

Paso Robles, CA 93447

Telephone: (800) 350-2223 Fax: (805) 238-4201

PAGE 1 OF 8 Page Rev. Date: 09-11-17

P/N: 712568

### BELLHSG. FOR JEEP 4.0 & V8 304 ENG. TO 1996 & NEWER GM NV4500

### **KIT CONSISTS OF:**

| No. | Qty | Part No.   | <u>Description</u>                              |
|-----|-----|------------|---|
| 1.  | 1   | 712568-BLK | SPECIAL 1996 NV4500 BELLHOUSING                 |
| 2.  | 1   | 716067A    | MODIFIED BEARING RETAINER                       |
| 3.  | 1   | 716109     | 3/4" SOFT PLUG                                  |
| 4.  | 1   | 716156-GM  | PILOT BUSHING W/ .590" I.D.                     |
| 5.  | 1   | 716176     | CLUTCH RELEASE ARM                              |
| 6.  | 1   | 716176SC   | GM THROW-OUT LEVER SPRING CLIP                  |
| 7.  | 1   | 716180     | BALL PIVOT                                      |
| 8.  | 1   | 716332     | CLUTCH LEVER BOOT                               |
| 9.  | 2   | 720057     | 6mm x 1.00 x 16mm LG.                           |
| 10. | 2   | 723134     | H.H.C.S. 5/16"-18 x 1-1/4" LG. (Slave Cylinder) |
| 11. | 6   | 724303     | 7/16" LOCK WASHERS                              |
| 12. | 4   | 724328     | H.H.C.S. 7/16"-14 x 1-1/4" LG. (TRANS)          |
|     |     |            | ,   |

NOTE: If our bellhousing does not index over the front retainer and the retainer is aluminum, you could have an after market retainer. The stock NV4500 retainers should measure 5.5957" to 5.5977" in diameter. Some after market one were .003" to .007" larger in diameter. If this is the case, you would need to modify your retainer to fit our bellhousing.



<u>NOTE:</u> The 4.0L blocks originally mated to a manual transmission used a 2 piece pilot bushing. Both pieces must be removed, the bearing and the sleeve. If these pieces are not removed, the new brass pilot bushing will not fit. We do not offer a smaller pilot bushing to fit the reducer sleeve. On 4.0L that were originally mated to a automatic the new pilot bushing will fit without any modifications.

### **RETAINER INSTALLATION:**

The stock GM NV4500 transmission used an internal release bearing that mounts to the front aluminum bearing retainer housing. Kits purchased <u>before</u> May 7, 1999, used a modified Dodge retainer (which was supplied in the kit). This retainer replaced the GM aluminum retainer and provided the proper configuration to utilize the new release bearing assembly. If this bellhousing was purchased with the intent to use a Dodge transmission with a new input shaft, your stock retainer must be modified. Refer to Page 3 for machining specifications.

Kits purchased <u>after May 7</u>, 1999, will retain the stock GM aluminum bearing retainer and will use P/N 716067A to obtain the proper configuration. Part No. 716067A is a modified retainer that bolts to the stock GM retainer. We switched to this design due to changing the front retainer may also require main output shaft shimming.

Part No. 716067A is machined to index over the stock GM aluminum retainer. Once the retainer is indexed, rotate the 716067A to line up with the two drilled & tapped holes located on the GM retainer. Using the two (2) 6mm fasteners & **Loctite #242**, secure the 716067A to the GM retainer. NOTE: We have seen some aftermarket GM aluminum retainers that have a larger index hub. This hub measures 4.408". Our retainer is machined to fit the stock GM retainer which measures 4.398". If our P/N 716067A does not fit the aluminum hub on the NV4500 retainer, then one of the pieces will be required to be machined for proper indexing.



Telephone: (800) 350-2223 Fax: (805) 238-4201 Page Rev. Date: 09-11-17

PAGE 2 OF 8 P/N: 712568

# BELLHSG. FOR JEEP 4.0 & V8 304 ENG. TO 1996 & NEWER GM NV4500



Stock GM retainer



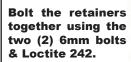
Line up holes of the modified retainer with the GM retainer holes.







Make sure the modified retainer lines up with the two drilled & tapped holes on the GM retainer.







Paso Robles, CA 93447

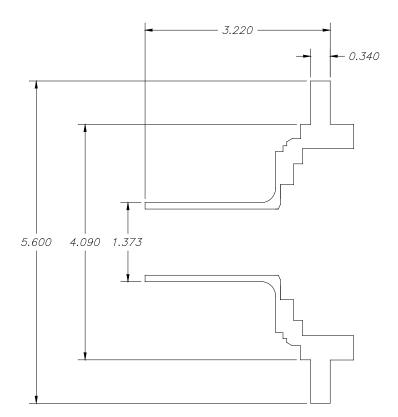
Telephone: (800) 350-2223 Fax: (805) 238-4201 PAGE 3 OF 8 Page Rev. Date: 09-11-17

P/N: 712568

# BELLHSG. FOR JEEP 4.0 & V8 304 ENG. TO 1996 & NEWER GM NV4500

#### **NOTE:**

For customers that have a Dodge gas version transmission and wish to use this bellhousing, you will need to purchase a new Chevy input shaft, Advance Adapters Part No. 52-0221. You will also need to machine your stock retainer. We have enclosed this drawing for your reference. We also carry a modified retainer under our P/N 716067.



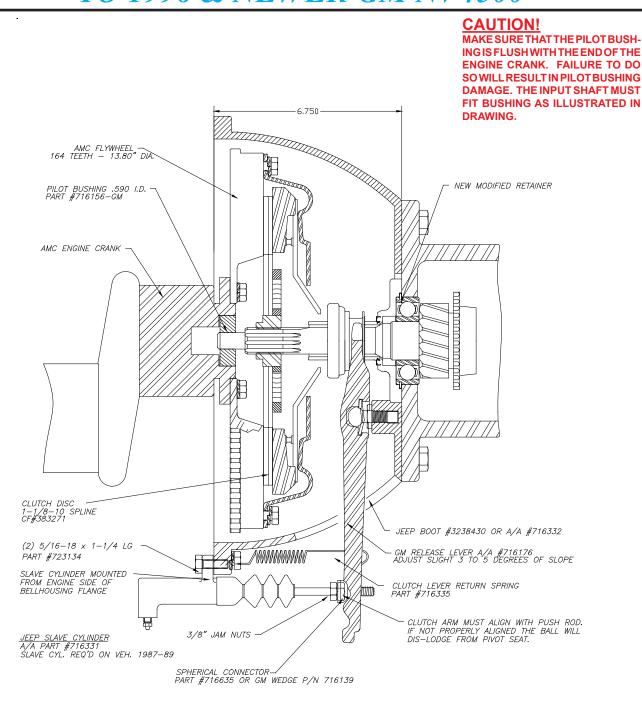


Paso Robles, CA 93447

Telephone: (800) 350-2223 Fax: (805) 238-4201 PAGE 4 OF 8 Page Rev. Date: 09-11-17

P/N: 712568

# BELLHSG. FOR JEEP 4.0 & V8 304 ENG. TO 1996 & NEWER GM NV4500



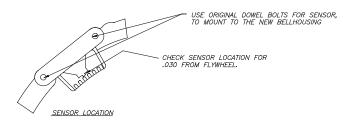


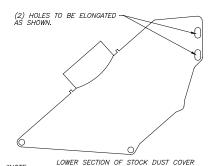
Paso Robles, CA 93447

Telephone: (800) 350-2223 Fax: (805) 238-4201 PAGE 5 OF 8 Page Rev. Date: 09-11-17

P/N: 712568

# BELLHSG. FOR JEEP 4.0 & V8 304 ENG. TO 1996 & NEWER GM NV4500





\*NOTE: EDUTED SECTION OF THE POST POST OF THE LOWER DUST COVER MUST BE MODIFIED ACCORDINGLY BEFORE INSTALLATION OF SLAVE CYLINDER SLAVE CYLINDER SHOULD BE INSTALLED TO TOP OF DUST COVER.



### Note:

2005 & Newer 4.0L engines use a new location and style of crank position sensor. Shown in photo below is the newer CPS location. If your engine is pre-2005, please plug this hole with the 3/4" soft plug that has been provided. Plug will need to be pressed or tapped in using a dowel and soft hammer.



Paso Robles, CA 93447

Telephone: (800) 350-2223 Fax: (805) 238-4201 Page Rev. Date: 09-11-17

PAGE 6 OF 8

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### **INSTALLATION INSTRUCTIONS:**

Depending on the year of the vehicle that you are dealing with, you will need to vary the clutch control requirements accordingly. The bellhousing that Advance Adapters has manufactured will use a GM clutch release arm along with a GM clutch release bearing. Since you are using a GM transmission, the N1430 release bearing and GM clutch release arm will work perfectly without any modifications. The new GM clutch arm will have an internal snap ring to lock onto the ball pivot stud inside the new bellhousing. On Jeep vehicles that were originally equipped with a mechanical clutch control, you should not have any problem adapting your original clutch linkage to the new clutch arm. On Jeep vehicles that were previously equipped with a hydraulic slave cylinder such as 1987-2005 and 1980-1986 four cylinders, you will need to use a Jeep slave cylinder that was used in the 1980-1983 Iron Duke four cylinder Jeep vehicles. We recommend that you use the Advance Adapter Jeep clutch control slave cylinder kit, Part No. 716331. This new assembly will include all the necessary parts to mount to the new bellhousing.

The bellhousing is a direct duplicate of the original AMC stock bellhousing. The flywheel sensor, dowel pin holes and dust cover mounting holes are all in the original location. The original dust cover or block plate must be retained for use with the Advance Adapter bellhousing. This plate is normally already on the engine block. The flywheel sensor must be installed onto the new bellhousing using the original bolts. The factory dowel bolts provide the necessary accuracy to mount the sensor in the appropriate location.

Your new NV4500 transmission will require a new pilot bushing for the engine crank and possibly a new clutch disc. The new transmission will require a Chevy clutch disc with a 1-1/8"-10 spline size Centerforce No. 384193. It is advisable that you check the input shaft tip engagement into the new pilot bearing after installation. **DO NOT FORCE THE TRANSMISSION INTO POSITION.** The flywheel must be 1" thick. We have seen some flywheels up to 1.5" thick, which can cause interference problems. This 1" measurement should be taken from the crank flange to the clutch disc surface. This bellhousing also requires the use of a diaphragm pressure plate. Most Borg & Beck 3 finger pressure plates will not work.

<u>CAUTION</u>: On some of the early installations, we have encountered an interference problem between the clutch pressure plate and clutch release arm. The solution is to grind the necessary clearance on the inside of the bellhousing and modify the release lever approximately 1/16". It will be necessary that you check the clutch clearance inside the bellhousing prior to transmission assembly. This problem has only occurred with aftermarket clutch assemblies or thicker than normal flywheels.



Paso Robles, CA 93447

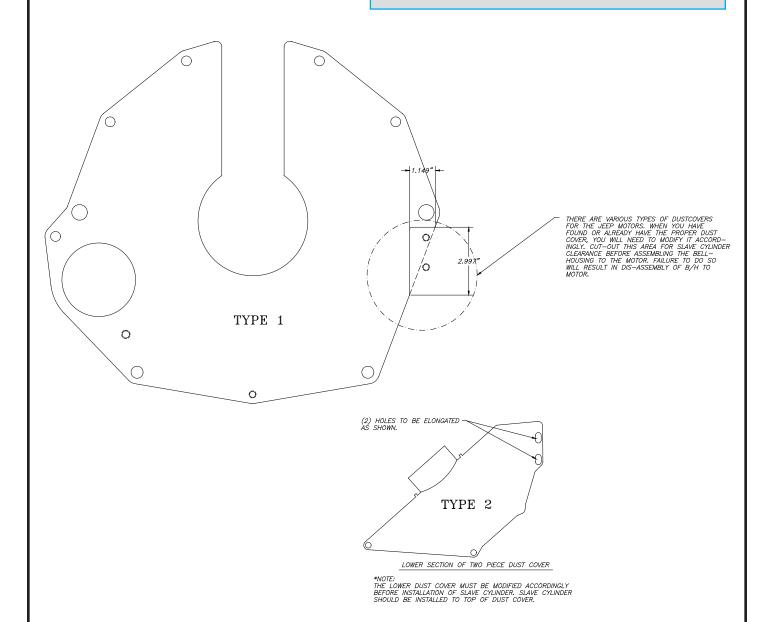
Telephone: (800) 350-2223 Fax: (805) 238-4201

PAGE 7 OF 8 Page Rev. Date: 09-11-17

P/N: 712568

# BELLHSG. FOR JEEP 4.0 & V8 304 ENG. TO 1996 & NEWER GM NV4500

\*NOTE: THE LOWER DUST COVER MUST BE MODIFIED ACCORD-INGLY BEFORE INSTALLATION OF SLAVE CYLINDER. SLAVE CYLINDER SHOULD BE INSTALLED TO TOP OF DUST COVER.





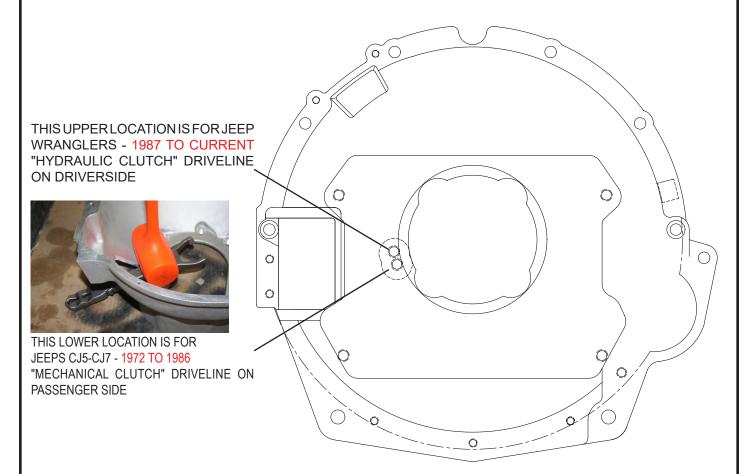
Telephone: (800) 350-2223 Fax: (805) 238-4201 PAGE 8 OF 8 Page Rev. Date: 09-11-17

P/N: 712568

# BELLHSG. FOR JEEP 4.0 & V8 304 ENG. TO 1996 & NEWER GM NV4500

CAUTION: CRITICAL SELECTION FOR BALL STUD LOCATION.

TOP



The new pivot ball needs to be installed into the bellhousing. Apply blue Loctite to the threads and torque to 40-45 ft-lbs. The clutch fork will need the spring clip installed; a pair of needle nose pliers works well. Once the spring clip is installed, apply grease to the spring and socket of the fork.

\*Note: Clutch fork must be installed into the bellhousing before bolting to the engine.

Place the fork over the pivot ball, centering the spring clip. With a dead blow hammer, hit the back side of the fork using ample force, directly perpendicular to the pivot ball (2 or 3 times may be required). Fork should move free, with slight resistance. If not, repeat the force with the dead blow hammer. See photo above