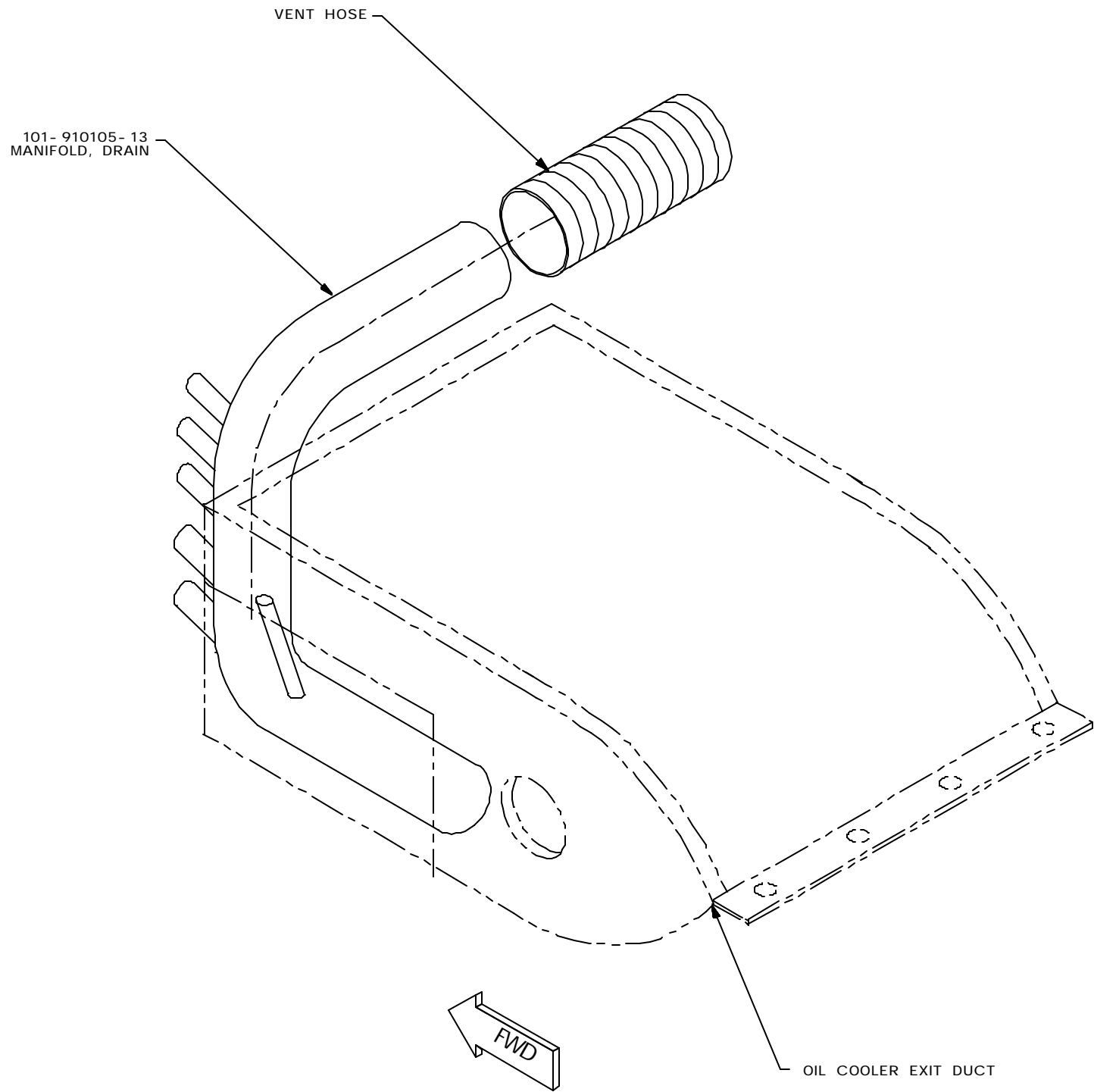
APPLICATION

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| REVISIONS | | | |
|-----------|-------------|------|----------|
| REV | DESCRIPTION | DATE | APPROVED |



REMOVAL
L/H R/H ENGINE
VIEW LOOKING AFT AT FIREWALL

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

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

| | | | | | | |
|---|-----------|---------|------------------------|--|--|--|
| UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES | | | DRAWN B. W. 01-01-03 | | BUTTERFIELD INDUSTRIES. ROCHESTER, MINNESOTA. | |
| -TOLERANCES- | | | CHECKED J. W. 01-01-03 | | OIL RESIDUE COLLECTION SYSTEM INSTALLATION | |
| .X ± .1 | | | ENGR | | | |
| .XX ± .03 | | | STRESS | | SIZE DWG NO. REV LTR | |
| .XXX ± .010 | | | APPRVD | | D BI- 2001 - | |
| ANGULAR ± 2° | | | SCALE 1/1 | | SHEET 2 OF | |
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| PART DASH NO. | NEXT ASSY | USED ON | SCALE 1/1 | | SHEET 2 OF | |
| APPLICATION | | | SCALE 1/1 | | SHEET 2 OF | |

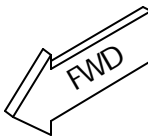
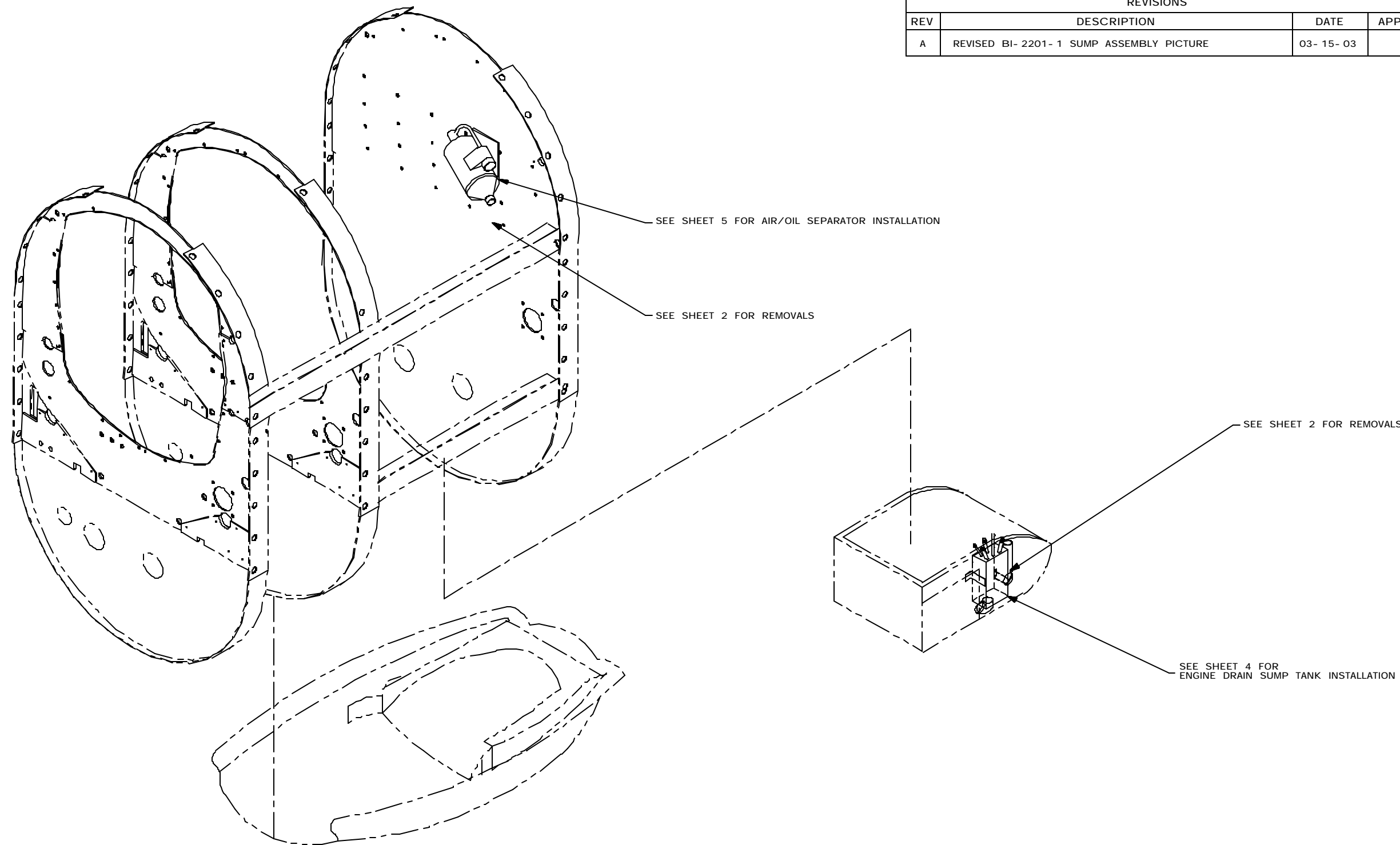
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| REVISIONS | | | |
|-----------|---|------------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | REVISED BI- 2201- 1 SUMP ASSEMBLY PICTURE | 03- 15- 03 | |



ENGINE NACELLE L.H.

| | | | | | | | |
|---------------|-----------|---|-------------|------------------------------|--|--|--|
| | | UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES | | DRAWN B.Whitcomb 01- 01- 03 | | BUTTERFIELD INDUSTRIES. ROCHESTER, MINNESOTA. | |
| | | -TOLERANCES- | | CHECKED JWhitcomb 01- 01- 03 | | ENGINE DRAIN SUMP ASSEMBLY | |
| | | .X ± .1 | | ENGR | | SIZE DWG NO. | |
| | | .XX ± .03 | | STRESS | | D BI- 2001 | |
| | | .XXX ± .010 | | APPRVD | | REV LTR | |
| | | ANGULAR ± 2° | | | | A | |
| | | PROPRIETARY NOTICE | | | | SCALE 1/1 | |
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| PART DASH NO. | NEXT ASSY | USED ON | APPLICATION | | | C:\DWG\BUTTER\BI- 2201- 03- A | |

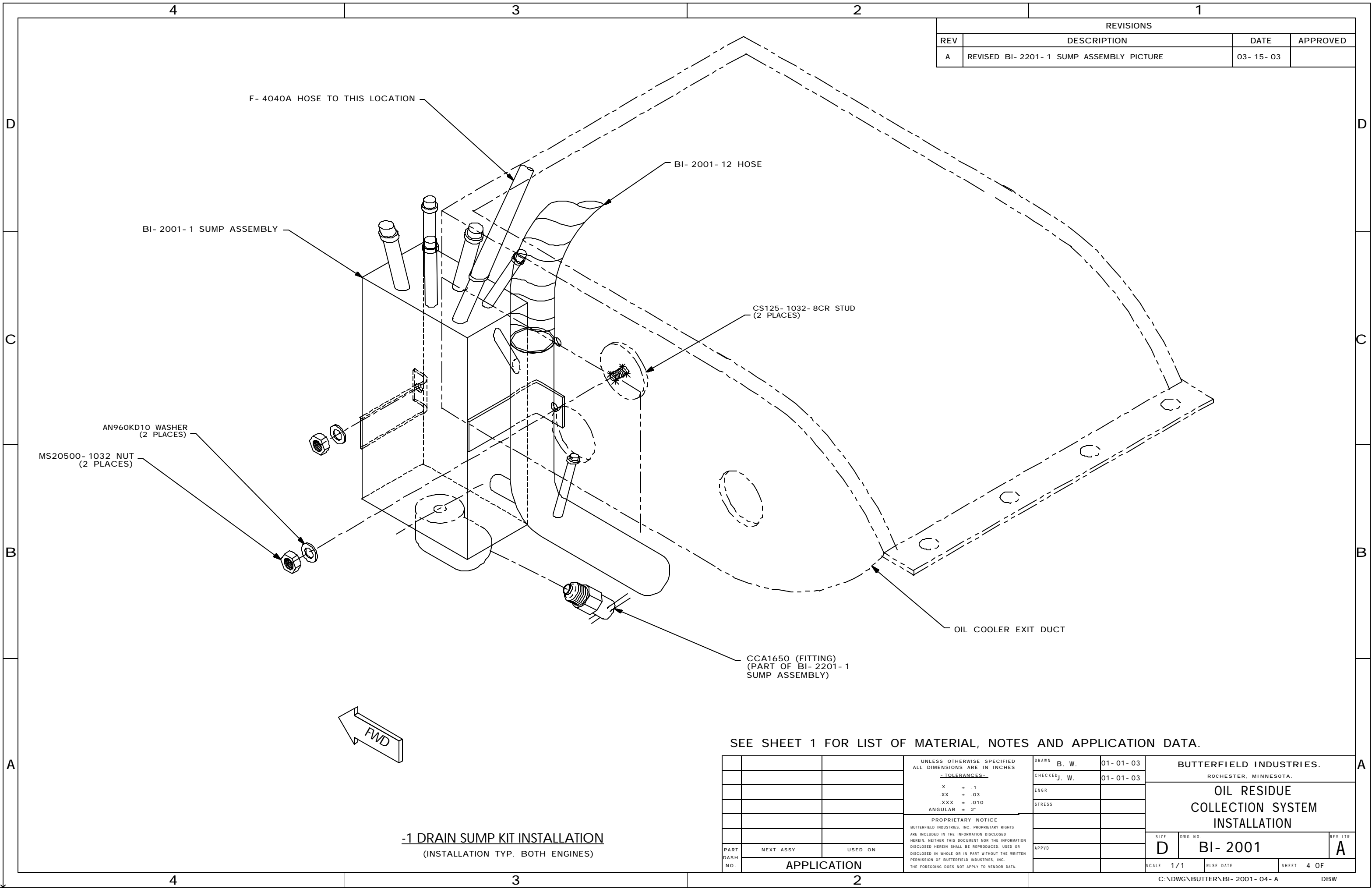
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| REVISIONS | | | |
|-----------|---|------------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | REVISED BI- 2201- 1 SUMP ASSEMBLY PICTURE | 03- 15- 03 | |

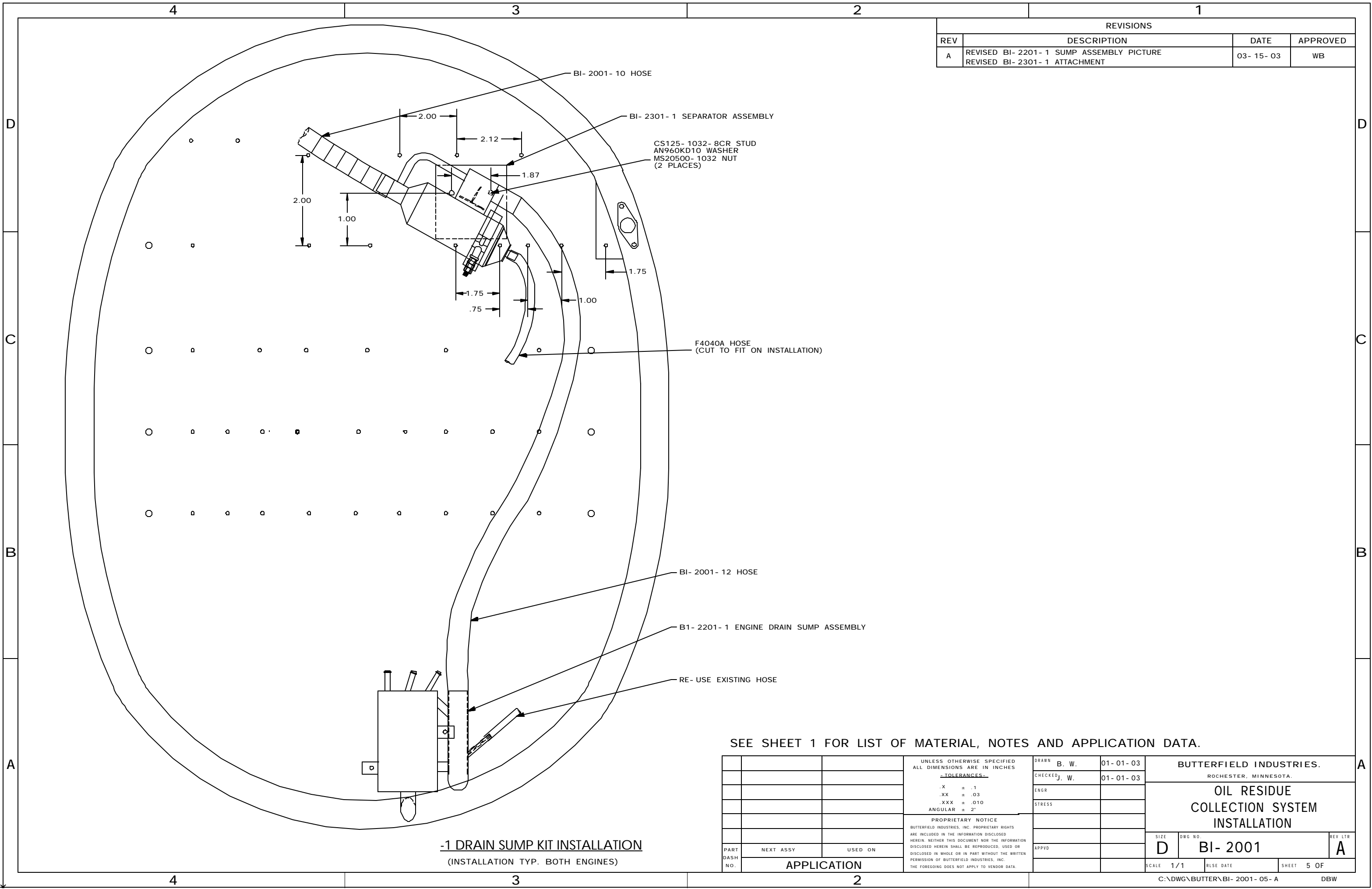


-1 DRAIN SUMP KIT INSTALLATION
(INSTALLATION TYP. BOTH ENGINES)

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 B. W. | 01- 01- 03 | BUTTERFIELD INDUSTRIES. ROCHESTER, MINNESOTA. |
| | APPLICATION | | | CHECKED J. W. | 01- 01- 03 | |
| | | | PROPRIETARY NOTICE BUTTERFIELD INDUSTRIES, INC. PROPRIETARY RIGHTS ARE INCLUDED IN THE INFORMATION DISCLOSED HEREIN. NEITHER THIS DOCUMENT NOR THE INFORMATION DISCLOSED HEREIN SHALL BE REPRODUCED, USED OR DISCLOSED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF BUTTERFIELD INDUSTRIES, INC. THE FOREGOING DOES NOT APPLY TO VENDOR DATA. | ENGR | | OIL RESIDUE COLLECTION SYSTEM INSTALLATION |
| | | | | STRESS | | |
| | | | | APPRVD | | DWG NO. BI- 2001 |
| | | | | | | REV LTR A |
| | | | | | | SCALE 1/1 |
| | | | | | | DATE |
| | | | | | | SHEET 4 OF |
| | | | | | | DBW |

| REVISIONS | | | |
|-----------|---|------------|----------|
| REV | DESCRIPTION | DATE | APPROVED |
| A | REVISED BI- 2201- 1 SUMP ASSEMBLY PICTURE REVISED BI- 2301- 1 ATTACHMENT | 03- 15- 03 | WB |



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

| | | | | | |
|---|-----------|---------------|-----------------------------------|--|------------------|
| UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES | | DRAWN B. W. | 01- 01- 03 | BUTTERFIELD INDUSTRIES. ROCHESTER, MINNESOTA. | |
| -TOLERANCES- | | CHECKED J. W. | 01- 01- 03 | OIL RESIDUE COLLECTION SYSTEM INSTALLATION | |
| .X ± .1 | | ENGR | | | |
| .XX ± .03 | | STRESS | | | |
| .XXX ± .010 | | | | | |
| ANGULAR ± 2° | | | | SIZE D | DWG NO. BI- 2001 |
| PROPRIETARY NOTICE BUTTERFIELD INDUSTRIES, INC. PROPRIETARY RIGHTS ARE INCLUDED IN THE INFORMATION DISCLOSED HEREIN. NEITHER THIS DOCUMENT NOR THE INFORMATION DISCLOSED HEREIN SHALL BE REPRODUCED, USED OR DISCLOSED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF BUTTERFIELD INDUSTRIES, INC. THE FOREGOING DOES NOT APPLY TO VENDOR DATA. | | APPVD | | REV LTR | A |
| PART DASH NO. | NEXT ASSY | USED ON | SCALE 1/1 | DATE | SHEET 5 OF |
| APPLICATION | | | C:\DWG\BUTTER\BI- 2001- 05- A DBW | | |

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