

REVISED JANUARY, 1929

Mechanical Specifications for Hudson Super Six 1929 Models

122 – 7/16" Wheel Base Car Serial No. 825,407 to _____

ENGINE

Make	Hudson	Piston Displacement	288
Model	Super-Six	Suspension	4 Point
No. of Cylinders	6	Type of Head	F
Cylinder Arrangement	Vertical	Cylinder head	Detachable
Bore	3½"	Cylinders cast	En Bloc
Stroke	5"	Crankcase	Separate
Rated H.P.	29.4	Upper half	Aluminum
Firing order	1-5-3-6-2-4	Lower half	Pressed Steel

CAMSHAFT DRIVE

Type of drive	Chain	No. of links	63
Make	Morse	Pitch	½"
Type	No. 28	Adjustment	Adjustable eccen.
Width of chain	1½"	Sprocket material	Cast iron
Camshaft sprocket	42 teeth		

CAMSHAFT BEARINGS

No. of bearings	4		
No. 1 (front) diameter	2-19/32"	No. 3 diameter	2-5/16"
No. 1 length	1-5/8"	No. 3 length	1-1/16"
No. 2 diameter	2-11/32"	No. 4 diameter	1½"
No. 2 length	1-1/16"	No. 4 length	1-3/4"

VALVES

	<i>Inlet Valve</i>	<i>Exhaust Valve</i>
Head material	Silicon steel	Silicon steel
Head diameter (outside)	2-1/32"	1-27/32"
Head diameter (opening)	1-7/8"	1-5/8"
Stem length	6"	6-3/4"
Stem diameter	.373	.371
Stem type of end	Grooved	Grooved
Tappet (type)	Roller	Roller
Tappet clearance	.004 - .006	.006 - .008
Valve lift	11/32"	15/64"
Valve stem guides	Removable	Removable
Spring pressure	96 lbs.	75 lbs.

CRANKCASE AND CRANKSHAFT

No. of main bearings	4	Crankpin diameter	2¼"
No. 1 (frt.) diameter	2-3/8"	Main bearing material	Bronze & babbitt
No. 1 length	2-9/16"	Main bearing end play	.006-.012
No. 2 diameter	2-13/32"	Main bearing clearance	.0015-.002
No. 2 length	1-1/8"	End thrust on	Rear center brg.
No. 3 diameter	2-7/16"	Sprocket	21 teeth
No. 3 length	2 -1/8"	Material	Steel
No. 4 diameter	2-11/32"		

CONNECTING ROD

Material	D. F. steel	Lower end bearing clearance	.0015-.002
Weight	2.8 lbs.	Length	2"
Length C. to C.	11.625	Clearance (endwise)	006-.010
Lower end bearing – Diameter	2.25"	Material	Bronze & babbitt

PISTON

Type	Lynite Control		
Material	Aluminum with steel struts	Distance between bores	1-3/ 8"
Weight	20 ounces	Clearance skirt	.002"
Length	4-1/16"	Depth of grooves	5/32"
Pin center to top	2¼"		
Middle groove	Drilled radially	4 holes	3/32" diameter
Lower groove	Drilled radially	10 holes	3/32" diameter

PISTON RINGS

Material	Cast iron	No- of rings above pin	3
No. per piston	3"	Type of joint	Mitre
Width	1/8"	Gap clearance	.006 .008
No. of comp. rings	1	No. of oil control rings	2

PISTON PIN

Type	Floating	Bushing outside dia	1.283
Diameter	1.0937	Bushing inside dia	1.0937
Length	2-11/16"	Bushing length	1-1/8"

LUBRICATING SYSTEM

Type	Circulating splash
Oil pump type	Plunger
Stroke of pump	Not adjustable
Capacity-oil reservoir only	7 quarts
Capacity-oil reservoir and troughs	9 quarts
Mesh of screen	50
Oil recommended	Medium heavy-Use low cold test in winter

COOLING SYSTEM

Type	Centrifugal pump
Radiator-make	Harrison
Core type	Ribbon cellular
Radiator shutter - type	Pressed steel - Vertical
Shutter control type	Manual
Capacity of cooling system	5½ gallons
Radiator hose - upper - diameter	1½"
Radiator hose - upper -length	7"
Radiator hose - lower - diameter	1½"
Radiator hose - lower - length	10½"
Fan belt	"V" type
Fan-make	Hudson
Fan bearing type	Plain

FUEL SYSTEM

Carburetor - make	Marvel VB-10-725
Carburetor -size	1½
Fuel feed type	Vacuum tank
Make of vacuum tank	Stewart
Air cleaner-type	A. C.
Gasoline tank capacity	18¾ gallons
Method of heating mixture	Marvel heat control

EXHAUST SYSTEM

Muffler-make - Hudson	Exhaust pipe diameter 2¼"
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IGNITION SYSTEM

Make	Auto-Lite Corporation
Current source	Battery and generator
Spark control type	Semi-Automatic
Firing order	1-5-3-6-2-4
Timing	10 degrees BDC fully advance
Breaker point gap	.020
Ignition coil make	Auto-Light
Spark plug- make	A. C. Titan
Spark plug- type	Short
Spark plug -size	Metric 18 m/m, 1.5 m/m thread
Spark plug-gap	.025 - .028

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

STARTER MOTOR

Make - Auto-Lite Corporation	MUA-4011
Drive type	Manual - sliding gear
No. of teeth on flywheel	118
Width of tooth face	¾"
Pinion meshes from	Front of flywheel

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

GENERATOR

Make - Auto-Lite Corporation	GAB-4008
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-X1-15-1-G	Length-overall	10¼"
Voltage	6	Width-overall	7-1/8"
No. of plates	15	Height of box	7-7/8"
		Height over terminal	9"

LIGHTING SYSTEM

Head side and tail lamps-make	John Brown Lamp Co,
Head side reflector-make	John Brown Lamp Co.
Head and side lamp type	Bullet
Head lamp lens-type	Parabeam
Head lamp lens-diameter	10"
Head lamp dimmer method	Separate filament
Dash and tail lights connected	Separate
Ammeter-make	National Gauge & Equipment. Co.
Lighting switch control	On steering wheel
Ignition switch-type	Electrolock

LAMP BULB SPECIFICATIONS

	<i>Make</i>	<i>Mazda No.</i>	<i>CP</i>	<i>Base</i>	<i>Voltage</i>
Head	Mazda	1110	21-21	D. C.	6-8
Side	Mazda	63	3	S. C.	6-8
Tail	Mazda	63	3	S. C.	6-8
Dash	Mazda	63	3	S. C.	6-8
Stop	Mazda	87	15	S. C.	6-8
Dome	Mazda	63	3	S. C.	6-8

HORN

E. A. Horn	Vibrator type
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CHASSIS

Wheelbase	122-7/16"
Lubricating system	Oil cups-wick
Overall length with bumpers	16'
Location of serial number	Frame rear cross member R. H. end

TRANSMISSION

Make	Hudson	Pocket bearing	Bronze bush.
Location	Unit	Reverse idler	Hyatt No, 16820
Speeds	3 forward, 1 reverse	Main shaft - front	N. D. 1308
Gear ratio-low	3.04 to 1	Main shaft-rear	Hyatt No. 16684
Gear ratio- second	1.81 to 1	Countershaft - front	Hyatt No. 16506
Gear ratio- high	1 to 1	Countershaft - rear	Hyatt No. 16506
Gear ratio - reverse	3.69 to 1	Countershaft - rotates	
Type of lubricant	Light transmission oil	Pilot bearing in crankshaft	N. D. No. 1204
Oil capacity (approx.)	1½ quarts		

CLUTCH

Make	Hudson	Facing material	Cork inserts
Type	Single disc in oil	Throwout brg.	Nice No. 0210
No. cork inserts	144	Throwout	5/32"
Lubrication	3/4 pt. (Mixture 1/8pt. motor oil and 1/8 pt. kerosene)	Clearance at floor board	3/4"

UNIVERSALS

Front - make	Spicer	Rear - make	Spicer
Front type	Metal	Rear -type	Metal

TYPE OF DRIVE

Propulsion through rear springs.

REAR AXLE

Make	Hudson	No. of teeth in pinion	12 (4-5/12 to 1)
Type	Semi-floating	No. of teeth in pinion	13 (4-1/13 to 1)
Gear ratio	4-5/12 and 4-1/13 to 1	No. of teeth in gear	53
Type of drive	Spiral bevel	Pinion	Adjustable
Min. road clearance	8"	Pinion hearing	Adjustable
Clearance for jack	10 1/4"	Oil capacity (approx.)	2 1/2 quarts
Differential -make	Hudson	Type of lubricant	Diff. oil.
Pinion bearing	Front	Timken 3196 and 3120	
Pinion bearing	Rear	Timken 439T and 432	
Differential bearing	Right	Timken 377 and 3720	
Differential bearing	Left	Timken 377 and 3720	

FRONT AXLE

Make	Hudson	Toe in - none - or not over 1/8"	
Section type	I-beam	Castor angle	1 degree backward
End type	Rev. Elliott	Min. road clearance	8"
King pin thrust bearing	Special thrust	Clearance for jack	6 3/4"
King pin transverse inclination		6 1/2 degrees	
Spindle transverse inclination		2 1/2 degrees	

STANDARD BRAKES

Type of standard brakes	Bendix 4-wheel brakes
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SERVICE BRAKE

Location	Front and Rear wheels	Lining length per wheel	3 pieces 30-1/4"
Make	Bendix	Width of lining	2"
Type	Internal	Thickness of lining	3/16"
Total braking area	242 sq. in.	Clearance of lining	.010
Drum diameter	Front and Rear 14"	Method of application	Front pedal

HAND BRAKE

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

WHEELS

Type	Wood-steel felloe
Make	Motor Wheel Corp.
Front wheel inner bearing	Timken No. 415 and 412A
Front wheel outer bearing	Timken No. 315 and 312
Rear wheel bearing	Timken No. 458T and 454

RIMS

Type	Split	Diameter	19"
Make	Firestone	Width	4½"

TIRES

Size	31 x 6.50 (139" W.B.) 31 x 6.00 (122-7/16" W.B.)
Make	Goodyear
Number of plies	4
Recommended pressure	35 lbs. Rear 38 lbs.

STEERING GEAR

Make	Gemmer
Type	Worm and roller disc
Ratio	20 to 1
Steering wheel turns	2¾ (full swing left to right)
Turning radius	20 feet
Lubricant	Heavy bodied gear oil

SPRINGS

	<i>Front Spring</i>		<i>Rear Spring</i>
Type	Semi-elliptic	Type	Semi-elliptic
Length	39 "	Length	57-11/16"
Width	2¼"	Width	2¼"
No. of leaves	9	No. of leaves	10
Material	Spring steel	Material	Vanadium steel
Front bushing	11/16" diameter	Front bushing	¾" diameter
Rear bushing	11/16" diameter	Rear bushing	11/16" diameter
Bushing material	Phosphor bronze	Bushing material	Phosphor bronze
Spring lubrication	Motor oil		
Shackles-type	Adjustable		

FRAME

Make	Hudson	Depth	7"
Material	Steel	Thickness	3/16"
		Width of flange	2¼"

HUDSON SUPER SIX

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

122-7/16" Wheel Base Car Serial No. 825,407 to _____

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

Note: The following rule No. 1 is good only for a gear ratio of 4 5/12 to one and with wheel diameter of 31 inches.

Rule No. 1 - M. P. H. Multiplied by 47.5 = Motor R. P. M. (approx.)

Example what is the R. P. M. at 40 miles per hour?

Answer - 40 multiplied by 47.5 = 1900 R. P. M. (approx.)

The following rule No. 2 is good only for a gear ratio of 4 1/13 to one and with wheel diameter of 31 inches.

Rule No. 2 - M. P. H. multiplied by 44 = Motor R. P. M. (approx.)

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

Note: The following rule No. 3 is good only for a gear ratio of 4 5/12 to one and with wheel diameter of 31 inches.

Rule No. 3 - R. P. M. divided by 47.5 = Speed in miles per hour (approx.)

Example-what is the speed at 2400 R. P. M.

Answer-2400 divided by 47.5 = 50 M. P. H. (approx.)

The following rule No. 4 is good only for a gear ratio of 4 1/13 to one and with wheel diameter of 31 inches.

Rule No. 4 - R. P. M. DIVIDED by 44 = Speed in miles per hour (approx.)

Gear Ratios ---To obtain the number of revolutions of the motor required for one revolution of the rear wheel, multiply the transmission ratio by the rear axle ratio.

Example-3.04 (low gear ratio) x 4.42 (rear axle ratio) = 13.528. Revolutions of the motor to one revolution of rear wheel.

The following list shows the various motor to wheel ratios worked out as above for Super Six cars:

	Trans. Ratio	Rear Axle Ratio	Motor Revs.	Wheel Revs.
With transmission in low	3.04	4.42	13.437	1
With transmission in second	1.81	4.42	8.	1
With transmission in high	1.	4.42	4.42	1
With transmission in reverse	3.69	4.42	16.31	1

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Hudson Super Six Standard Equipment 1929 Models

122-7/16" Wheel Base Car Serial No. 825,407 to _____

139" WHEEL BASE

*7-Pass. Phaeton**7-Pass. Sedan**5-Pass. Sport Phaeton**5-Pass. Club Sedan*

122-7/16" WHEEL BASE

*Coach**Std. Sedan**Std. Coupe**Convertible. Coupe**Town Sedan**Landau Sedan**Victoria**Roadster**5-Pass. Phaeton*

W/S Cleaner- make	Trico vacuum	ALL MODELS
Cowl Ventilator		ALL MODELS
Engine heat indicator on instrument board		ALL MODELS
Gasoline gauge – on instrument board		ALL MODELS
Oil resevoir gauge – Electric – on instrument board		ALL MODELS
Wheels	122-7/8" Wood	ALL MODELS EXCEPT VICTORIA
	139" – Wire	ALL MODELS
Smoking Set		ALL MODELS, EXCEPT COUPE, CONVERTIBLE COUPE PHAETON, ROADSTER
Cigar Lighter		TOWN SEDAN, LANDAU SEDAN, VICTORIA
Sun visor		ALL MODELS EXCEPT PHAETON, ROADSTER
Radiator shutters		ALL MODELS
Rear traffic signal	.	ALL MODELS
Com. tail and stop light	John Brown Lamp Company	ALL MODELS
Cowl lights	.	ALL MODELS
Rear vision mirror		ALL MODELS
Ignition electrolock		ALL MODELS
Speedometer - make	Stewart-Warner	ALL MODELS
Spare rim	One	ALL MODELS
Horn - make	E. A	ALL MODELS
Headlamps - make	John Brown Lamp Company	ALL MODELS
Tire carried in R. H. front fender well		ALL MODELS
Storage battery - make	"Exide"	ALL MODELS
Shock Absorber make	Wahl	ALL MODELS
Trunk		VICTORIA
Trunk Rack		ALL MODELS EXCEPT VICTORIA, CLUB SEDAN, SPORT PHAETON

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Hudson Super Six Body Details 1929 Models

122-7/8" Wheel Base Car Serial No. 825,407 to _____

	<i>5-Pass. Phaeton</i>	<i>Landau. Sedan</i>	<i>Victoria</i>	<i>Std. 5-Pass. Sedan</i>	<i>Town Sedan</i>
Weight		3825		3785	
No. of doors	4	4	2	4	4
No. of passengers	5	5	4	5	5
Seat arrangements	Std	Std.	Right front seat folding	Std.	Std.
Gear ratio	4 5/12 or 4 1/13	.	..	ALL MODELS	
Make of body	Briggs	Biddle & Smart	Biddle & Smart	Own	Briggs
Framework mater.	Steel	Wood	Wood	Steel	Wood
Body panel mater.	Steel	Aluminum	Aluminum	Steel	Aluminum
Wheels type	Wood			ALL MODELS	
Tire size	31 x 6.00			ALL MODELS	
Tire type front	4 ply			ALL MODELS	
Smoking set	No	Yes	Yes	Yes	Yes