



## 3412CLE / JGJ/4 / 2-stage

### **Driver**

Caterpillar G3412CLE  
S/N: 6ZM00340  
637HP @ 1800 RPM  
Rebuilt: 09/10/2014

### **Compressor**

Ariel JGJ/4  
S/N: F-15262  
Mfg: July 2000  
R/L: 42,000

### **Cylinders**

13.0" RJ (S/N:C-46139) 230# w/ VVCP (U-26541)  
13.0" RJ (S/N: C-46140) 230# w/ VVCP (U-26540)  
8.375" RJ (S/N: C-46141) 635# w/ VVCP (U-26542)  
8.375" RJ (S/N: C-46142) 635# w/ VVCP (U-26543)

### **Cooler**

Air-X-Changers Model 96BEH (S/N: 001602B)

| EJW/AUX | IC1  | IC2  | AC    |
|---------|------|------|-------|
| 150#    | 645# | 645# | 1292# |

### **Pressure Vessels**

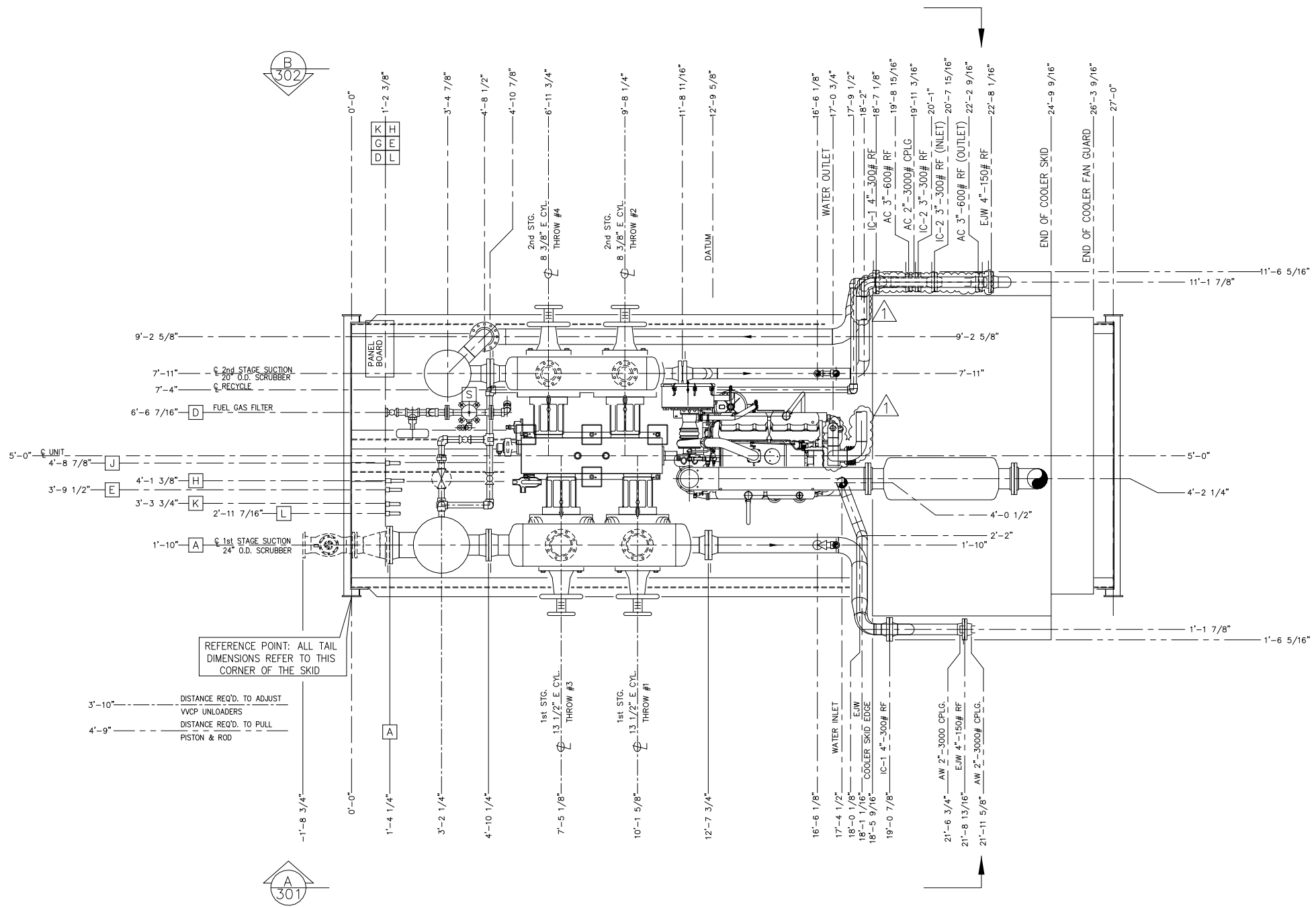
|                            | Diam. | MAWP | S/N      | YR   | Mfg             |
|----------------------------|-------|------|----------|------|-----------------|
| Suction                    | 24"   | 250# | 691-1    | 2000 | BWFS            |
| 1 <sup>st</sup> Interstage | 20"   | 500# | 691-4    | 2000 | BWFS            |
| Fuel Gas                   | 6     | 275# | 135091-8 | 5000 | Perry Equipment |

### **Miscellaneous**

Detection Enbase control panel  
Cooler ships separate

### **Unit Notes**

Originally packaged in 2000 with an overhaul in 2014, this 637HP unit is in good rebuildable condition. The engine and compressor both roll smoothly 360 degrees. Ideal for a low-pressure high-flow application, this 2-stage can also be converted to utilize the 3stage cooler. The unit has been inspected and preserved for storage.



|      |      |      |        |      |                     |      |      |      |        |      |                                     |
|------|------|------|--------|------|---------------------|------|------|------|--------|------|-------------------------------------|
| G    | ONE  | 3/4" | 3000#  | FNPT | ENGINE OIL FILL     |      |      |      |        |      |                                     |
| F    | ONE  | 1"   | 3000#  | FNPT | ENGINE OIL DRAIN    |      |      |      |        |      |                                     |
| E    | ONE  | 1"   | 3000#  | FNPT | COMPRESSOR OIL FILL | M    | ONE  | 1"   | 3000#  | FNPT | WATER FILL & DRAIN                  |
| D    | ONE  | 2"   | 3000#  | FNPT | FUEL GAS INLET      | L    | ONE  | 1"   | 3000#  | FNPT | DISTANCE PIECE PACKING VENT & DRAIN |
| C    | ONE  | 2"   | 3000#  | FNPT | STARTING GAS INLET  | K    | ONE  | 1"   | 3000#  | FNPT | CYLINDER PACKING VENT               |
| B    | ONE  | 4"   | 600#   | RFWN | CUSTOMER GAS OUTLET | J    | ONE  | 1"   | 3000#  | FNPT | SCRUBBER DRAIN                      |
| A    | ONE  | 10"  | 150#   | RFWN | CUSTOMER GAS INLET  | H    | ONE  | 1"   | 3000#  | FNPT | COMPRESSOR OIL DRAIN                |
| MARK | QTY. | SIZE | RATING | TYPE | SERVICE             | MARK | QTY. | SIZE | RATING | TYPE | SERVICE                             |

CUSTOMER CONNECTIONS

|            |                         |
|------------|-------------------------|
| COMPRESSOR | ARIEL JGJ-4             |
| CYLINDERS  | (2) 13 1/2", (2) 8 3/8" |
| ENGINE     | CAT. 3412C LE           |
| COUPLING   | TB WOODS FSH 50         |
| COOLER     | AIR-X-CHANGERS 96BEH    |
| PANEL      | MURPHY                  |

MAJOR COMPONENTS

|     |      |          |                            |
|-----|------|----------|----------------------------|
| 1   | JK   | 08/21/00 | RE-ISSUED FOR CONSTRUCTION |
| 0   | JK   | 08/11/00 | ISSUED FOR CONSTRUCTION    |
| A   | JK   | 07/21/00 | ISSUED FOR APPROVAL        |
| NO. | ENG. | DATE     | REVISION                   |

|                   |                                 |                |             |
|-------------------|---------------------------------|----------------|-------------|
| FOR:              | RENTAL COMPRESSION              |                |             |
| TITLE:            | GENERAL ARRANGEMENT (PLAN VIEW) |                |             |
| DATE: 07/07/00    | DRAWN BY: KMC                   | CHKD BY: MHO   | REVISION: 0 |
| SCALE: 1/2"=1'-0" | JOB No: 120590                  | UNIT No: 05527 | APP. BY:    |

RE-ISSUED FOR CONSTRUCTION  
DATE: 08/21/00

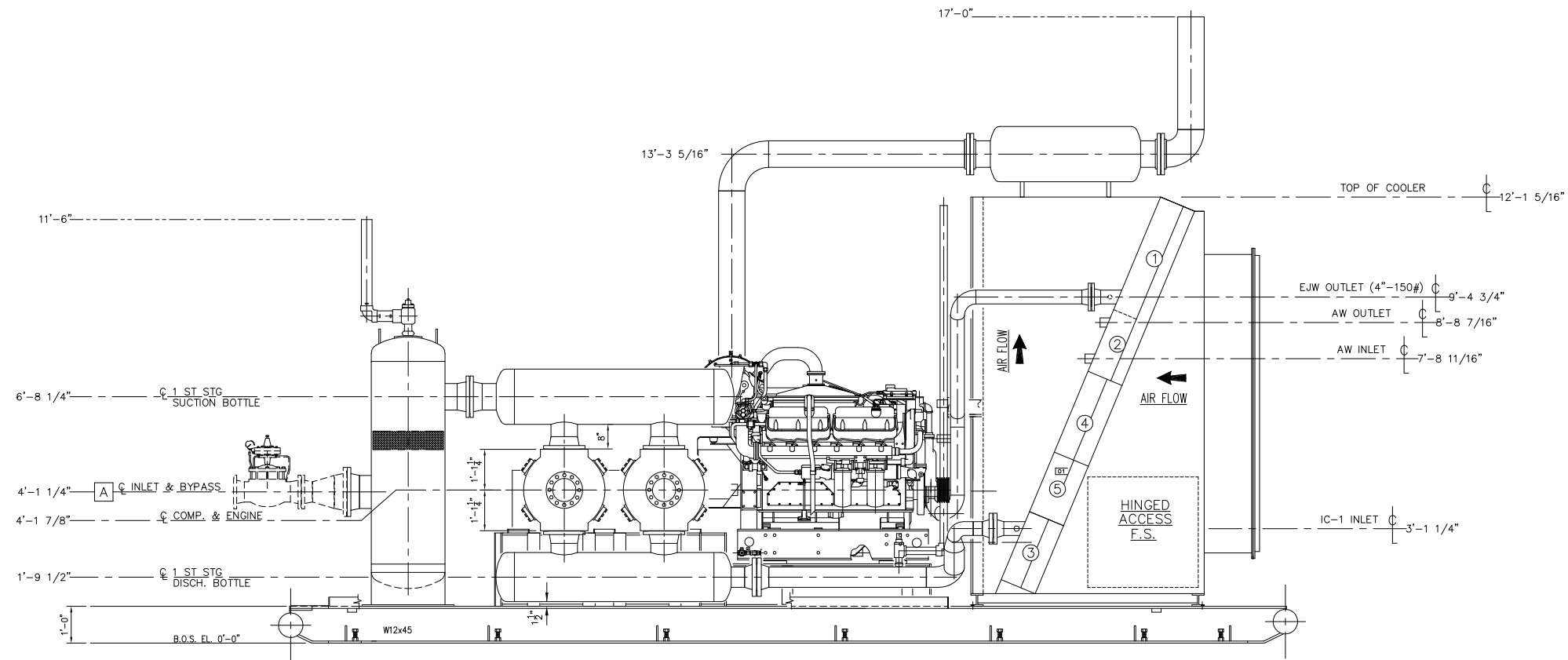
CUSTOMER P.O. #: 5527  
UNIVERSAL COMPRESSION: 120590

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DRAWING NO.: 120590-300



|                  |                         |
|------------------|-------------------------|
| COMPRESSOR       | ARIEL JGJ-4             |
| CYLINDERS        | (2) 13 1/2", (2) 8 3/8" |
| ENGINE           | CAT. 3412C LE           |
| COUPLING         | TB WOODS FSH 50         |
| COOLER           | AIR-X-CHANGERS 96BEH    |
| PANEL            | MURPHY                  |
| MAJOR COMPONENTS |                         |

ISSUED FOR CONSTRUCTION  
DATE: 08/11/00

|    |      |          |                         |
|----|------|----------|-------------------------|
| 0  | JK   | 08/11/00 | ISSUED FOR CONSTRUCTION |
| A  | JK   | 07/06/00 | ISSUED FOR APPROVAL     |
| MK | ENG. | DATE     | REVISION                |

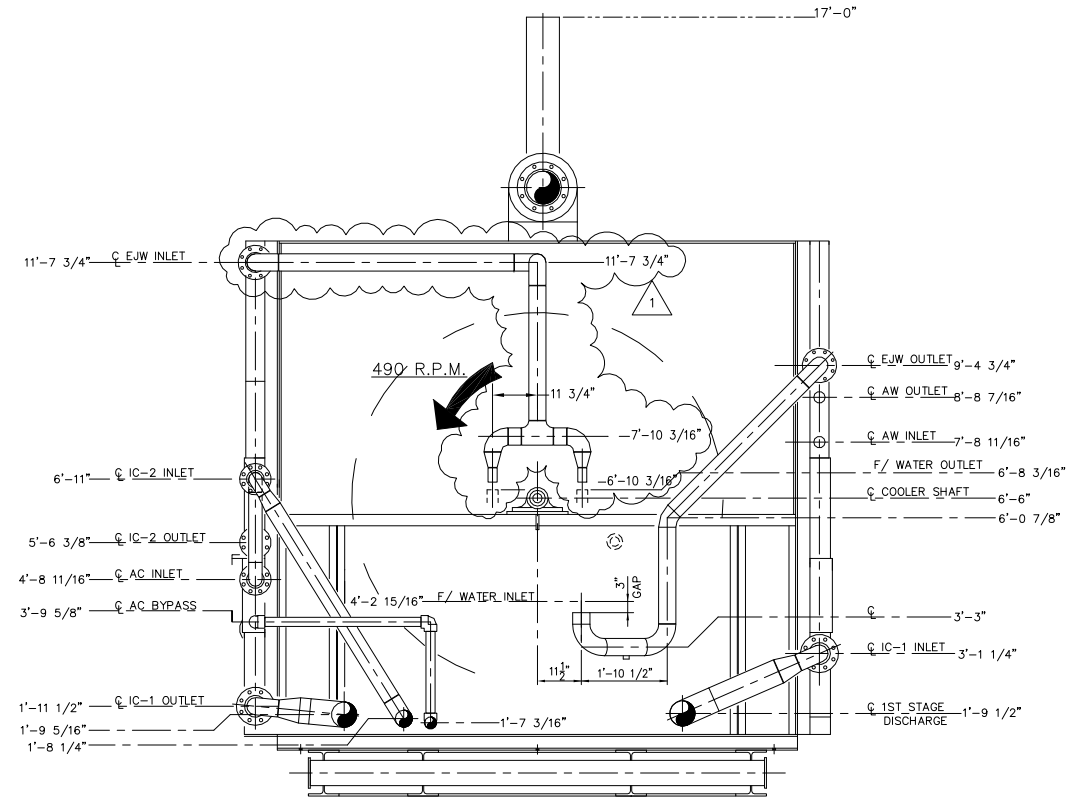
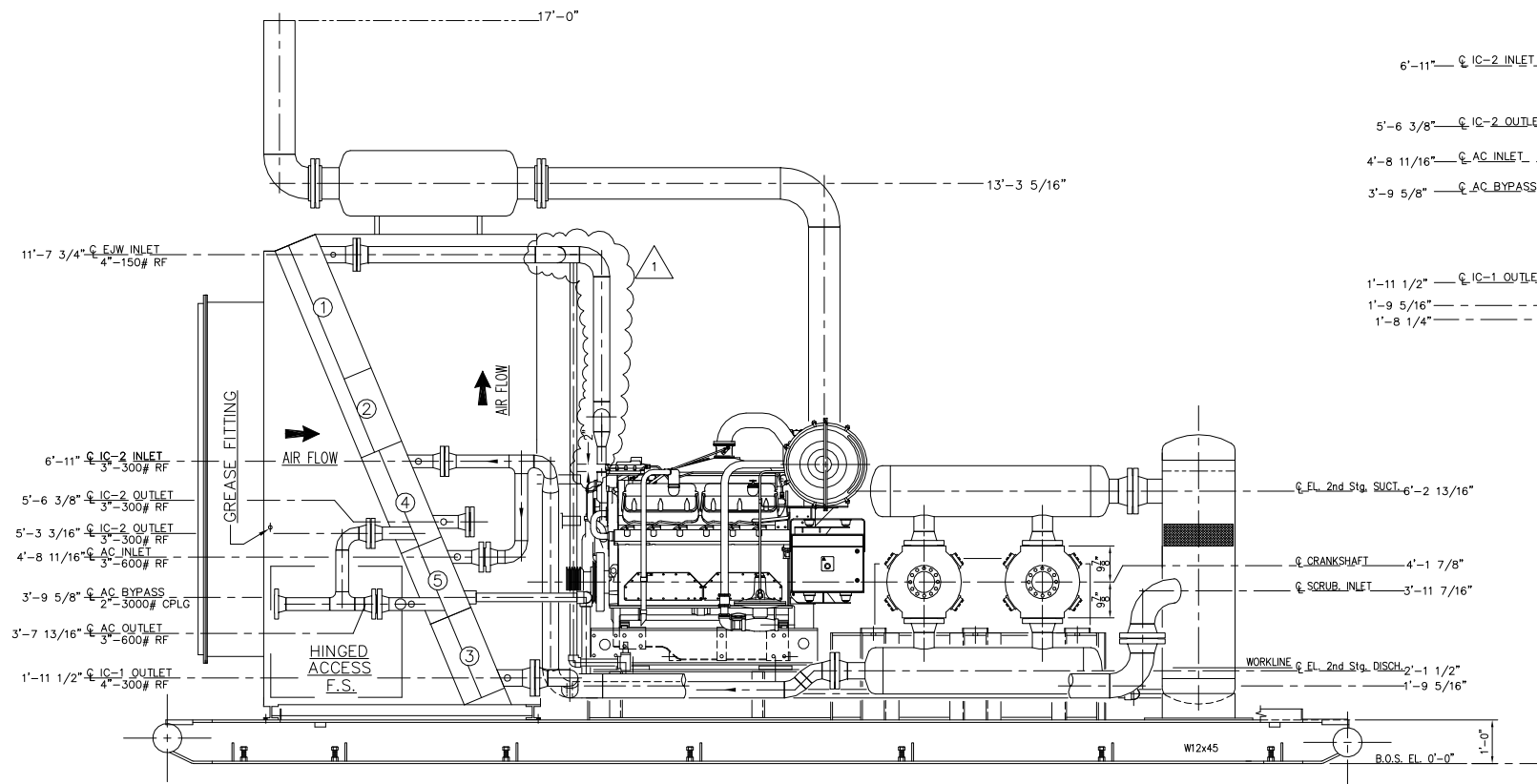
|              |                                      |
|--------------|--------------------------------------|
| FOR:         | RENTAL COMPRESSION                   |
| TITLE:       | GENERAL ARRANGEMENT (ELEVATION VIEW) |
| DATE:        | 07/06/00                             |
| DRAWN BY:    | KMC                                  |
| CHECKED BY:  | MHO                                  |
| APPROVED BY: | JK                                   |

CUSTOMER P.O. #: 5527  
UNIVERSAL COMPRESSION: 120590

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DRAWING NO. 120590-301



|                  |                         |
|------------------|-------------------------|
| COMPRESSOR       | ARIEL JGJ-4             |
| CYLINDERS        | (2) 13 1/2", (2) 8 3/8" |
| ENGINE           | CAT. 3412C LE           |
| COUPLING         | TB WOODS FSH 50         |
| COOLER           | AIR-X-CHANGERS 96BEH    |
| PANEL            | MURPHY                  |
| MAJOR COMPONENTS |                         |

RE-ISSUED FOR CONSTRUCTION  
DATE: 08/21/00

|    |           |          |                            |
|----|-----------|----------|----------------------------|
| 1  | JK        | 08/21/00 | RE-ISSUED FOR CONSTRUCTION |
| 0  | JK        | 08/11/00 | ISSUED FOR CONSTRUCTION    |
| A  | JK        | 07/21/00 | ISSUED FOR APPROVAL        |
| MK | ENG. DATE | REVISION |                            |

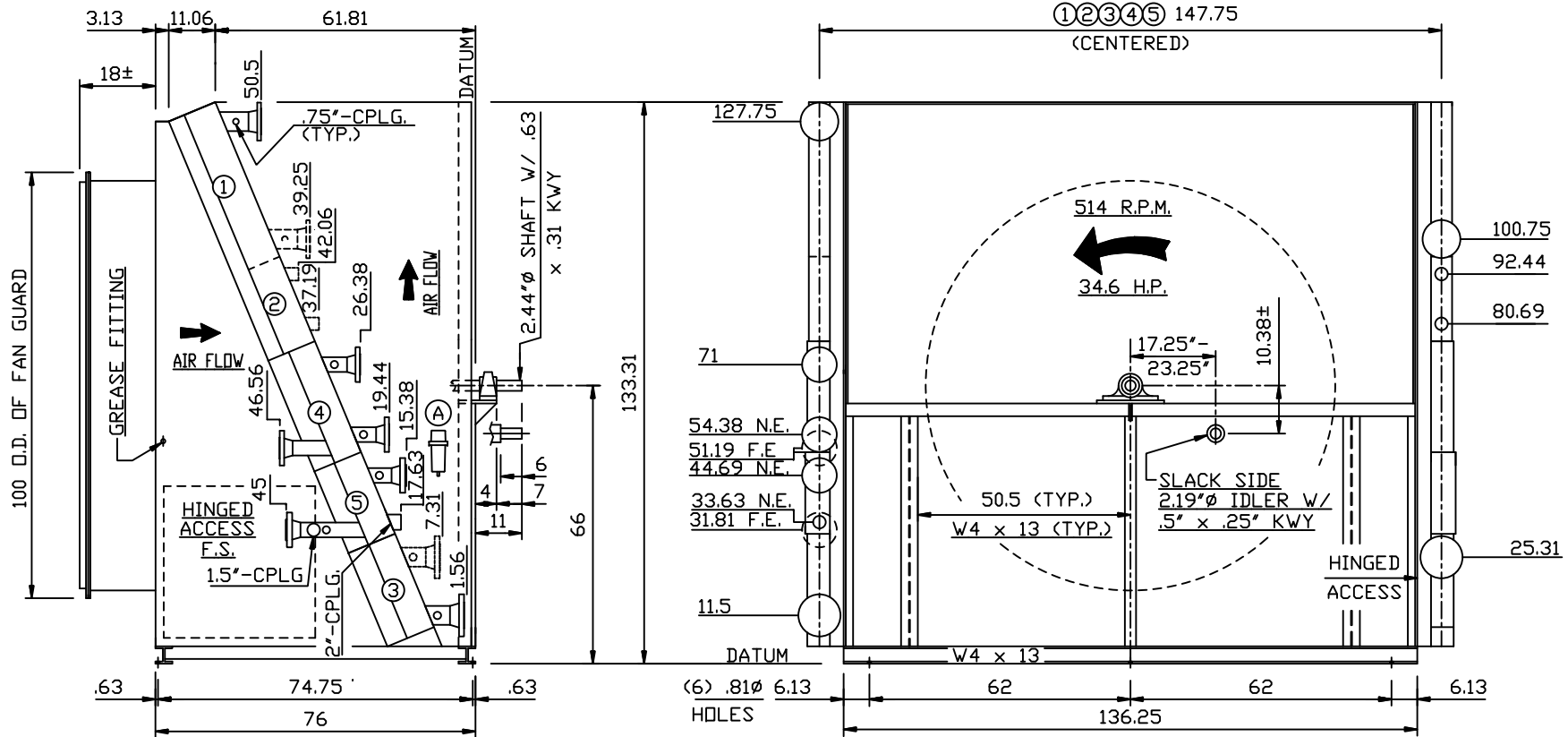
|              |                                      |
|--------------|--------------------------------------|
| FOR:         | RENTAL COMPRESSION                   |
| TITLE:       | GENERAL ARRANGEMENT (ELEVATION VIEW) |
| DATE:        | 07/21/00                             |
| DRAWN BY:    | KMC                                  |
| CHECKED BY:  | MHO                                  |
| APPROVED BY: | JK                                   |

CUSTOMER P.O. #: 5527  
UNIVERSAL COMPRESSION: 120590

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DRAWING NO. 120590-302



RELEASED  
FABRICATION OF THIS  
ORDER HAS BEGUN

COMBINED

|   |                                                                               |
|---|-------------------------------------------------------------------------------|
| ① | EJW (20.5 GALS)<br>D.P. 150 P.S.I. @ 300/-10° F.<br>NOZZLES 4"-150 R.F.       |
| ② | AUX-W (11 GALS)<br>D.P. 150 P.S.I. @ 300/-10° F.<br>NOZZLES 2"-CPLG.          |
| ③ | IC-1 (A.S.M.E. STAMP)<br>D.P. 645 P.S.I. @ 350/-10° F.<br>NOZZLES 4"-300 R.F. |

|   |                                                                                  |
|---|----------------------------------------------------------------------------------|
| ④ | IC-2 (A.S.M.E. STAMP)<br>D.P. 645 P.S.I. @ 350/-10° F.<br>NOZZLES (3)3"-300 R.F. |
| ⑤ | AC (A.S.M.E. STAMP)<br>D.P. 1292 P.S.I. @ 350/-10° F.<br>NOZZLES 3"-600 R.F.     |

A AUTO SHUT OPER - GAS  
(AUTO BY AIR MOTOR)

TAG: # 120593, 120590, 120591,  
120592, 120593

AIR-X-CHANGERS  
CERTIFIED FOR JDB 001602  
BY TBM DATE 6/01/00  
CUSTOMER UNIVERSAL COMD.  
P.O. NO. \_\_\_\_\_

ESTM DRY WEIGHT = 10,150#

|      |                                                                        |     |         |      |
|------|------------------------------------------------------------------------|-----|---------|------|
| 3    | REVISED RPM                                                            | GGH | 8/4/00  |      |
| 2    | CHANGE SHUTTER OPERATORS FROM<br>3 MANUAL OPERATORS TO 1 AUTO OPERATOR | BV  | 7/28/00 |      |
| 1    | REV. SHAFT EXTENSION                                                   | GGH | 7/13/00 | BK   |
| REV. | DESCRIPTION                                                            | BY  | DATE    | APPD |

|           |                 |         |       |        |
|-----------|-----------------|---------|-------|--------|
| NEXT ASSY | AIR-X-CHANGERS  |         |       |        |
|           | TULSA, OKLAHOMA |         |       |        |
| REF DWGS  | MODEL 96 BEH    |         |       |        |
|           | BY              | GGH     | CHKD  | BK     |
|           | DATE            | 6/30/00 | DATE  | 6/30   |
|           | SCALE           |         | DWG # |        |
|           | JDB             | 001602  |       |        |
|           |                 |         | CRT   | REV. 3 |

# air-x-changers

Post Office Box 1804  
Tulsa, Oklahoma 74101

Phone (918)266-1850  
Fax (918)266-1322

Job No. 001602  
Date 8/01/00  
Page 1 of 1

Purchaser UNIVERSAL

Ref. No. Destination CAT 3412CLE@1800RPM

MODEL 96BEH

Air-x-changer

## PERFORMANCE

| 1 Service                 | EJW         | AUX-W          | IC-1               | IC-2            | AC          |
|---------------------------|-------------|----------------|--------------------|-----------------|-------------|
| 2 Flow                    | 233GPM      | 25GPM          | 4.72MMSCFD         | 2.36MMSCFD      | 2.36MMSCFD  |
| 3 Fluid                   | 50%GLY      | 50%GLY         | .65SPGR            | .65SPGR         | .65SPGR     |
| 4 Temperature in, °F      | 191.9       | 154.5          | 217.5              | 258.1           | 258.1       |
| 5 Temperature out, °F     | 176.5       | 120.6          | 130.1              | 111.0           | 112.8       |
| 6 Pressure, PSI           |             |                | 82PSIG             | 205PSIG         | 205PSIG     |
| 7 Pressure Drop, PSI      | 1.5         | 4.3            | 4.4                | 4.5             | 5.2         |
| 8 Heat Load, BTU/HR       | 1633867     | 384202         | 472674             | 410319          | 405064      |
| 9 True MTD                | 54.9        | 27.0           | 55.0               | 48.7            | 50.1        |
| 10 Overall Rate           | 154.8       | 139.6          | 77.1               | 81.2            | 84.0        |
| 11 Fouling Factor         | .0005       | .0005          | .0010              | .0010           | .0010       |
| 12 Tube Surface, Sq. Ft.  | 196         | 104            | 112                | 104             | 96          |
| 13 Total Surface, Sq. Ft. | 3118        | 1651           | 1773               | 1651            | 1528        |
| 14 Sections, No. of       | COMBINED    | COMBINED       | 1                  | 1               | 1           |
| 15 Connected              | SINGLY      | SINGLY         | SINGLY             | SINGLY          | SINGLY      |
| 16 No. Passes             | 1           | 4              | 1                  | 2               | 2           |
| 17 Design Temp., °F       | 300/-10     | 300/-10        | 350/-10            | 350/-10         | 350/-10     |
| 18 Design Press., PSIG    | 150         | 150            | 645                | 645             | 1292        |
| 19 Test Press., PSIG      | 225         | 225            | 968                | 968             | 1938        |
| 20 Nozzles                | 4-150RF     | 2-CPLG         | 4-300RF            | (3) 3-300RF     | 3-600RF     |
| 21 Tubes, OD x BWG        | 5/8X16      | 5/8X16         | 5/8X16             | 5/8X16          | 5/8X16      |
| 22 Material               | SA214 STEEL | SA214 STEEL    | SA214 STEEL        | SA214 STEEL     | SA214 STEEL |
| 23 No./Sect., Lgth., Ft.  | 102, 12     | 54, 12         | 58, 12             | 54, 12          | 50, 12      |
| 24 No. Rows               | 4           | 4              | 4                  | 4               | 4           |
| 25 Flanges                | SA105SCH 40 |                | SA105SCH 80        | SA105SCH 80     | SA105SCH 80 |
| 26 Fins, Type             | WHEEL       | WHEEL          | WHEEL              | WHEEL           | WHEEL       |
| 27 Material               | AL          | AL             | AL                 | AL              | AL          |
| 28                        |             |                |                    |                 |             |
| 29                        |             |                |                    |                 |             |
| 30 Headers, Type          | BOX         | BOX            | BOX                | BOX             | BOX         |
| 31 Material               | STEEL       | STEEL          | STEEL              | STEEL           | STEEL       |
| 32 Counterflow            |             |                |                    |                 |             |
| 33 Corrosion Allowance    |             |                |                    |                 |             |
| 34 Grooved Tube Sheet     |             |                |                    |                 |             |
| 35 Plugs, Type            | TAPER       | TAPER          | SHOULDER           | SHOULDER        | SHOULDER    |
| 36 Material               | BRASS       | BRASS          | STEEL              | STEEL           | STEEL       |
| 37 Retarders              |             |                |                    |                 |             |
| 38 Accelerators           |             |                |                    |                 |             |
| 39 ASME Code Stamp        |             |                | YES                | YES             | YES         |
| 40 Total SCFM             | 79251       | Temp. In °F 95 | Temp. Out °F 133.4 | Elev., Ft. 6500 |             |

## MECHANICAL EQUIPMENT - STRUCTURES

|                         |                  |             |               |              |                   |            |      |
|-------------------------|------------------|-------------|---------------|--------------|-------------------|------------|------|
| 41 No. Fans             | 1 HP/Fan 34.6    | RPM 514     | Dia. 96       | No. Blades 6 | Material ALUMINUM | Make MOORE | 40ED |
| 42 Drive                | V-BELT BY OTHERS |             |               |              |                   |            |      |
| 43                      |                  |             |               |              |                   |            |      |
| 44 Draft Type           | FORCED           | No. of Bays | Overall Width | Length       | Height            |            |      |
| 45 Guards               | FAN              | Assembly    | PACKAGED      |              |                   |            |      |
| 46                      |                  |             |               |              |                   |            |      |
| 47 Est. Shipping Weight | 9824 LBS         |             |               |              |                   |            |      |
| 48 Accessories          |                  |             |               |              |                   |            |      |
| 49                      |                  |             |               |              |                   |            |      |
| 50                      |                  |             |               |              |                   |            |      |