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PAGE 1 OF 5 Page Rev. Date: 08-17-20  
P/N: 303017L

## *SINGLE STICK ATLAS SHIFTER LEFT DROP*

### **KIT CONSISTS OF:**

<b>No.</b>	<b>Qty</b>	<b>Part No.</b>	<b>Description</b>
1	1	302200	CABLE-ATLAS SHIFTER 62 LENGTH 1 TRAVEL
2	1	302201	U-BOLT 5/16 -24
3	2	302203	ROD END-FEMALE 5/16 RH
4	5	302204	NUT- 5/16 -24 THIN NYLOCK GRD2
5	2	302205	PIN CLEVIS 3/8 X 1.25 HARDEND
6	2	302206	PIN HAIRPIN COTTER COATED
7	4	302207	BOLT 5/16 -24 X 1.25 H.H.C.S. GRD 5
8	1	302208	KNOB- NAVISTAR ATLAS SINGLE LEVER
9	1	302220	LEVER- SINGLE STICK SHIFTER
10	1	302221	HOUSING- ATLAS SINGLE STICK SHIFTER
11	1	302222	BARREL- SINGLE STICK CABLE
12	1	302223-LH	BRACKET- LH CABLE MOUNT SINGLE STICK
13	2	302224	BRACKET- ATLAS SHIFT RAIL ACTUATOR
14	1	302225	SPACER- ATLAS ACUATOR BRACKET
15	2	303055	ROD END- ATLAS SHIFT RAIL
16	2	303081	BUSHING- IGUS 1/2 X 1/2
17	2	303312	BUSHING- IGUS 3/8
18	1	340602	BOOT RING- ATLAS SINGLE STICK
19	1	340605	BOOT- SINGLE STICK
20	1	340610	RETAINER- ATLAS CABLE SHIFTER BARREL
21	2	340615	BOLT- 1/4 -20 X 5/8 Button Head Socket Cap Screw
22	1	715599A	SET SCREW- 1/4-28 X 3/16 PLAIN FINE
23	4	722546	SCREW-TEK HEX SELF DRILLING W/NEO #10- 16 X 1
24	1	723158	5/16-24 X 1" SFHCS G5 ZS
25	1	723703	NUT 3/8 -16 NYLOCK G5 PLT
26	3	723731	BOLT 3/8 -16 X 1.00" SHCS ZINC
27	1	723735	WASHER 3/8 SAE FLAT PLT
28	1	723773	SCREW 1/2 X 2 HEX SOCKET HEAD SHOULDER SCREW

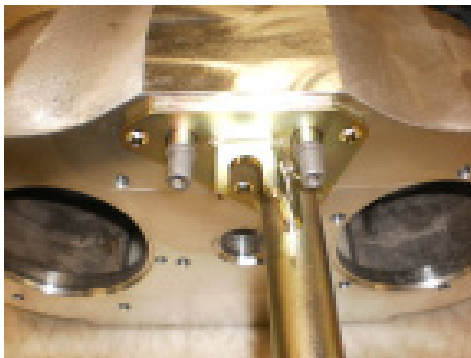
Note; This shifter kit should be used with an Atlas case built for the single stick shifter. The standard built Atlas can work with this kit, however, it may be hard shifting.

## *SINGLE STICK ATLAS SHIFTER LEFT DROP*

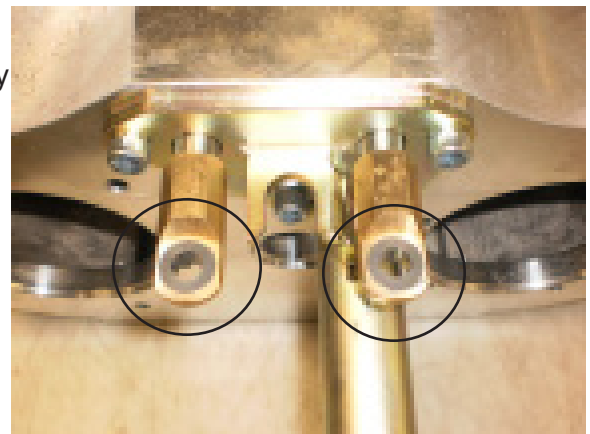
The single stick shifter can be used on all new Atlas transfer cases as well as retrofitted to any older Atlas transfer case units. When retrofitting the single stick to an older case, the old transfer case linkage must be removed. This would include the twin stick base mount that bolts to the case with the 3 S.H.C.S. Once the old linkage is removed, the front of the case should be cleaned.

The new cable mount will slide over the Atlas shifter rails and bolt to the case using the 3 new 3/8"-16 x 1" S.H.C.S. These bolts should be install with a small amount of RTV silicone on the threads to prevent any oil leaking from the transfer case. The bolts need to be

torqued to 35 ft.-lbs. **NOTE:** We manufacture two of these cable mounts, one for a left drop case and one for a right drop case. The mount will only fit the case drop it was designed for.



The new brass shift rail ends need to be threaded onto the shift rails. The Iglas bushings should be install prior to threading them to the shift rails. Install the brass completely onto the shift rail and then back it off two complete turns, the Iglas bushing to be located towards the top of the transfer case.



## *SINGLE STICK ATLAS SHIFTER LEFT DROP*

Use one of the P/N 302207 bolts and P/N 302225 spacers and bolt the two actuators together. The actuators do have a slotted hole on one side. Make sure that these are bolted together symmetrical. Use the thin lock nut to secure.



Assemble the shift actuator bracket onto the brass rod end with the slotted portion going on the shift rail closest to the transmission input side of the transfer case.

With the shift actuator assembled onto the brass rod ends, insert the 3/8" clevis pins and secure with the two supplied cotter pins.



Loosely assemble supplied heim onto the 5/16"-24 cable threads. NOTE: The cable only mounts to the transfer case in one direction. Inspect the cable and find the end with a groove on in. The opposite end has a threaded section for mounting to the handle. Connect the groved end to the Heim joint. Attach the cable onto cable mounting bracket with supply U-bolt and 5/16"-24 thin locknuts.



## *SINGLE STICK ATLAS SHIFTER LEFT DROP*

Adjust the heim so that it travels approximately 1/8" past the 4L position and secure using jam nut. Attach heim to actuator bracket using supplied 302207 bolt and thin locknut.

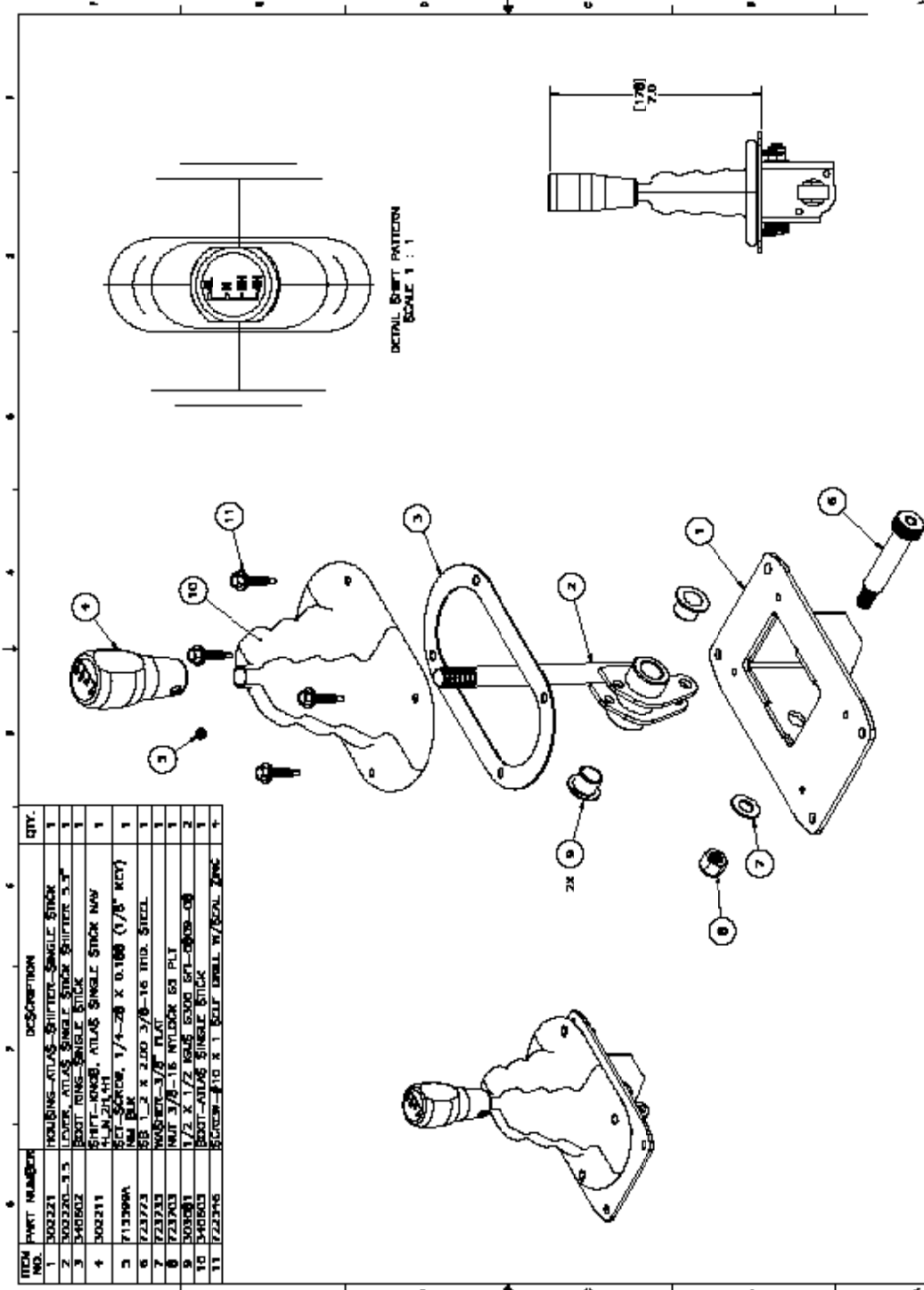
Assemble the Igus bushings into the handle pivot bore if not installed. Slide the handle into the shifter box and use the shoulder bolt lock nut and one flat washer to secure. Remove one of the 1" cable nuts from the cable and discard leaving the star washer and one nut on the cable. Install the cable retainer and then the cable barrel onto the cable; thread on fully. Use the 2 button head bolts to secure the cable barrel and cable to the shifter box. Install the second heim joint as far as the threads allow and jam nut it in place. Use the last 302207 bolt to couple the heim joint to the shifter handle.



After attachment to cable shifter housing, cycle through all shift points and adjust if shift lever hits the inside of the shifter housing. Install boot retaining ring into supplied shifter boot. Attach shifter housing to vehicle floor using supplied 1/4" fasteners. Attach shifter boot to shifter housing using (4) supplied self tapping screws. Install shift knob jam nut and shift knob.



## SINGLE STICK ATLAS SHIFTER LEFT DROP



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	300221	HOUSING-ATLAS-SHIFTER-SINGLE STICK	1
2	300220-15	UPPER-ATLAS-SINGLE STICK SHIFTER 5.3"	1
3	340602	BEAST RING-SINGLE STICK	1
4	300211	SHIFT-ROCK-ATLAS-SINGLE STICK MAY 4.5X2.5X1.5	1
5	71399A	SHIFT ROD, 1/4-28 X 0.100 (1/8" KEY)	1
6	723723	SS 1.2 X 2.00 3/8-16 THRD. STEEL	1
7	723723	WASHER-3/8" FLAT	1
8	723703	NUT 3/8-16 NUTLOCK SS PLT	1
9	303581	1/2 X 1 1/2 KEYS EXCVD 671-0009-08	2
10	340603	BEAST-ATLAS-SINGLE STICK	1
11	722346	SCREW-#10 X 1 SELF DRILL W/SEAL WING	4