# EN Directions and Guidelines

**General information**

Drawbars are the connection between the tractor and the steerable drawbar trailer.
They are designed to be mounted on a pivot support.

Drawbars are parts that are subject to type approval and that connect vehicles, and are therefore subject to the highest safety requirements.
They may only be operated with the compliant towing hitches and towing eyes that have been approved.
Changes of any kind (except for the ones allowed under 2.2) exclude guarantee claims and type approval is forfeited and thus the vehicle operating licence as well.

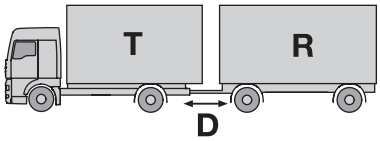
Drawbars are produced in accordance with the Directives ECE-R55 Class E. The assembly may only be completed by authorised specialist companies and according to the applicable Directives and national approval regulations. For Germany, §§ 19, 20 and 21 of the StVZO (German Road Traffic Licensing Regulations) apply. In addition, the conditions of §13 FZV relating to the duty of notification for alteration of vehicle data are to be adhered to.

**1. Characteristics and range of application**

The permissible load conditions for drawbars can be seen on the inscription on the factory name plate or the product overview table or the respective catalogue pages. They apply to the intended use in compliance with the Directive ECE-R55.
In the case of additional dynamic stress, e.g. operation on uneven road surfaces, construction sites and forestry, the D value should not be fully exploited or a stronger drawbar should be used i.e. enquiries should be made at ROCKINGER.
Decisive for the selection of a drawbar is the D value as well as the permissible front axle load of the turning steering frame onto which it is to be attached. Specifications for the permissible maximum weight of the trailer can be used as an orientation guide and serve only as a recommendation.

The suitability of a drawbar for the combination of vehicles can be checked using the specified D value.

**Truck and steerable drawbar trailer: The D value**




- Theoretical drawbar force between truck and trailer, calculated reference value of forces between the moving masses
- The D value can only be calculated by the permissible total weight of both measures (truck and steerable drawbar trailer)
- Calculating the D value (kN):

$$D\ (kN) = g \cdot \frac{T \cdot R}{T + R}$$

T : Total weight of the truck in t
R : Total weight of the steerable drawbar trailer in t
g : acceleration due to gravity, 9.81 $m/s^2$

The calculated D value may be the **less than** or **equal** to the D value of the drawbar.

When combining vehicles, it must be ensured that the angle (up or down) of the towing eye is not greater than 3° to the horizontal axis.
Greater deviations may lead to premature wear or even damage to the drawbar.

**2. Surface treatment**

Optimum protection against corrosion up to a length of 3400 mm thanks to cathodic e-coating with zinc phosphate (EPD Zn). A subsequent top coat is not necessary in normal circumstances.

Drawbars longer than 3400 mm or with widths over 1400 mm are blasted and grounded with Synthal-KH. Lasting protection against corrosion is ensured without the customer needing to add a final coat.

Hot-dip galvanizing of drawbars on request.