

0.5 Piston diameter (Inches) 0.196 Piston Area
 0.25 Rod diameter (Inches) 0.049 Rod Area
 2 Check Valve cracking pressure
 75 Main reservoir pressure
 40 Brake stand regulator max pressure 38 Car reservoir pressure without car regulator

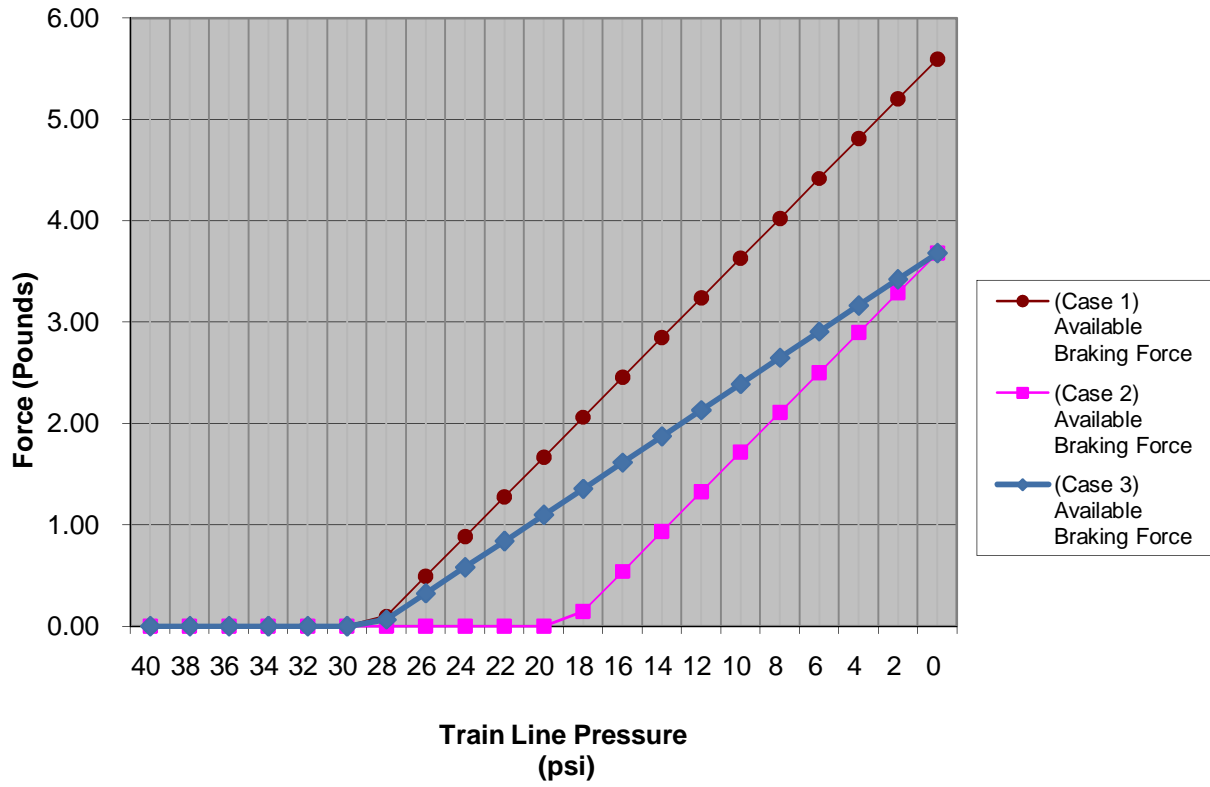
For Case 2 Only
 25 Car regulator pressure setting 25 Pressure in rod end when using regulator

Case 3
 3.68 Desired max brake force

		Case 1 (No car regulator)					Case 2 (With car regulator)				Proportional Braking
Brake stand setting (%)	Brake stand Setting (psi)	Trainline Pressure	Force On Piston Side	Force On Rod Side	(Case 1) Piston Rod Pull	(Case 1) Available Braking Force	Force On Piston Side	Force On Rod Side	(Case 2) Piston Rod Pull	(Case 2) Available Braking Force	(Case 3) Available Braking Force
100	40.0	40.0	7.85	5.60	(2.26)	0.00	7.85	3.68	(4.17)	0.00	0.00
95	38.0	38.0	7.46	5.60	(1.87)	0.00	7.46	3.68	(3.78)	0.00	0.00
90	36.0	36.0	7.07	5.60	(1.47)	0.00	7.07	3.68	(3.39)	0.00	0.00
85	34.0	34.0	6.68	5.60	(1.08)	0.00	6.68	3.68	(2.99)	0.00	0.00
80	32.0	32.0	6.28	5.60	(0.69)	0.00	6.28	3.68	(2.60)	0.00	0.00
75	30.0	30.0	5.89	5.60	(0.29)	0.00	5.89	3.68	(2.21)	0.00	0.00
70	28.0	28.0	5.50	5.60	0.10	0.10	5.50	3.68	(1.82)	0.00	0.06
65	26.0	26.0	5.11	5.60	0.49	0.49	5.11	3.68	(1.42)	0.00	0.32
60	24.0	24.0	4.71	5.60	0.88	0.88	4.71	3.68	(1.03)	0.00	0.58
55	22.0	22.0	4.32	5.60	1.28	1.28	4.32	3.68	(0.64)	0.00	0.84
50	20.0	20.0	3.93	5.60	1.67	1.67	3.93	3.68	(0.25)	0.00	1.10
45	18.0	18.0	3.53	5.60	2.06	2.06	3.53	3.68	0.15	0.15	1.36
40	16.0	16.0	3.14	5.60	2.45	2.45	3.14	3.68	0.54	0.54	1.61
35	14.0	14.0	2.75	5.60	2.85	2.85	2.75	3.68	0.93	0.93	1.87
30	12.0	12.0	2.36	5.60	3.24	3.24	2.36	3.68	1.33	1.33	2.13
25	10.0	10.0	1.96	5.60	3.63	3.63	1.96	3.68	1.72	1.72	2.39
20	8.0	8.0	1.57	5.60	4.03	4.03	1.57	3.68	2.11	2.11	2.65
15	6.0	6.0	1.18	5.60	4.42	4.42	1.18	3.68	2.50	2.50	2.91
10	4.0	4.0	0.79	5.60	4.81	4.81	0.79	3.68	2.90	2.90	3.16
5	2.0	2.0	0.39	5.60	5.20	5.20	0.39	3.68	3.29	3.29	3.42
0	0.0	0.0	0.00	5.60	5.60	5.60	0.00	3.68	3.68	3.68	3.68

(Note: "Available Braking Force" is 0 when the rod has a negative "pull" because the piston is being forced against the end of the

Brake Cylinder Force



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