

Oil Performance Data												
WJ-100-O-2013		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	18.7	28.8	38.9	49.1	59.2	69.4	79.5	89.6	99.8	110.0
Oil Flow	GPM	1.0	2.2	3.4	4.6	5.8	7.0	8.1	9.3	10.5	11.7	12.9
	LPM	3.8	8.3	12.8	17.3	21.8	26.3	30.8	35.3	39.8	44.3	48.8
Oil Control Valve Position	Indicator	0	2.5	3.25	4.25	4.75	5.25	5.5	5.75	6.5	7.5	11
Oil Pressure at Train Inlet	PSI	138	136.5	136	132.5	132	130	126.5	126	122	120	116
	kPa	951	941	938	914	910	896	872	869	841	827	800
Oil Pressure at Nozzle	PSI	30.5	36	40	48	50	54	58	60	64	69	72
	kPa	210	248	276	331	345	372	400	414	441	476	496
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	357,884	439,000	607,000	737,000	850,000	960,000	1,030,000	1,135,000	1,235,000	1,305,000	1,360,000
	M ³	10,134	12,431	17,188	20,870	24,069	27,184	29,166	32,140	34,971	36,953	38,511
Damper Position	Indicator	0.00	0.75	1.50	2.25	2.75	3.25	3.75	4.25	5.25	6.75	9.00
Blower Power	HP	56	64	72	79	85	90	92	97	103	105	107
Blower Current	A	66.0	71.0	79.0	84.0	89.0	94.0	97.0	100.0	104.0	106.0	107.0
Blower Body Pressure	i.w.c.	20.8	20.6	20.4	21.0	21.2	21.2	21.2	21.0	20.6	20.1	20.0
	Pa	5,181	5,131	5,081	5,231	5,281	5,281	5,281	5,231	5,131	5,007	4,982
Burner Body Pressure	i.w.c.	0.70	1.80	3.40	5.00	6.70	8.80	10.50	12.90	15.40	17.50	18.60
	Pa	174	448	847	1,245	1,669	2,192	2,615	3,213	3,836	4,359	4,633
Flame Diameter	Feet	2.75	2.50	2.25	2.50	3.00	4.00	4.00	4.25	4.50	4.75	4.50
Flame Length	Feet	3.00	3.50	4.00	5.50	7.50	8.50	9.25	10.75	10.50	10.50	10.50
Excess air (Calculated)	%	341%	147%	121%	99%	82%	70%	56%	50%	45%	37%	30%

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Hauck GL-1-29 Oil control valve, All data was collected as the firing rate was increasing. One mod motor used. Siemens VOG SSV's

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.

