**BOEING 737 300,400 LIMITATIONS**

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**WEIGHT LIMITS**

**Takeoff Weight**

The takeoff weight (weight at brake release or at start of takeoff roll) is limited by the most

restrictive of the following:

Maximum Climb Limited Takeoff - based on the aircraft's engine-out climb capability at a

given density altitude

Maximum Runway Limited Takeoff Weight - determined by the ability of the aircraft to

accelerate to takeoff speed on a given runway.

Maximum Certificated Takeoff Weight - the weight set by the manufacturer as the highest

allowable under any conditions

Obstacle Clearance, Enroute, and Landing Limitations

Tire Speed and Brake Energy Limit Weights

**Landing Weight**

Maximum landing weight is limited by the most restrictive of the following requirements:

Maximum Landing Weight (Runway Length plus Obstacle, and including Limitations for

Inoperative Equipment)

Maximum Landing Weight (Climb Limited)

Maximum Certified Landing Weight

**CERTIFICATE WEIGHT LIMITS**

Maximum Taxi Weight: Weight, Pounds

737-300 135,500

737-300LR 139,000

737-400 143,000

Maximum Takeoff Weight:

737-300 135,000

737-300LR 138,500

737-400 142,500

Maximum Landing Weight:

737-300 114,000

737-400 121,000

Maximum Zero Fuel Weight:

737-300 106,500

737-400 113,000

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**OPERATION LIMITS**

Maximum 90° crosswind component: 29 knots (AFM)

Maximum 90° crosswind component for CAT

II/IIIa approaches: 10 knots (AFM)

Maximum 90° crosswind component, for landing

when visibility is less than 3/4 mile or RVR 4000,

runway is less than 7,000 feet in length, and

runway is wet or contaminated:

10 knots (AFM

Maximum takeoff and landing tailwind

component: 10 knots (AFM)

Maximum runway slope: +2.0%, -2.0%

Flight maneuvering load acceleration limits:

--- Flaps Up:

--- Flaps Down:

+2.5g to -1.0g

+2.0g to 0.0g

Maximum operating altitude: 37,000 feet

Maximum takeoff and landing altitude: 8,400 feet

Maximum flap extension altitude: 20,000 feet

Maximum flight operating latitude: 73° North

60° South

**SPEED LIMITS**

**Airspeed and Mach Number Limits**

Maximum operating airspeed: Vmo Pointer

Maximum operating mach number: .82 (Mmo)

Turbulent airspeed: 280 knots/.70M

Maximum speed with Mach Trim INOP: .74M

Maximum gear extension speed: 270 knots/.82M

Maximum gear extended speed: 320 knots/.82M

Maximum gear retraction speed: 235 knots

**Maximum Flap Operating Speeds**

Flaps 737-300 737-400

1 230 knots 250 knots

2 230 knots 250 knots

5 225 knots 250 knots

10 210 knots 215 knots

15 195 knots 205 knots

25 190 knots 190 knots

30 185 knots 185 knots

40 158 knots 162 knots

**Window Heat Inoperative Speed Limit**

With any window heat inoperative, the maximum speed below 10,000 feet and at an altitude where

birds are likely to be encountered is 250 knots.