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Tie Down 59090

Tie Down Engineering 59090M Earth Anchor Instruction Manual

Model: 59090M

PRODUCT OVERVIEW

The Tie Down Engineering 59090M Iron Root Double Head Double Helix Earth Anchor is designed for securing manufactured housing and other structures requiring robust ground anchoring. This anchor is tested to HUD Regulation 3280, ensuring a working load capacity of 3,150 lbs. and an ultimate load of 4,725 lbs. in Class 2 soil conditions. It features a 5/8" diameter rod, 30" length, and two 4" helices, finished with a black paint for corrosion resistance.

PRODUCT FEATURES

- **High Quality & Durability:** Tested to HUD Regulation 3280 for a working load of 3,150 lbs. and ultimate load of 4,725 lbs. in Class 2 soil.
- **Robust Construction:** Features a 5/8" rod with a 30" length and two 4" helices.
- **Corrosion Resistance:** Finished with a protective black paint.
- **Versatile Applications:** Suitable for various anchoring needs including children's swings, metal fences, deer stands, canopies, and camping setups.
- **Ease of Use:** Designed for straightforward insertion into soil and attachment to equipment.

PRODUCT FEATURES

5/8" Rod x 30" Length x (2) 4" Helix



Built with
Precision



Quality
Materials



Figure 1: Key features of the earth anchor, highlighting its dimensions and construction quality.

BEST DESIGN

Iron Root Double Head Double Helix Earth Anchor



3,150 lbs
Working
Load



4,725 lbs
Ultimate
Load



Figure 2: Design specifications showing the anchor's working and ultimate load capacities.

DURABLE AND STRONG

The ground anchors are rust resistant and made of solid premium metal



100% solid steel material



Anti-rust and no paint drop



Figure 3: Details on the anchor's durable, rust-resistant, solid steel material.

EASY TO USE

You only need to insert them into the soil, attach it to the equipment, saving you time and effort, giving you much convenience



Convenient



Figure 4: Examples of various applications for the earth anchor.

MULTIPLE APPLICATIONS

It can be applied in many places:

- Children's swing
- Metal fences
- Deer stand
- Canopy
- Camping
- Many more



Figure 5: Illustration of the anchor's ease of use for installation.

SETUP AND INSTALLATION

Proper installation is crucial for the anchor's performance. The performance ratings are based on tests conducted in Class 2 soils. Variations in soil conditions may affect installation and load capacity.

Pre-Installation Assessment:

- Assess your site's soil composition before installation.
- For soils with high organic content, dense roots, or hard, compacted clay, installation may require additional effort or specialized tools.

Installation Steps:

1. Position the anchor at the desired location.
2. Insert the anchor into the soil. For challenging conditions, consider pre-drilling a pilot hole or using specialized

driving tools to aid penetration.

3. Rotate the anchor clockwise to drive it into the ground until the top plate is flush with the surface or at the required depth.
4. In very challenging conditions, hand excavation or adding a concrete pocket around the anchor may be necessary to achieve a secure installation.
5. Ensure the anchor is installed according to local building codes and guidelines, especially for manufactured housing.

DESIGNED TO LAST LONG

For optimal performance and reliability



Figure 6: Example of earth anchor installation using a driving tool.

OPERATING INSTRUCTIONS

Once installed, the earth anchor functions by providing a secure point for tie-down straps or cables. Ensure that any attached equipment or structure is properly connected to the anchor's head.

- Connect tie-down straps or cables securely to the anchor head.
- Apply appropriate tension to the tie-down system to secure the structure or equipment. Avoid over-tensioning, which

could damage the structure or the anchor.

- Regularly check the tension and connections, especially after severe weather conditions.

MAINTENANCE

The Tie Down Engineering Earth Anchor is designed for durability and requires minimal maintenance. However, periodic inspection is recommended to ensure continued performance.

- **Visual Inspection:** Periodically inspect the visible parts of the anchor for any signs of corrosion, bending, or damage.
- **Connection Check:** Ensure that all connections to the anchor head (straps, cables, etc.) are secure and free from wear or damage.
- **Cleanliness:** Keep the area around the anchor clear of debris that might hinder inspection or affect its stability.
- **Repainting (Optional):** If the black paint finish shows significant wear, a touch-up with rust-inhibiting paint can extend its aesthetic life and corrosion protection.

TROUBLESHOOTING

Encountering difficulties during installation or operation can often be resolved with these tips:

- **Difficulty Driving Anchor:**
 - *Hard or Compacted Soil:* Consider pre-drilling a pilot hole. Use a specialized driving tool or a sturdy pry bar with an extension for increased leverage.
 - *High Organic Content/Dense Roots:* Clear the area of roots and organic material. Hand excavation may be required to bypass obstructions.
 - *Anchor Bending/Twisting:* This indicates excessive force or unsuitable soil conditions. Re-evaluate the soil, consider a different anchor location, or use a more robust driving method.
- **Anchor Not Holding Load:**
 - *Incorrect Soil Class:* The anchor's rated capacity is for Class 2 soils. In softer soils, the anchor may not achieve its full holding power. More anchors or a different type of anchor may be needed.
 - *Improper Installation Depth:* Ensure the anchor is driven to the recommended depth for optimal engagement with the soil.
 - *Loose Connections:* Verify that all tie-down straps and connections are securely fastened and properly tensioned.

SPECIFICATIONS

Model Number	59090M
Rod Diameter	5/8 inches
Length	30 inches
Helix Quantity	2
Helix Diameter	4 inches
Working Load (Class 2 Soil)	3,150 lbs.
Ultimate Load (Class 2 Soil)	4,725 lbs.
Finish	Black Painted
Item Weight	36.2 pounds
Package Dimensions	33 x 12.35 x 7 inches

WARRANTY INFORMATION

Specific warranty details for the Tie Down Engineering 59090M Earth Anchor are not provided within this manual. Please refer to the manufacturer's official website or contact their customer service for comprehensive warranty information.

SUPPORT

For further assistance, technical support, or inquiries regarding the Tie Down Engineering 59090M Earth Anchor, please visit the official Tie Down website or contact their customer support department. Contact information is typically available on the manufacturer's packaging or website.

Manufacturer: Tie Down Safety

Brand: Tie Down