

Ref: Dimensions 7142/52/77

OIL PRESSURE REGULATORS

7142 and 7152 Regulators reduce oil line pressures (up to 250 psig) to a reduced constant outlet pressure.

7142 Regulator (for light oil)

7142 Regulators are frequently installed upstream of North American 7052 Air/Oil Ratiocontrols, which require 25-30 psig inlet pressures.

Standard 7142 Regulator spring range is 25-75 psig outlet--it is factory set for 30 psig. A 70-150 psig spring is available.

Body: cast iron with brass trim.

Diaphragm: neoprene.

Seat: neoprene.

Maximum temperature: 150 F.

7152 Regulator (for heavy oil)

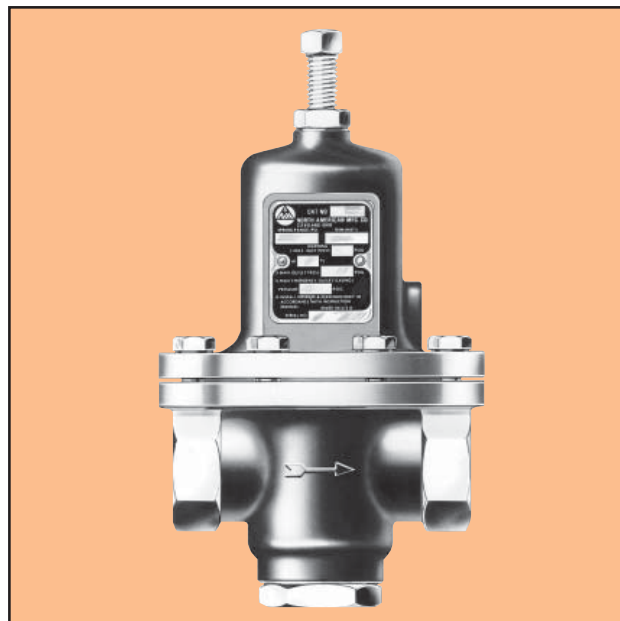
Standard spring range is 25-75 psig outlet, factory set for 70 psig. A 70-150 psig spring is available.

Body: cast iron with stainless steel trim.

Diaphragm: Viton.

Seat: Teflon.

Maximum temperature: 300 F.



7177 DIAPHRAGM RELIEF VALVES

These Relief Valves are used with or in place of 7142 and 7152 Oil Pressure Regulators.

Relief Valves avoid build-up of pressure upstream of regulators or other equipment, which can occur particularly when burners are turned down to low flows.

Relief valve selection usually is not critical since gph capacities (see table on back) exceed those of pumps encountered in normal piping systems.

7177 Relief Valves have a 25-75 psig spring (35-75 for 7177-03).

Body: cast iron with stainless trim.

Diaphragm: neoprene.

Seat: nitrile.

Maximum temperature: 150 F.



Regulators and relief valves can be installed in any position. An arrow on the body indicates direction of flow.

Outlet pressure is adjusted by loosening locknut and turning spring adjusting screw on top of regulator, then tightening locknut.

CAPACITIES

gph

0.85 sp gr oil at 48 SSU

7142 and 7152 Regulators

viscosity/sp gr correction factors

Multiply gph in tables by factor†.

oil grade	viscosity SSU	factor
4,5,6	100	0.9
4	300	0.85
6	2000	0.5
5	4000	0.4
6	5000	0.3

† When choosing factors for heavier oils, make sure oil temperature required for desired SSU value does not exceed regulator temperature rating.

pressure, psig outlet inlet	1/2"		3/4"		1"	
	10% droop gph	20% droop gph	10% droop gph	20% droop gph	10% droop gph	20% droop gph
30	60	240	360	840	1020	960
	75	240	360	900	1140	1080
	100	240	360	1200	1440	1440
	150	240	360	1620	1800	1860
	200	240	360	1620	2040	1800
	250	240	360	1740	2160	2040
50	60	240	360	660	840	780
	75	360	480	840	1080	1020
	100	360	480	1080	1380	1320
	150	360	540	1500	1920	1800
	200	360	540	1800	2400	2100
	250	360	540	1920	2520	2280
75	100	420	600	1020	1200	1200
	125	420	600	1320	1500	1620
	150	480	660	1500	1920	1800
	200	480	660	1800	2280	2100
	250	480	660	1920	2520	2280
						3000

7177 Relief Valves

designation	size inches	spring part no.	relief pressure setting psig	flow at relief setting gph	pressure build-up over relief setting, psig							
					5 gph	7 gph	10 gph	15 gph	20 gph	30 gph	50 gph	75 gph
7177-03	1/4	R690-6807	35	90	168	240	300	348	360	444	—	—
			50	90	192	258	318	378	432	515	635	—
			75	90	252	312	384	480	540	625	740	815
7177-01	1/2	R690-6810	35	90	420	480	600	720	780	960	—	—
			50	90	480	540	660	840	900	1080	1320	—
			75	90	600	780	900	1080	1200	1320	1500	1680
7177-1	1	R690-6815	35	90	1200	1500	1680	1980	2220	2640	—	—
			50	90	1500	1860	2220	2520	2820	3120	3480	—
			75	90	2100	2460	2700	3000	3180	3480	3840	4080

Note: In 7177 Relief Valves initial flow or bubble point occurs at 5 psig below relief setting. Tight shutoff point occurs at 8 psig below relief setting.

LIGHT OIL PIPING SCHEMATIC (See Bulletin 8563/64 for details.)

To order, specify: 7142 (or 7152)-(code)-(specify beginning of spring range) Regulator.

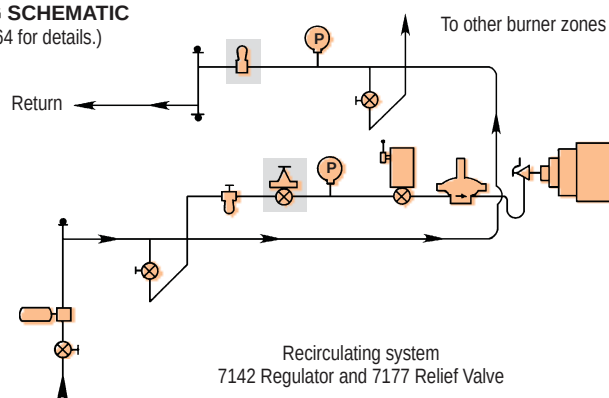
Examples: 7142-01-25 Regulator

7152-01-70 Regulator

To order, specify: 7177-(code)-(specify end of spring range) Relief Valve

Examples: 7177-03-75 Relief Valve

7177-01-150 Relief Valve



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