



# SURFACE VEHICLE RECOMMENDED PRACTICE

J1142™

OCT2019

Issued	1976-07
Revised	1994-02
Stabilized	2019-10

Superseding J1142 FEB1994

Towability Design Criteria and Equipment Use -  
Passenger Cars, Vans, and Light-Duty Trucks

## RATIONALE

This technical report is being stabilized because it covers technology, products, or processes for which technical expertise no longer resides in the owning committee.

## STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE Motor Vehicle Council Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

Copyright © 2019 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)  
Tel: +1 724-776-4970 (outside USA)  
Fax: 724-776-0790  
Email: CustomerService@sae.org  
http://www.sae.org

SAE WEB ADDRESS:

**SAE values your input. To provide feedback on this  
Technical Report, please visit**  
[http://standards.sae.org/J1142\\_201910](http://standards.sae.org/J1142_201910)

**Foreword**—This Document has also changed to comply with the new SAE Technical Standards Board format.

## TABLE OF CONTENTS

1.	Scope .....	2
1.1	Purpose .....	2
2.	References .....	2
2.1	Applicable Documents .....	2
3.	Definitions .....	2
4.	Towing Equipment .....	14
4.1	Chains and Hooks for Use With Towing Equipment .....	14
4.2	Tow Sling .....	17
4.3	Wheel-Lift Equipment .....	17
4.4	Car Carrier Equipment .....	20
4.5	Towing Dolly .....	22
5.	Passenger Car, Van, and/or Light-Truck Design Requirements .....	23
5.1	Towing Equipment Connecting Points .....	23
5.2	Chassis Frame .....	24
5.3	Bumper Systems .....	24
5.4	Body Panels .....	24
5.5	Underbody .....	25
5.6	General .....	25
6.	Towing Instruction Requirements .....	25
7.	Labels .....	26
8.	Notes .....	26
8.1	Marginal Indicia .....	26
8.2	Key Words .....	26

**1. Scope**—This SAE Recommended Practice describes the type of equipment commonly used with towing equipment, provides information to calculate safe steering loads, and outlines design criteria.

**1.1 Purpose**—To provide guidelines for equipment usage and the design of vehicles to minimize damage in the towing of vehicles up to 4173 kg (9200 lb) GVWR in the event of disablement.

NOTE—See Section 3 for glossary.

## **2. References**

**2.1 Applicable Publications**—The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J179—Labeling—Disc Wheel and Demountable Rims—Trucks

SAE J208—Safety for Agricultural Tractors

SAE J254—Instrumentation and Techniques for Exhaust Gas Emissions Measurement

SAE J274—Rated Suspension Spring Capacity

SAE J284—Safety Alert Symbol for Agricultural, Construction, and Industrial Equipment

SAE J670—Vehicle Dynamics Terminology

SAE J687—Nomenclature—Truck, Bus, Trailer

SAE J706—Rating of Winches

SAE J743—Pipelayers and Side Booms, Tractor—Mounted—Specifications List

SAE J853—Vehicle Identification Numbers

SAE J980—Bumper Evaluation Test Procedure—Passenger Cars

SAE J1041—Brake Test Procedure and Brake Performance Criteria for Agricultural Equipment

SAE J1085—Test for Dynamic Properties of Elastomeric Isolators

SAE J1143—Towed Vehicle/Tow Equipment Attachment Test Procedure—Passenger Cars, Vans, and Light-Duty Trucks

SAE J1213—Glossary of Reliability Terminology Associated with Automotive Electronics

SAE J1229—Truck Identification Terminology

SAE J1451—A Dictionary of Terms for the Dynamics and Handling of Single Track Vehicles (Motorcycles, Mopeds, and Bicycles)

SAE J1473—Braking Performance—Rubber-Tired Earthmoving Machines

2.1.2 FEDERAL PUBLICATIONS—Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Federal Motor Carrier Regulations 393.70 and 393.71

Federal Highway Administration Title 49, Section 393.102(b), Securement Systems

Federal Highway Administration Title 49, Section 393.106, Front-end Structure

2.1.3 OTHER PUBLICATIONS—Public Law 89-563

## **3. Definitions**

**3.1 Above Cab Carrier**—A platform above the cab, which may be in a fixed or hydraulically adjustable position, for transporting vehicles.

**3.2 Aero-Skirting**—Aero-designed panels attached to lower side, or surrounding the lower side of the vehicle. See Air Dam, Fascia, Valence, and Cladding.

**3.3 Air Dam**—Flexible air deflecting panel usually located below radiator support.