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

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

	Teeth
Pinion	9
Drive Gear	37

Lash between gear and pinion teeth—.010”

Adjustment
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

	Inlet	*Exhaust*
Material	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—Type of end	Grooved	Grooved
Tappet—Type	Roller	Roller
Tappet clearance	.006"	.008"
Valve lift	11/32"	11/32"
Valve stem guides	Removable	Removable
Spring pressure	53 lbs.	53 lbs

SPRINGS

	Front Spring	*Rear Spring*
Type	Semi-elliptic	Semi-elliptic
Length	31"	48"
Width	1-3/4"	1-3/4”
No. of leaves	6	6 or 8

Material—Chrome Vanadium Alloy Steel
Shackle— *Type*—Self-adjusting
Shackle—Location—Front end of front spring
Rear end of rear spring

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