

# Series 8

## High Speed Rail Passenger Cars



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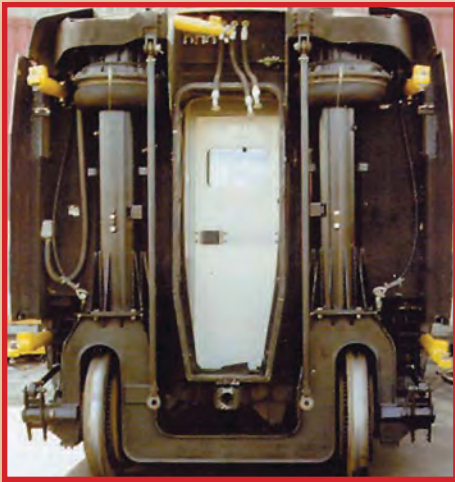
*Talgo*

Changing the Way America Moves.

# MAXIMUM SAFETY, RELIABILITY AND COMFORT

Intermediate axles equipped with independent **WHEELS** to prevent hunting and reduce wheel-track interaction.  
Permanently **STEERED AXLES** by means of robust guiding bars that keep the wheels parallel to the track at all times.  
High-comfort provided by Talgo's **NATURAL TILTING SYSTEM**  
**ARTICULATED COUPLINGS** between adjacent cars with anti-overtipping mechanisms.

## MAXIMUM OPERATIONAL SAVINGS



**LIGHTWEIGHT-CONSTRUCTION** with a very low weight per seat, which results in lower energy consumption in commercial operation.

**INDEPENDENT WHEELS** are **GUIDED** over the tracks significantly reducing track and wheel wear and, therefore, reducing maintenance costs.

**ZERO-ENERGY CONSUMPTION** to tilt the carbodies in curves.

## MAXIMIZING USE OF EXISTING INFRASTRUCTURE

### MAXIMUM COMMERCIAL SPEED: 125 mph (200 km/h)

The train's advanced design incorporates Talgo's unique technological principles that have been exhaustively tested in Talgo trains for nearly seventy years. Moreover, these trains incorporate the most advanced techniques applied to control and operate the onboard equipment.

Talgo Series 8 equipment is FRA Tier I compliant and provides the opportunity for higher speeds on existing rail infrastructure with winding track without additional costs due to its natural tilting system.

Talgo is equally suited to operate in straight, high speed lines, providing benefits to the operators associated with its lightweight construction, articulated configuration and independent wheels.

Any conventional U.S. locomotive can haul Talgo passenger cars.



Speed limit board in the Pacific Northwest Corridor showing that Talgo equipment is allowed to travel at 75 mph in this area while conventional passenger equipment is limited to travel at 65 mph.



# TALGO IN THE US

## PROVIDING COMPETITION IN THE US MARKET

Talgo is poised to provide real competition in a marketplace that has been lacking in options for high speed rail equipment. The US High Speed rail effort will benefit greatly from competition in the areas of price, quality and service.

Talgo provides US customers with high quality, proven technology and very competitive Life Cycle Costs (acquisition, maintenance and operation related costs). This is precisely the kind of value that customers with tight budgets mandate.

The competitive Talgo spirit now brings benefits to both operators and passengers alike.



## TRAINS BUILT IN THE US

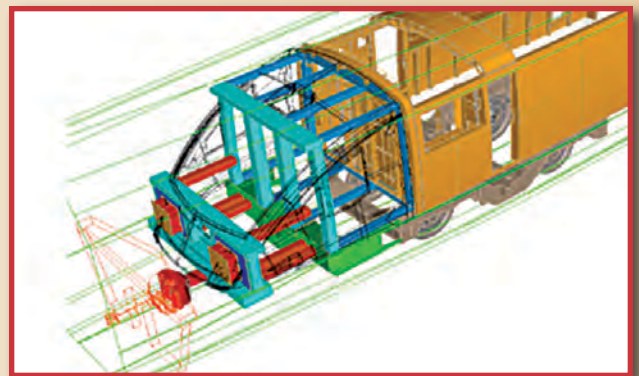
Talgo is committed to maximizing the US content of the trains built for its US customers. Talgo has developed a network of local suppliers for its Series 8 equipment. Talgo plans to continue expanding its supply base throughout the US.

## SAFETY FIRST

Talgo's ingenious technology and unique design offer inherent safety features resulting from its articulated design.

Talgo's configuration makes it possible to incorporate unique technical solutions to improve safety (reducing the risk of overturning or telescoping) and running conditions.

Talgo has been proactive in exceeding the implementation of safety features by adding Crash Energy Management systems (CEM) to its Cab and Auxiliary Power Car.

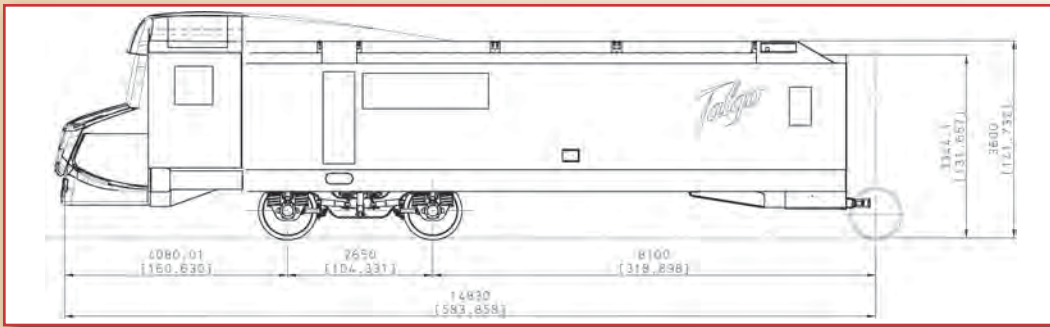


## ACCESSIBLE TRAINSETS

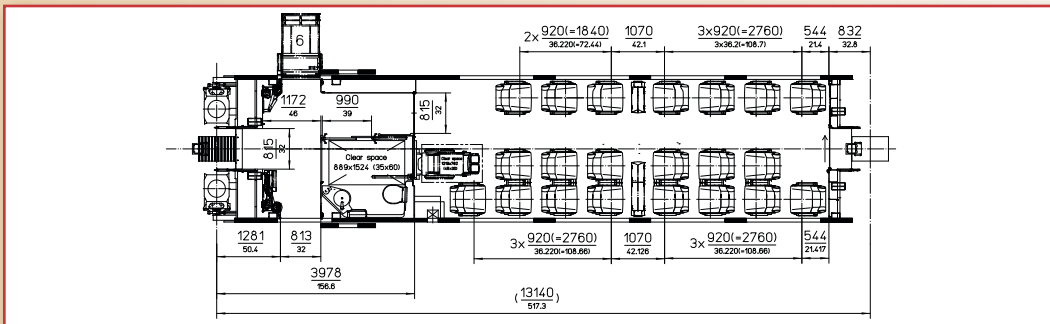
The Talgo trainsets built in the United States proudly meet requirements of the American with Disabilities Act (ADA). That means that, from the inception, cars are designed to allow passengers with disabilities to have access to the services provided in the trainset.

The restrooms are designed to allow for wheelchairs to enter and exit with ease. Dining and bistro cars are also designed to maximize accessibility. ADA chair lifts are provided as a standard feature.

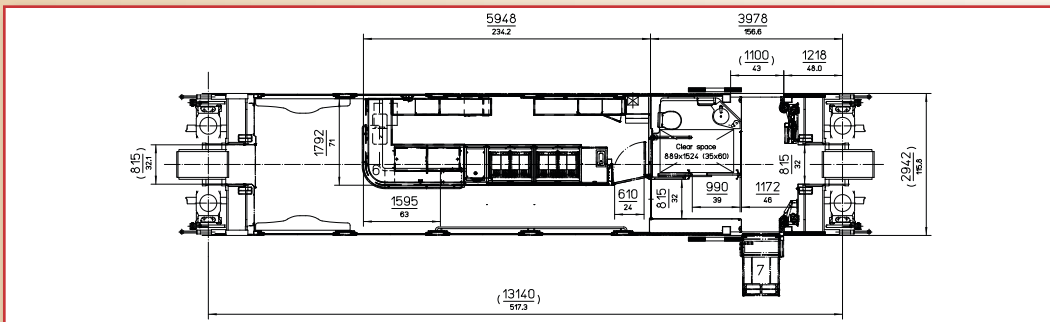




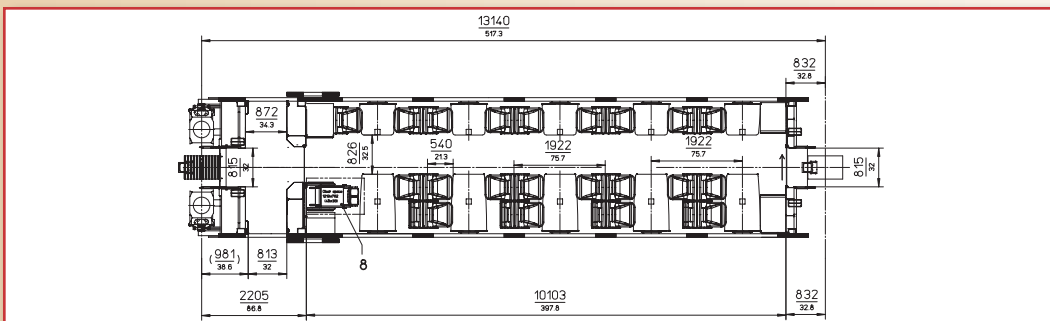
**Cab and Auxiliary Power Car**



**Business Class Car with restroom**



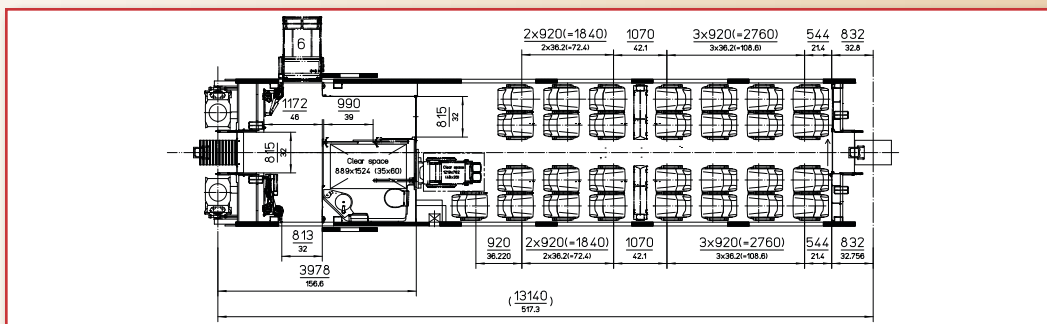
**Bistro**



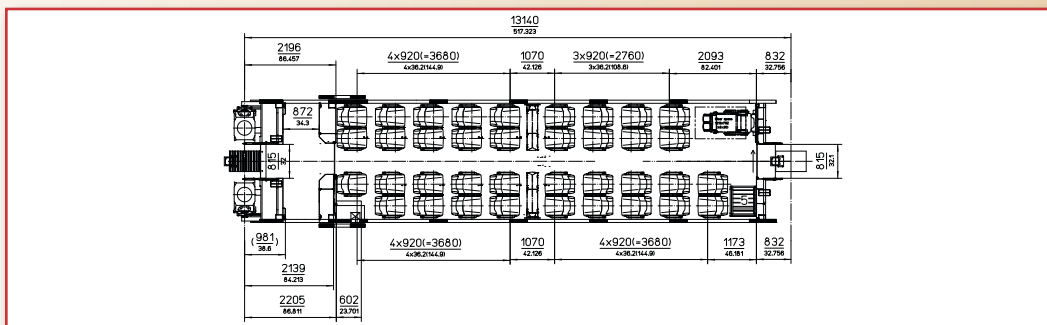
**Diner**



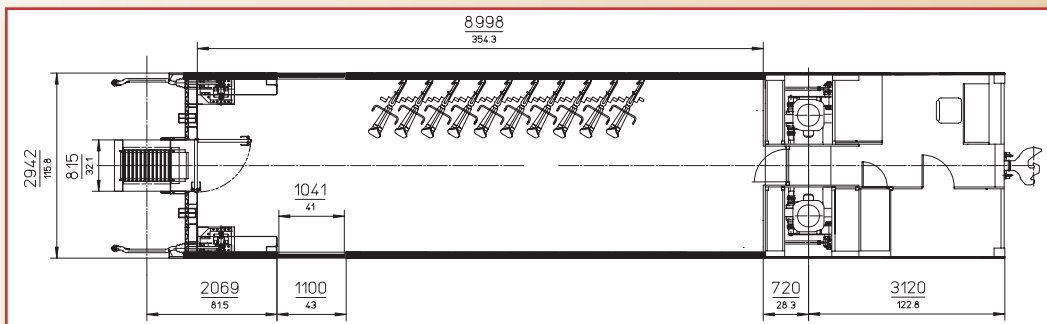




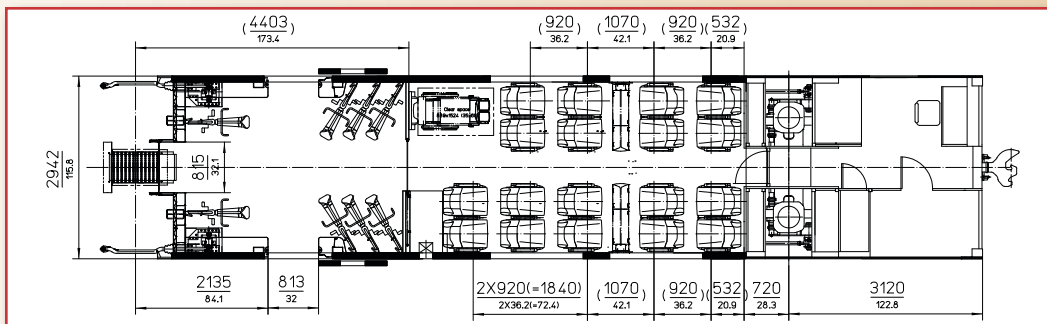
Coach with restroom



Coach without restroom



End Baggage Car



End Coach



# CAB CAR



*Talgo*

## SERIES 8 CAB AND AUXILIARY POWER CAR

### TECHNICAL CHARACTERISTICS

Maximum speed	125 mph (200 km/h )
Maximum lateral acceleration (curved track)	1.2 m/s <sup>2</sup>
Track gauge	Standard 4' 8 1/2" (1.44 m)
Minimum curve radius	328' (17.9°)
Length	48' 9 1/2" (14.85 m)
Height	11' 10" (3.60 m)
Lead truck wheel-base	9' 2" (2.80 m)
Truck configuration	Bo'T(*)
Power (HEP) generation	600 KVA
Environmental conditions	120° F/-40° F
Weight	103,617 lbs
Coupler	AAR Type H
Operator's control for push operation	AAR Mutiple Unit Trainline
CEM (Crash Energy Management)	

These values are subject to changes depending on the needs of the specific project.

\* Back truck shared with the adjacent pendular car.



# PASSENGER CARS

## MAIN FEATURES

- Lightweight construction based on welded aluminum-alloy extrusions
  - Mechanical strength in accordance with FRA and UIC standards
  - Short-length carbodies  
43' 1" (13.14 m) long; 9' 6" (2.94 m) wide
  - Articulated connection between cars
  - Anti-overturn and anti-override systems
  - HVAC units underneath the floor
  - Easy access from either side of the car
  - Automatic interior and exterior doors
  - Accessible vestibules with wheelchair lifts
  - Accessible restrooms
  - Panoramic windows
  - Ergonomic reclining seats
  - Individual reading light and power outlet at every seat
  - Personalized audio equipment with volume control and channel selector (four audio channels and video channels)\*
  - Liquid crystal displays (LCD) with interactive information for passengers\*
  - Wi-Fi available\*
  - Video screens\*
  - Global Positioning System (GPS) equipment to inform passengers of their location throughout the trip\*
- \* Additional options available based upon customer requirements.

## CAR OPTIONS

Car Types	Seats
<u>Cab and Auxiliary Power Car</u>	
<u>Business Class Car with restroom</u>	23 (1)
<u>Bistro</u>	
<u>Diner</u>	*
<u>Coach with restroom</u>	30 (1)
<u>Coach without restroom</u>	38 (1)
<u>End Baggage Car</u>	19 (1)
<u>End Coach</u>	
*Non revenue seat ( ) ADA seat	



Baggage End Car with bicycle racks



Car seating



Accessible restrooms





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