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Hudson-Essex

REFERENCE SHEETS

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Hudson and Essex Pistons

Hudson and Essex pistons are made of a new silicon aluminum alloy which, combined with an unusual piston design, greatly increases the piston life and improves performance.

This special silicon aluminum alloy is harder than other aluminum alloys that have been used for pistons, lighter than aluminum and has a lower coefficient of expansion. The use of this material in conjunction with a piston design which, for the first time, compensates for unevenness of expansion so that a true contour wearing surface is presented to the cylinder wall under operating conditions, gives a score proof, long-life piston which will be quiet even under cold starting conditions.

The features of the piston design consists of direct connection between the piston head and the piston skirt for fully two-thirds of the circumference of the piston, giving a free flow of the heat from the piston head to the skirt, rather than restricting the flow to the piston pin bosses and webs, as other designs do, thus reducing the temperature of the piston pin bosses, giving a corresponding reduction in the

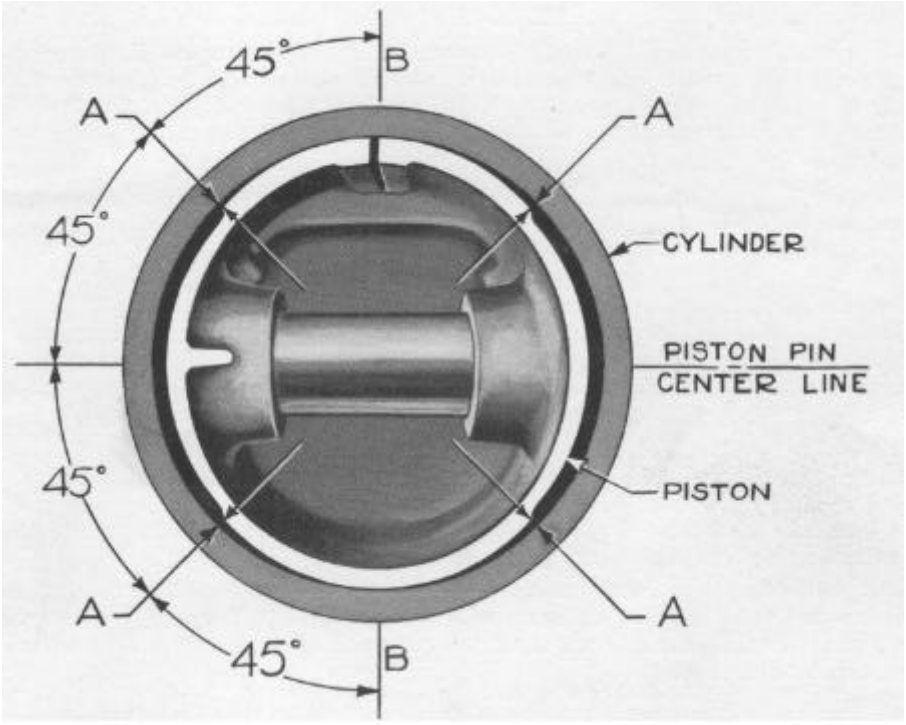


Fig. 1

at the points where the piston pin bosses attach to the skirt. This however does not fully compensate for the extra expansion due to the mass of material which must be used to support the piston pin but it controls it to a point that it can be fully compensated for by grinding the pistons to special contours.

Figure 1 is an exaggerated sketch of the shape to which the piston skirt is ground. It will be noted that the piston fits the cylinder very closely at right angles to the center line of the piston pin and that the clearance increases in both directions from this point to a point 45 degrees from the center line of the piston pin which is the point of maximum expansion due to the piston boss flanges connecting to the skirt and transmitting the expansion of this additional mass of metal.

This increased clearance has been computed after extensive study and experimentation so that at operating temperatures the clearance at these points (45 degrees from the piston pin) are the same as at the points which are at right angles to the piston pins. This gives a true circular wearing surface which fits the cylinder bore exactly under operating temperatures, giving the piston maximum life.

It can readily be seen from the illustration that pistons must be measured at right angles to the piston pin in order to determine the correct operating clearance. Since the skirt of the piston is also tapered, being larger at the bottom than the top, to compensate for unequal expansion, it is also important that the measurement be taken at a particular point along the length of the skirt and for convenience in manufacturing, the top of the skirt has been selected for this measurement.

It is important that only genuine Hudson-Essex pistons be used as parts from other sources do not give these important features. Pistons can be machined to these particular dimensions only on expensive automatic machinery. Do not be misled by attempted imitations.

SELECTING PISTON PINS

The piston bosses in all genuine Hudson and Essex pistons are diamond bored to a tolerance of .0004 inches. This method of finishing gives a true hole with a high polish insuring almost 100% bearing of the pin. Pins should be selected to fit the piston as any attempt to ream the piston boss to size will destroy the accuracy and finish of the hole, reducing the pin bearing and also shortening the life of the pin.

The piston pin should be selected as a light push fit when the pin is at room temperature and the piston is at a temperature of 200 degrees F. The piston can be heated in a specially designed electric furnace or in boiling water. Do not attempt to use a blow torch or other flame as this will heat the piston unevenly and cause warping.

Because of the accurate boring of the piston pin bosses and the tight fit of the pin, practically no wear will occur on these surfaces. Where it is found necessary to fit a new piston pin, select a pin to fit the piston and insert new bushing in the connecting rod and ream it to fit the pin already selected.

FITTING PISTON RINGS

The piston rings should be fitted into the cylinder bore into which they are to be installed so that a .009" to .011" feeler gauge can be passed through the gap when the ring is square in the bore. A gap of less than .009" may cause binding while a gap over .011" will allow a perceptible compression leak.

The piston rings should be fitted into the ring groove so that they are free but have not in excess of .001" to .0015" up and down clearance; if the rings bind—even slightly—in the groove it will cause a knock until the pistons become warm, while loose rings will cause a continual knock.

FITTING PISTON PINS TO CONNECTING ROD BUSHINGS

The piston pin should be fitted with .0003" clearance in the connecting rod bushing. This is a light hand fit.

CONNECTING ROD ALIGNMENT

All connecting rods, regardless of whether they have been in use or are new parts from stock, should be checked on a good aligning fixture and straightened if necessary. The piston pin must be parallel in all directions with the big end bearing and the upper end of the rod must have the proper offset so that it gives equal clearance with both piston bosses when the parts are assembled in the engine.

SELECTION OF PISTONS

The code letter stamped on the cylinder block along the lower edge of the valve chamber, as shown in the illustration, designates the original size of each cylinder and will be a help in determining the size of the piston required where no cylinder reconditioning is required. The code letters and piston weight in ounces (Fig. 2), stamped on the heads of the pistons will help in selecting correct pistons from stock.

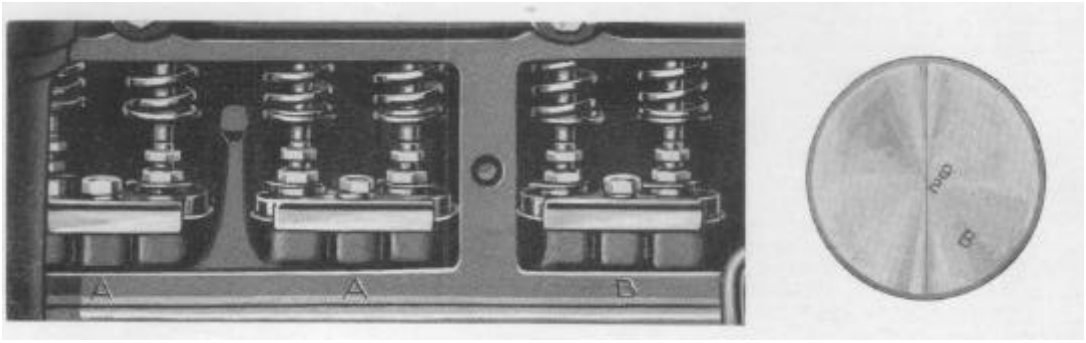


Fig. 2

Always select a complete set of pistons carrying the same weight stamp, as uneven weight will cause rough engine operation. The following tables of cylinder, piston and piston ring sizes are given to aid in the selection of these parts.

The cylinder bore should first be measured accurately. By finding the size of the cylinder in the left hand column, the correct code letter for cylinder, code letter for the piston, piston size and ring size required can be determined from the information given in the same line in the columns to the right. By using these tables you will be insured of obtaining piston clearance of .0015" to .002" at the top of the skirt at right angles to the piston pins and from .0005" to .001" at the bottom of the skirt measured at right angles to the piston pin.

The piston rings listed can be fitted to the pistons and cylinders for which they are designated by selection in many cases while in some cases it will be necessary to file the gap slightly to obtain the correct clearance of from .009" to .011" at the gap.

The following parts are used as standard equipment on the GREATER HUDSON EIGHT engines numbered from 55,000 upward:

BM 37101—Piston
BM 37131—Piston Ring—Compression
BM 37133—Piston Ring—Upper Oil Control
BM 37135—Piston Ring----Lower Oil Control
BM 37029—Piston Pin—Furnished standard—.002"—.005" and .010" oversize.

The following parts are used as standard equipment on all GREATER ESSEX SUPER SIX engines numbered from 1,360,000 upward:

BM 37001—Piston
BM 37031—Piston Ring—Compression
BM 37033—Piston Ring—Upper Oil Control
BM 37035—Piston Ring—Lower Oil Control
BM 37029—Piston Pin--Furnished standard—.002"—.005" and .010" oversize.

SELECTION OF PISTONS AND PISTON RINGS

Hudson Engines numbered 55,000 and Upward

Cylinder Size	Cylinder Code		Piston Code	Stock Piston Size	Ring Size	Cylinder Size		Special Piston Size	Ring Size
3.0000	A	Use	B	2.9985	3.002"	3.003	Use	3.0015	3.007"
3.0005	B	Use	B	2.9985		3.005	Use	3.0035	
3.0010	C	Use	D	2.9995	3 007"	3.006	Use	3.0045	3.012 "
3.0015	D	Use	D	2.9995		3.007	Use	3.0055	
3.0020	E	Use	F	3.0005		3.008	Use	3.0065	
3.0040			J	3.0025		3.009		3.0075	
3.0100	AO	Use	BO	3.0085	3.012"	3.013	Use	3.011	3.017"
3.0105	BO	Use	BO	3.0085		3.015	Use	3.013	
3.0110	CO	Use	DO	3.0095	3.017"	3.016	Use	3.0145	3.022 "
3.0115	DO	Use	DO	3.0095		3.017	Use	3.0155	
3.0120	EO	Use	FO	3.0105		3.018	Use	3.0165	
3.0140		Use	JO	3.0125		3.019	Use	3.0175	
3.020		Use	BB	3.0185	3.022"	3.023	Use	3.0215	3.027"
						3.024	Use	3.0225	
3.021		Use	DD	3.0195	3.027"	3.025	Use	3.0235	
3.022		Use	FF	3.0205					

Essex Engines numbered 1,360,000 and Upward

Cylinder Size	Cylinder Code		Piston Code	Stock Piston Size	Ring Size	Cylinder Size		Special Piston Size	Ring Size
2.9370	A	Use	B	2.9355	2.939"	2.940	Use	2.9385	2.944"
2.9375	B	Use	B	2.9355		2.942	Use	2.9405	
2.9380	C	Use	D	2.9365	2.944"	2.943	Use	2.9415	2.949 "
2.9385	D	Use	D	2.9365		2.944	Use	2.9425	
2.9390	E	Use	F	2.9375		2.945	Use	2.9435	
2.9410		Use	J	2.9395		2.946	Use	2.9445	
2.9470	AO	Use	BO	2.9455	2.949"	2.950	Use	2.9485	2.954"
2.9475	BO	Use	BO	2.9455		2.952	Use	2.9505	
2.9480	CO	Use	DO	2.9465	2.954"	29.53	Use	2.9515	2.959 "
2.9485	DO	Use	DO	2.9465		2.954	Use	2.9525	
2.9490	EO	Use	FO	2.9475		2.955	Use	2.9535	
2.9510		Use	JO	2.9495		2.956	Use	2.9545	
2.9570		Use	BB	2.9555	2.959"	2.960	Use	2.9585	2.964"
						2.961	Use	2.9595	
2.9580		Use	DD	2.9565	2.964"	2.962	Use	2.9605	
2.9590		Use	FF	2.9575					

Mechanical Specifications for the Greater Essex Super Six for 1932

Serial No. 1,281,685 and up

Engine No. 1,360,000 and up

ENGINE

Make	Essex	Actual horsepower	
Model	Essex Super Six	Power dome head	70 at 3200
No. of cylinders	6	Super power dome head	76 at 3200
Cylinder arrangement	Vertical	Firing order	1-5-3-6-2-4
Bore	2-15/16"	Suspension	4 point rubber
Stroke	4-3/4"	Type of head	L
Piston displacement	193	Cylinder head	Detachable
Compression ratio:		Cylinders in block	6
Power dome head	5.5 to 1	Crankcase	Integral
Super power dome head	6.5 to 1	Material	Cast iron
Rated H. P.	20.7	Oil pan	Pressed steel

CAMSHAFT DRIVE

Type of drive	Chain	Generator sprocket	16 teeth
Width	1-1/4"	Material	Steel
Camshaft sprocket	38 teeth	No. of links	57
Sprocket material	Cast iron	Pitch	1/2"
Crankshaft sprocket	19 teeth	Adjustment	Manual
Material	Steel		

CAMSHAFT BEARINGS

Number of bearings	3	No. 2 diameter	1-3/32"
No. 1 front—diameter	2"	No. 2 length	1-1/16"
No. 1 length	1-3/16"	No. 3 diameter	1-1/2"
		No. 3 length	15/16"

VALVES

	Inlet	*Exhaust*
Head material	Silicon steel	Silicon chrome allowy steel
Head diameter (outside)	1-3/8"	1-3/8"
Head diameter (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	.003"-.005"	.005"-.007"
Valve lift	11/32"	11/32"
Valve stem guides	Removable	Removable
Spring pressure	53 lbs.	53 lbs.

CRANKCASE AND CRANKSHAFT

No. of main bearings	3	Crank pin diameter	1-15/16 "
No. 1 (front) diameter	2-11/32"	Main bearing material	Bronze & babbitt
No. 1 length	1-5/8"	Main bearing clearance	.001"-.0015"
No. 2 diameter	2-3/8"	Main bearing end play	.006"-.012"
No. 2 length	1-3/4"	End thrust on	Center bearing
No. 3 diameter	2-13/32"	Sprocket	19 teeth
No. 3 length	1-3/4"	Material	Steel

CONNECTING ROD

Material	D. F. Steel	Lower end bearing clear.	.001"
Weight	1.7 lbs.	Length	1-3/8"
Length C. to C.	8-3/16"	Clearance (endwise)	.006"-.010"
Lower end bearing		Type	Spun
diameter	1-15/16"	Material	Babbitt

PISTON

Type	T-slot trunk	Distance between bosses	11A"
Material	Silicon aluminum alloy	Clearance at top of skirt	.0015"-.002"
Weight	94 ounces	Clearance at bottom	.0005"-.001"
Length	3A"	of skirt	5
Pin center to top	1N"	Depth of grooves	32
		Lower grooves (2)	Drilled radially

PISTON RINGS

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

PISTON PIN

Type	Floating	Bushing—outside diam.	15/16"
Diameter	3/4"	Bushing—inside diam.	3/4"
Length	2-7/16"	Bushing—length	15/16"

LUBRICATION SYSTEM

Type	Circulating splash
Oil pump type	Oscillating plunger
Oil cooling	By baffling in reservoir
Oil cleaning	Screen and ventilators
Mesh of screen	50
Capacity—Oil reservoir only	6 quarts
Capacity—Oil reservoir and troughs	7 quarts
Oil recommended	S. A. E. 30—Use low cold test in winter.

COOLING SYSTEM

Type	Thermo-syphon
Core	Ribbon cellular

COOLING SYSTEM—Continued

Capacity of cooling system	4-5/8 gallons
Radiator hose, upper, diameter	2-1/4"
Radiator hose, upper, length	7-1/2"
Radiator hose, lower, diameter	2-1/4"
Radiator hose, lower, length	11-3/8"
Fan belt	"V" type
Fan—make	Essex
Fan bearing type	Plain

FUEL SYSTEM

Carburetor—make	Marvel
Carburetor—size	1-1/4"
Method of heating mixture	Automatic heat control
Make of vacuum tank	Stewart
Gasoline tank capacity	12 gallons
Fuel feed—type	Vacuum tank
Air cleaner	Flame arrester muffler type

EXHAUST

Muffler—Twin Neutratone	Exhaust pipe diameter-1-3/4" Tail pipe diameter-1-1/2"

IGNITION SYSTEM

Make	Auto-Lite Corporation
Current source	Battery and generator
Spark control type	Full automatic
Firing order	1-5-3-6-2-4
Timing—	
Power dome head	Std. fuel—D. C. Ethyl fuel—3/4" before D. C.
Super power dome head	Ethyl fuel—D. C.
Breaker point gap	.020"
Ignition coil—make	Auto-Lite Corporation
Spark plug—type	Power dome head—A. C.—G-8 Super power dome—A. C.—K-12
Spark plug—size	Power dome head 18 m/m Super power dome head-14 m/m
Spark plug—gap	.022"

Note: Any other information must be obtained from the manufacturer.

STARTER MOTOR

Make	Auto-Lite Corporation	No. of teeth on flywheel	107
Starter control	Startix	Width of tooth face	3/8"
Drive—type	Bendix	Pinion meshes from	Rear of flywheel

Note: Any other information must be obtained from the manufacturer.

GENERATOR

Make	Auto-Lite Corporation
Regulation	Third brush
Normal charging rate—hot	13 amps.
Normal charging rate—cold	17 amps.

Note: Any other information must be obtained from the manufacturer.

BATTERY

Make	Exide	Terminal grounded	Negative
Type	3 -VXA-15-1	Length—overall	10-9/32"
Voltage	6	Width—overall	7"
No. of plates	15	Height of box	7-25/32"
Where mounted	Under driver's seat	Height overall	9-7/32"

LIGHTING SYSTEM

Head lamp—type	Bullet
Side lamp—type	Bullet
Head lamp dimmer method	Separate filament
Dash and tail lights connected	Separately
Lighting switch	On instrument panel
Head lamp control switch	On toe board

LAMP BULB SPECIFICATIONS

	Make	*Mazda No.*	*C. P.*	*Base*	*Voltage*
Head	Mazda	1110	32-32	D. C.	6-8
Side	Mazda	63	3	S. C.	6-8
Tail and stop	Mazda	1158	2-21	S. C.	6-8
Dash	Mazda	63	3	S. C.	6-8
Dome	Mazda		15	S. C.	6-8
Tell tale	Mazda	64	3	D. C	6-8
Fuse	30 Ampere				

HORN

Vibrator type

CHASSIS

Wheelbase	113"
Lubricating system	Alemite
Overall length with bumpers	177-1/2"
Location of serial number	On right hand side member—at rear end of front spring. On body dash plate.

TRANSMISSION

		Pilot brg. in crankshaft	Ball
Make	Essex	Pocket bearing	Bronze bushing
Location	Unit	Reverse idler bearing	Bronze bushing
Speeds	3 forward 1 rev	. Main shaft bearing—front	Ball
Gear ratio—low	2.44 to 1	Main shaft bearing—rear	Ball
Gear ratio—sec.	1.62 to 1	Free wheeling unit bearing	Ball
Gear ratio—high	1 to 1	Countershaft	Stationary
Gear ratio--rev.	3.26 to 1		
Type of lubricant	Summer—S. A. E. 90		
	Winter —S. A. E. 80		
Oil capacity (approx.)	3 lbs.		

CLUTCH

Make	Essex	Throwout bearing	Ball thrust
Type	Single disc in oil	Throwout	1/8"
Facing material	Cork inserts	Clearance at F/B	3/4"
No. of cork inserts	80		

LUBRICATION—1/6 pint light motor oil and 1/6 pint kerosene.

UNIVERSALS

Make	*Type*
Spicer	Oil-sealed metal

TYPE OF DRIVE

Propulsion through rear springs

REAR AXLE

Make	Hudson	Wheel bearing	Taper roller
Type	Semi-floating	Pin. brg.--front	Taper roller
Gear ratio	4.63	Pin. brg.—rear	Taper roller
Type of drive	Spiral bevel	Differential bearings	Taper roller
Min. road clear.	7-1/2"	No. of teeth in pinion	11
Clear. for jack	9-1/2"	No. of teeth in gear	51
Differential—make	Hudson	Oil capacity (approx.)	4 pounds
Pinion	Adjustable	Type of lubricant—	Summer—S. A. E. 90
Pinion bearing	Adjustable		Winter —S. A. E. 80

FRONT AXLE

Make	Hudson	Toe in	Zero to 1/8"
Section—type	I-beam	Castor angle	1°
End—type	Rev. Elliott	Spindle transverse	
King pin thrust brg.	Ball brg.	inclination	1°
King pin transverse		Min. road clearance	8"
inclination	7°	Clearance for jack	8"

STANDARD BRAKES

Type	2 shoe—self energizing—cable control
Lining	Moulding

SERVICE BRAKES

Location	Frt. and Rr. wheels	Lining length per	2 pieces, 21"
Make	wheel;		1-3/4"
Type	Bendix	Width of lining	5/32"
Total braking area	Internal	Thickness of lining	.014" at adj. screw
Drum diameter	147 sq. inches	Clearance of lining	.008" at anchor pin
	11"		Foot pedal
		Method of applica-	
		tion	

HAND BRAKE

The hand lever operates the front and rear wheel brakes independently of the foot pedal, and should be used for parking, especially when car is standing on an incline.

WHEELS

Type	Demountable wood or wire
Front wheel bearing	Taper roller
Wheel size	18"

TIRES

Size	18 x 5.25
Make	Goodyear
Number of plies	4
Recommended pressure	Average driving—Front 32 lbs., rear 32 lbs. Fast driving —Front 40 lbs., rear 40 lbs.

STEERING GEAR

Type	Worm and sector
Ratio	15 to 1
Steering wheel turns	2-1/2 (full swing left to right)
Turning radius	20' 6"
Lubricant	Gear oil—Heavy body

SPRINGS

Front Spring		Rear Spring	
Type	Semi-elliptic	Type	Semi-elliptic
Length	36"	Length	54-1/8"
Width	2"	Width	2"
No. of leaves	8	No. of leaves	7 or 8
Material	Alloy steel	Material	Alloy steel
Front bushing	5/8" diameter	Front bushing	5/8" diameter
Rear bushing	5/8" diameter	Rear bushing	5/8" diameter
Bushing material	Phosphor bronze	Bushing material	Phosphor bronze
Shackle—type	Adjustable		

FRAME

Make	Hudson	Thickness	1/8"
Material	Steel	Width of flange	2"
Maximum depth	7-3/4"		

ESSEX SUPER SIX

Gear Ratios and Rules for Comparing Speed in Miles per Hour with Motor R. P. M.

TO OBTAIN MOTOR R. P. M. FOR ANY DESIRED SPEED IN MILES PER HOUR

Multiply the car speed in miles per hour by 11.6 and the rear axle ratio with which the car is equipped.

Example—What is the motor R. P. M. when an Essex Super Six equipped with 4.63 to 1 rear axle ratio is traveling at a speed of 40 miles per hour.

Answer— 40 x 11.6 x 4.63-2,148 R. P. M. (approximately).

TO OBTAIN CAR SPEED IN MILES PER HOUR FOR A GIVEN MOTOR SPEED IN R. P. M.

Divide the motor R. P. M. by 11.6 and the rear axle ratio with which car is equipped.

Example —What is the car speed of an Essex Super Six with 4.63 to 1 rear axle ratio when the motor is turning at 2400 R. P. M.

Answer— 2400 divided by (11.6 x 4.63)=44.7 Miles per Hour (approximately).

TO OBTAIN THE NUMBER OF REVOLUTIONS OF THE MOTOR REQUIRED FOR ONE REVOLUTION OF THE REAR WHEEL

Multiply the rear axle ratio by the ratio of the transmission in the gear desired.

Example—How many revolutions does the motor make for one revolution of the rear wheels with a car equipped with 4.63 to 1 rear axle with the transmission in low gear?

Answer—2.44 (low gear ratio) x 4.63 (rear axle ratio)= 11.29 revolutions of motor to one revolution of rear wheels.

The following tabulation shows the various motor to wheel ratios worked out as above for Essex Super Six cars with 4.63 to 1 rear axle ratios:

Transmission Gear	*Transmission Ratio*	*Rear Axle Ratio*	*Motor Revs.*	*Wheel Revs.*
Low	2.44	4.63	11.29	1
Second	1.62	4.63	7.5	1
High	1	4.63	4.63	1
Reverse	3.26	4.63	15.09	1

	Standard Sedan	Coach	Rumble Coupe	2-Passenger Coupe	Town Sedan	Special Sedan	Special Coupe	Phaeton	Convertible Coupe
INSTRUMENTS									
Free Wheeling Control (On Gear Shift Lever)	ST	ST	ST	ST	ST	ST	ST	ST	ST
Gasoline Gauge (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST
Generator Signal	ST	ST	ST	ST	ST	ST	ST	ST	ST
Head Lamp Selector Switch (On Toe Board)	ST	ST	ST	ST	ST	ST	ST	ST	ST
Heat Indicator (Engine)	ST	ST	ST	ST	ST	ST	ST	ST	ST
Ignition Switch and Automatic Starter Control	ST	ST	ST	ST	ST	ST	ST	ST	ST
Light Switch (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST
Oil Level Gauge (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST
Oil Pressure Signal (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST
Ride Control (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST
Speedometer (Aeroplane Type)	ST	ST	ST	ST	ST	ST	ST	ST	ST
INTERIOR									
Adjustable Seats (Front)	ST	ST	ST	ST	ST	ST	ST		
Adjustable Seats (Rear)	ST	ST	NE	NE	ST	ST	NE		
Arm Rest Ash Trays	ST	NE	NE	NE	NE	ST	NE		
Arm Rests—Center	NE	NE	NE	NE	NE	SFR	STF		
Arm Rests—Front Doors	NE	NE	NE	NE	NE	ST	ST		
Arm Rests—Quarter	ST	ST	NE	NE	ST	ST	NE		
Assist Straps	NE	NE	NE	NE	NE	ST	NE		
Cigar Lighter	EO	EO	EO	EO	EO	ST	ST		
Curtains	3	1	1	1	1	3	1		
Dome Light .	ST	ST	ST	ST	ST	ST	ST		
Door Pull-to Cords.	4	2	2	2	4	4	2		
Foot Rests	ST	NE	NE	NE	ST	ST	NE		
Glove Boxes	EO	EO	E0	EO	EO	ST	ST		
Mirror Clock	EO	EO	EO	EO	EO	EO	EO		
Mirror Horn Button	EO	EO	EO	EO	EO	EC	EO		
Pockets—Zipper Fasteners	1	1	1	1	1	4	2		
Robe Ropes	1	2	NE	NE	1	1	NE		
Visors—Inside	EO	E0	EO	EO	EO	ST	ST		
Windshield Toggle Control	ST	ST	ST	ST	ST	ST	ST		
MISCELLANEOUS									
Bumpers—Front and Rear	SEC	SEC	SEC	SEC	SEC	SEC	SEC		
Glass—Shatter Proof—Windshield only	EO	EO	EO	EO	EO	E0	EO		
Glass—Shatter Proof—Windshield and Doors	EO	EO	EO	E0	EO	E0	EO		
Hood Clamps	CAD	CAD	CAD	CAD	CAD	CR	CR		
Hood Hinge	PB	PB	PB	PB	PB	CR	CR		
Horn—Vibrator Type	ST	ST	ST	ST	ST	ST	ST		
Lamps—Cowl—Chrome	ST	ST	ST	ST	ST	ST	ST		
Lamps—Head—Chrome	ST	ST	ST	ST	ST	ST	ST		
Lamps—Tail—Chrome	ST	ST	ST	ST	ST	ST	ST		
Radiator Grille—Chrome	EO	EO	E0	EO	EO	EO	EO		
Windshield Wiper—Single	ST	ST	ST	ST	ST	ST	ST		
Windshield Wiper—Double	EO	EO	EO	EO	EO	EO	EO		
TRUNKS AND RACKS									
Trunk Rack	EO	EO	EO	EO	EO	EO	EO		
Trunk and Rack Combination	EO	EO	EO	EO	EO	EO	EO		
WHEELS—TIRES—CARRIERS									
Demountable Wire Wheels (5)	ST	ST	ST	ST	ST	ST	ST		
Demountable Wire Wheels (5) Snap-on Spokes.	EO	EO	EO	EO	EO	ST	ST		
Demountable Wood Wheels—Painted (5)	SO	SO	SO	SO	SO	NE	NE		
Demountable Wood Wheels—Natural	EO	E0	EO	EO	EO	SO	SO		
Spare Wheel Mount—Rear	ST	ST	ST	ST	ST	ST	ST		
Spare Wheel Mount—Fender-1 or 2	EO	EO	EO	EO	EO	EO	EO		
White Side Wall Tires	EO	EO	EO	EO	EO	ST	ST		
Fabric Tire Cover	SEC	SEC	SEC	SEC	SEC	SEC	SEC		
Metal Tire Cover	EO	EO	EO	EO	EO	EO	EO		
Spare Wheel Locks	SEC	SEC	SEC	SEC	SEC	SEC	SEC		

KEY

CAD—Cadmium Plate
CR—Chromium Plate
EO—Optional at Extra Cost
NE—Not Equipped
PB—Finished in Body Color
SEC—Standard —Extra Cost
SFR—Standard —Front and Rear
SO—Optional— No Extra Cost
ST—Standard
STF—Standard—Front

Mechanical Specifications for The Greater Hudson Eight for 1932

SERIAL NUMBERS

Standard Series No. 930,770 and up Sterling Series No. 62,884 and up
Major Series No. 250,001 and up
Engine No. 55,000 and up

ENGINE

Make	Hudson	Actual H. P.:	101 at 3600
Model	Greater Eight	Power Dome Head	
No. of cylinders	8	Super Power Dome Head	110 at 3600
Cylinder arrangement	Vertical	Firing order	1-6-2-5-8-3-7-4
Bore	3"	Suspension	4 point rubber
Stroke	4-1/2"	Type of head	L
Piston displacement	254	Cylinder heads (2)	Detachable
Compression ratio:		Cylinders cast	En bloc
Power Dome Head	5.8 to 1	Crankcase	Integral
Super Power Dome Head	7.0 to 1	Upper half	Cast iron
Rated H. P.	28.8	Oil pan	Pressed steel

CAMSHAFT DRIVE

Type of drive	Chain	Generator sprocket	16 teeth
Width of chain	1-1/4"	Material	Steel
Camshaft sprocket	38 teeth	No. of links	57
Sprocket material	Cast iron	Pitch	1/2"
Crankshaft sprocket	19 teeth	Adjustment	Manual
Material	Steel		

CAMSHAFT BEARINGS

No. of bearings	5	No. 3 diameter	1-31/32"
No. 1 (frt.) diameter	2-1/32"	No. 3 length	1-1/4"
No. 1 length	1-3/8"	No. 4 diameter	1-15/16"
No. 2 diameter	2"	No. 4 length	1"
No. 2 length	1"	No. 5 diameter	1-1/2"
		No. 5 length	1-1/2"

VALVES

	Inlet Valve	*Exhaust Valve*
Head material	Silicon steel	Silicon chrome alloy steel
Head diameter (outside)	1-1/2"	1-3/8"
Head diameter (opening)	1-3/8"	1-1/4"
Stem length	5-1/32"	5-1/32"
Stem diameter	5/16"	5/16"
Stem type of end	Grooved	Grooved
Tappet (type)	Roller	Roller
Tappet clearance	.003"—.005"	.005"—.007"
Valve lift	11/32"	11/32"
Valve stem guides	Removable	Removable
Spring pressure	53 lbs.	53 lbs.

CRANKCASE AND CRANKSHAFT

No. of main bearings	5	Crank pin diameter	1-15/16"
No. 1 (front) diameter	2-9/32"	Main bearing material	Bronze & babbitt
No. 1 length	1-5/8"	Main bearing clearance	.006"—.012"
No. 2 diameter	2-5/16"	Main bearing end play	.001"—.0015"
No. 2 length	1-3/8"	End thrust on	.006"—.012"
No. 3 diameter	2-11/32"	Sprocket	Center bearing
No. 3 length	1-7/8"	Material	19 teeth
No. 4 diameter	2-3/8"		Steel
No. 4 length	1-3/8"		
No. 5 diameter	2-13/32"		
No. 5 length	2"		

CONNECTING ROD

Material	D. F. Steel	Lower end bearing clear.	.001"—.0015"
Weight	1.84 lbs.	Length	1-3/8"
Length C. to C.	8-3/16"	Clearance (endwise)	.006"—.010"
Lower end bearing dia.	1-15/16"	Material	Spun babbitt

PISTON

Type	T slot trunk	Pin center to top	1-1/16"
Material	Silicon aluminum alloy	Distance between bosses	1-1/8"
		Clearance at top of skirt	.0015"—.002"
Weight	9-3/4 ounces	Clearance at bottom of skirt	.0005"—.001"
Length	3-3/16"		
Lower grooves (2)	Drilled radially	Depth of grooves	5/32"

PISTON RINGS

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

PISTON PIN

Type	Floating	Bushing outside dia.	15/16"
Diameter	3/4"	Bushing inside dia.	3/4"
Length	2-7/16"	Bushing length	15/16"

LUBRICATING SYSTEM

Type	Circulating splash
Oil pump type	Oscillating plunger
Oil cooling	Baffling in reservoir
Oil cleaning	Screen and ventilation
Mesh of screen	50
Capacity—oil reservoir only	8 quarts
Capacity—oil reservoir and troughs	9-1/2 quarts
Oil recommended	S. A. E. 30—Use low cold test in winter

COOLING SYSTEM

Type	Centrifugal pump
Radiator—make	Harrison
Core type	Ribbon cellular
Capacity of cooling system	4-1/4 gallons
Radiator hose—upper—diameter	1-5/16"
Radiator hose—upper—length	9-3/8"
Radiator hose—lower—diameter	1-1/2"
Radiator hose—lower—length	5-1/2"
Water pump to cylinder hose—diameter	1-1/2"
Water pump to cylinder hose—length	5"
Fan belt	"V" type
Fan—make	Hudson
Fan bearing type	Plain

FUEL SYSTEM

Carburetor—make	Marvel
Carburetor—size	1-1/2"
Fuel feed—type	Vacuum tank
Make of vacuum tank	Stewart
Air cleaner	Flame arrester silencer type
Gasoline tank capacity	16 gallons
Method of heating mixture	Automatic heat control

EXHAUST SYSTEM

Muffler—Twom Neutratonic	Exhaust pipe diameter - 2”
	Tail pipe diameter - 1-3/4”

IGNITION SYSTEM

Make	Auto-Lite Corporation
Current source	Battery and generator
Spark control type	Full-automatic
Firing order	1-6-2-5-8-3-7-4
Timing—Power Dome Head	Std. fuel—D. C. Ethyl fuel-1-1/4" before D.C.
Timing—Super Power Dome Head	Ethyl fuel —D. C.
Breaker point gap	.020"
Ignition coil—make	Auto-Lite Corporation
Spark plug—type { Power Dome Head	A. C.—G-8
Super Power Dome Head	A. C.—K-12
Spark plug— size { Power Dome Head	18 m
Super Power Dome Head	14 mm
Spark plug—gap	.022"

Note: Any other information must be obtained from the manufacturer.

STARTER MOTOR

Make	Auto-Lite Corporation
Starter control	Startix
Drive type	Bendix
No. of teeth on flywheel	107
Width of tooth face	3/8"
Pinion meshes from	Back of flywheel

Note: Any other information must be obtained from the manufacturer.

GENERATOR

Make	Auto-Lite Corporation
Regulation	Third brush
Normal charging rate—hot	13 amperes
Normal charging rate—cold	17 amperes

Note: Any other information must be obtained from the manufacturer.

BATTERY

Make	Exide	Terminal grounded	Neg.
Type	3-VXA-15-1	Length—overall	10-1/32"
Voltage	6	Width—overall	7"
No. of plates	15	Height of box	7-25/32"
Mounting	Under driver's seat	Height overall	9-7/32"

LIGHTING SYSTEM

Head and side lamp type	Spheroidal
Head lamp dimmer method	Separate filament
Dash and tail lights connected	Separate
Lighting switch	On instrument panel
Head light control switch	On toe board

LAMP BULB SPECIFICATIONS

	Make	*Mazda No.*	*CP*	*Base*	*Voltage*
Head	Mazda	1110	32-32	D. C.	6-8
Side	Mazda	63	3	S. C.	6-8
Tail and stop	Mazda	1158	2-21	D. C.	6-8
Dash	Mazda	63	3	S. C.	6-8
Dome	Mazda		15	S. C.	6-8
Tell tale	30 amperes	64	3	D. C.	6-8
Fuse					

HORN

Vibrator type

CHASSIS

Wheelbase	119"	126"	132"
Lubricating system	Alemite	Alemite	Alemite
Overall length with bumpers	185%"	192-1/4"	198-1/4"
Location of serial number		On right hand side member– at rear end of front spring. On body dash plate.	

TRANSMISSION

Make	Hudson	Pilot brg. in crankshaft	Annular ball
Location	Unit	Pocket bearing	Bronze bush.
Speeds	3 forward 1 rev.	Reverse idler bearing	Bronze bush.
Gear ratio—low	2.44 to 1	Main shaft bearing—front	Annular ball
Gear ratio—second	1.62 to 1	Main shaft bearing—rear	Annular ball
Gear ratio—high	1 to 1	Free wheeling unit bearing	Annular ball
Gear ratio—rev.	3.26 to 1	Countershaft gear—front	Bronze bush.
Type of lubricant {Summer—S. A. E. 90		Countershaft gear—rear	Bronze bush.
{Winter —S. A. E. 80		Countershaft	Stationary

Oil capacity (approx.) 3 pounds

CLUTCH

Make	Hudson	Facing material	Cork inserts
Type	Single disc in oil	Throwout brg.	Ball thrust
No. cork inserts	80	Throwout	1/8"
Lubrication	1/6 pt. light motor oil and 1/6 pt. kerosene	Clearance at floor-board	3/4"

UNIVERSALS

Make	Spicer
Type	Oil-sealed Metal

TYPE OF DRIVE

Hotchkiss Propulsion through rear springs

REAR AXLE

Make	Hudson		
Type	Semi-floating		
Make			
Gear ratio—119" W.B. and 126" W.B.—4.63 132" W.B—5.1			
Type of drive	Spiral bevel	Oil capacity (approx.)	4 lbs.
Min. road clearance	7-1/2"	Type of lubricant	{Summer—S.A.E. 90 {Winter—S.A.E. 80
Clearance for jack	9-1/2"		
Differential—make	Hudson		
Pinion brgs.	Taper roller		
Differential brgs.	Taper roller		

FRONT AXLE

Make	Hudson	Spindle transverse inclination	1º
Section—type	I-beam	Toe-in	Zero to 1/8"
End—type	Rev. Elliott	Castor angle	1º
King pin thrust brg.	Ball thrust	Min. road clearance	8"
King pin transverse inclination	7º	Clearance for jack	8"

STANDARD BRAKES

Type of standard brakes	2 shoe—cable operated—4 wheel
Lining—type	Moulded

SERVICE BRAKE

Location	Frt. and Rr. wheels Bendix	Lining length per wheel	2 pcs., 25"
Make	Internal	Width of lining	1-3/4"
Type	175 sq. in.	Thickness of lining	7/32"
Total braking area	Frt. and Rr. 13"	Clearance of lining	.014" at adj. screw .008" at anchor pin
Drum diameter		Method of application	Foot pedal

HAND BRAKE

The hand lever operates the front and rear wheel brakes independently of the foot pedal, and should be used for parking, especially when car is standing on an incline.

WHEELS

Type	Demountable wood or wire
Front wheel bearings	Taper roller
Rear wheel bearings	Taper roller

TIRES

Size	119" W.B. & 126" W. B.-17 x 6.00
Make	132" W. B.— 17 x 6.50
Number of plies	Goodyear
Recommended pressure	4
	Average driving—Front 32 lbs., rear 32 lbs.
	Fast driving —Front 40 lbs., rear 40 lbs.

STEERING GEAR

Type	Worm and sector
Ratio	17 to 1
Steering wheel turns	2-1/2 (full swing left to right)
Turning radius	119" W. B.—21-1/2'
	126" W. B.—23'
	132" W. B.—24-1/2'
Lubricant	Heavy bodied gear oil

SPRINGS

Front Spring		*Rear Spring*	
Type	Semi-elliptic	Type	Semi-elliptic
Length	36"	Length	54-1/8"
Width	2"	Width	2"
No. of leaves	9	No. of leaves	9
Material	Alloy steel	Material	Alloy steel
Front bushing	5/8" dia.	Front bushing	5/8" dia.
Rear bushing	5/8" dia.	Rear bushing	5/8" dia.
Bushing material	Phosphor bronze	Bushing material	Phosphor bronze
Shackle—type	Adjustable		

FRAME

Make	Hudson	Max. depth	8"
Material	Steel	Thickness	3/16"
		Width of flange	2"

Gear Ratios and Rules for Comparing Speed in Miles per Hour with Motor R. P. M.

TO OBTAIN MOTOR R. P. M. FOR ANY DESIRED SPEED IN MILES PER HOUR

Multiply the car speed in miles per hour by 11.6 and the rear axle ratio with which the car is equipped.

Example—What is the motor R. P. M. when a Hudson 8 equipped with 4.63 **to** 1 rear axle ratio is traveling at a speed of 40 miles per hour.

Answer-40 multiplied by 11.6 x 4.63 =2148 R. P. M. (Approximately).

TO OBTAIN CAR SPEED IN MILES PER HOUR FOR A GIVEN MOTOR SPEED IN R. P. M.

Divide the motor R. P. M. by 11.6 and the rear axle ratio with which car is equipped.

Example--What is the car speed of a Hudson 8 equipped with 4.63 to 1 rear axle ratio when the motor is turning at 2400 R. **P. M.**

Answer-- 2400 divided by (11.6 x 4.63) = 44.71 Miles per Hour (approximately).

TO OBTAIN THE NUMBER OF REVOLUTIONS OF THE MOTOR REQUIRED FOR ONE REVOLUTION OF THE REAR WHEEL

Multiply the rear axle ratio by the ratio of the transmission in the gear desired.

Example --How many revolutions does the motor make for one revolution of the rear wheels with a car equipped with 4.63 to 1 rear axle with the transmission in low gear.

Answer-2.44 (low gear ratio) x 4.63 (rear axle ratio) =11.29 revolutions of motor to one revolution of rear wheels.

The following tabulation shows the various motor to wheel ratios worked out as above for Hudson Greater Eight cars with 4.63 to 1 rear axle ratio:

Transmission Gear	*Transmission Ratio*	*Rear Axle Ratio*	*Motor Revs.*	*Wheel Revs.*
Low	2.44	4.63	11.29	1
Second	1.62	4.63	7.5	1
High	1	4.63	4.63	1
Reverse	3.26	4.63	15.09	1

EQUIPMENT

	Stand. Sedan	Coach	Rumble Coupe	2-Pass. Coupe	Tour. Sedan	Special Coupe	Conv. Coupe	Suburban	Special Sedan	Brough.	Tour. Sedan	Club Sedan	Sedan 7-Pass.	Phae. 7-Pass.
INSTRUMENTS														
Free Wheeling Control (On Operating Shift *Lever*)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Gasoline Gauge (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Generator Signal	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Head Lamp Selector Switch (On Toe Board)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Heat Indicator (Engine)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Ignition Switch and Automatic Starter Control	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Light Switch (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Oil Level Gauge (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Oil Pressure Signal (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Ride Control (On Instrument Panel)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Speedometer (Aeroplane Type)	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
INTERIOR														
Adjustable Seats (Front)	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
Adjustable Seats (Rear)	ST	ST	NE	NE	ST	NE		ST	ST	ST	ST	ST	ST	
Arm Rest Ash Tray	ST	NE	NE	NE	NE	NE		ST	ST	ST	ST	ST	ST	
Arm Rests—Center	NE	NE	NE	NE	NE	STF		SR	SFR	SFR	SFR	SFR	SFR	
Arm Rests—Front Doors	NE	NE	NE	NE	NE	ST		NE	ST	ST	ST	ST	ST	
Arm Rests—Quarter	ST	ST	NE	NE	ST	NE		ST	ST	ST	ST	ST	ST	
Assist Straps	ST	NE	NE	NE	NE	NE		ST	ST	ST	ST	ST	ST	
Cigar Lighter	EO	EO	EO	EO	EO	ST		ST	ST	ST	ST	ST	ST	
Curtains	3	1	1	1	1	1		1	3	4	3	3	3	
Dome Light	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
Door Pull-To Cords	4	2	2	2	4	2		2	4	4	4	4	4	
Foot Rests	ST	NE	NE	NE	ST	ST		NE	ST	ST	ST	ST	ST	
Glove Boxes	EO	EO	EO	EO	EO	ST		ST	ST	ST	ST	ST	ST	
Mirror Clock	EO	EO	EO	EO	EO	ST		ST	ST	ST	ST	ST	ST	
Mirror Horn Button	EO	EO	EO	EO	EO	EO		EO	EO	ST	ST	ST	ST	
Pockets—Zipper Fasteners	2	2	2	2	2	2		2	4	3	4	3	4	
Robe Ropes	1	2	NE	NE	1	NE		2	1	1	1	1	1	
Visors—Inside	EO	EO	EO	EO	EO	ST		ST	ST	ST	ST	ST	ST	
Windshield Toggle Control	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
MISCELLANEOUS														
Bumpers—Front and Rear	SEC	SEC	SEC	SEC	SEC	SEC		SEC	SEC	SEC	SEC	SEC	SEC	
Glass—Shatter Proof—Windshield Only	EO	EO	EO	EO	EO	ST		ST	ST	ST	ST	ST	ST	
Glass—Shatter Proof—Windshield and Doors	EO	EO	EO	EO	EO	EO		EO	EO	EO	EO	EO	EO	
Hood Clamps	CR	CR	CR	CR	CR	CR		CR	CR	CR	CR	CR	CR	
Hood Hinge	PB	PB	PB	PB	PB	CR		CR	CR	CR	CR	CR	CR	
Hood Ventilator Doors (Chrome)	EO	EO	EO	EO	EO	EO		EO	EO	EO	EO	EO	EO	
Horn—Vibrator Type	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
Lamps—Cowl—Chrome	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
Lamps—Head—Chrome	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
Lamps—Tail—Chrome	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
Radiator Grille—Chrome	EO	EO	EO	EO	EO	EO		EO	EO	EO	EO	EO	EO	
Windshield Wiper—Single	ST	ST	ST	ST	ST	ST		ST	ST	NE	ST	NE	ST	
Windshield Wiper—Double	EO	EO	EO	EO	EO	EO		EO	EO	ST	EO	ST	EO	
TRUNKS AND RACKS														
Trunk Rack	EO	EO	EO	EO	EO	EO		NE	EO	NE	EO	EO	EO	
Trunk and Rack Combination	EO	EO	EO	EO	EO	EO		ST	EO	ST	EO	EO	EO	
WHEELS—TIRES—CARRIERS														
Demountable Wire Wheels (5)	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
Demountable Wire Wheels (5) (Snap-on Spokes)	EO	EO	EO	EO	EO	ST		ST	ST	ST	ST	ST	ST	
Demountable Wood Wheels—Painted (5)	SO	SO	SO	SO	SO	NE		NE	NE	NE	NE	NE	NE	
Demountable Wood Wheels—Natural	EO	EO	EO	EO	EO	SO		SO	SO	SO	SO	SO	SO	
Spare Wheel Mount—Rear	ST	ST	ST	ST	ST	ST		ST	ST	ST	ST	ST	ST	
Spare Wheel Mount—Fender—1 or 2	EO	EO	EO	EO	EO	EO		EO	EO	EO	EO	EO	EO	
White Side Wall Tires	EO	EO	EO	EO	EO	ST		ST	ST	ST	ST	ST	ST	
Fabric Tire Cover	SEC	SEC	SEC	SEC	SEC	SEC		SEC	SEC	SEC	SEC	SEC	SEC	
Metal Tire Cover	EO	EO	EO	EO	EO	EO		EO	EO	EO	EO	EO	EO	
Spare Wheel Locks	SEC	SEC	SEC	SEC	SEC	SEC		SEC	SEC	SEC	SEC	SEC	SEC	

KEY

CAD—CADMIUM PLATE
CR—CHROMIUM PLATE
EO—OPTIONAL AT EXTRA COST
NE—NOT EQUIPPED
PB—FINISHED IN BODY COLOR
SEC—STANDARD—EXTRA COST
SFR—STANDARD—FRONT AND REAR
SO—OPTIONAL—NO EXTRA COST
SR—STANDARD REAR
ST—STANDARD
STF—STANDARD FRONT

5 G. P.—2-6-31—Printed in U. S. A.

Hudson Reference Sheet No. 36 (January, 19320)

Paint Specifications Covering New and Greater Hudson Eight New and Greater Essex Super-Six 1932

INDEX

There is no standard color designated for any type. It is necessary, on your shipping specifications, to indicate the color combination wanted for each model specified.

Color Numbers Refer to Color Chart *Color Letters Show Color Classification*

Example: No. 14 —Ivory Jet Black used on body, bonnet, panels, etc.
14A—Ivory Jet Black used on wire wheels
14B—Ivory Jet Black used on wood wheels and shutters
14C—Ivory Jet Black used for striping
14D—Ivory Jet Black used on chassis, gasoline tank and wire wheel brake drums

Hudson Motor Car Company
Detroit, Michigan

Hudson Motor Car Co., Detroit, U. S. A.

Essex Coach

CAR NUMBER	OPTION "K" *1281685 to 1287517*		OPTION "K" *1287518 & up*		OPTION "G" *1281685 & up*		OPTION "Q" 1281685 & up		OPTION "Z" *1281685 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
UPPER BODY	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
LOWER BODY	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
BELT PANEL	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
WOOD WHEELS	Black	14B	Black	14B	Lake Louise Blue	43B	Burma Brown	42B	Brilliant Green	41B
WHEEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
WIRE WHEELS	Alcazar Red.	2A	Black	14A	Lake Louise Blue	43A	Burma Brown	42A	Brilliant Green	41A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Black	14D	Black	14D	Black	14D
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41

Essex Coupe (2- and 4-Pass.)

CAR NUMBER	OPTION "K" *1281685 to 1287517*		OPTION "K" *1287518 & up*		OPTION "M" *1281685 & up*		OPTION "S" *1281685 & up*		OPTION "T" *1281685 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
UPPER BODY	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
LOWER BODY	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
BELT PANEL	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
WOOD WHEELS	Black	14B	Black	14B	Alpine Blue	39B	Sunshine Green	59B	Mountain Ash Tan	44B
WHEEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
WIRE WHEELS	Alcazar Red.	2A	Black	14A	Alpine Blue	39A	Sunshine Green	59A	Mountain Ash Tan	44A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Black	14D	Black	14D	Black	14D
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44

Essex Special Coupe

CAR NUMBER	OPTION "K" *1281685 to 1287517*		OPTION "K" *1287518 & up*		OPTION "G" *1281685 & up*		OPTION "Q" *1281685 & up*		OPTION "R" *1281685 & up*	
UPPER PANELS AND BACK	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Alfalfa Green	50
UPPER BODY	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Alfalfa Green	50
LOWER BODY	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Alfalfa Green	50
BELT PANEL	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Alfalfa Green	50
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Alfalfa Green	50
WOOD WHEELS	Natural Wood		Natural Wood		Natural Wood		Natural Wood		Natural Wood	
WHEEL STRIPE	None		None		None		None		None	
WIRE WHEELS	Alcazar Red	2A	Black	14A	Lake Louise Blue	43A	Burma Brown	42B	Alfalfa Green	50B
WIRE WHEEL DRUMS	Black	14D	Black	14D	Black	14D	Black	14D	Black	14D
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Alfalfa Green	50

Essex 5-Passenger Phaeton

CAR NUMBER	OPTION "M" *1281685 & up*		OPTION "P" *1281685 & up*		OPTION "Q" *1281685 & up*	
BACK	Alpine Blue	39	Brewster Green	54	Burma Brown	42
UPPER BODY	Alpine Blue	39	Brewster Green	54	Burma Brown	42
LOWER BODY	Alpine Blue	39	Brewster Green	54	Burma Brown	42
BELT PANEL	Alpine Blue	39	Brewster Green	54	Burma Brown	42
PANEL STRIPE	White	24C	White	24C	White	24C
BONNET	Alpine Blue	39	Brewster Green	54	Burma Brown	42
WOOD WHEELS	Alpine Blue	39B	Brewster Green	54B	Burma Brown	42B
WHEEL STRIPE	White	24C	White	24C	White	24C
WIRE WHEELS	Alpine Blue	39A	Brewster Green	54A	Burma Brown	42A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Black	14D
FENDERS AND SPLASH GUARDS	Alpine Blue	39	Brewster Green	54	Burma Brown	42

Essex Special Sedan

	OPTION "K" *1281685 to 1287517*		OPTION "K" *1287518 & up*		OPTION "M" *1281685 & up*		OPTION "S" *1281685 & up*		OPTION "T" *1281685 & up*	
UPPER PANELS AND BACK	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
UPPER BODY	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
LOWER BODY	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
BELT PANEL	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
WOOD WHEELS	Natural Wood		Natural Wood		Natural Wood		Natural Wood		Natural Wood	
WHEEL STRIPE	None		None		None		None		None	
WIRE WHEELS	Alcazar Red	2A	Black	14A	Alpine Blue	39A	Sunshine Green	59A	Mountain Ash Tan	44A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Black	14D	Black	14D	Black	14D
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44

Essex Standard Sedan

	OPTION "K" *1281685 to 1287517*		OPTION "K" *1287518 & up*		OPTION "G" *1281685 & up*		OPTION "Q" *1281685 & up*		OPTION "Z" *1281685 & up*	
ROOF PANELS	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
AND BACK	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
UPPER BODY	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
LOWER BODY	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
BELT PANEL	White	24C	White	24C	White	24C	White	24C	White	24C
PANEL STRIPE	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41
BONNET	Black	14B	Black	14B	Lake Louise Blue	43B	Burma Brown	42B	Brilliant Green	41B
WOOD WHEELS	White	24C	White	24C	White	24C	White	24C	White	24C
WHEEL STRIPE	Alcazar Red	2A	Black	14A	Lake Louise Blue	43A	Burma Brown	42A	Brilliant Green	41A
WIRE WHEELS										
WIRE WHEEL DRUMS	Black	14D	Black	14D	Black	14D	Black	14D	Black	14D
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Lake Louise Blue	43	Burma Brown	42	Brilliant Green	41

Essex Town Sedan

CAR NUMBER	OPTION "K" *1281685 to 1287517*		OPTION "K" *1287518 & up*		OPTION "M" *1281685 & up*		OPTION "S" *1281685 & up*		OPTION "T" *1281685 & up*	
UPPER PANELS AND BACK	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
UPPER BODY	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
LOWER BODY	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
BELT PANEL	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
WOOD WHEELS	Black	14B	Black	14B	Alpine Blue	39B	Sunshine Green	59B	Mountain Ash Tan	44B
WHEEL STRIPE .	White	24C	White	24C	White	24C	White	24C	White	24C
WIRE WHEELS	Alcazar Red	2A	Black	14A	Alpine Blue	39A	Sunshine Green	59A	Mountain Ash Tan	44A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Black	14D	Black	14D	Black	14D
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44

Hudson Coach 119"

CAR NUMBER	OPTION "K" *930770 to 933210*		OPTION "K" *933211 & up*		OPTION "M" *930770 & up*		OPTION "R" *930770 & up*		OPTION "T" *930770 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Alpine Blue	39	Alfalfa Green	50	Mountain Ash Tan	44
UPPER BODY	Black	14	Black	14	Alpine Blue	39	Alfalfa Green	50	Mountain Ash Tan	44
LOWER BODY	Black	14	Black	14	Alpine Blue	39	Alfalfa Green	50	Mountain Ash Tan	44
BELT PANEL	Black	14	Black	14	Alpine Blue	39	Alfalfa Green	50	Mountain Ash Tan	44
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Alpine Blue	39	Alfalfa Green	50	Mountain Ash Tan	44
WOOD WHEELS	Black	14B	Black	14B	Alpine Blue	39B	Alfalfa Green	50B	Mountain Ash Tan	44B
WHEEL STRIPE .	White	24C	White	24C	White	24C	White	24C	White	24C
WIRE WHEELS	Alcazar Red	2A	Black	14A	Alpine Blue	39A	Alfalfa Green	50A	Mountain Ash Tan	44A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Alpine Blue	39	Alfalfa Green	50	Mountain Ash Tan	44
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Alpine Blue	39	Alfalfa Green	50	Mountain Ash Tan	44

Hudson Coupe (2-and 4-Pass.) 119"

CAR NUMBER	OPTION "K" *930770 to 933210*		OPTION "K" *933211 & up*		OPTION "M" *930770 & up*		OPTION "Z" *930770 & up*		OPTION "Z" *930770 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
UPPER BODY	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
LOWER BODY	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
BELT PANEL	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
WOOD WHEELS	Black	14B	Black	14B	Boston Blue	53B	Burma Brown	42B	Brilliant Green	41B
WHEEL STRIPE .	White	24C	White	24C	White	24C	White	24C	White	24C
WIRE WHEELS	Alcazar Red	2A	Black	14A	Boston Blue	53A	Burma Brown	42A	Brilliant Green	41A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Boston Blue	53	Burma Brown	42	Brilliant Green	41
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41

Hudson Special Coupe 119"

CAR NUMBER	OPTION "K" *930770 to 933210*		OPTION "K" *933211 & up*		OPTION "M" *930770 & up*		OPTION "S" *930770 & up*		OPTION "T" *930770 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
UPPER BODY	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
LOWER BODY	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
BELT PANEL	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59	Mountain Ash Tan	44
WOOD WHEELS	Black	14B	Natural Wood		Natural Wood		Natural Wood		Natural Wood	
WHEEL STRIPE .	White	24C	None		None		None		None	
WIRE WHEELS	Alcazar Red	2A	Black	14A	Alpine Blue	39A	Sunshine Green	59A	Mountain Ash Tan	44A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Alpine Blue	14D	Sunshine Green	59	Mountain Ash Tan	44
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Alpine Blue	39	Sunshine Green	59		

Hudson Standard Sedan 119"

CAR NUMBER	OPTION "K" *930770 to 933210*		OPTION "K" *933211 & up*		OPTION "M" *930770 & up*		OPTION "P" *930770 & up*		OPTION "T" *930770 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Alpine Blue	39	Brewster Green	54	Mountain Ash Tan	44
UPPER BODY	Black	14	Black	14	Alpine Blue	39	Brewster Green	54	Mountain Ash Tan	44
LOWER BODY	Black	14	Black	14	Alpine Blue	39	Brewster Green.	54	Mountain Ash Tan	44
BELT PANEL	Black	14	Black	14	Alpine Blue	39	Brewster Green	54	Mountain Ash Tan	44
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Alpine Blue	39	Brewster Green	54	Mountain Ash Tan	44
WOOD WHEELS	Black	14B	Black	14B	Alpine Blue	39B	Brewster Green	54B	Mountain Ash Tan	44B
WHEEL STRIPE .	White	24C	White	24C	White	24C	White	24C	White	24C
WIRE WHEELS	Alcazar Red	2A	Black	14A	Alpine Blue	39A	Brewster Green	54A	Mountain Ash Tan	44A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Alpine Blue	39	Brewster Green	54	Mountain Ash Tan	44
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Alpine Blue	39	Brewster Green	54	Mountain Ash Tan	44

Hudson Town Sedan 119"

CAR NUMBER	OPTION "K" *930770 to 933210*		OPTION "K" *933211 & up*		OPTION "H" *930770 & up*		OPTION "Q" *930770 & up*		OPTION "L" *930770 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
UPPER BODY	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
LOWER BODY	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green.	41
BELT PANEL	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green.	41
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
WOOD WHEELS	Black	14B	Black	14B	Boston Blue	53B	Eurma Brown	42B	Brilliant Green.	41B
WHEEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
WIRE WHEELS	Alcazar Red	2A	Black	14A	Boston Blue	53A	Burma Brown	42A	Brilliant Green	41A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Boston Blue	53	Burma Brown	42	Brilliant Green	41
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41

Hudson Special Sedan 126"

CAR NUMBER	OPTION "K" *62884 to 63161*		OPTION "K" *63162 & up*		OPTION "H" *62884 & up*		OPTION "R" *62884 & up*		OPTION "T" *62884 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
UPPER BODY	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
LOWER BODY	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
BELT PANEL	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
WOOD WHEELS	Natural Wood		Natural Wood		Natural Wood		Natural Wood		Natural Wood	
WHEEL STRIPE	None		None		None		None		None	
WIRE WHEELS	Alcazar Red	2A	Black	14A	Boston Blue	53A	Alfalfa Green	50A	Mountain Ash Tan	44A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44

Hudson Suburban 126"

CAR NUMBER	OPTION "K" *62884 to 63161*		OPTION "K" *63162 & up*		OPTION "H" *62884 & up*		OPTION "R" *62884 & up*		OPTION "T" *62884 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
UPPER BODY	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
LOWER BODY	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
BELT PANEL	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
WOOD WHEELS	Natural Wood		Natural Wood		Natural Wood		Alfalfa Green	50B	Natural Wood	
WHEEL STRIPE	None		None		None		White	24C	None	
WIRE WHEELS	Alcazar Red	2A	Black	14A	Boston Blue	53A	Alfalfa Green	50A	Mountain Ash Tan	44A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Boston Blue	53	Alfalfa Green	50	Mountain Ash Tan	44

Hudson Brougham 132"

CAR NUMBER	OPTION "K" *250001 to 250271*		OPTION "K" *250272 & up*		OPTION "F" *250001 & up*		OPTION "U" *250001 & up*		OPTION "W" *250001 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Bay Blue—Light	52	Gay Green—Dark	57	Brougham Brown—Dark	55
UPPER BODY	Black	14	Black	14	Bay Blue—Light	52	Gay Green—Dark	57	Brougham Brown—Dark	55
LOWER BODY	Black	14	Black	14	Bay Blue—Light	52	Gay Green Dark	57	Brougham Brown—Dark	55
BELT PANEL	Black	14	Black	14	Bay Blue— Light	52	Gay Green—Dark	57	Brougham Brown—Dark	55
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Bay Blue—Light	52	Gay Green—Dark	57	Brougham Brown—Dark	55
WOOD WHEELS	Natural Wood		Natural Wood		Natural Wood		Natural Wood		Natural Wood	
WHEEL STRIPE	None		None		None		None		None	
WIRE WHEELS	Alcazar Red	2A	Black	14A	Bay Blue—Light	52A	Gay Green—Dark	57A	Brougham Brown—Dark	55A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Bay Blue—Light	52	Gay Green--Dark	57	Brougham Brown—Dark	55
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Bay Blue—Dark	51	Gay Green—Light	58	Brougham Brown—Light	56

Hudson Club Sedan 132"

CAR NUMBER	OPTION "K" *250001 to 250271*		OPTION "K" *250272 & up*		OPTION "F" *250001 & up*		OPTION "U" *250001 & up*		OPTION "W" *250001 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Bay Blue—Dark	51	Gay Green—Dark	57	Brougham Brown—Dk	55
UPPER BODY	Black	14	Black	14	Bay Blue— Dark	51	Gay Green— Dark	57	Brougham Brown—Dk	55
LOWER BODY	Black	14	Black	14	Bay Blue—Dark	51	Gay Green—Dark	57	Brougham Brown—Dk	55
BELT PANEL	Black	14	Black	14	Bay Blue—Dark	51	Gay Green—Dark	57	Brougham Brown—Dk.	55
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Bay Blue—Dark	51	Gay Green—Dark	57	Brougham Brown—Dk	55
WOOD WHEELS	Natural Wood		Natural Wood		Natural Wood		Natural Wood		Natural Wood	
WHEEL STRIPE	None		None		None		None		None	
WIRE WHEELS	Alcazar Red	2A	Black	14A	Bay Blue—Light	52A	Gay Green—Light	58A	Brougham Brown--Lt	56
WIRE WHEEL DRUMS	Black	14D	Black	14D	Bay Blue—Light	52	Gay Green—Light	58	Brougham Brown—Lt.	56
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Bay Blue—Dark	51	Gay Green—Dark	57	Brougham Brown—Dk	55

Hudson Touring Sedan 132"

CAR NUMBER	OPTION "K" *250001 to 250271*		OPTION "K" *250272 & up*		OPTION "H" *250001 & up*		OPTION "Q" *250001 & up*		OPTION "Z" *250001 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
UPPER BODY	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
LOWER BODY	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green.	41
BELT PANEL	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green.	41
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41
WOOD WHEELS	Natural Wood		Natural Wood		Natural Wood		Eurma Brown	42B	Brilliant Green.	41B
WHEEL STRIPE	None		None		None		White	24C	White	24C
WIRE WHEELS	Alcazar Red	2A	Black	14A	Boston Blue	53A	Burma Brown	42A	Brilliant Green	41A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Boston Blue	53	Burma Brown	42	Brilliant Green	41
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Boston Blue	53	Burma Brown	42	Brilliant Green	41

Hudson Seven-Passenger Sedan 132"

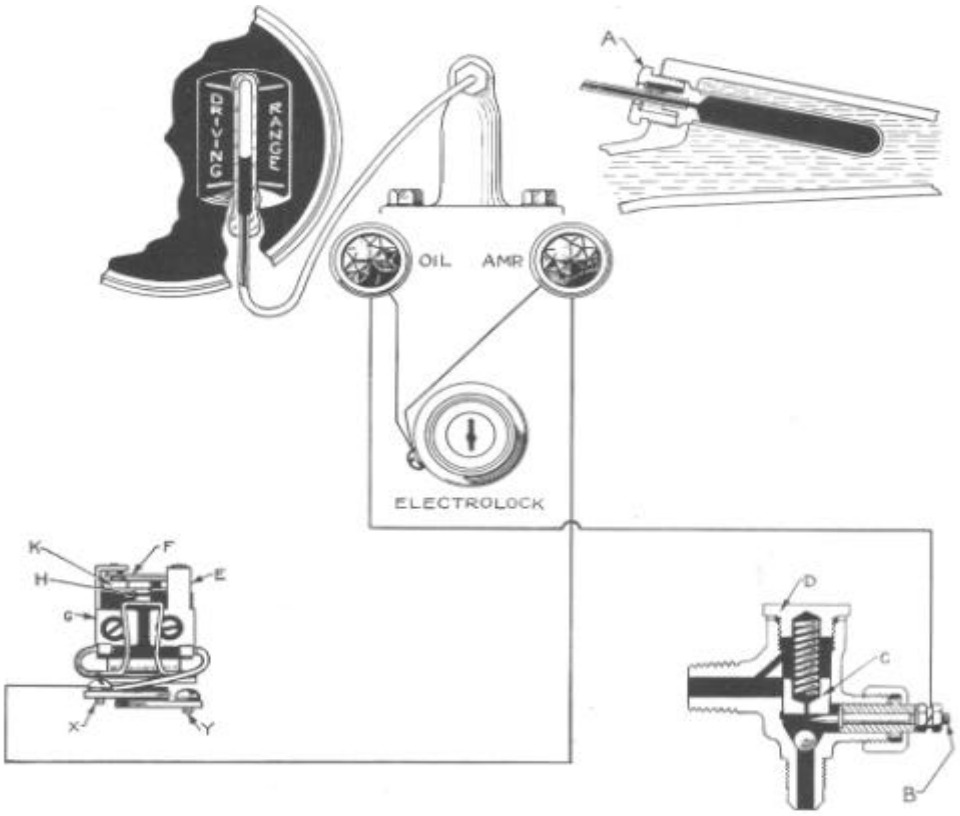
CAR NUMBER	OPTION "K" *250001 to 250271*		OPTION "K" *250272 & up*		OPTION "G" *250001 & up*		OPTION "P" *250001 & up*		OPTION "Q" *250001 & up*	
ROOF PANELS AND BACK	Black	14	Black	14	Lake Louise Blue	43	Brewster Green	54	Burma Brown	42
UPPER BODY	Black	14	Black	14	Lake Louise Blue	43	Brewster Green	54	Burma Brown	42
LOWER BODY	Black	14	Black	14	Lake Louise Blue	43	Brewster Green	54	Burma Brown	42
BELT PANEL	Black	14	Black	14	Lake Louise Blue	43	Brewster Green	54	Burma Brown	42
PANEL STRIPE	White	24C	White	24C	White	24C	White	24C	White	24C
BONNET	Black	14	Black	14	Lake Louise Blue	43	Brewster Green	54	Burma Brown	42
WOOD WHEELS	Natural Wood		Natural Wood		Natural Wood		Natural Wood		Natural Wood	
WHEEL STRIPE	None		None		None		None		None	
WIRE WHEELS	Alcazar Red	2A	Black	14A	Lake Louise Blue	43A	Brewster Green	54A	Burma Brown	42A
WIRE WHEEL DRUMS	Black	14D	Black	14D	Lake Louise Blue	43	Brewster Green	54	Burma Brown	42
FENDERS AND SPLASH GUARDS	Black	14	Black	14	Lake Louise Blue	43	Brewster Green	54	Burma Brown	42

Heat Indicator and Warning Signals

OIL PRESSURE WARNING SIGNAL

The lighting of the Ruby signal to the left of the center of the instrument panel indicates reduced oil flow in the engine lubrication system. This light should show steady when the ignition key is turned to the left while the engine is not running. It should come on when the ignition key is turned to the left and go out when the engine starts and remain out, except at normal engine idling speed, when it should flash intermittently.

This signal consists of a two candle power double contact lamp mounted behind the Ruby jewel. The electrical current is derived from the post of the Electrolock head from which the ignition coil and gasoline gauge obtain their current and is, therefore, controlled by the ignition key.



The electrical circuit is completed from the Electrolock to the double contact lamp, to the insulated contact pin "B", to the check valve plunger "C", to "Ground" through the check valve body.

When the oil supplied by the oil pump to the check valve develops sufficient pressure, the plunger "C" is lifted and the oil passes to the engine.

When the plunger "C" is lifted off the pin "B" the electric circuit of the signal lamp is broken and the light goes out.

If the signal becomes inoperative, turn the Electrolock switch "On" and "ground" the pin "B" by touching it and the check valve body at the same time with the shank of a screw driver or other metal. If this does not cause the signal to light, look for a burned out lamp or loose wiring. If this causes the signal to light, remove the pin "B" and see that it is straight and

clean Remove the plunger "C" after removing the screw cap "D" and see that it is clean and free to move in the housing.

It is important that this signal flash when the engine is running at normal idling speed (car speed of seven miles per hour), so that it will give immediate warning if the oil flow is reduced.

If the signal works properly in all other respects but does not flash at idling speed, when the engine oil is warm, remove the plunger "C" and clean the small by-pass hole which passes vertically through the center of the plunger.

GENERATOR WARNING SIGNAL

When the Ruby signal to the right of the center of the instrument panel lights it indicates that the generator is not "charging."

This signal should be lighted when the ignition key is turned to the left while the engine is not running. When the ignition key is turned to the right the signal should light and remain lighted until the engine is running slightly above normal idling speed (about ten miles per hour car speed), when the light should go out. The signal should relight whenever the engine is idling.

This signal consists of a two candle power double contact lamp mounted behind the Ruby jewel. The electrical current is derived from the post of the Electrolock head from which the ignition coil and gasoline gauge obtain their current, and is, therefore, controlled by the ignition key.

The electrical circuit is completed from the Electrolock to the double contact lamp, to the left rear terminal of the generator relay, to the insulated strap "E", to the contact spring "F", to the grounded strap "G".

When the generator speed is such as to develop sufficient voltage to close the generator relay points "H", the relay armature "K" moves down permitting the contact spring "F" to drop away from the grounded strap "G" opening the electrical circuit of the signal and the lamp goes out.

Care should be taken to prevent "shorting" across the terminals "X" and "Y", when working on the relay as this will throw the full voltage of the battery on the contact spring "F" and burn it. This will not only cause the signal to be inoperative but will also affect the operation of the "Startix."

Should the signal become inoperative, "ground" the terminal "X" to the engine (not to terminal "Y"). If this does not cause the lamp of the signal to light, inspect for a "burned out" lamp or loose connections. If the lamp lights when "X" is grounded, check the contact spring "F" to see that it is not burned and that the points of the contact spring "F" and the "ground" strap "G" are clean and making proper contact when the relay points "H" are open.

The lamps are held in position back of the Ruby jewels by bayonet locks and can be withdrawn after turning slightly in a counter clockwise direction. Be sure when replacing the lamps that they are in their proper positions. To test, remove the wire from the contact pin "B" of the oil check valve and turn the ignition key to the left without the engine running. If only the right signal (A M P) lights the positions are correct. If only the left signal (O I L) lights the positions are incorrect and the lamps should he interchanged. This can be done without disconnecting any wires.

ENGINE HEAT INDICATOR

The heat indicator is a distant type liquid thermometer. This instrument is accurately calibrated and sealed so that there should be no need for service except in case of damage when replacement of the complete unit will be necessary. The bulb which is located in the rear of the water manifold can be withdrawn after removing the nut "A". It should always be removed before removing the cylinder head. Care should be taken not to dent the bulb or the tube leading to the dash instrument.

Should it be necessary to remove the dash unit while the engine is hot, keep the glass tube upright. If the instrument is allowed to cool with the glass tube in a horizontal position, the air in the upper end of the tube may be drawn down into the small brass capillary tube. This will cause an abnormally high reading.

Since an air bubble cannot pass through the liquid in this small tube, it is necessary to remove the instrument and place it in a refrigerator which will draw all the liquid from the tube into the bulb and free the air. The instrument will then give a correct reading.

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	*Adjustment*
Pinion	9	Shims—on shaft between pinion heel and rear pinion bearing
Drive Gear	37	Screw—Differential bearing cages

Lash between gear and pinion teeth—.010"

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)—19"
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—1/3 pint

ELECTRICAL EQUIPMENT

COIL (IGNITION)

Make—Electric Autolite

Location—Back of instrument panel

DISTRIBUTOR

Make—Electric Autolite

Drive—Gear from camshaft

Type—Automatic advance

Breaker point gap—.020"

Timing—Dead center

Firing order-1-5-3-6-2-4

Lubrication—Light motor oil

Quantity—Fill to level of oil cup

GENERATOR

Make—Electric Autolite

Drive—V-Belt

Belt adjustment—Rocking mounting

Regulation—Third brush

Charging rate—17 amps. at 8 volts
13 amps. at 6 volts

Lubrication—Light motor oil

Quantity-2 drops each bearing

LAMPS

Bulb Location	*Candle Power*	*Base*	*Voltage*
Head lamp	21-21	D. C.	6-8
Parking (Headlamp or fender lamp)	3	S. C.	6-8
Dash warning signals	3	D. C.	6-8
Instruments	3	S. C.	6-8
Stop and tail lamp	2-21	D. C.	6-8
Dome lamp	15	S. C.	6-8
Fuse (light switch)	20 amps.		

SPARK PLUGS

Type—A.C. K-9

Size —14 mm.

Gap—.025"

STARTING MOTOR

Make—Electric Autolite

Drive—Bendix

Lubrication—Light motor oil

Quantity—2 drops each bearing

BATTERY

Make—National

Capacity—86 ampere hours

Dimensions—Length—9-1/8"
Width—7-1/8"
Height (overall)—8-13/16"

ENGINE

Number of cylinders—6

Bore—2-15/16"

Stroke—4-3/4"

Taxable horse power—20.7

Actual horse power

Standard compression (5.8 to 1)—70 (@ 3200

High compression (7 to 1)—80 ® 3200

Firing order-1-5-3-6-2-4

CAMSHAFT

Type of drive—Gear

Camshaft gear material—Bakelite

Number of teeth—56

Timing—Mesh punch marked tooth on crankshaft gear between the two punch marked teeth on camshaft gear.

Camshaft Bearings	*Diameter*	*Length*
No. 1 (Front)	2"	1-3/16"
No. 2	1-31/32"	1-1/16"
No. 3	1-1/2"	15/16"

Bearing clearance—.0015"

End play—Spring pressure against gear cover

CONNECTING RODS

Material—Drop forged steel

Weight—1.84 lbs.

Length—C to C—8-3/16"

Bearings	*Diameter (Inside)*	*Length*	*Radial Clearance*	*End Clearance*	*Material*
Lower end	1-15/16"	1-3/8"	.001"	.006" to .010"	Spun Babbitt
Upper end	3/4"		.001"		Bronze

COOLING SYSTEM

Capacity-3 gal.

Hose	*Length*	*Diameter (inside)*
Radiator inlet	8"	1-3/8"
Radiator outlet	3-1/4"	1-5/16"
Cylinder inlet	3-1/4"	1-5/16"

Pump drive—"V" Belt

Fan drive—Front of pump shaft

Belt adjustment—Rocking generator mounting

Pump bearings—Type—Bound Brook
Diameter—35/64"

Packing gland adjustment—Finger tight

CRANKSHAFT

No. bearings-3—End thrust on center bearing

Material—Bronze backed babbitt

Bearing	Diameter	Length	Radial Clearance	*End Clearance*
No. 1	2-11/32"	1-5/8"	.001"	
No. 2	2-3/8"	1-3/4"	.001"	.006"-.012"
No. 3	2-13/16"	2-3/8"	.001"	

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—2-7/16"
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

TRANSMISSION

Make —Essex
Location—Unit
Speeds—3 forward-1 reverse
Helical Gear Location
  Main drive—C. S. drive
  C. S. second speed and M. S. second speed
Gear Ratios
  Low-2.42 to 1
  Second-1.61 to 1
  High-1 to 1
  Reverse-3.30 to 1
Lubricant—Gear oil
  Winter—S. A. E. 80
  Summer—S. A. E. 110
Capacity—3 pints

Pilot bearing—Ball
Main shaft bearing—Ball
Main shaft pocket bearing—Bound Brook
Countershaft bearings—Steel backed babbitt
  Diameter—Front—.812"
    Rear-1.0025"
Second speed gear bearing—Steel backed babbitt
  Diameter—2.188"
Reverse idler bearings—Bound Brook
  Diameter—.8075"
Main shaft end play—.006"—.009"
  Adjustment—Shims at front bearing
Countershaft end play—.005"—.008"
  Adjustment—Shims at rear bearing

WHEELS

Type—Riveted spoke wire
Rim type—Drop center

Rim size—17 x 3.00
Hub type—Demountable

CHASSIS AND GENERAL DIMENSIONS

Overall length (including bumpers)—166-3/8"
Overall height—68"
Overall width—64"
Turning radius—19'-5"
Wheelbase—106"
Tread—Front—51-1/2"
Rear—54-1/2"

Road clearance
  Front axle—8-1/8"
  Rear axle—81/4"
Clearance for Jack (one tire flat)
  Front axle—5-1/2"
  Rear axle—6-5/8"
Rear axle—6-5/8"

FORMULAE

*Engine R. P. M. = Car speed in Mi. per hr. X rear axle ratio X 12.12

$$\text{*Car speed in mi. per hr.} = \frac{\text{Engine R. P. M.}}{\text{Rear axle ratio X 12.12}}$$

Engine revolutions per wheel revolution = Transmission Gear Ratio X Rear Axle Gear Ratio
*Engine Revolutions Per Mile= Rear Axle Ratio X 727.2
*These formulae apply only to cars equipped with 17 X 5.25 Tires.