

## SECTION Q

### SPECIAL TOOLS

Every Distributor servicing the M.G. (Series MGA) is recommended to maintain the special tools detailed in this list, as by their use damage to parts will be avoided and repairs generally will be greatly facilitated. For additional information refer to the Service Tool Catalogue (Part No. AKD770). When ordering service tools always quote the new part numbers.

<i>Description</i>	<i>Original Part No.</i>	<i>New Part No.</i>
<b>Engine and clutch</b>		
Exhaust valve seat finishing cutter .. .. .	301079	18G25
Exhaust valve seat glaze breaker .. .. .	—	18G25A
Exhaust valve seat top narrowing cutter .. .. .	301080	18G25B
Inlet and exhaust valve seat bottom narrowing cutter .. .. .	301081	18G25C
Valve seat cutter handle .. .. .	301076	18G27A
Valve seat cutting tool fibre box .. .. .	AJE5012	18G27B
Inlet valve seat top narrowing cutter .. .. .	—	18G28B
Inlet valve seat bottom narrowing cutter .. .. .	—	18G28C
Valve suction tool .. .. .	—	18G29
Valve spring compressor .. .. .	—	18G45
Piston ring compressor .. .. .	—	18G55A
Water pump bearing remover and replacer .. .. .	GT60	18G60
Oil pump relief valve grinding-in tool .. .. .	—	18G69
Starting dog nut spanner .. .. .	GT98	18G98
Clutch assembly gauging fixture .. .. .	AJA5010	18G99A
Camshaft liner reamer (basic tool) .. .. .	AJE5001	18G123A
Camshaft liner reamer cutter .. .. .	—	18G123B
Camshaft liner reamer cutter .. .. .	—	18G123E
Camshaft liner reamer cutter .. .. .	—	18G123F
Camshaft liner reamer pilot .. .. .	—	18G123L
Camshaft liner reamer pilot .. .. .	—	18G123T
Camshaft liner reamer pilot .. .. .	—	18G123AB
Camshaft liner reamer pilot .. .. .	—	18G123AC
Camshaft liner reamer pilot .. .. .	—	18G123AD
Fibre box .. .. .	—	18G123AL
Camshaft liner remover and replacer (basic tool) .. .. .	AJA5060	18G124A
Camshaft liner remover adaptor .. .. .	—	18G124B
Camshaft liner remover adaptor .. .. .	—	18G124C
Camshaft liner remover adaptor .. .. .	—	18G124F
Camshaft liner remover adaptor .. .. .	—	18G124H
Inlet valve seat finishing cutter .. .. .	—	18G174
Inlet valve seat glaze breaker .. .. .	—	18G174A
Valve seat cutter pilot .. .. .	18G31	18G174D
Valve rocker bush remover and replacer .. .. .	—	18G226
Clutch plate centralizer .. .. .	67833	18G279
Impulse extractor—UNF. .. .. .	301203	18G284
Main bearing cap removal adaptor .. .. .	AJH5147	18G284A
Valve suction tool .. .. .	66893	18G328

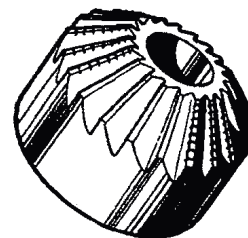


# SPECIAL TOOLS

<i>Description</i>	<i>Original Part No.</i>	<i>New Part No.</i>
<b>Gearbox</b>		
Bearing and oil seal replacer adaptor handle (basic tool) .. .. .	—	18G134
Gearbox extension oil seal replacer adaptor .. .. .	—	18G134M
Gearbox extension oil seal replacer adaptor .. .. .	—	18G134N
Gearbox front cover oil seal replacer .. .. .	—	18G134Q
Synchromesh unit assembly ring—second speed .. .. .	AJA5055	18G222
Synchromesh unit assembly ring—third speed and top .. .. .	AJA5056	18G223
Dummy layshaft .. .. .	AJA5057	18G266
Oil seal remover (basic tool) .. .. .	—	18G389
Oil seal remover adaptor .. .. .	—	18G389B
Gearbox front cover centralizer .. .. .	—	18G598
<b>Front suspension and steering</b>		
Front and rear hub plate remover (basic tool) .. .. .	AJA5019	18G304
Bolt adaptor— $\frac{7}{16}$ in. UNF. .. .. .	AJA5021	18G304B
Steering-wheel remover .. .. .	68827	18G310
Steering tie-rod pin spanner .. .. .	68965	18G312
Steering tie-rod 'C' spanner .. .. .	300813	18G313
Wire wheel hub remover .. .. .	—	18G363
<b>Rear axle and rear suspension</b>		
Bevel pinion flange wrench .. .. .	AJA5062	18G34A
Differential bearing remover (basic tool) .. .. .	AJA5061	18G47C
Differential bearing remover adaptors .. .. .	—	18G47T
Bearing and oil seal replacer adaptor handle (basic tool) .. .. .	—	18G134
Rear hub bearing remover, differential bearing replacer, and rear hub assembly replacer adaptor .. .. .	—	18G134P
Bevel pinion and differential bearing setting gauge .. .. .	—	18G191B
Bevel pinion bearing outer race remover (basic tool) .. .. .	—	18G264
Bevel pinion bearing outer race remover adaptor .. .. .	—	18G264E
Bevel pinion bearing outer race remover adaptor .. .. .	—	18G264F
Partitioned fibre box .. .. .	—	18G264K
Rear hub nut spanner .. .. .	—	18G152
Bevel pinion bearing preload gauge .. .. .	—	18G207
Bevel pinion inner race remover and replacer .. .. .	—	18G285
Front and rear hub plate remover (basic tool) .. .. .	AJA5019	18G304
Bolt adaptor— $\frac{7}{16}$ in. UNF. (2 off) .. .. .	AJA5021	18G304B
Hub remover thrust pad adaptor .. .. .	AJA5146	18G304J
Wire wheel hub remover .. .. .	—	18G363
<b>Body</b>		
Body jack and metal case .. .. .	—	18G308B
<b>Miscellaneous</b>		
Lockheed bleeder screw wrench .. .. .	46746	18G353
Torque wrench .. .. .	AJE5010	18G372

**18G25. Exhaust Valve Seat Finishing Cutter**

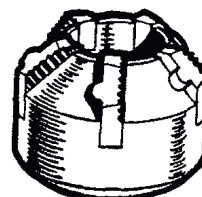
Use with pilot 18G174D and handle 18G27A.



**18G25**

**18G25A. Exhaust Valve Seat Glaze Breaker**

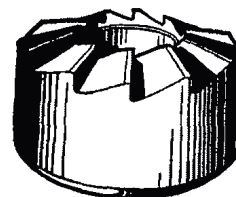
Use with pilot 18G174D and handle 18G27A.



**18G25A**

**18G25B. Exhaust Valve Seat Top Narrowing Cutter**

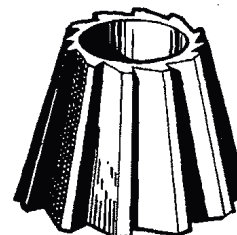
Use with pilot 18G174D and handle 18G27A.



**18G25B**

**18G25C. Inlet and Exhaust Valve Seat Bottom Narrowing Cutter**

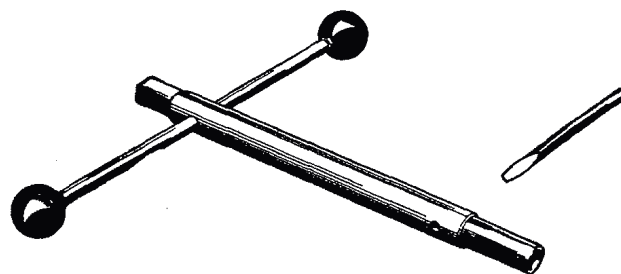
Use with pilot 18G174D and handle 18G27A.



**18G25C**

**18G27A. Valve Seat Cutter Handle**

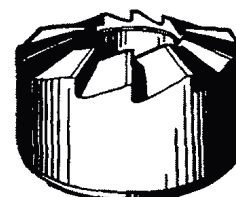
A standardized type of handle for use with a wide range of cutters. A spanner can be used on the square end when cutting valve seats on models where the tommy bar will foul the engine bulkhead.



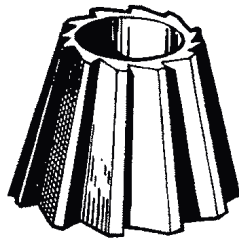
**18G27A**

**18G28B. Inlet Valve Seat Top Narrowing Cutter**

Use with pilot 18G174D and handle 18G27A.



**18G28B**



18G28C

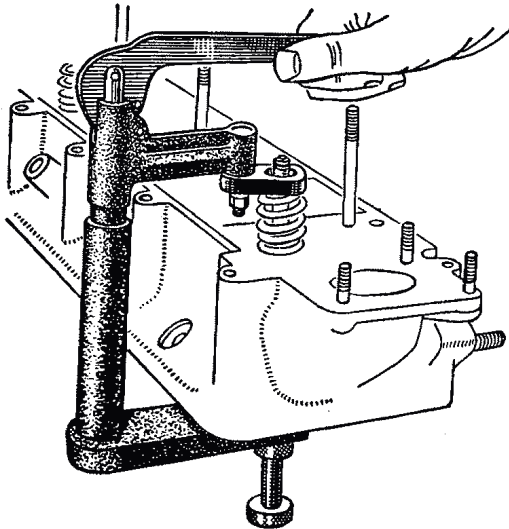
**18G28C. Inlet Valve Seat Bottom Narrowing Cutter**  
Use with pilot 18G174D and handle 18G27A.



18G29

**18G29. Valve Suction Tool**

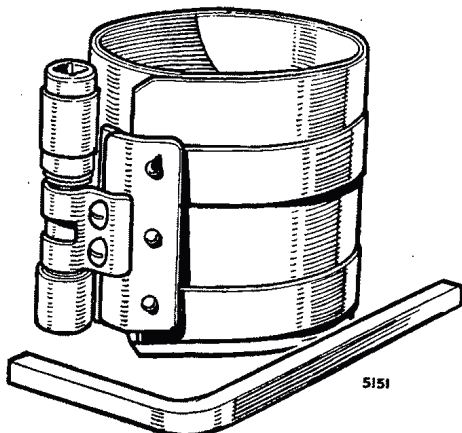
A handle complete with a detachable suction pad 18G29A; a further suction pad 18G29B is available for use on smaller valves.



18G45

**18G45. Valve Spring Compressor**

This tool is designed for overhead-valve engines. It has a cam and lever action and screw adjustment. The adaptor ring is shaped to facilitate the fitting of cotters.



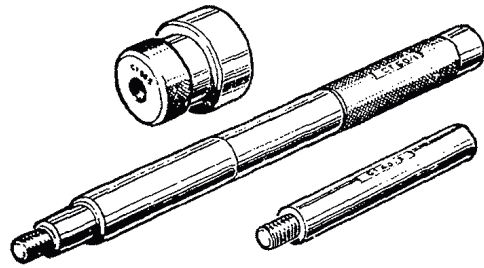
18G55A

**18G55A. Piston Ring Compressor**

Designed to cover a wide range of pistons, it is easy to operate and will compress the strongest piston ring, making assembly to the bore a quick and easy operation.

## 18G60. Water Pump Bearing Remover and Replacer

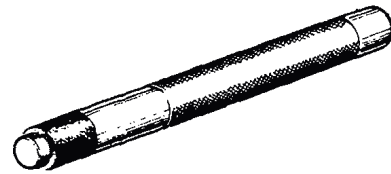
To safeguard against broken pump bodies this specially designed tool should be used when removing and replacing bearings. Comprising a drift, a dummy bearing, and a pilot, it aligns each bearing with its housing before the bearing is pressed into position.



18G60

## 18G69. Oil Pump Relief Valve Grinding-in Tool

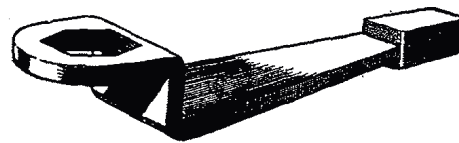
The small knurled knob at the end of this tool is turned to compress the rubber sleeve and increase its diameter until, when pressed into the valve, it will hold it securely while it is lapped to its seat.



18G69

## 18G98. Starting Dog Nut Spanner

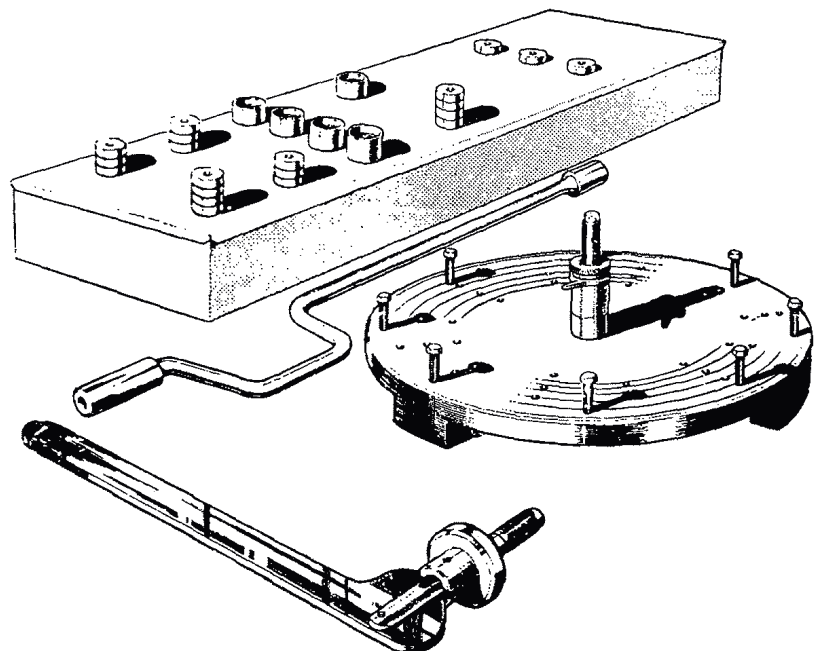
A 'shock-type' spanner designed to enable the starting dog nut to be removed without locking the crankshaft.



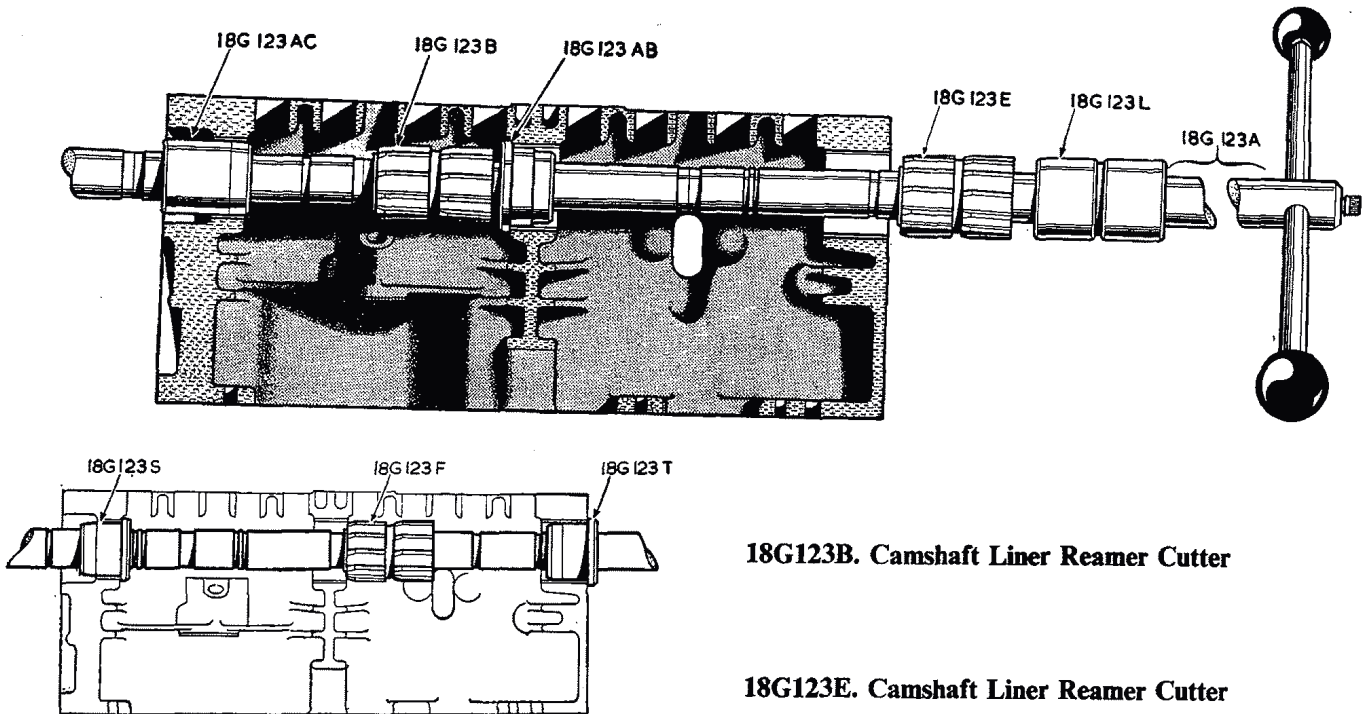
18G98

## 18G99A. Clutch Assembly Gauging Fixture

This tool provides for accurate adjustment of the levers and, additionally, affords a fixture upon which to dismantle and assemble the unit.



18G99A



**18G123A. Camshaft Liner Reamer (basic tool), Cutters, and Pilots**

This equipment is essential when reconditioning cylinder blocks, otherwise camshaft liners cannot be reamed in line, and in consequence the clearance between the camshaft journal and liner will be incorrect. This basic tool must be used with the cutters and pilots supplied separately and shown on this page. Full instructions for using the equipment will be supplied with each basic tool.

**18G123B. Camshaft Liner Reamer Cutter**

**18G123E. Camshaft Liner Reamer Cutter**

**18G123F. Camshaft Liner Reamer Cutter**

**18G123L. Camshaft Liner Reamer Pilot**

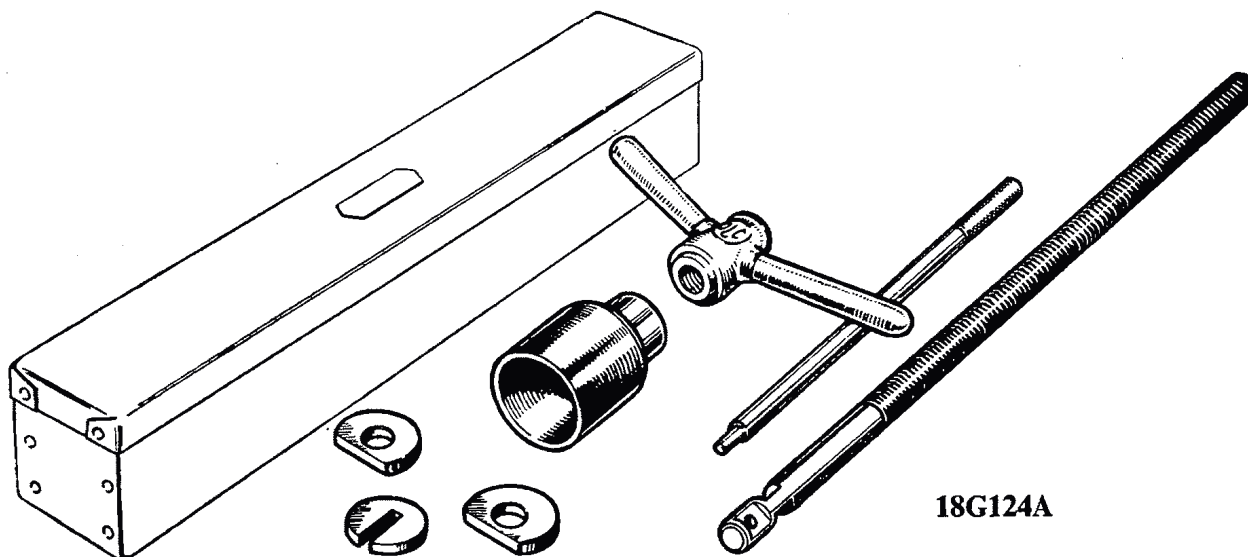
**18G123T. Camshaft Liner Reamer Pilot**

**18G123AB. Camshaft Liner Reamer Pilot**

**18G123AC. Camshaft Liner Reamer Pilot**

**18G123AD. Camshaft Liner Reamer Pilot**

**18G123AL. Camshaft Liner Reamer Component Fibre Box**

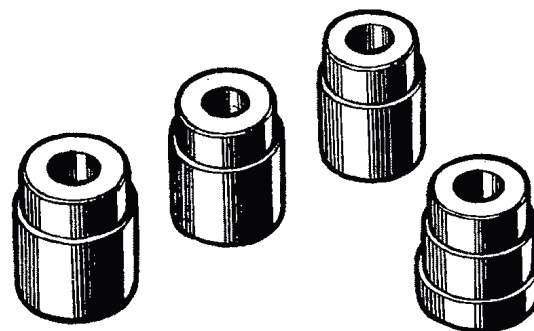


18G124A

**18G124A. Camshaft Liner Remover and Replacer (basic tool)**

The equipment consists of a basic tool 18G124A and various adaptors (supplied separately) for different types of engines and for this model shown below. Liners can be removed and replaced without the damage invariably associated with the use of improvised drifts. Full instructions for using the equipment will be supplied with each basic tool.

**18G124B, 18G124C, 18G124F, and 18G124H. Camshaft Liner Remover Adaptors**

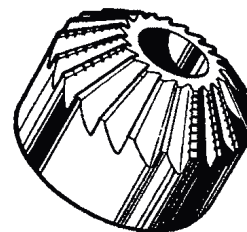


18G124B  
18G124C

18G124F  
18G124H

**18G174. Inlet Valve Seat Finishing Cutter**

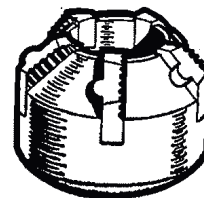
Use with pilot 18G174D and handle 18G27A.



18G174

**18G174A. Inlet Valve Seat Glaze Breaker**

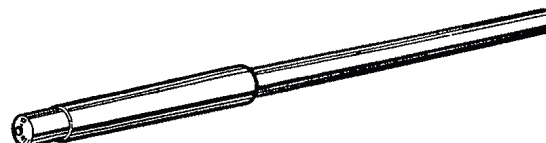
Use with pilot 18G174D and handle 18G27A.



18G174A

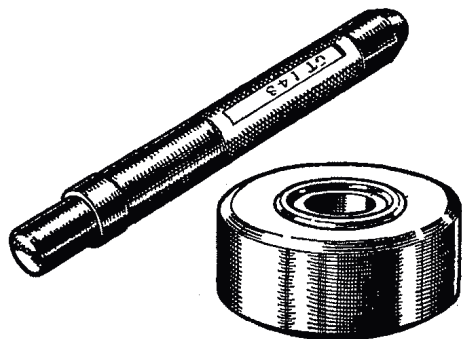
**18G174D. Valve Seat Cutter Pilot**

Use with the cutters listed above and handle 18G27A.



18G174D

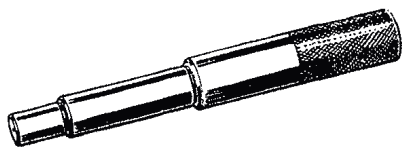




18G226

**18G226. Valve Rocker Bush Remover and Replacer**

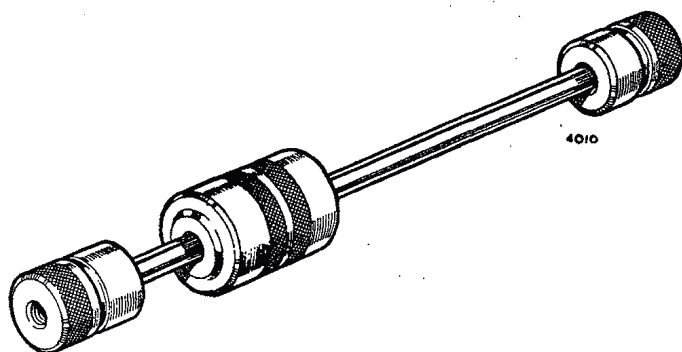
The flange of the driver is recessed to prevent the split bush opening when being driven into position; the anvil is also recessed to retain the rocker during the operation. Use of a light press is desirable when using this tool, alternatively a vice or copper-faced hammer may be used.



18G279

**18G279. Clutch Plate Centralizer**

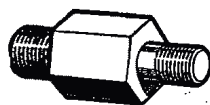
When reassembling the single-plate clutch it is essential to use this tool to ensure that the clutch plate is concentric with the spigot bearing in the flywheel centre, otherwise it is impossible to assemble the gearbox to the engine. This tool will also fit the Wolseley Four-Fifty, Morris Oxford (Series MO), and Morris Six (Series MS) models.



18G284

**18G284. Impulse Extractor—UNF.**

This universal impulse extractor when used with adaptor 18G284A will remove the main bearing cap.



18G284A

**18G284A. Main Bearing Cap Removal Adaptor**

The adaptor for use with impulse extractor 18G284.



18G134

**18G134. Bearing and Oil Seal Replacer Adaptor Handle (basic tool)**

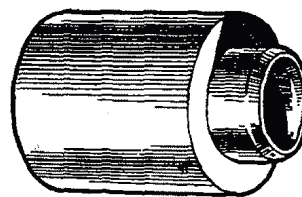
For use with adaptor 18G134M or 18G134N to replace the gearbox extension oil seal.



## 18G134M and 18G134N. Oil Seal Replacer Adaptors

Used with handle 18G134 for the replacement of gearbox extension oil seals.

For later power units (from Engine No. 10990) use adaptor 18G134N.



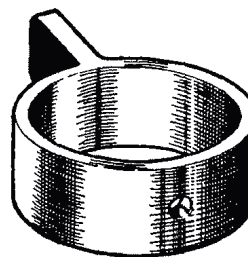
18G134M and 18G134N

## Synchromesh Unit Assembly Rings

18G222—Second Speed

18G223—Third Speed and Top

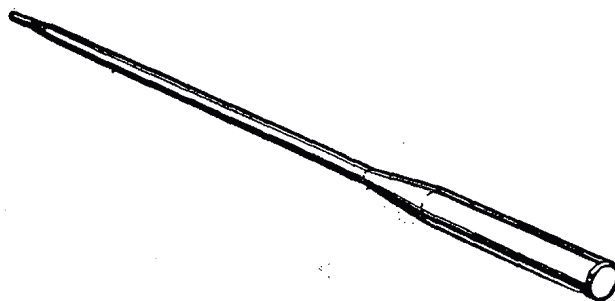
This tool is specially designed to retain the balls and springs in the synchronizer hub while it is being pushed into the sliding sleeve.



18G222 and 18G223

## 18G266. Dummy Layshaft

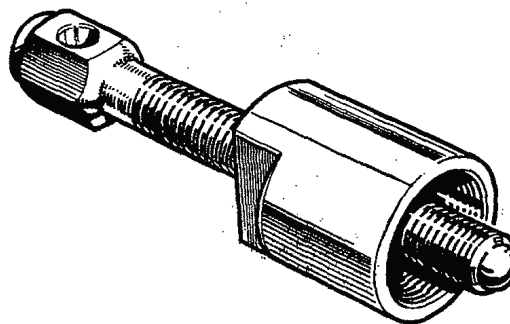
Reassembly of the layshaft into the laygear is greatly simplified by the use of this tool.



18G266

## 18G389. Oil Seal Remover (basic tool)

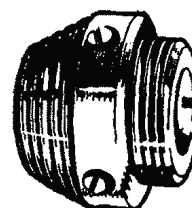
This basic tool together with the appropriate adaptor is essential for removing the gearbox extension oil seal easily and without damage to the extension.



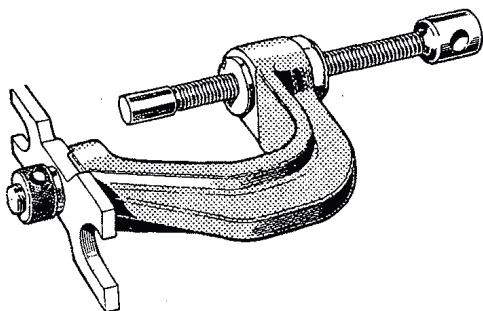
18G389

## 18G389B. Oil Seal Remover Adaptor

Use with basic tool 18G389.



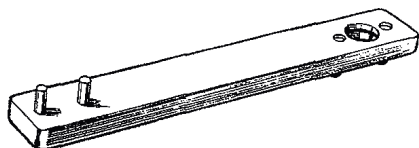
18G389B



18G310

**18G310. Steering-wheel Remover**

This extractor has been specially designed to remove the steering-wheel without damage. Dealers who already possess tool 55418 and the attachment (Part No. 56052) will find that this may also be used to withdraw the steering-wheel. It can also be used to extract Wolseley and Morris steering-wheels.

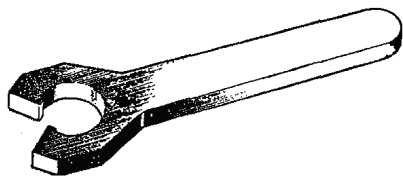


18G312

**18G312. Steering Tie-rod Pin Spanner**

This tool is designed for use in conjunction with the special spanner 18G313 for dismantling the steering tie-rod ball housing without damage.

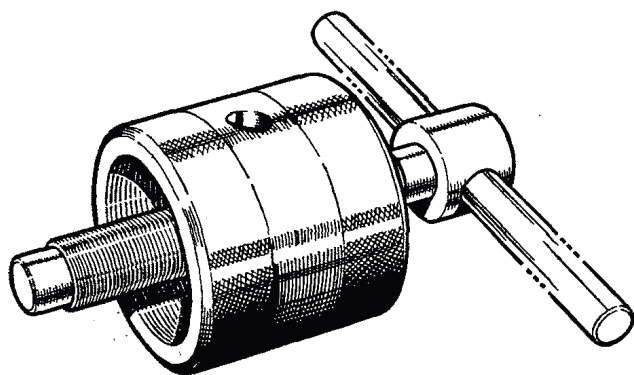
In use it is clamped securely in a vice and the two holes of the ball housing are engaged with the two pins of the extractor, pushing the ball housing into the tool as far as it will go. Using the special spanner 18G313, engage the claws with the ball housing cap and unscrew it from the housing.



18G313

**18G313. Steering Tie-rod 'C' Spanner**

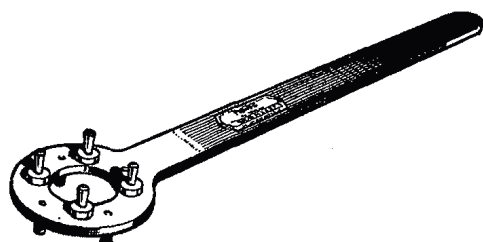
A tool with jaws designed to engage the shallow splines of the steering rack ball housing cap and remove it without damage.



18G363

**18G363. Wire Wheel Hub Remover**

Designed to withdraw left-hand and right-hand 'knock-on' hubs. The body is internally threaded with a left-hand thread in one end and a right-hand thread in the other.



18G34A

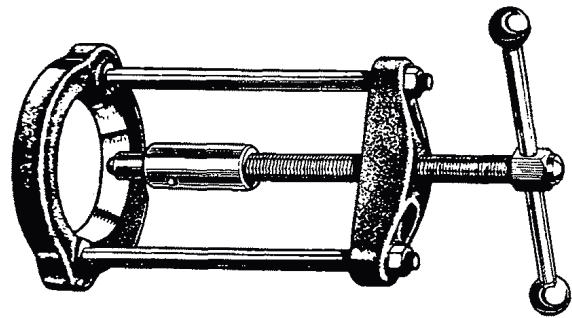
**18G34A. Bevel Pinion Flange Wrench**

Used to hold the bevel pinion flange when unscrewing the flange retaining nut.



## 18G47C. Differential Bearing Remover

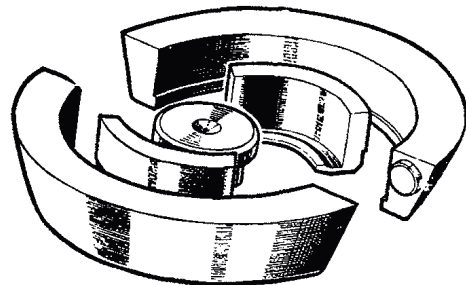
This basic tool simplifies the removal of the differential cage bearings without risk of damage. The adaptor for use on the 'B' type axle is shown under.



18G47C

## 18G47T. Differential Bearing Remover Adaptors

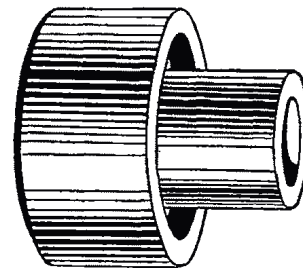
Designed for use with basic tool 18G47C (above), these adaptors must be used when removing the differential cage bearings.



18G47T

## 18G134P. Rear Hub Bearing Remover, Differential Bearing Replacer, and Rear Hub Assembly Replacer Adaptor

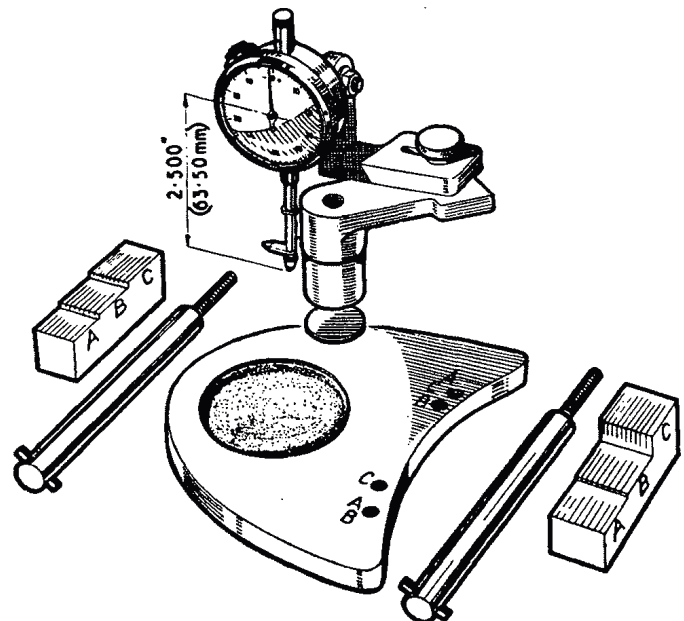
Use with handle 18G134.



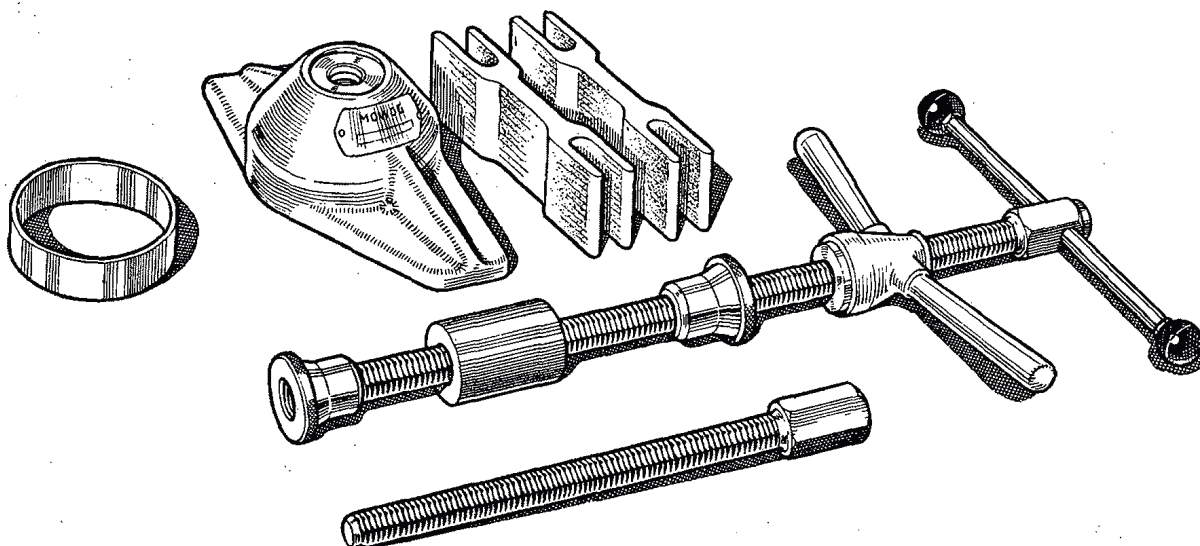
18G134P

## 18G191B. Bevel Pinion and Differential Bearing Setting Gauge

Indispensable in adjusting and setting 'A', 'B', and 'C' type standardized axles.



18G191B



18G264

**18G264. Bevel Pinion Bearing Outer Race Remover (basic tool)**

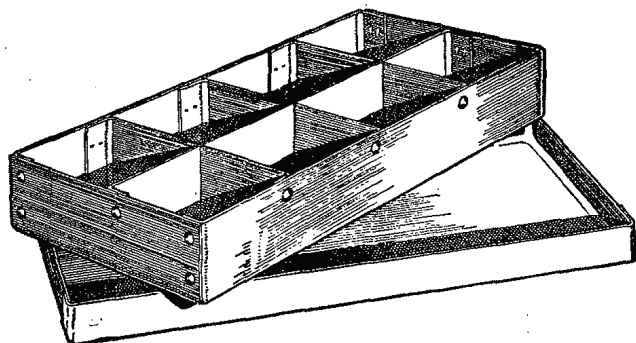
Comprising a body, centre screw with extension and tommy-bar, wing nut, guide cone, and two distance pieces. A plain ring is also included to serve as a pilot when the rear bearing outer races are being replaced. Use with adaptors 18G264E and 18G264F.



18G264E, 18G264F

**18G264E and 18G264F. Bevel Pinion Outer Race Remover Adaptors**

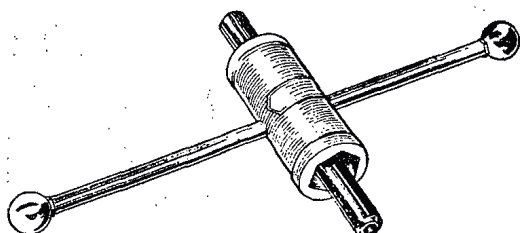
Use with 18G264.



18G264K

**18G264K. Partitioned Fibre Box**

A strong fibre box for storing the bevel pinion bearing outer race remover adaptors.



18G152

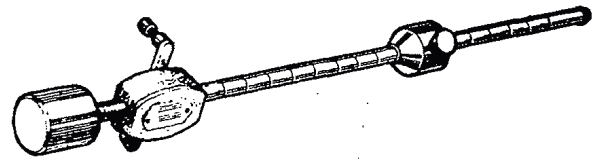
**18G152. Rear Hub Nut Spanner**

Designed to fit the octagonal nut on 'B' type rear axles. The opposite end may be used on the smaller 'A' type axles.



**18G207. Bevel Pinion Bearing Preload Gauge**

The movable arms of the tool are located in opposite holes of the bevel pinion flange and the weight moved along the rod to the poundage required.

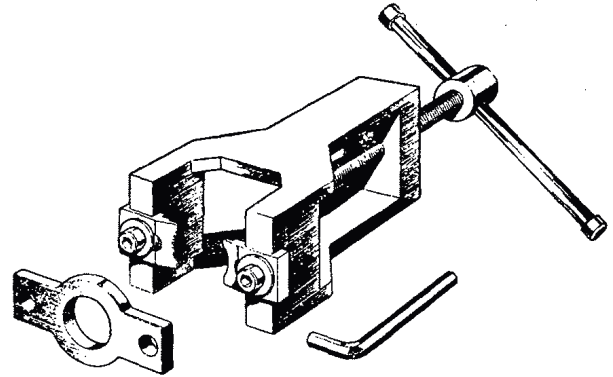


**18G207**

**18G285. Bevel Pinion Inner Race Remover and Replacer**

This tool is necessary for withdrawing the inner bearing race from the pinion shaft. It can also be used for replacing the race on the shaft without damage.

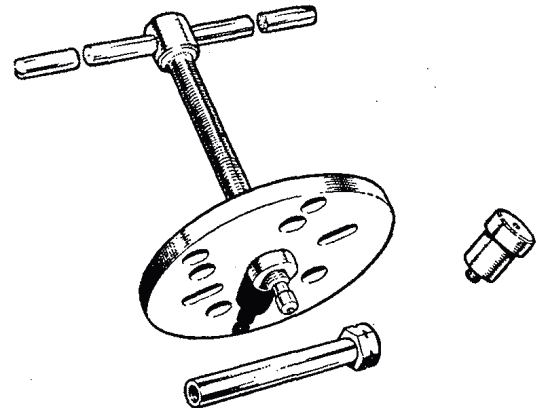
This is a universal tool.



**18G285**

**18G304, 18G304B, and 18G304J. Front and Rear Hub Plate Remover (basic tool)**

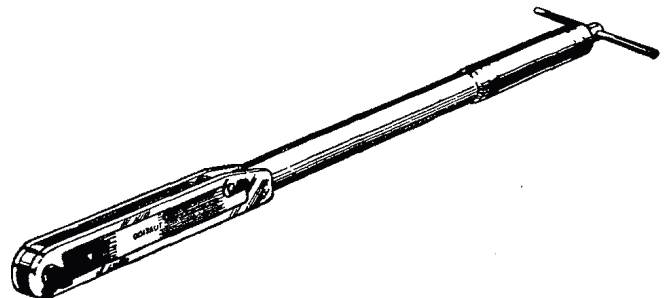
The plate in combination with two bolts and plug will remove the front and rear hubs of the M.G. 'MGA' with pressed-steel wheels.



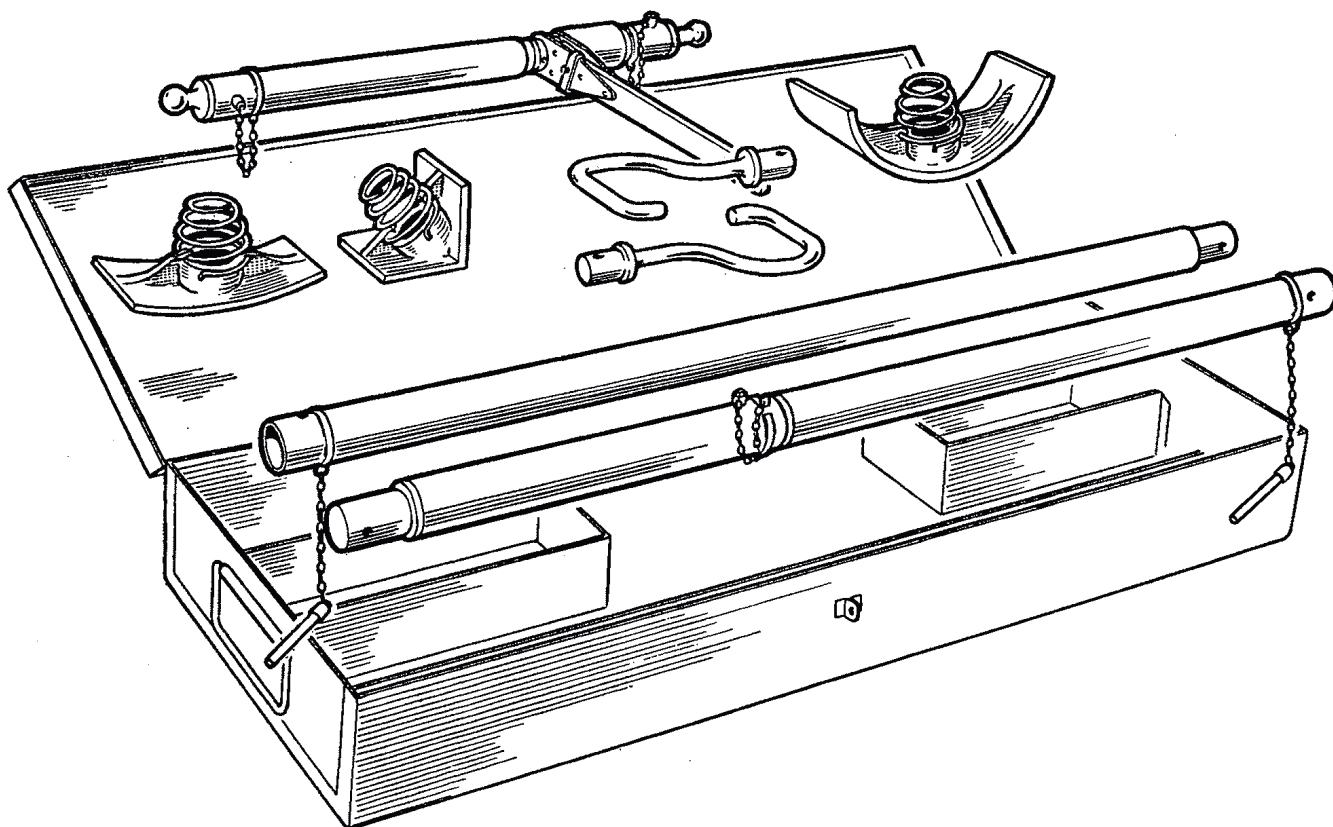
**18G304 (Plate and Screw)  
18G304B ( $\frac{7}{16}$  in. UNF Bolt)  
18G304J (Rear Axle Plug)**

**18G372. Torque Wrench**

A universal torque spanner for use with standard sockets. This tool is essential if the recommended maximum torque for various studs is not to be exceeded.

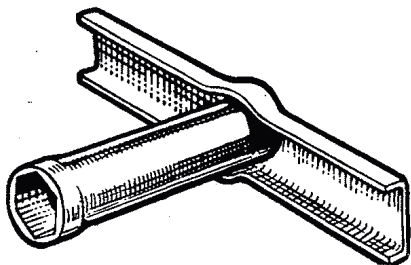


**18G372**



### 18G308B. Body Jack

The jack is a tool which has been designed to deal with repairs to bodies of all-steel construction. It is supplied in a metal case complete with the various attachments and will be found capable of dealing with all normal requirements.



18G353

### 18G353. Lockheed Bleeder Screw Wrench

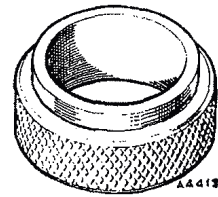
This specially designed tube spanner and integral tommy-bar greatly assists the brake bleeding operation. The spanner remains square on the bleeder screw without disturbing the bleed tube.





**18G598. Gearbox Front Cover Centralizing Tool**

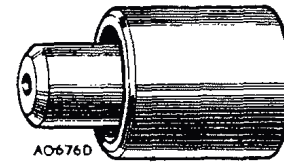
In the case of front covers fitted with oil seals, the use of this tool is essential to ensure concentricity of the front cover with the mainshaft, thereby obviating any possibility of oil leaks.



**18G598**

**18G134Q. Rear Hub Bearing Remover, Differential Bearing Replacer, and Rear Hub Assembly Replacer Adaptor**

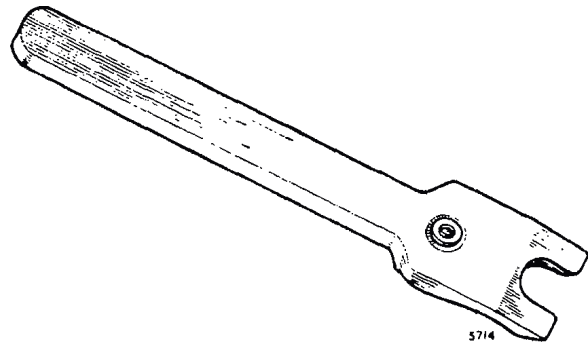
Use in conjunction with detachable handle 18G134 to replace the gearbox front cover oil seal. Its other uses are applicable to other B.M.C. models only.



**18G134Q**

**18G553. Disc Brake Piston Resetting Tool (Dunlop)**

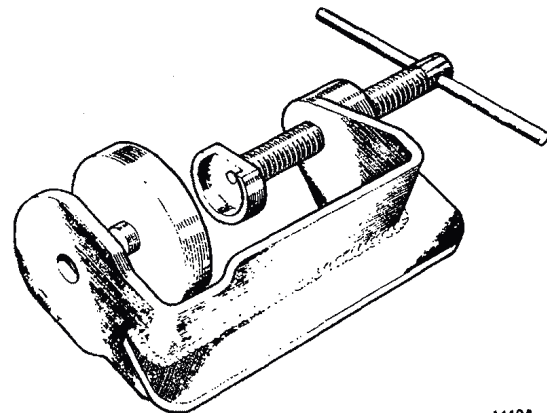
This tool is used to press the operating piston down the cylinder bore before refitting a friction pad.



**18G553**

**18G590. Disc Brake Piston Resetting Tool (Lockheed)**

This tool is used for refitting the operating piston and seals. It is also used for resetting the piston to the zero position before fitting a friction pad.



**18G590**



