
STEERING - 41

PARTS CATALOG,
SERVICE MANUAL &
SERVICE TIME
SCHEDULE CODE

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Steering

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DATA AND SPECIFICATIONS

Type	worm and roller
Gear ratio	16.4 to 1
Worm shaft bearings	two, ball bearings
Cross shaft bearings	three, needle bearings
Steering column	in three sections, with two universal joints
Turning circle diameter	34.11 ft. (10.40 m)
Steering wheel turns, right to left, abt.	2¾
Steering linkage	symmetrical and independent tie rods with center link and idler arm
Steering box lubrication	7¼ ozs. SAE 90 EP oil
Tie rods	with adjustable ball joints
Center link	with non-adjustable ball joints
Ball joint type	lubricated "for-life"
Idler arm support	with double acting hydraulic damper
Lock angle: - outer wheel	35°50'±1°30'
- inner wheel	28°30'
Front wheel toe-in, car laden (*)12"±.039" (3±2 mm) (on rim edge)

(*) Car laden: 2 persons + 130 lb. (59 kg) of luggage.

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TORQUE SPECIFICATIONS

DESCRIPTION	THREAD (METRIC)	MATERIAL	TORQUE		
			N·m	FT. LB.	Kgm
STEERING					
Anti-theft device and steering column support rear mounting bolt	M 8	r 80 Fosf	25	18	2.5
Universal joint clamp self-locking nut (nylon-lined)	M 8	R 80 Znt (Bolt R 100 Cdt)	26	18	2.6
Steering wheel to column nut	M 16 x 1.5	R 50 Znt (Shaft C 30 Norm)	49	36	5
Steering box-to-body self-locking nut, type S	M 10 x 1.25	R 50 Cdt (Bolt R 80 Znt)	29	22	3
Pitman arm nut	M 20 1.5	R 80 Cdt (Shaft 30 Cd 4)	235	173	23.5
Hydraulic damper-to-body self-locking nut, type S	M 10 x 1.25	R 50 Cdt (Bolt R 80 Znt)	29	22	3
Track rod clamp nut	M 8	R 50 Znt (Bolt R 80 Znt)	17	11	1.7
Ball joint-to-steering rod self-locking nut (nylon-lined)	M 10 x 1.25	R 50 Znt (Pin 12 Nc 3 Carbn)	34	25	3.5

STEERING WHEEL

REMOVAL AND INSTALLATION

Center steering wheel and front wheels.

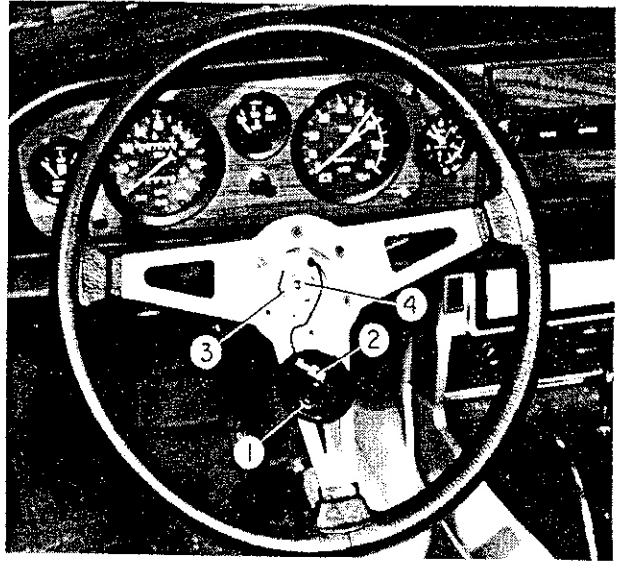
Disconnect battery ground cable.

Pull horn button (1) from steering wheel and disconnect electrical connector (2).

Remove nut (3) holding wheel to shaft (4). Mark steering wheel and steering shaft for reinstallation in same position. Pull wheel off shaft.

Install in reverse order of removal. Torque nut to 36 ft lb (5 kgm).

1. Horn button 2. Electrical connector 3. Nut 4. Steering shaft



STEERING COLUMN

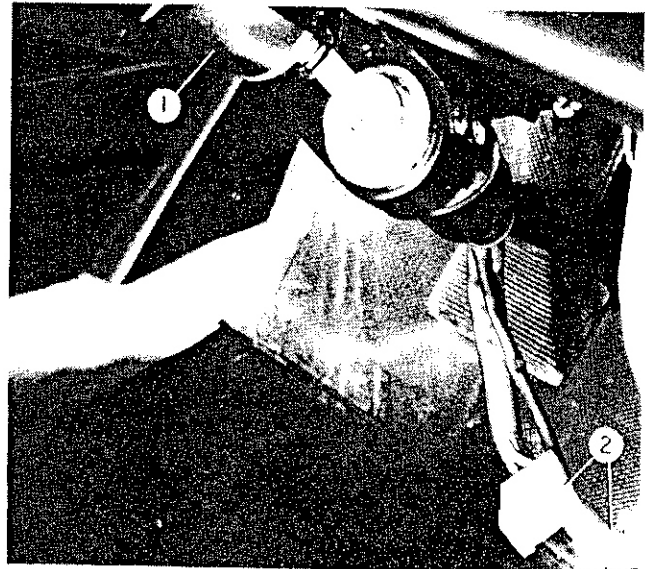
REMOVAL AND INSTALLATION

Remove steering wheel as described above.

Remove four screws to remove upper and lower cover halves (1).

Disconnect two ignition switch electrical connectors (2).

1. Steering column cover half 2. Electrical connector

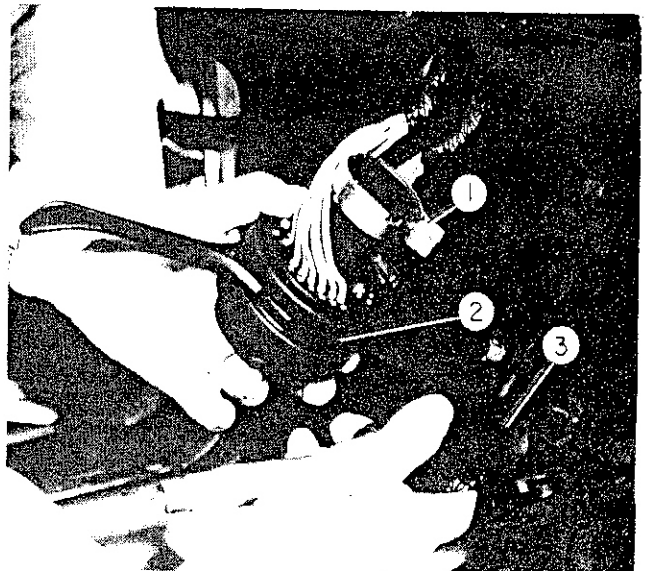


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Loosen clamp (1) holding lights/wiper/directional switch assembly (2) to column.

Remove two bolts and two nuts securing steering column (3) to underdash frame. Lower column and simultaneously slide lights/wiper/directional switch assembly off column.

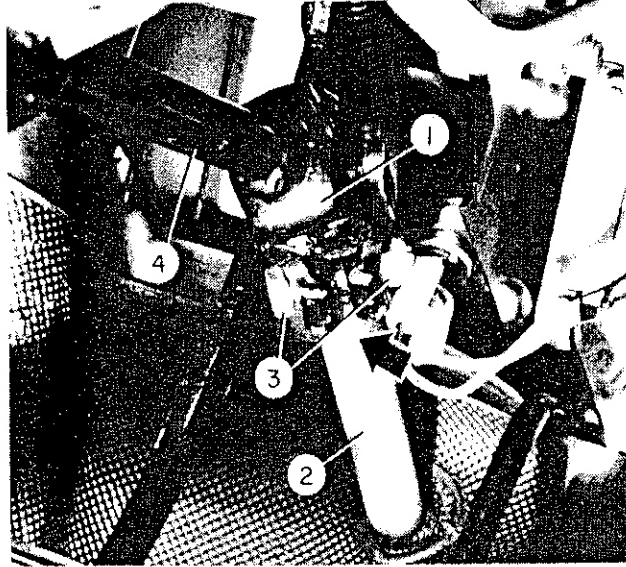
1. Clamp 2. Lights/wiper/directional switch assembly 3. Steering column



Mark position (arrow) of column shaft U-joint (1) in relation to steering box shaft (2).

Remove bolt and nut (3). Slide entire column (4) off steering box shaft.

Install in reverse order of removal. Torque U-joint clamp nut to 18 ft lb (2.6 kgm).

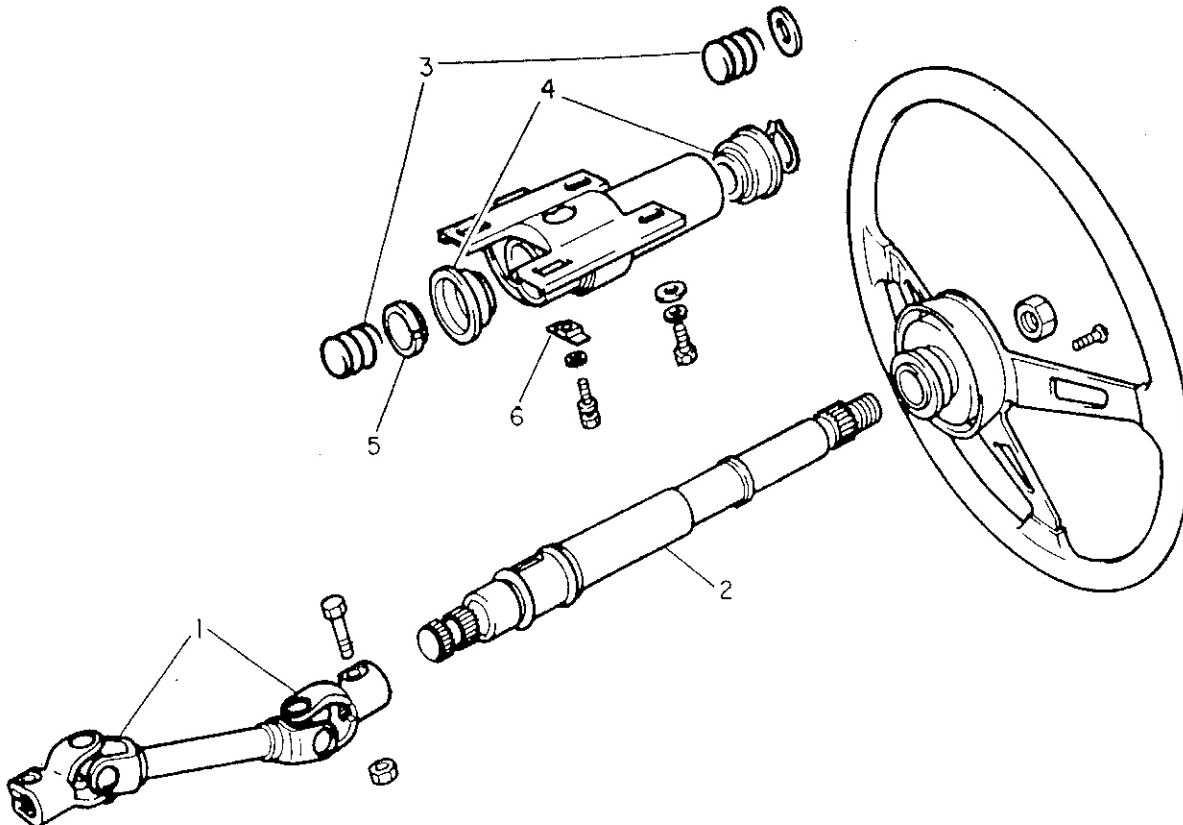


1. U-joint 2. Steering box shaft 3. Bolt and nut 4. Steering column

INSPECTION

- Inspect U-joints (1) for wear. Replace if worn.
- Inspect splines and shaft (2) for wear or damage. Replace if necessary.
- Inspect springs (3) for breakage. Replace if broken.
- Inspect bearings (4) and bushing (5) for wear. Replace if worn.
- Replace retainers (6) if broken.

1. U-joint 2. Steering shaft 3. Spring 4. Bearing 5. Bushing 6. Retainer



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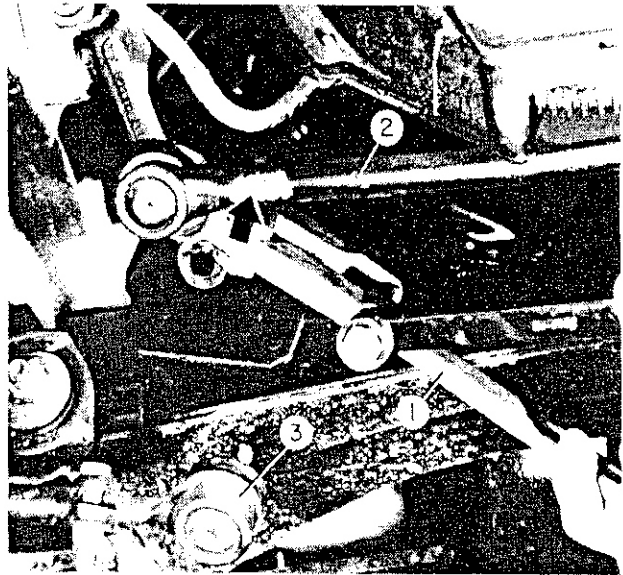
STEERING BOX

REMOVAL AND INSTALLATION

Remove tie rods from pitman arm with tool A.47038 (1) as shown.

NOTE: Mark one side (arrow) of intermediate tie rod (2) so that it will be assembled in same position.

1. Tool A.47038 2. Intermediate tie rod 3. L. side tie rod assembly



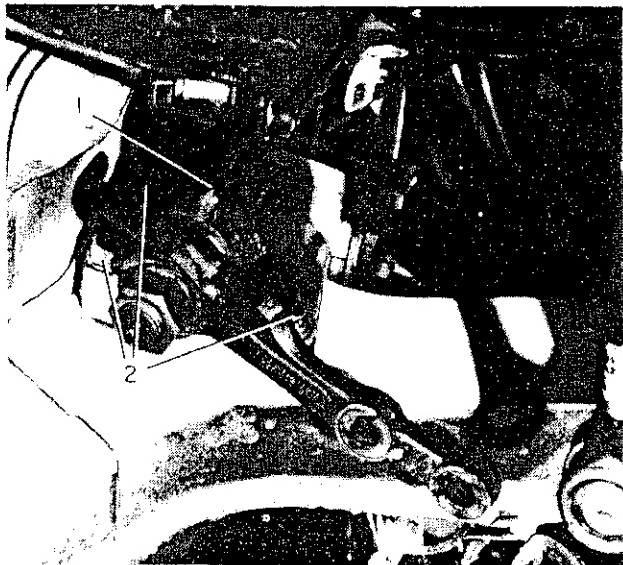
Disconnect starter (refer to Electrical Section) and move it out of way.

Remove lower bolt on left wheel well shield to gain access to steering box (1) mounting nuts. Remove three bolts (2) and nuts.

Remove steering box by withdrawing steering box shaft thru firewall.

Install in reverse order of removal. Torque steering box mounting nuts to 22 ft lb (3 kgm). Torque pitman arm tie rod nuts to 25 ft lb (3.5 kgm).

1. Steering box 2. Bolt



IDLER ARM SUPPORT/STEERING DAMPNER

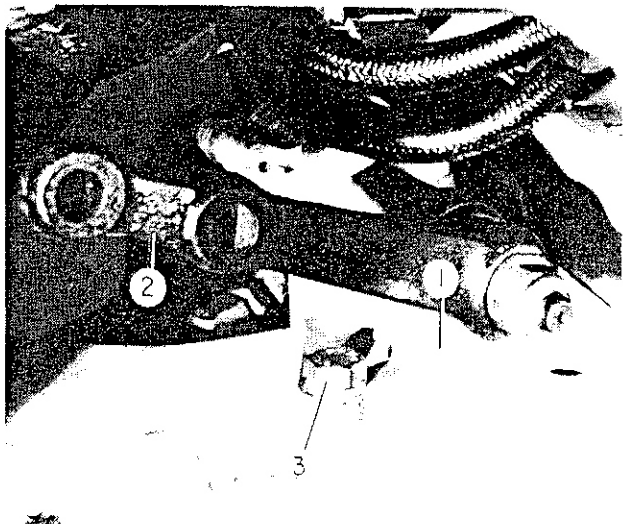
REMOVAL AND INSTALLATION

Remove tie rods from idler arm (2) with tool A.47038.

Remove lower bolt on right wheel well shield in order to gain access to dampner mounting nut. Remove two bolts (3) and nuts to remove dampner (1).

Install in reverse order of removal. Torque dampner mounting nuts to 22 ft lb (3 kgm). Torque idler arm tie rod nuts to 25 ft lb (3.5 kgm).

1. Idler arm support/steering dampner 2. Idler arm 3. Bolt



ADJUSTMENT

Before adjusting steering, first check that steering linkage joints are not worn, since this will cause excessive free play in steering wheel.

If, with front wheels in straight ahead position, steering wheel free travel at rim is more than one inch, steering box may need adjustment.

NOTE: Adjustment between worm and roller must be made with pitman arm in mid position (front wheels straight ahead).

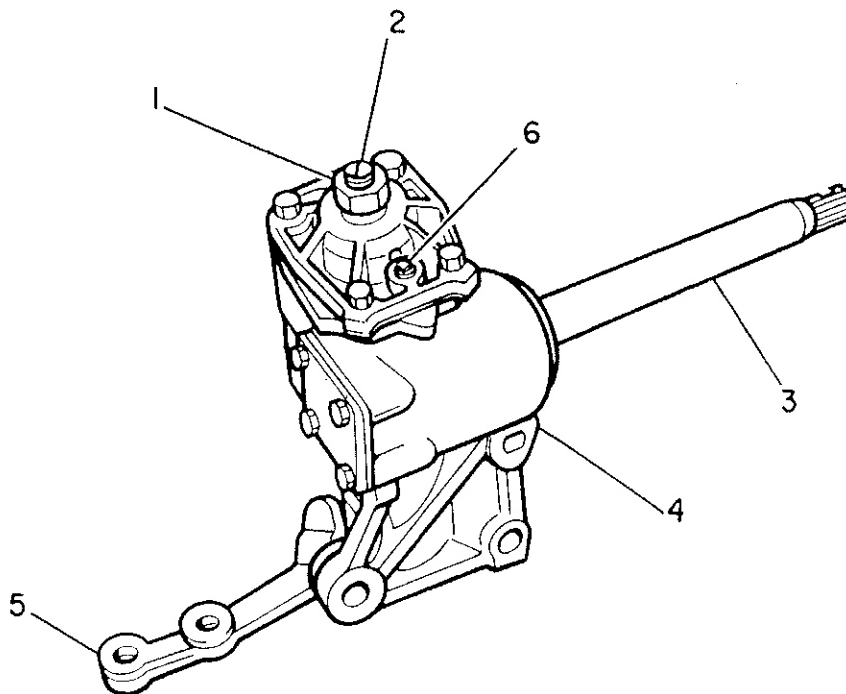
Loosen locknut (1). Turn adjusting screw (2) clockwise until steering wheel free play is less than one inch.

To check that adjustment is not too tight, move steering wheel from left turn to full right turn (this is best accomplished with front end jacked up or wheels on slip plates). There should be no binding or tightness at end of wheel travel. If tightness is felt, back off on adjustment until it is eliminated.

With screwdriver holding adjusting screw in position, tighten locknut to secure adjustment.

LUBRICATION

Steering box is filled with 7¼ ozs. of SAE 90 EP oil. Top up thru filler plug (6).



- 1. Locknut
- 2. Adjusting screw
- 3. Steering shaft
- 4. Steering box
- 5. Pitman arm
- 6. Oil filler plug

STEERING LINKAGE

REMOVAL AND INSTALLATION

Remove self-locking nuts which secure side rod ball joints (2) to steering arms (1). With tool A.47038 remove ball joint pins from taper seats in arms.

Repeat operation for remaining side rod ball joints on pitman (3) and idler (4) arms.

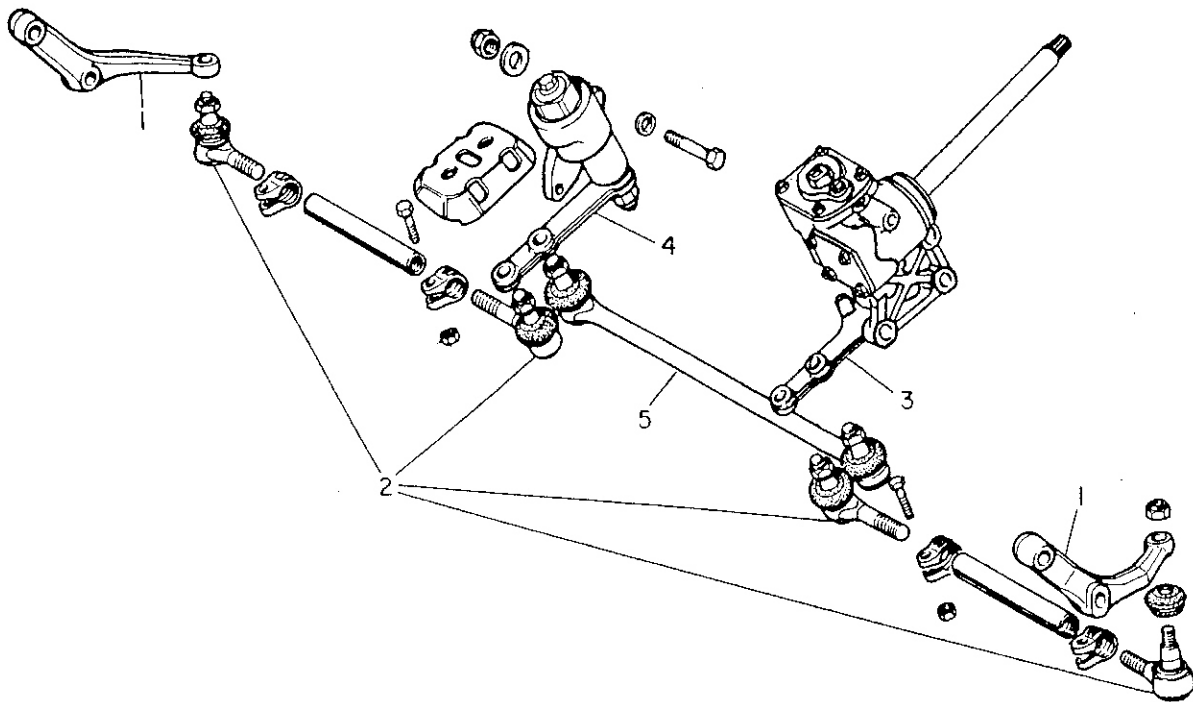
NOTE: Before removing intermediate arm (5), mark one side of arm so that it will be reassembled in same position.

Remove intermediate arm with tool A.47038.

Installation is reverse of removal. Torque all ball joint self-locking nuts to 25 ft lb (3.5 kgm).

Adjust toe-in (refer to Suspension section).

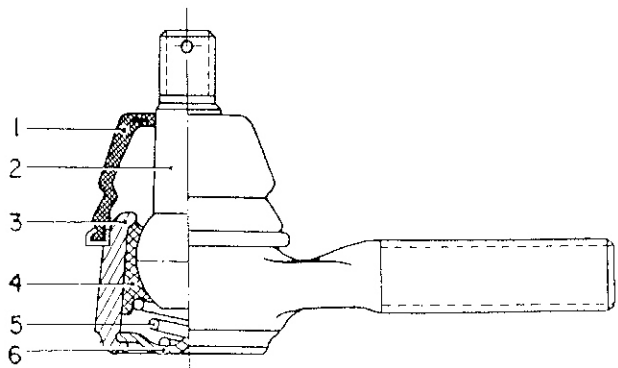
1. Steering arm 2. Rod ball joints 3. Pitman arm 4. Idler arm 5. Intermediate arm



INSPECTION

Check that ball joints are not too loose in their sockets (3) and that pins (2) and rubber boots (1) are in good condition. If not, replace entire rod for the intermediate rod, and replace ball joints for the side rods.

1. Rubber boot 2. Ball pin 3. Socket 4. Spherical bushing
5. Spring 6. Cover plate

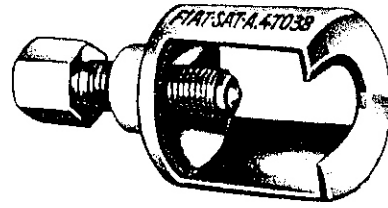


Service Tools

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A.47038 Puller for separating ball joints



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