

## 540 CMR: REGISTRY OF MOTOR VEHICLES

### 540 CMR 6.00: ALTERATION OF MOTOR VEHICLE HEIGHT

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#### 6.01: Purpose

(1) The purpose of 540 CMR 6.00 is to provide rules and regulations for altering the height of four wheel drive motor vehicles by elevating or lowering the chassis or body more than two inches above or below the original manufacturer's height.

#### 6.02: Scope and Applicability

(1) 540 CMR 6.00 is adopted by the Registrar of Motor Vehicles under the authority of M.G.L. c.90 s. 31 and pursuant to the provisions of M.G.L. c.90, s 7P to regulate alterations to the height of four wheel drive vehicles with an original manufacturer's gross vehicle weight rating of not over 10,000 operated on any way as defined in M.G.L. c. 90, s. 1.

#### 6.03: Definitions

Four Wheel Drive Motor Vehicles: Any vehicle that is capable of providing torque to all four wheels.

Mechanical Lift: Modification to the chassis, suspension or body by any means exclusive of tires, rims, and load, affecting the height of four wheel drive motor vehicles.

Original Equipment: Any items of motor vehicle equipment, including tires, which are installed in or on a motor vehicle, or available by option for the particular vehicle from the original manufacturer at the time of its delivery to the first purchaser.

Original Manufacturer: Any person engaged in the manufacture or assembly of motor vehicles for delivery to the first purchaser.

Original Manufacturer's Height: The highest distance inclusive of the largest tires and highest suspension available as standard or optional equipment for the particular vehicle from the original manufacturer. The distance shall be measured between the lowest edge of the center line of the operator's door, or to the lowest point where the door would meet the body on vehicles without doors, or to the lowest point on the floor panel directly below the operator's position on vehicles designed without doors, and the level surface on which the unladen vehicle rests, as determined by the Registrar.

Reconstructed Motor Vehicle: Any four wheel drive motor vehicle constructed or assembled principally with used parts or components.

Wheel Base: The shortest distance between the center of the front and rear axles.

Wheel Track: The shortest distance between the centers of the tire treads on the same axle. On vehicles having different axle widths, the measurement shall be made on the widest one.

#### 6.04: General Requirements

- (1) No motor vehicle shall be altered or modified in any way that may cause the vehicle body or chassis to come in contact with the roadway, expose the fuel tank to damage from collision, or cause the tires to come in contact with the body, chassis, or steering components under normal operation. The horizontal plane, front to rear, shall not differ more than two inches.
- (2) Alterations or modifications to the original braking, steering, or suspension system, which result in the impairment of the safe operation of the motor vehicle, are prohibited. All replacement parts and equipment used shall be designed and capable to perform the function or purpose for which it is intended and shall be equal or greater in strength and durability than the original parts provided by the original manufacturer.
- (3) The wheel track may be increased by the use of tires and rims for a maximum total increase of four inches beyond the original manufacturer's specification. The use of spacers to increase the wheel track is prohibited. Fractions shall be excluded in all measurements and final calculations.

#### 6.05 Maximum Combined Mechanical and Tire Lift

- (1) The maximum mechanical lift for four wheel drive motor vehicles shall be calculated by multiplying the wheel base times the wheel track, and dividing the product by a safety factor of 2200:

i.e.,  $92'' \text{ w/b} \times 58'' \text{ w/t} = 5336/2200 = 2''$  (maximum mechanical lift).

The outside diameter of the largest tire size available from the original manufacturer as standard or optional equipment for the particular motor vehicle may also be increased up to an amount equal to the maximum mechanical lift calculated.

(2) The maximum combined mechanical and tire lift shall be no greater than the sum of the maximum mechanical lift and increased tire size calculated for the particular vehicle.

(3) Reconstructed motor vehicles shall be limited to the maximum combined lift allowed for the particular chassis used, in accordance with the applicable provisions of 540 CMR 6.05 (1) and (2), i.e. a vehicle having a 65" track, 105" wheel base, and an original manufacturer's door height of 21" is allowed a maximum combined lift of four inches above the original manufacturer's door height. Accordingly, the lower edge of the door, door edge line or floor panel, as stipulated in the general requirements of 540 CMR 6.00, of any unladen body mounted on such chassis may not exceed 25" above the level surface upon which the vehicle rests.

(4) In doubtful cases, or in any case where the original manufacturer's specified height is not known or available, or where a motor vehicle is assembled without using a particular body and/or chassis (i.e. homemade), the Registrar shall determine the allowable maximum height and may issue a permit authorizing the operation thereof.

(5) The Registrar shall periodically provide the specifications of the approved maximum altered heights.

#### 6.06: Violations

(1) Due to the slight variances in production tolerances, violations must be in excess of one inch beyond the Registrar's specifications of approved maximum altered heights.

(2) The Registrar, in accordance with the provisions of M.G.L. c. 90, s22, shall suspend the registration of any motor vehicle equipped, altered or modified in violation of 540 CMR 6.00, and shall refuse to register any motor vehicle that the Registrar has reason to believe is equipped, altered or modified in violation of 540 CMR 6.00.

#### REGULATORY AUTHORITY

540 CMR 6.00: M.G.L. c.90, ss1, 7P and 31