



**FRAME DIMENSIONS**

BODY STYLE	A	B	C	D	E	F	G	H
28 4 dr. & Catalina	34.70	17.35	54.12	24.03	48.06	50.83	132.68	59.10
SERIES Conv. & H.D.	34.78	17.39	54.20	24.07	48.14	50.83	132.68	59.10
27 ALL STYLES	34.70	17.35	54.12	24.03	48.06	50.83	125.68	57.10

Fig. 2-1 Frame Checking Chart

## FRAME

### GENERAL DESCRIPTION

Straight "X" I-beam cross member, four way cantilever frames are used. Five different frames are engineered for the 27 and 28 series and body types as listed below:

#### SERIES 28; STAR CHIEF

1. Four Door Sedan
2. Convertible Coupe and Heavy Duty Chassis
3. Catalina Coupe
4. Catalina Sedan

#### SERIES 27; CHIEFTAIN EIGHT SEVENTY (870) AND EIGHT SIXTY (860)

5. Sedans and Station Wagon
6. Catalina Coupe

In addition to "X" members all frames are reinforced by five cross members (Fig. 2-1) as follows:

1. Radiator and engine front support cross member.
2. Front cross member.
3. Engine rear support cross member (not shown in Fig. 2-1 as it bolts to the side bar extensions).
4. Rear shock absorber cross member.
5. Rear cross member.

Further reinforcement of the frame side bars is accomplished by using a right and left hand extension which joins the forward members of the "X", and extends forward with the frame side bars to form a box section up to the front cross member.

The front cross member is a heavy box section suitably recessed to provide for seating the front coil springs and drilled for attachment of the front suspension.

Convertible frames (series 28) are further reinforced by an extra channel of steel welded to the side bars to form a boxed cross section, and considerably heavier "X" member flanges.

### FRAME CHECKING CHART

The first two columns of the table under Fig. 2-1 show the body types which used the same frame. Numerical dimensions shown on Fig. 2-1 are the same for both 27 and 28 Series. Alphabetical references for

dimensions are listed in the chart below Fig. 2-1 and are taken from the following reference points.

- A—Outside width of frame at front cross member.
- B—Center line of frame to outside edge.
- C—Center to center distance of body mounting bracket bolt holes.
- D—Center line of frame to outside edge.
- E—Outside width of frame at rear cross member.
- F—Center of radiator mounting holes to center of forward body mounting bracket bolt hole.
- G—Center of body mounting bracket bolt hole to body mounting bolt hole in rear cross member.
- H—Center to center of rear spring shackle bolt holes.

Dimensions for "X," "Y" and "Z" are not given, but are used merely to illustrate the points for taking diagonal measurements for checking the squareness of a frame. Two holes or rivet heads are located on the underside of the frame at the approximate terminal point of the arrowheads, and can be used for this purpose.

### FRAME REPAIR

The various frame cross members as well as certain brackets are available for servicing frames. To remove riveted frame members, drill heads of rivets holding member, then cut them off using a sharp cold chisel. Use care to prevent distorting rivet hole.

In attaching a new piece, hot rivets should be used because of the ease of heading them with hand tools and also because the rivet in the completed joint must fill the holes in the frame members with rivet heads bearing against the members. This is very difficult if not impossible to accomplish with cold rivets unless the heavy equipment necessary to head cold rivets is available. Where it is impossible to use hot rivets, cross members may be bolted to frame if bolts having an unthreaded shank  $\frac{1}{4}$ " long are used and the holes are reamed so the bolt will fit snugly in the frame and member. Plain washer may be used under nut but lock washer should not be used. Peen over end of bolt or tack weld nut to bolt to prevent loosening. After riveting member in place on frame, duplicate any original weld on the new installation.