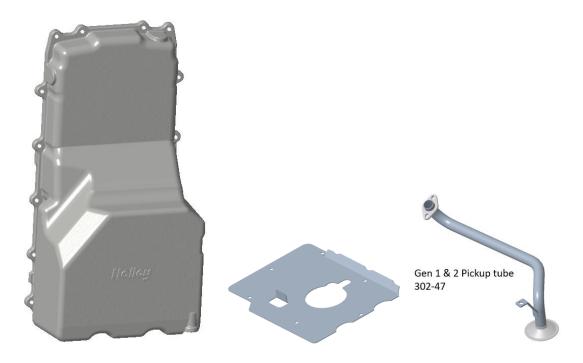


# **COYOTE ENGINE OIL PAN P/N Gen 1 and 2 - 302-47**



# **PARTS LIST:**

QUANTITY	DESCRIPTION
1	Oil pan
1	Baffle
1	Pickup tube
6	M6 x 1.0 x 12 Hex head flange bolts
16	M6 x 1.0 x 25 Hex head flange bolts
1	Drain plug
1	M20 x 1.5 plug
1	M20 Crush washer

**CONGRATULATIONS** on your purchase of a Holley® Coyote oil pan as part of your engine swap project. We feel that you have purchased the finest performance oil pan manufactured today. Should you need information or parts assistance, please contact our Technical Service Department at 1-866-464-6553 or 1-270-781-9741, Monday through Friday, 8 a.m. to 6 p.m. CST. Please have the part number of the product you purchased on hand when you call.

WARNING! These instructions must be read and fully understood before beginning installation. Failure to follow these instructions may result in poor performance, vehicle damage, personal injury, or death. If these instructions are not fully understood, installation should not be attempted.

#### INTRODUCTION:

Holley® Performance Products has written this instruction sheet specifically for the installation of this Coyote swap oil pan. This instruction sheet contains all the information needed to install the oil pan. Holley® Performance Products cannot and will not be responsible for any alleged or actual engine or other damage, or other conditions resulting from misapplication of the oil pan described herein. However, it is our intent to provide the best possible products for our customer; products that perform properly and satisfy your expectations.

#### **APPLICATIONS:**

This oil pan is intended for use in street/strip and light competition applications as-shipped and was specifically designed to enable Coyote Gen 1 and 2 engine swaps in 1979-2004 Ford Mustangs using a stock (1984-2004), AJE MU40-UM, Team Z Motorsports TZM-KM-SWAP, or Maximum Motorsports MMKM-2.1 (for Fox Body cars) or MMKM 2 (for SN95/New Edge cars) K-member and Hooker Blackheart engine mounting brackets. This pan is not compatible with the Maximum Motorsports MMKM-1 K-member.

The unique fitment geometry of this pan may also be suitable for use in other fitment challenged Coyote swap applications.

#### IMPORTANT DESIGN FEATURES AND INSTALLATION NOTES:

- Provides more header, steering rack, and intake manifold clearance than any other Coyote oil pan
- Provides compatibility with stock Fox Body/SN95 Mustang clutch release cables
- Provides compatibility with the stock 2011-2022 Mustang Coyote engine low-oil level sensor
- Provides 2 Bosses for drain-back for turbo applications (Unmachined)
- Installs using the OE 2011-17 Mustang Coyote engine pan gasket/baffle assembly/ Ford part number- BR3Z-6710-A

If the oil pump pick-up tube seal requires replacement in the future, Use a stock Ford F5RZ-6626-B O-ring for that purpose.

## **PAN CAPACITIES:**

Sump Oil Capacity – 9.0 Qts Total Oil Capacity w/ stock filter – 9.5 Qts

# **NON-INCLUDED PARTS/SUPPLIES NEEDED:**

- Oil Pan Gasket/Baffle Ford part number- BR3Z-6710-A (new recommended)
- Oil Filter Ford part number AA5Z-6714-A/ Motorcraft FL-500S or equivalent
- Oil Level Sensor Ford part number BL3Z-6C624-A
- Blue Medium-Strength Loctite Thread Locking Compound
- High Quality RTV sealer

## **REMOVAL OF EXISTING OIL PAN:**

- 1. Drain the engine oil.
- Disconnect the oil level sensor electrical connector (if equipped).
- 3. Remove the oil level sensor from the oil pan and set it aside.
- 4. Remove the oil pan bolts.
- 5. Remove the oil pan and set it aside (removal of the oil pan may not be possible with the engine in the vehicle)
- 6. Remove the fasteners attaching the pick-up tube assembly to the oil pump/engine and then remove it and set it aside.
- 7. Remove the oil pan gasket/baffle assembly from the engine.

MPORTANT: Ensure that a helicoil has been installed in your pan by installing the drain plug.

IMPORTANT: All gasket surfaces should be free of oil or other foreign material during assembly. Inspect the engine block oil gallery passages to make sure they are free from any debris or restrictions.

IMPORTANT: It is advisable to wash all of the new parts well before installing to remove any dirt or debris from the packing and shipping process.

IMPORTANT: It is advisable to mock up the engine and oil pan in the intended vehicle to ensure there is no contact of the pan to the frame or cross-members.

### **INSTALLATION:**

- 1. Remove the new Holley® oil pan, baffle assembly, parts kit, and pickup tube from the box.
- 2. Place the Holley oil pan on a table or workbench (flange facing up).
- 3. Install the baffle assembly onto the sump shelf of the Holley oil pan. Apply a drop of blue Loctite® to the threads of the 6 supplied M6 x 1.0 x 12 bolts and use them to install the baffle into the oil pan. Torque the (x6) baffle bolts to 106 in./lbs. See **Image 1** below for a visual representation of the baffle plate positioning on the sump shelf.

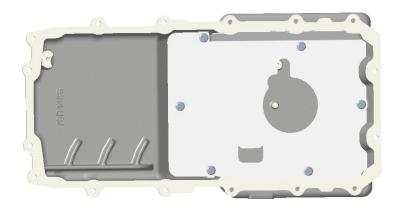


Image 1

- 4. Scrape/clean the oil pan gasket surfaces on the engine block and front and rear covers.
- 5. Apply a thin bead of RTV silicone sealant over the joining seams of the engine block and the front and rear covers. Refer to **Image 2** below for a visual representation of these four locations that require the RTV sealant.

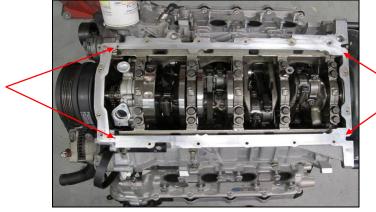


Image 2

- 6. Lay the stock Ford gasket/baffle assembly in place on the engine block.
- 7. Pickup tube assembly:
  - 7A. Lubricate the included O-ring with engine oil and install it onto the supplied oil pump pick-up tube assembly.

7B. Engage the pick-up tube assembly with the oil pump inlet bore and check to see that the slot in the foot of the pick-up tube support leg is lining up with the threaded hole in the main cap stud stand-off. At this stage, the oil pan gasket/baffle and the pick-up tube assembly should appear on the engine as they do in **Image 3** below.

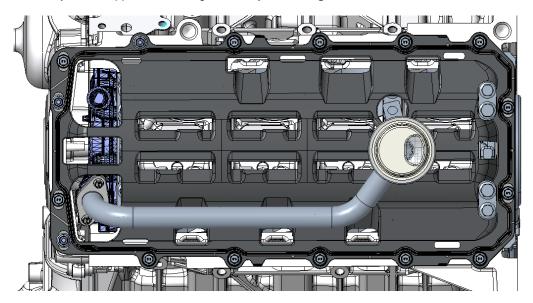


Image 3

7C. Attach the pick-up tube assembly flange to the oil pump using the two factory M6 bolts removed from that location and torque them to the factory specification ( $10 \text{ N} \cdot \text{m} + 45^{\circ}$ ). You may need to make a custom tool from an inexpensive  $1/4^{\circ}$  drive 10mm deep socket to torque the outer bolt. The basic form to grind into the socket for clearance is depicted in **Image 4** below.



Image 4

7D. Attach the oil pick-up tube support leg to the threaded stand-off on the crankshaft main cap bolt using the bolt previously used to attach the stock pick-up tube to that location. Torque the bolt to the factory specification. Go to step 9.

- 8. Install the oil pan assembly to the engine block.
- 9. Snug the provided M6 x 1.0 x 25 oil pan bolts by hand (do not overtighten)

- 10. Tighten the oil pan bolts to 106 in./lbs. (work from the center out).
- 11. Install the included drain plug into the bung on the rear wall of the oil pan, and the user-supplied oil level sensor or the included sensor delete plug.
- 12. Rotate the engine into the upright position, if on an engine stand.
- 13. Remove the engine from the stand with an engine hoist and install it in the intended vehicle.
- 14. If using, connect the wiring harness plug to the oil level sensor.
- 15. Replace the oil filter and fill the oil pan with oil. The nominal capacity of the Holley pan with filter is 9.0 quarts, but you'll need to gauge the specific quantity needed on your first fill by monitoring the level on the dipstick.
- 16. Start the engine, check for leaks and adequate oil pressure. Perform a final engine oil level check following engine shut-down.

# Holley® Technical Support 270-781-9741 or www.holley.com

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199R12522 revA Revision Date: 12-18-2024