

# **NEWAY ADZ AIR SUSPENSION** FOR HEAVY DUTY TRACTORS AND TRUCKS



# GROUNDBREAKING TECHNOLOGY

#### THE SAF-HOLLAND NEWAY ADZ AIR SUSPENSION

NEWAY is counted among the global pioneers of air suspension systems for commercial vehicles and have, over more than half a century, captured a leading position as a supplier of standard equipment for well-known truck manufacturers.

NEWAY is now bringing their know-how and competence as specialist manufacturers of suspension systems to Europe: The NEWAY ADZ air suspension system for heavy-duty drive axles in tractors and trucks – for practically any transport task, no matter where and when, uncompromising and efficient.

# MORE EFFICIENCY DUE TO IMPROVED DURABILITY

Both durability and reliability under any transport conditions are among the most important demands to be met by commercial vehicles. The ADZ air suspension with its innovative components, such as the V-Rod control arm and an integrated lower control module, satisfy the need for superior reliability and durability – even in the toughest conditions.

# MORE EFFICIENCY DUE TO LOWER WEIGHT

Lower weight means, in the end, greater efficiency, either because of improved fuel utilization, or increased payload: The ADZ air suspension was, therefore, streamlined with regard to weight – without making compromises concerning durability and safety.

# THE NEWAY ADZ AIR SUSPENSION FOR HEAVY-DUTY DRIVE AXLES



# MORE EFFICIENCY DUE TO EXCELLENT ROAD HANDLING

Stability is a vital safety factor: The ADZ air suspension provides specific design features and excellent handling characteristics, such as superior lineur roll rate control technology – particularly for vehicles with high center of gravity.

# NEWAY ADZ HEAVY-DUTY DRIVE AXLE AIR SUSPENSION

#### **Lightweight Crossmember**

Designed for integration with the V-Rod and frame brackets. This design permits a wide range of pinion angle settings and adjustments to meet any vehicle driveline configuration.

#### **Axle Stops**

Function as the up-stop contact for the axle to prevent axle stress. Upper axle stops bolt to the frame rails with the lower stops integrated into the axle adapters.

#### **V-Rod Upper Control Arm**

New design lowers weight, and distributes braking and acceleration load forces equally through the chassis frame rails and crossmember. Provides for uniform roll rates between kerbside and roadside. Long lasting steel sleeved bar pin style bushings.

#### Air Bags

Featuring large air volume and low frequency response for optimum ride quality. Full steel mounting plates provide additional support.



Integral lower module design allows up to 3636 drum brake chamber and disc brake packaging – no special rods required.

#### Pivot and Axle Connection Bushings

Four inch pivot and axle connection bushings are long-life premium rubber and are permanently bonded to solid steel cores for increased resistance to walk-out. Axle connection bushing utilizes smaller bar-pin axle connection and narrow trailing arm for additional weight reduction and improved durability.

# Heavy-Duty Shock Absorbers

provide increased durability and service life compared with conventional products.

# Standard Welded or Optional Bolted Axle Adapters

Features a bar pin bushing connection. Adapter includes integrated lower shock absorber bracket for easy service access.

#### **One-Piece Design**

Transverse beam is mechanically bonded together with the cast trailing arm to create a permanent connection that increases roll stability and eliminates your typical bushing and fastener connection.

#### **Integral Lower Module**

Permanently assembled lower module features increased strength, lower weight and integrated air spring mounts. The 40" beam centers and one-piece design creates linear roll stability for improved handling and best in class ground clearance.



## SINGLE AXLE

10 and 11 tonnes axle load



# **TANDEM AXLE**

20 and 23 tonnes axle load



## **TRIDEM AXLE**

31 and 35 tonnes axle load

# TOUGHER AND LIGHTER

With the introduction of new, convincing solutions such as the V-rod upper control arm, or the integrated design of the lower module, the ADZ combines significant weight reduction and increased payload capacity with superior reliability and maximised durability.

Another enhancement is the ADZ's roll stability. The NEWAY ADZ by SAF-HOLLAND is, therefore, a particularly efficient air suspension system for any tractor and any truck – no matter what axle configuration is selected.

#### V-ROD UPPER CONTROL ARM



The design of the ADZ's upper control arm sets a benchmark in the development of suspensions for heavy-duty commercial vehicles. The functional, lighter weight V-Rod design replaces the traditional track bars and torque rods. The result is a significant reduction in weight combined with maximised durability and increased reliability. The V-Rod is centrally mounted between the axle and the cross member and designed to distribute load forces equally through the cross member and the axle bracket. Vertically mounted bar-pin bushings in the connection from V-Rod to cross member are designed for no bushing "walk" and optimised for no premature bushing wear.

#### **INTEGRAL LOWER MODULE**



The lower module is particularly light yet buckling-resistant and is designed to both reduce suspension weight and increase roll stability. The permanent connection between this module and the transverse beam, transforming them into one module, optimises suspension travel and provides additional stability to vehicle handling.

Another benefit: The design of the suspension module permits optimised disc and drum brake compatibility. It also provides excellent ground clearance.

# REDUCED MAINTENANCE

#### **Pivot Alignment**

for fast and easy axle realignment. Allows up to 25 mm of axle alignment.



# Long Lasting V-Rod Bushings

#### **Welded and Bolted Axle Adapters**

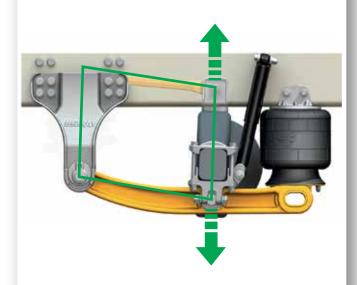
Includes open access, integrated lower shock absorber bracket for ease of maintenance. Optional bolted style provides for quick and easy assembly/disassembly. Welded style provides cost and weight savings and is maintenance free.



# Integral Lower Module Permanently

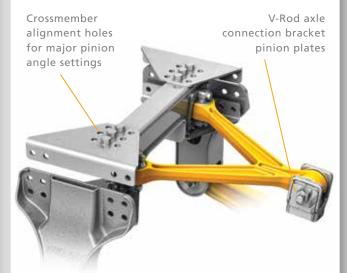
Permanently assembled with no bushings to wear or fasteners to keep torqued.

# NON-TORQUE REACTIVE PARALLELOGRAM DESIGN



The ADZ Series has a non-torque reactive parallelogram design. The parallelogram design also minimizes pinion angle change caused by high torque conditions that exceed maximum recommended driveline working angles, including acceleration with heavy loads or climbing steep grades. The ADZ design extends driveline life and also provides improved braking response.

# SIMPLIFIED PINION ANGLE SETTING



V-Rod design provides a simplified pinion angle setting method to meet the need of any OEM/ Vehicle application. The crossmember provides three major alignment holes with settings of 0-4 degrees, 5-9 degrees, and 10-14 degrees. The pinion plate on the V-Rod axle connection bracket offers minor adjustments by one-degree increments.

# SUPERIOR HANDLING

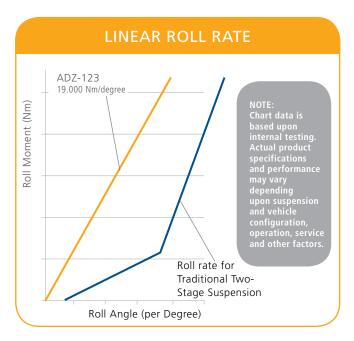
#### HANDLING AND COMFORT

The Neway ADZ continues to utilize the Neway tradition of a Transverse Beam to provide the majority of the roll stability. This allows the use of custom high volume air springs to provide a softer ride. The Integral Lower Module increases roll stability over previous design while the overall geometry and V-Rod system reduces roll steer.

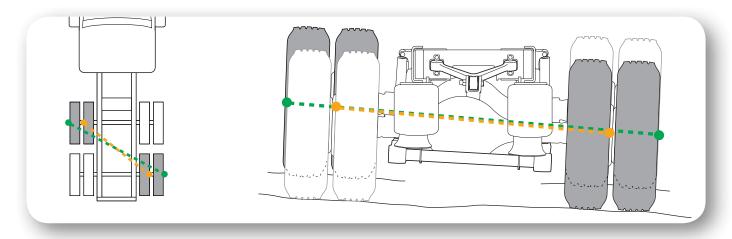
#### LINEAR ROLL RATE

The ADZ series suspension is custom-designed. This allows for greater stability, in particular for vehicles with high center of gravity. The ADZ provides linear roll rate characteristics.





#### **SUPERIOR TRACTION**



The specific design benefits of the NEWAY ADZ by SAF-HOLLAND allow the solution of difficult transport tasks, such as safe off-road travel without loss of traction.



**SAF-HOLLAND** is a leading supplier of highly efficient components, systems and service programmes in the global commercial vehicle industry. Our three core product brands are recognised for delivering innovative solutions that optimise fleet operations in every corner of the world.







TRAILER AXLES AND SUSPENSION SYSTEMS

COUPLING AND LIFTING TECHNOLOGY

SUSPENSIONS FOR TRUCKS AND BUSES

With our team of over 3,000 employees and a worldwide network of over 9,000 service partners, we serve our fleet customers with know-how and passion, and always focus on one target:

Engineering Your Road to Success. Anywhere in the world. Under any conditions. 365 days a year.

### HIGHLY EFFICIENT COMPONENTS AND SYSTEMS FOR TRUCKS AND TRAILERS



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