

NEW ESSENTIAL and other SPECIAL SERVICE TOOLS

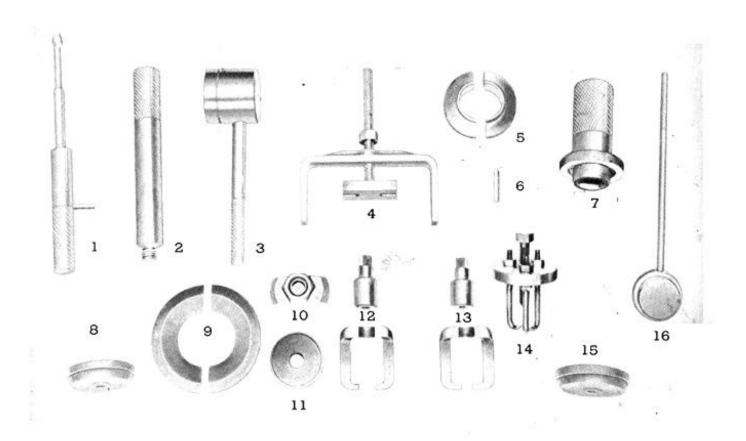
# HUDSON :



480 SERIES

## HUDSON

#### ESSENTIAL SERVICE TOOL GROUP 480 SERIES



#### THE HUDSON ESSENTIAL TOOL GROUP CONSISTS OF

1.	J 2794	Oil Pump and Distributor Timing Gauge	9. J 2640	Pinion Rear Bearing Cone Re-
			4.1	mover
2.	J 872-5	Driver Handle	10. J 2645	Pinion Rear Bearing Cup Remover
	J 2779	Main Bearing Packing Compressor	11. J 2944	Pinion Rear Bearing Cup Replacer
4.	J 2955	Main Bearing Cap Remover	12. J 2781	Tie Rod End Remover
5.	J 739-10	Steering Wheel Puller Adapter	13. J 2795	Pedal Rod Remover
6.	KMO 734	Main Bearing Insert Remover	14. J 2647	Pinion Oil Seal Remover
7.	J 2639	Pinion Front Bearing Cone and	15. J 2644	Pinion Front Bearing Cup Remover
		Pinion Oil Seal Replacer	16. J 2793	Water Jacket Plug Installer
8.	J 2943	Pinion Front Bearing Cup Replacer		

NOTE: REFER TO CONVENIENT ORDER FORM NO. 48-157 FOR ESSENTIAL TOOL GROUP SPECIAL PRICE SEE TOOL MANUAL INSERTS NO. 17 THROUGH 46 FOR OTHER SPECIAL SERVICE TOOLS

NO. H-1 ENGINE

**AUGUST 1, 1948** 

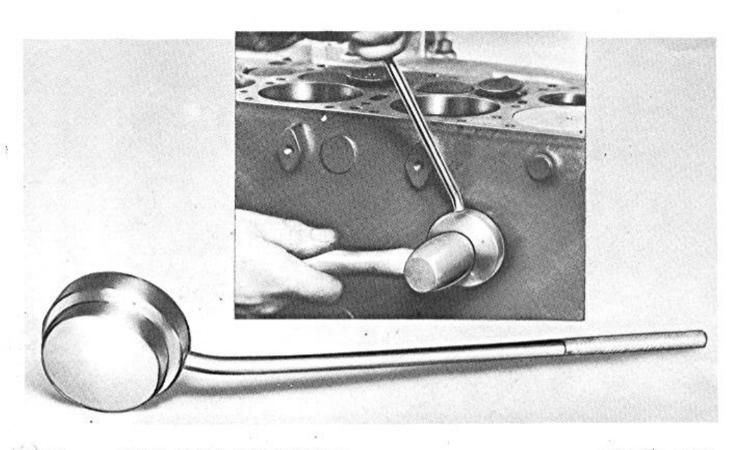
DATE

TOOL MANUAL INSERT SECTION

lew essential service tool

HUDSON





WATER JACKET PLUG INSTALLER **Tool Name:** 

Tool No: J 2793

Model Applications:

480 SERIES - 6 CYLINDER ENGINE

#### Description:

J 2793 Water Jacket Plug Installer permits quick installation of cylinder water jacket plugs. The plug is started lightly into place and then driven into the block with the installer until the

installer shoulder contacts the block. A long handle is provided for safely holding the tool in the proper position while striking.

FOR

TOOL MANUAL INSERT

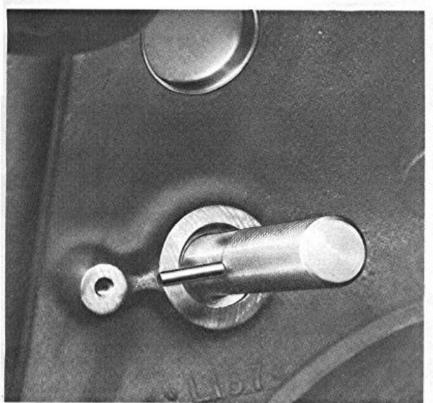
NO. H-2

SECTION

ENGINE

**AUGUST 1, 1948** DATE

## HUDSON





Tool Name: OIL PUMP AND DISTRIBUTOR TIMING GAUGE

Tool No: J 2794

Model Applications: 480 SERIES - 6 CYLINDER ENGINE

#### Description:

This tool is designed to align the oil pump gear for proper engagement with the camshaft. The tool eliminates guess-work and is a real time-saver. With the No. 1 piston at top center, put the gauge through the distributor mounting

hole as far as it will go. Line up the indicating pin with the distributor mounting screw hole and engage the oil pump with the opposite end of the gauge. Install the oil pump in that position. Remove the gauge and install the distributor.

NO. H-3

TCOL MANUAL INSERT

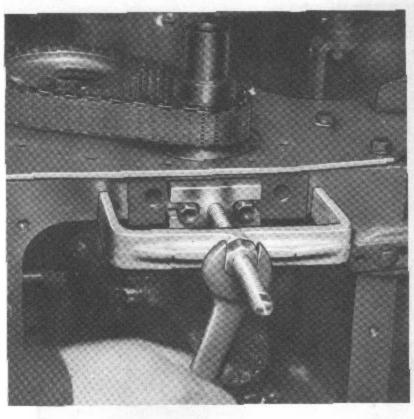
ENGINE

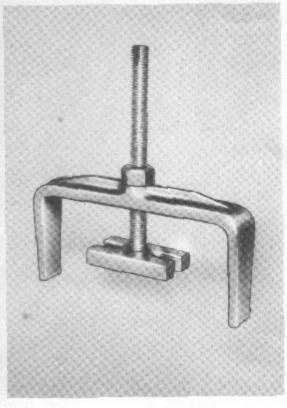
AUGUST 1, 1948 DATE

SECTION

## HUDSON







Tool Name: MAIN BEARING CAP REMOVER

Tool No: J 2955

Model Applications: 480 SERIES

#### Description:

The J 2955 Remover provides for quick removal of the main bearing cap from its position in the cylinder block. The tool permits this operation with the engine in or out of the car.

The slotted head of the tool is attached to the bearing cap by means of cap screws. Pressure exerted by tightening the hex nut against the yoke of the remover which straddles the bearing cap pulls the cap without damage.

FOR

TOOL MANUAL INSERT

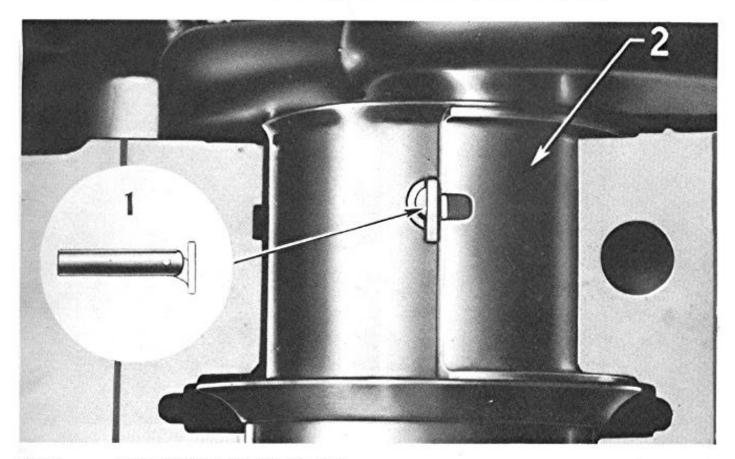
NO. H-4

SECTION

ENGINE

## HUDSON

DATE AUGUST 1, 1948



Tool Name:

MAIN BEARING INSERT REMOVER

Tool No: KMO 734

Model Applications:

480 SERIES - 6 CYLINDER ENGINE

#### Description:

Removing and installing the upper half of the main bearing (2) can be done easily and quickly with this small but extremely useful tool (1). The shank of the tool fits in the crankshaft oil hole and the swivel head automatically aligns itself

flat against the edge of the bearing shell. The crankshaft is then revolved and the bearing shell is pushed in or out of position. This tool eliminates the possibility of plugging the oil hole in the crankshaft as is common with improvised methods.

NO. H-5 ENGINE

**AUGUST 1, 1948** 

TOOL MANUAL INSERT

SECTION

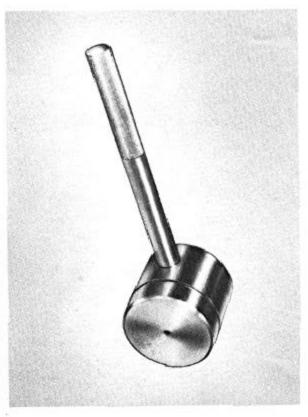
DATE

New essential service food

HUDSON







Tool No: J 2779

MAIN BEARING PACKING COMPRESSOR Tool Name:

Model Applications: 480 SERIES - 6 CYLINDER ENGINE

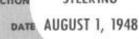
#### Description:

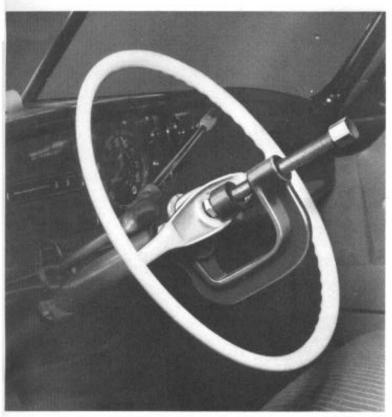
I 2779 Main Bearing Packing Compressor is of the correct diameter for forming the packing to crankshaft size. After the new packing is installed in the grooves at the rear edge of the crankcase and bearing cap, it is compressed by

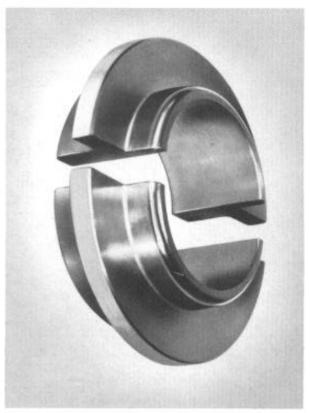
tapping the handle of the compressor until the larger diameter of compressor contacts the metal surface of cylinder block or cap. The extra length of the packing is cut off flush with the milled surface of the case or cap as outlined in the Hudson Mechanical Procedure Manual.

STEERING

### HUDSON







Tool Name: STEERING WHEEL PULLER ADAPTER

Tool No: J 739-10

Model Applications: 480 SERIES

#### Description:

The J 739-10 Steering Wheel Puller Adapter is designed to be used with J 739 Steering Wheel Puller, to remove the wheel without damaging the steering gear column tube bearings. To use the tool, remove the horn button ornament and horn ring. Place the adapter around the Jacket tube with the small diameter under the steering wheel hub and position the puller foot around the outside of the adapter. With the steering wheel nut partially threaded on the column tube, run the puller screw down tight against the nut to release the steering wheel.

Dealers having the J 739-B Steering Wheel Puller can rework the puller body to allow its

use with the J 739-10 Adapter, for the 480 Series and all previous models. Reworking instructions are contained in the Hudson Mechanical Procedure Manual, Steering Gear Section.

Dealers not having J 739-B Steering Wheel Puller should order it in addition to J 739-10 Adapter.

All J 739-B Pullers shipped after August 1, 1948 will be machined to receive the J 739-10 Adapter.

The complete Puller and Adapter will hence forth be listed as J 739-C Steering Wheel Puller.

KENT - MOORE ORGANIZATION INC.

NO. H-7 STEERING

AUGUST 1, 1948 DATE

TOOL MANUAL INSERT

TOOL MANUAL INS

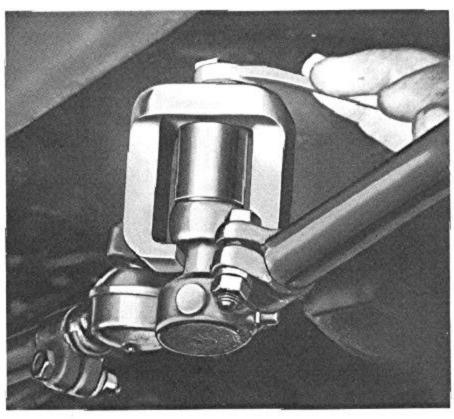
SECTION

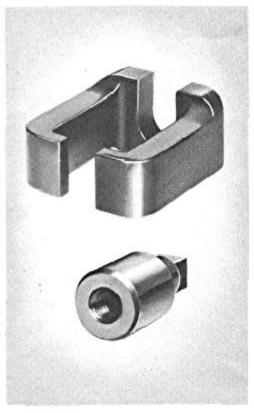
OUT ESSENTIAL SERVI

OR

## HUDSON







Tool Name:

TIE ROD END REMOVER

Tool No: J 2781

Model Applications: 480 SERIES

#### Description:

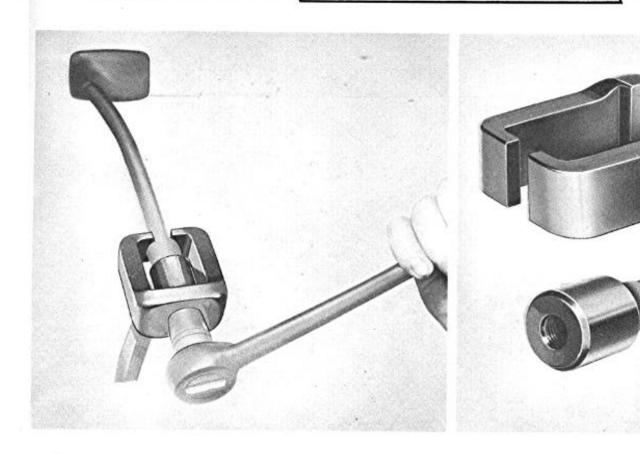
J 2781 provides positive and fast removal of tie rod ends without damage. If the center tie rods are to be removed, the center support bracket must be dropped. Remove the rubber cover and the nut, then screw the adapter onto the threads. Lock the adapter and steering arm together with the puller body. Back off the adapter which will then remove the tie rod end.

NO. H-8

BRAKES SECTION

DATE AUGUST 1, 1948

## HUDSON



Tool Name:

PEDAL ROD REMOVER

Tool No: J 2795

Model Applications: 480 SERIES

#### Description:

This tool permits safe and easy removal of the clutch or brake pedal rod. The tool is compact and prevents damage to the threads of the pedal rod. To use, remove the nut and screw

the adapter onto the threads. Lock the adapter and pedal arm together with the puller body. Back off the adapter which will then remove the pedal rod.

NO. H-9 TOOL MAI REAR AXLE SECTION AUGUST 1, 1948 DATE

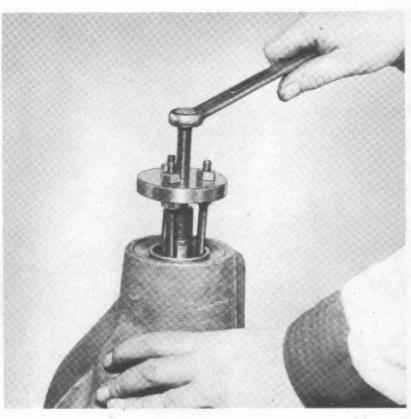
TOOL MANUAL INSERT

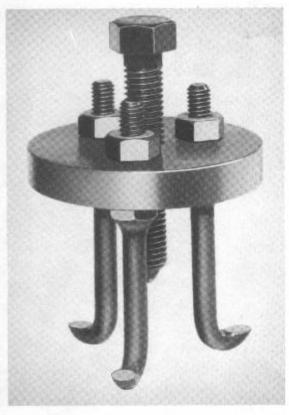
lew es

# ew essential service tool

## HUDSON







Tool Name: PINION OIL SEAL REMOVER

Tool No: J 2647

Model Applications: 480 SERIES

#### Description:

This tool provides a positive grip under the oil seal and prevents damage to the differential housing during the removal operation. The fingers are removed from the body of the tool and hooked under the oil seal through the spline grooves of pinion shaft.

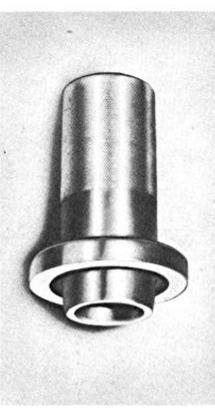
The body is then replaced, holding the fingers in pulling position. Pressure applied by turning the center drive screw will remove the pinion oil seal. This operation can be performed with the unit in the car.

REAR AXLE

DATE AUGUST 1, 194

## **HUDSON**







Tool Name: PINION FRONT BEARING CONE AND PINION OIL SEAL REPLACER Tool No: J 2639

Model Applications: 480 SERIES

#### Description:

This dual purpose tool provides an easy and positive means of installing either the front pinion bearing cone or the pinion oil seal. When driving the bearing cone into place, the tool is piloted on the pinion shaft and the end of the pilot contacts the inner race of the bearing cone.

To install the pinion oil seal, pilot the tool on the pinion shaft with the tool flange contacting the outer rim of the seal and tap the tool lightly to install the seal. The small diameter of the pilot prevents damage to the bearing cage and the taper on the pilot goes through the seal to center the seal in the housing.

NO. H-11 REAR AXLE

AUGUST 1, 1948

TOOL MANUAL INSERT

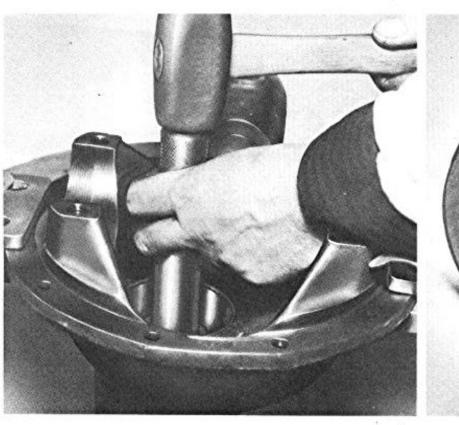
SECTION

Lew essential service tool

FOR

## **HUDSON**







Tool Name: PINION FRONT BEARING CUP REMOVER Tool No: J 2644

Model Applications: 480 SERIES

#### Description:

J 2644 is used in combination with the J 872-5 Driver Handle to provide an easy means of removing the pinion front bearing cup without damaging the cup or housing.

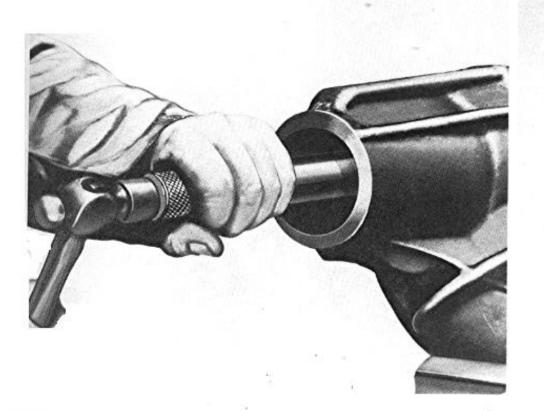
This Remover threads onto the Driver Handle J 872-5 and is seated behind the bearing cup from the inside. With the tool in this position the bear. ing cup can be easily removed as illustrated.

NO. H-12

SECTION REAR AXLE

DATE AUGUST 1, 1948

## **HUDSON**





Tool Name: PINION REAR BEARING CUP REMOVER

Tool No: J 2645

Model Applications: 480 SERIES

#### Description:

J 2645 is used in combination with the J 872-5 Driver Handle to provide a quick means of removing the pinion rear bearing cup without damage to bearing cup or housing. With the driver

handle removed, pass the tool through the front bearing cup and position it against the rear bearing cup. Screw Handle J 872-5 into place through the front of the carrier and drive the rear bearing cup from its position.

KENT - MOORE ORGANIZATION INC.

NO. H-13 REAR AXLE

AUGUST 1, 1948 DATE

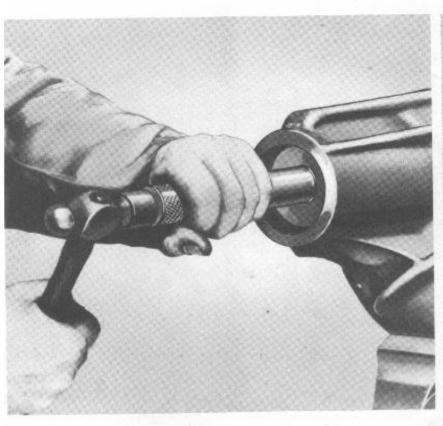
TOOL MANUAL INSERT

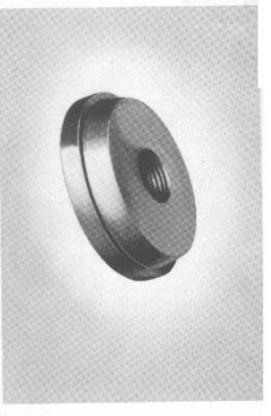
SECTION

ew essential service tool

## HUDSON







PINION FRONT BEARING CUP REPLACER Tool Name:

Tool No: J 2943

Model Applications: 480 SERIES

#### Description:

J 2943 is used in combination with the J 872-5 Driver Handle to provide an easy means of installing the drive pinion front bearing cup without damage.

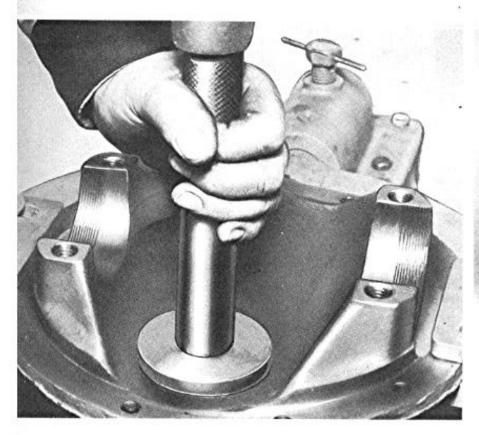
The bearing cup is positioned and correctly seated in place by the pilot and taper on driver end of the tool.

NO. H-14

SECTION REAR AXLE

DATE AUGUST 1, 1948

## HUDSON





Tool Name:

PINION REAR BEARING CUP REPLACER

Tool No: J 2944

Model Applications: 480 SERIES

#### Description:

J 2944 is used in combination with the J 872-5 Driver Handle to provide proper installation of the drive pinion rear bearing cup without damage.

The bearing cup is positioned and correctly seated in the housing by the special pilot and taper on the driver end of the tool.

NO. H-15 REAR AXLE

AUGUST 1, 1948 DATE

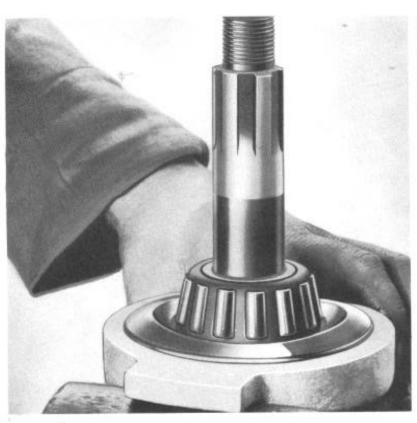
TOOL MANUAL INSERT

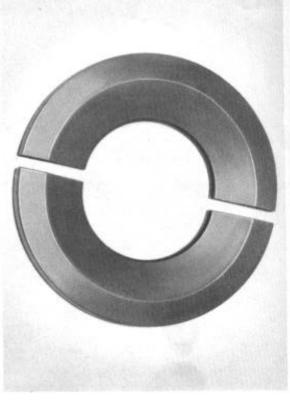
SECTION

Mew essential service tool

## **HUDSON**







PINION REAR BEARING CONE REMOVER Tool Name:

Tool No: J 2640

Model Applications: 480 SERIES

#### Description:

I 2640 is used with J 358-1 Plate Holder, to facilitate removal of the pinion bearing without damage to the bearing cage or pinion. The two halves of the plate are assembled behind the bearing with the flat side against the bearing cone.

Supported by J 358-1 on an arbor press bed or in a vise, the shaft is pressed or driven out of the bearing. The shaft threads should be protected with the shaft nut during this operation.

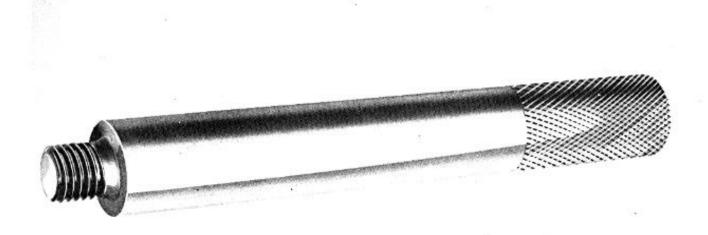
NO. H-16

SECTION

REAR AXLE

DATE AUGUST 1, 1948

## HUDSON



Tool Name:

DRIVER HANDLE

Tool No: J 872-5

#### Description:

Illustrated above is the special driver handle which threads into the remover and replacer heads listed to the right.

The handle is hardened by heat treating to prevent chipping.

#### REMOVER AND REPLACER HEADS:

J 2644 Pinion Front Bearing Cup Remover

J 2645 Pinion Rear Bearing Cup Remover

J 2776 Timing Cover Oil Seal Remover

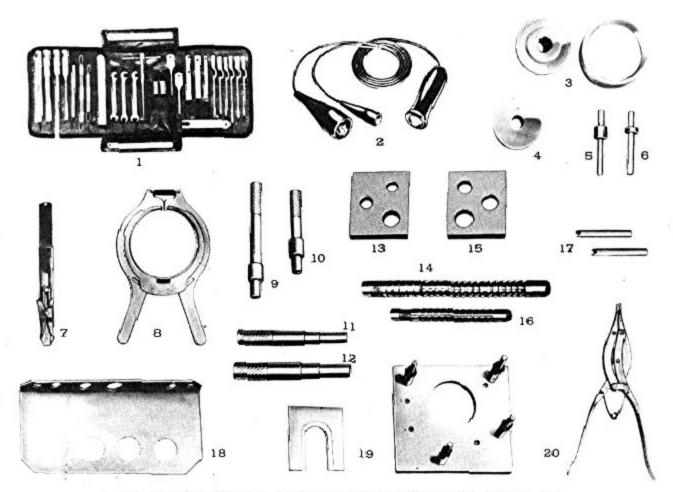
J 2943 Pinion Front Bearing Cup Replacer

J 2944 Pinion Rear Bearing Cup Replacer

KENT - MOORE ORGANIZATION INC.

**DETROIT 2, MICHIGAN** 

# OTHER HUDSON SPECIAL SERVICE TOOLS



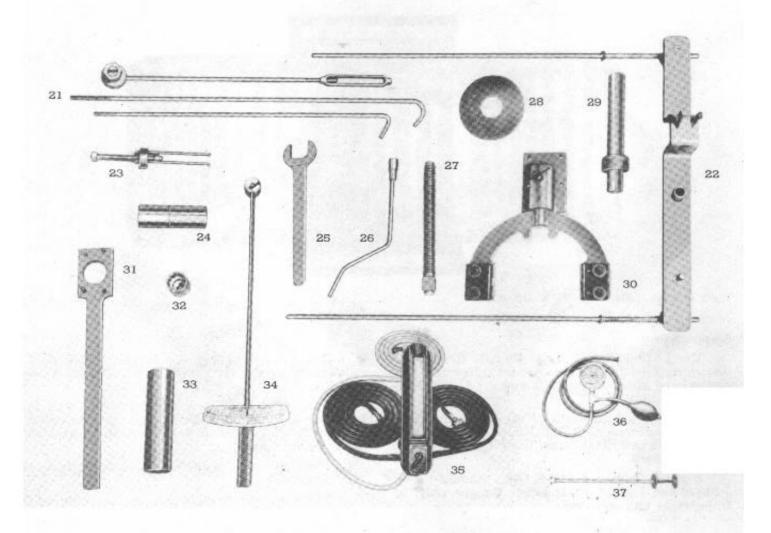
THE HUDSON SPECIAL SERVICE TOOLS ILLUSTRATED ABOVE ARE

	J 819-F J 2679	Engine Tune-Up Kit Remote Control Starter Switch	12. J 2948	Piston Pin Bushing Rem. and Replacer (8 cyl.)
3.	J 2776	Timing Gear Cover Oil Seal Rem. and Installer Set	13. J 2950	Piston Pin Bushing Burnisher Block (6 cyl.)
	J 883-7 J 883-8	Valve Guide Installer Pilot Block Valve Guide Installer Pilot- Intake	14. J 2791	Piston Pin Bushing Broach and Burnisher (6 cyl.)
6.	1 883-9	Valve Guide Installer Pilot- Exhaust	15. 1 2951	Piston Pin Bushing Burnisher Block (8 cyl.)
		Valve Spring Lock Installer Piston Ring Rem. and Inst. (6 cyl.) Piston Ring Rem. and Inst. (8 cyl.)	16. J 2949 17. J 2969	Piston Pin Bushing Burnisher (8) Cylinder Head and Transmission
10.	J 2789 J 742 J 2790	Piston Pin Rem. and Inst. (6 cyl.) Piston Pin Rem. and Inst. (8 cyl.) Piston Pin Bushing Rem. and Replacer (6 cyl.)	18. J 2782 19. J 2778 20. KMO 630	Installing Pins Engine Lift Bracket Water Pump Holding Fixture Snap Ring Pliers

SEE NEXT PAGE FOR ADDITIONAL HUDSON SPECIAL SERVICE TOOLS

NOTE: REFER TO CONVENIENT ORDER FORM 48-157 FOR OTHER SPECIAL SERVICE TOOL PRICES

# OTHER HUDSON SPECIAL SERVICE TOOLS



THE HUDSON SPECIAL SERVICE TOOLS ILLUSTRATED ABOVE ARE

2	1. J 2956	Clutch Over Center Spring Rem. and Installer	30. J 945	Differential Carrier Holding and Assy. Fixture
2	2. J 2953	Steering Arm Centering and Toe-	31. J 2637	Companion Flange Holding Tool
	100000	In Gauge	32. J 2971	Rear Axle Companion Flange Nut
2	3. J 2792	Jacket Tube Bearing Puller		Socket Wrench
2	4. J 2952	Jacket Tube Bearing Replacer	33. J 2643	Pinion Rear Bearing Cone Repl.
2	5. KMO 738	Pitman Arm Nut Wrench	34. J 1264	Tension Wrench
2	6. KMO 526	Brake Spring Rem. and Inst.	35. J 5091	Gas-Per-Mile Gauge
2	7. J 736-2	Rear Wheel Hub Rem. Screw	36. KMO 598	Cooling System Leak Detector
2	8. J 2641	Axle Shaft Bearing Cone Rem.	37. KMO 65-8	Small Screw and Bolt Holder
2	9. J 2646	Differential Bearing Cone Repl.		

NOTE: REFER TO CONVENIENT ORDER FORM 48-157 FOR OTHER SPECIAL SERVICE TOOL PRICES

NO. H-17

TOOL MANUAL INSERT

NGINE TUNE-UP

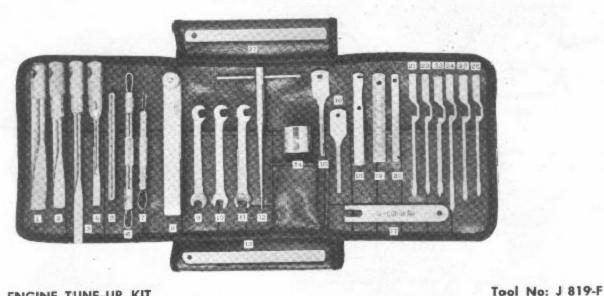
SECTION

UGUST 1, 1948 DATE

rew "

## HUDSON





Tool Name: ENGINE TUNE-UP KIT Model Applications: ALL MODELS

Description:

The J 819-F Engine Tune-Up Kit, illustrated above, applies to all models including the 480 series and supersedes the former J 819-E, Engine Tune-Up Kit.

This new kit consists of all the items contained in the former J 819-E Kit, plus J 818-3 and J 818-4, two new Float Level Gauges required for the 480 series.

Dealers having J 819-E Kits should order J 818-3 and J 818-4 Float Level Gauges only, to bring their kits up to date.

Dealers not having the former J 819-E Kit should order the complete J 819-F Engine Tune-Up Kit.

Each tool has been carefully selected for making accurate carburetor and distributor adjustments, so necessary to maintain proper engine performance.

The tools are packed in a leatherette case for protection.

The above illustration is numerically keyed to the chart for identification purposes.

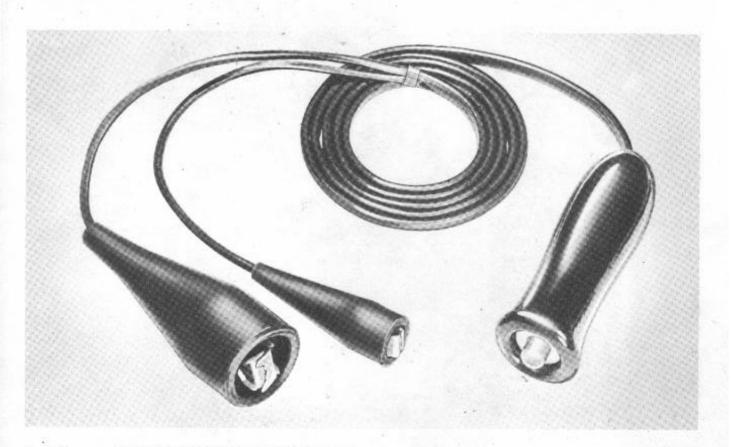
Key	Tool No	Carter Ref. No.	Description	Key	Tool No.	Carter Ref. No.	Description
1	I 816-4	T-109-61	Screwdriver Bit-7/16"	14	1507	T-52-15	Plunger Assy. Sleeve 3/4"
2	1816-6	Special	Screwdriver Bit-11/32"	15	J 818-7	T-109-125	Float Level Gauge - 3/32"
3	T 816-2	T-109-58	Screwdriver Bit-1/4"	16	j 818-5	T-109-36	Float Level Gauge-1/8"
4	1816-1	T-109-59	Screwdriver Bit-3/16"	11507727			
5	T 816-5	T-109-51	Screwdriver Bit Handle	17	J 1062	Special	Anti-Percolator Valve Adj
6	J 882-A.	Special	Spark Plug & Carb, Air Valve Gauge	18	J 787	T-109-22	Gauge Bending Tool
7	J 1856	Special	Dist. Point Feeler Gauge		J 818-2	T-109-81	Float Level Gauge-3/8"
8	J 815-A	Special	Feeler Gauge Set	20	J 1133	T-109-32	Float Level Gauge-15/64
9	кмо 364		Carb. Throttle Idling Adj. Wrench	21 22	j 510 j 1305	T-109-27 T-109-113	Metering Rod Gauge 2.280
10	J 460	Special	Contact Arm & Point Wrench	23 24	J 1305 J 509	T-109-113 T-109-25	Metering Rod Gauge  Metering Rod Gauge
11	J 460	Special	Contact Arm & Point Wrench	25 26	J 1265 J 510	T-109-102 T-109-27	Metering Rod Gauge 2.468 Metering Rod Gauge
12	J 508	T-109-55	Jet Remover with Handle	27	J 818-3	T-109-28	Float Level Gauge-3/16"
13	J 818-4	T-109-39	Float Level Gauge-13/64				

NO. H-18

**ENGINE TUNE-UP** SECTION

DATE AUGUST 1, 1948

## HUDSON



Tool Name: REMOTE CONTROL STARTER SWITCH

Tool No: J 2679

Model Applications: ALL MODELS

#### Description:

This tool was designed as an auxiliary starter switch which enables the mechanic to operate the starter from any working position, thus eliminating the inconvenience of using the starter

switch button. To operate, connect the extension to the starter terminals and depress the extension switch button to turn engine.

NO. H-19 ENGINE AUGUST 1, 1948 TOOL MANUAL INSERT

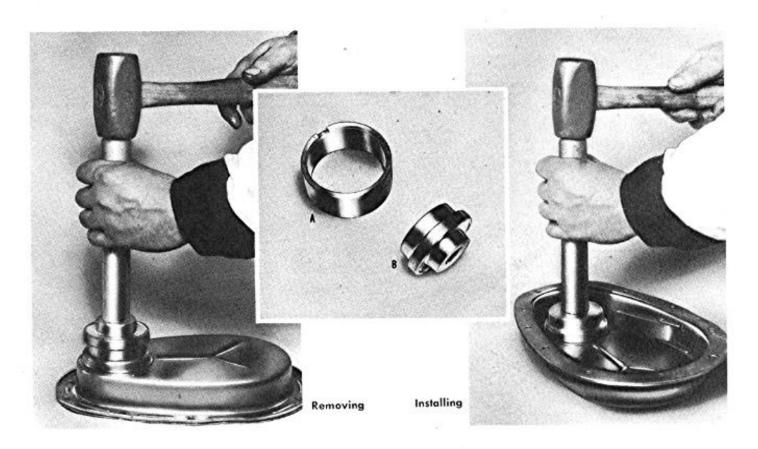
DATE

New Special Service Tool

FOR

## HUDSON





Tool Name: TIMING GEAR COVER OIL SEAL REMOVER AND INSTALLER SET Tool No: J 2776

Model Applications: 480 SERIES

#### Description:

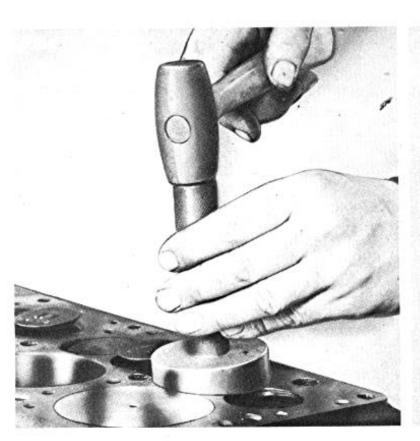
J 2776 Remover and Installer is used in conjunction with J 872-5 Driver Handle as illustrated above.

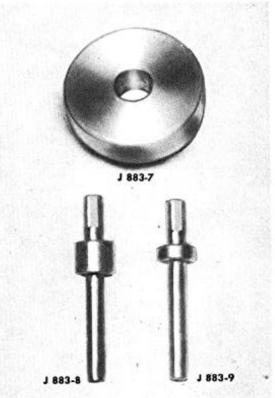
The use of this tool permits removal and installation of the timing cover oil seal without damage to the seal or timing cover. The tool head (B) is reversible on the handle. One side is used for removing, the other for replacing. The side with the tapered pilot is used for installing. When removing the seal, the cover is supported by the collar (A) which is notched to provide clearance for the bead inside the cover.

NO. H-20 ENGINE

SECTION DATE AUGUST 1, 1948

## HUDSON





Tool Name:

VALVE GUIDE INSTALLER PILOT BLOCK VALVE GUIDE INSTALLER PILOT-INTAKE

VALVE GUIDE INSTALLER PILOT-EXHAUST

Model Applications: 480 SERIES - 6 CYLINDER ENGINE

Tool No: J 883-7 J 883-8

J 883-9

#### Description:

The intake and exhaust valve guides are so installed to maintain the correct distance between the top of the valve guide and the top face of the cylinder block. J 883-7 Pilot Block which rests against the top of the cylinder block guides the driver and pilot to assure that valve guides are installed at the proper angle preventing damage to the valve guides. Pilots J 883-8 (Intake Valve) and J 883-9 (Exhaust Valve) are also equipped with stop collars to maintain proper valve guide depth. These 3 tools are especially designed to install valve guides in the 6-cylinder engines of the 480 Series and are adapted to be used with Valve Stem Guide Replacer Set J 883-A.

Dealers not having J 883-A should purchase J 883-B which includes J 883-A plus the above tools.

NO. H-21 TOOL ENGINE SECT AUGUST 1, 1948 DATE

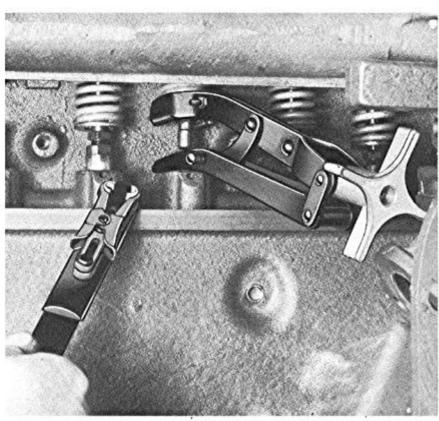
TOOL MANUAL INSERT

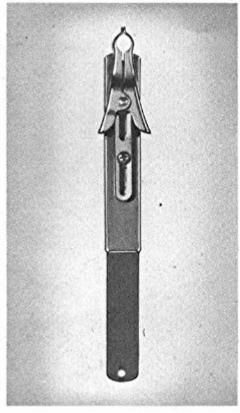
New special service tool

OR

## HUDSON







Tool Name:

VALVE SPRING LOCK INSTALLER

Tool No: J 1953

Model Applications: 480 SERIES

#### Description:

J 1953 Valve Spring Lock Installer is used in conjunction with KMO 484 Valve Spring Lifter as illustrated.

The tool is designed to install split, tapered valve locks in the minimum of time.

The installer is loaded with the tapered valve locks and inserted in position as illustrated.

Valve locks are held securely in place while the valve spring is released. FOR

## HUDSON



Tool Name: PISTON RING REMOVER AND INSTALLER (6 CYL.)

PISTON RING REMOVER AND INSTALLER (8 CYL.)

Tool No: KMO 297-H (3-9/16") KMO 297-L (3")

Model Applications: 480 SERIES

#### Description:

These expanders facilitate removal and installation of piston rings without distortion to rings or damage to pistons. When expanded with this tool, the piston ring is confined to a definite

circular form. Therefore, no permanent distortion or change in the ring structure is possible, if the proper size expander is used.

NO. H-23 ENGINE **AUGUST 1, 1948**  TOOL MANUAL INSERT

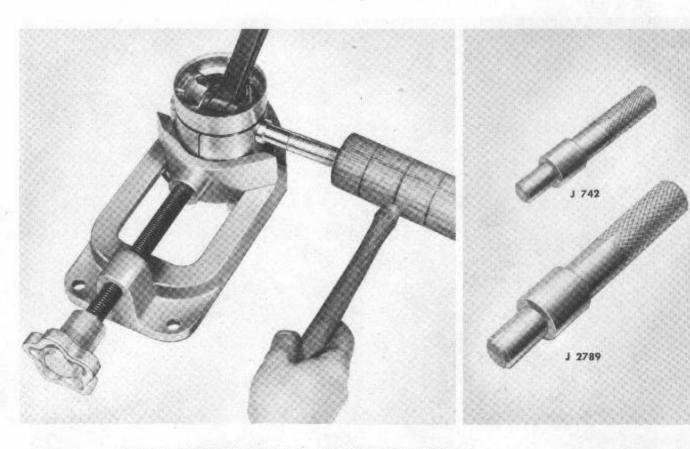
SECTION

DATE

lew special service tool

## HUDSON





Tool Name:

PISTON PIN REMOVER AND INSTALLER (8 CYL.)

PISTON PIN REMOVER AND INSTALLER (6 CYL.)

Tool No: J 742

J 2789

Model Applications: 480 SERIES

#### Description:

Each of these Piston Pin Removers is made with a pilot that fits inside the piston pin and a shoulder that bears against the end of the pin. The use of these tools permits easy removal of piston pins without damage to pistons.

It is suggested that J 1218 Piston Vise be used during removing operations to prevent damage to pistons.

Pistons should always be preheated before removing or replacing the pins.

FOR

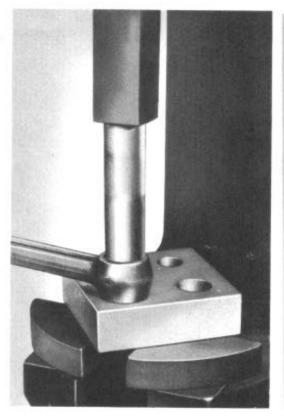
TOOL MANUAL INSERT

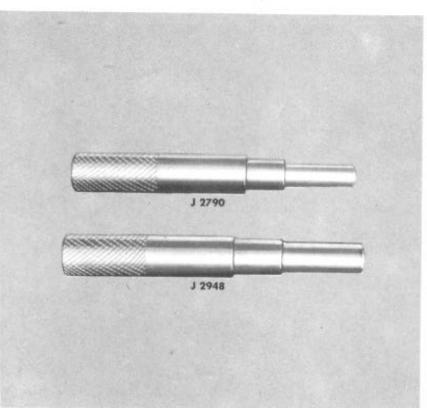
NO. H-24 ENGINE

SECTION

AUGUST 1, 1948

## HUDSON





Tool Name: PISTON PIN BUSHING REMOVER AND REPLACER (6 CYL.)

PISTON PIN BUSHING REMOVER AND REPLACER (8 CYL.)

Model Applications: 480 SERIES

#### Description:

Piston pin bushings are a press fit in the connecting rods and require inside support the full length of the bushings to prevent their being collapsed during removal and replacement operations.

J 2790 Piston Pin Bushing Remover and Replacer is used in conjunction with J 2950 Burnishing Block to remove and replace piston pin bushings in the 6 cylinder engine. J 2948 Remover and Replacer is used with J 2951 Burnishing Block to remove and replace piston pin bushings in the 8 cylinder engine.

The narrow shoulder of each driver is slightly smaller than the outer diameter of the piston pin bushing and bears against the end of the bushing when removing or replacing.

The pilot end of each tool passes through the piston pin bushing into the hole in the Burnishing Block to assure proper alignment of the bushing with the connecting rod when replacing a bushing.

Bushings must be burnished in place and reamed to correct size after being replaced. See Page H-25

Tool No: J 2790

J 2948

NO. H-25 ENGINE

AUGUST 1, 1948

DATE

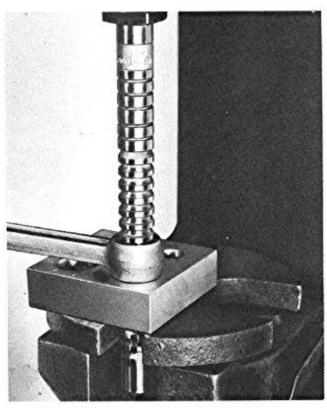
TOOL MANUAL INSERT SECTION

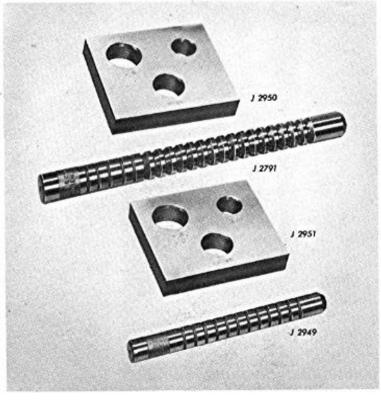
LEW SPECIAL SERVICE TOOL

FOR

HUDSON







PISTON PIN BUSHING BURNISHER BLOCK (6 CYL.)

PISTON PIN BUSHING BROACH AND BURNISHER (6 CYL.)

PISTON PIN BUSHING BURNISHER BLOCK (8 CYL.) PISTON PIN BUSHING BURNISHER (8 CYL.)

Model Applications: 480 SERIES

#### Description:

When installing a new piston pin bushing in the connecting rod, it is necessary to expand the bushing securely in place by burnishing. Bushings are then rough reamed and finish reamed to required size.

For 6 Cylinder Engine- After installing the bushing using J 2790 Piston Pin Bushing Driver and J 2950 Burnishing Block, the bushing is broached to an approximate size and then expanded in position with the combination Broach and Burnisher J 2791 in conjunction with J 2950 Burnishing Block. The tool J 2791 should be thoroughly coated with white lead or heavy oil during this operation.

The bushing is then reamed to required size using J 874-57 Roughing Reamer and J 874-55 Finishing Reamer.

For 8 Cylinder Engine - Install bushing using J 2948 Piston Pin Bushing Driver in conjunction with J 2951 Burnishing Block. The bushing is then expanded in place with the J 2949 Bushing Burnisher and J 2951 Burnishing Block. J 2949 Bushing Burnisher should be thoroughly coated with white lead or heavy oil during this operation. The bushing is then reamed to required size using J 874-58 Roughing Reamer and J 874-16 Finishing Reamer.

Tool No: J 2950

J 2791

J 2951

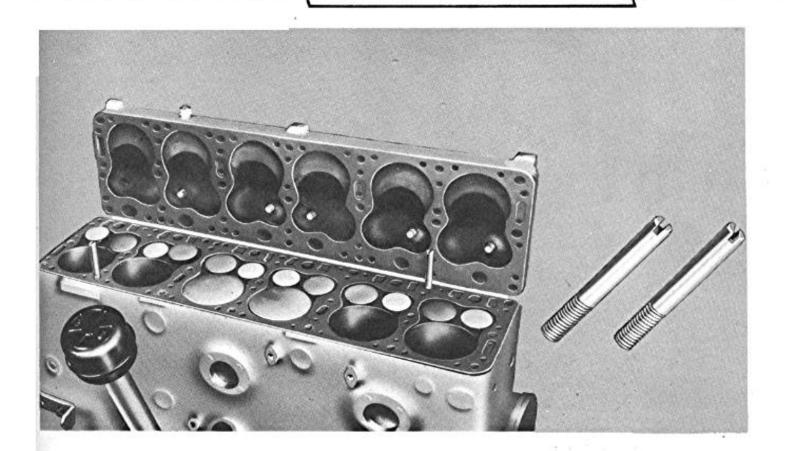
J 2949

NO. H-26 ENGINE

SECTION ENG

DATE AUGUST 1, 1948

## HUDSON



Tool Name: CYLINDER HEAD AND TRANSMISSION INSTALLING PINS

(HEAD AND TO ANGMICCION)

Model Applications: 480 SERIES - 6 CYLINDER (HEAD AND TRANSMISSION)
8 CYLINDER (TRANSMISSION ONLY)

#### Description:

These special pins are used as a guide when installing the cylinder head, and decrease the possibility of damaging the cylinder head gasket.

The pins are installed at each end of the cylinder block on opposite sides as illustrated. These pins are also used as a rest and guide while the transmission is being installed to the engine.

Slots in the end of the pins facilitate removal after the cylinder head or transmission is bolted in place.

Tool No: J 2969

NO. H-27 ENGINE

AUGUST 1, 1948

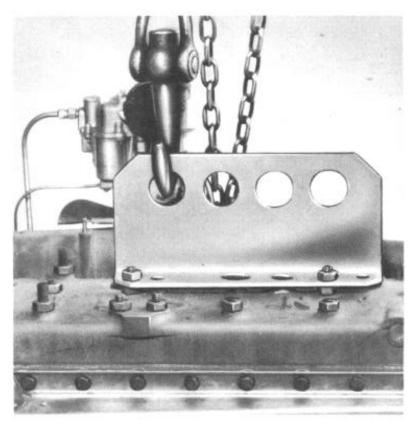
TOOL MANUAL INSERT

SECTION

ew special service tool

**HUDSON** 







Tool Name:

ENGINE LIFT BRACKET

Tool No: J 2782

Model Applications: 480 SERIES

#### Description:

Four lifting positions are provided by J 2782 Engine Lift Bracket so that the hoist hook may be engaged at the center of gravity. The bracket is attached to the engine by means of the cylinder head studs or cap screws.

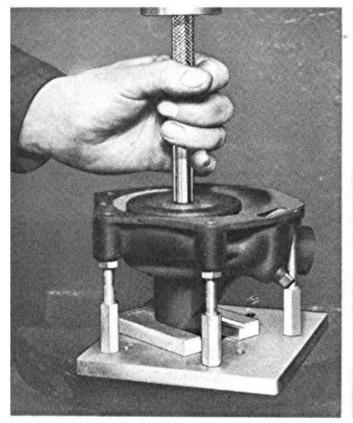
The use of J 2782 Engine Lift Bracket eliminates the dangers of slipping and parts damage possible when improvised methods are used.

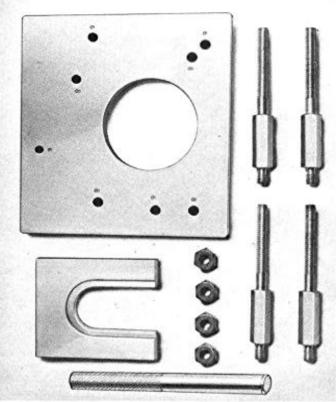
The bracket is applicable to both six and eight cylinder engines.

FOR

DATE

## HUDSON





Tool Name:

WATER PUMP HOLDING FIXTURE

Tool No: J 2778

Model Applications: 480 SERIES

#### Description:

This fixture supports the water pump while removing the impeller shaft. Two sets of tapped holes are provided in the base plate. The holes are marked for the six or eight cylinder water pump. The large hole in the base plate is designed to clear the pulley hub flange. When the pump body is supported on the slotted block with

the studs extending into the bolt holes, the stud nuts are run up until they just touch the body. The fixture then provides adequate support for the pump body and allows freedom of both hands for operation of the arbor press. The fixture may also be used to remove the water pump pulley hub.

NO. H-29 TRANSMISSION

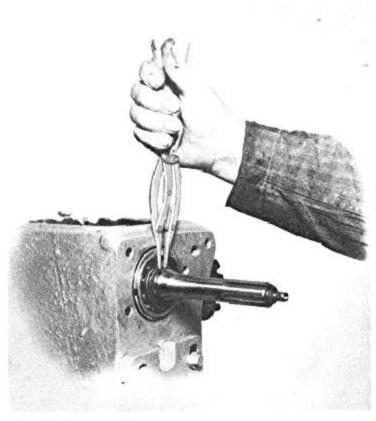
UGUST 1, 1948

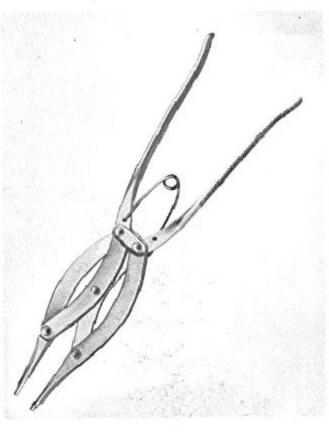
TOOL MANUAL INSERT

SECTION

HUDSON







Tool Name:

SNAP RING PLIERS

Model Applications: ALL MODELS

#### Description:

The outstanding advantage of the KMO 630 Snap Ring Pliers is that the tool jaws spread in a parallel plane. This eliminates the tendency of snap rings to slide off the tips of the jaws and damage the tool, as is the case with conventional snap ring pliers.

In addition, the jaw tips of KMO 630 Snap Ring Pliers are recessed slightly to receive the ends

Tool No: KMO 630

of the snap ring and assure a more positive grip

on the ring.

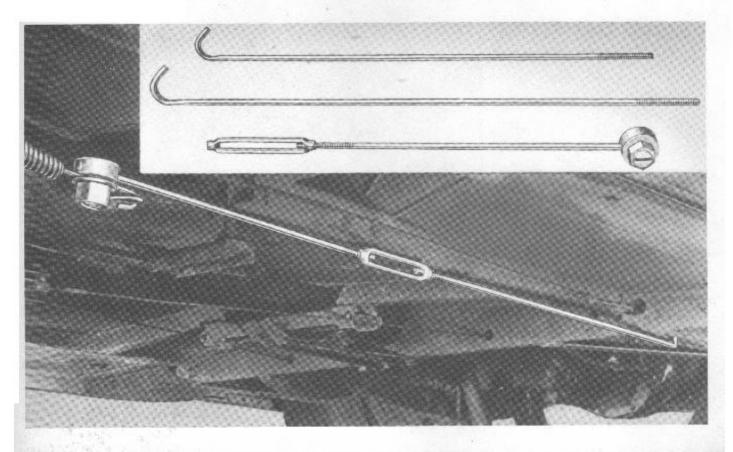
The tool jaws have a maximum spread of 1-1/8". The jaw tips are 9/64" wide and 5/32" thick when closed. Overall length is 10".

NO. H-30 CLUTCH

SECTION

DATE AUGUST 1, 1948

## HUDSON



Tool Name: CLUTCH OVER CENTER SPRING REMOVER AND INSTALLER

Tool No: J 2956

Model Applications: 480 SERIES

#### Description:

J 2956 requires only one man to remove and replace the clutch over center spring. The straight portion of the spring, between the hook and first coil, is clamped into the slotted head by means of the hex nut. The hook at the opposite end of the tool is anchored to the car frame through a hole in the frame. The spring is then extended or released by turning the turnbuckle.

KENT - MOORE ORGANIZATION INC.

GENERAL MOTORS BLDG.

**DETROIT 2, MICHIGAN** 

NO. H-31 STEERING

**AUGUST 1, 1948** 

TOOL MANUAL INSERT

SECTION

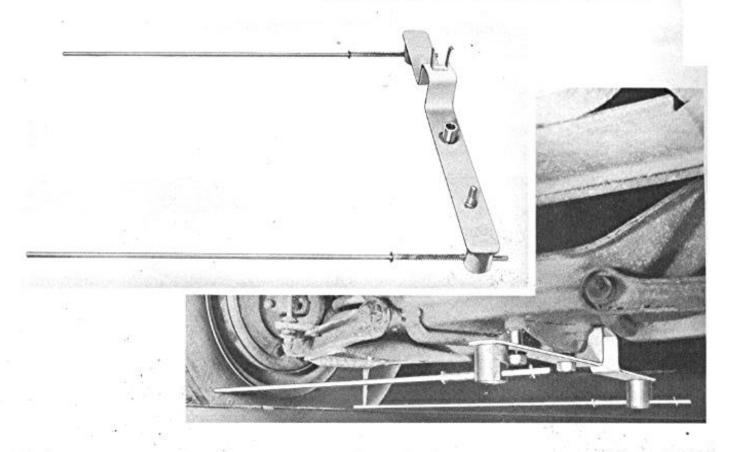
DATE

lew special service tool

FOR

HUDSON





STEERING ARM CENTERING AND TOE-IN GAUGE Tool Name:

Tool No: J 2953

Model Applications: ALL MODELS

#### Description:

J 2953 Steering Arm Centering and Toe-In Gauge is designed for setting toe-in correctly with steering gear in straight-ahead position.

Remove the nut of the center steering arm and the front bolt of the center steering arm support bracket. The bolt at the front of the gauge is installed in the front hole of the steering arm support bracket with the female screw attached to the center steering arm shaft and the clamp attached to the steering arm. Adjust rods to contact the wheels evenly and toe-in is set to specifications. The steering arm is centered and steering can be perfectly equalized. NOTE: Both male and female screws are retained to the gauge with pins to prevent loss.

Refer to the Hudson Mechanical Procedure Manual for further specifications.

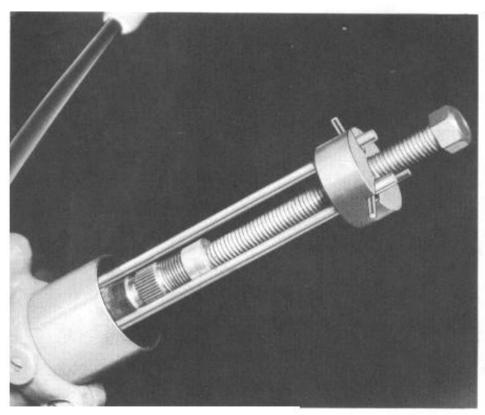
TOOL MANUAL INSERT

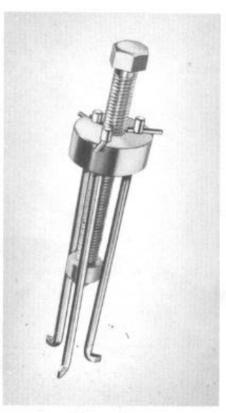
NO. H-32

SECTION STEERING

DATE AUGUST 1, 1948

## HUDSON





Tool Name:

JACKET TUBE BEARING PULLER

Tool No: J 2792

Model Applications: 480 SERIES

#### Description:

It is not necessary to remove the jacket tube to remove the jacket tube bearing, when this tool is employed. When removing the bearing, the fingers of the puller are engaged below the bearing and retained in this position by locating pins fastened to the upper ends of the fingers. Turning the center screw against the nut of the column tube will apply pressure on the fingers removing the bearing.

KENT - MOORE ORGANIZATION INC.

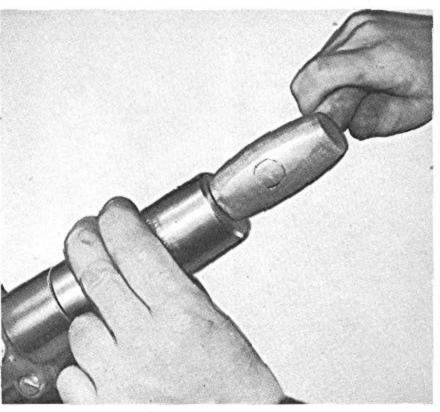
NO. H-33 STEERING AUGUST 1, 1948 TOOL MANUAL INSERT

DATE

Cew special service tool

HUDSON

MENT-NOO SERVICE TO and ADDITION SERVICE TO SERVICE TO





Tool Name: JACKET TUBE BEARING REPLACER

Tool No: J 295:

Model Applications: 480 SERIES

#### Description:

Use of this tool permits the jacket tube bearing to be replaced with the jacket tube in car. The bearing is driven to the proper depth by means of this driver which is piloted inside the jacket tube to maintain proper bearing alignment.

HUDSON

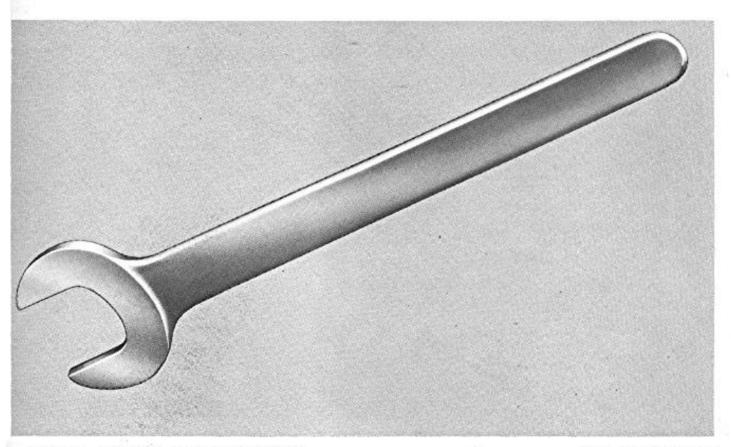
TOOL MANUAL INSERT

SECTION

NO. H-34

STEERING

DATE AUGUST 1, 1948



Tool Name: PITMAN ARM NUT WRENCH

Tool No: KMO 738

Model Applications: 480 SERIES

#### Description:

Due to its location, close to the starting motor, the pitman arm nut is not readily accessible with a standard socket or adjustable wrench, and is further restricted on models equipped with Hudson Drive-Master.

KMO 738 Pitman Arm Nut Wrench provides sufficient clearance and leverage to conveniently remove and replace the pitman arm nut.

The wrench is 12-1/4" long, 9/32" thick and has a 1-7/16" jaw opening.

KENT - MOORE ORGANIZATION INC.

NO. H-35 BRAKES

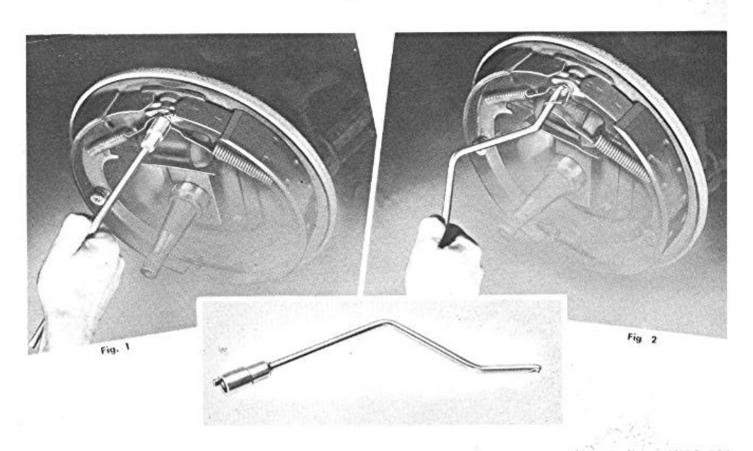
AUGUST 1, 1948 DATE

TOOL MANUAL INSERT SECTION

EU SPECIAL SERVICE TOOL

## HUDSON





BRAKE SPRING REMOVER AND INSTALLER Tool Name:

Tool No: KMO 526

Model Applications: ALL MODELS EQUIPPED WITH BENDIX BRAKES

#### Description:

This tool greatly facilitates removal and replacement of Bendix type brake springs.

To Remove: Place large end of tool over the pin with the disengaging lug in the opening

of the spring hook, rotate the tool 90 degrees and pull outward as illustrated in Figure 1.

To Install: Position small end of tool over pin, place spring hook over shaft of tool and pry into position as illustrated in Figure 2.

TOOL MANUAL INSERT

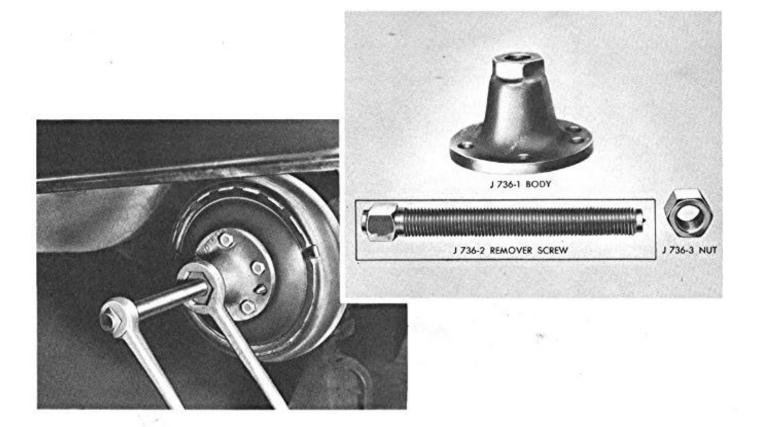
NO. H-36

SECTION

REAR AXLE

DATE AUGUST 1, 1948

## HUDSON



Tool Name: REAR WHEEL HUB REMOVER SCREW

Tool No: J 736-2

Model Applications: 480 SERIES

#### Description:

The J 736-2 Rear Wheel Hub Remover Screw is provided to adapt the J 736 Rear Wheel Hub Puller to 480 series.

This 10 inch center screw is necessary to provide sufficient clearance between the fender skirt and the wrench.

It is used in conjunction with the Body and Nut of J 736 Rear Wheel Hub Puller as illustrated.

Dealers not having the J 736 Rear Wheel Hub Puller should order J 736-A Rear Wheel Hub Puller which is equipped with the Remover Screw, I 736-2.

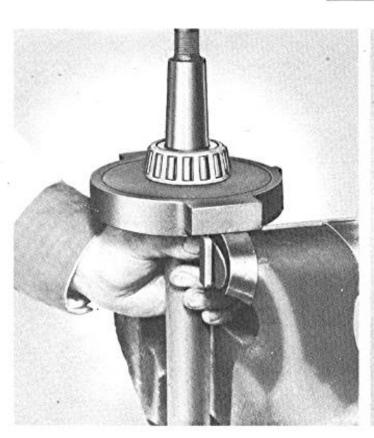
NO. H-37 REAR AXLE **AUGUST 1, 1948**  TOOL MANUAL INSERT

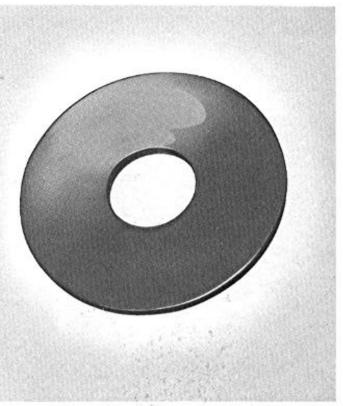
SECTION

Lew Special Service Tool FOR

HUDSON







AXLE SHAFT BEARING CONE REMOVER Tool Name:

Tool No: J 2641

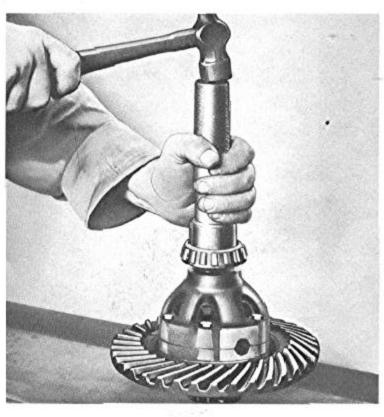
Model Applications: 480 SERIES

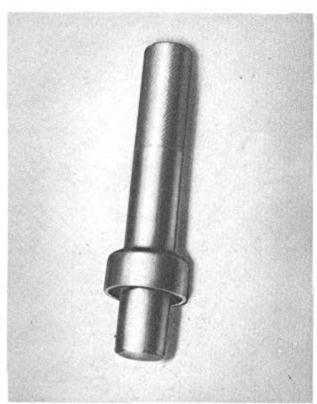
#### Description:

Safe and easy removal of the axle shaft bearing cone is made possible through the use of this remover. The plate is held in Plate Holder J 358-1 and supported in a vise or on an arbor press table.

The axle shaft nut should be left in place to protect the shaft threads. The shaft may be forced or driven out of the bearing without damage to bearing cone.

## HUDSON





Tool Name:

DIFFERENTIAL BEARING CONE REPLACER

Tool No: J 2646

Model Applications: 480 SERIES

#### Description:

J 2646 Replacer is made to pilot into the differential hub, thus guiding the bearing as it is being driven into place. The recess of replacer allows it to clear the hub as the bearing is driven into its seat, since the bearing is installed slightly below flush.

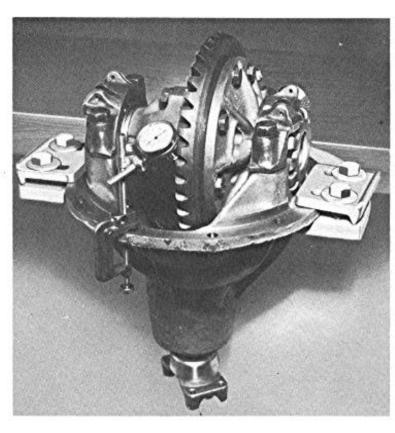
NO. H-39 REAR AXLE AUGUST 1, 1948 TOOL MANUAL INSERT

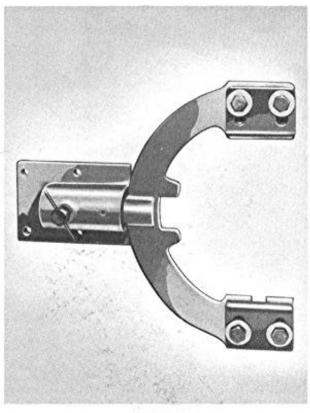
NAL INSERT MEW SPECIAL SERVICE TOOL

FOR

**HUDSON** 







Tool Name: DIFFERENTIAL CARRIER HOLDING AND ASSEMBLING FIXTURE

Tool No: J 945

Model Applications: 480 SERIES

#### Description:

The J 945 Fixture bolts to a workbench and provides a simple and quick method of holding the differential carrier assembly in a convenient position for making necessary adjustment or repairs. The yoke section of the fixture can be turned or locked in any desired position.

The illustration shows the J 945 Fixture being used in conjunction with KMO 30 Dial Indicator and Attachments, to check the ring gear backlash. KMO 30 is listed on Page 33 of your Kent-Moore Manual No. 5 of Special Service Tools for Hudson.

FOR

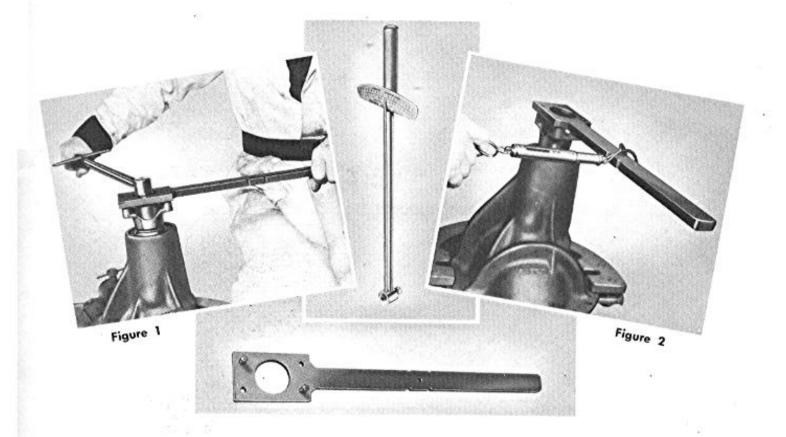
NO. H-40

SECTION

REAR AXLE

DATE AUGUST 1, 1948

## HUDSON



Tool Name: COMPANION FLANGE HOLDING TOOL

Tool No: J 2637

Model Applications: 480 SERIES

#### Description:

This tool provides sufficient leverage to hold the universal joint companion flange while loosening or tightening the flange nut. The rear axle companion flange nut is tightened to 200 foot pounds with torque wrench J 1264 as shown in Figure 1.

After proper tightening, the drive pinion bearing resistance torque must then equal 17 to 32 inch pounds. This resistance can readily be determined by using J 544-A Checking Scale on J 2637 Companion Flange Holding Tool as shown in Figure 2 above.

NO. H-41

TOOL MANUAL INSERT

REAR AXLE

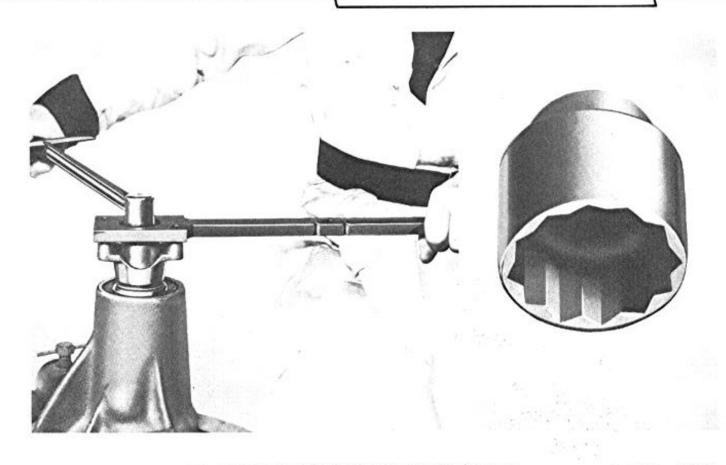
SECTION

AUGUST 1, 1948 DATE

ew special service tool

## HUDSON





REAR AXLE COMPANION FLANGE NUT SOCKET WRENCH Tool No: J 2971 Tool Name:

Model Applications: 480 SERIES

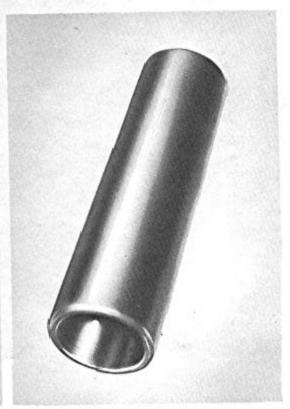
#### Description:

This specially ground tapered socket is designed to fit down into the companion flange, thus giving full contact when either loosening or tightening the rear axle pinion shaft nut. When desired, it can be used in conjunction with the J 1264 Tension Wrench and the J 2637 Companion Flange Holding Tool for correctly loading the pin shaft nut to the desired torque specifications.

Note: Under no circumstances is the J 1264 Tension Wrench to be used for removing the pinion shaft nut as it will result in severely damaging the wrench. For further information on this operation see the Hudson Mechanical Procedure Manual.

# Mew special service HUDSON





PINION REAR BEARING CONE REPLACER Tool Name:

Tool No: J 2643

Model Applications: 480 SERIES

#### Description:

This tool pilots on the pinion shaft and drives against the bearing cone inner race. The bearing is started in position and driven in place with the replacer tool, assuring perfect alignment without damage to the bearing cone.

NO. H-43

TOOL MANUAL INSERT

MISCELLANEOUS

SECTION

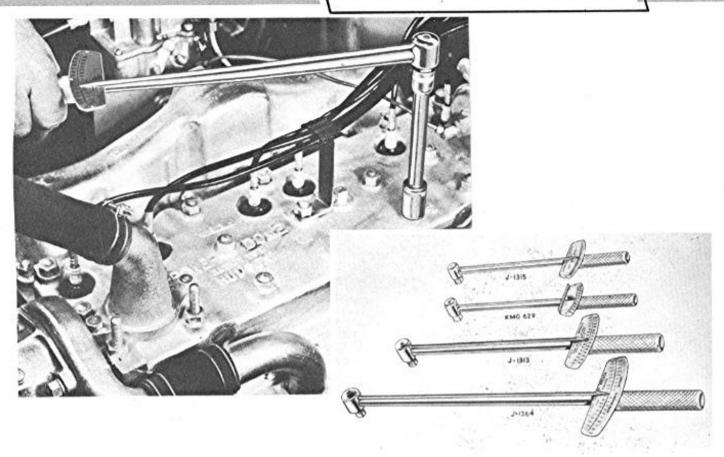
AUGUST 1, 1948 DATE

New special service tool

FOR

### HUDSON





Tool Name: : TENSION INDICATING WRENCHES

Model Applications: ALL MODELS

Description:

.

J 1264 — Range 0-200 Ft. Lbs. — 1/2" Square Drive — Length 23" — Weight 3 Lbs. J 1313 — Range 0-150 Ft. Lbs. — 1/2" Square Drive — Length 17" — Weight 2 Lbs.

J 1315 - Range 0-25 Ft. Lbs. - 3/8" Square Drive - Length 12" - Weight 1 Lb. KMO-629.- Range 0-50 Ft. Lbs. - 1/2" Square Drive - Length 12" - Weight 2 Lbs.

These wrenches employ a ground spring steel shaft for the calibrated beam; the pointer is mounted in the adapter head, as is the beam. The scale is conveniently mounted near the knurled hand grip for easy reading, and is calibrated in foot pounds tension on both sides of

zero. Readings may be taken when either removing or replacing a part. The wrenches have a small adapter head which permits their use in close places. There are no moving parts to wear or get out of adjustment. They are light in weight, ruggedly constructed, and ideally suited to rough handling imposed in normal shop use.

Tool No: J 1264

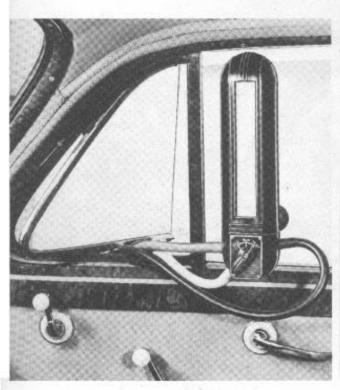
J 1313

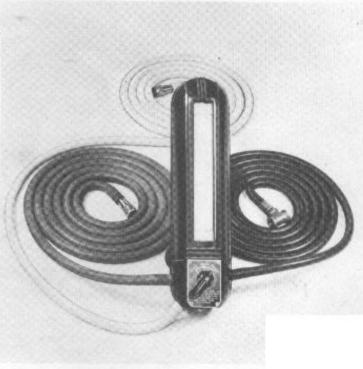
J 1315 KMO 629

SECTION

MISCELLANEOUS **AUGUST 1, 1948** DATE

## HUDSON





Tool Name: GAS-PER-MILE GAUGE (Complete with Adapters)

Model Applications: ALL MODELS

#### Description:

The J 5091 Gas-Per-Mile Gauge is conveniently installed on the inside of the car window facing the driver, as illustrated. It is held firmly in position by the steel clip and rubber suction cups.

Exceptional accuracy is possible as the gauge permits fuel to enter the carburetor under actual fuel pump pressure. This feature entirely eliminates the errors due to variable fuel pressures, which are characteristic of "gravity feed" instruments.

The three rubber hoses are colored for identification and are of sufficient length to pass through the side window ventilator and into the engine compartment through the radiator grille.

The flow of fuel is regulated by a threeposition control valve which permits:

- (1) Filling the chamber by fuel pump pressure.
- (2) Normal driving without disconnecting the gauge or consuming the fuel in the chamber.
- (3) Accurate fuel consumption test under fuel pump pressure.

Complete installing and operating instructions are included with each instrument.

KENT - MOORE ORGANIZATION INC.

Tool No: J 5091

NO. H-45 MISCELLANEOUS

TOOL MANUAL INSERT

Lew Service Tool SECTION

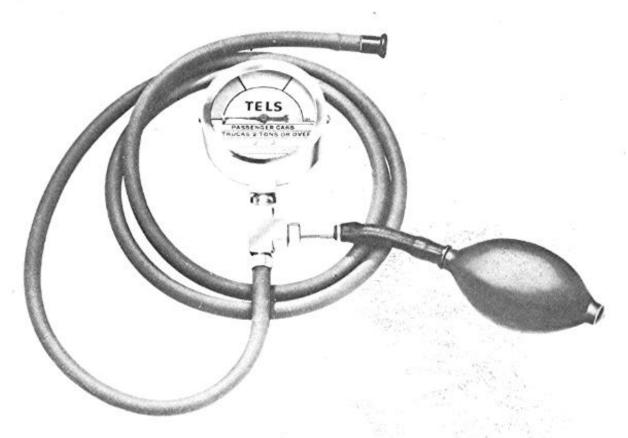
ror

AUGUST 1, 1948

DATE

HUDSON





Tool Name: COOLING SYSTEM LEAK DETECTOR

Model Applications: ALL MODELS

#### Description:

The "Tels" Cooling System Leak Detector is a scientific test instrument that quickly and accurately locates internal and external leaks and other cooling system defects. It duplicates normal operating pressures at which troubles occur, then quickly reveals the specific trouble.

KMO 598 Leak Detector is quickly attached to the radiator overflow pipe outlet. Complete operating instructions and an approved test chart are included with each instrument.

#### SEVEN POINT CHECK

- 1. Apply 6 lbs. pressure (same pressure as driving 35 M.P.H.).
  - A. If gauge needle holds 6 lbs. pressure there is no leak.
  - B. If gauge needle falls, again apply 6 lbs. pressure to force external leaks to show.

#### Apply 3 lbs. Pressure-Start Engine

- If gauge needle wavers when engine is raced cooling system is clear.
- 3. If gauge needle lies dead when engine is raced-the thermostats are clogged.
- 4. If gauge needle rises to 6 lbs. 8 lbs. pressure-shut engine off.

#### With Engine Off

- 5. If gauge needle holds at 6 lbs. 8 lbs. pressure-the cylinder head gasket is leaking.
- 6. If gauge needle falls immediately from 6 lbs. -8 lbs. pressure—the radiator is clogged.
- 7. If gauge needle surges between 4 lbs. and 5 lbs. pressure-the water passages are clogged.

SHIPPING WEIGHT: 1-1/2 lbs.

KENT - MOORE ORGANIZATION

GENERAL MOTORS BLDG.

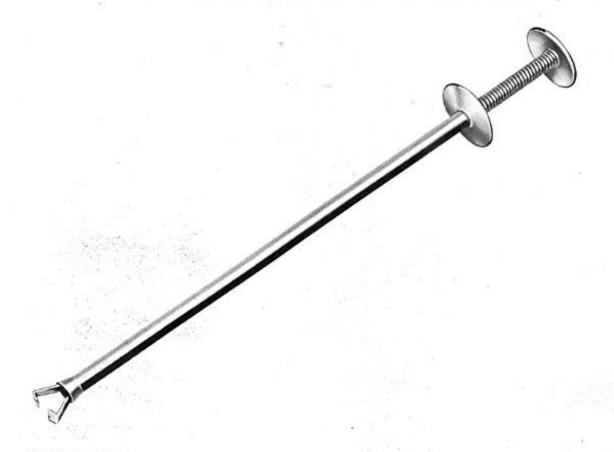
**DETROIT 2, MICHIGAN** 

Tool No: KMO 598

SECTION MISCELLANEOUS

DATE AUGUST 1, 1948

## HUDSON



Tool Name: SMALL SCREW AND BOLT HOLDER

Tool No: KMO 65-8

Model Applications: ALL MODELS

#### Description:

This tool is invaluable for starting or removing screws in inaccessible places. Pressure on the plunger at the top will extend the fingers and

allow them to open. When the hand pressure is released the fingers close over the screw with a firm grip.



."A better Service Tool for a better job"

## KENT-MOORE ORGANIZATION INC.

ENGINEERS AND MANUFACTURERS OF SERVICE TOOLS AND EQUIPMENT Executive Offices: GENERAL MOTORS BLDG. • DETROIT 2, MICHIGAN Factories & General Office: JACKSON, MICHIGAN