[Figure 5-5] A placard near the gauge lists the maximum readings for specific conditions.

## Weight and Loading Distribution

The weight and loading distribution section of the manufacturer's RFM contains the maximum certificated weights, as well as the center of gravity (CG) range. The location of the reference datum used in balance computations should also be included in this section. Weight and balance computations are not provided here, but rather in the weight and balance section of the RFM.

## Flight Limitations

This area lists any maneuvers which are prohibited, such as acrobatic flight or flight into known icing conditions. If the rotorcraft can only be flown in visual flight rules (VFR) conditions, it is noted in this area. Also included are the minimum crew requirements, and the pilot seat location, if applicable, from which solo flights must be conducted.

## **Placards**

All rotorcraft generally have one or more placards displayed that have a direct and important bearing on the safe operation of the rotorcraft. These placards are located in a conspicuous place within the cabin and normally appear in the limitations section. Since  $V_{\rm NE}$  varies with altitude, this placard can be found in all helicopters. [Figure 5-6]

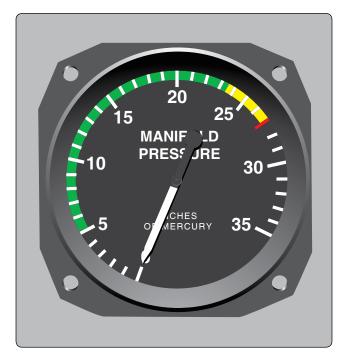


Figure 5-5. The manifold pressure gauge is an engine instrument typically used in piston aircraft engines to measure the pressure inside the induction system of an engine. Manifold pressure is a measurement of vacuum and the measurement is taken at the intake manifold.

Press Alt. (1,000 ft.)	V <sub>NE</sub> —MPH IAS							Gross Weight
F OAT	2	4	6	8	10	12	14	
0	109	109	105	84	61			
20	109	109	94	72	49			More
40	109	103	81	59				than
60	109	91	70	48				1,700 lb
80	109	80	59					
100	109 <b>109</b>	70 <b>109</b>	48 <b>109</b>	100	00	77	 E0	
20	109	109	109	109 109	98 85	77 67	58 48	
40	109	109	109	96	75	57	40	1,700 lb
60	109	109	103	84	66	48		or less
80	109	109	95	74	57			
100	109	108	84	66	48			
Maximum V <sub>NE</sub> Doors off—102 MPH IAS  NEVER EXCEED SPEED								
110		1424				01 L		
100								
V <sub>NE</sub>				/				
90			_			20°C		
90					\ \O_0			
KIAS				X	200			
70				XAO	7			
60								
							1AX AL	T.
0 2 4 6 8 10 12 14								
Pressure Altitude (1,000 feet)								

Figure 5-6. Various VNE placards.

## **Emergency Procedures (Section 3)**

Concise checklists describing the recommended procedures and airspeeds for coping with various types of emergencies or critical situations can be found in this section. Some of the emergencies covered include: engine failure in a hover and at altitude, tail rotor failures, fires, and systems failures. The procedures for restarting an engine and for ditching in the water might also be included.

Manufacturers may first show the emergencies checklists in an abbreviated form with the order of items reflecting the sequence of action. This is followed by amplified checklists providing additional information to clarify the procedure. To be prepared for an abnormal or emergency situation, learn the first steps of each checklist, if not all the steps. If time permits, refer to the checklist to make sure all items have been covered. For more information on emergencies, refer to Chapter 11, Helicopter Emergencies and Hazards.

Manufacturers are encouraged to include an optional area titled Abnormal Procedures, which describes recommended procedures for handling malfunctions that are not considered to be emergencies. This information would most likely be found in larger helicopters.