

Holland

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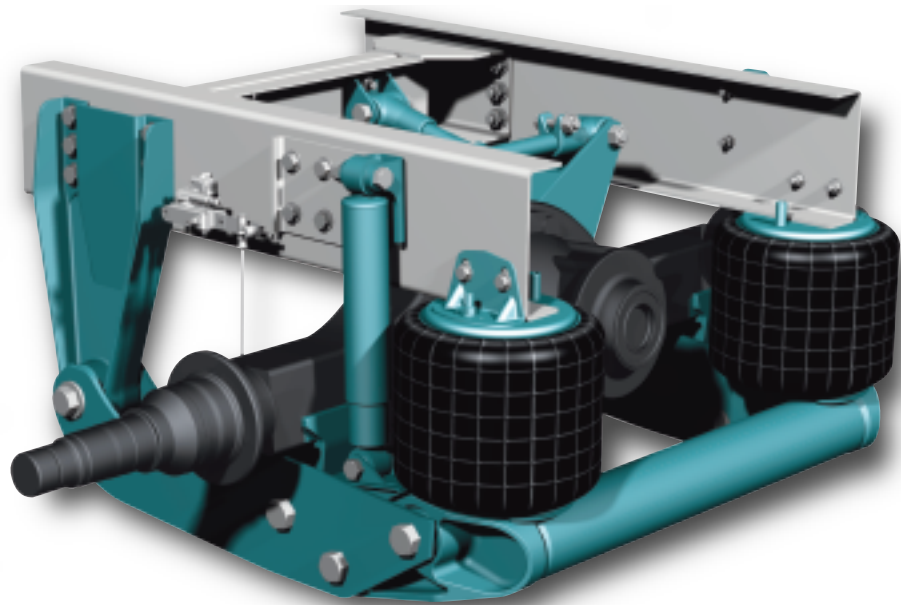
ADL SERIES

**AIR-RIDE
SUSPENSION**

Holland *NEWAY*

ADL Series

**Drive Axle Air-Ride
Suspension for Transit
Bus, Motorcoach &
Motorhome Applications**





The Leader in Air-Ride Technology

Holland has acquired over 50 years of experience in high-capacity air-ride suspensions. During that time, we designed and manufactured a wide-variety of air-ride suspensions, not only for bus, motorcoach and motorhome applications, but also for commercial trucks and trailers. Today, Holland continues to develop technologically advanced air-ride suspensions with emphasis on new suspension designs to address the operational challenges of the worldwide bus and motorcoach industry.

Innovative Suspension Designs

The ADL Series drive-axle suspension is a good example of Holland's leadership in providing the industry with innovative suspension designs. An installed ADL requires less space and is lighter weight than prior suspension designs. Yet it has performance and durability features that out-class the competition, even in tough transit bus operations.

ADL SERIES FEATURES

■ **Combines Soft Ride with High Roll Stability**

Integral Transverse (anti-sway) Beam allows the air springs to be optimized for ride quality. Typical "4-bag" suspensions, having no mechanical device to control roll, must use stiffer air springs to control roll forces. By contrast, the ADL is designed to absorb roll forces through its Transverse Beam, allowing the use of softer, ride optimized air springs.

■ **Minimizes Driveline Vibration and Increases Driveline Component Life**

Non-torque reactive suspension design helps maintain a near constant pinion angle through full axle articulation. This feature minimizes unwanted driveline vibration while helping to increase U-joint and pinion bearing life, especially important for short drive shafts found in rear engine applications.

■ **100% Rubber Bushed Connections**

For extended service life and a smooth ride. No lubrication is required.

■ **Compact Design Means More Cargo Space**

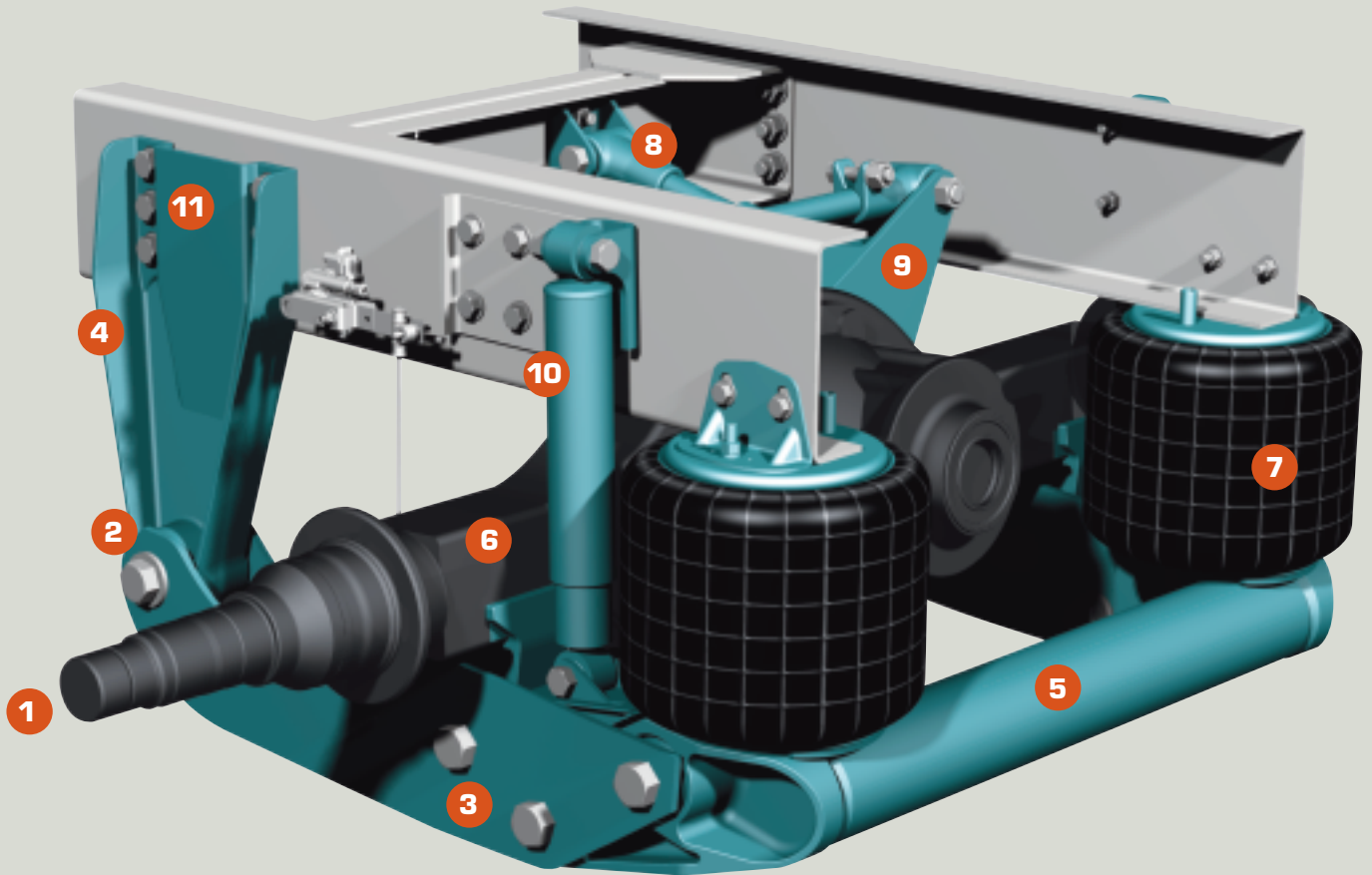
The ADL's shorter overall length allows bus and coach designers to increase usable cargo and equipment space in their chassis designs. The shorter design also helps decrease suspension weight, allowing more payload.

■ **Long Life, Low Maintenance**

Like all Holland Neway suspensions, the new ADL has been durability tested in our lab and on the test track to assure long life with minimal maintenance in tough transit bus operations.



FEATURES



1 DISC BRAKE COMPATIBLE DESIGN can also be used with drum brakes.

2 ADJUSTABLE AXLE ALIGNMENT provided at the pivot connections, typically with one side fixed and the other side adjustable. If required, both sides can be supplied as adjustable.

3 RIGID "BOLT TOGETHER" EQUALIZING BEAMS are lighter, more cost effective, and easy to assemble. All connections are rubber bushed providing enhanced ride performance and long life.

4 CAST FRAME BRACKETS available for both single frame rail and stacked frame rail chassis configurations. In stacked rail configurations, the frame bracket functions as the splicer plate between the rails.

5 INTEGRAL TRANSVERSE (ANTI-SWAY) BEAM provides 85% of roll stability. This prevents roll forces being transmitted to the axle and also allows for use of softer riding air springs since roll control is not dependent on the springs.

6 NEW WELDED AXLE ADAPTER provides increased strength and durability compared to conventional U-bolt axle connections.

7 VOLUMETRIC AIR SPRINGS have additional air volume built into the air spring piston. The increased air volume further softens the ride over standard air springs and eliminates the need for an external air reservoir (such as a ping tank).

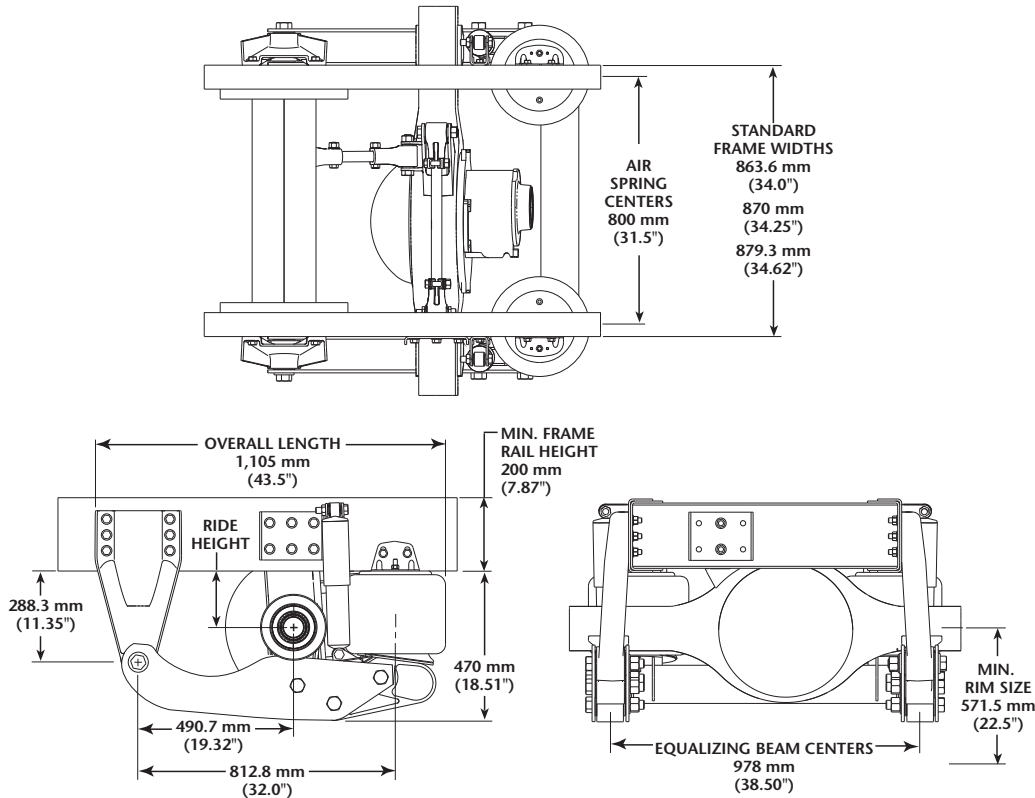
8 ADJUSTABLE TORQUE ROD allows exact pinion angle setting at final assembly. This feature, combined with the non-torque reactive suspension design, helps minimize driveline vibrations that cause unwanted noise and vibration for passengers while increasing U-joint and pinion bearing life.

9 ADJUSTABLE TRACK BAR allows exact lateral positioning of the axle at final assembly.

10 HEAVY-DUTY SHOCKS are standard and tuned to provide optimum damping.

11 NEW STATE-OF-THE-ART BASE COAT PAINT PROCESS leads the industry in corrosion resistance protecting your suspension investment from tough operating conditions.

ADL SERIES SPECIFICATIONS



MODEL:	ADL-120
SUSPENSION WEIGHT:	206 Kg (454 Lbs.) Includes: Axle Adapters, Track Rod, Torque Rod, Control Arm Brackets, Shock Absorbers, Reinforcement Plates, and Suspension Fasteners. Excludes: Height Control Valve(s), Linkage(s), and Crossmember.
AXLE TRAVEL:	Total 142 mm (5.60")/ UP 76 mm (3.0")
GAWR (Gross Axle Weight Rating):	<ul style="list-style-type: none"> • 6,804 to 9,072 kg (15,000 to 20,000 lbs.) • 10,433 kg (23,000 lbs.) Approved for school bus and motorhome applications only.
RIDE HEIGHT:	177.8 mm (7.0") Additional Ride Heights available, contact Holland for details.
PINION ANGLE RANGE:	Rear Engine 2° - 8° Front Engine 0° - 8°

NOTES:

- Some dimensions may vary depending on application. Refer to appropriate suspension installation drawing.
- Holland reserves the right to change this information without notice. Specifications shown were accurate at the time of printing but are subject to change.



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