1948

HUDSON

Technical Specifications and Specifications

I N D E X

TECHNICAL INFORMATION AND SPECIFICATIONS

ENGINE	Super Six and Commodore Six	Super Eight and Commodore Eight
Series	481-482 - 6 cylinder	483-484 - 8 cylinder L Head
Arrangement	L Head	3 x 4-1/2
Bore and Stroke	3-9/16" x 4-3/8"	254 Cu. In.
Piston Displacement,	262 Cu In	28.8
Horsepower - Taxable	30.4	128 at 4200 RPM
Actual	121 at 4000 RPM	.:1
Compression Ratio - Standard	6,50:1	7.00:1
Optional (Alum. Head)	700:1	3 - Rubber
Engine Mounting	3 - Rubber	Gears
Camshaft - Drive	Morse chain	
Engine Timing		10° - 40' BUDC
Inlet opens	7° - 18' BUDC0	60° - ALDC
Inlet closes	53° - 42' ALDC	50° BLDC
Exhaust opens	53° - 18' BLDC	18° - 44' AUDC
Exhaust closes	7° - 42' AUDC	On Gears
Timing Indication	On Sprockets and chain	None
Timing chain	60 Links 3/8 pitch	5-steel backet babbitt
Number bearings	4-steel backed babbitt	
Bearing sizes		
#1	2-3/8 x 1-3/16	2-1/32 x 1-3/8
#2	2 x 15/16	2 x 1-1/16
#3	1-31/32 x 15/16	1-31/32 x 1-1/4
#4	1-1/2 x 15/16	1-5/16 x 1-1/16
#5	None	1-1/2 x 1-5/16
Crankshaft - Type	Compensated	Compensated
Type and number bearings	4-Steel backed Babbitt Lined	5-Bronze backet Babbit Lined
Diameter and Length -		
#1	2-1/2 x 1-7/16	2-9/32 x 1-5/8
#2	2-1/2 x 1-3/8	2-5/16 x 1-3/8
#3	2-1/2 x 15/8	2-11/32 x 1-7/8
#4	2-1/2 x 1-3/4	2-3/8 x 1-3/8
#5	None	2-13/32 x 2
Thrust and End Play	No. 3 - .003 to .009	No 3 - 006 to 012
Radial Clearance	.0005 to .0015	.001
Adjusting shims	None	None
Connecting Rods -		
Material	Drop-Forged Steel	Drop-Forged Steel
Weight	34.23 oz, No bearings	31.36 oz with bearings
Length-Center to Center	8-1/8"	8-3/16"
Lower end bearing	Replaceable	Integral
Type and Material	Precision-Babbitt Stl, Back	Spum-Babbitt
Diameter and Length	2-1/8" x 1-5/8"	1-15/16" x 1-3/8"
End Play	.007 to .013	.007 to .013
Radial Clearance	.0005 to .0015	.0003 to .0006

ENGINE (Cont'd)	Super Six and Commodore Six	Super Eight and Commodore Eight
Upper end bearing		
Material	1 pc, steel back babbitt	1 pc bronze
Diameter and Length	31/32 x 1-1/8"	3/4 x 29/32
Radial Clearance (fit)	.0000 to .0003 at 70°	.000 to .0003 at 70° F
Pistons - Type	Cam Ground	Cam Ground
Material	Aluminum Alloy	Aluminum Alloy
Weight and Length	18-1/8 oz. - 3-3/4"	10-1/4 oz 3-3/16"
Pin Center to top	2-1/16"	1-11/16"
Clearance	.0005 to .001	.0005 to .001
Ring groove depth	.195	.148
Piston Pin - Type and Length	Floating - 2-15/16"	Floating - 2-7/16"
Diameter	31/32"	3/4"
Fit in Piston	.0000 to .0003 at 70° F	.0000 to .0003 at 70° F
Fit in Rod	Hand push fit at 70° F	Hand push fit at 70° F
Piston Rings - Material	4 - Cast iron - Pinned	4-Cast iron - Pinned
Joint	Pinned	Pinned
Compression Rings	2	2
Width	5/64	3/32
Oil Rings	2 - 1 below pin	2 - 1 below pin
Width - Upper	3/16"	3/16"
Lower	5/32"	5/32"
Gap Clearance - All rings	.007 to .012	.004 to .009
Valves--		
Intake -		
Head outside diameter	1-53/64"	1-1/2"
Port Diameter	1-11/16"	1-3/8"
Lift	11/32"	11/32"
Length & Item Diameter	5-47/64 - 11/32	5-3/32 - 11/32
Stem to glide clearance	.0015 to .003	.0015 to .003
Operating clearance Hot	.010	006
Exhaust -		
Head outside diameter	1-9/16	1-3/8
Port Diameter	1-3/8	1-7/32
Lift	11/32	11/32
Length & Stem Diameter	5-47/64 - 11/32	5-3/32 - 11/32
Stem to guide clearance	.002 to .004	.003 to .005
Operating clearance-Hot	.012	.008
Valvo angle	7 degrees	Vertical
Valve guide Length	Removable - 3-5/32	Removable - 2-9/16
Valve spring pressure	77 lbs at 2-3/16"	46 lbs at 2 inches
Valve Tappets		
Type	Mushroom	Roller Cam
Guides	Integral with block	Removable
Lubricanting Method	Full Pressure	Du-Flo
Pump Type	Rotor	Oscillating Plunger
Pump Drive	Worm on Camshaft,	Worm on camshaft
Oil Capacity - qts,	Dry 7-1/2 qts.; Refill 7 qts.	Dry 9 qts.; Refill 7 qts.

CLUTCH

	Super Six and Commodore Six	Super Eight and Commodore Eight
Type	10"single plate in oil	10" single plate in oil
Facing	Cork Inserts	Cork Inserts Ball
Pilot Bearing	Ball	Ball
Ti row-out bearing	Ball	Ball
Pedal Lash	1-1/2"	1-1/2"
Clutch Lubricant	1/3 Pt Hudsonite	1/3 Pt Hudsonite
Location Lubricating plug	Front of Flywheel	Front of Flywheel
Vibration Neutralizer,	6 Springs	6 Springs
Throwout bearing lubricant	Viscous chassis lub	Viscous chassis lub
Fitting and Location	Zerk-Right-side clutch hsg	Zork-Right-side clutch hsg.

TRANSMISSION

Type	Synchro-Mesh	Synchro-Mesh
Speeds	3 forward - 1 reverse	3 forward - 1 reverse
Gears	All Helical	All Helical
Gear Ratios - without HDM-Low	2.61:1	2.61:1
Second	1.65:1	1.65:1
High	1:1	1:1
Reverse	3.17:1	3.17:1
Gear Ratios with EDM - Low	2.88:1	2.88:1
Second	1.82:1	2.82:1
High	1:1	1:1
Reverse	3.5:1	3.5:1
Lubrication - Summer	90 EP - Mild	90 EP - Mild
Winter	80 EP - Mild	80 EP - Mild
Capacity Without Overdrive	2 pts	2 pts
With Overdrive	3-1/4 pts	3-1/4 pts

PROPELLER SHAFT

Front Shaft - Universals	1	1
Type	Needle	Needle
Rear Shaft - Universals	2	2
Center Bearing	Annular Ball	Annular Ball
Bearing Lubrication	Prelubricated and Sealed	Prelubricated & Sealed
Spline Lubrication	Zerk Fitting	Zerk Fitting
Universal Lubrication	Zerk Fitting	Zerk Fitting

REAR AXLE

	Super Six and Commodore Six	Super Eight and Commodore Eight
Type	Semi-floating	Semi-floating
Gear Type	Hypoid	Hypoid
Ratios	4.1 and 4-5/9	4.1 and 4-5/9
Pinion Bearings	Taper Roller	Taper Roller
Adjustment	Shim	Shim
Differential Bearings	Taper Roller	Taper Roller
Adjustment	Adjusting nut	Adjusting nut
Wheel bearings	Taper Roller	Taper Roller
Adjustment	Shim	Shim
End Play--Axle Shaft	.001 to .004	.001 to .004
Pinion and gear back lash	.004 to .006	.004 to .006
Lubricant	S.A.E. 90 Hypoid 3-1/2 Pts.	S.A.E. 90 Hypoid 3-/2 Pts.
Quantity	3-1/2 Pts.	3-1/2 Pts.
Road Clearance - Rear	8"	8"

FRONT SUSPENSION

Type	Independent coil spring	Independent coil spring
Camber	1/2° to 1-1/2°	1/2° to 1-1/2°
Caster	1/2° to 1-1/2°	1/2° to 1-1/2°
Toe-in	1/32 plus or minus 1/32	1/32 plus or minus 1/32
Spindle pin inclination	3°— 36'	3°— 36'
Spindle pin thrust bearing	Ball	Ball
Wheel bearing Type	Adjustable tapered roller	Adjustable tapered roller
End Play	.001 to .003	.001 to .003
Tic Rod End - Type	Plain Bearing	Plain Bearing
Tie Rod End Adjustment	(As seen from right side of car.)	(As seen from right side of car.)
To Lengthen	Turn clockwise	Turn clockwise
To Shorten	Turn anti-clockwise	Turn anti-clockwise
Road Clearance - Front	8"	8"

SPRINGS

Front - Type	Coil (Heavy duty available)	Coil
Free Height	15-5/16"	15-5/16"
Height under curb weight,	9-9/16"	9-9/16"
Rear Type	Semi-elliptic (Heavy Duty Avail.)	Semi-elliptic (Heavy Duty Avail.)
Length and width	54" — 1-3/4"	54" — 1-3/4"
No. Leaves	8	8
Covers	Metal	Metal
Shackles	Silent "U" Threaded	Silent "U" Threaded
Lubricant - Shackles and Leaves	Viscous chassis lube.	Viscous chassis lube.

STEERING GEAR

	Super Six and Commodore Six	Super Eight and Commodore Eight
Type	Worm & Triple tooth roller	Worm & Triple tooth roller
Ratio	20.4:1	20.4:1
Steering wheel diameter	17" and 18"	17" and 18"
Adjustments: Worm Shaft	Shim	Shim
Cross Shaft	Set Screw	Set Screw
Gear Mesh	Set Screw	Set Screw
Lubricant -Summer and Winter	SAE 90 EP	SAE 90 EP

BRAKES

Type	Bendix-Duo-Automatic	Bendix-Duo-Automatic
Drum Diameter	11"	11"
Material	Centrifuse	Centrifuse
Lining-Type	Moulded	Moulded
Width	Front 2-1/4" Rear 1-3/4"	Front 2-1/4" Rear 1-3/4"
Length- per wheel	20.87	20.87
Pieces - per wheel	2	2
Braking Area - Total	158.7 sq. in.	158.7 sq. in.
Adjustments - Anchor Pin	Radially	Radially
Front and Rear Shoe	Screw	Screw
Clearance - Both ends of shoe	0010	0010
Mechanical follow-up	1-1/4	1-1/4
Pedal to floor board	1/4	1/4

TIRES AND WHEELS

Make	Goodyear-Super Cushion	Goodyear-Super Cushion
Standard Size	7.10 x 15.00 4 ply	7.10 x 15.00 4 ply
Standard Wheel Rim	5.00 x 15.00	5.00 x 15.00
Optional Tire	7.60 x 15.00 - 4 ply	7.60 x 15.00 - 4 ply
Optional Wheel	5.50 x 15.00	5.50 x 15.00
Inflation Pressure	24 front and rear	24 front and rear

COOLING SYSTEM

Capacity in quarts	17 qts.	18 qts.
Circulation	6 Vane impeller pump	6 Vane impeller pump
Temperature Control	Thermostat - by pass	Thermostat - by pass
Pump and fan drive	V belt	V belt
Fan	4 Blade	4 Blade
Belt Adjustment	Generator Mounting	Generator Mounting
Pump Bearing	2 Sealed Ball	2 Sealed Ball
Lubrication	None - Prelubricated	None - Prelubricated

FUEL SYSTEM

	Super Six and Commodore Six	Super Eight and Commodore Eight
Carburetor - Make	Carter WDO 647-S	Carter WDO 648-S
Type	Dual Down-Draft 1-1/4"	Dual Down-Draft 1-1/4"
Choke and Heat Control	Automatic-Thermostatic	Automatic-Thermostatic
Fuel Delivery	Pressure Pump	Pressure Pump
Pump Driven from	Camshaft	Camshaft
Air Cleaner and Silencer	Dry Std. Oil Bath-Optional	Dry Std. Oil Bath-Optional
Fuel Tank Capacity	20 US Gallons	20 US Gallons

ELECTRIC EQUIPMENT

Make	Auto-Lite	Auto-Lite
Coil Location	Right side cyl. block	On intake manifold
Distributor - Rotation	Clockwise	Clockwise
Drive	Camshaft	Camshaft
Advance	Automatic-Vacuums	Automatic-Vacuum
Point Gap	.020	.017
Breaker Points Open	T.D.C.	T.D.C.
Spark Advance--Dist. Degrees		
Centrifugal at	400 - 0°	300 - 0°
	535 - 1°	335 - 1°
	1200 - 6°	400 - 3°
	1870 - 11°	1025 - 10°
	2000 - 12°	1700 - 17-1/2°
Inches Vacuum (Hg)	91/2 - 0°	9-1/2 - 0°
	10 - 1°	10 - 1°
	11-5/8 - 4°	11-5/8 - 4°
	13-1/8 - 7°	131/8 - 7°
	14 - 8-1/2°	14 - 8-1/2°
Firing Order	1-5-3-6-2-4	1-6-2-5-8-3-7-4
Lubrication	Light Motor Oil and High Termperature Grease	
Generator - Type	Third Brush Volt Reg	Third Brush Volt Reg
Drive	V Belt	V Belt
Charging Rate-Cold	43 amperes at 8 volts	43 amperes at 8 volts
Charging Rate - Hot	37 amperes at 8 volts	37 amperes at 8 volts
Lubrication - Both ends	Motor Oil	Motor Oil
Starting Motor - Drive	Bendix	Bendix
Control Switch	Solenoid	Solenoid
Battery - Make	National 6 Volt	National 6 Volt
Plates and capacity	51-120 amp, a 20 Hr Rate 0	51-120 amp, a 20 Hr Rate 0
Dimensions	W-7-1/8; L-10-9/16; H-9-1/16	W-7-1/8; L-10-9/16; H-9-1/16
Terminal Grounded	Positive	Positive
Location	Under bonnet left side	Under bonnet left side
Spark Plugs-Cast Iron Head	Champion J-9 14 M/M	Champion J-9 14 M/M
Aluminum Head	Champion H-10	Champion H-10
Gap	.032	.032

LAMP BULBS

	No.	C.P.	BASE
Headlight (Sealed beam type)	4030	Sealed	Sealed
Bonnet Light	55	2.	Single
Parking Light with Direction Indicator	1154	21-3	Double
Tail and Stop Light	1154	21-3	Double
License Light	63	3.	Single
Dome Light — Front	87	15	Single
Rear quarter Lights (2)	81	7	Single
Clock	55	2.	Single
Speedometer	55	2.	Single
Instrument Cluster	55	2	Single
Direction Indicator	55	2	Single
Radio	55	2	Single
Headlight Beam Indicator	55	2	Single
Ignition Lock	55	2	Single
Courtesy Light	87	15	Single
Fog Light — Sealed Beam	4015A	Sealed	Sealed
Spot Light — Sealed Beam	4535	Sealed	Sealed
Parking Light	63	3	Single
Generator and Oil Indicator	55	2	Single

The following fuses are used in accessory circuits:

Weather control	14 Ampere -- On Heater
Ratio	14 Ampere -- In lead wire
Hudson Drive Master	10 Ampere -- Attached to HDM switch
Directional Signal	10 Ampere -- On Dir. Sig. Harness under dash
Electric Clock	3 Ampere -- In back of clock
Horn not fused	Connected direct to B terminal on regulator

Circuit breakers protect the following circuits;

Headlanp	30 Ampere -- Attached to lighting switch
Miscellaneous Lighting	20 Ampere -- On steering support bracket left side under instrument panel
Convertible Top	20 Ampere

BODY AND CHASSIS DIMENSIONS

Body Interior Dimensions (5 Passenger - 4 Door Sedan)

	6	8
Width of Rear Seat Cushion	63"	63"
Width of Front Seat Cushion	64"	64"
Depth of Front Seat Cushion	18"	18"
Depth of Rear Seat Cushion	18"	18"
Height of Front Seat Cushion		
Measured at highest Point	12-3/4"	12-3/4"
Front Seat Horizontal Adjustment	4"	4"
Front Seat Vertical Adjustment	1/2"	1/2"
Height of Rear Seat Cushion		
Measured at Highest Point	13-1/2"	13-1/2"
Vertical Distance between Steering		
Wheel and Seat Cushion	6-7/8"	6-7/8"
Head Room at Front Seat	37-1/4"	37-1/4"
Head Room at Rear Seat	37-1/4"	37-1/4"
Leg Room in Front Seat - Measured from 6" up on toe board following contour of seat cushion	43-1/4"	43-1/4"
Leg Room in Rear Seat - Measured from center of foot rest following contour of rear seat cushion	38"	38"
Trunk Capacity - With Spare Tire	23-3/4 Cu. Ft.	23-3/4 Cu. Ft.
Width of left front pillar with door closed	3-9/16"	3-9/16"
Wheel Base	124"	124"
Overall Length - -		
(Including Bumpers and Guards)	207-1/2"	207-1/2"
Overall Width (Including Fenders	77"	77"
Tread		
Front	58-1/2"	58-1/2"
Rear	55.1/2"	55.1/2"
Road Clearance -		
Front	8"	8"
Rear	8"	8"
Overall Height - Road to Roof	60"	60"