

**HARDLOCK<sup>®</sup>**  
**Solution**

**Steel Mill**  
**Applications**



The proven locking nut for **Steel Mill** applications

**Where you can find the advantage of HARDLOCK Solutions:**

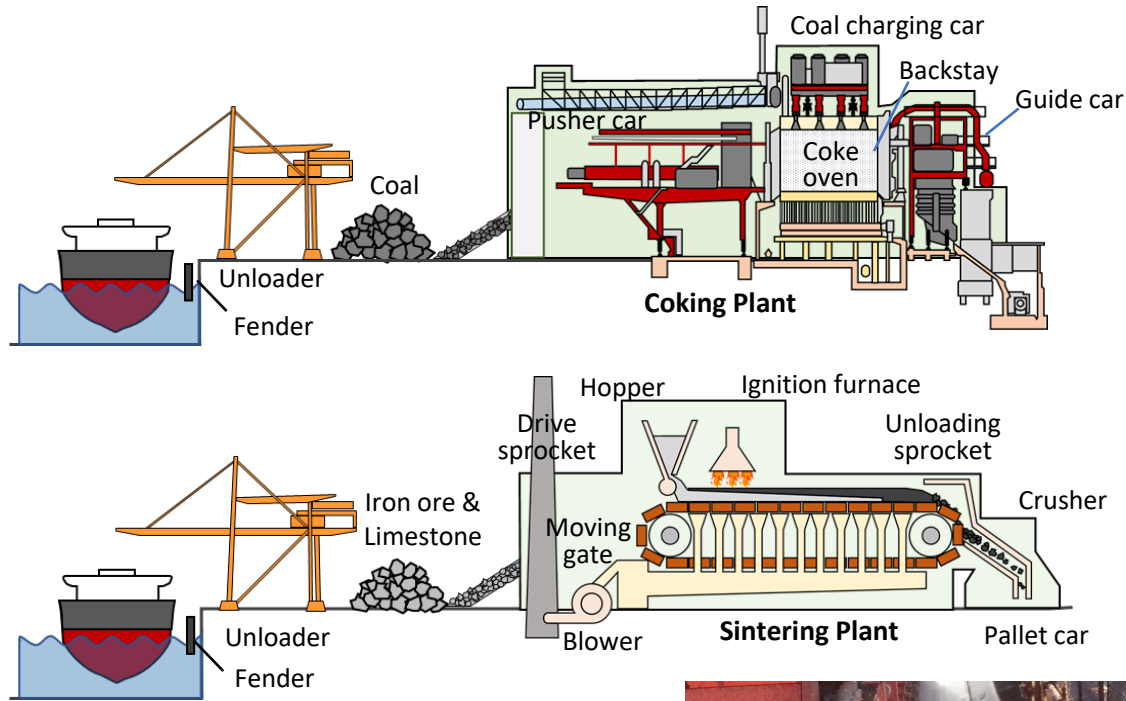
- (1) Switching from welding to improve workability of maintenance
- (2) Difficult to re-tighten or inspect the bolted joints once they are installed
- (3) Strict safety is required
- (4) Joints are not or very small preloaded
- (5) Necessary to retrofit to existing bolts



# HARDLOCK Nuts Use in Steel Mill (1)

## Coking & Sintering Plant

- **Fender**
- **Unloader**
  - Bucket
  - Rail track
  - Stacker
  - Hopper Liner
  - Chain Conveyor
- **Coking Plant**
  - Backstay
  - Guide Car
  - Insulation Shield
- **Sintering Plant**
  - Hopper liner
  - Conveyor skirt
  - Moving gate
  - Sprocket wheel
  - Pallet Car



Coal Charging Car  
HLN M8~M33 SS400, SUS304



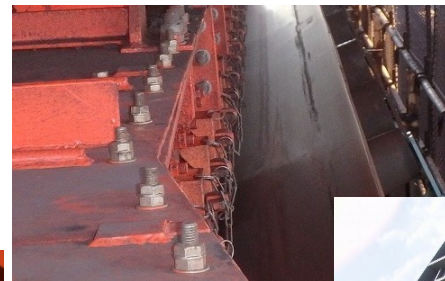
Pallet car  
HLN M24 S45C



Fender  
HLN M56 SUS304



Unloader  
HLN M5~M52  
SUS304, SS400/HDZ, SCM435/DACROTIZED



Conveyor skirt  
HLN M8~M24  
SUS304,  
SS400/HDZ



Hopper liner  
HLN M16 SS400/HDZ



**Safety is power!**



# HARDLOCK Nuts Use in Steel Mill (2)

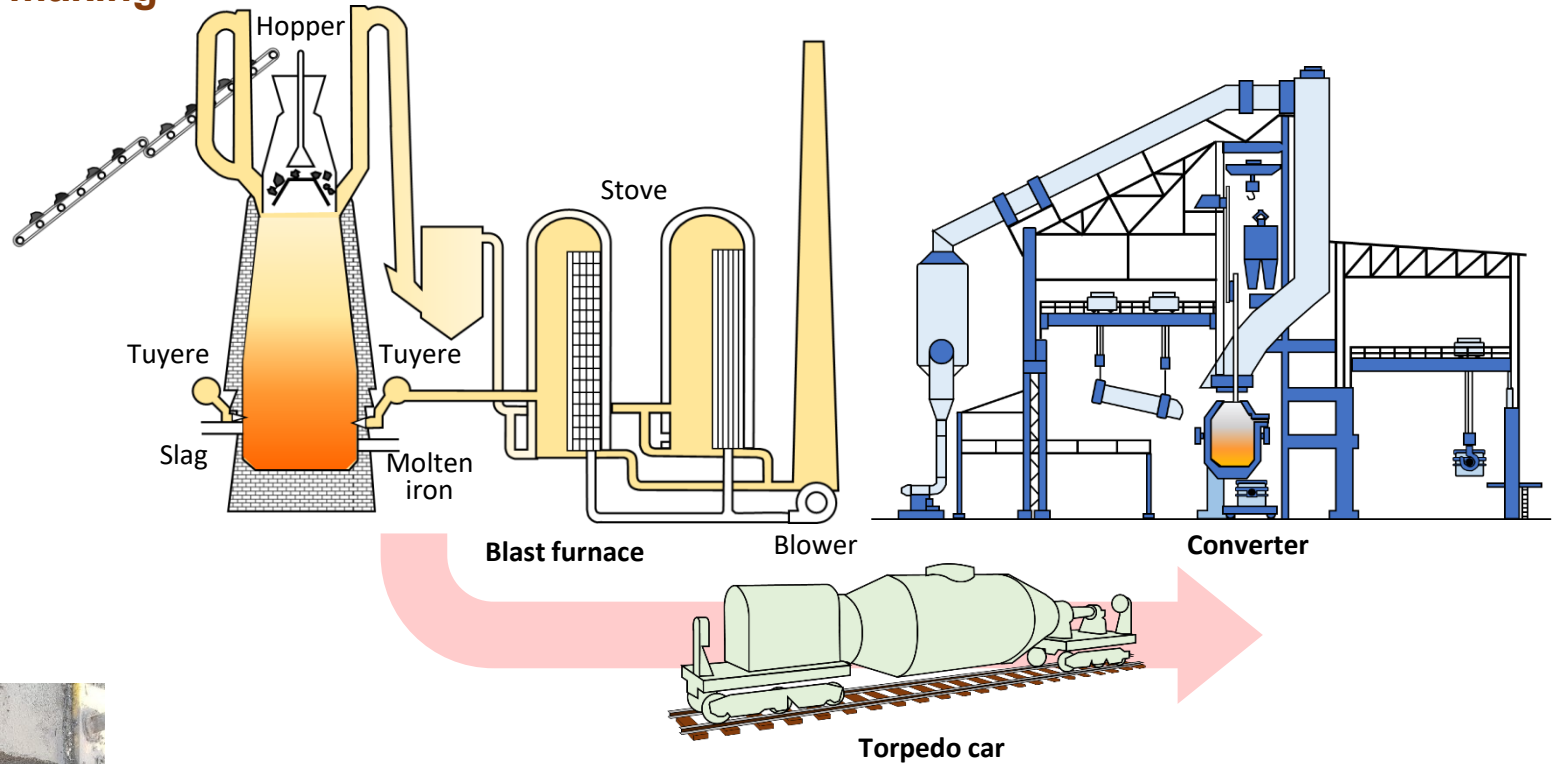
## Iron Making ~ Steel making

- **Blast furnace**

- Stove gas cut off equipment
- Stove valve flange bolt
- Tuyere branch heat-resist bolt
- Blower

- **Molten iron transport**

- Fishplates bolt
- Rail track turnbuckles



Turnbuckle for rail track  
HLN M30 SS400 & M30 Left handed  
\* to ensure strengthen the track so that the rails are held in position



Fishplates  
HLN M20 S45C



Blower  
HLN M16 S45C



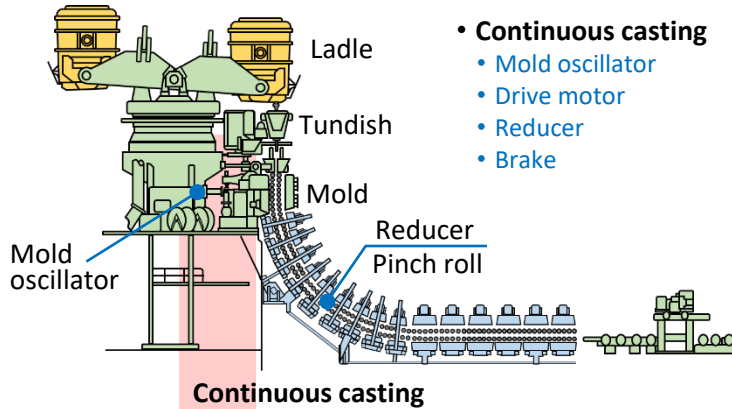
**Safety is power!**

**HARDLOCK®**

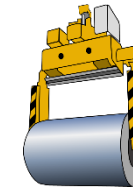


# HARDLOCK Nuts Use in Steel Mill (3)

## Continuous casting ~ Rolling



HLB (HARDLOCK Bearing Nut)  
M190 SS400



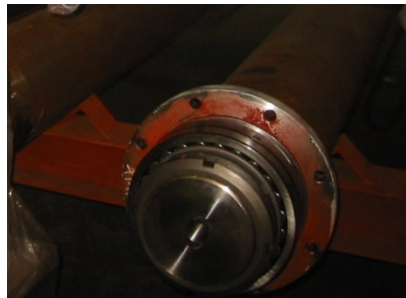
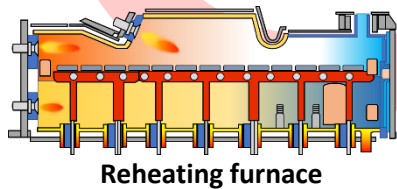
Coil lifter

- Coil lifter
  - Housing
  - Reducer
  - Arms



Roll lifter  
HLN M24 SS400

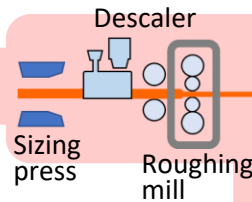
- Reheating furnace
  - Table apron
  - Roller bearing



HLB (HARDLOCK Bearing Nut)  
M140 SS400

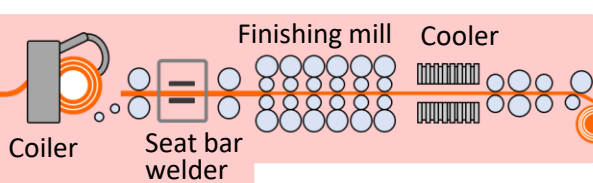
- Coiler

- Unit frame switch cylinder
- Tension bar joint pin

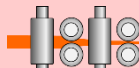


- Finishing mill

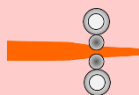
- Turntable roller bearing gauge bolt
- Roller table gauge bolt



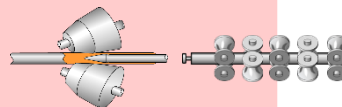
- Hot strip mill



- Wire rod mill



- Plate mill



- Seamless pipe mill

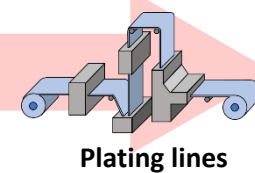
- Seat bar welder
  - Feed roller



Feed Roller HLB M45 S45C

- Plating lines

- Air piping
- Water piping
- Steam piping
- Acid piping
- Acid wash tank



Hydraulic tank  
HLN M24 SS400



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