



## 1 GENERAL

The SH end truck series was renamed to SHR and the model code for end truck plus the model code for the top joint plate was changed accordingly.

Although the product itself remains unchanged, there are two rule changes with the SHR end trucks. The top joint plates and the side joint plates on the SHR end trucks are only suitable for double girder cranes with box girders. SHR end trucks cannot be used on cranes using profile (commercial) beams or on single cranes regardless of the bridge girder type (box or profile).

The heavy-duty, top running SHR end truck is often selected for double girder cranes with large capacities and/or long spans, or for outdoor cranes especially in high wind areas. These types of cranes usually have larger wheel loads or require more horsepower to drive the crane.

The standard end truck arrangement is two wheels per truck with one drive wheel and one idler wheel. The end trucks can be converted to an equalizing bogie configuration.

## 2 FRAME

The end truck frame is made from steel plates welded into a box construction and it is reinforced with diaphragms.

The truck frame are equipped with rail sweeps that will prevent the end truck from dropping more than one inch [25 mm] in case of an axle failure. The rail sweeps project below the top of the rail.

The steel plate material is S355J2G3 / EN10025. (Fe52D yield strength = 355 N/mm<sup>2</sup> [51ksi] minimum).

## 3 WHEELS

The SHR end trucks are available in wheel diameters of 250, 320, 400, 500, 630, 710 and 800 mm. The drive and idler wheels have double flanges and flat tread.

The actual wheel groove width depends on the rail size and the wheel diameter. The maximum groove width for the various wheel diameters is listed in the End Truck Dimensions section. Flangeless wheels and guide rollers are available as an option. This option is particularly useful when the rail including the minimum allowable float exceeds the maximum groove width of the wheel.

The material of the wheel is 42CrMo4V and the ultimate tensile strength is 800 N/mm<sup>2</sup> [116.1ksi]. The wheel is flame hardened to a depth of 4 - 6 mm [5/32 - 7/32"] and the hardness is approximately 45-55 HRC.

The axle for the wheel is supported by two spherical roller bearings, which include fittings for greasing. The bearings are located in a special bearing housing that allows wheel corrections in the axial direction of  $\pm 3$  mm [1/8"] to compensate for any misalignments.

The idler wheel can be replaced with a second drive wheel on most end truck models. The output shaft of the drive wheel receives the bridge drive.