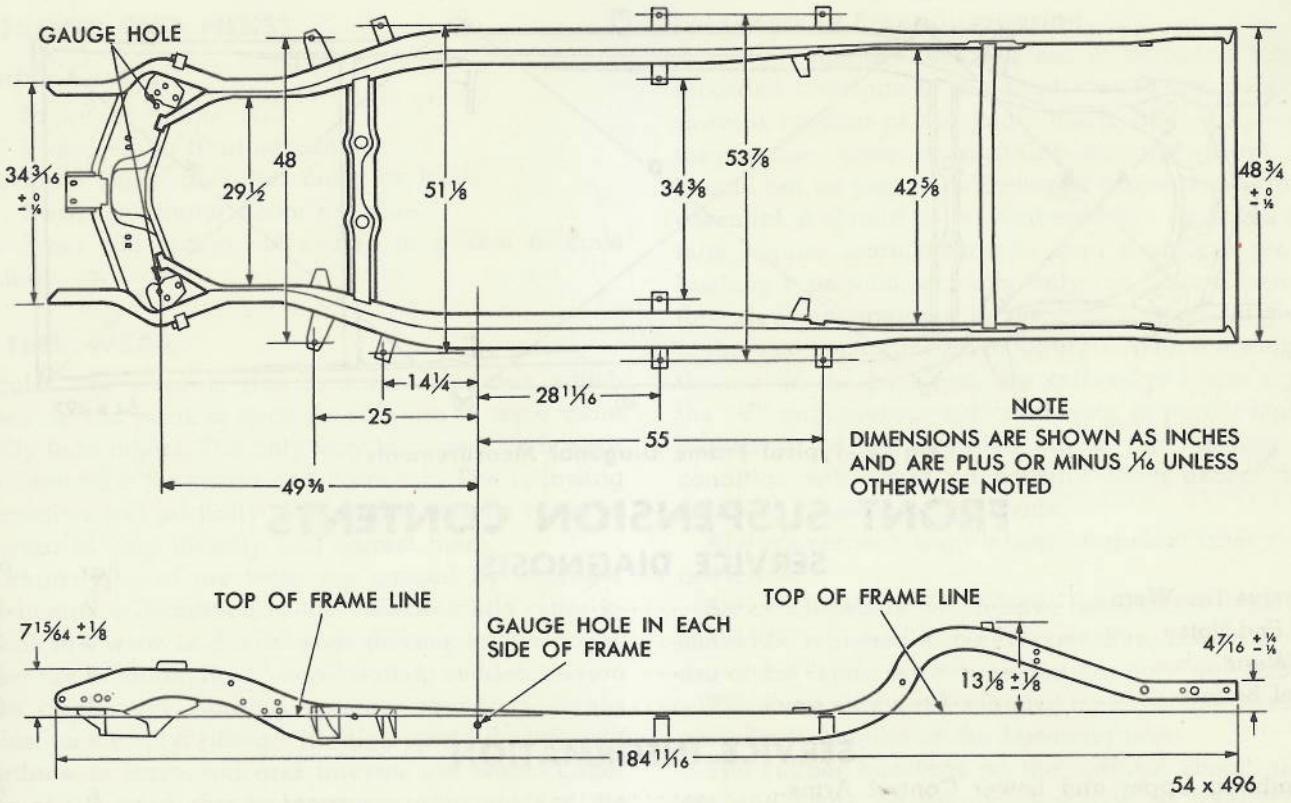

Fig. 1—Frame Dimensions

Figure 2 shows a few of the various diagonal measurements that may be taken to check the "squareness" of the frame. Diagonal measuring will quickly determine which section of the frame is bent and where force should be applied to restore correct alignment.

To properly check a frame for alignment, diagonal measurement should be performed with great care. When the body is removed, the frame may be easily checked for alignment by measuring diagonals shown in Figure 2 with trammels or steel tape and checking dimensions given in Figure 1. Measurements may be taken without removing the body from the chassis by using a plumb-bob and chalk line as follows:

(1) Place the car on a level floor.

(2) Attach the line of a plumb-bob to the center of one of the rear body bolts. The plumb-bob should be suspended slightly above the floor. When the plumb-bob comes to rest, mark the floor directly underneath it.

(3) Then using the plumb-bob, mark the floor directly underneath the center of the other body bolts shown in Figure 2. The marks made on the floor will represent various points of the frame to be checked diagonally.

(4) Move the car away so that the distance between the marks on the floor can be measured.

(5) Measure the distance between the points connected by line "A," in Figure 2. This distance should agree within ¼ inch with the distance between the points connected by line "B."

(6) The distance between points connected by line "C" should agree within ¼ inch with the distance between points connected by line "D."

The diagonals shown in Figure 2 represent only a few that may be checked. Many other diagonals may be measured in the same way. For example, if some of the frame body brackets are bent, diagonals may be checked from corresponding points on the frame side rails or cross members. **Care should be taken to make sure that any two diagonals compared represent exactly corresponding points on each side of the frame.** Correct frame alignment can usually be restored by straightening the frame parts which have been bent, although badly distorted frame parts, due to a serious accident, can in most cases be replaced more economically than by attempting repairs.

When assembling the body to the frame, the body should be properly aligned so that it and the frame will fit together without the necessity of forcing the body bolts in place.

2. SERVICING BODY SUPPORT BRACKETS

Frame Welding

The shielded arc-weld method is recommended for frame welding. The heat generated during the welding operation is localized and burning of material is held to a minimum. The finished weld can then be ground or filed if necessary. Use a mild steel welding rod.

Cut the damaged bracket off the frame, file surface smooth, then clamp new bracket in correct position and weld bracket securely to frame member.