



Traction-Plus Differentials

P/N 83020 - 12 Bolt Differential

INSTRUCTIONS

Consult the Moroso Performance catalog for all applications. This differential is intended for Off-Road Heavy-Duty Truck use only. Any use other than the intended use for this differential will void any warranty. Moroso Differentials should be installed in the same manner as a conventional GM Positraction Unit. Refer to a Chevrolet service manual for complete procedure if desired. Use GM P/N 1052271 Positraction Lubricant or Moroso Climbing Gear Lube P/N 34800. DO NOT USE OTHER LUBRICANTS, such as BFL, Valvoline, Ford, as these may cause an extreme chattering condition and excess wear and will VOID ANY WARRANTY. Some chatter may occur when going around turns due to the extremely high spring pre-load on the clutch packs. Chatter should not occur while going straight.

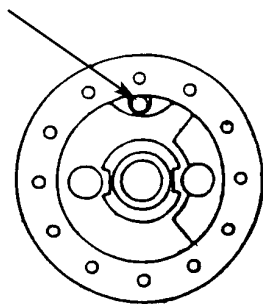
An interference problem will be encountered with installing the pinion cross-shaft with certain differential gear ratios. Do not mill, grind or otherwise modify the cross-shaft. Any alteration to this shaft will drastically weaken the unit and void the warranty. Proper clearance for the cross-shaft can be obtained by grinding down a ring tooth so the shaft can pass by it. Careful grinding will not damage or weaken the ring gear, (be sure to chamfer the edges). Tests indicate that up to .135" can be removed from a gear tooth without causing any problems.

The use of oversized tires subjects the differential to forces that it is not designed to handle. Oversize tires must have the same circumference in order to use them on the same axle. Tires of different circumference will cause the differential clutch packs to slip continuously, wearing them out prematurely. To determine the circumference of your tires, use a tape measure to measure around the outside diameter of the tread. The maximum allowable difference between the circumference of the two tires on the same axle is 1/2". This dimension should be checked periodically.

The Carrier has an increased bearing hub diameter for added strength and require new bearings:

Timken part numbers LM 102949 and LM 102910

NOTE: Spider Gear Cross-Shaft Lock Bolt (shown in diagram) must be tightened to 20-30 ft. lbs. torque.



**For Technical Assistance, call Moroso's Tech Line at
(203) 458-0542, 8:30am-5:00pm Eastern Time**

MOROSO PERFORMANCE PRODUCTS
80 Carter Drive • P.O. Box 1470 • Guilford, CT 06437
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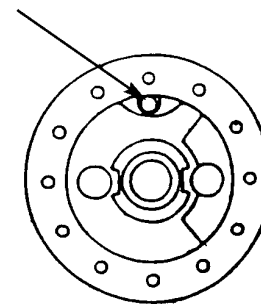
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