

GATE ASSEMBLY CAM ADJUSTMENT

Large Series #1223

1. When installing the large series cam operated reverse gate, it is necessary on older jet drive models to cut clearance into the main jet drive housing to clear the nut holding the cam roller to allow full travel of the gate from forward to reverse.

This can be done with a drill, hacksaw and file but is more easily done with a rotary file. (see diagram)

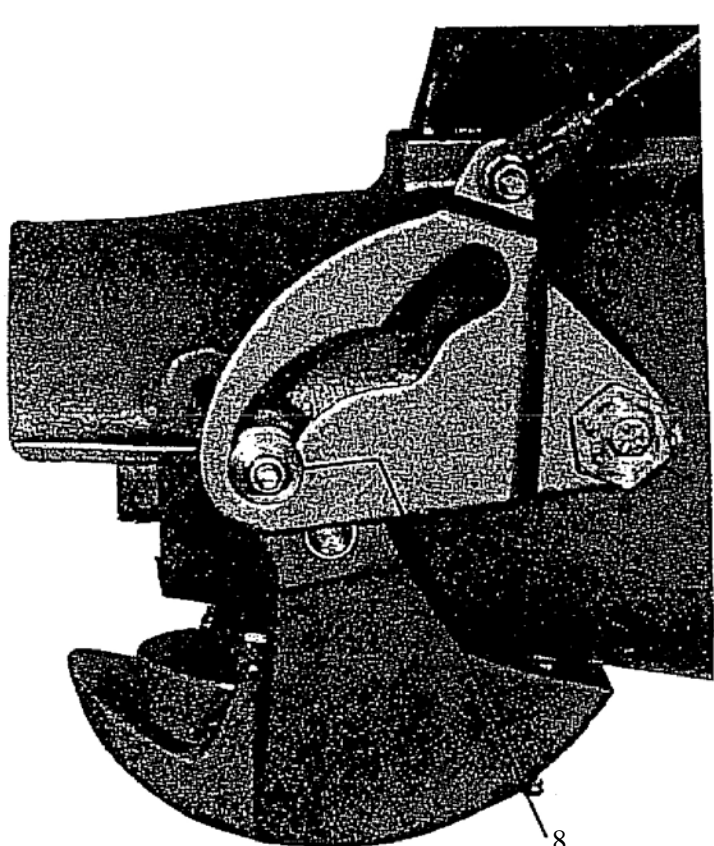
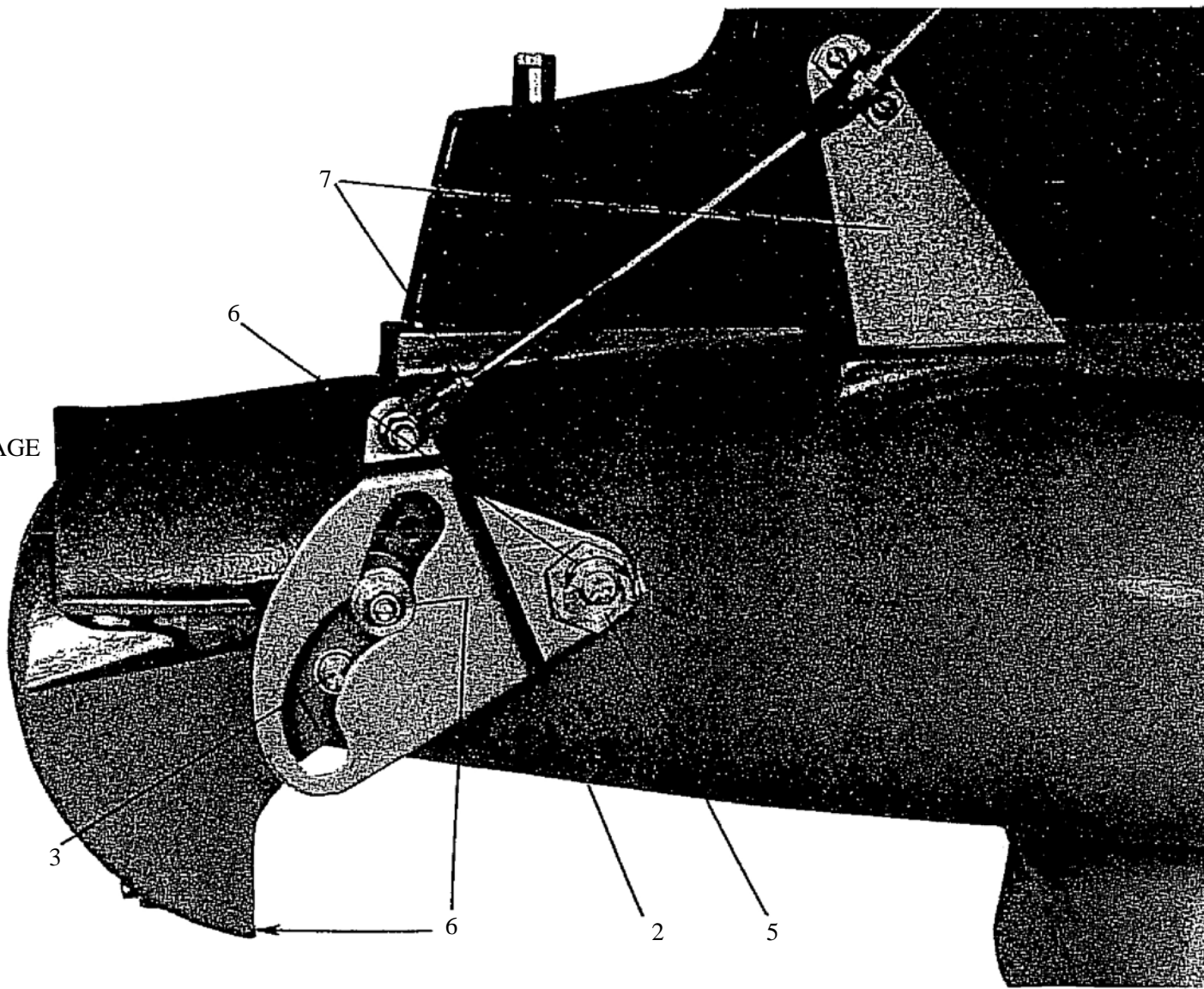
2. Remove the rubber gate pad from beneath the main housing.
3. Install the reverse gate on the main housing. The wavy washer is used on the left side to prevent side rattle of the gate on the pivot pins. Lock the bolts holding the pivot pins. Use grease on the threads.
4. The cam roller enters the cam at the wide upper end of the slot by tipping the cam.
5. Install the hex cam eccentric and bushing assembly with 1 inch bolt. Do not lock the bolt.
6. Using a light finger pressure on the gate, move the gate toward reverse until the cam roller is nested in the neutral notch of the cam. Holding the gate in this position, rotate the eccentric until the gate clears the underside of the nozzle hood by the width of the clearance gage. The desired clearance for a Large Gate is 15/32". Keep the high lift side of the eccentric facing in the upper side of the circle during this adjustment. Tighten the bolt to lock the hex cam eccentric in this position. Torque to 8-9 ft. lbs. Re-check the setting.
7. Adjust the shift cable ends and the cable anchor bracket on the jet drive such that the roller is in the neutral nest when the shift handle is in neutral. Tighten both cable end nuts.
8. Shift to forward. The roller should be at the end of the slot in the cam such that the gate cannot be forcibly rotated toward reverse. Pull on the gate by hand to verify this.

If this forward lock condition is not met, readjust the cable positions, giving less importance to the roller position in neutral.

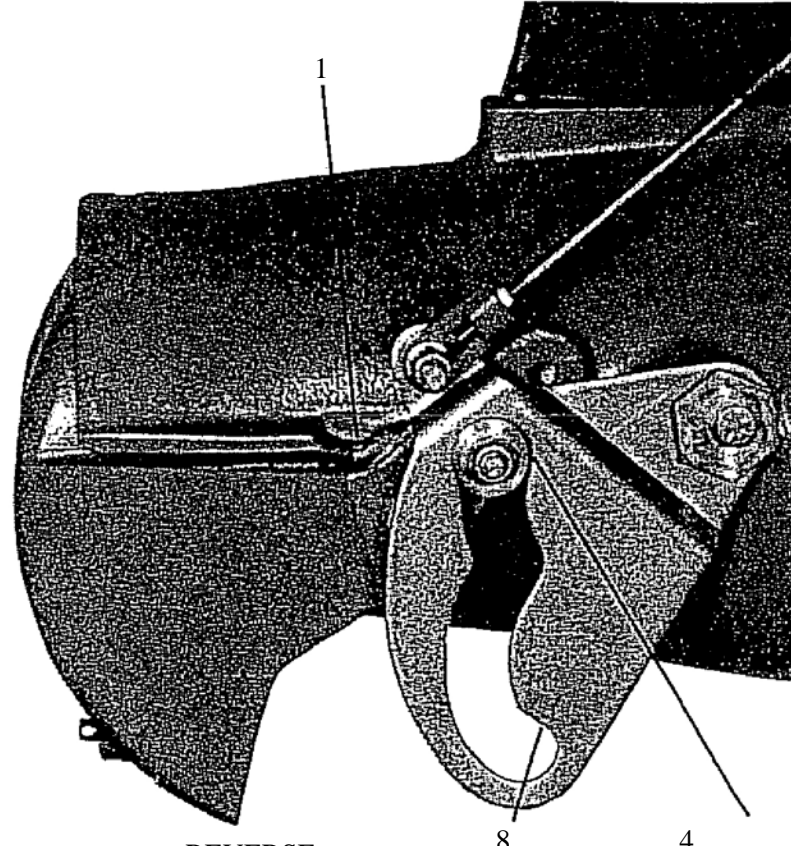
9. If the neutral position is too far out of adjustment, the tendency of the gate to move toward reverse, under water pressure will put tension on the cable in neutral. In some remote control boxes, this makes it difficult to re-engage the shift mode with the motor running in the high speed idle, cold start setting. It is then necessary to stop the motor, operate the shift handle to engage the shifting pin and then restart the motor.

Proper cable adjustment will prevent this problem but it is most important that the forward locking condition be met if a compromise is to be made.

6 GAGE



FORWARD



REVERSE



REFERENCE NUMBER	PART NUMBER	DESCRIPTION	QUANTITY
1	1170	GATE BUMPER SPRING	1
2	1497	GATE BUMPER	1
3	559.2	GATE BUMPER SCREW	1
4	574	HEX BOLT 1/4-20 X 3/4"	2
5	1178	SPRING WASHER 1/2" ID	1
6	823	PIVOT PIN 1/2"	1
7	536	NYLON BUSHINGS	2
8	624	1/4"-28 NYLOC NUT	2
9	1043	SHAFT ROLLER	1
10	1042	ROLLER ASSEMBLY	1
11	635	FLAT WASHER 1/4"	1
12	1034	CAM BRACKET	1
13	1038	CAM WASHER	1
14	1037	CAM BUSHING	1
15	1039	CAM SHIM	2
16	1036	CAM ECCENTRIC	1
17	576	HEX BOLT 1/4-20 X 1"	1
18	633	FLAT WASHER 1/4 X 1"	1