



P/N 22928

Main Cap Girdle, 289-302 Ford

Windage Tray P/N 23147

Parts List

(1) Main Cap Girdle
(10) 7/16" AN Washers

(9) 7/16" Hex Head Main Cap Bolts
(1) 7/16" Allen Head Main Cap Bolt

This Main Cap Girdle has been designed to fit into most Moroso Oil Pans without the need for grinding or extensive modifications. **Note:** When using a Main Cap Girdle with one of our oil pans, it becomes necessary to use the proper Oil Pump Pickup.

Installation Instructions

1. Set the Main Cap Girdle over the main caps and install the 7/16" AN washers and main cap bolts, hand tighten at this time. Install the (1) Allen Head Main Cap Bolt on the oil pump side of the #1 main cap (see Fig. 1). Check for main cap to girdle clearance. If an interference exists (RED ARROW) grind the main cap, if inference exists (BLUE ARROW) grind the girdle (Fig. 2).

WARNING: FAILURE TO USE THE PROVIDED ALLEN HEAD BOLT IN THIS POSITION WILL PREVENT THE #1 MAIN CAP FROM BEING TORQUED CORRECTLY. THIS WILL LEAD TO ENGINE FAILURE!

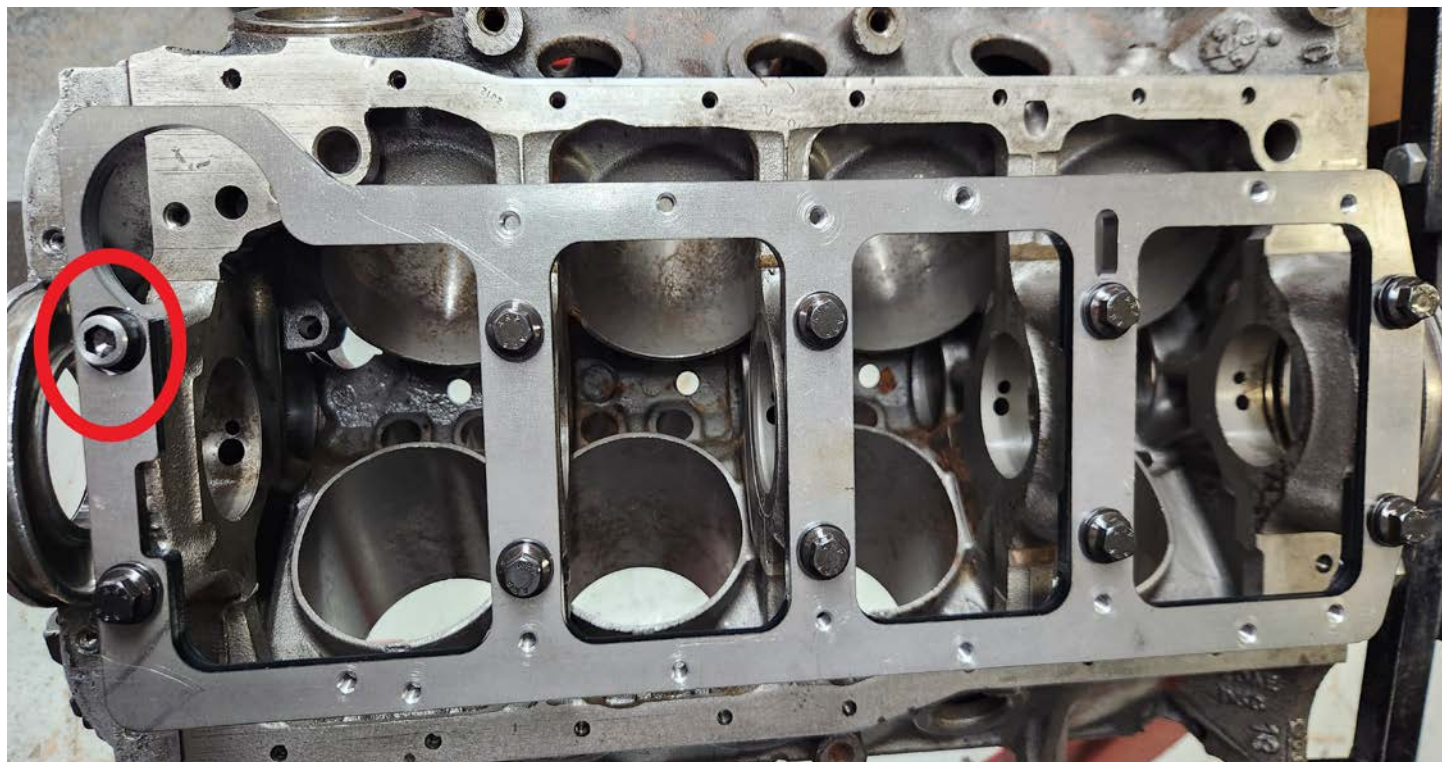


Fig. 1



Fig. 2

2. Install your Oil Pump and check Pump to Girdle and Pump to Main Cap Bolt clearance. It may be necessary to grind the Oil Pump casting down a bit to gain additional clearance. The Allen Head Main Cap Bolt needs .020" minimal clearance (see Fig.3) with the oil pump gasket installed (see Fig.4)

If there is not enough clearance, remove material from the pump housing to provide adequate clearance. Removing additional material from the Allen Head could cause failure during the torquing process of the Main Cap Bolt.



Fig. 3

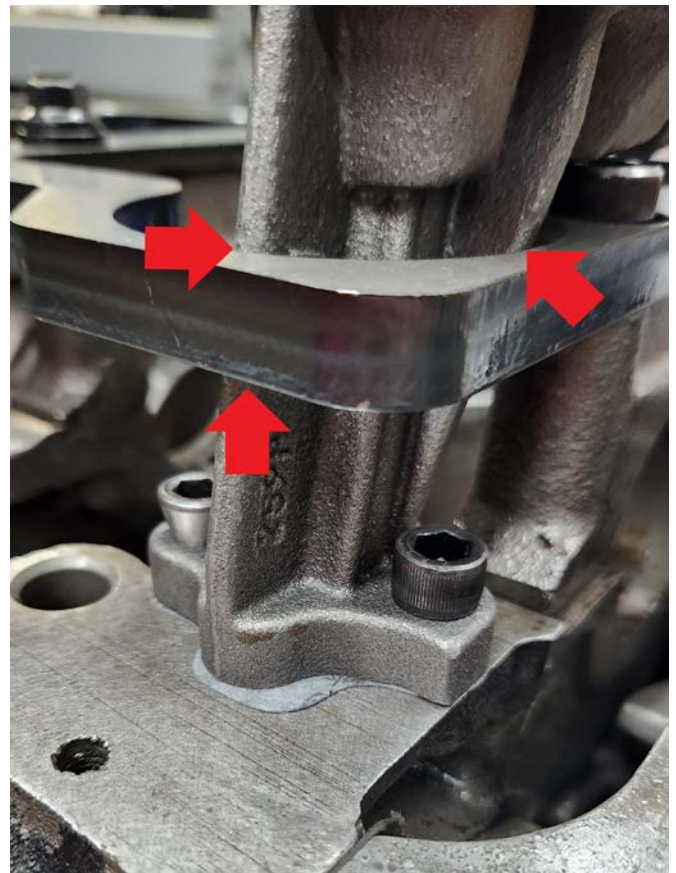


Fig. 4

3. Install your Oil Pump Pickup and test fit your Oil Pan (No gasket is necessary at this time). Check for proper Pickup to Pan clearance and ensure the Main Cap Girdle clears the pan.
4. Turn the rotating assembly over and check Crank, Rod, and Rod Bolt to Girdle clearance. If an interference occurs, grind the Girdle to accommodate your rotating assembly.
5. **NOTE:** When making modifications to the Girdle, be sure to remove it from the engine, make any modifications necessary, and then clean the girdle thoroughly before re-installation. Repeat this process until you have at least .100 clearance between the Main Cap Girdle and Rotating Assembly.
6. Now go back and torque the Main Cap Bolts down to their required specifications. Refer to factory specifications for the proper torque sequence and rating.
7. When installing optional windage tray Moroso #23147, bolt the tray down to the stud girdle and rotate the engine multiple times to check for connecting rod clearance to the louvers (Fig 5 & 6).



Fig. 5

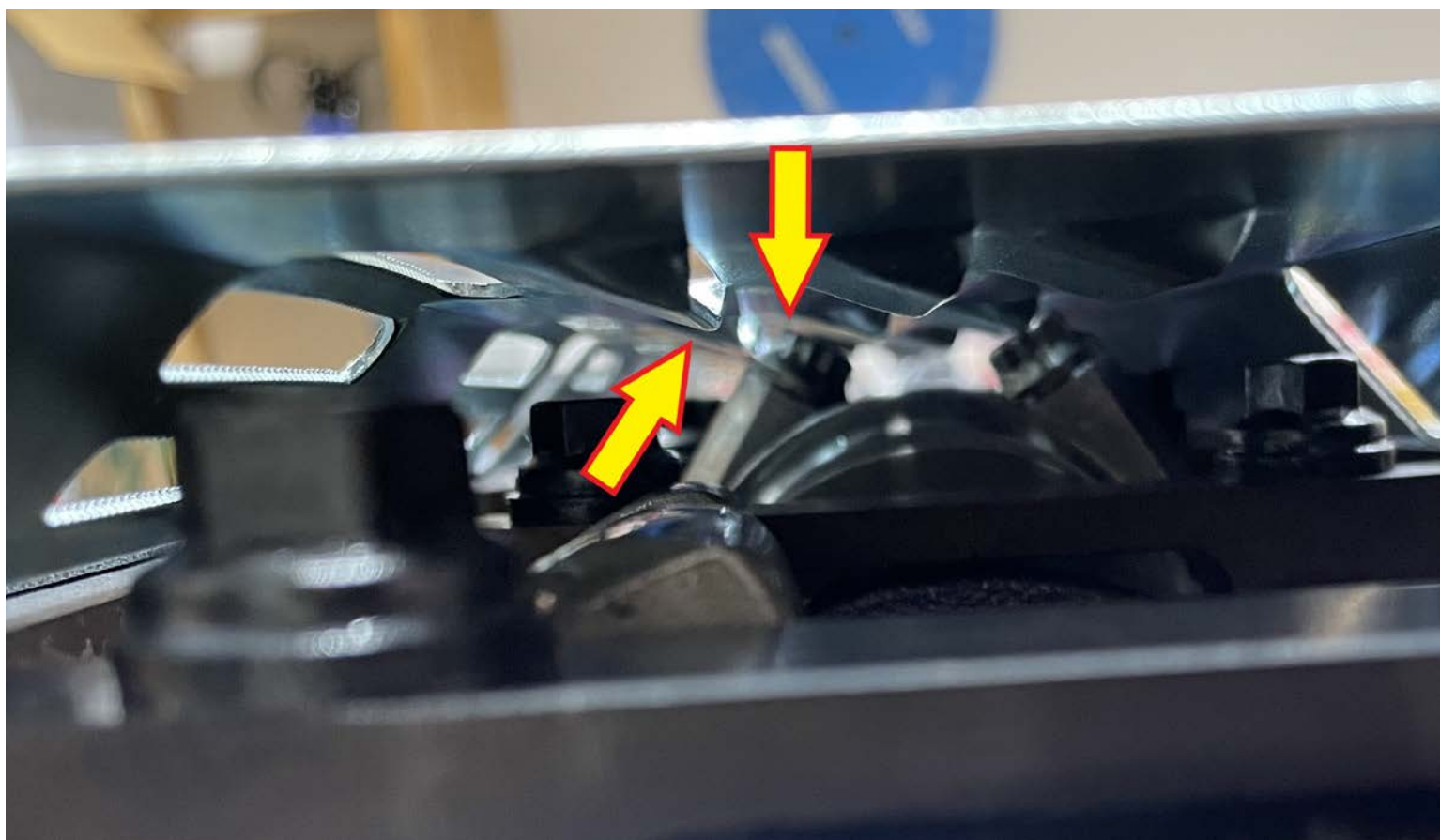


Fig.6

**For Technical Assistance, Call Moroso's Tech Line at
(203) 458-0542, 458-0546 8:30am – 5:00pm Eastern Time**

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