

## Service Information and Adjustments for the ESSEX TERRAPLANE

Serial No. 350,000 and up  
Engine No. 5,000 and up

### AXLE—FRONT

Caster (actual on car)—3°  
Camber—2°  
Toe-in—0— 1/8”  
Spindle pin inclination  
(Angle with spring pad)  
Transverse—7°  
Forward—2°

Steering spindle pin diameter—3/4”  
Steering spindle thrust bearing—Type—Ball  
Wheel bearing—Type—Taper roller  
Tie rod—Joint type—Rubber cushioned  
Tie rod—Adjustment—Turn clockwise (as  
seen from right) to lengthen; turn counter-  
clockwise to shorten

### AXLE—REAR

Ratio—4-1/9

	<i>Location</i>	<i>Type</i>	<i>Adjustment</i>	<i>End Play Total</i>
Bearings	Pinion—front and rear	Taper	Shim	.000”-.001”
	Differential—right and left	Roller	Screw	.009” tension
	Wheel—right and left	Taper Roller	Shim	.004”-.010”

	<i>Teeth</i>	<i>Type</i>	
Pinion	9	Taper Roller	Lash between gear and pinion teeth—.010”

		<i>Adjustment</i>	
Drive Gear	37	Shims—on shaft between pinion heel and rear pinion Screw—Differential bearing cages	Lubricant capacity Housing—gear oil—3 pints Wheel bearing (each)—cup grease—1-1/2 ounces

### BRAKES

Location—4 wheels  
Operation—Cable  
Control—Foot pedal and hand lever  
Drum diameter—9”  
Lining—*Type*—Moulded  
Lining—*Width*—1-3/4”  
Thickness—3/16”  
Length (per wheel)—18  
Pieces per wheel—2

Adjustments  
Anchor pin—Movable radially  
Upper shoe—Eccentric adjustment  
Lower shoe—Screw adjustment (star wheel)

Clearance  
Anchor pin end—.008”  
Adjusting screw end—.014”

### CLUTCH

Type—Single disc oil lubricated  
Facing—Cork inserts  
No. inserts—66  
Pilot bearing (in crankshaft)—Ball

Throwout bearing—Ball thrust  
Lubricant—Half kerosene and half light motor oil  
Quantity—1/2 pint

ENGINE - *Continued*

FUEL SYSTEM

Carburetor—*Make*—Carter  
*Type*—Down draft  
 Adjustment—Idling speed 5 miles per hour  
 Low speed adjusting screw—1/2 to 1 turn off seat  
 Fuel delivery—Pump  
 Pump drive—Cam on camshaft  
 Gasoline tank capacity—11-1/2 gallons  
 Air cleaner—Flame arrester—muffler type

LUBRICATION SYSTEM

*Type*—Duoflo automatic  
 Pump—Oscillating plunger  
 Pump drive—Gear from camshaft  
 Oil cooling—By baffling in reservoir  
 Oil cleaning—Screen and ventilator  
 Screen mesh—50  
 Capacity—Oil reservoir only—6 quarts  
 Oil reservoir and troughs—7 quarts

PISTONS

*Type*—T-slot cam ground skirt  
 Material—LoEx aluminum alloy  
 Weight—9-1/4 ounces  
 Length—3-3/16"  
 Pin center to top—1-11/16"  
 Distance between bosses—1-1/8  
 Clearance at top of skirt—.0015"-.002"  
 Clearance at bottom of skirt—.0005"-.001"  
 Depth of grooves—5/32"  
 Piston pin bore—*Finish*—Diamond drilled  
 Diameter—3/4"

PISTON PIN

*Type*—Floating  
 Diameter—3/4"  
 Length—2  
 Fit in piston—.0003" clearance at 210° F.  
 Fit in rod—.0003" clearance

PISTON RINGS

Material—Cast iron  
*Type of joint*—Mitre  
 No. of comp. rings—2  
 Width of comp. rings 3/32"  
 Gap clearance—.009" to .011"  
 No. of oil rings—2  
 Width of upper oil ring-- 1/8"  
 Width of lower oil ring—3/16"

VALVES AND TAPPETS

Material	<i>Inlet</i>	<i>Exhaust</i>
	Silicon steel	Silicon chrome alloy steel
Head diameter		
Outside	1-3/8"	1-3/8 "
Opening	1-1/4"	1-1/4"
Stem length	5-3/32	5-3/32
Stem diameter	5/16 "	5/16"
Stem— <i>Type of end</i>	Grooved	Grooved
Tappet— <i>Type</i>	Roller	Roller
Tappet clearance	.006"	.008"
Valve lift	11/32"	11/32"
Valve stem guides	Removable	Removable
Spring pressure	53 lbs.	53 lbs

SPRINGS

	<i>Front Spring</i>	<i>Rear Spring</i>	Material—Chrome Vanadium Alloy Steel
<i>Type</i>	Semi-elliptic	Semi-elliptic	Shackle— <i>Type</i> —Self-adjusting
Length	31"	48"	Shackle— <i>Location</i> —Front end of front spring
Width	1-3/4"	1-3/4"	Rear end of rear spring
No. of leaves	6	6 or 8	

STEERING GEAR

*Type*—Worm and Sector  
 Ratio—13-1  
 Adjustment—Worm shaft—Shims  
 Cross shaft—Set screw in housing  
 Gear mesh—Eccentric screw  
 Adjustment—Steering wheel height—Adjustable to 5 positions  
 Lubrication—Gear oil—Heavy body  
 Drag link—*Type*—Tubular  
 Socket—*Type*—Spring cushioned  
 Drag link length—Adjustable

TIRES

Size—17 x 5.25  
 Make—Goodyear  
 Number of plies—4  
 Recommended pressure—Average driving—32 lbs. front and rear  
 Fast driving—40 lbs front and rear