

HUDSON MOTOR CAR CO.

General Technical Policies & Information Bulletins

1947 Series

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General Technical Policies

AND Information

Bulletin

1947 Series

Number

1

Date

2-27-46

Subject

TO ALL DEALERS:

The 1947 Hudson cars now in production include two six cylinder. and two eight cylinder groups in the passenger car models with five body types available on the six cylinder chassis and three on the eight cylinder chassis. A six cylinder commercial model is also being built in one body type.

The six cylinder line consists of the Hudson Super Six, Series 171, the Hudson Commodore Six, Series 172 and the Hudson Commercial Six, Series 178 Models. The eight cylinder group includes the Hudson Super Eight, Series 173, and the Hudson Commodore Eight, Series 174 Models.

Licensing and car number Information, including brief specifications and weights, are shown below:

Hudson Super Six Model Series 171

Body Types	Starting Serial No.	No. of Cyl.	Bore	Stroke	A.M.A. H.P. Rating	Wheel Base	Weight Pounds
Brougham	171-101 & Up	6	3"	5"	21.6	121"	3055
4 Door Sedan	171-101 & Up	6	3"	5"	21.6	121"	3110
3 Pass. Coupe	171-101 & Up	6	3"	5"	21.6	121"	2975
Club Coupe	171-101 & Up	6	3"	5"	21.6	121"	3240
Conv. Brougham	171-101 & Up	6	3"	5"	21.6	121"	3220

Hudson Commodore Six Model Series 172

4 Door Sedan	172-101 & Up	6	3"	5"	21.6	121"	3175
Club Coupe	172-101 & Up	6	3"	5"	21.6	121"	3090

Hudson Super Eight Model - Series 173

4 Door Sedan	173-101 & Up	8	3"	4-1/2"	28.8	121"	3260
Club Coupe	173-101 & Up	8	3"	4-1/2"	28.8	121"	3210

(OVER)

1947 MODEL
AND SERIES
DESIGNATIONLICENSING
INFORMA-
TION

Hudson Commodore Eight Model - Series 174LICENSING
INFORMATION

Body Types	Starting Serial No.	No. of Cyl.	Bore	Stroke	A. M. A. H.P. Rating	Wheel Base	Weight Pounds
4 Door Sedan	174-101 & Up	8	3"	4-1/2"	28.8	121"	3330
Club Coupe	174-101 & Up	8	3"	4-1/2"	28.8	121"	3260
Conv. Brougham	174-101 & Up	8	3"	4-1/2"	28.8	121"	3465

Hudson Commercial Six Model - Series 178

Cab Pick-Up	178-101 & Up	8	3"	4-1/2"	28.8	121"	3110
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SHIPPING
WEIGHTS

The weights shown here are the car shipping or dry weights without water, gasoline and oil, but including the spare wheel, extra tire and tube and standard equipment. In computing exact weights, provision should be made for all extra equipment and accessories.

In determining the curb weights, add the following to the shipping weights to take care of water, oil and gasoline:

CURB
WEIGHTS

45 pounds for six cylinder models with one gallon of gasoline or 145 pounds with a full tank.

60 pounds for eight cylinder models with one gallon of gasoline or 160 pounds with a full tank.

CAR
NUMBERING
SYSTEM

For 1947, the car numbering system will employ 171, 172, 173, 174 or 178 as the first three digits at the left to designate the car series, while the remaining figures represent the actual number. Starting with number 101, car numbers will run consecutively regardless of series or models. Thus, in the case of a Commodore Eight Model following Super Six Number 171-999 on the production line, the car number would be 174-1000.

CAR AND
ENGINE
NUMBER
LOCATIONS

The car serial number is stamped on a metal plate attached to the right front door hinge pillar.

The engine number which is the same as the car serial number, is stamped on the top of the cylinder block at the front end between number 1 and 2 cylinder exhaust manifold flanges.

CAUTION: Do not confuse engine number with casting or any other numbers appearing on either the cylinder block or cylinder head.

E. J. BLUM
Technical Service Manager

(THIS BULLETIN AS WRITTEN IS BEING MAILED TO SERVICE STATION
AGREEMENT HOLDERS AS BULLETIN NO. 2)



General Technical Policies

AND Information

Bulletin

1947 Series

Number

2

Date

1-6-47

Subject

TO ALL DEALERS:

We are again into that season of the year during which - salt, calcium chloride and other chemicals are extensively used on the streets and highways in many localities.

Most car owners are familiar with the corrosive action and destructive effects of these melting and drying agents as evidenced by the, rusted out condition of the fenders, underbody panels and other sheet metal parts seen on so many cars today. This, coupled with the current critical shortage of sheet metal replacements, has resulted in owners becoming more receptive than ever before to any suggestions which will prolong the life and maintain the appearance of their cars.

To this end, we suggest that you investigate, the possibilities offered by underbody protective coating, a service which has rapidly come to the forefront and is already providing many service departments with an additional excellent source of revenue plus paying the car owner a return on his investment.

In addition to the protection afforded sheet metal against the inroads of rust and corrosion, underbody protective coating has the important advantage of preventing damage to the fenders and sheet metal by stones and gravel. and, also, by acting as a sound deadener, thus minimizing road noises. Another benefit which should not be over-looked is that all small cracks and openings are automatically sealed in the coating process which tends to reduce, the possibility of dust and water entering the body.

After careful investigation, we have fully satisfied ourselves in regard to the merits of body under-coating and are sending this with bulletin descriptive booklets dealing with three different makes of under-coating materials, all of which will do a satisfactory job. Also included are pamphlets describing in detail two outstanding makes of equipment, especially designed for dispensing and spraying protective materials.

Hudson has no interest in the sale or merchandising of either the materials or handling equipment and all inquiries and communications should be addressed directly to the manufacturers or their outlets as indicated on the attached literature. All of these manufacturers will be glad to supply any additional information needed or have their representatives call on you.

E. J. Blum

Technical Service Manager,

(THIS BULLETIN AS WRITTEN IS BEING MAILED) TO SERVICE STATION
AGREEMENT HOLDERS AS BULLETIN NO. 4.)

SHEET
METAL
DAMAGE

BODY
UNDER-
COATING
PROFITABLE

PROTECTS
PARTS,
DEADENS
SOUND
AND SEALS
OPENINGS

DESCRIPTIVE
BOOKLETS
ATTACHED

ADDRESS
INQUIRIES
TO MANUFACTURERS



General Technical Policies

AND Information

Bulletin

1947 Series

Number

3

Date

1-10-47

Subject

TO ALL DEALERS:

As outlined in Mr. Dow's letter of December 30, the current critical iron castings situation and the increased availability of aluminum castings necessitates equipping approximately 50 percent of our eight cylinder engines with the aluminum type cylinder head, beginning about January 20.

Due to certain inherent characteristics of the aluminum alloy used for cylinder heads, it is feasible to employ higher compression than the standard cast iron head and still use the so called standard or regular gasolines with satisfactory results. The new aluminum cylinder head provides a compression ratio of 7.00 to 1 in comparison with the 6.50 to 1 ratio for the cast iron part and somewhat better performance and fuel economy.

In regard to fuels, it might be well to mention that the anti-knock quality varies from time to time and between brands which means that some gasolines give better results from this standpoint than others. Naturally, the gasoline having the higher octane rating will be less likely to cause pinging and this applies equally to fuels in the standard and premium groups and to engines with either the aluminum or cast iron cylinder head.

While on the subject of cylinder heads, we must again stress the importance of keeping them properly tightened. This is especially pertinent at this time of the year since during low temperatures there is a greater movement of the metal in the cylinder block, cylinder head and studs due to increased expansion and contraction. The need for cylinder head tightening is evidenced by the increase in the number of engines damaged each winter due to external coolant loss and by leakage into the cylinders.

Tightening of the cylinder head stud nuts is called for and should be religiously performed on both the new car pre-delivery and 1000-Mile inspections and is also included in the 5000-Mile inspection and adjustment which should be sold to the owner as maintenance service. Experience has shown that if the stud nuts are tightened in accordance with the recommended procedure at intervals of 5000 miles, leakage, gasket failures and other difficulties due to a loose head can be forestalled.

Correct and uniform tightening of the head calls for drawing up the stud nuts in the proper sequence and to the recommended extent with the engine cold, followed by a final tightening after it has been run long enough to attain the normal operating temperature. A torque tension wrench is an absolute necessity in drawing up the nuts to the exact requirements of 40 foot pounds for the six cylinder and 45 foot pounds for the eight cylinder engine.

ALUMINUM
CYLINDER
HEADSSTANDARD
FUELS
SATISFAC-
TORYFUEL
VARYKEEP
CYLINDER
HEADS
TIGHTINCLUDED IN
PRE-DELIV-
ERY, 1000
AND 5000
MILE
INSPECTIONSTORQUE
WRENCH
MUST BE
USED

(OVER)

The eight cylinder engine has 30 cylinder head studs arranged in three rows of 10 each. The sequence in which the stud nuts should be tightened, beginning with number 1 and progressing in numerical order, is as follows:

Right Row, front to rear -- 29, 23, 17, 11, 5, 2, 8, 14, 20, 26
Center Row, front to rear - 28, 22, 16, 10, 4, 1, 7, 13, 19, 25
Left Row, front to rear -- 30, 24, 18, 12, 6, 3, 9, 15, 21, 27

The six cylinder engine has 21 cylinder head studs arranged in three rows of 7 each which should be tightened in the sequence shown below:

Right Row, front to rear -- 17, 11, 5, 2, 8, 14, 20
Center Row, front to rear - 16, 10, 4, 1, 7, 13, 19
Left Row, front to rear --18, 12, 6, 3, 9, 15, 21

The accelerator cross shaft bracket and, in addition, the distributor support plate on the six cylinder engine tend to complicate the head tightening operation with the result that certain stud nuts are sometimes passed up. It is, of course, extremely important that these nuts be given equal attention even though it is necessary to remove and replace other parts in order to do the job properly.

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E. J. BLUM

TECHNICAL SERVICE MANAGER

THIS BULLETIN AS WRITTEN IS BEING MAILED TO SERVICE STATION
AGREEMENT HOLDERS AS BULLETIN No. 5.)



General Technical Policies

AND Information

Bulletin

1947 Series

Number

4

Date

3/21/47

Subject

TO ALL DEALERS:

The number of Hudson cars equipped with Drive-master has increased greatly during the past year and a high percentage of the cars being currently produced are equipped with this option. This adds up to a sizeable total number of Drive-Masters now in owners' hands and the proper servicing of these units should be one of the major objectives of our field service organizations.

To assist in this direction, we are supplying the field with new Drive-Vaster Inspection and Adjustment Card (sample attached) detailing the operations to be performed during the New Car Pre-Delivery inspection, at the expiration of 500 miles of driving, and during the 1000 and 2000 Mile Inspections. A special test harness is also being made available through the Kent-Moore Organization, Inc., our special tool source, for testing the Drive-Master units and electrical circuits.

By conscientiously performing the operations listed on the card at the stipulated intervals, you will go a long way toward assuring owner satisfaction through proper operation of the unit during the early period of ownership when those first impressions of the owner are so important. The thoroughness with which this work is done will also largely determine the ultimate satisfaction he derives and the amount of warranty service you will be called upon to render in keeping the unit in operation. The work called for on the Drive-Master Card is included in the various now, car inspections mentioned above, all of which are mandatory. These cards are furnished without charge and your requirements will be forwarded promptly upon receipt of information regarding the quantity you need.

The new Drive-Master test harness is an Invaluable aid and time-saver in making the transmission switch and circuit tests and should be included in the equipment of every Distributor's and Dealer's Service Department. Through the use of this device and a simple, easily made test lamp and wires, the mechanic can take the necessary tests accurately from a convenient, comfortable position inside the car from which point he can also manipulate the various Drive-Master controls.

With this bulletin, we are inclosing an order blank which we suggest you fill in and mail at once. The KMO-670, Drive-Master Transmission Test Harness, sells for \$4.25, less 5% cash discount and all orders should be sent directly to Kent-Moore Organization, Inc., General Motors Building, Detroit 2, Michigan.

E. T. Blum

Technical Service Manager

DRIVE-
MASTER
SERVICE
IMPORTANT

INSPECTION
CARDS AND
TEST
EQUIPMENT
AVAILABLE

CAREFUL
INSPECTION
PAYS
DIVIDENDS

PLACE ORDER
FOR CARDS

TEST
HARNESS
ESSENTIAL
ITEM

PLACE
ORDERS
WITH TOOL
SOURCE



HUDSON DRIVE-MASTER

Inspection and Adjustment



CAR NO.

OWNER.

Routine inspection and adjustment checks made at the recommended periods will do more than anything else to keep the owner satisfied with Drive-Master and eliminate the need for frequent service in order to insure continuous trouble-free operation. These operations should be conscientiously performed in the order shown and at the *mileage periods called for*.

During the break-in period when the new car is being driven with the governor in place, Drive-Master naturally cannot deliver its best possible performance and this should always be taken into account when investigating reports of poor operation. It is, therefore, most important that the owner be contacted and the governor be removed from the engine of his car just as quickly as the 500 mile period has been reached.

Never attempt to demonstrate Drive-Master unless the car has been driven far enough to have the governor removed and these operations performed.

Before doing the following, check for excessive clutch slippage by placing the car in gear and engaging the clutch with brakes on.

(A) BELL CRANK YOKE ADJUSTMENT—

NEW CAR	500 MILE	1000 MILE	2000 MILE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

With engine shut off, piston rod pulled out as far as possible and clutch pull rod pulled forward, there should be $\frac{1}{8}$ inch clearance between clevis pin and end of slot in link. When properly adjusted, the front end of the pull rod link will be flush with the front edge of the bell crank. If adjustment is required, loosen lock nut in link on rod and adjust upper nut to increase or decrease the clearance. Tighten lock nut and re-check.

(B) PISTON TRAVEL ADJUSTMENT—

NEW	500	1000
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With the engine running and with the compensating pin away from its stop (starting position) press forward on valve lever near end of piston rod until piston bottoms at front end of cylinder. When lever is released, piston should move back $\frac{1}{2}$ inch. If it does not, loosen the 10-32 lock nut and turn threaded sleeve at the cam lever swivel until $\frac{1}{2}$ inch travel is obtained.

Push compensating pin back against its stop. Piston should move in slightly.

If it moves out, eccentric bushing is upside down and should be reversed.

Check to see that cam swivel is set in rear hole of cam lever. See that cam turns freely on cam lever and that torsion spring holds cam firmly against its stop. If cam binds when screw is tight, check flanged spacer on which cam rotates.

(C) CHECK THROTTLE LINKAGE AND BELL CRANK SPRING ASSEMBLY FOR BINDING—

NEW CAR	500 MILE	1000 MILE	2000 MILE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Check both with "OFF" button in and with "HDM" button in and engine running. Depress accelerator and release slowly. Linkage should return solidly against stop on accelerator switch. Recheck several times.

Free up if necessary and lubricate. Do not attempt to correct by adding springs or by shortening present springs.

(D) THROTTLE CROSS SHAFT ADJUSTING SCREW—

NEW	500
<input type="checkbox"/>	<input type="checkbox"/>

Cam lever adjusting screw should be approximately $\frac{1}{2}$ inch from cam with throttle closed when making this check or adjustment.

With "HDM" button pushed in, start engine. Compensating lever will be away from its stop. Shift into second. Slowly rotate throttle bell crank which is under throttle lock diaphragm. Engine speed should increase approximately 100 R.P.M. before car begins to move. If engine speed increases too much, turn throttle cross shaft lever screw out. Be sure to tighten lock nut.

(E) CUSHION POINT ADJUSTMENT—

NEW	500
<input type="checkbox"/>	<input type="checkbox"/>

Shut off engine. Depress clutch pedal and start engine. (Compensating pin must be away from its stop.) Set parking brakes. Place Handy-Shift lever in second gear position. Hold cam against cam adjusting screw. Engine should stall. If engine does not stall, back out adjusting screw while still holding cam against screw until engine does stall.

(OVER)

(F) FOR FINAL CHECK,
ROAD TEST CAR—

NEW CAR ☐ 500 MILE ☐ 1000 MILE ☐ 2000 MILE ☐

Engine speed should increase approximately 100 R.P.M. before car begins to move. Where the engine has a tendency to stall, turn cam screw in until smooth operation results. Never turn screw more than $\frac{1}{2}$ turn at a time.

(G) CHECK THROTTLE LOCK
DIAPHRAGM CABLE AD-
JUSTMENT (Engine Oper-
ating).

NEW ☐ 1000 ☐

Energize diaphragm solenoid and try to rotate throttle bell crank. If there is movement in the bell crank, it indicates an adjustment is needed. Make this by turning upper cable nut upward against block. Then de-energize solenoid and turn the nut up an additional $2\frac{1}{2}$ turns. Tighten lock nut.

(H) CHECK ALIGNMENT OF
VACUUM PIPE HOSE
CONNECTIONS AT THE FOLLOWING
POINTS:

NEW ☐

1. Throttle lock diaphragm.
2. Across engine from manifold to Vacuumotive Drive power cylinder.
3. Right side of engine. (Be sure there is ample clearance with exhaust pipe.)
4. To power cylinder.
5. On power cylinder.

(I) CHECK ADJUSTMENT OF
SHIFT SHAFT TRANSFER
KEY BALL SOCKET.

NEW ☐ 1000 ☐

1. It should operate freely, without perceptible end play in ball joint. Make sure lock nut is tight.
2. Lubricate transfer key grease fitting.

(J) POWER CYLINDER
SHAFT ADJUSTMENT—

NEW ☐

With transmission in neutral, pull back on transfer diaphragm cylinder rod and fully engage transfer key in power lever. Distance from front housing edge of power cylinder to end of piston shaft must be four inches. Adjust, if necessary, by loosening lock nut and turn piston shaft with wrench. Use gauge.

(K) TRANSFER DIAPHRAGM
ROD ADJUSTMENT—

NEW ☐

With power off and transfer key engaged in manual lever, distance from front face of diaphragm housing to end of shaft should be 3-3/16 inches. Adjust, if necessary, by loosening lock nut, holding shaft stationary with wrench and turning rod in or out with pliers.

(L) TIGHTEN SET SCREW IN
TRANSFER KEY HUB—

NEW CAR ☐ 500 MILE ☐ 1000 MILE ☐ 2000 MILE ☐

This is very important.

(M) SHIFT LEVER
LOCK SPRING—

NEW ☐

Be sure it is properly attached at both ends to lock lever and to clip.

(N) CHECK ALL CLIPS
ON RODS—

NEW ☐

Be sure they are in place and are not damaged ("HDM" and throttle linkage.)

(O) CHECK ALL WIRE
TERMINALS—

NEW ☐

Be sure plugs are fully inserted and wires properly secured. These include plugs on governor switch, power cylinder valve housing, Vacuumotive cylinder solenoids, accelerator switch, body dash plug and transmission switch.

(P) CHECK TRANSMISSION
SWITCH BOOT—

NEW ☐

See that it is in place to prevent dirt and water from getting into switch.

(Q) CHECK POSITION OF
ALL WIRE HARNESSES—

NEW ☐ 1000 ☐

Be sure no moving parts can touch them and cause damage. They should lay close to the transmission. Be particularly sure that the harness at the speedometer cable runs between the cable and transmission case. With Overdrive transmission, the wires to shifter unit should run alongside the O.D. unit and not on top of it.

(R) GOVERNOR SWITCH—

NEW ☐ 1000 ☐

See that it is tight in transmission case.

(S) CHECK HANDY
SHIFT LEVER—

NEW ☐

It should move freely into the low-reverse side after a shift to neutral from high to second. The Handy Shift Lever, when in neutral, must return by means of its own return spring positively to the second and high side when released from any position in the cross-over. Eliminate sticky cross-over when in "HDM" by adjusting neutral switch rod.

MILEAGE

DATE

INSPECTOR'S
INITIALS



General Technical Policies

AND Information

Bulletin

1947 Series

Number

5

Date

3-20-47

Subject

TO ALL DEALERS:

On the basis of suggestions from the field and our own experience, we have reviewed the 1000-Mile and 2000-mile New Car inspections and made certain changes for 1947. These include the deletion of some operations from the 1000-Mile Inspection and their inclusion in the 2000-Mile Inspection in order to secure more logical and equitable distribution of the work and to permit a uniform charge of \$5.00 when either inspection is made by other than the selling dealer.

Following are listed the operations included in the revised 1000 and 2000-Mile Inspections as set forth in the 1947 Hudson Owner Service Policy and also the Owner Manual or Instruction Book:

1000-Mile Inspection 2000-Mile Inspection

- | | |
|--------------------------------------|--------------------------------------------------------------------|
| 1. Check Operation of All Locks. | 1. Check Operation of Signals and Instruments. |
| 2. Check Signals and Instruments. | 2. Check Operation of All Lights. |
| 3. Check Operation of Lights. | 3. Check Operation of Windshield Wipers. |
| 4. Check Battery and Connections. | 4. Inspect Cooling System and Connections (Anti-Freeze in Winter), |
| 5. Tighten Cylinder Head Stud Nuts. | 5. Check Battery and Connections. |
| 6. Tighten Manifolds. | 6. Adjust Tappets - Engine Hot. |
| 7. Check Cooling System and Coolant. | 7. Tune-Up Engine. |
| 8. Check Clutch Pedal Clearance. | 8. Check Generator Charging Rate. |
| 9. Check Axle Shaft Nut Tightness. | 9. Check Wheel Hub Bolts. |
| 10. Check Wheel Hub Bolts. | 10. Check Hand and Foot Brakes. |
| 11. Check Rear Spring Clips. | 11. Check Drive-Master. |
| 12. Check Body Bolts. | 12. Road Test. |
| 13. Check Hand and Foot Brakes, | |
| 14. Check Drive-Master. | |
| 15. Road Test. | |

The flat rate time for performing either the revised 1000-Mile or 2000-Mile Inspections is 3.5 hours for cars with standard equipment and 3.9 hours when Drive-Master is installed.

From the above, it will be noted that the Engine Tune-Up, Tappet Adjustment and Generator Charging Rate Checks have been deleted from the 1000-Mile procedure and the Generator Charging Rate and Tappet Adjustment checks now become part of the 2000-Mile inspection. When reprinting of the 1000 and 2000-Mile Inspection Cards becomes necessary, they will be revised to conform with the above and, in the meantime, be sure to make these changes on the cards you have on hand and instruct your mechanics to follow the new procedures when these inspections on your owners cars.

E. T. Blum
Technical Service Manager

CHANGES IN
NEW CAR
INSPECTIONS

REVISED
OPERATIONS

CHANGE
CARDS ON
HAND AND
FOLLOW NEW
PROCEDURE



General Technical Policies AND Information Bulletin

1947 Series

Number

6

Date

4-1-47

Subject

TO ALL DEALERS:

A large quantity of petroleum base fluid, developed for hydraulic and recoil mechanisms, has been declared surplus, and is being offered for sale at this time by the War Assets Administration.

Although W. A. A. is warning purchasers against the use of this material for brakes, there is a strong possibility that some of it will be offered to organizations engaged in servicing our cars and find its way into the Parts and Service Departments as material suitable for use as hydraulic brake fluid and shock absorber oil. We, accordingly, feel it is our duty to warn the field against the dangers of such usage, both from the standpoint of causing service difficulties of an ordinary nature and the more important angle of endangering human life through brake failure.

Brake fluids made from petroleum and many other oil bases have a very detrimental effect on rubber parts and must not be used in our cars.

To perform properly under varying climatic and other conditions, fluid suitable for use in hydraulic brake systems must meet a number of very rigid requirements. These include the ability to function at very low temperatures without freezing or congealing and to operate at high temperatures without gassing or vaporizing. Such fluid, must not cause any corrosive action on the metal parts of the braking system, and most important, they must not attack or deteriorate the rubber parts; including the master and wheel cylinder piston cups and hoses.

Hudson brake and shock absorber fluids are obtainable from the Factory Parts Department. Do not take chances by using anything else in servicing these important units of our cars.

E. J. Blum

Technical Service Manager

(THIS BULLETIN AS WRITTEN IS BEING MAILED TO SERVICE STATION
AGREEMENT HOLDERS AS BULLETIN NO. 29.)

SURPLUS
HYDRAULIC
FLUID

CAUTION
OWNERS
AGAINST
USE

ATTACKS
RUBBER
PARTS --
MAY CAUSE
BRAKE
FAILURE

USE ONLY
HUDSON
FLUIDS



General Technical Policies

AND Information

Bulletin

1947 Series

Number

7

Date

4-18-47

Subject

ALUMINUM
HEAD
SERVICE
PROCEDURE

COAT STUDS
WITH
SPECIAL
LUBRICANT

STEEL
FERRULE
GASKET
MUST BE
USED

USE
WASHERS
UNDER
STUD NUTS

HEAD
TIGHTENING
IMPORTANT

CORRECT
SPARK
PLUGS MUST
BE USED

TO ALL DEALERS:

In the installation and servicing of the part number - 163603 - Aluminum Cylinder Head, which is now being used in production on a percentage of the series 173 and 174 eight cylinder cars, the practices and precautions outlined herein must be followed if trouble is to be avoided in the field.

When making installation of the aluminum cylinder head, all cylinder head studs must be completely covered for their full length, including the threads, with a heavy lubricant (part number 166549 - corrosion resistant oil). This is made by the Standard Oil Company of Ohio and is designated as their "Sohicyl 300". This must always be done before installation to prevent cylinder head seizure on the studs.

Use only the part number - 166625 - cylinder head gasket with the aluminum head. This gasket has cadmium plated steel ferrules surrounding the water transfer holes in place of the copper ferrules used in the part number - 166240 - gasket for the cast iron head. The steel ferrule gasket may be used with either the aluminum or cast iron head while the copper ferrule gasket must be used only with the cast iron head.

Place one part number - 71197 - steel washer (3/32" thick) under each cylinder head stud nut to distribute the load evenly on the bosses of the head.

Tighten stud nuts carefully, using a tension wrench and draw up each nut to a load of 45 to 50 foot pounds torque. The 30 cylinder head studs are arranged in 3 rows of 10 each and should be tightened in the following sequence, beginning with number 1 and progressing in numerical order:

Right row, front to rear - 29, 26, 17, 11, 5, 2, 8, 14, 20, 26

Center row, front to rear - 28, 22, 16, 10, 4, 1, 7, 13, 19, 25

Left row, front to rear - 30, 24, 18, 12, 6, 3, 9, 15, 21, 27

Repeat the tightening process within 500 miles after installation and at 5000-mile intervals thereafter.

The Hudson Champion Type H-10 Spark Plug (part number 157055) must be used in conjunction with the aluminum head. The threaded portion of this plug is longer than that of the J-9 plug used with the cast iron head and provides the necessary additional threads to prevent stripping in the softer metal. Use new gaskets when installing spark plugs and tighten to a torque of 25 to 30 foot pounds, using a tension wrench.

- OVER -

Subject

LOOSEN WITH
COMPRESSION

In the removal of aluminum cylinder heads which have a tendency to stick, the use of engine compression pressure will assist in breaking them loose. This is accomplished by backing off each stud nut 2 or 3 turns and cranking the engine by pressing the starter solenoid button with the ignition switch turned off.

USE PROPER
CLEANERS
AND
INHIBITORS

Use Hudson Radiator Rust preventive (part number 165923) in the cooling system at all times, with and without antifreeze. Twice a year, each spring and fall, drain and clean the cooling system, using Hudson Radiator Flush (part number 166548). Avoid the use of alkaline cleaners and inhibitors which have a detrimental effect on the aluminum type cylinder head.

* * * * *

E. J. Blum

Technical Service Manager



General Technical Policies

AND Information

Bulletin

1947 Series

Number

8

Date

6-18-47

Subject

TO ALL DEALERS:

Reports have been received from a few points concerning run-down batteries and damaged wiring caused by short circuiting of the battery to starter cable. This has been encountered on new cars during transit as well as after delivery to owners.

Our investigation discloses that excessive slack in the cable and the attached wiring harness below the cable, supporting it to the fender panel, permitted the wires to contact the frame and/or steering gear housing. The rubbing action between the parts, set up by movement of the engine on its mountings, tends to wear the insulation through and is responsible for the short circuiting which takes place with resultant damage to the wiring.

Needless to say, steps have been taken in production to correct this situation but because of its importance, we are calling it to the field's attention with the request that this detail be checked on new cars in Distributor's and Dealer's stocks as well as cars recently delivered to owners.

Where evidence of interference is found, examine the wires carefully and reinforce any weak spots in the insulation by taping. Where inspection shows that the wires have been damaged considerably, replacement, of course, should be made. The clip holding the battery cable to the fender apron should be loosened and the cable pulled upward so that practically all of the slack is at the top or battery end. When doing this, allow enough play to compensate for the movement of the engine without placing a strain on the wires or permitting them to rub against any metal surfaces.

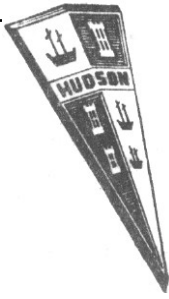
If it is found that the clip does not hold the cable securely after it has been tightened, place a few wraps of friction tape around the insulation at the point where the cable is attached.

* * * * *

E. J. Blum

TECHNICAL SERVICE MANAGER

SHORTED
BATTERY
CABLESEXCESSIVE
SLACK
RESPONSIBLECHECK STOCK
AND OWNER'S
CARSEXAMINE
WIRES AND
RE-LOCATE IN
CLIPBUILD UP
CABLE



General Technical Policies AND Information Bulletin

1947 Series

1947 Series

TO DEALERS:

From information reaching us, it is evident that some important details which should be checked during car inspections and when brake work is done are not receiving proper attention in the field. We are referring particularly to failure to check adjustment of the brake mechanical follow-up mechanism and the condition of the linkage and hydraulic lines and hose connections.

The mechanical reserve brake is a safety feature exclusive with Hudson and unless proper adjustment is maintained, it cannot perform the function for which it is designed. Further, if the mechanical follow-up linkage is badly out of adjustment, normal foot brake operation may be interfered with, requiring undue pedal pressure when stopping the car.

The follow-up mechanism must be adjusted so there is a distance of 1-7/16 inches between the rear face of the hexagon shoulder on the push rod adjustable end and the front face of the push rod proper. With this adjustment, the range of foot pedal travel, under conditions of normal lining wear and brake shoe adjustment, is sufficient to permit hydraulic brake application without bringing the mechanical follow-up into play and, at the same time, allows enough reserve pedal travel for mechanical application in case of difficulty with the hydraulic system.

Dirt and road splash deposits accumulating in the push rod tend to restrict telescopic movement between the parts resulting in partial application through the cables when the brakes are hydraulically applied and hard pedal action. Remove rust and dirt when checking adjustment and lubricate sliding surfaces with water pump grease or other water resisting lubricant.

Efficient and safe brake operation can be assured only by frequent and careful inspection of all parts of the braking system. This includes not only a check of the linkage and other parts associated with the mechanical system for freedom of operation, proper lubrication and cotter pinning; but also the brake lines, connections and hoses - - those vital parts of the hydraulic system which are so often neglected during inspection and brake work.

The various tubes comprising the hydraulic lines should be looked over for signs of fluid leaks, flattened and damaged areas and loose connections. The hoses connecting the front and rear lines with the front wheel cylinders and the rear axle tee, respectively, should be given special attention to be sure they have not been damaged by contacting parts of the chassis and body. In the case

(OVER)

Number

9

Date

6/27/47

Subject

**BRAKE
INSPECTION
AND
ADJUSTMENT****MECHANICAL
RESERVE
BRAKE SAFETY
FEATURE****FOLLOW-UP
ADJUSTMENT
IMPORTANT****CLEAN AND
LUBRICATE
PUSH ROD****MAKE
COMPLETE
INSPECTION****EXAMINE
FRONT HOSES
AND INTER-
FERENCE AND
POSSIBLE
DAMAGE**

of the front brake hoses, look for wear or damage due to interference with the wheel rims, brake drums or steering arm nut cotter pins when the wheels are -turned hard over. If the clearance between the hoses and these parts is not great enough, additional space can generally be had by loosening the nut securing the hose to the frame bracket and twisting the hose slightly before tightening the nut.

The rear brake line to rear axle hose should be checked for wear and damage due to the possibility of interference with the rear axle frame cross member, rear stabilizer or body under panel, especially on cars on which excessive rear spring bottoming has been experienced. As in the case of the front hoses, interference can be minimized or corrected by loosening the hose connections and turning the hose so greater clearance can be had. Needless to say, any hoses that show evidence of damage which might impair their strength or safety should be replaced at once.

From the standpoint of safety, the importance of these inspections cannot be over-stressed and if you have not already done so, we urge you to instruct your men to check these details whenever a car is on the hoist for repair work or lubrication attention. Inspection of most of the points covered herein can be made visually and the time required to do this is so small -that we cannot afford to over-look them.

E. J. Blum

Technical Service Manager

(THIS BULLETIN AS WRITTEN IS BRING MAILED TO SERVICE STATION AGREEMENT
HOLDERS AS BULLETIN NO. 58.)



General Technical Policies

AND Information

Bulletin

1947 SERIES

Number

10

Date

7-1-47

Subject

TO ALL DEALERS:

A new manual dealing with' special tools designed for servicing Hudson cars has been printed and copies are now being distributed to the field in a general mailing.

All of the tools coming within the special tool category, currently supplied by our tool source, are included in the approximately 120 items listed, together with a number of other items of the universal type which are also available. In keeping with past practice, the tools are described and illustrated in action and the car models to which they are applicable are shown.

In the new manual, prices are omitted from the descriptive information and instead a separate price list is inserted which can also be used as an inventory and check sheet. Both alphabetical and numerical indexes are provided to facilitate tool reference as well as a repair parts list showing the part numbers and component parts available for repairing certain special tools and equipment items.

The Items included in the Distributor and various new Dealer essential tool groups covered by the tool order placed at the time the contract is signed, represent only basic requirements and are intended to serve as a nucleus for the special tool complement needed to do an adequate service job. Special tool facilities should, therefore, be checked from time to time and orders for additional items placed as they are required. In the back of the new tool manual, order blanks are inserted to facilitate ordering these tools.

Additional copies of this tool manual ,will be furnished, without charge, upon request.

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E. J. Blum

Technical Service Manager

(THIS BULLETIN IN REVISED FORM IS BEING MAILED TO SERVICE STATION AGREEMENT HOLDERS AS BULLETIN NO. 59.)

NEW TOOL
MANUAL

ALL SPECIAL
AND SOME
UNIVERSAL
TOOLS SHOWN

REPAIR PARTS
LIST AND
SEPARATE
PRICE LIST
INCLUDED

PLACE ORDERS
FOR
ADDITIONAL
TOOLS



General Technical Policies

AND Information

Bulletin

1947 SERIES

Number

11

Date

9-8-47

Subject

TO ALL DEALERS:

The new Flat Rate Manual, covering service operations on Hudson cars, is off the press and copies are being distributed to the field in a mailing now taking place.

The new manual follows the style adopted by us some time ago and is a bound book, 8-1/2" x 11" in size, in which are listed practically all of the important operations required in servicing the Hudson models produced during the years 1938 to 1947 inclusive. Due to re-arrangement and printing changes, it has been possible to reduce the thickness of this manual by 25 pages, without sacrificing legibility, completeness or ease of reference, despite the fact that approximately 75 additional operations have been added.

The time for many operations has been adjusted upward in keeping with our own experience, re-studies and recommendations from the field. The flat rate time allowances, as shown in the manual apply on certificates covering replacement transactions effective upon receipt of the new book.

In the distribution of the new manual, one copy is being mailed to each Master Dealer and Service Station Agreement Holder of record. Additional manuals are available from the factory, however, the current high printing costs make it necessary for us to place a charge of fifty cents each for extra copies. Orders for additional books should be placed with the Factory Parts Department on the regular parts order form.

E. J. Blum

Technical Service Manager

(THIS BULLETIN AS WRITTEN IS BEING MAILED TO SERVICE STATION
AGREEMENT HOLDERS AS BULLETIN NO. 70.)

NEW FLAT
MANUAL RATE

COVERS
1936-1947
MODELS -
MORE OPERA-
TIONS AND
GREATER
COMPACTNESS

REVISED TIMES
BASIS OF
CERTIFICATE
ADJUSTMENTS

EXTRA COPIES
AVAILABLE



General Technical Policies

AND Information

Bulletin

1947 SERIES

1947 SERIES

Number

12

Date

10-14-47

Subject

TO ALL DEALERS:

Volume No. 2, the 1947-1948 edition of the A.A.A.M. Service Equipment and Tool Manual, has been received by us and copies are being sent to all Distributors, Dealers and Service Station Agreement Holders in a mailing now in progress.

This publication is issued by the A.A.A.M. Research Institute of St. Louis, Missouri, and contains 312 pages cataloging and describing service station equipment and tools manufactured by sixty-two representative firms whose products are merchandised through jobbers. Having complete information and specifications of the most modern and up to date equipment between two covers, this manual is especially valuable for reference purposes and when recommending or ordering equipment and general purpose tools. The book is divided into two sections, one covering equipment and the other tools and separate indexes show product items and manufacturers' names.

In mailing this manual to the field, we are not in any way changing the existing set-up with our source for special tools designed for servicing Hudson cars. As heretofore, items coming within the category of special tools should be secured from the Kent-Moore Organization, Inc., General Motors Building, Detroit 2, Michigan. Complete information regarding these tools will be found in the Hudson Special Tool Manual sent you some time ago.

Along with the A.A.A.M. publication, we are sending a copy of the latest manual issued by the Sun Electric Corporation, Chicago, Illinois, covering electrical and engine testing equipment.

E. J. Blum

Technical Service Manager

(THIS BULLETIN AS WRITTEN IS BEING MAILED TO SERVICE STATION AGREEMENT HOLDERS AS BULLETIN NO. 79.)

NEW
EQUIPMENT
MANUAL

CONTAINS
COMPLETE
EQUIPMENT
IDENTIFICATION

ORDER
SPECIAL TOOLS
FROM
KENT-MOORE
ORGANIZATION

SEPARATE
SUN MANUAL
INCLUDED



General Technical Policies

AND Information

Bulletin

1947 SERIES

Number

14

Date

10-14-47

Subject

TO ALL DEALERS:

Printing of a new Mechanical Procedure or Service Manual has been completed and we are now engaged in distributing copies of this publication to the field.

Since the adoption of the 8-1/211 x 11" paper bound book by us some years ago, we have followed the practice of covering the servicing of each year's models in a separate edition of the Mechanical Procedure Manual. However, due to the fact that no cars were built during the war years 1943, 1944 and 1945 and since the important features of design affecting the servicing of the 1946 and 1947 Models remain basically the same as for the earlier cars, it was decided to publish a combined issue covering the cars produced from 1942 through 1947 inclusive.

In order to further enhance the scope and usefulness of the new manual, we have gone beyond the 1942 Models in providing separate sections covering the servicing of the Front Suspension of the 1937-1939 Models and the Transmission of the 1937 through 1940 Models. These are the important units in which the design features and servicing procedures differ materially from those applying to the 1942 and later cars.

In the current mailing one copy is being sent, without charge, to each Master Dealer and Service Station Agreement Holder of record. Additional copies of the Mechanical Procedure Manual are available at \$1.50 per copy and should be ordered from the Factory Parts Department on the regular parts order form. The manual is also available at this price to owners, fleet operators and others who request it.

E. J. BLUM

Technical Service Manager

(THIS BULLETIN AS WRITTEN IS BEING SENT TO SERVICE STATION AGREEMENT
HOLDERS AS BULLETIN NO. 80.)

NEW
MECHANICAL
PROCEDURE
MANUAL

COVERS
SERVICING OF
1942 THRU
1947 MODELS

EARLIER
MODEL
TRANSMIS-
SION AND
SUSPENSION
INCLUDED

INITIAL BOOK
GRATIS -
EXTRA COPIES
AVAILABLE