



Updated 6/25/14

HV1-430.AS-INST

ADAPTER SLEEVE FOR REAR MAINSHAFT BEARING UPDATE

GENERAL NOTES

The HV1-430.AS adapter sleeve allows installation of the new style HV rear mainshaft bearing into an early main case. This modification will be required if you are upgrading to a new style mainshaft with the larger 30-tooth input coupler spline.

Any HV main case with serial number 0709 or lower will need to be modified if this upgrade is to be installed. Cases with serial number 0710 or higher do not need to be modified.

Do not attempt this modification without proper equipment. We recommend using a professional machine shop.

PARTS REQUIRED FOR UPGRADE

The following parts will be required to upgrade your trans to the new 30-tooth input spline:

HV-9106	Input Shaft
HV-933	Input Coupler
N-012-425-1	Circlip for Input Coupler
HV1-#####	HV1 Mainshaft (### denotes ratio)
HV-430	HV Rear Mainshaft Bearing
HV1-430.AS	Rear Mainshaft Brg Adapter Sleeve
HV-993	Retainer Plate for Rear MS Bearing

MACHINING INSTRUCTIONS

1. Place the main case on the machine bed. Secure to the table.
2. Indicate the rear mainshaft bore (see Figure 1). The center of the existing bore will be your X=0 and Y=0.
3. Using a boring bar or similar tool, machine the bore out to a diameter of $36.975 \pm 0.013\text{mm}$ (1.4557 ± 0.0005 "). Machine to the same depth as the existing bore, which should be $20.00 \pm 0.03\text{mm}$ ($.787 \pm 0.001$ ").

IMPORTANT: The bore size and center location are extremely critical and must be machined accurately. If you do not have the proper machine tools, do not attempt this modification.

4. Use a 9.5mm ($3/8$ ") diameter end mill (or similar) to machine two notches (see Figure 2). This will facilitate bearing removal during future trans services. Be careful not to damage the bearing bore when machining the notches.

5. Material will have to be removed to clear the new larger diameter input coupler (see Figure 3). On the differential side of the main case, you will have to clearance out to a diameter

of 42mm (1.654"). Machine to a depth that is slightly higher than flush with the pinion bearing carrier mounting surface (see Figure 4).

6. Gently tap the rear mainshaft bearing (HV-430) into the adapter sleeve (HV1-430.AS).
7. Warm up the main case and drop the assembled bearing and sleeve into the mainshaft bearing bore. Install the new bearing retainer plate (HV-993) using the existing bolts.
8. From here, the gearbox can be assembled as normal. If you have any questions, please call don't hesitate to call Weddle Industries at (805) 562-8600.



Figure 1. Indicate mainshaft bearing bore.



Figure 2. Modified bearing bore with notches.



Figure 3. This area must be cleared for input coupler.

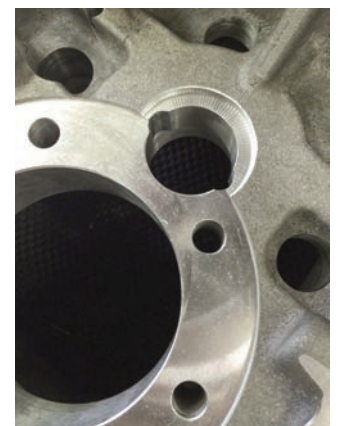
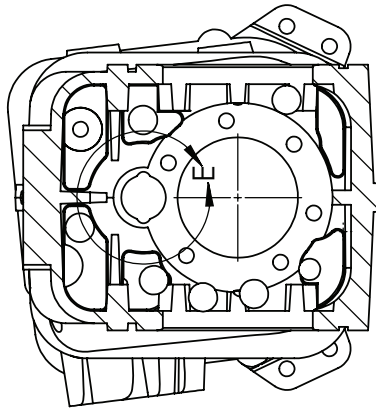


Figure 4. Case after machining input coupler clearance.

MAINSHAFT BEARING UPDATE FOR HV1 MAIN CASE

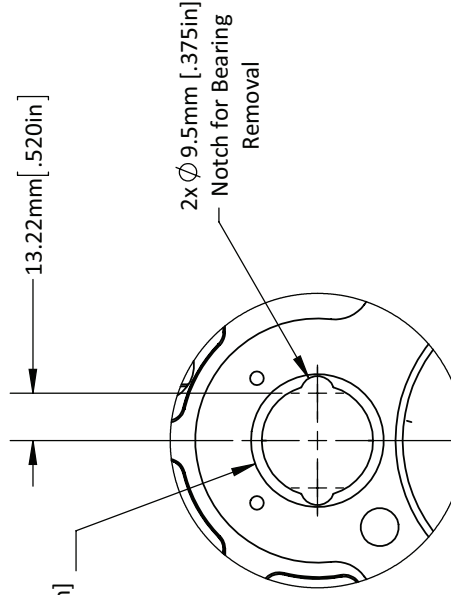


$\phi 42\text{mm}$ [1.654in]

Machine clearance for input coupler.
Depth: Leave slightly higher than flush
with pinion bearing carrier mounting
surface.

DETAIL E
SCALE 1 : 2

SECTION D-D
SCALE 1 : 5

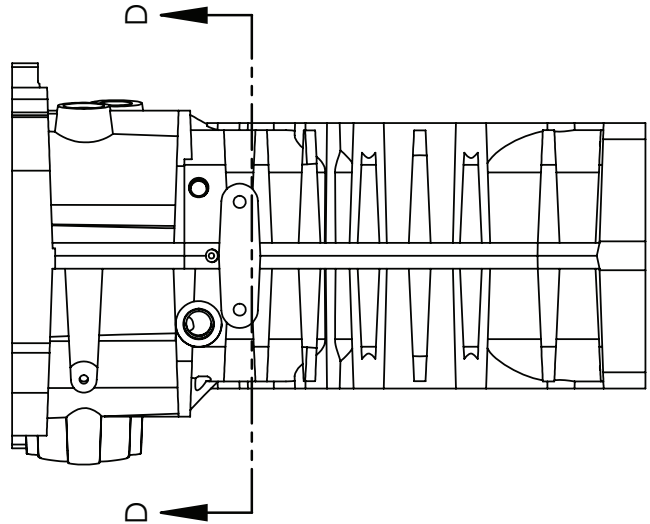


13.22mm [.520in]

$\phi 36.975 \pm 0.013\text{mm}$ [1.4557 $\pm$.0005in]
 $\nabla 20.00 \pm 0.03\text{mm}$ [.787 $\pm$.001in]

2x $\phi 9.5\text{mm}$ [.375in]
Notch for Bearing
Removal

DETAIL B
SCALE 1 : 2



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Drawing No:

Drawing Name: Update for HV1 Main Case

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