

Gas Performance Data												
WJ-150-G		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	16.5	31.4	46.2	61.1	75.9	90.8	105.6	120.5	135.3	150.2	165.0
Gas Flow	SCFH	16,500	31,350	46,200	61,050	75,900	90,750	105,600	120,450	135,300	150,150	165,000
	M ³	467	888	1,308	1,729	2,149	2,570	2,990	3,411	3,831	4,252	4,672
Gas Mod. valve position	%	0.75	1.50	1.75	2.00	2.25	2.75	3.25	3.75	4.50	6.75	7.50
Gas Pressure in Train	PSI	4.94	4.15	4.22	3.85	3.97	3.82	3.52	3.14	2.92	2.83	2.87
	kPa	34.1	28.6	29.1	26.5	27.4	26.3	24.3	21.6	20.1	19.5	19.8
Gas Pressure in gas manifold	"w.c"	0.3	0.8	2.8	5.7	9.0	12.8	19.0	26.6	35.5	43.3	56.1
	Pa	72	199	697	1,420	2,242	3,188	4,733	6,626	8,842	10,785	13,974
Dp at gas orifice (6" bore)	"w.c"	0.05	0.32	0.70	1.20	1.74	2.44	3.49	4.78	6.25	7.62	9.60
	Pa	12	80	174	299	433	608	869	1,191	1,557	1,898	2,391
Damper Position		0	1.75	2.25	2.75	3	3.5	4	4.75	5.5	6.5	9
Blower Pressure	"w.c"	23.3	23.5	23.6	23.9	23.6	23.8	23.5	23	22.4	21.3	20.2
	Pa	5,804	5,853	5,878	5,953	5,878	5,928	5,853	5,729	5,579	5,305	5,031
Burner Body Pressure	"w.c"	0.1	1.7	2.5	3.3	4.1	5.4	7.6	10.4	13	15.2	17
	Pa	25	423	623	822	1,021	1,345	1,893	2,590	3,238	3,786	4,234
Combustion Air Motor Power	HP	80.7	99	104	112	116	123	133	143	151	155	160
Combustion Air Motor Current	Amp.	107	125	129	136	141	147	157	168	175	180	183
Main Air Flow	SCFH	433,048	811,209	871,980	1,027,547	1,108,689	1,317,818	1,471,365	1,660,843	1,844,057	1,966,794	2,001,581
	M ³	12,263	22,971	24,692	29,097	31,395	37,316	41,664	47,030	52,218	55,693	56,678
Flame Length	Feet	5.25	6	5.25	5	5.5	5.5	6	6	7	8	7.5
Flame Diameter	Feet	4.25	4.5	4.75	5	5.5	6	6.5	6.5	6	7	7
Excess air	%	161%	157%	88%	67%	45%	44%	39%	37%	35%	30%	21%

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Hauck K-1-29 Oil control valve, All data was collected as the firing rate was decreasing. One mod motor used.

Match orifice meter differential pressure with blower 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 blower 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.

