

# UNIFORM TRAILER CONNECTIONS

by HAROLD DREW

It has been suggested by the president of the SSA that recommendations should be worked out for an SSA standard for trailer connections. This standard should cover both hitches and electrical connections.

The first move was to look over all the trailers (43) assembled for the nationals at Odessa. The results of this survey confirm one's gloomiest fears. Hardly one contestant could have hooked up any trailer except his own without difficulty. The variations are even greater than might be guessed from the basic differences recorded. For instance, some electrical connectors have round pins and some flat, and the spacing varies.

Most well disposed members would like to see a standard adopted so that they can, without difficulty, help out a friend. It is not likely that everyone will immediately change his rig. However, this might well be done when a new car or trailer is acquired.

## Hitches

The choice of a standard ball size is not difficult. Over 80% (35) of the trailers at Odessa had sockets for  $1\frac{7}{8}$  balls (six had 2" and two had other sizes). The  $1\frac{7}{8}$  size seems appropriate and is recommended as the standard.

## Safety Chains

State law on safety chains varies. However, nearly all states require

them. Most states require that they should be "sufficient to hold in case of disconnection". Some states require that the chains should be arranged so that the trailer "shall not swerve more than 6'" (in other cases 3').

Michigan and Indiana require that the chains should be attached "at the extreme outer edge of the vehicle" (trailer).

California requires the chains to be attached to the car "at a point of the frame other than where the tow bar is secured".

The prudent pilot may wish to obtain a copy of his home state regulations on safety chains.

It seems to be unnecessary to specify a particular type of safety chain, most details of which can be left to the discretion of the individual (who remains responsible for complying with the law).

However, it is important that we should be able to hook up other people's chains without difficulty. The following is a recommended standard practice.

1. All chains to terminate with a  $5/16$  shackle. Either threaded shackle pins or shackle pins fitted with aircraft type safety pins are permissible. Intermediate chain links should accept the bow of the shackle. (Open hooks or snap hooks are not recommended.)

2. All car towing arrangements to be capable of accepting a  $5/16$  shackle ( $3/8$  dia. pin).

3. Sufficient chain to be provided

so that the shackle pin can be adjusted to reach anywhere up to 18" ahead of the ball socket.

4. All car towing arrangements to have shackle pin holes not more than 16" ahead of the ball.

## Connectors and Leads

Pilots will agree that we should have brake lights and turn signals on our trailers. (63% of the trailers at Odessa were so equipped.) Pilots who have trailers fitted with a single brake light only are strongly recommended to fit the additional light so that both right and left turn signals may be given.

To take care of tail lights, brake lights and turn signals, we need a four pin connector. One of the pins is for the ground line. (It is best to avoid use of the hitch for the ground connection as this leads to flickering lights and noisy radio.)

We have to decide whether to carry the plug or the socket on the car. (The trailers at Odessa were about equally divided in this respect.) Tradition requires that one connects the sockets to the source of power. We advocate sticking to the traditional arrangement. One good reason for this is that live pins are likely to be shorted accidentally.

A writer in a recent issue of the 1-26 news letter advocates the use of a rather elaborate and expensive flanged connector which is intended to be attached to the rear panel of the car. This requires the drilling of attachment holes in the panel. We believe that relatively few pilots will wish to drill the rear panels of their cars.

Most pilots use a mobile connector which is stowed in the car trunk. They have a sufficiently long lead so that the connector can be

