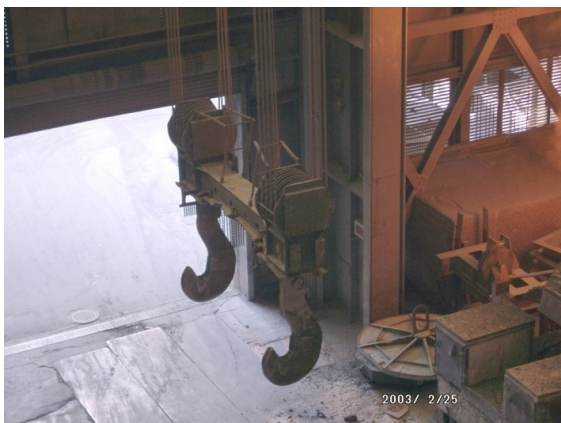






## Simple & Reliable Weighing Solution

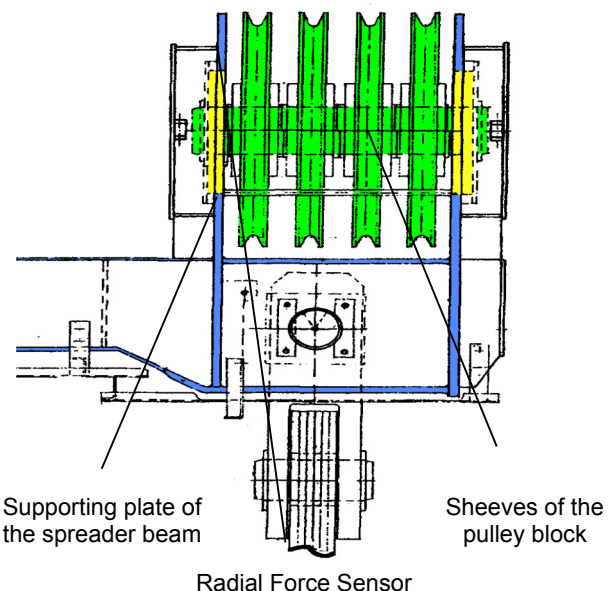
The Radial Force Sensor DRA for lifting cranes, Ideally Suited for Upgrading Crane Spreader Beams




**If you are working with cranes for transport of pig irons and steel, that have no integrated weighing installation, then this is the solution.**


**The most important functions of a weighing system integrated into the crane spreader beam for steel production are:**

-  After tapping from the converter and de-slagging, the weighing installation transmits the precise crude steel net weight to the process control system. This input provides an optimal basis to calculate the amount of alloying materials to be added during the secondary metallurgy process.
-  The accurate weighing enables the plant to add the minimal amount of alloys possible, by respecting the final composition of the steel.



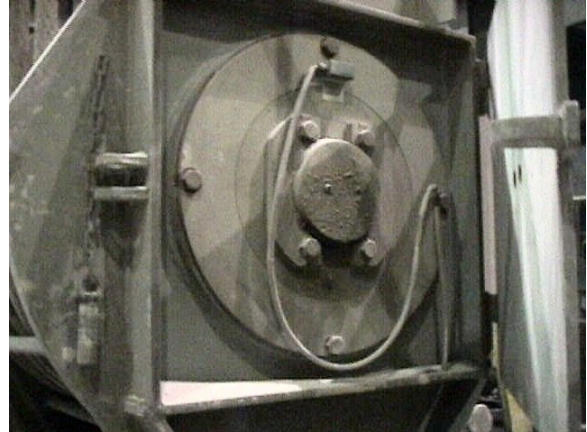
-  The scale detects and indicates unequal loading between the left and right sides of the spreader beam.

**An important advantage of the Radial Force Sensor DRA is:**

-  The entire integration into the spreader beam structure has been designed to minimize elements needed for the weighing feature. This leads to a very light execution of the spreader, which results in an enhanced net steel transport capacity of the existing crane.

## Loadcell design:


We have developed, with our Radial Force Sensors DRA, a specific loadcell geometry perfectly adapted to the typical design of large spreader beams in the steel industry:







## Typical Solution:

The DRA – Sensors are directly bolted between the two supporting plates of each spreader side and the central axle, on which the sheeves are suspended. In doing so we simply replace the conventional steel plate support by “weighing support” at the same position.

## Weighing accuracy:

-  The total weight of the ladle is measured with an accuracy up to  $\pm 0,1$  % of Full Scale.

## Benefits:

-  The stability of the crane remains untouched.
-  The weighing system is completely bolted into the structure and is therefore maintenance free.
-  The scale can easily be integrated into the existing installations.
-  The weighing mechanics are arranged at a position well protected against dust and heat.

Schenck Process Engineered Weighing Solutions for heavy duty cranes up to 1000 tonnes are operational in many steel plants all over the world.

We use both classical Ring – Torsion loadcells RTN & now more often Radial Force Sensor DRA solutions, thus providing the above benefits by utilising our latest technological advances.

One crucial advantage of our innovative weighing solution is the reduced time & effort required to install it into cranes.

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