

A	B	C	D	E	F	G	H	I	
			Kinetics 147 Watt Output Spreadsheet						
	TIME INTERVAL	DISTANCE TRAVELED FROM TDC	SOUTH COMBUSTION FORCE	NORTH HYDRAULIC FORCE	NET KINETIC FORCE	FREEPISTON VELOCITY	PISTON ACCELERATION STATE	ASSEMBLY FIXED WEIGHT	
	0.00s	0.000 in	1350.0 lbs	1150.0 lbs	+200.0 lbs Pushing South	0.00 ft/sec	+1514 ft/sÂ² Accelerating	4.25 lbs Mass / 15 lbs Friction	
	0.04s	0.020 in	1300.0 lbs	1150.0 lbs	+135.0 lbs Pushing South	1.45 ft/sec	+1022 ft/sÂ² Accelerating	4.25 lbs Mass / 15 lbs Friction	
	0.08s	0.070 in	1200.0 lbs	1150.0 lbs	+35.0 lbs Pushing South	2.78 ft/sec	+264 ft/sÂ² Accelerating	4.25 lbs Mass / 15 lbs Friction	
	0.12s	0.170 in	1050.0 lbs	1150.0 lbs	-115.0 lbs Braking North	3.82 ft/sec	-870 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.16s	0.310 in	900.0 lbs	1150.0 lbs	-265.0 lbs Braking North	4.55 ft/sec	-2006 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.20s	0.500 in	750.0 lbs	1150.0 lbs	-415.0 lbs Braking North	4.96 ft/sec (Peak)	-3141 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.24s	0.730 in	600.0 lbs	1150.0 lbs	-565.0 lbs Braking North	5.05 ft/sec	-4277 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.28s	1.010 in	500.0 lbs	1150.0 lbs	-665.0 lbs Braking North	4.82 ft/sec	-5034 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.32s	1.320 in	400.0 lbs	1150.0 lbs	-765.0 lbs Braking North	4.31 ft/sec	-5791 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.36s	1.650 in	300.0 lbs	1150.0 lbs	-865.0 lbs Braking North	3.54 ft/sec	-6548 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.40s	1.970 in	225.0 lbs	1150.0 lbs	-940.0 lbs Braking North	2.58 ft/sec	-7115 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.44s	2.260 in	150.0 lbs	1150.0 lbs	-1015.0 lbs Braking North	1.52 ft/sec	-7683 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.48s	2.490 in	100.0 lbs	1150.0 lbs	-1065.0 lbs Braking North	0.52 ft/sec	-8061 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	
	0.52s	2.600 in	75.0 lbs	1150.0 lbs	-1090.0 lbs Braking North	0.00 ft/sec	-8250 ft/sÂ² Decelerating	4.25 lbs Mass / 15 lbs Friction	

4.25 lbs Mass / 25 lbs Friction							
B	C	D	E	F	G	H	I
		Kinetics 500 Watt Output Spreadsheet					
TIME INTERVAL	DISTANCE TRAVELED FROM TDC	SOUTH COMBUSTION FORCE	NORTH HYDRAULIC FORCE	NET KINETIC FORCE	FREEPISTON VELOCITY	PISTON ACCELERATION STATE	ASSEMBLY FIXED WEIGHT/ FRICTION FORCE
0.00s	0.000 in	3200.0 lbs	1560.6 lbs	+1614.4 lbs Pushing South	0.00 ft/sec	+12217 ft/s ² Accelerating	4.25 lbs Mass / 25 lbs Friction
0.03s	0.080 in	2800.0 lbs	1560.6 lbs	+1214.4 lbs Pushing South	6.72 ft/sec	+9185 ft/s ² Accelerating	4.25 lbs Mass / 25 lbs Friction
0.06s	0.300 in	2100.0 lbs	1560.6 lbs	+514.4 lbs Pushing South	11.45 ft/sec	+3893 ft/s ² Accelerating	4.25 lbs Mass / 25 lbs Friction
0.09s	0.610 in	1400.0 lbs	1560.6 lbs	-185.6 lbs Braking North	13.80 ft/sec	-1405 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.12s	0.970 in	1000.0 lbs	1560.6 lbs	-585.6 lbs Braking North	14.25 ft/sec (Peak)	-4432 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.15s	1.340 in	800.0 lbs	1560.6 lbs	-785.6 lbs Braking North	13.20 ft/sec	-5945 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.18s	1.690 in	650.0 lbs	1560.6 lbs	-935.6 lbs Braking North	11.35 ft/sec	-7081 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.21s	1.990 in	550.0 lbs	1560.6 lbs	-1035.6 lbs Braking North	9.15 ft/sec	-7837 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.24s	2.230 in	450.0 lbs	1560.6 lbs	-1135.6 lbs Braking North	6.80 ft/sec	-8594 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.27s	2.410 in	375.0 lbs	1560.6 lbs	-1210.6 lbs Braking North	4.55 ft/sec	-9161 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.30s	2.520 in	300.0 lbs	1560.6 lbs	-1285.6 lbs Braking North	2.62 ft/sec	-9729 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.33s	2.580 in	225.0 lbs	1560.6 lbs	-1360.6 lbs Braking North	1.15 ft/sec	-10296 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.36s	2.600 in	150.0 lbs	1560.6 lbs	-1435.6 lbs Braking North	0.22 ft/sec	-10864 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction
0.39s	2.600 in	100.0 lbs	1560.6 lbs	-1485.6 lbs Braking North	0.00 ft/sec	-11242 ft/s ² Decelerating	4.25 lbs Mass / 25 lbs Friction

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