

317-350 INSTRUCTIONS

IMPORTANT: THIS IS A HIGH PERFORMANCE PART AND IMPROPER INSTALLATION COULD RESULT IN INJURY OR DEATH! NEVER WORK UNDER AN AUTOMOBILE THAT IS NOT PROPERLY SUPPORTED AND BLOCKED FROM ROLLING. NO CREDIT OR REFUND WILL BE ISSUED FOR PARTS DAMAGED DUE TO IMPROPER INSTALLATION. REMEMBER THAT YOUR ADAPTER PLATE IS ALUMINUM AND NOT CAST IRON. DO NOT OVER-TORQUE THE FASTENERS. IF AT ANYTIME YOU HAVE ANY QUESTIONS ABOUT THIS INSTALLATION, CONTACT WILCAP IMMEDIATELY. THE INSTALLATION AND USE OF THIS PRODUCT IS DONE AT YOUR OWN RISK!

YOUR WILCAP IS DESIGNED TO USE A MODIFIED MOPAR MINI STARTER. ANY EQUIVALENT MOPAR STARTER CAN BE USED AS A REPLACEMENT. APPLICATION IS SMALL BLOCK MOPAR 1966 TO PRESENT. THESE STARTERS ARE AVAILABLE FROM WILCAP.

MOPAR PERFORMANCE P/N 128000-781 OR 128000-7810
MOPAR PERFORMANCE P/N/ P5249644
POWERMASTER P/N 9300, 9512, OR 9613
TILTON P/N 54-10000
AUTOLITE PRO P/N 17466
BECK ARNLEY P/N 187-0436

CHECK THAT ALL OF THE FOLLOWING PARTS ARE IN THE PACKAGE AND FREE OF DAMAGE;

1 CAST ALUMINUM ADAPTER PLATE
1 FLEX PLATE
1 ALUMINUM HUB SPACER
1 MODIFIED MOPAR STARTER

2 – 5/16”-18 X 1 3/4” BOLTS AND WASHERS
6 – 7/16” -14 X 1" UNC SOCKET HEAD CAP SCREWS
2 - 7/16” -14 X 1 1/4" BOLTS AND WASHERS
6 - 7/16”- 20 x 1 1/2” CRANKSHAFT BOLTS AND WASHERS
4 – 3/8 STUDS

1. CLEAN THE CRANKSHAFT FLANGE AND HUB USING SOLVENT AND A RAG AND INSPECT FOR BURRS, DINGS, NICKS, ETC. THIS IS CRITICAL! THE ALIGNMENT OF THE ENTIRE ROTATING ASSEMBLY RELIES ON THE FACE OF THE CRANKSHAFT AND THE HUB SPACER MATING EXACTLY. REMOVE ANY BURRS WITH A FINE PITCH FILE.

2. CLEAN AND INSPECT THE BLOCK MOUNTING SURFACE AND THE TRANSMISSION MOUNTING SURFACE AND REMOVE ANY BURRS. CHASE AND CLEAN ALL OF THE BLOCK TO BELL HOUSING BOLT HOLES AND REPAIR ANY DAMAGED THREADS.

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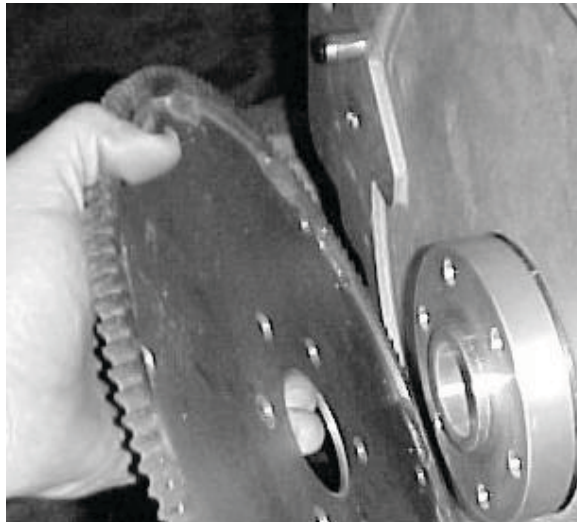
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3. PLACE THE ADAPTER PLATE ONTO THE ENGINE BLOCK. IF NECESSARY USE A RUBBER Mallet TO FIT THE PLATE UP TO THE BLOCK FLUSH. DO NOT USE THE CAP SCREWS TO FORCE THE PLATE ONTO THE BLOCK. IF THE PLATE WILL NOT SIT FLUSH TO THE BLOCK, CHECK THE DOWEL PINS ON THE BLOCK TO SEE IF THEY HAVE

4. MARK THE PLATE FOR ANY TRIMMING OR CUTTING FOR CLEARANCE. IF THE PLATE WILL BE TRIMMED, BE CAREFUL NOT TO CUT TOO CLOSE TO ANY OF THE FASTENER HOLES AND REMOVE ANY BURRS LEFT FROM CUTTING.

5. AFTER ANY CUTTING OR TRIMMING HAS BEEN COMPLETED, INSTALL THE CAP SCREWS AND THE SOCKET HEAD CAP SCREWS WITH THREAD LOCKING COMPOUND AND TORQUE IN A CRISS-CROSS PATTERN TO THE PROPER VALUES. AFTER TORQUING THE BOLTS, CHECK TO MAKE CERTAIN THAT NONE OF THE BOLTS PROTRUDE FROM THE SURFACE OF THE ADAPTER PLATE. IF NEEDED, TRIM THE BOLT HEADS OR SHANKS SO THAT THEY ARE FLUSH OR BELOW THE SURFACE OF THE ADAPTER PLATE.

6. THE RING GEAR IS OFFSET TO THE ENGINE SIDE OF THE FLEX PLATE. FROM THIS SIDE, FIT THE HUB SPACER INTO THE FLEX PLATE AND ALIGN THE CRANKSHAFT BOLT HOLES. THIS SHOULD BE A SNUG FIT. IMPORTANT! ANY TIME THAT ANY FORCE IS APPLIED TO THE HUB SPACER USE ONLY A RUBBER Mallet OR WOODEN DOWEL.



7. CAREFULLY ALIGN THE HUB SPACER/FLEX PLATE AND THE CRANKSHAFT BOLT HOLES WHILE PLACING THE HUB SPACER ONTO THE CRANKSHAFT. THE HUB SPACER SHOULD BE A CLOSE FIT TO THE

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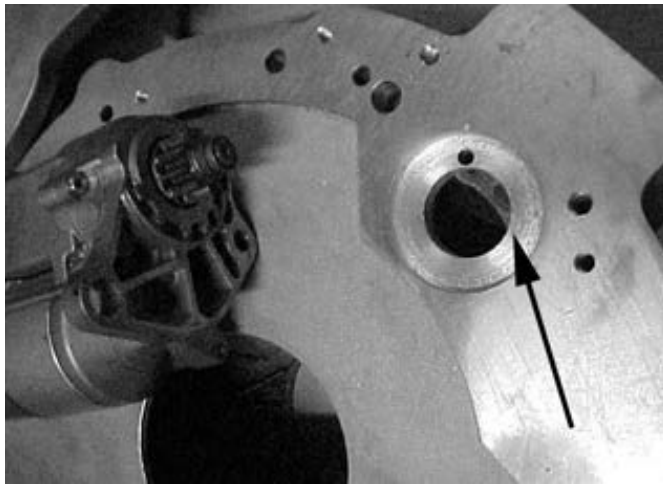
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CRANKSHAFT. INSTALL THE CRANKSHAFT BOLTS WITH THREAD LOCKING COMPOUND AND TORQUE TO THE PROPER VALUE.

8. THE BELLHOUSING MAY NEED TO BE MODIFIED TO ALLOW FOR CLEARANCE FOR THE MOPAR TYPE STARTER. THIS REQUIRES THE USE OF POWER TOOLS AND MEASURING INSTRUMENTS. IF YOU ARE NOT QUALIFIED TO PERFORM THIS MODIFICATION, SEEK ASSISTANCE FROM A LOCAL MACHINE SHOP. ALSO, BE AWARE THAT MODIFYING YOUR TRANSMISSION CASE MAY VOID ANY WARRANTY OR CERTIFICATIONS.

9. PLACE THE ADAPTER PLATE ONTO THE TRANSMISSION BELLHOUSING AND MARK THE AREA SHOWING THROUGH THE STARTER HOLE IN THE ADAPTER PLATE.



10. REMOVE THE ADAPTER PLATE AND MARK STRAIGHT OUT TO THE EDGE OF THE BELLHOUSING FROM THE EDGES OF THE CIRCLE.

11. MEASURE AND MARK 1 INCH (1") DOWN FROM THE SURFACE AND MARK A LINE PARALLEL TO THE SURFACE.



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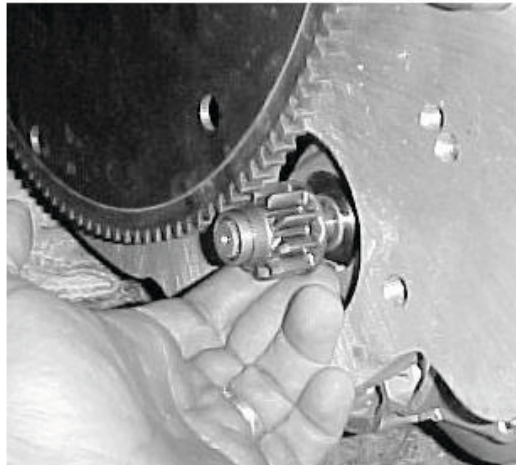
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12. JOIN THE THREE LINES. THIS IS THE AREA THE MUST BE CUT FOR CLEARANCE.

13. THE PREFERED METHOD IS TO MILL OUT THIS AREA USING A 1 5/8" END MILL. BY BOLTING THE ADAPTER PLATE TO THE BELLHOUSING, THE CENTER OF THE 1 5/8" DIAMETER CAN BE FOUND. ALTERNATIVLEY, TWO SMALL DIAMETER HOLES CAN BE DRILLED AT THE INTERSECTION OF THE MARKS AND THE ENTIRE AREA CAN BE CUT AWAY USING A SAW OR A DIE GRINDER.

14. ONCE THE MATERIAL HAS BEEN REMOVED, INSTALL THE STARTER ONTO THE ADAPTER PLATE AND THE ADAPTER PLATE ONTO THE BELLHOUSING. PULL THE STARTER PINION SHAFT OUT TO ITS FULL TRAVEL LENGTH AND CHECK THAT THERE IS SUFFECIENT CLEARANCE.

15. FIT UP THE STARTER MOTOR AND CHECK FOR PROPER RING GEAR TO PINION GEAR ENGAGEMENT. ADJUST IF NEEDED AND TORQUE STARTER BOLTS TO PROPER VALUE



16. BEFORE INSTALLING THE TRANSMISSION, CHECK THAT THE TORQUE CONVERTER IS FULLY SEATED INTO THE FRONT PUMP OF THE TRANSMISSION. THE TORQUE CONVERTER MATING BOSSES SHOULD BE APPROXIMENTLY 1" FROM THE BELLHOUSING FACE.

17. THE TWO 5/16" BOLTS ARE FOR THE TWO HOLES DIRECTLY ABOVE THE CHEVROLET TRANSMISSION DOWEL PIN HOLES. CHECK TO BE CERTAIN THAT THE BOLTS ARE NOT TOO LONG. IF NEEDED, TRIM THE BOLTS TO LENGTH.

18. WHILE INSTALLING THE TRANSMISSION, REMEMBER THAT THE DOWEL PINS ARE FOR ALIGNMENT ONLY AND WILL NOT BEAR THE WEIGHT OF THE TRANSMISSION. IF THE ENTIRE WEIGHT OF THE

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TRANSMISSION IS PUT ONTO THE DOWELS THEY WILL BE PULLED FROM THE ADAPTER PLATE.

19. ALIGN THE CONVERTER AND THE FLEXPLATE HOLES AND START EACH BOLT. ROTATE THE ENGINE AS YOU TORQUE THE CONVERTER BOLTS TO THEIR FINAL VALUE IN AT LEAST THREE STEPS.

20. YOUR BELL HOUSING TO ADAPTER PLATE BOLTS SHOULD GO INTO THE ADAPTER PLATE A MINIMUM OF 1/2". YOUR BELL HOUSING BOLTS SHOULD ALLOW FOR 1/2" OF THREAD INTO THE ADAPTER PLATE. ALSO CHECK THAT THE BOLTS DO NOT REACH PAST THE ADAPTER PLATE AND HIT THE BLOCK. USE THREAD LOCKING COMPOUND ON THE ADAPTER TO BELL HOUSING BOLTS.

Modification Of Mopar-type Starter



Because of clearance, for your application it is necessary to modify the starter. The "nose" of the starter must be removed. This requires the use of machine tools. Please do not attempt this if you are not qualified. Most any machine shop can perform this operation safely at a reasonable cost. Wilcap also has the modified starter available.

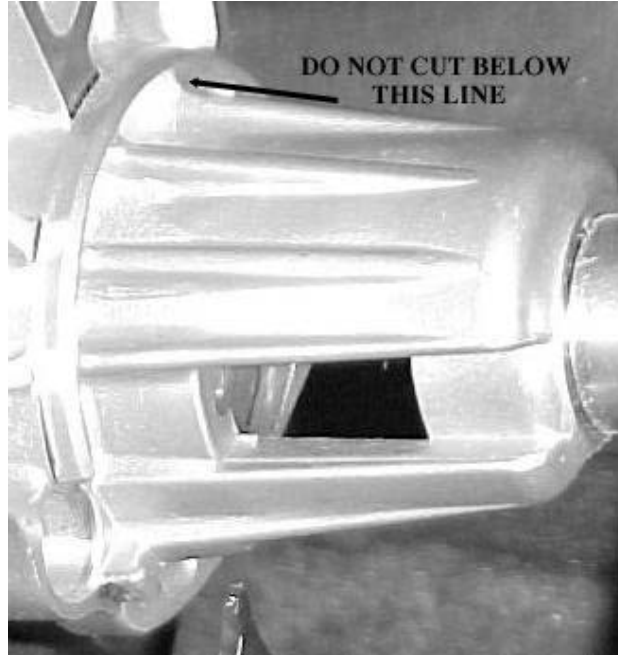
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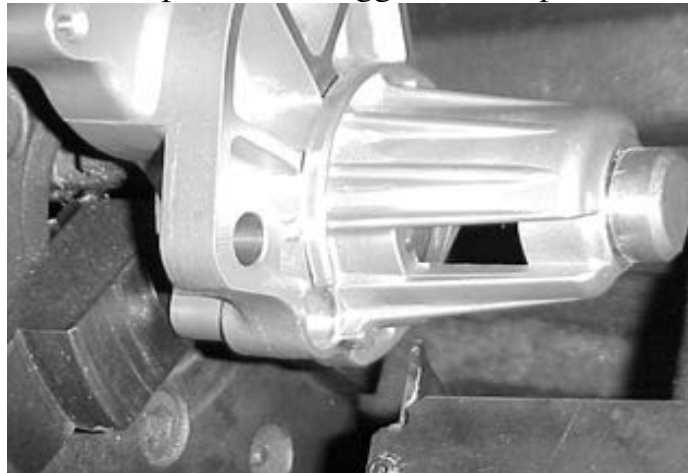
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Disassemble the starter and remove the front of the gear reduction housing.

Chucking on the inside of the main bore, cut the front portion off even with the first boss. Below is a photo of a suggested setup.



An alternative is to use a hack saw, band saw, cutting close to the line and then finish to length using a file or a sander.

Fit the starter nose to the adapter plate and check that it sits flush. Continue to remove material if the starter nose “bottoms out” in the recess cut into the adapter plate.

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Deburr and clean the housing and reassemble.

DO NOT HESITATE TO CONTACT US WITH ANY PROBLEMS, IDEAS OR SUGGESTION TO MAKE THIS PRODUCT BETTER. THANKS AGAIN FOR YOUR BUSINESS.

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