1926

HUDSON & ESSEX

Mechanical Specifications
&
Adjustments

(Part I)

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Electrical Specifications
&
Information

(Part II)

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Mechanical Specifications
&
Adjustments

(Part I)

May, 1926
DATA FOR HUDSON AND ESSEX CARS

		No. of Doors	Weight Ship.	Weight Running[1]	Color of Paint	Maker of Paint	Upholstery Material	Make of Body
Hudson	- 7-Pass. Phaeton	4	3365	3585	Blue	Dibble	Leather	Briggs
	- 5- " Coach	2	3405	3605	Blue	Color	Granite weave	Briggs
	- 4- " Brougham	4	3495	3695	India Blue	Co.,	Velour	(Biddle &
	- 7- " Sedan	4	3645	3845	" "	"	Det.	Velour
	Smart)							
Essex	- 5-Pass. Phaeton	4	2290	2430	Blue	"	Leather	Briggs
	- 5- " Coach	2	2455	2595	Blue	"	Granite weave	Briggs

[1] Weight of car with gasoline, water and oil.

STANDARD EQUIPMENT

Hudson - Phaeton - Wood wheels, cowl ventilator, heat 'indicator, gearset lock, front and rear bumpers, windshield wiper, . stop light, Radiator shutter.

Coach - Same as Phaeton with rear view mirror door lock, sunvisor and trunk rack added.

Brougham - Same as Coach with side lights added.

Sedan - Same as Brougham except trunk rack.

Essex - Phaeton - Wood wheels, cowl ventilator, heat indicator, gearset lock front and rear bumpers, windshield wiper, stop light, radiator shutter.

- Coach - Same as Phaeton with rear view mirror door lock and sun visor added.

ENGINE, FUEL SYSTEM, COOLING SYSTEM, LUBRICATION

		Hudson	Essex
Engine	Make	Own	Own
	Type of head	L	L
	No. of cylinders	6	6
	Arrangement	Vertical	Vertical
	Firing order	1-5-3-6-2-4	1-5-3-6-2-4
	Bore & stroke	3-1/2x 5	2-11/16 x 4-1/4
	Displacement	288	144.67
	Taxable H. P.	29.4	17.32
	Cylinder Head	Detachable	Detachable
	Crankcase	Separate	Cast with cylinders)
	Suspension	4 point	4 point

		Hudson	Essex
Pistons	Material	Aluminum Alloy	Aluminum Alloy
	Type	Slotted Skirt	Slotted Skirt
	Weight	16 ounces	8 Ounces
	Clearance (skirt)	.0035	.002
	Depth of groove for rings	.164	.156
Piston Rings	Material	Cast iron	Cast iron
	Type of joint	Mitre	Mitre
	No. per piston.	3	3
	Width	1/8”	1/8”
	Thickness	.135	.113
	Cap clearance	.006-.008	.006-.008
Piston Pins	Diameter	1-3/32”	3/4'.
	Length	2-11/16”	2-3/32”
	Type	Floating	Floating
Piston Pin Bushing	Length	1-3/16”	15/16”
	Outside diameter	1-9/32”	15/16”
	Inside	1-3/32”	3/4”
Crankshaft	No. of bearings	4	3
	Diameter and length No. 1 (front)	2-1/4 x 2-3/8	2-7/32 x 1-5/8
	“ “ “ 2	2-9/32 x 1-7/8	2-1/4 x 1-3/4
	“ “ “ 3	2-5/16 x 2-1/8	2-9/32 x 2
	“ “ “ 4	2-11/32 x 3-1/ 8	
	Crank pin diameter	2-1/4	1-13/16
	Main bearing clearance	.001	.001
	“ “ end play	.004	.004
	End thrust taken by	Rear center bearing	Center bearing
	Sprocket 21 teeth	19 teeth	
Connecting Rod Bearing	Diameter	21/4	1-13/16
	Length	2-1/4	1-13/16
	Clearance - endwise	.004 to .010	.004 to .010
Valves, Head Springs Stem and Tappets	Diameter	1-13/16	1-1/4
	Diameter	3/8	5/16
	Length overall	6-7/8	5-1/16
	Valve guide	Removable	Removable
	Tappets	Roller	Roller
	Lift (intake)	9/32	9/32
		(exhaust)	19/64 19/64
	Tappet clearance (intake)	.002-.003	.002-.003
	“ “ (exhaust)	.004-.005	.004-.005
	Valve spring pressure	62 lbs.	40 lbs.
	“ “ length valve closed	2-3/8”	2”

		Hudson	Essex
Valve Timing	Intake opens	7º after T.D C.	7º after T.D.C.
	" closes	42º " B.D.C.	50º " B.D.C
	Exhaust opens	55º before B. D. C.	55º before B. D. C.
	" closes	8º after T.D.C.	8º after T. D. C.
Cam Shaft	No. of bearings	4	3
	No. 1 bearing (front) dia & length	2--19/32 x 1-5/8	2 x 1-1/6
	No. 2 " " "	2-11/32 X 1-1/16	1-31/32 x 1-1/16
	No. 3 " " "	2-5/16 x 1-1/16	1-1/2 x 15/16
	No. 4 " " "	1-1/2 x 1-3/4	
	Sprocket	42 teeth	38 teeth
Front End Drive	Type	Morse chain	Morse chain
	Width of chain	1-1/2	1-1/4
	No. of links	63	57
	Pitch	1/2	1/2
	Adjustment	Adjustable Eccentric	Adjustable Eccentric
	Generator Drive Sprocket	16 teeth	16 teeth
Muffler	Exhaust pipe dia.	2-1/4	1-3/4
Fuel System	Carburetor - Make	Stewart	Steviart
	" size	1-1/2	1
	Fuel feed	Stewart Vacuum tank	Stewart Vacuum tank
	Gasoline tank make	Own	Own
	" " capacity	19 gallons	11-1/2 gallons
	Method of heating mixture	Exhaust stove and hot spot	Exhaust stove and hot spot
Valve Timing	Intake opens	7º after T.D C.	7º after T.D.C.
	" closes	42º " B.D.C.	50º " B.D.C
	Exhaust opens	55º before B. D. C.	55º before B. D. C.
	" closes	8º after T.D.C.	8º after T. D. C.
Cooling System	Type	Centrifugal pump	Thermo-syphon
	Radiator - make	Harrison	Harrison
	" type	Ribbon cellular	Ribbon cellular
	Capacity of system	4 gallons	4-3/4 gallons
	Upper radiator hose dia. & length	1-1/2 x 7	2-1/14 X 5-1/2
	Lower radiator hose dia. & length	1-1/2 x 10-1/2	2-1/4 x 14-1/2
	Fan belt type	Flat	Flat
	" " width	1"	1"
	" " length	35	36
Lubri-cation	Type	Circulating splash	Circulating splash
	Type of pump	Plunger	Plunger
	Capacity of oil reservoir only	7 quarts	5 quarts
	" " " " & troughs	9 "	5-1/2 "
	Mesh of screen	50	50
	Stroke of oil pump - motor idling	3/32" min. - 1/8" max.	
	Grade of oil	Medium heavy - use low cold test in Winter.	Medium heavy – use low cold test in Winter.

CLUTCH, TRANSMISSION SPEEDOMETER DRIVE

		Hudson	Essex
Clutch	Driving members	6	4
	Driven	6	3
	Cork inserts in driving plate	52 per plate	42 per plate
	Lubrication	(Mixture 1/4 pt. (Kerosene 1/4 (pint motor oil	(Mixture 1/4 pt. (Kerosene (pint motor oil
	Throwout	5/16”	5/16”
	Clearance at floor board	3/8”	3/8”
Trans-mission	Location	Unit	Unit
	Speeds	3 Forward, 1 Reverse	3 Forward, 1 Reverse
	Gear ratio low	3.04 to 1	3.244 to 1
	“ “ second	1.81 to 1	1.961 to 1
	“ “ reverse	3.69 to 1	4.170 to 1
	Oil capacity (approx)	1-1/2 quarts	1 quart
Speedo-meter	Make Stewart Warner	Stewart Warner	
	Gear - No. of teeth	6	4
	Pinion “ “ “	16	14

FRONT AXLE, FRONT SPRINGS, STEERING GEAR

Front axle	Section	I	I
	Type of end	Elliott	Elliott
Front Springs	Type	Semi-elliptic	Semi-elliptic
	Length	39”	36”
	Width	2-1/4”	2”
	Bolts - diameter	11/16”	5/8”
	Bushings	Phosphor Bronze	Phosphor Bronze,
Steer- ing Gear	Make Gemmer	Own	
	Type	Worm & Sector	Worm & Wheel

REAR AXLE, DIFFERENTIAL, BRAKES REAR SPRINGS

Rear axle	Type	Semi-floating	Semi-floating
	Propulsion through	Springs	Springs
Differential	Type of drive	Spiral bevel	Spiral 'bevel
	No. of teeth in gear	49	56
	“ “ “ “ pinion	11	10
	Gear ratio	4-5/11 to 1	5.6 to 1
	Pinion adjustment	Screw	Shims
Service Brakes	Location	Rear wheels	Rear wheels
	Type	External	External
	Operated by	Foot pedal	Foot pedal
	Drum diameter (Internal)	15-1/2”	14”
	Lining per brake	44-1/2”	39-3/8”

REAR AXLE, DIFFERENTIAL, BRAKES, REAR SPRINGS
(Continued)

		Hudson	Essex
Service Brakes	Lining width	2-1/2”	1-3/4”
	Lining thickness	3/16”	3/16”
Emergency Brakes	Location	Rear Wheels	Rear wheels
	Type	Internal	Internal
	Operated by	Hand lever	Hand !ever
	Drum diameter (Internal)	15-1/2	14
	Lining per brake - length	40	35
	“ width	2-1/2	1-1/2
	“ thickness	3/16”	3/16”
Rear Springs	Type	Semi-elliptic	Semi-elliptic
	Length	57-11/16”	54-7/8”
	Width	2-1/4	2
	Front end bolt - diameter	3/4”	5/8”
	Bushings	Phosphor Bronze	Phosphor Bronze
	Shackle bolts - diameter	11/16”	5/8”

WHEELS, TIRES

Wheels	Type	Wood - Steel felloe	Wood-steel felloe
	Make of rims	Firestone	Jaxon
	Toe-in of front wheels	None (or not over 1/8”	None (or not over 1/8”
Tires	Make	Goodyear & U.S.	Goodyear & U.S.
	Size	33X6.00 balloon	3OX4.75 balloon
Tire Pressures	Sedan	26 lbs front	
	“	34 “ rear	
	Brougham	26 “ front	
	“	34 “ rear	
	Coach	26 “ front	28 lbs front
	“	30 “ rear	34 “ rear
	Phaeton	26 “ front	28 “ front
	“	30 “ rear	34 “ rear

BEARINGS

Trans-Mis0	Mainshaft - front	Hyatt No. 47026	Hyatt N.C .306
	Pilot ball bearing in crankshaft	N. D. No. 1205	N. D. No. 1202
Clutch	Throwout bearing	Nice No. S.K. 2157	Nice No. S.K. 2156
Front Wheels	Inner	Timken No. 412A & 415	Timken 2520 & 2554
	Outer	“ “ 312 & 315	2320 & 2382
	Thrust	Nice 4984	Nice 607
Rear Wheel Bearing		Timken 454 & 458T	Timken 412A & 415TV

BEARINGS (Continued)

		Hudson	Essex
Differential	Right	Timken 3720 & 377	Timken 3320 & 336
	Left	" 3720 & 377	" 3320 & 336
Drive Pinion	Front	" 3120 & 3196	" 2620 & 2690
	Rear	" 432 & 439T	" 3320 & 346

ELECTRICAL EQUIPMENT

Separate Motor, Generator and Ignition units

Starting Motor	Make (American Bosch)	949	964 (Early 1926)[1]
	Drive	Manual - sliding gear	Bendix

[1] Later 1926 models used Auto-Lite MU-4001A starter.

Generator	Make (American Bosch)	1282	1067 (early 1926) [1]
	Regulation	Third Brush	Third Brush

[1] Later 1926 models used Auto-Lite GAA-4001 generator.

Ignition	Make	American Bosch	American Bosch
System	Spark Control Semi-Automatic	Automatic	
	" `Timing Time 10º before D.C. (Lever fully advanced)	Time spark on D.C (Fully retarded)	
	Breaker points - material	Tungsten	Tungsten
	" " - gap	.020	.020
	Distributor gear - teeth	21	19
	Drive gear - teeth	8	8
Spark Plugs	Make A.C. Titan	A. C. Titan	
	Size Metric 18 M/M	Metric 18 M/M	
	Type Short Short		
	Gap .025 - 028	.025 - 028	
Storage Battery	Make	Prest-o-Lite	Prest-o-Lite
	Type	6-15-J.F.K.	6-13-J.F.K.
	Voltage	6	6
	No. of plates	15	13
	Rating	120 Amp. hours	105 Amp. hours
	Terminal grounded	Neg.	Neg.
	Length overall	10-1/4"	9"
	Width "	7-1/2"	7-1/2"
	Height of box	8"	8"
	" over terminals	9"	9"
	Terminals	Std. clamp type	Std. clamp type
Horn	Make	E.A.	E.A.
	Type	Motor	Motor
LAMPS	Headlight voltage	6-8	6-8
	" C.P.	21	21
	" contact	Single	Single
	" lens - make	Spreadlight	Spreadlight
	" " - diameter	9" 8"	
	Dash and tail - voltage	3-4	3-4
	" " " - C.P.	2	2
	" " Contact	Single	Single
	" " connected	In series	In series
	Stop light voltage	6-8	6-8
	" " C.P.	15	15
	" " Contact	Single	Single

MISCELLANEOUS

Wheel Base	127-3/8”	110-1/2
Turning radius	24-1/2 feet	23 feet
Frame - depth	7”	4-1/2”
“ - width of flange	2-1/4”	1-7/8”
Overall length including bumpers	15' - 6”	14' - 6”

To obtain motor RPM in relation to car speed, use the following formula:

$$\frac{\text{Car speed (M.P.H.) x Rear axle gear ratio x 336}}{\text{Wheel diameter in inches}} = \text{Motor R.P.M.}$$

Example - What is the R. P. M. of the Super-Six Motor at 10 miles per hour?

Answer - $\frac{\text{10 (car speed) x 4.45 (gear ratio) x 336}}{\text{453 R.P.M.}} = \frac{14962}{33} = 453$ R.P.M.

To obtain the number of revolutions of the motor required for one revolution of the rear wheel:
Multiply the rear axle ratio by the transmission ratio.
Example: 4.45 (rear axle ratio) multiplied by 3.04 (low gear ratio)
equals 13.528 revolutions of the motor
to one revolution of rear wheel.

The f ollowing list shows the various motor to wheel ratios worked out as above for Super-Six. and Essex-Six cars.

	Super-Six	Essex-Six
With transmission in low	3.523 to 1	18.166 to 1
“ “ “ second	8.054 to 1	10.981 to 1
“ “ “ high	4.46 to 1	5. 6 to 1
“ “ “ reverse	16.420 to 1	23.352 to 1

1926 Hudson

Electrical Specifications
& Information

1926 (Early) HUDSON Super-Six

AMERCAN BOSCH GENERATING, STARTING, AND LIGHTING SYSTEM
AMERICAN BOSCH IGNITION

BATTERY: - Prest-O-Lite, Type 6-15-JFK, 6 volts. Negative terminal grounded
STARTER: - Rotation, R. H., Commutator End - American Bosch, Type 949
Connection to Engine: - Thru reduction gears and manually shifted pinion.
Running Free: - 40 amps. at 6 volts, 5000 R. P. M.
Cranking Engine: - 160-200 amps. at 5.2 volts.
Lock Torque: - 12-15 lb. ft., 450-500 amps., 3½-4 volts.
Brush Spring Tension: -1¾-2 lbs. on each.
Starting Switch: - Located side starter sub-frame.
NOTE: On cars having trouble with starter gears refusing to release after engine starts. Trouble may be overcome by lining up actuating rod (which carries reduction gears and switch contact) in slot; that it may be free when not in use. Usually requires to be bent down. See insert on drawing.

IGNITION
Rotation: - R. H., Top View American Bosch, Distributor Type T-6202
Breaker: - Contact separation .018 to .020 inch.
Firing Order: - 1-5-3-6-2-4.
Manual Advance: - 25 degrees (on Flywheel).
Automatic Advance: - 4 degrees (on Flywheel).

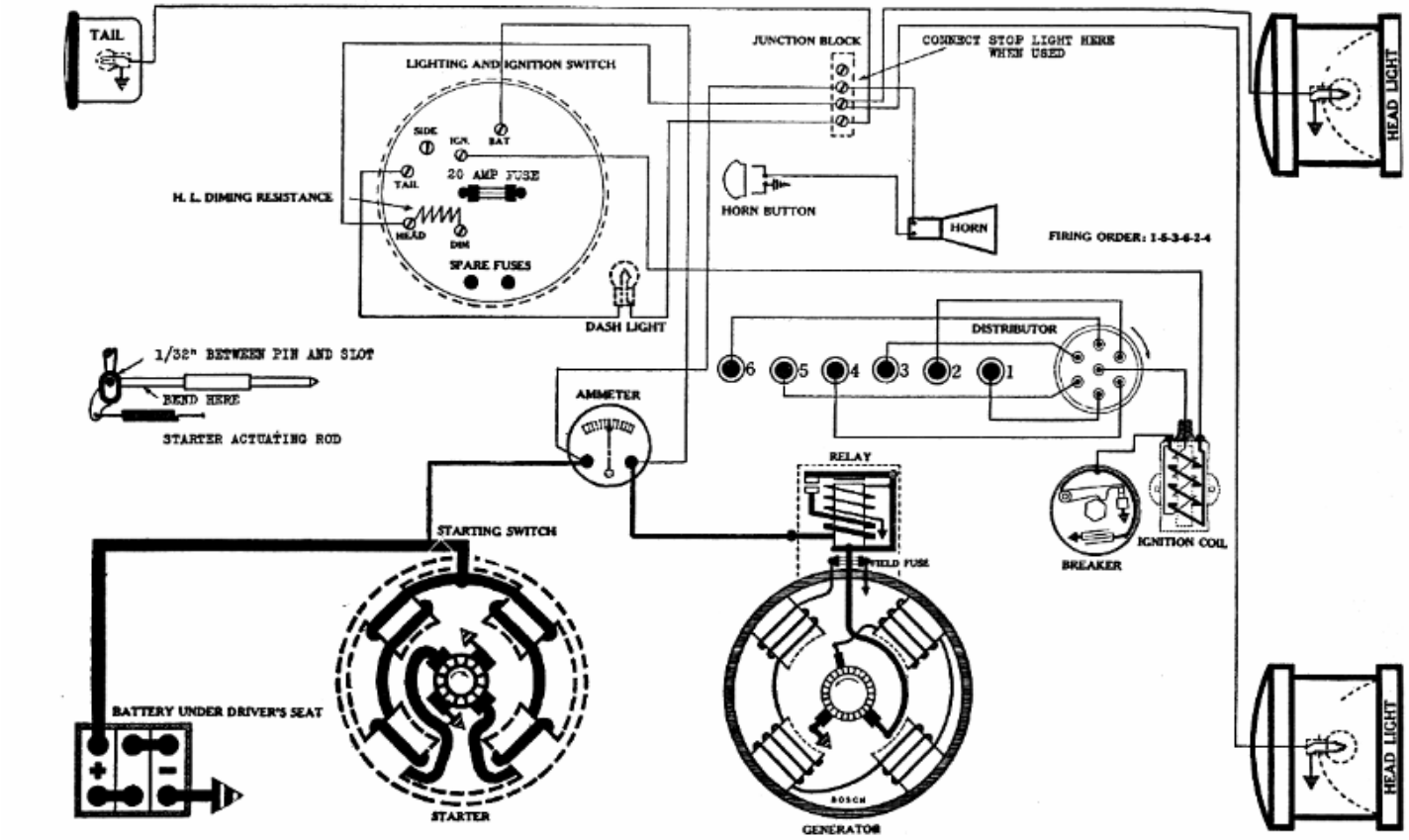
R.P.M.	Degrees Flywheel Advance
400	Start
600	4
1000	6-7
1500	10- 11
2000	12
2800	14

Coil: - American Bosch, TC-30.
GENERATOR: - Rotation, L. H., Commutator end - American Bosch, Type 1281
Note: Superseded Type 1274 August 1925. Same electrical characteristics as types 1238-1252-1274. Differs in that drive end bearing is smaller.
Performance Data: - Generator cold.

Amps.	R. P. M.
0	550
10	800
17	1200
15	1600

Motoring Freely: - 6 amps. at 6 volts.
Max. Stall Current: - 20-23 amps. at 6 volts.
Field Test: - 6.6 amps. at 6 volts directly across field coils in series.
Field Fuse: - 7½ amps.
Brush Spring Tension: - 1¼ lbs. on each.
Third Brush Adjustment: - Loosen Cover Band.
NOTE: - Drive block and lock ring holding ring made in one piece.
RELAY
Closes: - 500 R.P.M., 6-8 M.P.H., 6.5 to 7 volts
Opens: - 450 R.P.M., 5-6 M.P.H., 0-2 ampere discharge.
Contact Gap: - .030 inch.
Core Gap: - .010 inch, contacts closed.
LIGHTING
Switch: - American Bosch, Type S-119 (single 20 amp. fuse in rear with two spares).
Lamps: - HEAD - 1129; DASH, TAIL - 61; SIDE, DOME - 81.

1926 (Early) Hudson
Super-Six



1926 (Late) HUDSON Super-Six

AMERCAN BOSCH GENERATING, STARTING, AND LIGHTING SYSTEM
AMERICAN BOSCH IGNITION

BATTERY: - Prest-O-Lite 6-15-JFK, 6 volt, negative terminal grounded.
STARTER; - American Bosch 949. Rotation R.H. commutator end.

Connection to engine: - Thru reduction gears and manually shifted pinion.
Running free: - 40 amps at 6 volts, 5000 R.P.M.
Cranking engine: - 160-200 amps at 5.2 volts.
Lock torque: - 12-15 lb. ft., 450-500 amps., 3½-4 volts
Brush spring tension: - 1¾-3 lbs. on each.
Starting Switch: - Located under starter sub-frame

NOTE: Sub-frame changed from casting with switch in side, to pressed steel construction with switch in center, about October 1925.

IGNITON: - Distributor – American-Bosch Type T-6202. Rotation, R.H. Top view.

Firing order: - 1-5-3-6-2-4
Manual Advance: - 25 degrees (on Flywheel)
Automatic Advance: - 14 degrees (on Flywheel)

R.P.M.	Degrees Flywheel Advance
400	Start
600	4
1000	6-7
1500	10-11
2000	12
2800	14

Coil: - American-Bosch TC-30

1926 ESSEX

American Bosch Ignition System

BATTERY: - Prest-O-Lite, Type 613-JFK. 6 volt, 85 ampere hour. The starting caacity is 102 amperes for 20 minutes. The lighting capacity is 5 amperes for 17 hours. The negative terminal is grounded.

IGNITION. - Coil Model No. TC-30. Distributor Model T-6200. Breaker contacts separate '020 inch. They are made of tungsten. The contact surface of both points should be flat. When the condition of the contacts affects the ignition, resurface them with a fine flat jewelers file. If the points are excessively worn they should be replaced.

Oiling: - Fill the oiler on the side of the distributor housing with light engine oil. Put ,one drop of oil (never more) on the interrupter lever pivot. Place a small bit of cup grease, about the size of a match head, on the side of the interrupter fibre block nearest the pivot post. These attentions should be given every 1000 miles or each month..

Timing: - Breaker contact points begin to separate when, with piston No.1 on compression stroke, the mark on the flywheel is just opposite the indicator on the flywheel case. To adjust timing, turn engine until this position is reached. Then loosen the clamping nut on the stud just below the distributor and turn the housing in a counter- clockwise direction (opposite to direction of rotation) until the contacts begin to separate. Tighten the nut, being careful not to change the relative positions of the housing and shaft. The distributor is of the full automatic type. No manual advance is provided.

Firing Order: - The firing order is 1-5-3-6-2-4.

Spark Plugs: - Spark plug diameters are metric standard. Gaps are .025 inch.

STARTER: - Model 964. Starter is connected to the engine through a Bendix drive. The direction of rotation is counter- clockwise, looking at the commutator end. Starter brush tension should be 1¾ to 2 pounds each.

Starter Data

Torque	R.P.M.	Volts	Amperes
0 ft. lb.	3000	6	60
12 "	Lock	4	450

Note: - Starter model 948 has four brushes. .

Oiling.- Self-oiling bearings are used. They require no attention. Keep commutator clean and free from oil. Clean commutator by wiping it off with a clean cloth moistened with gasoline. Wipe dry before again using.

GENERATOR: - Model 1067. Generator current regulation is by the third brush system. To adjust the charging rate, insert the special Bosch key in the hole on the generator end plate and shift the third brush mounting plate by turning the key. Shifting the third brush in the direction of armature rotation increases the charging rate and in the opposite direction decreases the charging rate. The third brush may be shifted by hand by removing th ecommutator cover band. The maximum charging rate is 13-14 amperes reached at 1600-1800 R.P.M. of the generator armature. Motoring freely the generator draws 6 amperes at 6 volts. The shunt field current is 3.2 amperes at 6 volts.

Generator Data

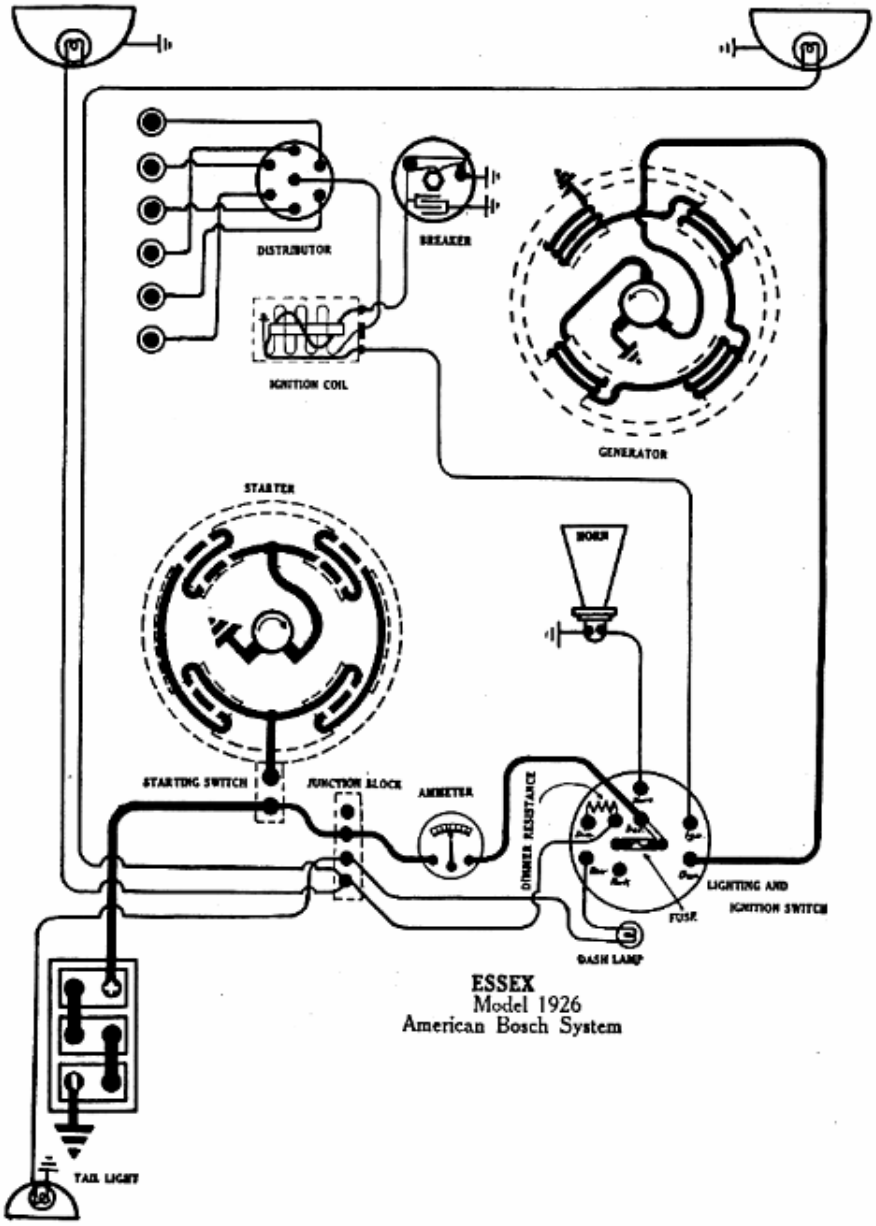
Cold Test		Hot Test	
Amperes	R.P.M.	Amperes	R.P.M.
0	500	0	600
7	800	4	800
12	1200	8.5	1200
13.5	1600	10	1600
12.8	2000	9.5	1000
9	3000	6.5	3000

Oiling. - Put two or three drops of light engine oil in each of the generator every 500 miles or each two weeks. See that commutator is clean and free from oil. Clean commutator by wiping it with a clean cloth moistened with gasoline. Wipe dry before again operaing the generator.

RELAY: - No relay is used. The circuit between the generator and the battery is trolled by the ignition switch. Turning off the ignition disconnects the generator and prevents the battery from discharging.

LIGHTING: - **Combination Switch Type S-123**. Head lamps are 6-8 volt, 21 cp. and tail lamps are connected in series. They are each 34 volt, 2 CP.

FUSES: - No generator fuse is used. Lighting fuse is mounted on the back of the In and is 20 ampere. Two spare fuses are mounted at the bottom of the switch.



ESSEX
Model 1926
American Bosch System

E S S E X
SIX (LATE 1926) (Early 1927)
AUTO-LITE GENERATING, STARTING AND LIGHTING SYSTEM
AUTO-LITE IGNITION

BATTERY: - Pres-0-Lite, Type 6.13-JFK, 6 volt. Starting capacity is 102 amperes for 20 minutes. Lighting capacity is 5 amperes for 17 hours. The negative (-) terminal is grounded.

IGNITION: - Coil Model CE-4001. Distributor Model IB-4001. Breaker contacts separate .018 - .022 inch. They are made of tungsten. Resurface contacts with a fine, flat jeweler's file or on a medium hard oilstone. Distributor is automatic. Advance starts at 500 engine R.P.M. and reaches maximum of 9.6deg at 2800 R.P.M.

Oiling: - Put 6 or 8 drops of light engine oil in the oiler on the side of the distributor housing every two weeks or each 500 miles if the car is driven more than 500 miles in two weeks. Put one drop of light engine oil on the breaker arm pivot pin every week or each 250 miles and place a small bit of Vaseline on the face of the breaker cam under the fiber bumper every 5000 miles.

Timing: - Breaker contacts begin to separate when piston No. 1 on compression stroke reaches top dead center. At this point the flywheel marking will be opposite the indicator on the flywheel case.

Firing Order: - The firing order is 1-5-3-6-2-4

Spark Plugs: - Spark plugs are Metric Standard. Gap is .025 inch.

STARTER: - Model MU-4001A. Starter is connected to the engine through a special Bendix drive. The direction of rotation is counter-clockwise, looking at the commutator end. Starter brush tension is 1¾ - 2¼ pounds each. Starter cranks the engine at 125 R.P.M.. taking 150 amperes at 5.6 volts.

Starter Data

Torque	R.P.M.	Volts	Amperes
0 lb. ft	6000	6	50
2 “	1500	5.2	160
4 “	900	4.8	240
6 “	450	4.4	320
10 “	Lock	3.6	500

Starter switch model is **MU-2208**

Oiling: - Starter bearings are oiless graphite-bronze. They require no attention.

GENERATOR: - Model GAA-4001. The direction of rotation is counter-clockwise looking at the commutator end. Generator current regulation is by the third brush system. To adjust charging rate, remove the commutator cover hand and shift the third brush mounting bracket by tapping on the mounting lug with a screwdriver. Shift the third brush in a counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. The mounting bracket is held in any desired position by friction between the mounting lug and the generator end plate. The maximum charging rate of 12.5 amperes is reached at 1450 R.P.M. of the generator.

Generator Data

Cold Test (68ºF)			Hot Test (203º F)		
Amps	Volts	R.P.M.	Amps	Volts	R.P.M.
2	6.9	470	2	7.0	680
6	7.3	815	6	7.4	880
10	7.5	1080	10	7.5	1500
12.5	7.5	1450	9	7.4	2250
10	7.5	2380			

Motoring freely at 350-405 R.P.M. generator draws 4.5-4.6 amperes at 6.0 volts.

Shunt field test current is 3.5-4 amperes at 6 volts. Each coil when tested separately draws 14-16 amperes at 6 volts. Generator brush tension is 1½ - 1¾ pounds each.

Oiling: - Put 4 or 5 drops of light engine oil in each of the generator bearing oilers every two weeks or each 500 miles if the car is driven more than 500 miles in two weeks.

RELAY: - No relay is used. The generator is connected directly to the battery through the ignition switch when the ignition is "on." With engine off and ignition switch open the generating circuit is broken up, preventing the battery discharging through the generator windings.

LIGHTING: - Clum Switch Model XA-319. Head and stop lamps are each 6-8 volt, 21 cp. S.C. Dash and tail lamps are connected in series. They are each 34 volt, 2 cp.

FUSES: - Lighting fuse mounted on switch is 20 amperes.

1926 (Late) – 1927 (Early) Essex
Autolite System