

JEEP & SCOUT DANA 20 T/C TAILHOUSING 32 SPLINE OUTPUT

KIT CONSISTS OF:

No.	Qty	Part No.	Description
1.	1	51-3020	CASTING (<i>Installed by AA</i>)
2.	1	52-3020	SHAFT (<i>Installed by AA</i>)
3.	4	723730	S.H.C.S. 3/8"-16 x 1-1/4"
4.	1	723713	3/8"-16 x 1.25" STUD BOLT
5.	1	723701	3/8"-16 NUT
6.	1	300314A	TAPPERED BEARING
7.	1	300491	REAR YOKE END PLAY SHIM (3 sizes) (<i>Installed by AA</i>)
8.	1	300513A	BEARING, REAR OUTPUT (YOKE SIDE) (<i>Installed by AA</i>)
9.	1	300625	SPEEDO RING GEAR (<i>Installed by AA</i>)
10.	1	300627	CIRCLIP, SPEEDO RING GEAR
11.	1	300922	BREATHER, BRASS ELBOW
12.	1	301403	BOLT- 5/16"-18 x 3/4" H.F.C.S. SPEEDOMETER CLIP BOLT
13.	1	300476	YOKE NUT

NOTE: This kit is 1.5" longer than stock.

This tailhousing uses a larger Jeep speedometer.

you have a few options:

1. We offer a hole plug that seals the speedometer hole in this casting. P/N 300621

or

2. We offer a Jeep style speedometer housing that can be equipped with a new gear to calibrate your speedometer for tire size and axle ratio. P/N 301506. The speedometer gear options are on the last page.



SPECIAL NOTE: The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand modifications or changes that will be required to complete your conversion, we strongly recommend that you contact our sales department for more information. This instruction sheet is only to be used for the assembly of Advance Adapter components. We recommend that a service manual pertaining to your vehicle be obtained for specific torque values, wiring diagrams and other related equipment. These manuals are normally available at automotive dealerships and parts stores.

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The Dana 20 H.D. output shaft kit is a very simple kit to install. The transfer case can be left in the vehicle for the installation of this kit. Driveshaft modifications will be required due to the 1.5" longer output shaft housing. The use of this kit gives you the advantage of calibrating you speedometer for tire and axle variations.



Remove the (5) fasteners from the stock tailhousing. Remove the tailhousing from the Dana 20 transfer case. The stock tailhousing used a gasket between it and the transfer case. Make sure the gasket is removed completely from the transfer case surface. When comparing the old Dana 20 tailhousing to the new, there are a couple of changes to our tailhousing that you will need to compensate for. The first is the length of our unit which is 1.5" longer, so driveshaft modifications will be required. Second, the speedometer drive on our tailhousing is designed around the later model Jeep tail housings. This speedometer drive allows you to adjust your speedometer to compensate for larger tires and axle ratio changes. Third is the breather assembly. The stock tailhousing has a metal breather mounted to the top of the tailhousing. Our tailhousing is designed with a brass elbow. Our tailhousing requires a piece of 3/8" fuel hose to be clamped to the brass elbow and a breather to be installed at the opposite side of the hose. We also recommend that this hose be long enough to extend up into the engine compartment to avoid any type of water contamination.



We designed our kit to bolt to the Dana 20 without a gasket. We recommend using a very thin film of RTV blue silicone. Apply a small dab and smooth it out with your finger. Our tailhousing also requires the use of a stud bolt located at approximately 8 o'clock on the case. The stud bolt must be installed so that only .600" is protruding from the case. Make sure the bolt does not go too far into the case and interfere with the Dana 20

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gear. Our tailhousing bolt hole that corresponds to the stud bolt has a milled pocket into which the 3/8"-16 nut must be set into. As you assemble the tailhousing to the case, thread the nut to the stud.



Stud bolt and nut being installed on the new tailhousing



New tailhousing being installed. Be sure to check spline alignment between our shaft and your stock gear.



New tailhousing installed. The new bolts need to be torqued to 30ft./lbs. Turn the yoke to make sure the unit is not bound up or is not binding.

Fill your unit with the recommended oil.

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Speedometer Calibration: There are two factors that affect your speedometer reading; actual tire diameter and axle gear ratio. The actual tire diameter is usually different than what is printed on the side wall of your tire. For example: A 33 x 11.5 x 15 tire (depending on the brand), may actually measure 32.5" in diameter. Tire sizes vary greatly among the suppliers. Even the same tire from the same manufacturer can vary as much as 7% in diameter.

GEAR RATIO	ADVERTISED TIRE DIAMETER									
	37"	36"	35"	33"	32"	31"	30"	29"	28"	
5.13	36T	37T	39T	41T	37T	37T	38T			
4.88	34T	35T	39T	41T	37T	37T	38T			
4.56	32T	33T	35T	36T	37T	37T	38T			
4.10	29T	30T	33T	34T	35T	36T	37T	38T	39T	
3.73	26T	27T	31T	32T	32T	33T	34T	34T	35T	
3.55			30T	31T	31T	32T	33T	33T	34T	
3.07			26T	26T	27T	27T	28T	28T	29T	

Listed below are a few of the part numbers for the Jeep speedometer pinion gears to calibrate your speedometer.

300620-26	SPEEDOMETER GEAR-LONG 26 TOOTH
300620-27	SPEEDOMETER GEAR-LONG 27 TOOTH
300620-28	SPEEDOMETER GEAR-LONG 28 TOOTH
300620-29	SPEEDOMETER GEAR-LONG 29 TOOTH
300620-30	SPEEDOMETER GEAR-LONG 30 TOOTH
300620-31	SPEEDOMETER GEAR-LONG 31 TOOTH
300620-32	SPEEDOMETER GEAR-LONG 32 TOOTH
300620-33	SPEEDOMETER GEAR-LONG 33 TOOTH
300620-34	SPEEDOMETER GEAR-LONG 34 TOOTH
300620-35	SPEEDOMETER GEAR-LONG 35 TOOTH
300620-36	SPEEDOMETER GEAR-LONG 36 TOOTH
300620-37	SPEEDOMETER GEAR-LONG 37 TOOTH
300620-39	SPEEDOMETER GEAR-LONG 39 TOOTH
300620-40	SPEEDOMETER GEAR-LONG 40 TOOTH
300620-41	SPEEDOMETER GEAR-LONG 41 TOOTH
300620-42	SPEEDOMETER GEAR-LONG 42 TOOTH
300620-43	SPEEDOMETER GEAR-LONG 43 TOOTH



This tailhousing offers a speedometer option (sold separately). This tailhousing is designed to fit a stock Jeep (1983-86) mechanical driven speedometer housing. Vehicles requiring a cable connection for the speedometer can order [P/N 301506](#). The speedometer gear is not included with this housing, but by using the charts above you can select the correct gear for your tire size and axle ratio.

If your stock cable does not fit this speedometer housing or if you require additional speedometer connections, then we recommend that you contact Nevada Speedometer at (775)358-7422.

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