

APPLICATION GUIDE

TRAILER AIR SUSPENSIONS



Introduction..... 2

Contact Information 2

Items to Consider 3

Applications Guide 4

Suspensions for Semi Trailers

 Van Trailers..... 5

 Liquid & Dry Bulk Tankers..... 6

 Flat & Drop Decks, Stretch & Pole Trailers..... 7

 Logging Trailers 8

 Dump (Framed) Trailers..... 9

 Dump (Frameless) Trailers..... 10

 Bottom Dump (Grain & Gravel) Trailers..... 11

 Rear Discharge (Wood Chip & Garbage) Trailers..... 12

 Lowboy Trailers 13

Suspensions for Converter Dollies..... 14

Suspensions for Pony Trailers, End Dumps & Roll-On/Off 15

Glossary 16

Introduction

This guide provides you with recommendations for on/off road use and other information necessary for the selection of a trailer air suspension system.

For further recommendations for applications not covered in this guide, contact Customer Service.

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1. Short Haul Applications

Short haul applications such as city pick-up, delivery and milk run pick-up's (typically 30 miles (50km) or less) result in a particularly harsh environment for the operation of tractor trailers. As a result, even though the particular application may meet all of the criteria of a category (e.g. "Standard Duty"), the next higher category will be required (e.g. "Moderate Duty").

2. Inner City Fuel Hauling

Inner city fuel haul applications result in a particularly harsh environment for the operation of tractor trailers. As a result, even though the particular application may meet all of the criteria of a category (e.g. "Standard Duty"), the Severe Duty On-Road category must be used.

3. Dump Trailers

Axle Stops

Trailers used for dump applications with 3 or more axles must have axle stops installed on the rear axle. The load transfer to the rear axle during the dumping operation could transfer enough weight to the rear axle to exceed its load rating and potentially damage suspension components. Axle stops are also recommended for tandems. (Axle stops are not provided by SAF-HOLLAND, but are to be incorporated into the trailer design.)

Dump Air

Before discharging a load, the pressure in the air suspension should be "dumped" to allow the load to be transferred to the axle stops. This will ensure trailer stability during the discharging of the load and enhance the life of the air springs and shocks.

4. Low Boy Equipment Trailers

Axle Stops

Trailers used for float/lowboy applications with 3 or more axles must have axle stops installed on the rear axle. The load transfer to the rear axle during the loading operation will transfer enough weight to the rear axle to exceed its load rating and potentially lessen its longevity. (Axle stops are not provided by SAF-HOLLAND but are to be incorporated in the trailer design.)

Dump Air

Before loading or unloading, the pressure in the air suspension should be "dumped" to allow the load to be transferred to the axle stops. This will ensure trailer stability during the moving of the load and enhance the life of the air springs and shocks.

5. Severe Environments

Some areas of the country are particularly difficult on the operation of a trailer. This would include most logging roads, chip van environments, steep mountain or steep grades (e.g. 20% or greater) where the vehicle is subjected to extreme conditions. In these applications there are times where alternate components should be considered. Included in this list of alternative components would be shocks with heavy-duty valving and air springs with aluminum pedestals. Please contact your local SAF-HOLLAND representative for additional details.

6. Lift Axles

Raising the lift axle of a fully loaded trailer will result in a load transfer to the remaining axles. The resulting increase in the load carried by the primary suspension causes the air springs to compress and diminish the lift axle's tire clearance. If the load on the primary suspension exceeds the suspension's capacity, the primary air springs can compress fully causing the lift axle's tires to remain in contact with the ground. Always consult your local SAF-HOLLAND representative when combining lift axles with primary suspensions in multi-axle combinations.

Lift axle applications must have a minimum of 4" of up-travel.

NOTE: SAF-HOLLAND does not recommend lifting an axle on a laden trailer. Most jurisdictions have limitations on the lifting of an axle.

7. SwingAlign™ Axle Alignment

SwingAlign™ is standard on all CB Air Ride Suspensions and allows for faster axle alignment than EZ-Align™. With SwingAlign™ axle re-alignment can be performed without the need to loosen the torque on the front pivot bolt. Axle alignment procedures are now faster than ever before, and without the need for any special tools or welding. SwingAlign™ is standard on the road-side of the suspension.

8. EZ-Align™ Axle Alignment

The EZ-Align™ feature is standard on all RL Air Ride Suspensions (except the 30,000 lb. models). This feature allows axle re-alignment adjustments to be made in minutes with no special tools or welding. Normally this adjustment feature is found only on one side of the suspension, but can be made available from the factory on both sides.

9. Mixing Suspensions - Full-Air Applications

Identical suspensions are recommended on all full air applications to ensure load equalization amongst axles.

Standard Duty

Weight (GCW): Less than 95,000 lbs. (43,000 kg.)
Gross Combination Weight (GCW)

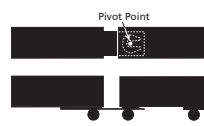
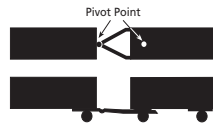
Road Type: 100% On-Road (maintained concrete or asphalt roads)

Trailer Type and Axle Limitation:

Single Trailer
Tandem axle only

“A” Train—Maximum of 3 axles
(Trailer and dolly converter)

“B” Train—Maximum of 3 axles
(Lead and “pup” trailer)



Note: Any trailer used for “short haul” (e.g. city pickup and delivery) is to be considered “Moderate Duty”

Moderate Duty

Weight (GCW): Less than 118,000 lbs. (53,500 kg.)
Gross Combination Weight (GCW)

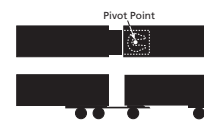
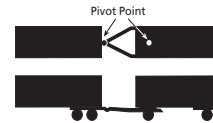
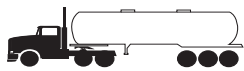
Road Type: Less than 10% Off-Road (gravel or crushed rock roads) with balance On-Road
(maintained concrete or asphalt roads)

Trailer Type and Axle Limitation:

Single Trailer
Tandem and Tri-axle only

“A” Train—Maximum of 4 axles
(Trailer and dolly converter)

“B” Train—Maximum of 4 axles
(Lead and “pup” trailer)



Note: Any trailer used for “short haul” (e.g. city pickup and delivery) is to be considered “Moderate Duty”

Severe Duty

Weight (GCW): More than 118,000 lbs. (52,000 kg.)
Gross Combination Weight (GCW)

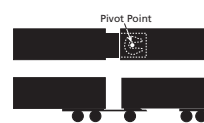
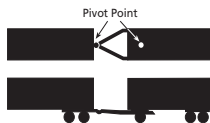
Road Type: Less than 10% Off-Road (gravel, crushed rock, hard packed dirt, or
unimproved / unmaintained roads)

Trailer Type and Axle Limitation:.....

Single Trailer—No Axle Limitations

“A” Train—No Axle Limitations

“B” Train—No Axle Limitations



Severe Duty - Off-Road

Weight (GCW): More than 118,000 lbs. (52,000 kg.)
Gross Combination Weight (GCW)

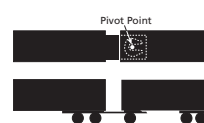
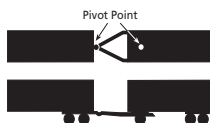
Road Type: More than 10% Off-Road (gravel, crushed rock, hard packed dirt, or
unimproved / unmaintained roads)

Trailer Type and Axle Limitation (2):.....

Single Trailer—No Axle Limitations

“A” Train—No Axle Limitations

“B” Train—No Axle Limitations



Van Trailers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
95,000 lb. Max. GCW Tandem Axle, General Freight, Line Haul, Reefer, Moving Van up to 2-Axle Train. Not for city pick-up and delivery ⁽¹⁾	RL-230 CBX23/CB-2300 RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	CBX40/CB-4000 Tandem ⁽²⁾	40,000 lb. (18,144 kg.) 40,000 lb. (18,144 kg.)
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	NS-450 Tandem ⁽²⁾	45,000 lb. (20,412 kg.)

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
Less than 118,000 lb. GCW Tandem Axle, General Freight, Line Haul, Reefer, Moving Van up to 2-Axle Train, City Pick-up and Delivery, Tri-Axle Van and 4-Axle Delivery	RL-230 CBX23/CB-2300 RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	CBX40/CB-4000 Tandem ⁽²⁾	40,000 lb. (18,144 kg.) 40,000 lb. (18,144 kg.)
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	NS-450 Tandem ⁽²⁾	45,000 lb. (20,412 kg.)

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Tandem Axle, General Freight, Line Haul, Reefer, Moving Van up to 2-Axle Train, City Pick-up and Delivery, Tri-Axle Van, 4-Axle Delivery, more than Tri-Axle and 5 or more Axle B-Trains On-Road	RL-230 CBX23/CB-2300 RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)
	RL-250 RLU-250	25,000 lb. (11,340 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Tandem Axle, General Freight, Line Haul, Reefer, Moving Van up to 2-Axle Train, City Pick-up and Delivery, Tri-Axle Van, 4-Axle Delivery, more than Tri-Axle and 5 or more Axle B-Trains Off-Road	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

(2) Approved only for the United States and Canada

Note: For A-Train applications see Suspensions for Converter Dollies on Page 14

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Refer to Page 4 for application limitations.

Liquid and Dry Bulk Tankers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
95,000 lb. Max. GCW Single and Tandem Axle Liquid and Dry Bulk Tanker. Not for city pick-up and delivery ⁽²⁾	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228 ⁽¹⁾	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	N/A
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
Less than 118,000 lb. GCW Single, Tandem and Tri-Axle Liquid and Dry Bulk Tanker up to 4-Axle Trains. Not for city pick-up and delivery	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228 ⁽¹⁾	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	N/A
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Liquid and Dry Bulk Tanker, Oil Field Tanker, more than Tri-Axle, 5 or more Axle Trains On Road.	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228 ⁽¹⁾	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)
	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Liquid and Dry Bulk Tanker, Oil Field Tanker, more than Tri-Axle, 5 or more Axle Trains Off Road ⁽³⁾ .	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) For axle spacing over 49", greater travel (approximately 4" minimum) is required - contact SAF-HOLLAND Customer Service.
 (2) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.
 (3) Holland Kompensator Fifth Wheel recommended.

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Refer to Page 4 for application limitations.

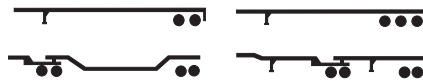
Flat Deck, Drop Deck, Stretch and Pole Trailers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
95,000 lb. Max. GCW Single and Tandem Axle Trailers, Line Haul, Stake and Rack. Not for city pick-up and delivery ⁽²⁾ .	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228 ⁽¹⁾	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	N/A
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
Less than 118,000 lb. GCW Single and Tandem Axle Trailers, Line Haul, Stake and Rack, City Pick-Up and Delivery, Tri-Axle Van, up to 4-axle Trains.	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228 ⁽¹⁾	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	N/A
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Trailers, Line Haul, Stake and Rack, City Pick-Up and Delivery, Tri-Axle Van, more than Tri-Axle, 50 or more Axle Trains On Road.	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228 ⁽¹⁾	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)
	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Trailers, Line Haul, Stake and Rack, City Pick-Up and Delivery, Tri-Axle Van, more than Tri-Axle, 50 or more Axle Trains Off Road.	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) For axle spacing over 49", greater travel (approximately 4" minimum) is required - contact SAF-HOLLAND Customer Service.

(2) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

Note: Refer to Page 4 for application limitations.

Logging Trailers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
95,000 lb. Max. GCW Single and Tandem Axle Trailers, up to 3-Axle Train. Not for city pick-up and delivery ⁽¹⁾ .	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
Less than 118,000 lb. GCW Single and Tandem Axle Trailers, up to 3-Axle Train, City Pick-Up and Delivery, Tri-Axle Van, up to 4-Axle Trains.	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Liquid and Dry Bulk Tanker, Oil Field Tanker, more than Tri-Axle, 5 or more Axle Trains On Road.	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Liquid and Dry Bulk Tanker, Oil Field Tanker, more than Tri-Axle, 5 or more Axle Trains Off Road.	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Refer to Page 4 for application limitations.

Dump (Framed) Trailers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
95,000 lb. Max. GCW Single and Tandem Axle Trailers, up to 3-Axle Trains. Not for city pick-up and delivery ⁽¹⁾ .	RL-250 RLU-250 RL-250-SB	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
Less than 118,000 lb. GCW Single and Tandem Axle Trailers, City Pick-Up and Delivery, Tri-Axle Trailers, up to 4-Axle Trains.	RL-250 RL-250-SB RLU-250	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Trailers, City Pick-Up and Delivery, Tri-Axle Trailers, more than Tri-Axle, 5 or more Axle Trains On Road	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Trailers, City Pick-Up and Delivery, Tri-Axle Trailers, more than Tri-Axle, 5 or more Axle Trains Off Road	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Suspension air must be fully exhausted before discharging load.

Note: Axle stops recommended on rearmost axle, refer to Page 3 for Axle Stop information.

Note: Refer to Page 4 for application limitations.

Dump (Frameless) Trailers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
95,000 lb. Max. GCW Single and Tandem Axle Trailers. Not for city pick-up and delivery ⁽¹⁾ .	RL-250 RL-250-SB RLU-250	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
Less than 118,000 lb. GCW Single and Tandem Axle Trailers, City Pick-Up and Delivery, Tri-Axle Trailers, up to 4-Axle Trains.	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Trailers, City Pick-Up and Delivery, Tri-Axle Trailers, more than Tri-Axle, 5 or more Axle Trains On Road	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Trailers, City Pick-Up and Delivery, Tri-Axle Trailers, more than Tri-Axle, 5 or more Axle Trains Off Road	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Suspension air must be fully exhausted before discharging load.

Note: Axle stops recommended on rearmost axle and required for trailers with more than 2 axles, refer to Page 3 for Axle Stop information.

Note: Refer to Page 4 for application limitations.

Bottom Dump (Grain and Gravel) Trailers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
95,000 lb. Max. GCW Single and Tandem Axle Bottom Dumps, up to 3-Axle Trains. Not for city pick-up and delivery ⁽²⁾ .	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	N/A
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
Less than 118,000 lb. GCW Single and Tandem Axle Bottom Dumps, up to 3-Axle Trains, City Pick-Up and Delivery, Tri-Axle Bottom Dumps, up to 4-Axle Trains.	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	N/A
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Bottom Dumps, up to 3-Axle Trains, City Pick-Up and Delivery, Tri-Axle Bottom Dumps, more than Tri-Axle, 5 or more Axle Trains On Road.	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)
	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Bottom Dumps, up to 3-Axle Trains, City Pick-Up and Delivery, Tri-Axle Bottom Dumps, more than Tri-Axle, 5 or more Axle Trains Off Road.	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) Minimum up-travel of 4" should be included in bottom dump applications - contact SAF-HOLLAND Customer Service.

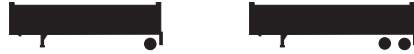
(2) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Refer to Page 4 for application limitations.

Rear Discharge (Wood Chip and Garbage) Trailers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
95,000 lb. Max. GCW Single and Tandem Axle Bottom Dumps, up to 3-Axle Trains. Not for city pick-up and delivery ⁽¹⁾ .	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
Less than 118,000 lb. GCW Single and Tandem Axle Bottom Dumps, up to 3-Axle Trains, City Pick-Up and Delivery, Tri-Axle Bottom Dumps, up to 4-Axle Trains.	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Bottom Dumps, up to 3-Axle Trains, City Pick-Up and Delivery, Tri-Axle Bottom Dumps, more than Tri-Axle, 5 or more Axle Trains On Road.	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Bottom Dumps, up to 3-Axle Trains, City Pick-Up and Delivery, Tri-Axle Bottom Dumps, more than Tri-Axle, 5 or more Axle Trains Off Road.	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Refer to Page 4 for application limitations.

Lowboy Trailers

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
95,000 lb. Max. GCW Single and Tandem Axle Trailers, Equipment Hauler Float. Not for city pick-up and delivery ⁽²⁾ .	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	N/A
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD	SLIDER SUSPENSION
Less than 118,000 lb. GCW Single and Tandem Axle Trailers, Equipment Hauler Float, City Pick-Up and Delivery, Tri-Axle Trailers, up to 4-Axle Trains	RL-230 ⁽¹⁾ CBX23/CB-2300 ⁽¹⁾ RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)	N/A
	RL-250 RLU-250	25,000 lb. (11,340 kg.)	N/A
	RL-300 RLU-300	30,000 lb. (13,608 kg.)	N/A

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Trailers, Equipment Hauler Float, City Pick-Up and Delivery, Tri-Axle Trailers, more than Tri-Axle, 5 or more Axle Trains On Road	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Single and Tandem Axle Trailers, Equipment Hauler Float, City Pick-Up and Delivery, Tri-Axle Trailers, more than Tri-Axle, 5 or more Axle Trains Off Road	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

(1) For axle spacing over 49", greater travel (approximately 4" minimum) is required - contact SAF-HOLLAND Customer Service.

(2) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

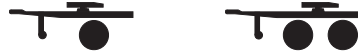
Note: Axle stops recommended on rearmost axle, refer to Page 3 for Axle Stop information.

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Refer to Page 4 for application limitations.

Converter Dollies

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
95,000 lb. Max. GCW All Pup Trailers. Not for city pick-up and delivery ⁽¹⁾ .	RLU-228 CB2300/CBX23 ⁽²⁾	22,500 lb. (10,206 kg.) 23,000 lb. (10,433 kg.)

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
Less than 118,000 lb. GCW All Pup Trailers.	RL-230 ⁽²⁾ CBX23/ CB-2300 ⁽²⁾ RLU-228	23,000 lb. (10,433 kg.) 22,500 lb. (10,206 kg.)
	RL-250 ⁽²⁾ RLU-250	25,000 lb. (11,340 kg.)

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW All Pup Trailers On-Road	RL-230 ⁽²⁾ RLU-228	23,000 lb. (11,340 kg.)
	RL-300 ⁽²⁾ RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW All Pup Trailers Off-Road	RL-250 ⁽²⁾ RLU-250	25,000 lb. (11,340 kg.)
	RL-300 ⁽²⁾ RLU-300	30,000 lb. (13,608 kg.)

(1) Applications in confined areas requiring sharp turns must move up to the next capacity suspension, e.g. city pick-up and delivery.

(2) For single axle applications, contact SAF-HOLLAND Customer Service.

Note: Refer to Page 4 for application limitations.

Roll-On/Roll-Off

Standard Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
95,000 lb. Max. GCW	RL-250 RLU-250	25,000 lb. (11,340 kg.)

Moderate Duty



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
Less than 118,000 lb. GCW	RL-250 RLU-250	25,000 lb. (11,340 kg.)

Severe Duty - On-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Wood Chips On-Road.	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Severe Duty - Off-Road



	FIXED SUSPENSION	MAXIMUM SUSPENSION VERTICAL LOAD
More than 118,000 lb. GCW Wood Chips Off-Road.	RL-250 RLU-250	25,000 lb. (11,340 kg.)
	RL-300 RLU-300	30,000 lb. (13,608 kg.)

Note: Minimum up-travel of 4" should be included in pony trailer applications - contact SAF-HOLLAND Customer Service.

Note: Suspension air must be fully exhausted before discharging load.

Note: For any lift or steering axle application, contact SAF-HOLLAND Customer Service.

Note: Axle stops recommended on rearmost axle, refer to Page 3 for Axle Stop information.

A-Train

A combination of two or more trailers in which the dolly (converter or turntable) is connected by a single pintle hook or coupler, and the drawbar connection is at the center between each vehicle. The resulting connection has two pivot points (*Figure 1*).

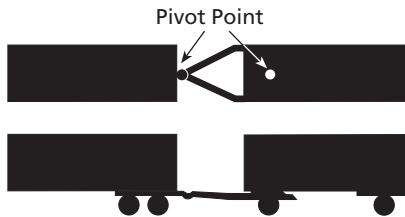


Figure 1

Axes, Numbering

When used in this guide to select a suspension, the number of axles (for example, "Up to 4-axle trains") refers to the total number of axles on the "towed vehicle(s)" or trailer(s). It does not include the axles on the towing vehicle.

B-Train

A combination of two or more trailers in which the rear semi-trailer(s) is connected with a single pivot point, commonly a fifth wheel, mounted on an extension of the frame of the lead trailer (*Figure 2*).

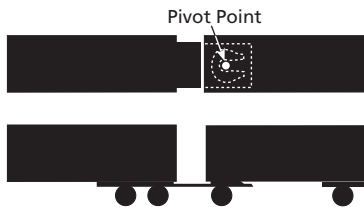


Figure 2

C-Train

A combination of two or more trailers in which the dolly (converter or turntable) is connected to the trailer by means of two pintle hook or coupler-drawbar connections. The resulting connection has one pivot point (*Figure 3*).

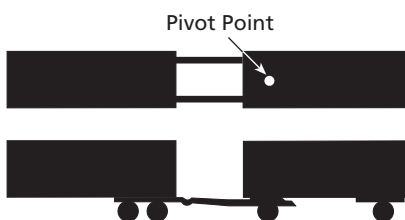


Figure 3

Center-of-Gravity (c.g.)

That point in a vehicle or body where the total weight or mass could be considered to be concentrated. Used in conjunction with vehicle stability and weight distribution on its axles.

Converter Dolly

An axle, frame, drawbar and fifth wheel arrangement that converts a semi-trailer into a full trailer.

Full Trailer

A trailer which does not transfer load to the towing vehicle. It employs a towbar coupled to a swiveling or steerable running gear assembly at the front of the trailer.

Kompensator® Mounting Base

A mounting base designed to relieve some of the torque and twist that is generated by some trailer designs, thereby reducing or eliminating trailer frame cracks. Tractor tandem tire life is also greatly increased due to improved traction. The primary application for a Kompensator® mounted fifth wheel is for tankers in which the c.g. does not exceed 44 inches above the top surface of the fifth wheel.

Maximum Gross Combination Weight

The maximum recommended capacity of a tractor/trailer combination, which is a sum of the weight of the towing vehicle, any towed vehicle(s) (empty weight) and the payload.

Off-Road

Refers to the terrain on which a tractor-trailer will operate which is unpaved and rough, or ungraded. Any terrain not considered part of the public highway system falls under this heading.

On-Road

Refers to the terrain on which a tractor-trailer will operate which is paved or a smooth graded surface, generally considered to be part of the public highway system.

Rated Capacity

The maximum, recommended safe load that can be sustained by a component or assembly without permanent damage.

Roll Axis

The theoretical line that joins the roll center of the front and rear axles.

Roll Center

The instant (always changing) center about which the vehicle sprung mass rotates when lateral (rollover) forces are applied. Generally this is located at the fore/aft center of the suspension at a height where the springs attach to the frame links.

Semi-Trailer

A load carrying vehicle equipped with one or more axles and constructed so that its front end is supported on the fifth wheel of the truck tractor which pulls it.

Stability

A relative measure of the handling characteristics which provide the desired and safe operation of the vehicle during various maneuvers.

TVW (Towed Vehicle Weight)

Total weight of towed vehicles.

Torsional Rigidity

A component's ability to remain rigid when subjected to twisting forces.

Vertical Load Capacity

The maximum, recommended vertical force (down) than can be safely applied to a coupling device.



SAF's legacy started in 1881 when Paul Zill, a blacksmith from Keilberg, Germany developed the Zill two-way plow for the agricultural industry. Mr. Zill's blacksmith shop expanded into a small family operation as popularity for his plow grew and agricultural axles were added to the product line. Time passed - and the family operation evolved to become Otto Sauer Achsen Fabrik (SAF), a leader in the design and manufacture of integrated axle and suspension systems for commercial trailers.

Similar to SAF, Holland's legacy also started in the agricultural industry in 1910 with the introduction of a safety release hitch for horse drawn plows. Founding father, Gerrit Den Besten, began the "Safety Release Clevis Company" in Corsica, South Dakota. The company found new market opportunities in the automotive industry and moved operations to Holland, Michigan. Renamed The Holland Hitch Company, the family owned business grew into a global supplier in the commercial transportation industry.

Today - these two historical companies are together as SAF-HOLLAND, a global leader in the design, manufacture, and distribution of quality engineered components, systems, and services to the commercial vehicle industry.

SAF-HOLLAND specializes in coupling, lifting, and suspension systems for trucks, buses, tractors, and trailers. SAF-HOLLAND products are sold and serviced under the SAF and Holland brand names from over 4,600 distributor and OEM locations around the world.



From fifth wheel rebuild kits to suspension bushing repair kits, SAF-HOLLAND Original Parts are the same quality components used in the original component assembly. SAF-HOLLAND Original Parts are tested and designed to provide maximum performance and durability. Will-fits, look-alikes or worse yet counterfeit parts will only limit the performance potential and could possibly void SAF-HOLLAND's warranty. Always be sure to spec SAF-HOLLAND Original Parts when servicing your SAF-HOLLAND product.

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