APPENDIX F
DUMMY POSITIONING PROCEDURES
FOR DRIVER AND PASSENGER TEST DUMMY CONFORMING TO
SUBPART E OF PART 572
APPENDIX F
DUMMY POSITIONING PROCEDURES
FOR DRIVER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

NHTSA No. ________________________   Test Date: _____________

Laboratory: _________________   Test Technician(s): ___________________________

Impact Angle: _________________   Belted Dummies: __Yes__ No

Test Speed: __32 to 40 kmph  __0 to 48 kmph  __0 to 56 kmph

__1. Use the seat markings determined during the completion of Data Sheet 14.2 to set the
mid-fore-aft position, lowest height position (S8.1.2) and seat back angle (S8.1.3).
___ N/A – No seat back angle adjustment
Manufacturer’s design seat back angle ______________
Tested seat back angle ______________
Seat cushion angle ______________
___ N/A – No head restraint adjustment

__2. If adjustable, set the head restraint at the full up position. (S8.1.3) If there are
adjustments other than vertical, adjust them as recommended by the manufacturer.
___ N/A – No head restraint adjustment

__3. Place any adjustable seat belt anchorages at the vehicle manufacturer’s nominal design
position for a 50th percentile adult male occupant (S8.1.3)
___ N/A – No adjustable upper seat belt anchorage
Manufacturer’s specified anchorage position. ______________
Tested anchorage position ______________

__4. Place adjustable pedals in the full forward position.
___ N/A – the pedals are not adjustable.

__5. Set the steering wheel hub at the geometric center of the full range of driving positions
including any telescoping positions as determined in data sheet 14.3.

__6. Place the dummy in the seat such that the midsagittal plane is coincident with the
longitudinal seat cushion markings as determined in Data Sheet 14.2 and the upper torso
rests against the seat back. (S10.4.1.1 & S10.4.1.2)

__7. Rest the thighs on the seat cushion. (S10.5)

__8. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of
the horizontal dimension of a point 0.25 inch below the H-point determined in Data
Sheet 15. (S10.4.2.1)
Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage.
Adjust the dummy position until these three measurements are within the specifications.
(S10.4.2.1 and S10.4.2.2)
___ horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.)
(S10.4.2.1)
___ vertical inches from the point 0.25 below the determined H-point (0.5 inch max.)
(S10.4.2.1)
___ pelvic angle (20° to 25°)

__9. Is the head level within ± 0.5°? (S10.1)
___ Yes, go to 10
___ No, go to 9.1

__9.1 Adjust the position of the H-point. (S10.1)
9.2 Is the head level within ± 0.5°? (S10.1)
   ___Yes, record the following, then go to 10.      ___No, go to 9.3
   _____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.)
                  (S10.4.2.1)
   _____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.)
                  (S10.4.2.1)
   _____pelvic angle (20° to 25°) (S10.4.2.2)

9.3 Adjust the pelvic angle. (S10.1)

9.4 Is the head level within ± 0.5°? (S10.1)
   ___Yes, record the following, then go to 10.      ___No, go to 9.5
   _____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.)
                  (S10.4.2.1)
   _____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.)
                  (S10.4.2.1)
   _____pelvic angle (20° to 25°) (S10.4.2.2)

9.5 Adjust the neck bracket of the dummy the minimum amount necessary from the non-adjusted "0" setting until the head is level within ± 0.5°. (S10.1)
   Record the following, then go to 10
   _____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.)
                  (S10.4.2.1)
   _____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.)
                  (S10.4.2.1)
   _____pelvic angle (20° to 25°) (S10.4.2.2)

10. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
    ___measured distance (10.6 inches) (S10.5)

11. Can the right foot be placed on the accelerator?
   ___Yes, go to 11.1 and skip 11.2
   ___No, go to 11.2

11.1. To the extent practicable keep the right thigh and the leg in a vertical plane (S10.5) while
    resting the foot on the undepressed accelerator pedal with the rearmost point of the heel
    on the floor pan in the plane of the pedal. (S10.6.1.1)

11.2 Initially set the foot perpendicular to the leg and then place it as far forward as possible in
    the direction of the pedal centerline with the rearmost point of the heel resting on the floor
    pan. (S10.6.1.1)

11.2.1 Move the adjustable pedal to its most rearward position or until the right foot is flat on
      the pedal, whichever occurs first. (S10.6.1.1)
       ___N/A – the accelerator pedal is not adjustable

12. Does the vehicle have a foot rest?
   ___Yes, go to 12.1
   ___No, go to 12.2

12.1 With the left thigh and leg in a vertical plane, place the left foot on the foot rest with the
     heel resting on the floor pan. (S10.6.1.2)

12.1.1 Is the left foot elevated above the right foot?
     ___Yes, go to 12.2 and position the foot off the foot rest
     ___No, go to 13

12.2 Check the ONLY one of the following that applies
     ___The left foot reaches the toeboard without adjusting the foot or leg. To the extent
       practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and
       place the foot on the toeboard, skip 12.3 (S10.6.1.2)
     ___The left foot reaches the toeboard but contacts the brake or clutch pedal and must
       be rotated to avoid pedal contact. To the extent practicable keep the left thigh and the
       leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard. The foot
       was rotated about the leg to avoid pedal contact, skip 12.3 (S10.6.1.2)
     ___The left foot reaches the toeboard but contacts the brake or clutch pedal and the foot
       and leg must be rotated to avoid pedal contact. To the extent practicable keep the left
       thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the
toeboard. The foot was rotated about the leg and the leg was rotated outboard about
the hip the minimum distance necessary to avoid pedal contact, skip 12.3 (S10.6.1.2)
N/A – the foot does not reach the toeboard, go to 12.3

12.3 Check the ONLY one of the following that applies
   _ The left foot did not contact the brake or clutch pedal. To the extent practicable keep
     the left thigh and the leg in a vertical longitudinal plane (S10.5). Set the foot
     perpendicular to the leg and place it as far forward as possible with the heel resting on
     the floor pan. (S10.6.1.2)
   _ The left foot did contact the brake or clutch pedal and the foot was rotated to avoid
     contact. To the extent practicable keep the left thigh and the leg in a vertical
     longitudinal plane (S10.5). Set the foot perpendicular to the leg and place it as far
     forward as possible with the heel resting on the floor pan and rotate the foot the
     minimum amount to avoid pedal contact. (S10.6.1.2)
   _ The left foot did contact the brake or clutch pedal and the foot was rotated about the
     leg and the leg was rotated outboard about the hip the minimum distance necessary to
     avoid pedal contact. Set the foot perpendicular to the leg and place it as far forward as
     possible with the heel resting on the floor pan and rotate the foot about the leg and the
     thigh and leg outboard about the hip the minimum distance necessary to avoid pedal
     contact. (S10.6.1.2)

13. Place the right upper arm adjacent to the torso with the centerline as close to a vertical
plane as possible. (S10.2.1)

14. Is the driver seat belt used for this test?
   _ Yes, continue
   _ No, go to 15

14.1 Fasten the seat belt around the dummy.
14.2 Remove all slack from the lap belt portion. (S10.9)
14.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four
   times. (S10.9)
14.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
   _ pound load applied
14.5 Is the belt system equipped with a tension-relieving device?
   _ Yes, continue
   _ No, go to 15

14.6 Introduce the maximum amount of slack into the upper torso belt that is recommended by
the vehicle manufacturer in the vehicle owner’s manual. (S10.9).

15. Place the left upper arm adjacent to the torso with the centerline as close to a vertical
plane as possible. (S10.2.1)

16. Place the right hand with the palm in contact with the steering wheel at the rim’s
horizontal centerline and with the thumb over the steering wheel. (S10.3.1)

17. Place the left hand with the palm in contact with the steering wheel at the rim’s horizontal
   centerline and with the thumb over the steering wheel. (S10.3.1)

18. Tape the thumb of each hand to the steering wheel by using masking tape with a width of
0.25 inch. The length of the tape shall only be enough to go around the thumb and
steering wheel one time.

I certify that I have read and performed each instruction. Date
APPENDIX F
DUMMY POSITIONING PROCEDURES FOR PASSENGER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

NHTSA No. ________________________   Test Date: ______________
Laboratory: ___________________ Test Technician(s): ___________________________
Impact Angle: _________________ Belted Dummies: __Yes __No
Test Speed: __32 to 40 kmph __0 to 48 kmph __0 to 56 kmph

1. The seat is a bench seat for which the adjustments have already been made for the driver and there are no independent adjustments that can be made for the passenger. Go to 7.
   __N/A- the passenger seat adjusts independently of the driver seat.
2. Use the seat markings determined during the completion of Data Sheet 14.2 to set the mid-fore-aft position, lowest height position (S8.1.2) and seat back angle (S8.1.3).
   __N/A – No seat back angle adjustment
   Manufacturer’s design seat back angle ______________
   Tested seat back angle ______________
   Seat cushion angle ______________
   __ N/A – No head restraint adjustment
3. If adjustable, set the head restraint at the full up position. (S8.1.3) If there are adjustments other than vertical, adjust them as recommended by the manufacturer.
   __N/A – No head restraint adjustment
4. Place any adjustable seat belt anchorages at the vehicle manufacturer’s nominal design position for a 50th percentile adult male occupant (S8.1.3)
   __N/A – No adjustable upper seat belt anchorage
   Manufacturer’s specified anchorage position. ____________________________
   Tested anchorage position   ____________________________
5. Place the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in of Data Sheet 14.2nd the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)
6. Rest the thighs on the seat cushion. (S10.5)
7. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)
    ____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
    ____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
    ____pelvic angle (20° to 25°)
8. Is the head level within ± 0.5°? (S10.1)
    __Yes, go to 9
    __No, go to 8.1
8.1 Adjust the position of the H-point. (S10.1 and S10.4.2.1)
8.2 Is the head level within $\pm 0.5^\circ$? (S10.1)
   Yes, record the following, then go to 9. No, go to 8.3
   ___horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
   ___vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
   ___pelvic angle ($20^\circ$ to $25^\circ$) (S10.4.2.2)

8.3 Adjust the pelvic angle. (S10.1)

8.4 Is the head level within $\pm 0.5^\circ$? (S10.1)
   Yes, record the following, then go to 9. No, go to 8.5
   ___horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
   ___vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
   ___pelvic angle ($20^\circ$ to $25^\circ$) (S10.4.2.2)

8.5 Adjust the neck bracket of the dummy the minimum amount necessary from the non-adjusted "0" setting until the head is level within $\pm 0.5^\circ$. (S10.1)
   Record the following, then go to 13
   ___horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
   ___vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
   ___pelvic angle ($20^\circ$ to $25^\circ$) (S10.4.2.2)

9. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
   _____measured distance (10.6 inches) (S10.5)

10. Check the only one of the following that applies:
    ___To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, place the feet on the toeboard with the heels resting on the floor pan as close as possible to the intersection of the floor pan and toeboard.
    ___The feet cannot be placed flat on the toeboard. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heels resting on the floor pan.
    ___The vehicle has a wheelhouse projection. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heel resting on the floor pan. Do not set the feet on the wheelhouse projection.
    ___The vehicle has a wheelhouse projection and the feet cannot be placed on the toeboard. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heel resting on the floor pan. Do not set the feet on the wheelhouse projection.

11. Place the left upper arm in contact with the seat back and side of the torso. (S10.2.2)
12. Is the passenger seat belt used for this test?
    ___Yes, continue
    ___No, go to 17
12.1 Fasten the seat belt around the dummy.
12.2 Remove all slack from the lap belt portion. (S10.9)
12.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)
12.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
    _____pound load applied
12.5 Is the belt system equipped with a tension relieving device?
    ___Yes, continue
    ___No, go to 13
12.6 Introduce the maximum amount of slack into the upper torso bet that is recommended by
the vehicle manufacturer in the vehicle owner’s manual. (S10.9). Go to 17.

13. Place the right upper arm in contact with the seat back and side of the torso. (S10.2.2)

14. Place the left hand palm in contact with the outside of the left thigh and the little finger in
contact with the seat cushion. (S10.3.2)

15. Place the right hand palm in contact with the outside of the right thigh and the little finger in
contact with the seat cushion. (S10.3.2)

I certify that I have read and performed each instruction. Date