



HUDSON AND ESSEX

FLAT RATE
PRICES
AND
REPAIRS



January
1928

HUDSON ESSEX MOTORS LIMITED
GREAT WEST ROAD LONDON W4

INTRODUCTION .

FLAT rate means standardised charges for definite service operations. This system, introduced by HUDSON ESSEX MOTORS LTD., some time ago, has been adopted by our Distributors and Dealers throughout the Country.

It serves a double purpose which will command the appreciation of all Hudson Essex owners. In the first place, it permits pre-knowledge of the cost of all service operations. Owners do not have to wait until the job is finished before the cost is made known to them—a most unsatisfactory. method.

Secondly, Service charges are the same throughout the Hudson Essex Distributing Organisation ; the owner is protected against unfair charges.

In this booklet is a complete list of prices which have been approved by us for all usual repairs. The prices given are for labour only and do not include the cost of materials used. They have been based on the most economical average and comparison will confirm this further economy feature in Hudson Essex ownership.

An approved Flat Rate Chart for Service may also be seen at our Distributors' and Dealers' premises.

In the interest of owners, we desire to emphasise the importance of dealing only with accredited Hudson Essex agents who will use only authorised parts. This will ensure efficient service and complete satisfaction.

HOW TO KEEP MAINTENANCE COSTS DOWN

THE best guarantee against high maintenance costs, and to ensure continued satisfactory performance of your car, is a periodical mechanical inspection.

Regular inspection, once a month at least, by an accredited Hudson Essex agent, will often spare the owner a costly repair. Ninety per cent. of emergency calls on Service Stations are not for major difficulties, but for minor deficiencies, a screw loose here, a nut or collar slipping, a simple adjustment neglected 'last too long. A monthly inspection would prevent these annoying mishaps.

Ask Hudson Essex agents for details of the Tuning and Inspection Service which is now in operation.

A further important fact which governs maximum performance efficiency and low maintenance cost, is in the careful attention that all owners should pay to the question of lubrication. The instruction book, given with every new car, is the owner's guide in this vital matter.

A—FRONT AXLE AND STEERING ASSEMBLY

	Hudson\	Essex	Essex
	£ s. d,	Six	Super Six
		£ s. d,	£ s. d,
A—1	Renew Axle Centres. —Inspect, lubricate and replace all parts necessary	1 8 0	1 4 0
	Straighten Axle Centre, with front wheel brakes	3 0 0	2 10 0
A—2	Rehush Front Axle Spindle. — Hudson 750,000 series. Replace bushings, line ream, install new pins and thrust washers, if necessary. inspect. and repack wheel bearings. Align wheels	16 0	...
A—3	Rebush Front Axle. —Install new bushing, line ream, install new pins and thrust washers where necessary	1 4 0	16 0
	Align wheels with front wheel brakes	1 4 0	1 4 0
A—4	Renew Steering Spindle Arm. —Hudson 750,00 series. Align wheels and lubricate.	8 0	...
A—5	Renew Steering Spindle or Arm. —Align wheels and lubricate	8 0	8 0
A—6	Rebush Tie Rod. —Renew Clevis Pins only, lubricate. Align wheels	8 0	8 0
A—7	Adjust or Renew Front Wheel Bearings. —Remove wheels, wash bearings in Paraffin, install new felt washers, repack with clean grease and adjust. (Use this operation to eliminate grease leak at front wheels)	6 0	6 0
A—8	Align Front Wheels. —Adjust steering tie rod so that wheels range between 1/8" toe-in and straight ahead	2 0	2 0
A—8a	Align Front Wheels. —Hudson 750,000 series. Adjust 4 wheel brakes	8 0	...
A—9	Replace Tyre Rim and Lug Bolts	2 0	2 0
A—10	Renew Front Wheel. —Clean, inspect and lubricate bearings	4 0	4 0
A—11	Install Front or Rear Wheel Rub and Flange	15 0	15 0
A—12	Overhaul Drag Link. —Thoroughly lubricate these parts. Rebush tie rod and retrack.	10 0	10 0
A—12a	Overhaul. Drag Link. — Hudson 750,000 series. Renew ball socket .	8 0	...
A—13	Renew one or both Tie Rod End Clevises or Tie Rod Clevis Pins. —Align wheels	4 0	4 0
A—14	Tighten Tie Rod Bolts or Clevises .	2 0	2 0
A—15	Renew Tie Rod. —Install new tie rod. Lubricate. Align wheels .—	4 0	4 0
A—16	Overhaul Steering Assembly. — Inspection, adjustment or replacement of necessary parts from steering wheel to and including tie-rod.	2 0 0	2 0 0

A—FRONT AXLE AND STEERING ASSEMBLY—continued		Hudson\	Essex	Essex
		£ s. d.	£ s. d.	Super Six £ s. d.
A—17	Overhaul Steering Gear Assembly. Replace all parts necessary. Fill housing with oil	1 4 0	14 0	14 0
A—18	Adjust Steering Worm Shaft and Drag Link. —Eliminate excessive end play in worm shaft by means of adjustment provided. Inspect drag link springs and adjust tension. Align wheels	6 0	6 0	6 0
A—19	Replace Steering Arm	4 0	4 0	4 0
A—20	Renew Steering Gear Assembly	16 0	8 0	8 0
A—21	Renew Steering Wheel	8 0	4 0	4 0
A—22	Renew Steering Post Jacket Tube Bushings .	8 0	4 0	4 0
A—23	Renew Steering Main Tube, Lower. — Install throttle and sector tubes. (Use this operation when steering gear is not removed)	8 0	...	...
A— 23a	Renew Steering Main Tube, Upper. — install new silencer springs	12 0	...	...
A—24	Clean, Lubricate and Adjust Steering Gear . —Tighten tie rod ends and align wheels,	8 0	6 0	6 0
 B —BRAKES				
B— 1	Reline Foot Brakes. —Make necessary replacements, repairs or adjustments to place brakes in first-class condition. Adjust end play in axle shafts, if necessary. This does not include any operation on the hand brakes. without front wheel brakes With front wheel brakes	1 10 0 ...	1 5 0 2 0 0	1 5 0 2 0 0
B— 2	Reline Hand Brakes. —This does not include any operation on foot brakes, except to take up on adjusting nuts, as needed. Adjust end play in axle shafts, if necessary	1 10 0	1 5 0	1 5 0
B— 3	Reline Foot and Hand Brakes . —Reline both brake bands. Clean grease from drum and internal parts. Adjust both brakes. Adjust mid play in axle shafts, if necessary With front wheel brakes	3 0 0 3 15 0	2 10 0 3 5 0	2 10 0 3 5 0
B— 4	Renew Foot Brake Bands. —Renew any other necessary parts. Adjust end play in axle shafts, if necessary	1 0 0	15 0	15 0
B— 5	Renew Hand Brake Bands. —Replace springs and any necessary parts. Adjust end play in axle shafts, if necessary	1 0 0	16 0	16 0

B—BRAKES—continued

		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
B— 6	Replace Brake Shoe Assemblies. — Hudson 750,000 series, and adjust. Replace cams, if necessary	16	0		...			...
B— 7	Adjust Foot Brakes. —(Wood Wheels) Foot brake operations only. (Old series)...	4	0		4	0		4	0	
B— 8	Adjust Hand Brakes. —Remove wheels. Replace springs and clevis pins. Adjust end play in axle shafts, if necessary ...	14	0		12	0		12	0	
B— 9	Adjust Four Wheel Brakes. —Hudson 750.000 series	6	0		...			...
B—10	Adjust Both Brakes. —Remove wheels, Adjust end play in axle shafts, if necessary	18	0		16	0		16	0	
B—11	Adjust Hand Brake Rods Only	2	0		2	0		2	0	
B—12	Renew Hand Lever Latch and Ratchet	8	0		6	0		6	0	
B—13	Free up Brake and Clutch Pedal Assembly. —Remove brake pedal assembly from transmission, disassemble, clean bearings and reassemble	12	0		12	0		12	0	
B-14	Rusted Brake Connections. —Add letter" A " to above operation numbers and add additional.	16	0		16	0		16	0	
B-15	Remove Anchor Clip Pins when Rusted or Seized.	4	0		4	0		4	0	
B--16	Install New Anchor Bracket.	10	0		10	0		10	0	
B—17	Renew Brake Drum, Front or Rear Wheel Hub.	12	0		10	0		10	0	
B—18	Replace Brake Drum Wheel Removed.	6	0		6	9		16	9	
B— CLUTCH AND TRANSMISSION										
C— 1	Overhaul Clutch Assembly. — Hudson 750,000 series. Essex single plate type. Make necessary replacements, repairs or adjustments to place clutch in first-class condition.	2	10	0	...			2	0	0
C— 2	Overhaul Clutch Assembly. —(Multiple Disc.) Make necessary replacements. repairs or adjustments to place clutch in first- class condition. Replace flywheel on Essex Six	2	10	0	2	0	0	...		
C— 3	Renew Clutch Complete. —Hudson 750,000 series. Essex 500,000 series—Reand install new clutch (except pedal Imove and fork) Add-lubricant -..	1	4	0	...			2	0	0
C— 4	Renew Clutch Complete. —(Multiple Type.) Remove and install new clutch (except pedal and fork). Add lubricant	1	4	0	16	0		...		

C—Clutch & Transmission— <i>con.</i>		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
C— 5	Overhaul Clutch when Down for Other Repairs. — Hudson 750,000 series. Essex single plate type. Renew all parts necessary, Add lubricant	8	0	...	8	0	...	8	0	
C— 6	Overhaul Clutch when Down for Other Repairs. — (Multiple plate type.) Renew all parts necessary. Add lubricant	8	0	6	0	...	...	...	...
C— 7	Renew Clutch Throw-out Collar and Thrust Sleeve Washers (Old Style). — Remove clutch. Renew throw-out collar, bearing, thrust sleeve washers and grease tube, if necessary. Lubricate thoroughly...	12	0	...	...	...	...	...	...
C— 8	Renew Clutch Throw-out Bearing or Install Clutch Cover Gasket	1	4	0	16	0	16	0	16	0
C— 9	Adjust Clutch Pedal —Pedal should clear no board 3/8" on multiple disc type— 3/4" on single disc type ...	2	0	2	0	2	0	2	0	
C—10	Free Up Clutch and Brake Pedals. — Remove assembly from transmission, disassemble clean bearings and reassemble	12	0	12	0	12	0	12	0	
C—11	Install New Grease Tube to Clutch Collar (Old Style)	4	0	...	...	...	...	...	...
C—12	General Overhaul of Transmission and Clutch. — Make necessary replacements or adjustments to place both units in first-class condition. Thoroughly lubricate.	2	15	0	2	4	0	2	4	0
C—13	Overhaul Transmission (Old Style). —(Where clutch is not removed.)	1	8	0	...	...	...	...	...
C—14	Remove End Play at Transmission Main Shaft. — (Rear.) Remove rear main bearing cap and necessary shims for filmier adjustment. (Use this operation for oil leak at rear end of transmission)	6	0	6	0	6	0	6	0	
C—15	Remove End Play at Transmission Main Shaft. — (Front.) Adjust main shaft gears and bearings. Renew thrust washers to obtain proper adjustment. Refill with oil	1	8	0	1	8	0	1	8	0
C—16	Remove End Play at Main Shaft. — (Front.) Use this operation when transmission is down for other work	2	0	2	0	2	0	2	0	
C—17	Renew Transmission Main Shaft or Sliding Gears	10	0	10	0	10	0	10	0	
C—18	Renew Idler Gear. —Refill Transmission (Old Style)	16	0	...	...	...	...	...	...
C—19	Renew Countershaft Gear and Bearings. —Renew any one or all countershaft gears, bearings and bearing cups if necessary. Remove and adjust main shaft, first and second speed gears or reverse idler gear. Refill transmission with oil. Rebrush, Essex Six countershaft gears	2	0	0	1	16	0	1	16	0

C—Clutch & Transmission—con.		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
C—20	Renew Transmission Assembly Covers Removal of old cover and control levers, also installation of the parts on the new unit.	1	4	0	16	0		16	0	
C—21	Renew Gear Shift Lever.- New Style Transmission.		4	0	2	0		2	0	
C—22	Renew Transmission Lock.--Remove lock and renew. (Use this operation when key is broken in lock, if it cannot be removed without disassembling.)		4	0	6	0		6	0	
D—REAR AXLE AND DIFFERENTIAL										
D— 1	General Rear Axle Overhaul. —Make necessary replacements repairs or adjustments to place rear axle in first-class condition. (Use this operation when it is necessary to remove housing for riveting or welding seams)	2	0	0	2	0	0	2	0	0
D— 2	Renew Ring Gear, Pinion Gear, Bearings and Cups. —Replace ring gear, pinion gear bearings and bearing cups, if necessary. Lubricate pinion bearings and differential housing	1	18	0	1	18	0	1	18	0
D— 3	Adjust Rear Axle Gears Without Removing Gear Set Assembly. —Adjust pinion and ring gear		12	0	12	0		12	0	
D— 4	Renew Pinion Gear and Pinion Bearings. —Does not include operations on ring gear, differential or differential bearings. Lubricate pinion bearings and differential housing ...		12	0	12	0		12	0	
D— 5	Remove End Play in Rear Axle Pinion. —Remove end play in rear axle pinion by adjustment only. Use this operation on new cars only Use D—4 on old cars		2	0	2	0		2	0	
D— 6	Tighten Rear Wheels on Axle Shafts.		2	0	2	0		2	0	
D— 7	Renew Differential Carrier Gear Set Assembly. —Remove carrier from rear axle housing, assemble new carrier to housing. Lubricate		12	0	12	0		12	0	
D— 8	Adjust End Play in Axle Shafts. —Renew felt washers, axle shafts, adjusting nuts and bearings, if necessary		8	0	8	0		8	0	
D— 9	Renew Rear Wheel and Inspect Axle Shaft. Replace shaft if bent. Adjust end play.		6	0	6	0		6	0	
D—10	Renew Axle Shaft or Bearing Adjusting Nut —If / adjusting nut is seized		6	0	6	0		6	0	
			8	0	8	0		8	0	
D—11	Tighten Rear Axle "U" Bolts		2	0	2	0		2	0	
D—12	Replace Rear Wheel Hub or Brake Drum		12	0	12	0		12	0	

E—ELECTRICAL SYSTEM.

		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
E— 1	Renew Starter or Generator —Connect and test. Replace Bench, pinion or spring	...			2	0		2	0	
E— 2	Increase or Decrease Charging Rate. —Set generator charging rate at 10 amperes when hot, 12 amperes when cold. Check.	2	0		2	0		2	0	
E— 3	Renew Generator Flexible Coupling.	2	0		2	0		2	0	
E— 4	Renew Distributor. —Adjust ignition timing	2	0		4	0		4	0	
E— 5	Adjust Automatic Spark Control. —Remove distributor head, adjust bearings. (Delco.)	4	0		...			...
E— 6	Clean Ignition Contact Points. —adjust ignition timing. Clean spark plugs and adjust to proper gap..	2	0		2	0		2	0	
E— 7	Replace Distributor Drive Shaft or Make Necessary Repairs to Distributor Drive Unit	12	0		12	0		12	0	
E— 8	Install New Coil ...	2	0		2	0		2	0	
E— 9	Renew Ammeter. —Renew ammeter wiring and connections if necessary ..	4	0		4	0		4	0	
E—10	Renew Ignition and Lighting Switch ..	6	0		6	0		6	0	
E—11	Rewire Chassis High and Low Tension Wires	1	0	0	1	0	0	1	0	0
E—12	Overhaul Horn Wiring, —Adjust or renew horn	2	0		2	0		2	0	
E—13	Overhaul Dash and Tull Light Circuits —Make necessary repairs to wires, bulbs and connections	4	0		4	0		4	0	
E—14	Install New Tall Light Wire ...	4	0		4	0		4	0	
E—15	Renew Headlight Wire Terminal	1	0		1	0		1	0	
E—16	Renew Headlight and Bracket. --Focus Lights	4	0		4	0		4	0	
E—17	Adjust and Focus Lights	2	0		2	0		2	0	
E—18	Remove Headlight Lens. —Replacc lens. Clean reflector and replace bulb. if necessary	2	-	0	2	-	0	2	-	0
E—19	Install Starter Switch	...			...			...
E—20	Install Battery Tray. (Bolt on)	4	0		4	0		4	0	
E—21	Install New Battery Terminals. (Neg.)	2	0		2	0		2	0	
E—22	Replace Battery Cable ..	2	0		2	0		2	0	
E—23	Clean and Tighten Battery Connections	2	0		2	0		2	0	

F—WINGS AND FRAME

		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
F— 1	Renew Front Wing —Install new .wing.	12	0		12	0		12	0	
F— 2	Renew Running Board	8	0		8	0		8	0	
F— 3	Renew Running Board and Splash Guard	12	0		12	0		12	0	
F— 4	Renew Running Board and Bracket	12	0		12	0		12	0	
F— 5	Recover Running Board —Renew linoleum or aluminium on running board, Install new outer moulding	6	0		6	0		6	0	
F— 5a	Renew Running Board Moulding	2	0		2	0		2	0	
F— 6	Renew Frame End —Front or Rear	16	0		16	0		16	0	
F— 7	Tighten Body Bolts —R4plitee any necessary shims	2	0		2	0		2	0	
F— 8	Renew Frame —Remove all parts necessary. Install new triune. In reassembling use all old parts except those that must be replaced	9	10	0	8	10	0	8	10	0
F— 9	Renew Radiator Splash Guard . .	2	0		2	0		2	0	
F—10	Renew Running Board Step Irons — Replace step irons when running board he been removed	12	0		12	0		12	0	
F—11	Renew Rear Wing. ((lamp type)	6	0		6	0		6	0	
F—12	Renew Rear Cross Tube. —Remove tank. Rivet new cross tube of channel parts removed.	16	0		16	0		16	0	
F—12a	Renew Rear Frame Cross Member Assembly	16	0		16	0		16	0	
F—12b	Renew Rear Frame Cross Member Assembly and Frame Ends. Hudson 750,000 aeries	1	0	0	1	0	0	1	0	0
F—13	Remove and Replace Body —Disconnect all parts necessary, remove body and replace .- ...	4	0	0	4	0	0	4	0	0
F—14	Install Bonnet Lacing. (Radiator or cowl).	4	0		4	0		4	0	
F—15	Replace Battery Tray. (Bolt on)	4	0		4	0		4	0	
F—16	Replace Bonnet	4	0		4	0		4	0	
F—17	Replace Bonnet Fasteners	4	0		4	0		4	0	
F—18	Tighten Wings and Valances	4	0		4	0		4	0	

G—PETROL SYSTEM

	Hudson	Essex Six	Essex Super Six
	£ s. d.	£ s. d.	£ s. d.
G— 1 Renew Carburetter. —Change carburetter. Renew gaskets. check over springs and controls and renew if necessary	4 0	4 0	4 0
G— 1a Renew Carburetter. Hudson 750,000 series	4 0	...	...
G— 2 Overhaul Carburetter. —Make necessary replacements. repairs or adjustments to place carburetter in first-class condition. (Stewart only)	8 0	8 0	8 0
G— 3 Clean Carburetter, Pipes, and Check Controls. —Disassemble carburetter, clean all parts	8 0	8 0	8 0
G— 4 Drain and Clean Hudson Carburetter. — Clean strainer, adjust as necessary	4 0	...	...
G— 4a Clean Carburetter. —(Stewart Carburetter.) Follow instructions outlined on page 14 of Carburetter instruction book	4 0	4 0	4 0
G— 5 Repair Float, Replace Float Needle and Seat Valve. —Adjust regulating sleeve if necessary. (On Hudson carburetter also repair or repack gland.) Use this operation for carburetters that flood	4 0	4 0	4 0
G— 6 Clean Pipes and Tank. — Remove tank. Blow out all pipes with air hose. clean vacuum, tank, carburetter screens and connections. if necessary	8 0	8 0	8 0
G— 7 Renew Pipes. Renew one or all pipes as necessary ...	8 0l	8 0l	8 0l
G— 8 Overhaul Vacuum System. (heck float and valves and all connections. Replace all parts necessary	6 0	6 0	6 0
G— 9 Renew Vacuum Tank Complete. —Check and suction pipes or leakage,	4 0	4 0	4 0
G—10 Repair and Replace Gauge. —(Tank Type)	2 0	2 0	2 0
G—10a Check Accuracy of Gauge Readings. - (Telegage)	2 0	2 0	2 0
G 11 Replace Gauge Head. (Telegage)	4 0	4 0	4 0
G—12 Repair or Renew Tank Strap	2 0	...	2 0
G—13 Fit New Tank, —Drain out petrol	4 0	4 0	4 0
G—14 Renew Mixture or Throttle Control Wire	6 0	6 0	6 0
	2 0	2 0	2 0

J—SILENCER		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
H— 1	Renew Silencer and Renew Exhaust Pipe from Motor to Silencer	4	0		4	0		4	0	
H— 2	Repack Exhaust Packing Gland or Renew Gasket	4	0		4	0		4	0	
H— 2a	Renew Exhaust Manifold Block Gasket	8	0		...			...
H— 3	Tighten Silencer and Tail Pipe. — Tighten brackets and clamps on silencer and tail pipes. Install new brackets if necessary	4	0		4	0		4	0	
H— 4	Renew Exhaust Pipe from Manifold to Silencer	4	0		4	0		4	0	
H— 5	Renew Carburetter Heater Gasket at Manifold. Hudson 750.040 series	2	0		...			...
H— 6	Repair or Replace Exhaust Butterfly Valve. —Hudson 750,000 series	4	0		...			...
J—SPRINGS										
J—1	Renew Front Spring. —Install new shackles and spring bolts, if necessary, Lubricate parts	8	0		8	0		8	0	
J—2	Renew Rear Spring. —Install new shackles and spring bolts. if necessary. Lubricate parts	10	0		10	0		10	0	
J—3	Install New or Extra Leaf on One Front or Rear Spring —Rebush and install new shackle bolts, if necessary	12	0		12	0		12	0	
J—4	Rebush Springs, Frame Ends and Brackets. — Lubricate parts. If springs are removed, add J—1.	16	0		16	0		16	0	
J—5	Adjust all Shackles to Eliminate Side Play and Lock in Place	6	0		6	0		6	0	
J—6	Replace or Tighten Spring " U" Bolts	4	0		4	0		4	0	
J— 7	Install One Shackle Bolt. —Remove old shackle bolt and install one new bolt When new bushing is installed add	2	0		2	0		2	0	
J— 8	Tighten Front or Rear Axle Spring	2	0		2	0		2	0	
—LUBRICATION										
L—1	Thorough Lubrication. — (Models equipped with current type oil cups.) Lubricate each part of motor and chassis that requires lubrication. Change oil in motor and clutch. Lubricate transmission and rear axle by adding sufficient oil to bring to proper level. Fill universal joints. Fill all oil cups. Remove front wheels. Clean bearings and repack with grease. (Use this operation when car is equipped with pressure oil or grease system)	12	0		12	0		12	0	
L—1a	Lubricate Front Wheel Bearings. — Clean bearings with paraffin. Repack with grease. (This operation is not to be used when operation L-1 appears on shop order)	4	0		4	0		4	0	

C—Lubrication—continued

		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
L— 1	Pack Rear Axle Shaft Bearings. —Rear wheels must be removed when this operation is performed	6	0		6	0		6	0	
L— 2	Fill all Oil Cups	2	0		2	0		2	0	
L— 3	Oil Springs Complete. —Fill oilers or grease cups on springs. Saturate springs with motor oil ...	2	0		2	0		2	0	
L— 3a	Dismantle all Springs. —Take springs apart. clean, grease, reassemble and replace.	2	10	0	2	0	0	2	0	0
L— 4	Change Clutch Oil. —Drain clutch oil.correct mixture of paraffin and motor oil	2	0		2	0		2	0	
L— 5	Change Motor Oil —Drain craakease. Refill with fresh motor oil. (When oil sumo is removed and cleaned, use operation L—17)	2	0		2	0		2	0	
L—6	Change Motor Oil, Lubricate Universals, Check 011 in Rear Axle and Transmission ...	4	0		4	0		4	0	
L— 7	Lubricate Rear Axle or Transmission —Drain rear axle and transmission and refill	2	0		2	0		2	0	
L— 8	Lubricate Universal Joints. — Front and rear	2	0		2	0		2	0	
L— 9	Overhaul Oil Pump. —Make necessary replacements, repairs or adjustments to place oil pump in first-class condition	6	0		6	0		6	0	
L—10	Adjust Oil Pump Stroke, —Renew plunger and springs if necessary. Adjust spring in top of oil pump so that dash gauge registers between three and four ...	2	0		...			...
L—11	Renew Oil Pump. —Adjust new pump to develop a reading of from three to four on dash gauge	4	0		4	0		4	0	
L—12	Renew Oil Pump Eccentric	12	0		16	0		16	0	
L—13	Renew Suction Pipe to Pump Complete. —Includes Operation L11.	12	0		12	0		12	0	
L—14	Clean Oil Pipes. —Disconnect all oil pipes, blow out with air hose. Clean oil strainer in reservoir. Renew all parts necessary ...	8	0		8	0		8	0	
L—15	Renew Oil Pressure Gauge or Gauge Pipe. —Inspect pressure gauge pipes. Renew one or both if necessary . ..	4	0		4	0		4	0	
L—16	Clean or Renew Oil Stralner. —Remove oil sump. Clean or renew strainer if necessary. If motor oil needs changing do so on this operation	6	0		6	0		6	0	
L—17	Renew Oil Gauge Glass. —Remove gauge glass retainer ring and install new glass	2	0		2	0		2	0	
L—18.	Lubricate Speedometer Chain or Cable. —Remove speedometer chain or cable. Cover with grease, replace and connect.	2	0		2	0		2	0	

M—MOTOR ADJUSTMENTS

	Hudson			Essex Six			Essex Super Six		
	£	s.	d.	£	s.	d.	£	s.	d.
M— 1	Tune Motor. —Clean ignition points, renew if necessary. Adjust ignition timing. Clean spark plugs and set gaps (.025). Tighten timing chain if necessary. Adjust valve tappets to proper clearance. Clean carburetter filter. Motor must fire properly and start easily								
	8	0		8	0		8	0	
M— 2	Adjust Ignition Timing. —Adjust ignition points (.018). Clean or renew if necessary. Clean spark plugs and set gaps (.025) ...								
	4	0		4	0		4	0	
M— 3	Adjust Valve Timing Chain. —Readjust eccentric to take up slack in timing, chain. Adjust ignition timing ...								
	4	0		4	0		4	0	
M— 4	Tighten Motor Bolts								
	2	0		2	0		2	0	
M— 5	Adjust Tappets. —Adjust tappets to proper clearance								
	4	0		4	0		4	0	
M— 6	Overhaul Tappets. —Make necessary replacements. repairs or adjustments to eliminate noise and place tappets in first. class condition. When used in conjunction with operation M-10—add—to time given in M-10 ...								
	1	4	0	1	0	0	1	0	0
M— 7	Scrape Carbon. —Remove cylinder head. Scrape carbon. Include operation M-2 ...								
	18	0		18	0		18	0	
M— 7a	Same as M—7. but for 750,000 series								
	14	0		...			...
M— 8	Renew Cylinder Head Gasket. —Remove cylinder head. Scrape carbon and adjust ignition timing								
	1	2	0	16	0		16	0	
M—.8a	Same as M—8. but for 750.000 series								
	14	0		...			...
M— 9	Renew Generator Flexible Coupling. —Align generator. See electrical operation E—3								
	2	0		2	0		2	0	
M—10	Grind Valves, Clean Carbon, Adjust Tappets, Clean Carburetter. —Include operation M—2. If any valve tappet screws should be replaced do so on this operation. Worn valve stem guides can also be changed on this operation								
	2	10	0	2	0	0	2	0	0
		2	0		2	0		2	0
M—11	Grind Valves when Cylinder Head has been Removed for Other Operations. — Includes operation M—2								
	12	0		12	0		12	0	
M—12	Overhaul Rocker Arm. —Hudson 750,000 series. Replace necessary parts and check push rods ...								
	8	0		...			...
M—13	Renew Complete Set of Valves, Valve Stem Guides and Grind Valves								
	2	16	0	2	8	0	2	8	0
		2	0		2	0		2	0
M—13a	Same as M-13, but for 750,000 series ...								
	2	16	0	...			...
M—14	Renew Valve Springs. —Remove all valve springs. Install new springs, washers and retainers where necessary								
	1	0	0	16	0		16	0	
M—15	Reset Valve Timing. —Remove chain. Set crank, cam and distributor position. Install new chain, if necessary. Adjust ignition timing								
	1	4	0	1	4	0	1	4	0
		2	0		2	0		2	0

M—MOTOR ADJUSTMENTS—continued		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
M—16	Renew Valve Timing Chain or Chain Sprockets —For use when main bearings are being adjusted. Adjust ignition timing. Note.—Use this operation when timing chain cover has been removed for other operations	6	0		6	0		6	0	
M—17	Renew Valve Timing Chain Adjusting Eccentric. —Remove and install genera. tor. Replace eccentric. Include operation M.- -15	1	4	0	1	4	0	1	4	0
M—18	Adjust all Connecting Rod Bearings —Remove sump. Remove Shims necessary to fit bearing properly on crankshaft . Bearings to be tested for fit if necessary. Reinstall sump and fill with motor oil. Includes operation M—2	2	18	0	2	10	0	2	10	0
M—19	Adjust all Connecting Rod Bearings when Oil Pan is Removed for Other Operations	2	12	0	2	4	0	2	4	0
M—20	Renew One Connecting Rod Bearing and Adjust all Others. —Drain motor oil. Remove sump and clean thoroughly. Renew one bearing, adjust all others. Reinstall and fill sump with motor oil For renewing each additional connecting rod bearing--add	3	2	0	2	14	0	2	14	0
			4	0		4	0		4	0
M—21	Adjust all Main Bearings.-(Motor with chain front end.) —Remove necessary shims to fit hearings properly to crankshaft. Bearings should not be tightened so that starter will not turn motor. This operation is done without removing motor from frame,	2	15	0	2	10	0	2	10	0
M—22	Adjust Main Bearings and Connecting Rod Bearings. —(Motor with chain front end.) Remove necessary shims to fit bearings properly to crankshaft. Bearings should not be tightened so that starter will not turn motor. This operation is done without removing motor from frame ...	5	10	0	4	14	0	4	14	0
M— 23	Renew Crankshaft. —Remove motor from frame. Remove crankcase. Renew one or all main bearings. Install new crank shaft. Refit or adjust all connecting rod bearings. Reassemble motor and place in frame. Clean and paint motor. Includes operation M—2 Note.—Use this operation when original crankshaft is to be reground. Charge extra for grinding.	18	0	0	14	0	0	14	0	0
M—24	Renew Sump or Gasket. —Renew gaskets, clean oil sump. Change motor oil ...	6	0		6	0		6	0	
M—25	Renew all Piston Pins and Piston Rings —Renew all piston pins, piston rings and piston pin bushings. Include operations M—2 and M—18 ... Note—Cylinder block is not removed for this operation. When cylinder block is removed for this work on Hudson Models—add	4	10	0	3	14	0	3	14	0
			12	0		...			...
M—26	Renew One Piston Pin. —Adjust bering on connecting rod in which pin is installed.	1	4	0	1	0	0	1	0	0

M—MOTOR ADJUSTMENTS—continued

	Hudson			Essex Six			Essex Super Six		
	£	s.	d.	£	s.	d.	£	s.	d.
M—27									
M—28									
M—29									
M—30									
M—31									
M—32									
M—33									
M—34									
M—35									
M—36									
M—37									
M—38									

M—Motor Adjustments—continued		Hudson			Essex Six			Essex Super Six		
		£	s.	d.	£	s.	d.	£	s.	d.
M—39	Renew Sump or Gasket—Renew gaskets, clean oil sump. Change motor oil.	6	0		6	0		6	0	
M—40	Renew Exhaust Manifold.	8	0		6	0		6	0	
M—41	Renew Exhaust Manifold Gaslets	4	0		4	0		4	0	
M—42	Renew Water Pump Shaft Bushing.	1	12	0	...			...
M—43	Renew Eccentric Gaskets	...			8	0		8	0	
O—UNIVERSAL JOINTS AND DRIVE SHAFT										
O—1	Overhaul Universal and Drive Shaft Assembly. —Renew all parts necessary and lubricate both universal joints. Line up universal joint with propeller shaft arrows...	1	4	0	1	4	0	1	4	0
O—2	Renew Universal Yoke, Dust Cover and Felt Washer. —Remove drive shaft, renew yoke, dust washer, and replace outer shield. Line up universal joint with propeller shaft arrows. Lubricate thoroughly	16	0		16	0		16	0	
O—3	Renew Front or Rear Universal Joint Complete. —Lubricate both joints. Line up universal joint, with propeller shaft arrows	10	0		10	0		10	0	
O—4	Renew Drive Shaft Assembly. —Disconnect rear universal flange and install new drive shaft assembly. Line up both universal joints with propeller shaft arrows	8	0		8	0		8	0	
O—5	Renew Universal Joint and Drive Shaft Assembly. —Lubricate both universal joints. Line up universal joints with propeller shaft arrows	8	0		8	0		8	0	
R—RADIATOR AND COOLING SYSTEM										
R—1	Renew Radiator Core. Remove shell and assemble new core. Change hose connections, if necessary	12	0		12	0		12	0	
R—2	Renew Radiator Cap and Motometer	1	0		1	0		1	0	
R—3	Renew Top Radiator Hose	2	0		2	0		2	0	
R—4	Renew Bottom Radiator Hose	2	0		2	0		2	0	
R—4a	Renew Bottom Radiator Hose (Old Type)	4	0		...			...
R—5	Flush Out Radiator and Water Jackets	4	0		4	0		4	0	
R—6	Adjust or Renew Shutter Control Side Rails	12	0		12	0		12	0	
R—7	Renew Radiator Bolts	4	0		4	0		4	0	
R—8	Overhaul, Renew or Adjust Fan Assembly. —Replace fan. Repair or replace necessary parts	6	0		6	0		6	0	
R—9	Renew Fan Belt	1	0		1	0		1	0	
R—10	Overhaul Water Pump. —Repair or replace necessary parts. (Without removing Accessory Shaft) If shaft has to be removed add	12	0		...			...
		8	0		...			...
R—11	Repack Water Pump. —One or more glands	...	4	0	...			...
R—12	Solder Radiator. —Flat surfaces only. (This does not include any radiator core sections)	10	0		10	0		10	0	
R—13	Remove and Replace Shutters	10	0		10	0		10	0	
R—14	Renew Water Manifold	6	0		6	0		6	0	

