

# LUBRICATION

## Passenger Car Axle:

Use only Transmission "A" gear oil or "600-W" transmission lubricant or equal, thinned with an equal amount of heavy lubricating oil. Do not put more than one quart of this mixture in housing.

## Truck Type Axle:

Use three parts Transmission "A" gear oil or "600-W" transmission lubricant or equal to one part of heavy lubricating oil. Do not put more than two quarts of this mixture in housing.

**CAUTION:** Do not use grease.

Soak the felt washers on the shift lever arm and on the shift lock bell crank with oil occasionally.

# GEAR RATIOS

	PASSENGER CAR AXLE			ONE-TON TRUCK AXLE	
	4 to 1 Gears	3 to 1 Gears	3.08 to 1 Gears	High Speed Worm	Low Speed Worm
Ford High	4	3.63	3.08	5.16	7.25
Ruckstell High or Intermediate	6.16	5.58	4.75	8.25	11.60
Ford Low	11	10	8.48	14.20	19.90
Ruckstell Low	16.90	15.37	13.06	22.70	31.90
Ford Reverse	16	14.52	12.32	20.60	29
Ruckstell Reverse	24.60	22.39	19	32.90	46.40

**RUCKSTELL AXLE**

# CAR SPEEDS

## Ruckstell Low:

Shift lever back and clutch pedal depressed. Used to negotiate deep sand, mud, or exceptionally steep grades, to prevent slipping of the wheels on steep, narrow, or dangerous places; and used in conjunction with Ruckstell reverse, to work the car in and out of close places. Provides a very safe and efficient emergency brake for use on slippery pavement.



First



Second



Third



Fourth

## Ford Low:

Shift lever forward and clutch pedal depressed. Used to start the car under normal conditions and for all ordinary low gear work.

## Ruckstell High or Intermediate:

Shift lever back and clutch pedal released. Used to climb hills, to travel rough roads or slippery streets, and to throttle down or get away quickly in traffic.

## Ford High:

Shift lever forward and clutch pedal released. Used for all ordinary high gear work.

**RUCKSTELL AXLE**

**RUCKSTELL AXLE**  
DUAL CONTROL

FOUR SPEEDS FOR FORDS

# OPERATING INSTRUCTIONS



DELIVER THIS BOOKLET TO PURCHASER

**IMPORTANT:**

READ CAREFULLY  
Do Not Lose or Destroy

**RUCKSTELL SALES & MFG. CO.**

## Ruckstell Service

Every **RUCKSTELL AXLE** should give perfect service. If there is anything wrong with your axle, or if you are not pleased with its operation, inform the nearest Ford dealer, or, if possible, the dealer who made the installation, and have him correct the trouble.

## WARRANTY

We fully guarantee every new **Ruckstell Axle** to be free from defects in material and workmanship for a period of ninety days from the date of installation. We will replace free of charge any part proven defective within the guarantee period, which shall be returned to us for credit or replacement, together with the owner's name, date of installation, date of removal of part, name of dealer from whom purchased, and the AXLE NUMBER, and which upon examination we shall find to be defective. The free replacement of a part or parts does not include transportation charges to or from our factory, nor the cost of its installation.

**RUCKSTELL SALES &  
MFG. CO.**

# OPERATING INSTRUCTIONS

The **RUCKSTELL AXLE** is the simplest form of speed changing device known. Its operation is entirely different from that of any other gear shifting mechanism. The axle being of very sturdy construction, no special care is required in shifting. A gear change can be made under any conditions without damage to parts.

Under average conditions, use Ford low speed to put the car in motion. (The shift lever forward and the clutch pedal depressed.) Accelerate until the car reaches a speed of from four to five miles per hour. (It is not necessary to race the engine.) Simultaneously release the clutch pedal and pull the shift lever back with a quick, snappy movement, so that the Ford high speed clutch will be engaged at approximately the same time the shift lever reaches the end of its travel. This is Ruckstell high (intermediate). Accelerate until the car speed is from twelve to fifteen miles per hour. Press slightly on the clutch pedal, at the same time moving the shift lever to its forward position. This is Ford high and is the proper speed for highway or level roads. The shift should be made with the throttle from one-quarter to one-half open. To shift in either direction, depress the clutch pedal slightly and move the shift lever to the limit of its travel with a quick, snappy motion.

For quick stops, use Ruckstell low: (clutch pedal depressed with the shift lever in the backward position.)

Use Ruckstell reverse when backing: (clutch pedal in neutral, reverse pedal depressed, with the shift lever in the backward position). This eliminates chatter and gives easier car control.

When the motor is cold, when starting the car on hills or rough ground, or when maneuvering into small space, use Ruckstell low and Ruckstell reverse.

Do not lug up hills in Ford high. Shift to Ruckstell high (intermediate) before the motor starts to labor. It is not necessary to slow down to shift. The **RUCKSTELL AXLE** will shift at any speed. Use Ruckstell high or intermediate when climbing hills or operating in traffic, even though the fourth speed or Ford high will pull the car. More rapid acceleration is possible, and a free running motor will run considerably cooler than a laboring one.

Descend hills in Ruckstell gears (with the shift lever in the backward position). The added retarding power of the motor compression will save brake bands materially.

Remember the power of the Ford foot brake is increased fifty-five per cent when in Ruckstell gears.

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