GM Powerglide Kilgore Effect
High Clutch PowerPack®
Hi-Performance, Racing, Drag Boats, Street Rods

ALTO PART # 019756

Alto #019756 POWERPACK® CONTENTS:

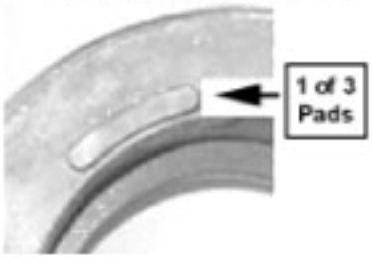
(8) 019742-155 (.061" / 1.55mm) Red Eagle® Friction Plates w/External Teeth
(7) 019731K155 (.060" / 1.52mm) Kolene® Steel Plates w/Internal Teeth
(1) 019701AK (.060" / 1.52mm) Kolene® Steel Plates w/External Teeth

DURABILITY & PERFORMANCE BENEFITS

The enclosed product is designed to offer a significant increase in overall performance and durability when building an aluminum Powerglide for hi-performance and/or racing applications. The friction plates feature ALTO Red Eagle® hi-performance paper with external teeth; when combined with the enclosed Kolene® coated steel plates with internal teeth, the high gear shift is MUCH firmer/shorter because the inertia of the steel plates splined to the turbine shaft and the friction plates splined to the front drum.

PLEASE READ THIS BEFORE BEGINNING INSTALLATION

The Powerglide PowerPack® Kit is engineered with selectively sized (thinner) friction and steel plates. In order to install the full capacity of eight (8) friction plates, a V-8 clutch drum must be used. Additionally, the clutch drum piston must be machined (a simple procedure) and the waved cushion plate is not reinstalled. With this in mind, identify the parts you are working with as the following illustrations show.



INSTALLATION INSTRUCTIONS

Using a ruler or vernier caliper, measure from the bottom of the clutch drum to the ledge where the sun gear flange rests. Defined Further: The bottom of the clutch drum is the area under the bottom of the piston. The sun gear flange ledge is the step approximately 3/16" below the snap ring groove. The measurement should be approximately 1-7/8 (1.875). This distance is much shorter if you have a six cylinder drum.

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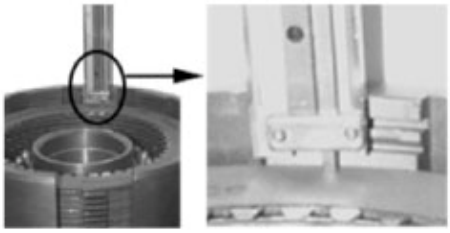
Step 1: Measuring and Machining the Piston: There are three (3) slightly curved, bathtub shaped pads located on bottom side of the piston. Using a vernier caliper or micrometer, measure equal distances from the three (3) individual piston pads to the top of the piston depicted in the illustration between the two horizontal lines as area "A". The top of area "A" is where the first steel plate rests against. An OEM V-8 piston will measure approximately .860". Machine the piston from the top of area "A" until the height is .745" (+/- .005). Important Note: DO NOT machine the piston below .740". Doing so will cause the first steel plate proximity to be BELOW the steel plate lug area. ALWAYS check the proximity of the first steel plate to ensure that the plate lugs are in the lugs of the clutch drum. **Failure to do so may result in a bind-up non-apply!**

Step 2: Installing the Plates: Install the piston seals, piston, return springs, spring retainer, and retainer snap ring. You will NOT be installing a waved cushion plate. Instead, install one of the furnished FLAT steel plates with external teeth, followed by a friction plate and continuing the build-up of friction and steel plates in the usual manner. The top plate will be a friction. Note: Be sure to pre-soak the friction plates in clean ATF for at least fifteen minutes to avoid surface glazing and premature friction element distress!



Step 3: Measuring the Clutch Pack Clearance: Since the Powerglide® high gear clutch pack is a dynamically applied clutch whereas the low band releases while the high clutch applies, properly timed shift overlap is very important to avoid a cut loose or spin-up. Refer to the illustrations to measure the overall clutch pack clearance. Using a venier caliper or depth micrometer, rest the flat bar of the instrument on the sun gear flange ledge which is located approximately 3/16" below the top snap ring groove. While the measuring instrument is resting on the ledge you will extend the instrument's rod until it is **lightly** pressing down on the top friction plate. Take note of the measurement which is the total clutch pack clearance. It should be .080 +/- .010. The recommended clutch pack minimum/maximum clearance is .060-.100.

Technical Note: It is recommended to use one of the aftermarket front clutch hubs available. This will allow you to install all of the contents of this kit.