SOCIETY OF AUTOMOTIVE ENGINEERS, INC. • TWO PENNSYLVANIA PLAZA • NEW YORK, NEW YORK 10001

LAND SEA AIR SPACE

TECHNICAL REPORT J800b

MOTOR VEHICLE SEAT BELT ASSEMBLY INSTALLATIONS — SAE J800b

SAE Recommended Practice

Report of Motor Vehicle Seat Belt Committee approved March 1960 and last revised September 1965.

Scope—It is the purpose of this SAE Recommended Practice to define minimum requirements for content of the installation instruction sheet intended to accompany a seat belt assembly offered for installation in a motor vehicle at other than the vehicle manufacturer's plant. Its primary intent is to provide guidance in the installation of seat belt assemblies meeting the requirements of SAE J4. These minimum instruction requirements may be supplemented by more specific manufacturer's instructions, if they are necessary to provide proper installation in a particular vehicle.

Instructions—

1. If the vehicle is equipped with seat belt anchorages, these anchorages shall be used in lieu of other methods. All American manufactured cars, starting with 1962 models, have seat belt anchorages consisting of $^{7}/_{16}$ in. —20 UNF 2B threaded holes mounted in a suitable structure to receive the attachment hardware for at least two lap belts in the front seat. WHEN THESE ANCHORAGES ARE USED, IT IS IMPORTANT THAT ALL FULL THREADS BE ENGAGED TO OBTAIN THE ULTIMATE STRENGTH OF THE ANCHORAGES.

When dimples in the floor pan or other body structure are provided to indicate proper location of rear seat belt anchorages, they shall be used.

Where special provisions have been made to receive belts specifically designed by the car manufacturer for a particular vehicle, they shall be used.

2. In vehicles NOT having threaded hole anchorages or dimples to locate attachment points, seat belts shall be anchored to adequate structures such as the body or floor pan. Seat belts shall not be attached to seats, unless the vehicle manufacturer indicates that the seats have been specifically designed to withstand seat belt assembly loads. The following procedures shall be followed for all seat belt assembly installations:

(a) If seat is adjustable, move to rearmost position.

(b) Mark floor pan or structure so that the front seat lap belts fall vertically or slope to rear on way down to attachment points.

(c) When restraining the occupant, the lap belt portion of any seat belt assembly shall bear across his hip bones and pull downward and rearward at an angle as near as practical to 45 deg.

(d) Attachment points shall be spaced laterally, so that the lap belt portion of the seat belt assembly essentially forms a "U"-shaped loop when in use. In no case shall both ends of one assembly be connected at the same anchorage or attachment point.

(e) Drill holes to avoid damaging exhaust system, brake and fuel lines; also, do not locate near other holes which might weaken the floor pan. Any corrosion of the floor pan in the area of the attachment point should be carefully examined and, if necessary, reinforcement (in excess of that furnished with the seat belt assembly) should be added before the attachment hardware is installed.

(f) Install the attachment hardware using the reinforcing plates

furnished. Dished reinforcing plates shall be installed with the turned up edges away from the body structure. Attachment hardware shall be installed so that movement for self-alignment is possible.

3. Install metal-to-metal type seat belt assembly with the buckle on the inboard side away from the door. Pass belts through or around seat to rear, avoiding rough or sharp edges in choosing the belt paths.

4. If the webbing is NOT sewn, or otherwise permanently secured to the attachment hardware, thread the webbing through the hardware as instructed by the manufacturer or in accordance with the applicable figure among Figs. 1-5. These figures show the recommended methods of threading non-sewn webbing through attachment hardware.

CAUTION: PROPER THREADING OF THE WEBBING THROUGH ATTACHMENT HARDWARE IS EXTREMELY IMPORTANT TO INSURE ADEQUATE STRENGTH OF THE INSTALLATION. THIS PART OF THE INSTALLATION SHALL BE DOUBLE CHECKED TO SEE THAT IT FOLLOWS THESE INSTRUCTIONS.

5. Belts whose length can be set at the time of installation, that is webbing threaded to attaching hardware, shall be assembled so that they can later be adjusted at the buckle to fit the smallest passenger who will be expected to wear the belt. Typically, this means that the half of the belt assembly ending in a tongue or connector shall be kept short. The half of the belt assembly ending in the buckle will then have to be left long enough to insure that the belt assembly will fit

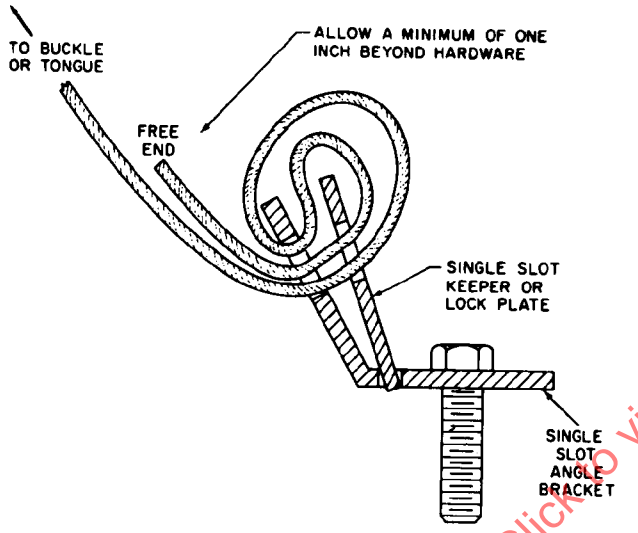

FIG. 1—SAME THREADING MAY BE USED FOR TWO-PIECE ANCHOR HOOKS IF EACH PIECE HAS SINGLE SLOT ONLY. AFTER WEBBING HAS BEEN THREADED AND HOOKS HAVE BEEN ASSEMBLED TO EYE BOLT, THE TWO HOOKS MUST BE FASTENED TOGETHER WITH COTTER KEY OR OTHER DEVICE

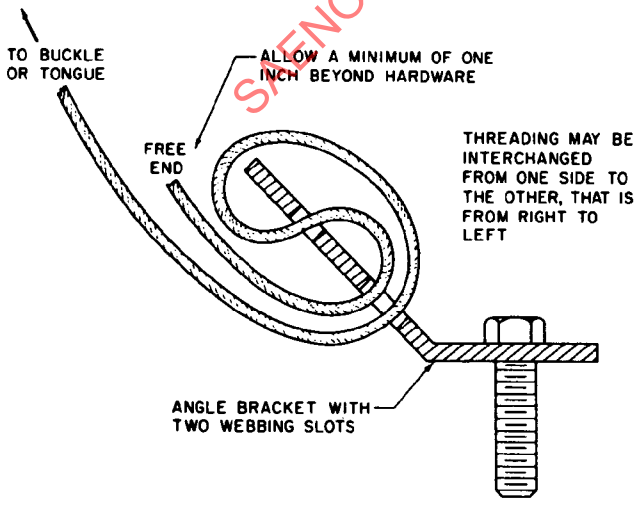

FIG. 2—SAME THREADING IS USED FOR TWO-SLOT SISTER HOOKS OR TWIN HOOKS, TWO PARTS BEING HELD TOGETHER BY WEBBING AS THOUGH THEY ARE SINGLE UNIT

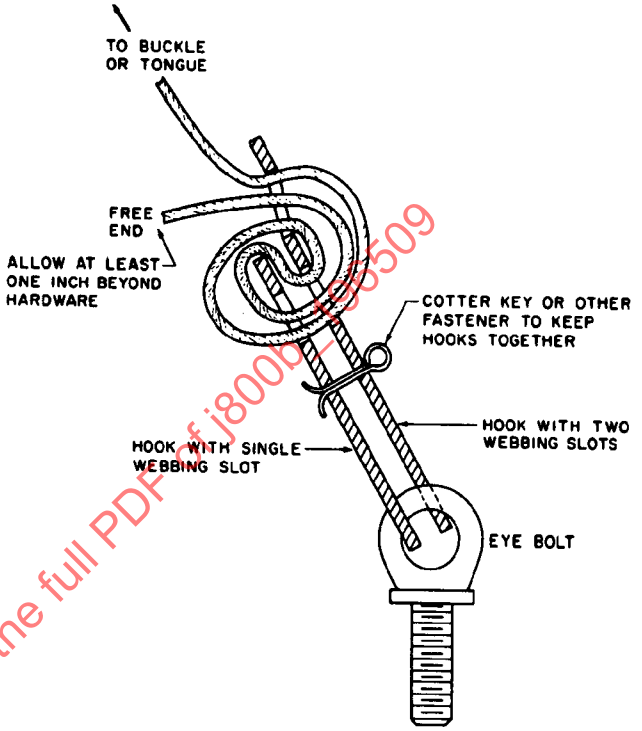

FIG. 3—SISTER OR TWIN HOOKS. ONE HOOK WITH TWO WEBBING SLOTS, OTHER WITH ONE WEBBING SLOT (HOOKS MUST BE KEYED OR OTHERWISE SECURED TOGETHER)

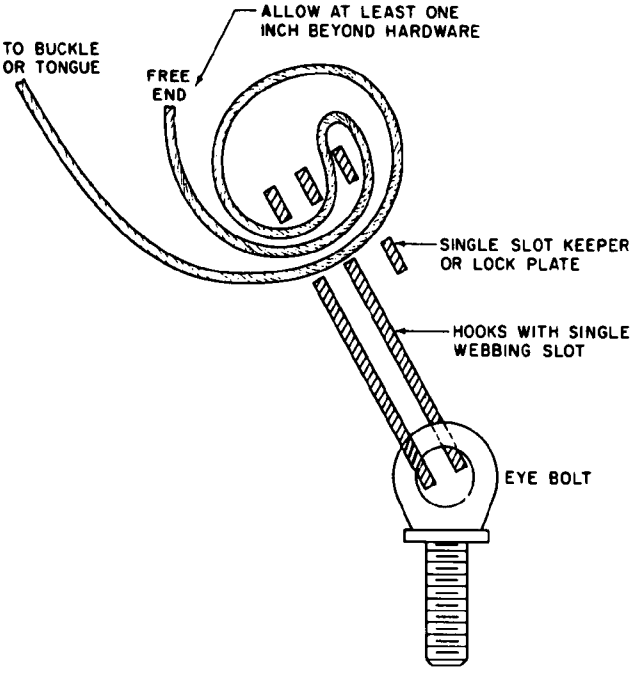

FIG. 4—SINGLE SLOT SISTER OR TWIN HOOKS WITH A SINGLE SLOT KEEPER OR LOCK PLATE