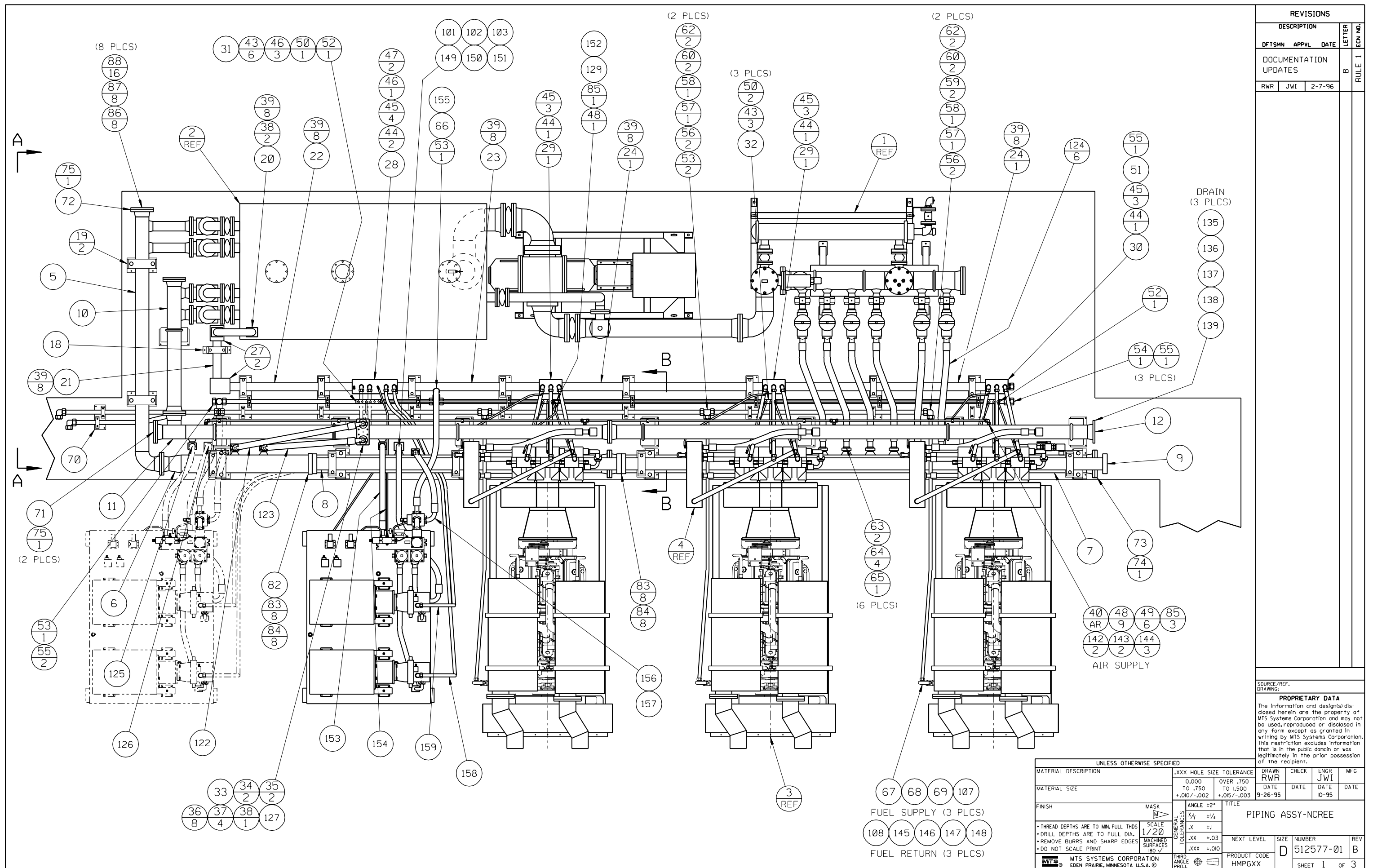
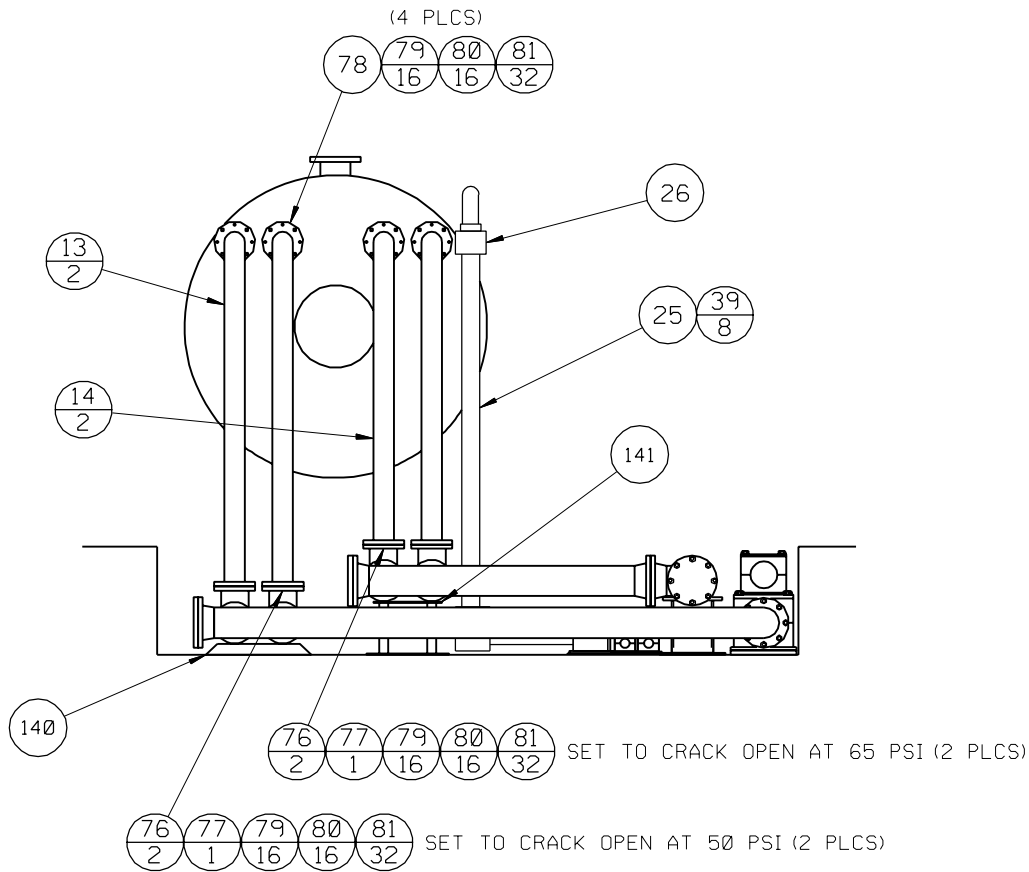
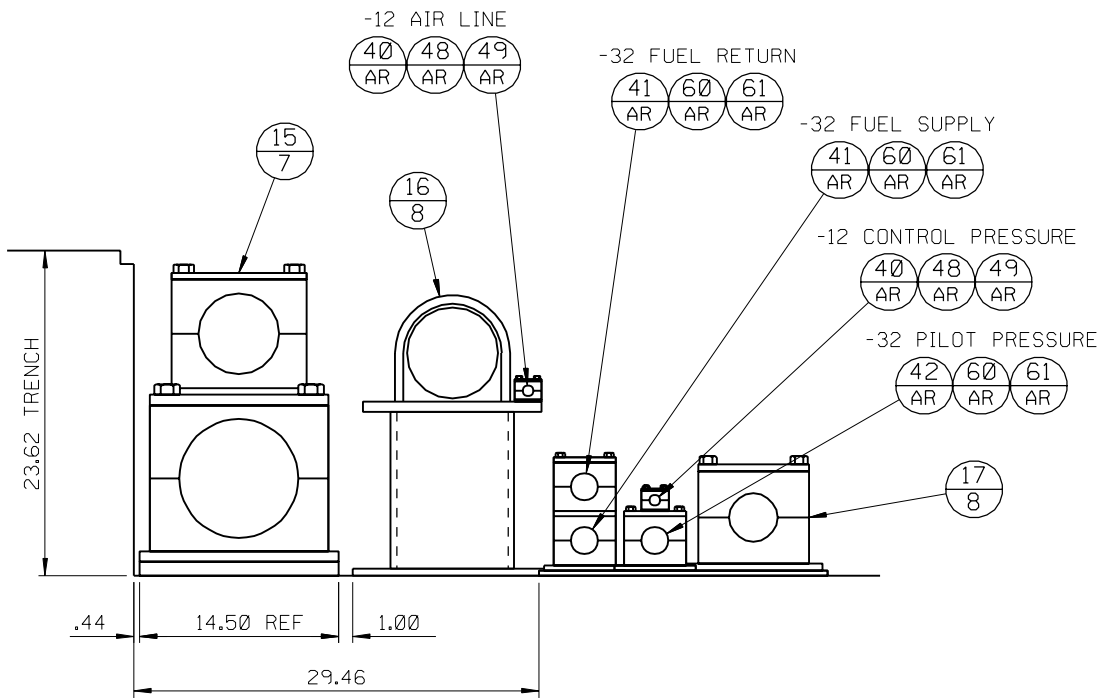


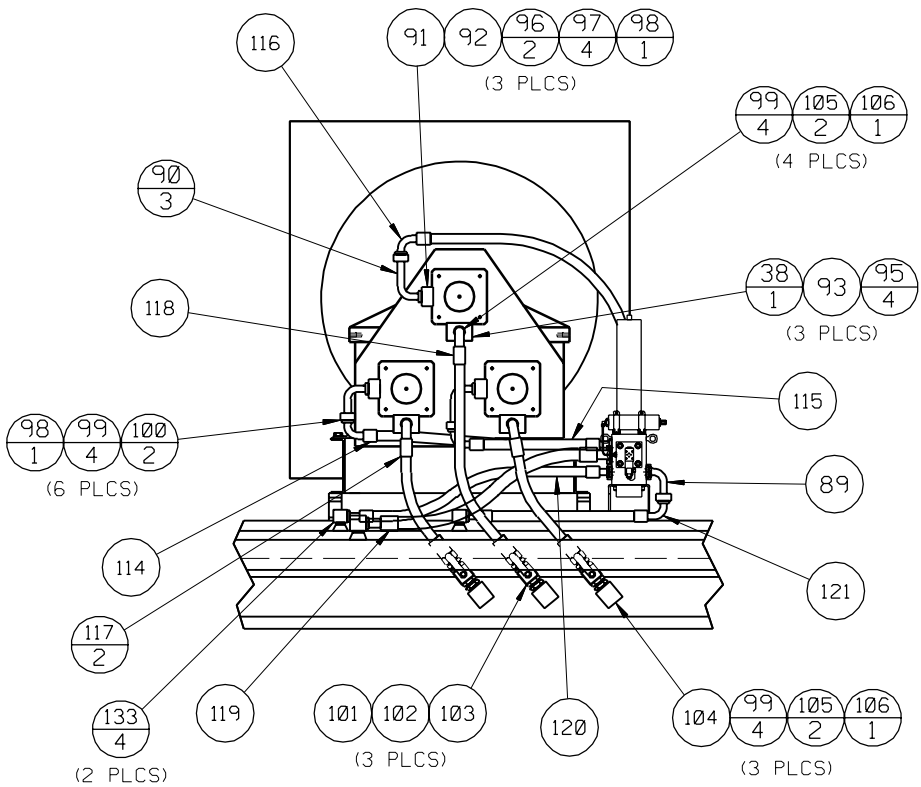
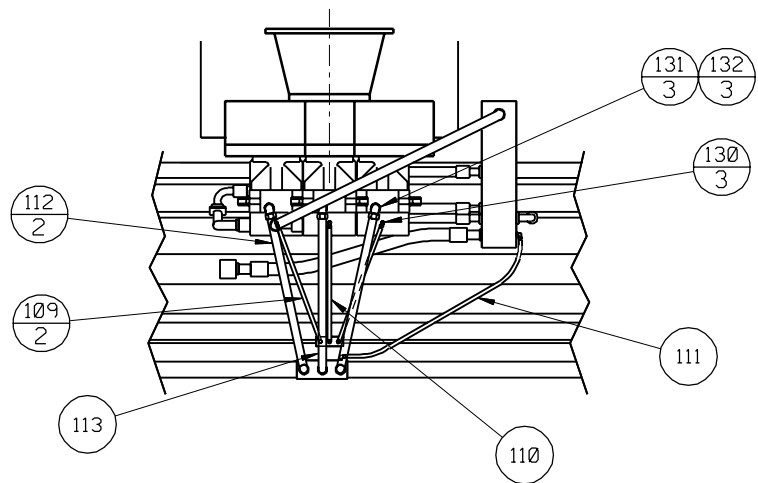




VIEW A-A



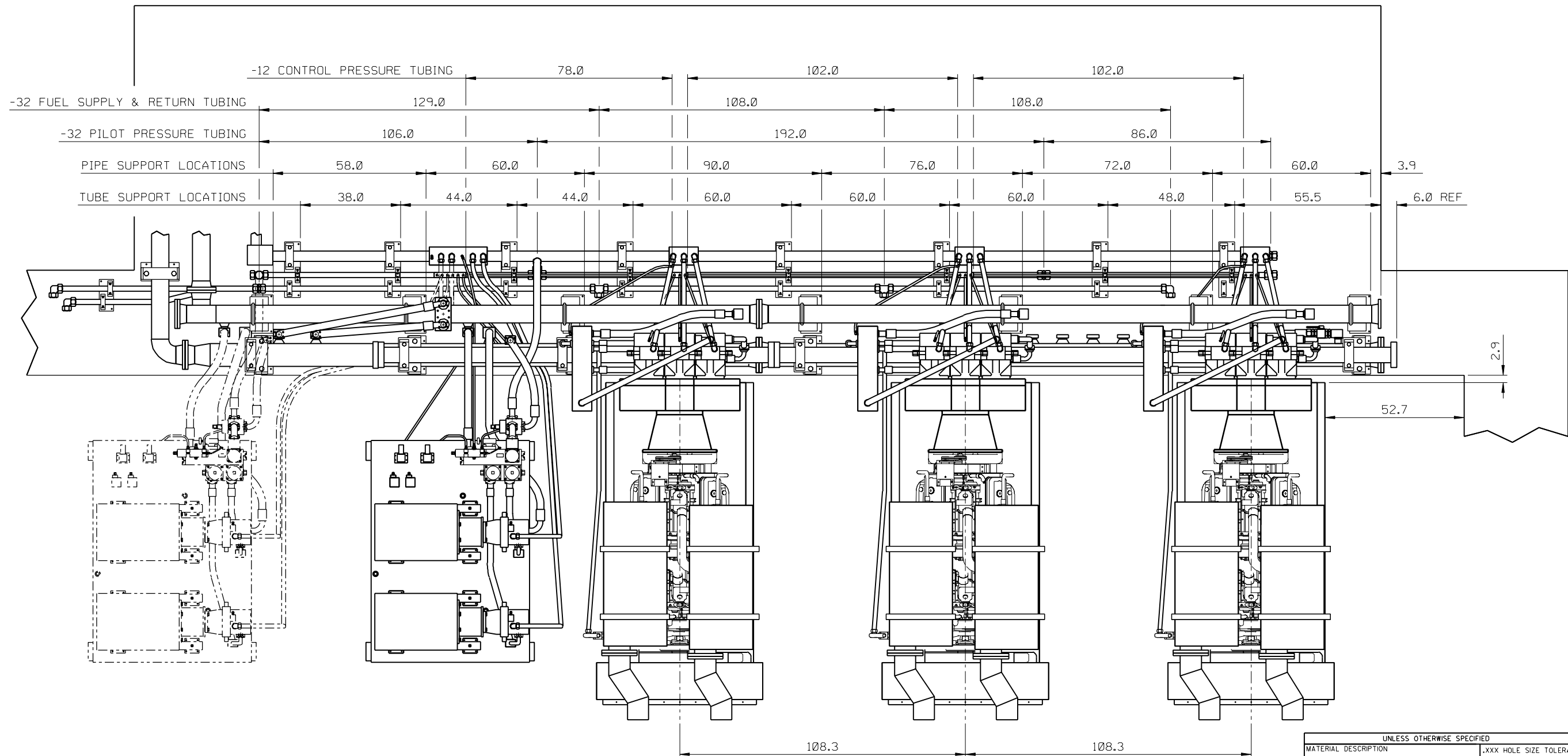
VIEW B-B



ENGINE VIEW  
(TYP 3 PLACES)

| REVISIONS                                                                                                                                                                                                                                                                                                                                     |       |                                  |                                    |                   |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------|------------------------------------|-------------------|-----------|
| DESCRIPTION                                                                                                                                                                                                                                                                                                                                   |       |                                  |                                    | LETTER            | ECN NO.   |
| DFTSMN                                                                                                                                                                                                                                                                                                                                        | APPVL | DATE                             |                                    |                   |           |
|                                                                                                                                                                                                                                                                                                                                               |       |                                  |                                    |                   |           |
| SOURCE/REF. DRAWING:                                                                                                                                                                                                                                                                                                                          |       |                                  |                                    |                   |           |
| PROPRIETARY DATA                                                                                                                                                                                                                                                                                                                              |       |                                  |                                    |                   |           |
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| UNLESS OTHERWISE SPECIFIED                                                                                                                                                                                                                                                                                                                    |       |                                  |                                    |                   |           |
| MATERIAL DESCRIPTION                                                                                                                                                                                                                                                                                                                          |       | .XXX HOLE SIZE TOLERANCE         |                                    | DRAWN             | CHECK     |
| MATERIAL SIZE                                                                                                                                                                                                                                                                                                                                 |       | 0.000 TO .750<br>+.010/-0.002    | OVER .750 TO 1.500<br>+.015/-0.003 | RWR               | JWI       |
| FINISH                                                                                                                                                                                                                                                                                                                                        |       | SCALE 1/20                       | SCALE 1/20                         | DATE              | DATE      |
| • THREAD DEPTHS ARE TO MIN. FULL THDS.                                                                                                                                                                                                                                                                                                        |       | SCALE 1/20                       | SCALE 1/20                         | 9-26-95           | 10-95     |
| • DRILL DEPTHS ARE TO FULL DIA.                                                                                                                                                                                                                                                                                                               |       | SCALE 1/20                       | SCALE 1/20                         | TITLE             |           |
| • REMOVE BURRS AND SHARP EDGES                                                                                                                                                                                                                                                                                                                |       | SCALE 1/20                       | SCALE 1/20                         |                   |           |
| • DO NOT SCALE PRINT                                                                                                                                                                                                                                                                                                                          |       | SCALE 1/20                       | SCALE 1/20                         | PIPING ASSY-NCREE |           |
| MTS                                                                                                                                                                                                                                                                                                                                           |       | MTS SYSTEMS CORPORATION          | MTS SYSTEMS CORPORATION            |                   |           |
| EDEN PRAIRIE, MINNESOTA U.S.A. ©                                                                                                                                                                                                                                                                                                              |       | EDEN PRAIRIE, MINNESOTA U.S.A. © | EDEN PRAIRIE, MINNESOTA U.S.A. ©   | SIZE              | NUMBER    |
| THIRD ANGLE PROJ.                                                                                                                                                                                                                                                                                                                             |       | THIRD ANGLE PROJ.                | THIRD ANGLE PROJ.                  | D                 | 512577-01 |
|                                                                                                                                                                                                                                                                                                                                               |       | PRODUCT CODE                     |                                    | SHEET             | REV       |
|                                                                                                                                                                                                                                                                                                                                               |       | HMPGXX                           |                                    | 2                 | B         |
|                                                                                                                                                                                                                                                                                                                                               |       |                                  |                                    | OF                | 3         |

## HARDLINE & SUPPORT LOCATIONS



| REVISIONS   |       |      |        |         |
|-------------|-------|------|--------|---------|
| DESCRIPTION |       |      | LETTER | ECN NO. |
| DFTSMN      | APPVL | DATE |        |         |
|             |       |      |        |         |

|                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SOURCE/REF.<br>DRAWING:                                                                                                                                                                                                                                                                                                                       |
| <b>PROPRIETARY DATA</b>                                                                                                                                                                                                                                                                                                                       |
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|                                                                                                                                                   |  |  |  |                                                                                       |  |                                    |  |                  |  |                                       |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------------------------|--|------------------------------------|--|------------------|--|---------------------------------------|--|
| UNLESS OTHERWISE SPECIFIED                                                                                                                        |  |  |  |                                                                                       |  |                                    |  |                  |  | prior to possession of the recipient. |  |
| MATERIAL DESCRIPTION                                                                                                                              |  |  |  | .XXX HOLE SIZE TOLERANCE                                                              |  | DRAWN RWR                          |  | CHECK ENR JWI    |  | MFG                                   |  |
| MATERIAL SIZE                                                                                                                                     |  |  |  | .0000 TO .750<br>+.010/-0.002                                                         |  | OVER .750 TO 1.500<br>+.005/-0.003 |  | DATE 9-26-95     |  | DATE 10-95                            |  |
| FINISH MASK                                                                                                                                       |  |  |  | ANGLE ±2°<br>X <sub>Y</sub> ±1/4                                                      |  | TITLE PIPING ASSY-NCREE            |  |                  |  |                                       |  |
| • THREAD DEPTHS ARE TO MIN. FULL THDS                                                                                                             |  |  |  | SCALE 1/20                                                                            |  | GENERAL TOLERANCES                 |  | NEXT LEVEL       |  | SIZE                                  |  |
| • DRILL DEPTHS ARE TO FULL DIA.                                                                                                                   |  |  |  | MACHINED SURFACES                                                                     |  | .XX ±.03                           |  | NUMBER 512577-01 |  | REV B                                 |  |
| • REMOVE BURRS AND SHARP EDGES                                                                                                                    |  |  |  | .XX ±.010                                                                             |  | PRODUCT CODE HMPGXX                |  | SHEET 3          |  | OF 3                                  |  |
| • DO NOT SCALE PRINT                                                                                                                              |  |  |  | THIRD ANGLE                                                                           |  | D                                  |  |                  |  |                                       |  |
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