

Number I.1
Section Steering

Sheet 1 (of 1)
Date September, 1960

FITTING TOOL FOR STEERING BOX TOP COVER

An inexpensive special tool (Part number 8343) which facilitates fitting the top cover of steering units without damage to the oil seal is available from Jaguar Spares Division.

This tool takes the form of a tapered sleeve which when placed on the worm shaft whilst fitting the top cover avoids damage to the knife edge of the oil seal on the worm shaft serrations.

The use of this tool is particularly important on power-assisted steering units but can also be used on 2.4, 3.4 and 3.8 litre standard steering boxes.



Number I.4.
Section Steering

Sheet 1 (of 1)
Date April, 1962

MODIFIED RACK AND PINION PRE-LOAD

PLUNGER

Models affected

Commencing Chassis Numbers

	R.H. Drive	L.H. Drive
"E" Type Open 2-seater	850404	876847
Fixed Head Coupe	860232	885736

On cars with the above chassis numbers and onwards, the belleville washers are replaced by a spring bearing on the rack pre-load plunger. The plunger, spring and retaining cap are interchangeable with the parts fitted to earlier cars provided all three parts are fitted. The method of adjustment is as shown in the "E" Type Service Manual, page I.7. except that retaining cap replaces the disc washer.

Spares Bulletin number L.21 refers.

CHECKING STEERING COUPLING SCREWS

(Mark 1, Mark 2 and Mark IX models)

Although it is recommended in the 10,000 miles (16,000 km) service that all chassis and body nuts, screws and bolts are checked for tightness, it has come to our notice that this is not being carried out, particularly in the case of the steering coupling cap screws.

The importance of carrying out this service cannot be too highly stressed.

CORRECT ADJUSTMENT OF STEERING LOCK STOPS

(All Models)

The importance of maintaining the correct setting of the steering lock stops is brought to the notice of all distributors and dealers.

/Continued...

Mal-adjustment of the stops giving increased lock may cause damage to the steering unit owing to undue loading of the internal parts.

Distributors and dealers are requested, therefore, to make a check on all cars coming in for service and ensure that the lock stops are correctly set.

Details of the lock stop setting procedure are given in the following publications.

Mark 1 2.4/3.4 litre Service Manual	-	page I.15.
Mark 2 2.4, 3.4 and 3.8 litre Service Manual	-	page I.20 for standard steering
	-	page I.33 for power-assisted steering
Mark LX Handbook	-	page 52

Note: No lock stops are provided on cars with rack and pinion steering as the stops are incorporated in the steering unit.



Number I.7.
Section Steering

Revised

Sheet 1 (of 2)

Date November, 1962.

INTRODUCTION OF MODIFIED UPPER STEERING COLUMN.

Models affected.

Commencing Chassis Numbers.

	R.H.Drive	L.H.Drive
2.4 litre Mark 2.	114063	126900
3.4 litre Mark 2.	161400	178733
3.8 litre Mark 2.	209382	221881
Mark 10.	301225	351545

Commencing at the above chassis numbers, a modified upper steering column is fitted to Mark 2 and Mark 10 Models. This enables the "Waso - Verkon" combined ignition switch and steering lock to be fitted as an optional extra.

General Description.

The combined ignition switch/steering lock replaces the normal ignition switch located in the instrument panel.

The switch/lock unit is mounted on an extension arm attached to the steering column below the steering wheel and the key has three operative positions - Drive (Fahrt), Garage (Garage) and Stop (Halt) as listed below; the fourth position "Start" not being used.

Operation of Switch.

(1) Drive (Fahrt).

This is the normal driving position. The key cannot be withdrawn in this position and the ignition is "ON".

/cont'd.....

(2) Garage (Garage).

This is the normal stop position. The key can be withdrawn leaving the car capable of being steered with the ignition off.

(3) Stop (Halt).

This is the locked stop position. The key can be removed leaving the steering locked and the ignition "OFF". The key can only be removed after depressing the chromium plated bar situated on the right-hand side of the keyhole.

To unlock the steering, insert the key in the lock and turn to Garage (Garage) or Drive (Fahrt) position.

Fitting the steering column lock.

(1) Disconnect the battery.

(2)(a)(Automatic Transmission cars only). Remove the steering wheel and upper steering column as detailed in the Jaguar Service Manual, Mark 2 models - Section I "Steering" Page 19. Mark 10 models - Section I "Steering" Page I.18. Remove the control rod and mechanism to facilitate fitting of the lock.

(b)On standard and overdrive cars it is only necessary to lower the upper end of the column by removing the clamping bolt.

(3) Fit the lock to the steering column, but do not tighten the clamp bolts.

Check that the switch/lock assembly is correctly aligned in the lower cover cut-out. Insert the key and turn to the Stop (Halt) position. Remove the key and check that the lock bolt is entering the register holes in the outer and inner columns and the steering is locked.

Tighten the clamp bolts evenly until the heads shear off.

IMPORTANT.

IT IS IMPORTANT THAT THE CORRECT OPERATION OF THE LOCK IS ENSURED BEFORE THE CLAMP BOLTS ARE FULLY TIGHTENED.

AFTER THE HEADS OF THE BOLTS HAVE BEEN SHEARED OFF THE LOCK CANNOT BE REMOVED.

/cont'd.....

- (4) Refit the steering column as detailed on Page I.13. Mark 2 Service Manual, and Page I.23. Mark 10 Manual.
- (5) Refit the steering wheel.

MODIFY THE IGNITION SWITCH WIRING AS FOLLOWS.

- (1) Lower the instrument panel to the horizontal position after withdrawing the two retaining screws located in the top left and right hand corners.
- (2) Disconnect the brown and white cable from the small terminal of the ammeter and tape back into the harness.
- (3) Disconnect the brown and white cable from the ignition switch and tape back into the harness.

FIT THE STEERING LOCK CABLE CONNECTION AS FOLLOWS.

- (1) Connect the long brown and white cable to the vacant small terminal on the ammeter.

Note: The lead is approximately 2' 6" (76.2 cm) long with P.V.C. sleeve. Tape into the harness until the point is reached where the main harness is taken through the bulkhead.

- (2) (a) Pass the long white cable with P.V.C. sleeve through the bulkhead tape to the main harness up to the fuse box and connect to terminal A.3. (Mark 2 only).
- (b) Connect single white cable with Black P.V.C. sleeve to vacant terminal on fuse 6 or 7 (Mark 10).
- (3) Tape the steering lock connector to the harness on the steering column and connect to the lock switch as follows:

Connect the white cable to terminal No. 15.

Connect the brown and white cable to terminal No.30.

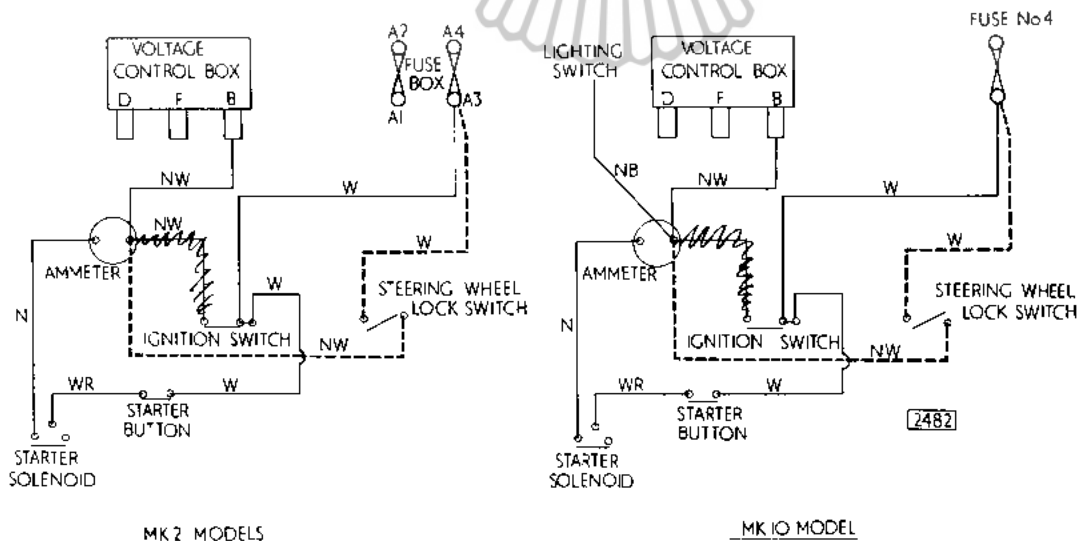
Remove the terminal from the switch cable ends and strip the cables $\frac{3}{8}$ " (9.5 mm) before connecting to the switch.

- (4) Close the instrument panel and secure with the retaining screws.

Reconnect the battery and check the operation of the switch/lock.

Note: When the combined ignition switch/steering lock is fitted the normal ignition switch located in the instrument panel becomes inoperative.

Insert 3/16" (4.8 mm) diameter washers between the steering column and the side facia panel to a total thickness of 11/64" (4.36 mm) when refitting the tie bar.
(Mark 2 only).



Number I.7. (2nd issue)
Section Steering

Sheet 1 (of 3)

Date December, 1962.

INTRODUCTION OF MODIFIED UPPER STEERING COLUMN.

<u>Models affected</u>	<u>Commencing Chassis Numbers.</u>	
	R.H.Drive	L.H.Drive
2.4 litre Mark 2	114063	126900
3.4 litre Mark 2	161400	178733
3.8 litre Mark 2	209382	221881
Mark 10	301225	351545
'E' Type Open 2 seater	850588	878037
Fixed Head Coupe	860863	886754

Commencing at the above chassis numbers, a modified upper steering column is fitted to Mark 2, Mark 10 and 'E' Type cars. This enables the "Waso - Verkon" combined ignition switch and steering lock to be fitted as an optional extra.

General Description.

The combined ignition switch/steering lock replaces the normal ignition switch located in the instrument panel.

The switch/lock unit is mounted on an extension arm attached to the steering column below the steering wheel and the key has three operative positions - Drive (Fahrt), Garage (Garage) and Stop (Halt) as listed below; the fourth position "Start" not being used.

Operation of Switch.

(1) Drive (Fahrt).

This is the normal driving position. The key cannot be withdrawn in this position and the ignition is "ON".

/cont'd.....

(2) Garage (Garage).

This is the normal stop position. The key can be withdrawn leaving the car capable of being steered with the ignition off.

(3) Stop (Halt).

This is the locked stop position. The key can be removed leaving the steering locked and the ignition "OFF". The key can only be removed after depressing the chromium plated bar situated on the right-hand side of the keyhole.

To unlock the steering, insert the key in the lock and turn to Garage (Garage) or Drive (Fahrt) position.

Fitting the steering column lock.

- (1) Disconnect the battery.
- (2)(a) (Automatic Transmission cars only). Remove the steering wheel and upper steering column as detailed in the Jaguar Service Manual, Mark 2 models - Section I "Steering" Page 19. Mark 10 models - Section I "Steering" Page I.18. 'E' Type cars - Section I "Steering" Page I.8. Remove the control rod and mechanism to facilitate fitting of the lock.
- (b) On standard and overdrive cars it is only necessary to lower the upper end of the column by removing the clamping bolt.
- (3) Fit the lock to the steering column, but do not tighten the clamp bolts.

Check that the switch/lock assembly is correctly aligned in the lower cover cut-out. Insert the key and turn to the Stop (Halt) position. Remove the key and check that the lock bolt is entering the register holes in the outer and inner columns and the steering is locked.

Tighten the clamp bolts evenly until the heads shear off.

IMPORTANT

IT IS IMPORTANT THAT THE CORRECT OPERATION OF THE LOCK IS ENSURED BEFORE THE CLAMP BOLTS ARE FULLY TIGHTENED.

AFTER THE HEADS OF THE BOLTS HAVE BEEN SHEARED OFF THE LOCK CANNOT BE REMOVED.

- (4) Refit the steering column as detailed on Page I.13. Mark 2 Service Manual, Page I.23. Mark 10 Manual, and Page I.10 'E' Type Manual.
- (5) Refit the steering wheel.

(MARK 2 AND MARK 10 CARS) MODIFY THE IGNITION SWITCH WIRING AS FOLLOWS.

- (1) Lower the instrument panel to the horizontal position after withdrawing the two retaining screws located in the top left and right hand corners.
- (2) Disconnect the brown and white cable from the small terminal of the ammeter and tape back into the harness.
- (3) Disconnect the brown and white cable from the ignition switch and tape back into the harness.

(MARK 2 AND MARK 10 CARS) FIT THE STEERING LOCK CABLE CONNECTION AS FOLLOWS

- (1) Connect the long brown and white cable to the vacant small terminal on the ammeter.

Note: The lead is approximately 2' 6" (76.2 cm) long with P.V.C. sleeve. Tape into the harness until the point is reached where the main harness is taken through the bulkhead.
- (2)(a) Pass the long white cable with P.V.C. sleeve through the bulkhead tape to the main harness up to the fuse box and connect to terminal A.3. (Mark 2 only).
- (b) Connect single white cable with Black P.V.C. sleeve to vacant terminal on fuse 6 or 7 (Mark 10).
- (3) Tape the steering lock connector to the harness on the steering column and connect to the lock switch as follows:

Connect the white cable to terminal No.15.

Connect the brown and white cable to terminal No.30.

Remove the terminal from the switch cable ends and strip the cables $\frac{3}{8}$ " (9.5 mm) before connecting to the switch.

- (4) Close the instrument panel and secure with the retaining screws.

Reconnect the battery and check the operation of the switch/lock.

('E' TYPE ONLY) MODIFY THE IGNITION SWITCH WIRING AS FOLLOWS:

- (1) Lower the instrument panel to the horizontal position after withdrawing the two retaining screws located in the top right-hand and left-hand corners.
- (2) Disconnect the white cable from the starter switch and tape back into the harness.
- (3) Disconnect the white cable from the ignition switch and tape back into the harness.
- (4) Transfer the brown and white cables on the ignition switch from the existing single terminal to the vacant double terminal.
- (5) Disconnect the feed cable - colour white with a green ident from fuse 6 or 7, refer to the fuse chart attached to the instrument panel, and tape back into the harness.

Note: On early models, the green ident is omitted and the correct cable must be ascertained by test.

('E' TYPE ONLY) FIT THE STEERING LOCK CABLE CONNECTOR AS FOLLOWS:

- (1) Connect the single white cable - paired with brown and white cable - to the vacant terminal on the starter switch.
- (2) Connect the adjacent brown and white cable to the vacant blade of double terminal on existing ignition switch and tape the connector harness to the main harness on the instrument panel.
- (3) Connect the single white cable, with black P.V.C. sleeve, to the vacant terminal on fuse 6 or 7.
- (4) Tape the steering lock connector harness to the harness on the steering column and connect the double white cable to the terminal 15, and adjacent brown and white cable to terminal 30 of steering column lock.

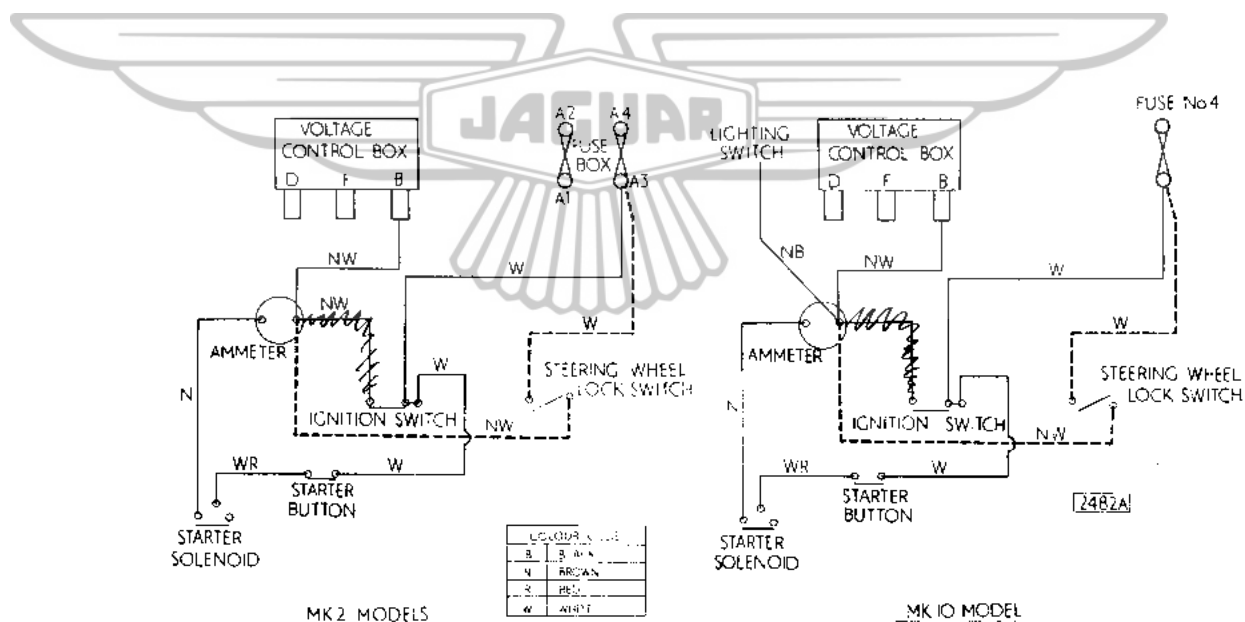
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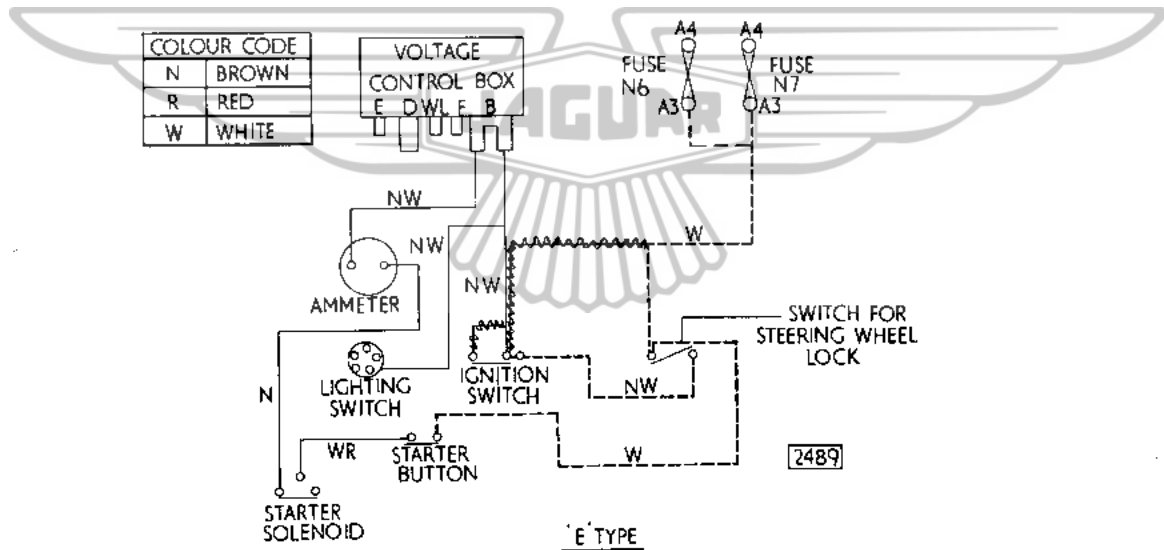
- (5) Close the instrument panel and secure with the retaining screws.
 Re-connect the battery and check the operation of the switch/lock.

Note: When the combined ignition switch/steering lock is fitted the normal ignition switch located in the instrument panel becomes inoperative.

Insert 3/16" (4.8 mm) diameter washers between the steering column and the side facia panel to a total thickness of 11/64" (4.36 mm) when refitting the tie bar. (Mark 2 only).

Spares Bulletin L.28 refers.





6. Withdraw the upper inner column, until clear of the joint leaving the outer column in position.
7. Lightly oil the splines in the new column. Fit the column to the steering box noting the position of the slot in the upper joint. This slot must be in the same position as noted on removal.
8. Refit the upper steering column in the straight ahead position that is with the spoke horizontal and the head of the "Jaguar" upright. Check that the spacer ring is in position between the outer and inner columns at the lower end. The flat on the upper inner column should be central with the bolt hole in the lower column top joint. Care should be taken to avoid damaging the horn switch contact blades.
9. Refit the pinch bolt and nut to the lower column joint with a spacing washer C.22283 inserted in the slot with the open side of the hole inwards. Do not tighten the pinch bolt at this point.
10. Refit bolt and nut to the lower joint and tighten. Turn steering as necessary to enter bolt.
11. Refit the plastic thrust bearing, slide down the retaining clamp and fit a new clamp claw. Pinch together clamp claw with pincers until only slight end float is felt in the inner column.
12. Depress the upper half of the lower column top joint to the limit of its travel and then raise it $\frac{1}{8}$ " (3 mm). Fully tighten the pinch bolt.
13. Lower the jack.
14. Check the cancellation of the flasher switch. Any adjustment necessary to centralize the cancellation of the switch is catered for by the slots in the switch striker.

Remove the top half of the steering column nacelle after withdrawing the two securing screws and washers to expose the striker. Adjust by releasing the two $\frac{3}{16}$ " securing screws and moving the striker in the required direction to give equal cancellation.

Number I.10.
Section Steering

Sheet 1 (of 1)
Date March, 1963.

MODIFIED UPPER AND LOWER STEERING COLUMNS.

<u>Models affected</u>	<u>Commencing Chassis Numbers.</u>	
	R.H.Drive.	L.H.Drive.
2.4 litre Mark 2.	114849	127055
3.4 litre Mark 2.	162488	178974
3.8 litre Mark 2.	230140	222241

Commencing at the above chassis numbers cars are fitted with upper and lower steering columns similar to the type used on the Mark 10 Model.

The upper column now has a thrust bearing arrangement similar to that illustrated in Fig.17. on page I.20 of the Mark 10 Service Manual.

The lower column has a top universal joint of the "pot" type similar to that illustrated in Plate 46 of the Mark 10 Spares Catalogue.

When connecting the lower column to upper column, the upper half of the pot joint should be depressed to the limit of its travel and then raised $\frac{1}{8}$ " (3 mm). The pinch bolt should then be fully tightened.

Spares Bulletin No. L.30 refers.

NOTE: When ordering parts please take into account that only $\frac{1}{3}$ to $\frac{1}{2}$ of the total number of cars require the Socket 9980 and Clip 9617.

Fitting Instructions:-

1. Remove the bolt, nut and spacing washer (C.22283) (if fitted) securing the lower column top joint to the upper steering column.
2. Turn the road wheels to the straight ahead position and note the position of the slot in the lower column top joint.

NOTE: It is important that the road wheels are not turned from this position until the steering columns are re-aligned. Any deviation will upset the centralisation of the flasher cancelling switch and the positioning of the steering wheel spokes.

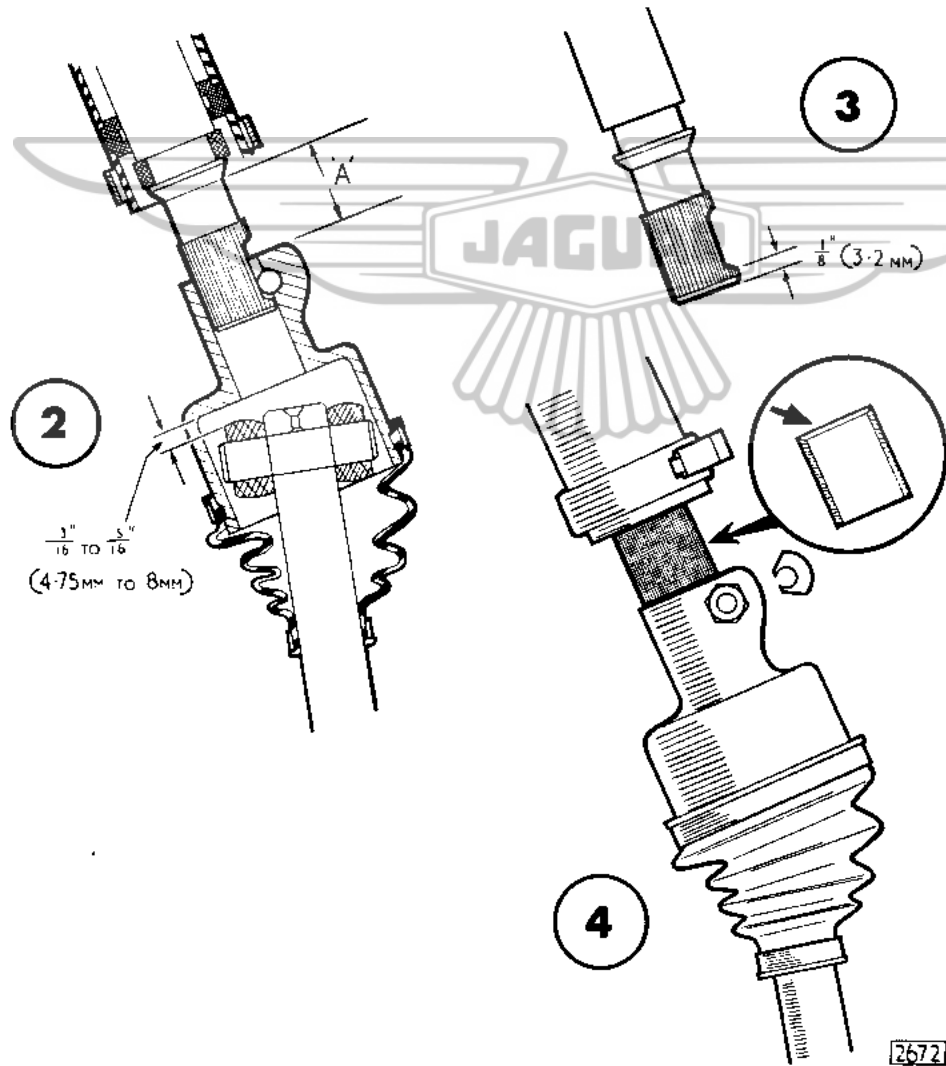
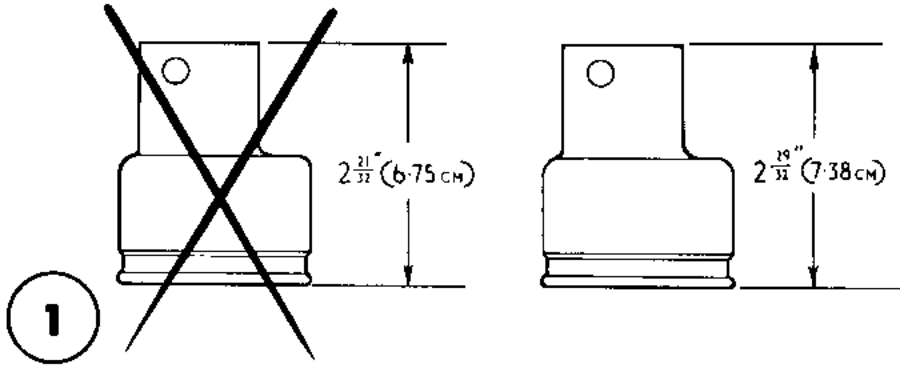
3. Measure the distance from the top machined face to the bottom machined face of the top joint socket on the lower steering column (See Fig.1). If it is less than $2.29/32"$ (7.38 cm) long a new socket (9980) should be fitted. (The socket to be replaced measures $2.21/32"$ (6.75 cm).

NOTE: In the case of parts replaced in the United Kingdom, the displaced material must be returned to the factory with the guarantee claim. Overseas Distributors and Dealers must DESTROY the displaced material and provide a certificate on the guarantee claim to this effect.

4. Press the top joint socket down until it bottoms and then raise towards the upper column until a minimum of $3/16"$ (4.76 mm) or a maximum of $5/16"$ (7.93 mm) movement is achieved. This movement will be controlled by the position of the upper steering outer column which can, if necessary be moved forward to meet the lower steering column by adjustment at the fixing bracket to the dash and loosening the securing clip (C.2905/4) on the scuttle.

Having achieved the condition described in the previous paragraph now measure the distance between the top machined face of the top joint socket and the bottom of the chamfer on the inner column ("A" Fig.2) to ascertain if the spacing collar (C.22698) which is $1.3/32"$ (2.78 cm) long can be fitted. If necessary the spacing collar can be reduced in length by cutting at the unchamfered end.

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Number I.12.
Section Steering

Sheet 1 (of 1)
Date March, 1964.

IMPROVED TIE ROD BALL JOINT GREASE SEALS.

Models affected.

2.4 litre Mark 2
3.4 litre Mark 2
3.8 litre Mark 2

Commencing chassis numbers.

R.H.Drive.	L.H.Drive.
117370	127486
166075	179733
232331	223447

plus certain individual cars
prior to these numbers.

On cars with the above chassis numbers and onwards improved grease seals are fitted to the tie rod ball joints. In conjunction with the fitting of this type of seal a bleed hole is incorporated in the ball joint. The bleed hole is covered by a circular nylon washer which lifts under pressure and allows grease to escape and indicates when sufficient lubricant has been applied (see illustration on page 2 of service bulletin J.16). This obviates the tendency for grease to escape past the seals when too much pressure is applied.

Spares Bulletin No. J.36 refers.

UPPER STEERING COLUMN THRUST BEARING.

Models affected.

Mark 10
2.4 litre Mark 2
3.4 litre Mark 2
3.8 litre Mark 2

If complaints are received of excessive end float in the upper steering column or of a knock being transmitted up the column, a Grade 'B' thrust bearing (Part number C.19559/5) should be fitted. This bearing is .002" to .004" (.05 to .10 mm) thicker than the previous bronze type and has the letter 'B' etched on the end face. When refitting, smear the bearing with colloidal graphite, fit a new spring clip (Part number C20127) to the retaining ring and secure by tightly pinching the raised portion of the clip with a pair of pincers.

Number I.13.
Section Steering.

Sheet 1 (of 1)
Date May, 1964.

UPPER STEERING COLUMN BEARINGS - IMPROVED TYPE.

<u>Models affected.</u>	<u>Commencing chassis numbers.</u>	
	<u>R.H.Drive.</u>	<u>L.H.Drive.</u>
2.4 litre Mark 2	117200	127455
3.4 litre Mark 2	165802	179679
3.8 litre Mark 2	232179	223408
Mark 10 Automatic Transmission	308006	353483
Mark 10 Overdrive	308012	353482
'E' Type Open 2 seater	850819	880983
'E' Type Fixed head coupe	861481	889967
3.4 'S'	1B1002	1B25004
3.8 'S'	1B50246	1B75048

On cars with the above chassis numbers and onwards "Elastollan" upper steering column bearings (Part number C.23592 lower and C.23593 upper) are fitted. These are interchangeable with the previous type fitted.

Spares Bulletin No. L.46 Refers.

INTRODUCTION OF STEERING IDLER ASSEMBLY WITH TAPER ROLLER BEARINGS.

(Standard steering cars)

<u>Models affected.</u>	<u>Commencing chassis numbers.</u>	
	<u>R.H.Drive.</u>	<u>L.H.Drive.</u>
2.4 litre Mark 2	117585	127544
3.4 litre Mark 2	166588	179841
3.8 litre Mark 2	232641	223644
	plus certain individual cars prior to these numbers.	

On cars with the above chassis numbers and onwards standard steering models are fitted with a steering idler assembly having taper roller bearings. This assembly is similar to that fitted to power-assisted steering cars but is not the same unit.

The new assembly can be fitted in place of the previous plain bush type of idler when replacement becomes necessary.

Spares Bulletin No. J.40 Refers.

Number I.14.
Section Steering.

Sheet 1 (of 1)
Date May, 1964.

EXAMINATION OF STEERING UNITS IF CAR HAS BEEN INVOLVED
IN FRONTAL ACCIDENT.

If a car has sustained accidental damage at the front end, the steering unit should be examined for signs of twisting at the rocker shaft/droparm serrations and any other signs of damage. Furthermore if a steering unit is removed from a car that has sustained accident damage and returned to the factory this fact should be noted in any correspondence, advice notes, etc. As a further indication a white cross should be painted on the actual steering unit.



Number I.16.
Section Steering.

Sheet 1 (of 1)
Date October, 1964.

MODIFIED LOWER STEERING COLUMN UPPER UNIVERSAL JOINT.

Models affected.

Commencing chassis numbers.

2.4 litre Mark 2
3.4 litre Mark 2
3.8 litre Mark 2
3.4 'S' Type
3.8 'S' Type

R.H.Drive.	L.H.Drive.
118074	127644
167662	180004
233279	223982
1B1893	1B25233
1B51689	1B76037

On cars with the above chassis numbers and onwards a modified type of upper universal joint (pot joint) is fitted to the lower steering column. The pot joint is now in two halves and if it is necessary to gain access to the nylon rollers the four screws will have to be removed.

Number I.18.
Section Steering.

Sheet 1 (of 1)
Date April, 1965.

UPPER STEERING COLUMN THRUST BEARING.

Models affected.

2.4 litre Mark 2
3.4 litre Mark 2
3.8 litre Mark 2
3.4 'S' Model
3.8 'S' Model

Commencing chassis numbers.

R.H. Drive.	L.H. Drive.
118577	127712
168499	180086
233753	224067
1B.2769	1B.25382
1B.52990	1B.76922

On cars with the above chassis numbers and onwards a new type of Nylon thrust bearing is fitted replacing the aluminium bronze type used previously.

The thrust bearing is available in two grades of thickness

Part number.

C.23762/1
C.23762/2

Thickness.

.312 to .314" (7,9 to 7,95 mm)
.314 to .316" (7,95 to 8,0 mm).

Spares Bulletin No. L.52 refers.

C.20.27 210 (1)

Number I,23.
Section Steering.

Sheet 1 (of 1)
Date September, 1965.

UPPER STEERING COLUMN TOP BEARING.

<u>Models affected</u>	<u>Commencing chassis numbers</u>	
	R.H.Drive	L.H.Drive.
4.2 Mark 10	1D.51137 plus 1D.51052 to 1D.51103	1D.75679 plus 1D.75628 to 1D.75671
3.4 'S' Type	1B.4534	1B.25606
3.8 'S' Type	1B.54955	1B.78127

Cars with the above chassis numbers and onwards are fitted with an adjustable upper steering column top bearing.

If the column has been dismantled or the flashing indicator switch has been removed the bearing should be adjusted as follows:-

The bearing can be adjusted with the column in situ if the inner column is disconnected at the universal (pot) joint as detailed in the Service Manual - Section I Steering.

Pass the two fixing screws through the switch clamp and attach the spring washer and locknut to the upper screw and the distance piece and washer to the bottom screw.

Feed the screws through the column brackets and attach the indicator switch.

Tighten the bottom screw fully.

Fit the inner column and temporarily attach the steering wheel (if removed).

Attach a spring balance to the steering wheel rim.

Tighten the top screw until the wheel will just turn with a pull of 5ozs (141.7 grammes) registered on the balance (see illustration).

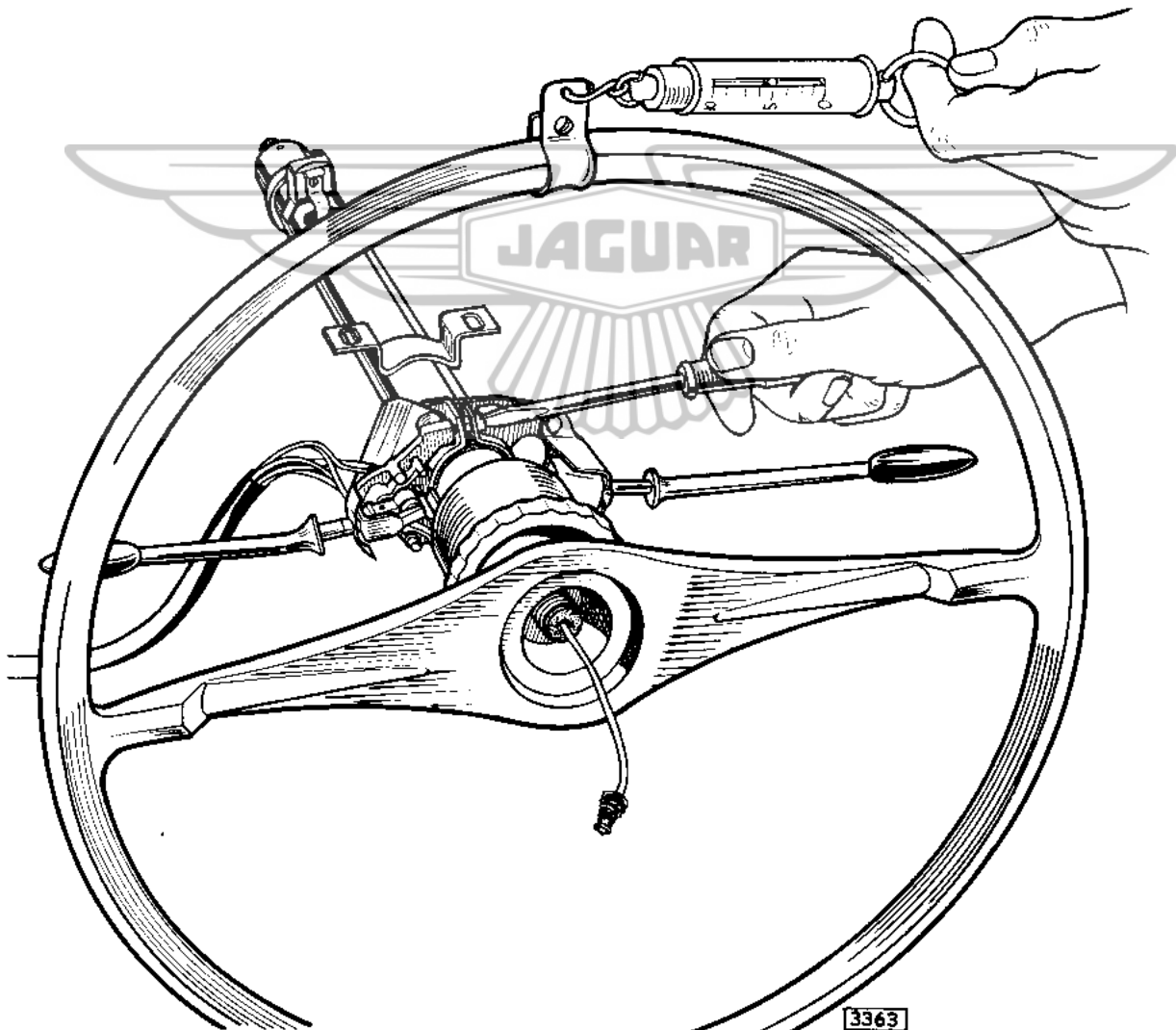
Turn the locknut towards the clamp plate and lock the screw.

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Two thicknesses of distance piece are available to compensate for any variations in the bore of the column.

Grade 'A'	.188" (4.7 mm)	(Part number C.26023/1)
Grade 'B'	.106" (4.06 mm)	(Part number C.26023/2)

Spares Bulletin No. L.54 refers.



Number I.23 (2nd issue)
Section Steering

Sheet 1 (of 1)

Date November, 1965

This Service Bulletin supersedes the original issue of Bulletin I.23, September, 1965, which should be destroyed.

UPPER STEERING COLUMN TOP BEARING

<u>Models affected</u>	<u>Commencing chassis numbers</u>	
	R.H. Drive	L.H. Drive
4.2 Mark 10	ID.51137 plus ID.51052 to ID.51103	ID.75679 plus ID.75628 to ID.75671
3.4 'S' Type	IB.4534	IB.25606
3.8 'S' Type	IB.54955	IB.78127
2.4 litre Mark 2	119277	127839
3.4 litre Mark 2	169516	180230
3.8 litre Mark 2	234287	224182

Cars with the above chassis numbers and onwards are fitted with an adjustable upper steering column top bearing.

If the column has been dismantled or the flashing indicator switch has been removed the bearing should be adjusted as follows:-

The bearing can be adjusted with the column in situ if the inner column is disconnected at the universal (pot) joint as detailed in the Service Manual - Section I Steering.

Pass the two fixing screws through the switch clamp and attach the spring washer and locknut to the upper screw and the distance piece and washer to the bottom screw.

Feed the screws through the column brackets and attach the indicator switch.

Tighten the bottom screw fully.

Fit the inner column and temporarily attach the steering wheel (if removed).

Attach a spring balance to the steering wheel rim.

Tighten the top screw until the wheel will just turn with a pull of 5 ozs (141.7 grammes) registered on the balance (see illustration).

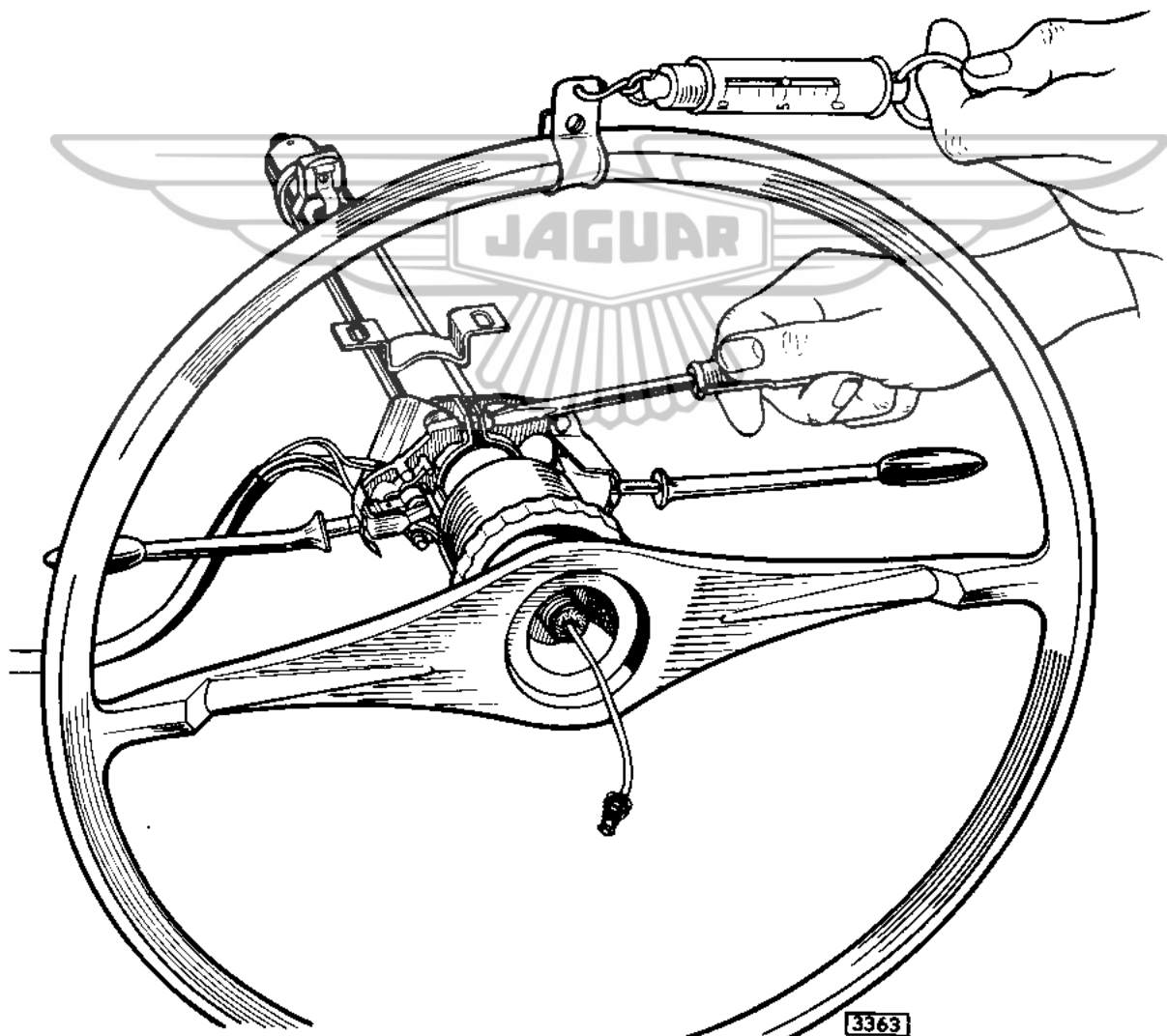
Turn the locknut towards the clamp plate and lock the screw.

Two thicknesses of distance piece are available to compensate for any variations on the bore of the column.

Grade 'A' .188" (4.7 mm) (Part Number C.26023/1)

Grade 'B' .160" (4.06 mm) (Part Number C.26023/2)

Spares Bulletin No. L.54 refers.



Number I.24
Section Steering

Sheet 1 (of 1)
Date April, 1966

UPPER STEERING COLUMN TOP BEARING
(See also Service Bulletin P.45)

<u>Models affected</u>	<u>Commencing chassis numbers</u>	
	<u>R.H. Drive</u>	<u>L.H. Drive</u>
4.2 Mark 10	1D.51955	1D.76088
3.4 'S' type	1B.56872	1B.78909
3.8 'S' type	1B.6092	1B.25788
2.4 litre Mark 2	119581	127912
3.4 litre Mark 2	170091	180310
3.8 litre Mark 2	234715	224271

Cars with the above chassis numbers and onwards are fitted with an improved type direction indicator switch.

The method of procedure for adjusting the upper steering column top bearing differs from that stated on Bulletin I.23 as follows:

The locknut is now fitted to the bottom switch clamp screw and the distance piece to the upper screw.

To adjust the bearing, tighten the upper screw fully and attach the spring balance to the steering wheel rim.

Tighten the bottom screw until the wheel will just turn with a pull of 5 ozs. (141.7 grammes) registered on the balance.

Turn the locknut towards the switch carrier bracket and lock the screw.

Re-connect the universal (pot) joint as stated in the appropriate Service Manual - Section I - Steering.

Refit steering wheel and nacelle covers.

Number I.26
Section Steering

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Date September, 1966

STEERING COLUMN JOINTS - (RUBBER)

It is now recommended that on all cars fitted with rubber couplings (not "pot" joints) between the upper and lower steering columns the condition of the joint should be checked at approximately 10,000 miles (16,000 km.) intervals for (a) possible contamination with petrol, oil or brake fluid which could cause deterioration of the rubber and for (b) the bonding.

Joints which show signs of deterioration must be replaced.

Details for dismantling and re-assembling are given in the appropriate Service Manual.

Number I.1
Section Steering

Sheet 1 (of 1)
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FITTING TOOL FOR STEERING BOX TOP COVER

An inexpensive special tool (Part number 8343) which facilitates fitting the top cover of steering units without damage to the oil seal is available from Jaguar Spares Division.

This tool takes the form of a tapered sleeve which when placed on the worm shaft whilst fitting the top cover avoids damage to the knife edge of the oil seal on the worm shaft serrations.

The use of this tool is particularly important on power-assisted steering units but can also be used on 2.4, 3.4 and 3.8 litre standard steering boxes.



Number I.4.
Section Steering

Sheet 1 (of 1)
Date April, 1962

MODIFIED RACK AND PINION PRE-LOAD

PLUNGER

<u>Models affected</u>	<u>Commencing Chassis Numbers</u>	
	R.H. Drive	L.H. Drive
"E" Type Open 2-seater	850404	876847
Fixed Head Coupe	860232	885736

On cars with the above chassis numbers and onwards, the belleville washers are replaced by a spring bearing on the rack pre-load plunger. The plunger, spring and retaining cap are interchangeable with the parts fitted to earlier cars provided all three parts are fitted. The method of adjustment is as shown in the "E" Type Service Manual, page I.7. except that retaining cap replaces the disc washer.

Spares Bulletin number L.21 refers.

CHECKING STEERING COUPLING SCREWS

(Mark 1, Mark 2 and Mark IX models)

Although it is recommended in the 10,000 miles (16,000 km) service that all chassis and body nuts, screws and bolts are checked for tightness, it has come to our notice that this is not being carried out, particularly in the case of the steering coupling cap screws.

The importance of carrying out this service cannot be too highly stressed.

CORRECT ADJUSTMENT OF STEERING LOCK STOPS

(All Models)

The importance of maintaining the correct setting of the steering lock stops is brought to the notice of all distributors and dealers.

/Continued...

Mal-adjustment of the stops giving increased lock may cause damage to the steering unit owing to undue loading of the internal parts.

Distributors and dealers are requested, therefore, to make a check on all cars coming in for service and ensure that the lock stops are correctly set.

Details of the lock stop setting procedure are given in the following publications.

Mark 1 2.4/3.4 litre Service Manual	-	page I.15.
Mark 2 2.4, 3.4 and 3.8 litre Service Manual	-	page I.20 for standard steering
	-	page I.33 for power-assisted steering
Mark LX Handbook	-	page 52

Note: No lock stops are provided on cars with rack and pinion steering as the stops are incorporated in the steering unit.

