

# New TDS addresses concerns with improper jackshaft operator installation

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In December, DASMA approved and published TDS 1501: Standard Lift Garage Doors with Jackshaft Operation. The new Technical Data Sheet (TDS) addresses installations involving garage doors with standard lift track and the issues that arise when selecting a jackshaft operator instead of the standard drawbar operator for these installations. DASMA created TDS 1501 to provide guidance for specifiers, dealers, installers, and users of these door systems.

## Operator definitions

For clarification, a drawbar (also known as trolley) operator is an electric operator that mounts above the door in the horizontal position and lifts a standard lift or low headroom door by pulling and pushing the top section.

A jackshaft operator is defined as an operator, mounted on a wall or ceiling, with a drive provided to turn a torsion shaft. TDS 1501 covers jackshaft operators as well as hoist electric operators (which operate like jackshaft operators but have an auxiliary emergency chain hoist in case of power failure).

## Why the concern?

Standard lift garage doors, which are motor operated, are commonly paired with drawbar operators. Occasionally, a jackshaft operator is preferred for these applications. However, using a jackshaft operator on standard lift tracks introduces important considerations not required in a drawbar installation.

Jackshaft and drawbar operators control door movement in different ways. Drawbar operators connect directly to the top garage door section to control the door movement.

Jackshaft operators, on the other hand, indirectly move a door by turning a shaft.

Jackshaft operation requires strong cable tension. That tension is primarily caused by the weight of the door pulling down on the cables, which is at a minimum (for standard lift track) when the door is open. Installers need to ensure that the cables remain taut when the operator begins to close the door.



## Best practices for jackshaft installations

Providing a door system that uses a jackshaft operator and standard lift track should only be done according to the instructions of the door and operator manufacturers. ■

**WARNING:** Failure to obtain and follow the door and operator manufacturer's guidance for jackshaft operation on standard lift doors can result in cable slack and disengagement, leading to uncontrolled door movement, door damage, severe injury, or death.

TDS 1501 outlines some of the practices recommended by manufacturers to provide secure jackshaft installations. A summary is listed below:

1. Use a door compliant with ANSI/DASMA 102, Specifications for Sectional Doors.
2. Provide adequate cable tension for a door's open position. There are several ways to enhance cable tension, including using horizontal track pitch, push down springs, extended vertical tracks, a larger horizontal track transition radius (when additional headroom is available), and/or adding struts to the bottom section.
3. Enhance cable security with cable keepers or operators with internal or external cable tension monitoring systems.
4. Reduce the door speed to reduce the likelihood of slack cables.
5. Use entrapment protection that complies with ANSI/CAN/UL 325.
6. Ensure free and smooth operation by adjusting and cleaning the track, hardware, and rollers. Additionally, horizontal track that sags or twists when the door is up should be re-enforced with angle braces or back hangs.
7. Perform regular maintenance and inspection.
8. Consult the door and operator manufacturer.

For complete details on DASMA recommended practices for jackshaft operator installations, refer directly to the TDS 1501.