

AEROSPACE RECOMMENDED PRACTICE

SAE ARP5285

REV.
A

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Superseding ARP5285

Towbarless Towing Vehicle Operating Procedure

FOREWORD

This SAE Aerospace Recommended Practice (ARP) describes the minimum requirements for establishing the operating procedure for operating a Towbarless Tow Vehicle (TLTV).

This document may be used in conjunction with:

ARP4852
ARP4853
ARP5283
ARP5284
ARP5911
ARP5916

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1. SCOPE:

This document describes:

- 1.1 The minimum requirements for the operation of towbarless towing vehicles equipped with aircraft nose landing gear pick up/release and associated safety systems.
- 1.2 What procedure should be used in case of an alert given by the Towbarless Towing Vehicle Safety System(s).
- 1.3 Training of Towbarless Towing vehicle operators.
- 1.4 Approvals and auditing of third party handlers.

2. REFERENCES:

2.1 Applicable Documents:

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

ARP4852	Specification for Towbarless Push-Back Tow Vehicles
ARP4853	Specification for Towbarless Tow Vehicles
ARP5283	Nose Gear Towbarless Tow Vehicle Basic Test Requirements
ARP5284	Safety Inspection, Maintenance and Calibration of TLTV Aircraft NLG Interfaces, Steering Infractive Protection Systems and Alerting Devices - Requirement Specification
ARP5911	Regional Aircraft Towbarless Tow Vehicle - Test Requirements
ARP5916	Design Specification for Regional Aircraft Towbarless Tow Vehicles for Pushback and/or Maintenance Towing Operations

2.1.2 IATA Publications: Available from IATA Publication Dept., 800 Place Victoria, P.O. Box 113, Montreal, Quebec Canada H4Z 1M1.

AHM 696	Airport Handling Manual/Safety Considerations for Aircraft Movements Operation
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2.1.3 JAA Publications: Available from JAA Suturnusstraat 8-10, P.O. Box 3000, NL213OKA, Hoofddorp, Netherlands).

JAR 25 - 745
FAR/JAR 25 - 509

2.1.4 Other Publications:

Towbarless towing Vehicle Manufacturers Operator's Manual

Aircraft Manufacturers Towing Requirements

Aircraft Maintenance Manual

2.2 Definitions:

OVERSTEER ALERT: This is an indication that an over-steer situation has been reached (i.e., buzzer or warning lamp). This may also occur if aircraft steering angles are exceeded.

NLG: Aircraft Nose Landing Gear.

OVERSTEER: Exceeding either the maximum steering angle or maximum allowable torque/torsion limits.

3. TOWBARLESS TOWING VEHICLE OPERATING PROCEDURES:

The operating procedures must consist of:

- a. Pre Tow/Push Procedure
- b. Tow/Push Procedure
- c. Post Tow/Push Procedure

Procedure must include:

- a. All limits to be observed, such as: procedures to ensure - over-steer/over-torque guidelines are complied with and method of alert of limits known.
- b. All safety checks to be observed, such as: steering by-pass pin fitted; visual inspection after hook up; correct aircraft wheel size or tractor/aircraft setting as applicable to be selected.
- c. All actions in response to alerts, such as: procedures to instigate inspection of NLG in accordance with airframe manufacturer's recommendations.
- d. Any other procedures/operations to be taken into account to minimize occurrence of TLTV unwanted events.