

Oil Performance Data												
WJ-50-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	6.8	11.9	16.2	21.3	26.4	31.5	35.8	40.9	46.0	50.3	55.4
Oil Flow	GPM	0.8	1.4	1.9	2.5	3.1	3.7	4.2	4.8	5.4	5.9	6.5
	LPM	3.0	5.3	7.2	9.5	11.7	14.0	15.9	18.2	20.4	22.3	24.6
Oil Control Valve Position	Indicator	1.0	2.5	3.0	4.3	5.0	5.5	5.8	6.2	7.5	8.0	10.0
Oil Pressure at Train Inlet	PSI	92	92	92	92	92	92	90	89	85	82	80
	kPa	634	634	634	634	634	634	621	614	586	565	552
Oil Pressure at Nozzle	PSI	28	29	31	34	39	44	46	50	54	56	60
	kPa	193	200	214	234	269	303	317	345	372	386	414
Compressed air Pressure	PSI	75	75	75	75	75	75	75	75	75	75	75
	kPa	517	517	517	517	517	517	517	517	517	517	517
Main Air Flow	SCFH	75,176	197,639	254,163	333,063	381,739	427,277	448,869	489,698	527,389	578,040	687,619
	M ³	2,129	5,597	7,197	9,431	10,810	12,099	12,711	13,867	14,934	16,368	19,471
Damper Position	Indicator	0.0	1.0	1.5	2.3	2.8	3.3	3.5	4.0	4.5	5.3	7.5
Blower Power	HP	34	37	39	40	41	50	53	56	56	59	60
Blower Current	A	38.0	41.0	43.0	47.5	48.0	54.5	56.0	58.0	60.0	61.5	62.0
Blower Body Pressure	i.w.c.	24.0	23.5	23.5	23.5	23.5	23.0	22.0	21.0	19.0	17.5	16.0
	Pa	5,978	5,853	5,853	5,853	5,853	5,729	5,480	5,231	4,733	4,359	3,985
Burner Body Pressure	i.w.c.	0.09	0.25	0.41	1.10	2.00	3.25	3.80	4.80	5.80	7.50	11.10
	Pa	22	62	102	274	498	810	947	1196	1445	1868	2765
Flame Diameter	Feet	1.0	1.0	1.5	2.0	2.5	2.7	3.0	3.0	3.0	3.5	4.0
Flame Length	Feet	5	5	5.5	5.5	6	6	6	6	6	6.5	6.5
Excess air (Calculated)	%	16%	74%	65%	64%	52%	42%	32%	26%	20%	21%	30%

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.

