



INSTALLATION INSTRUCTIONS

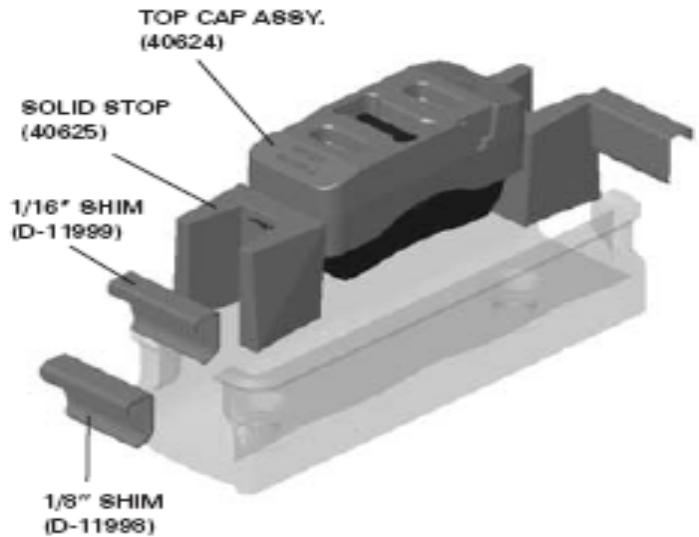
MINER TCC-45 LTR

The **Long Travel Miner TCC-45 LTR** constant contact side bearing is designed to retrofit into existing double roller side bearing cages (reference part number Stucki 688-B and SCT 688).

Included in each assembly are:

- A metal top cap attached to a TecsPak® spring
- Two solid stops
- Two 1/16" thick shims
- One 1/8" thick shim.

The TCC-45 LTR is designed to operate at an installed height of 5-1/16" and provide 4,500 lbs. of preload and 5/8" of travel.



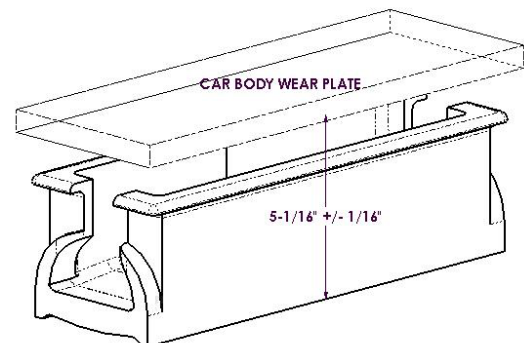
Preparation

- Remove the double rollers and clean the inside of the cage of any foreign material.
- The existing cage must be free of cracks, tears and deformation.
- The inside edges of the gibs at each end must be free of upset metal that would prevent the over solid stops or shims from fitting flush against the inside of the gibs.
- The heads of the cage fasteners must be flush or below the contour of the bottom of the cage. Cage fasteners must be tight.
- The car body wear plate size must be large enough based upon the car truck centers reference table, and the car body side bearing wear plate surface must be smooth.
- Any weld spatter, heavy rust or surface projections must be removed by grinding.
- Fastener heads must be smooth and not protruding below wear plate surface, and the fasteners securely tightened.
- Plates with surface variations between fastener holes greater than 1/8", or greater than 1/16" over any 4" space between the fastener holes, must be replaced.
- Surface must be reasonably parallel to side bearing mounting surface.
- Variations should not exceed 1/16" across width or 1/8" end to end.

Car Body Wear Plate		
Truck Centers	Min. Width	Min. Length
70' or Less	4"	12"
70+' to 82'	4"	14"
82+' to 94'	4"	16"

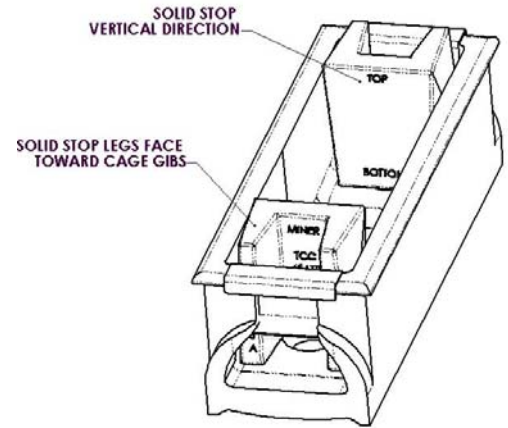
Set-Up Height

1. The vertical distance between the car body wear plate and the bolster mounting surface must be 5-1/16" +/- 1/16".
2. This space must be measured with the car empty and positioned on level track before installing the top cap assembly or applying center plate lube.
3. Adjust shims as necessary to achieve 5-1/16" +/- 1/16".



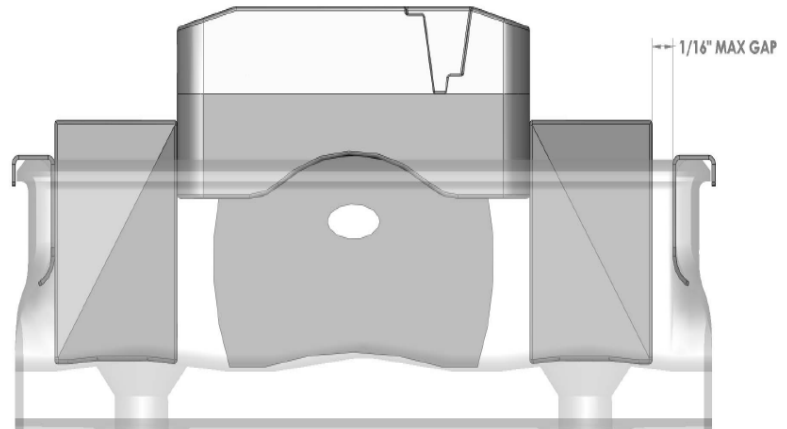
Solid Stop Installation

The assembly requires that the two solid stops be placed on either end of the cage with the legs facing outward and oriented with the marked topside facing up.



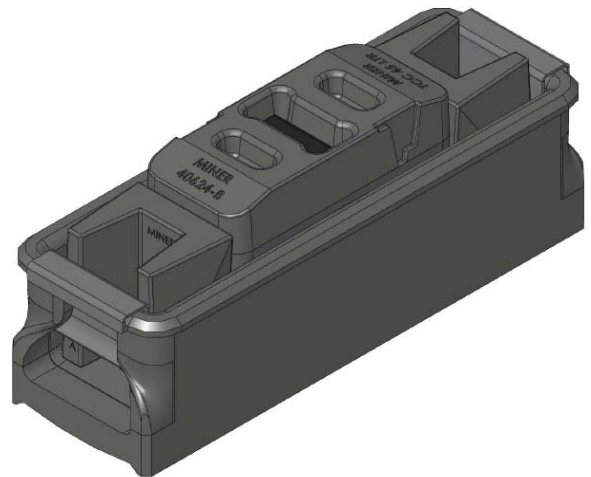
Shim Adjustment

1. Install a 1/16" shim on both ends.
2. After installing the top cap, push one solid stop towards the opposite end of the housing.
 - a. If the resulting gap between the shim and solid stop is greater than 1/16", install thicker 1/8" shim on one end and recheck.
 - b. If the gap is too small and does not allow the cap to move freely up and down, remove shims as necessary.



Final Assembly

1. The TecsPak® pad must not be exposed to temperature environments higher than 200° F., or 175° F for extended periods of time (2-3 hours).
2. After the side bearings have been installed, and the car body lowered onto the trucks, the set up height will probably be greater than the original set up.
3. Initial set needs to take place and this height will gradually reach the design set-up height.
 - The TecsPak® pads should be maintained at a 40° F. or higher temperature for at least 24 hours before assembly on a car.
 - At temperatures lower than 40° F., this may require at least 24 hours.



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