

| Oil Performance Data | | | | | | | | | | | | |
|-----------------------------|----------------|---------|---------|---------|---------|---------|---------|---------|-----------|-----------|-----------|-----------|
| WJ-125-O-2009 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| % Burner output | | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |
| Heat input | MMBtu/hr | 8.5 | 21.4 | 34.3 | 47.2 | 60.1 | 73.0 | 85.9 | 98.8 | 111.7 | 124.6 | 137.5 |
| Oil Flow | GPM | 1.0 | 2.5 | 4.0 | 5.5 | 7.1 | 8.6 | 10.1 | 11.6 | 13.1 | 14.6 | 16.1 |
| | LPM | 3.8 | 9.5 | 15.2 | 21.0 | 26.7 | 32.4 | 38.2 | 43.9 | 49.6 | 55.4 | 61.1 |
| Oil Control Valve Position | Indicator | 2.00 | 3.75 | 4.50 | 5.25 | 5.75 | 6.00 | 6.25 | 7.00 | 8.25 | 9.00 | 11.75 |
| Oil Pressure at Train Inlet | PSI | 130 | 127 | 125 | 123 | 121 | 119 | 118 | 116 | 114 | 112 | 110 |
| | kPa | 896 | 876 | 862 | 848 | 834 | 820 | 814 | 800 | 786 | 772 | 758 |
| Oil Pressure at Nozzle | PSI | 24 | 32 | 38 | 44 | 51 | 56 | 58 | 62 | 66 | 71 | 74 |
| | kPa | 165 | 221 | 262 | 303 | 352 | 386 | 400 | 427 | 455 | 490 | 510 |
| Compressed air Pressure | PSI | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 | 73 |
| | kPa | 503 | 503 | 503 | 503 | 503 | 503 | 503 | 503 | 503 | 503 | 503 |
| Main Air Flow | SCFH | 250,000 | 390,231 | 455,378 | 650,335 | 783,186 | 939,927 | 993,117 | 1,104,000 | 1,301,000 | 1,502,000 | 1,600,000 |
| | M ³ | 7,079 | 11,050 | 12,895 | 18,415 | 22,177 | 26,616 | 28,122 | 31,262 | 36,840 | 42,532 | 45,307 |
| Damper Position | Indicator | 0.00 | 0.80 | 1.50 | 2.00 | 2.50 | 2.75 | 3.00 | 3.50 | 4.00 | 6.00 | 9.00 |
| Blower Power | HP | 61 | 65.2 | 75.7 | 85.7 | 90.5 | 100 | 102 | 108 | 115 | 126 | 127 |
| Blower Current | A | 71.0 | 76.5 | 83.0 | 91.5 | 98.0 | 107.4 | 106.4 | 114.5 | 121.0 | 128.0 | 132.0 |
| Blower Body Pressure | i.w.c. | 22.1 | 22.2 | 22.3 | 22.3 | 22.3 | 22.3 | 22.3 | 21.7 | 21.5 | 20.1 | 19.6 |
| | Pa | 5,505 | 5,530 | 5,555 | 5,555 | 5,555 | 5,555 | 5,555 | 5,405 | 5,355 | 5,007 | 4,882 |
| Burner Body Pressure | i.w.c. | 0.28 | 0.55 | 1.20 | 2.50 | 4.00 | 5.60 | 6.20 | 9.20 | 11.70 | 17.00 | 19.00 |
| | Pa | 70 | 137 | 299 | 623 | 996 | 1,395 | 1,544 | 2,292 | 2,914 | 4,234 | 4,733 |
| Flame Diameter | Feet | 2.0 | 2.0 | 3.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.5 | 4.5 | 5.0 | 5.0 |
| Flame Length | Feet | 3.0 | 3.0 | 3.0 | 3.0 | 4.0 | 5.0 | 6.0 | 6.0 | 8.0 | 9.0 | 9.0 |
| Excess air (Calculated) | % | 208% | 91% | 39% | 44% | 37% | 35% | 21% | 17% | 22% | 26% | 22% |

Hauck GL-1-29 Oil control valve, All data was collected as the firing rate was decreasing. One mod motor used. Motor FLA=137.

Match oil flow rate (GPM) with burner body pressure. The chart below shows this graphically. To use it, find the fuel flow on the horizontal axis, then move vertically to the curve and then horizontally to the left to find the required burner body pressure. These values were measured using a burner firing into atmospheric conditions. These are to be used as a starting point only. Final Setup must be determined using a combustion analyzer.

