**DATE:** _____

**GENERAL DATA**

| | | |
|---|---|---|
| Unit Name | | |
| Compressor O.E.M. ID | | |
| Number of Stages | | |
| Number of Cylinders | | |
| Number of Throws | | |
| Atmospheric Pressure | | |
| Base Pressure (psia) | | Standard is 14.65 |
| Base Temperature (°F) | | Standard is 60 |
| Min. Suction Vol. Eff. | | Typically this is 30, many OEMs go done to 15 for special needs. |

**FRAME DATA**

| | | |
|---|---|---|
| Stroke (in) | | |
| Rated Speed (RPM) | | Rated speed of the compressor |
| Minimum Speed (RPM) | | |
| Rated Brake Horsepower (BHP | | |
| Variable Auxiliary Load (HP) | | |
| Fixed Auxiliary Load (HP) | | |
| Length of Connecting Rod (in) | | Only required if you need to perform inertia rod loads, or pin reversal calculations |
| Mechanical Efficiency (%) | | Typically 95% for integrals (or Ariel/Superior), 92% for frames, 90% for Ajax |
| Maximum Allowed Throws | | May be different than Number of Throws used if some throws are blank |
| Frame/Model Name | | |

**OPERATING RANGES**

| | Minimum | Maximum | Notes |
|---|---|---|---|
| Suction Pressure (psig) | | | |
| Discharge Pressure (psig) | | | |
| Speed (RPM) | | | |
| Torque (%) | | | Typically 60% to 100% |
| Stage 1 Suction Temperature (°F) | | | Typically 50 to 100 |
| Stage 2 Suction Temperature (°F) | | | Typically 80 to 120 |
| Stage 3 Suction Temperature (°F) | | | Typically 80 to 120 |
| Stage 4 Suction Temperature (°F) | | | Typically 80 to 120 |
| Stage 5 Suction Temperature (°F) | | | Typically 80 to 120 |
| Stage 6 Suction Temperature (°F) | | | Typically 80 to 120 |

**GAS DATA**

| | | | | | |
|---|---|---|---|---|---|
| Methane | | Ethylene | | Air | |
| Ethane | | Propene | | Hydrogen | |
| Propane | | 1-Butene | | Oxygen | |
| n-Butane | | Iso-Butene | | Nitrogen | |
| Iso-Butane | | Acetylene | | Chlorine | |
| n-Pentane | | Benzene | | Helium | |
| Iso-Pentane | | Carbon Monoxide | | Hydrogen Chloride | |
| Neo-Pentane | | Carbon Dioxide | | Argon | |
| n-Hexane | | Hydrogen Sulfide | | Neon | |
| n-Heptane | | Sulfur Dioxide | | Water | |
| n-Octane | | Ammonia | | Relative Humidity (%) | |

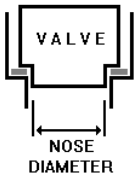
**CYLINDER DATA**

| | Cyl #1 | | Cyl #2 | | Cyl #3 | | Cyl #4 | |
|---|---|---|---|---|---|---|---|---|
| | HE | CE | HE | CE | HE | CE | HE | CE |
| Compression Stage (0=Omit Cyl) | | | | | | | | |
| Non-lubed Factor (1.0 non-lubed, 0.95 lubed) | | | | | | | | |
| Bore Diameter (in) | | | | | | | | |
| Rod Diameter (in) | | | | | | | | |
| Fixed Clearance (%) | | | | | | | | |
| Suction Valves Per End | | | | | | | | |
| Suction Valve Nose Diameter | | | | | | | | |
| Discharge Valves Per End | | | | | | | | |
| Discharge Valve Nose Diameter | | | | | | | | |
| Maximum Discharge Temp (F) | | | | | | | | |
| MWP/RDP/MAWP/Other | | | | | | | | |
| V.V.P.: Stroke (in) | | | | | | | | |
| V.V.P.: Volume (cubic inches) | | | | | | | | |

| | Cyl #5 | | Cyl #6 | | Cyl #7 | | Cyl #8 | |
|---|---|---|---|---|---|---|---|---|
| | HE | CE | HE | CE | HE | CE | HE | CE |
| Compression Stage (0=Omit Cyl) | | | | | | | | |
| Non-lubed Factor (1.0 non-lubed, 0.95 lubed) | | | | | | | | |
| Bore Diameter (in) | | | | | | | | |
| Rod Diameter (in) | | | | | | | | |
| Fixed Clearance (%) | | | | | | | | |
| Suction Valves Per End | | | | | | | | |
| Suction Valve Nose Diameter | | | | | | | | |
| Discharge Valves Per End | | | | | | | | |
| Discharge Valve Nose Diameter | | | | | | | | |
| Maximum Discharge Temp (F) | | | | | | | | |
| MWP/RDP/MAWP/Other | | | | | | | | |
| V.V.P.: Stroke (in) | | | | | | | | |
| V.V.P.: Volume (cubic inches) | | | | | | | | |

| | Cyl #9 | | Cyl #10 | | Cyl #11 | | Cyl #12 | |
|---|---|---|---|---|---|---|---|---|
| | HE | CE | HE | CE | HE | CE | HE | CE |
| Compression Stage (0=Omit Cyl) | | | | | | | | |
| Non-lubed Factor (1.0 non-lubed, 0.95 lubed) | | | | | | | | |
| Bore Diameter (in) | | | | | | | | |
| Rod Diameter (in) | | | | | | | | |
| Fixed Clearance (%) | | | | | | | | |
| Suction Valves Per End | | | | | | | | |
| Suction Valve Nose Diameter | | | | | | | | |
| Discharge Valves Per End | | | | | | | | |
| Discharge Valve Nose Diameter | | | | | | | | |
| Maximum Discharge Temp (F) | | | | | | | | |
| MWP/RDP/MAWP/Other | | | | | | | | |
| V.V.P.: Stroke (in) | | | | | | | | |
| V.V.P.: Volume (cubic inches) | | | | | | | | |

When determining valve nose diameters, please reference adjacent diagram.



**STAGE DATA**

| | Stage #1 | Stage #2 | Stage #3 | Stage #4 | Stage #5 | Stage #6 | Notes |
|---|---|---|---|---|---|---|---|
| Specific Gravity | | | | | | | |
| Gas K-value | | | | | | | Cp/Cv Value |
| Pressure Drop INTO Stage (psi) | | | | | | | |
| Pressure Drop INTO Stage (%) | | | | | | | |
| Pressure Drop OUT OF Stage (psi) | | | | | | | |
| Pressure Drop OUT OF Stage (%) | | | | | | | |
| Side Streams: Flow In (MMscfd) | | | | | | | |
| Side Streams: Flow In Temp. (F) | | | | | | | |
| Side Streams: Flow Out (MMscfd) | | | | | | | |

**THROW DATA**

| | Throw #1 | Throw #2 | Throw #3 | Throw #4 | Throw #5 | Throw #6 | Notes |
|---|---|---|---|---|---|---|---|
| Max Gas Rod Loads: Compression | | | | | | | Gas Only Rod Loads |
| Max Gas Rod Loads: Tension | | | | | | | Gas Only Rod Loads |
| Max Net Rod Loads: Compression | | | | | | | Inertia-based Rod Loads |
| Max Net Rod Loads: Tension | | | | | | | Inertia-based Rod Loads |
| Weights for Net Rod Loads (lbs) | | | | | | | Piston + Rod |
| Weights for Pin Reversal (lbs) | | | | | | | Piston + Rod + Xhead Assembly |

| | Throw #7 | Throw #8 | Throw #9 | Throw #10 | Throw #11 | Throw #12 | Notes |
|---|---|---|---|---|---|---|---|
| Max Gas Rod Loads: Compression | | | | | | | Gas Only Rod Loads |
| Max Gas Rod Loads: Tension | | | | | | | Gas Only Rod Loads |
| Max Net Rod Loads: Compression | | | | | | | Inertia-based Rod Loads |
| Max Net Rod Loads: Tension | | | | | | | Inertia-based Rod Loads |
| Weights for Net Rod Loads (lbs) | | | | | | | Piston + Rod |
| Weights for Pin Reversal (lbs) | | | | | | | Piston + Rod + Xhead Assembly |

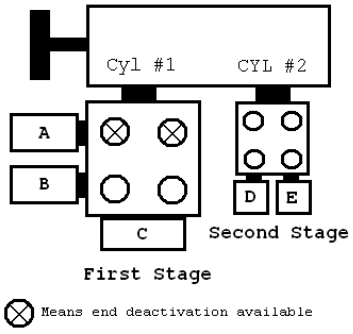
**Unloading Hardware**

| Cyl # | End (HE/CE) | Fixed Volume Pockets (cubic inches) A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|
| 1 | HE | | | | | | |
| | CE | | | | | | |
| 2 | HE | | | | | | |
| | CE | | | | | | |
| 3 | HE | | | | | | |
| | CE | | | | | | |
| 4 | HE | | | | | | |
| | CE | | | | | | |
| 5 | HE | | | | | | |
| | CE | | | | | | |
| 6 | HE | | | | | | |
| | CE | | | | | | |
| 7 | HE | | | | | | |
| | CE | | | | | | |
| 8 | HE | | | | | | |
| | CE | | | | | | |
| 9 | HE | | | | | | |
| | CE | | | | | | |
| 10 | HE | | | | | | |
| | CE | | | | | | |
| 11 | HE | | | | | | |
| | CE | | | | | | |
| 12 | HE | | | | | | |
| | CE | | | | | | |

**Unit Diagram**

Please include a diagram of your compressor with items of interest (unloaders, deactivators, staging, etc.) uniquely identified by cylinder number and location - see sample for assistance.

Sample:



**Unloading Sequence**

| Load Step No. | Load Step Description |
|---|---|
| Step 1 | *FULLY LOADED* |
| Step 2 | |
| Step 3 | |
| Step 4 | |
| Step 5 | |
| Step 6 | |
| Step 7 | |
| Step 8 | |
| Step 9 | |
| Step 10 | |
| Step 11 | |
| Step 12 | |
| Step 13 | |
| Step 14 | |
| Step 15 | |
| Step 16 | |
| Step 17 | |
| Step 18 | |
| Step 19 | |
| Step 20 | |
| Step 21 | |
| Step 22 | |
| Step 23 | |
| Step 24 | |
| Step 25 | |
| Step 26 | |
| Step 27 | |
| Step 28 | |
| Step 29 | |
| Step 30 | *FULLY UNLOADED* |