

1968-70 PEUGEOT SPLIT HOUSING

Peugeot 404 (1968-70)

DESCRIPTION

Peugeot split housing rear axle uses a steel worm drive pinion against a bronze ring gear. The axle housing is aluminum alloy. The gear reduction is 4.2:1 (5X21). Both axle shaft tubes are bolted to rear axle housing. Removal of right axle tube provides "side cover" access to axle housing internal parts. Propeller shaft is enclosed and splined onto steel drive pinion of rear carrier.

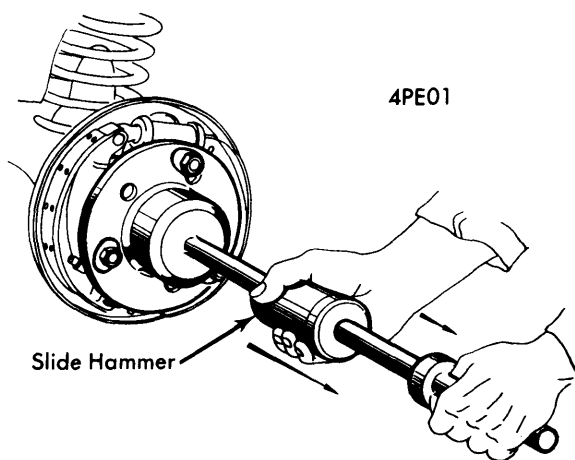
AXLE RATIO & IDENTIFICATION

Peugeot uses only one ratio rear axle which is identified by counting the teeth of the ring gear and dividing by the number of teeth on the pinion gear. The ring should have 21 teeth and the pinion should have 5 teeth, therefore the axle ratio is described as 5X21 or 4.2:1.

REMOVAL & INSTALLATION

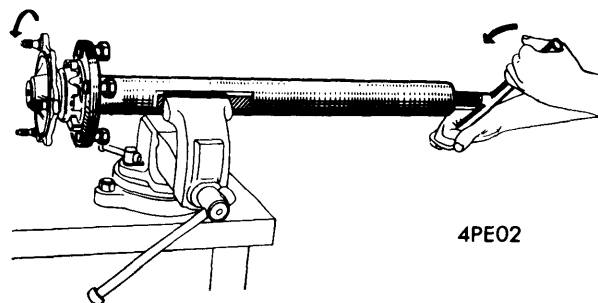
AXLE SHAFTS & BEARINGS

Removal – 1) Lift vehicle from rear and place stands under axle shaft housings. Remove wheel and brake drum. Remove nuts securing flange (backing plate) to axle housing. Attach axle shaft sliding hammer (special tool 8.0601) to axle with lug nuts. Slide block outward against shoulder of tool to release axle shaft complete with flange and bearing.



REMOVING REAR AXLES

2) In order to facilitate removal of bearing collar, tap lightly on outside of collar before placing axle assembly in bearing press. Place axle shaft in press, splined end up and install press adaptor under flange. Apply sufficient pressure to end of axle shaft to remove both collar and bearing. **NOTE** – A special axle shaft bearing puller (special tool 8.0507) may be obtained from Peugeot distributor.



SPECIAL TOOL FOR REMOVING REAR AXLE BEARING

Installation – To install, reverse procedure using adaptor to press on bearing and then press on new collar. When installing bearing and collar, observe the following precautions:

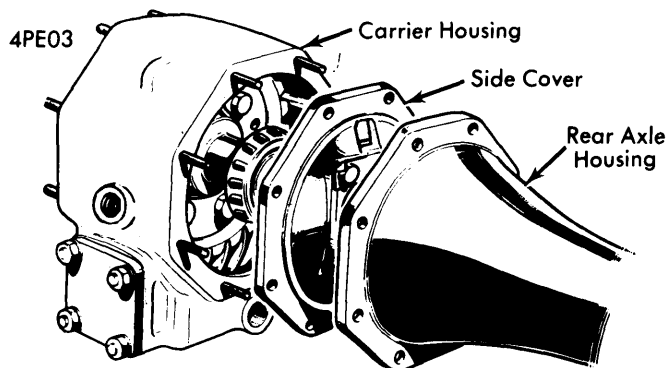
Always use new collar. Press bearing and collar on separately. Pressure required to press on new collar should be between 6½ and 8 tons. If pressure is not at least 6½ tons, that collar should not be used. Make certain that bearing and collar are both seated. Before installing axle into axle housing, coat axle bearing flange and axle housing with Permatex number 3. Torque axle flange nuts and wheel lug nuts to specifications.

DIFFERENTIAL CARRIER

Removal – 1) With vehicle raised and supported, disconnect shock absorbers, stabilizer bar, parking brake cables and hydraulic brake hose (plug end of brake hose). Lift rear of body or lower rear end to remove coil springs. Remove exhaust pipe flange from exhaust manifold and exhaust pipe clamp from transmission housing.

2) Support transmission with jack. Remove upper bolt and two lower nuts of rear engine mount. Lower transmission small amount. **NOTE** – Do not allow engine oil pan to rest on steering housing. Using suitable socket wrench (special tool 8.0406), remove propeller tube ball joint cover attaching bolts. Separate tube from transmission.

3) Lift rear of vehicle enough to allow removal of rear axle and wheel assembly. Remove propeller tube from rear carrier housing. Remove wheels and axle shafts (as previously outlined). Disconnect brake backing plates and unbolt axle shaft tubes from rear carrier housing. Separate axle tubes from rear carrier by tapping gently on each tube flange with mallet.



SEPARATING REAR AXLE HOUSING FROM REAR CARRIER HOUSING

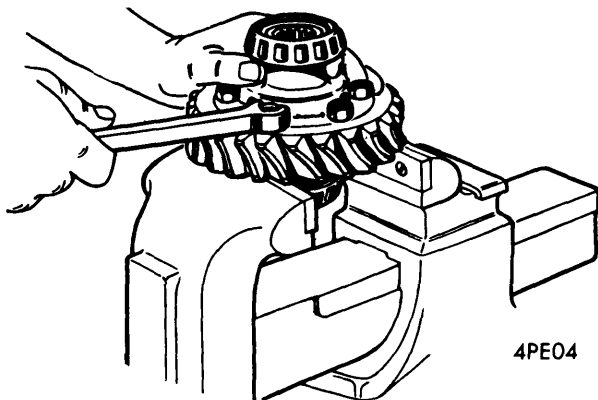
1968-70 PEUGEOT SPLIT HOUSING (Cont.)

Installation — To install, reverse removal procedure and note the following: Rear engine mount must be free of grease, oil and paint. *NOTE* — Never use trichlorethylene to clean mount. Coat each side of mount with Permatex number 3. When installing coil springs, first coil should face to rear. *NOTE* — Coil springs are interchangeable. Bleed brakes after connecting brake lines.

OVERHAUL

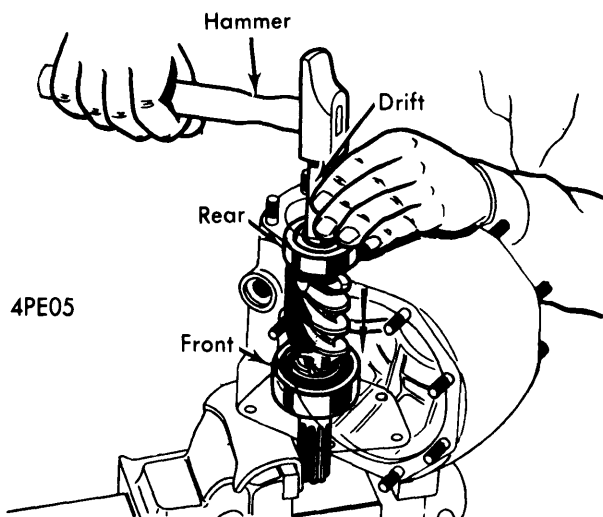
DISASSEMBLY

1) With carrier housing removed and placed on its left side, remove differential from carrier housing. Place differential in soft jawed vise and remove bolts from side of ring gear (differential) assembly. Discard bolts, as new ones must be used on reassembly.



DISASSEMBLING DIFFERENTIAL ASSEMBLY

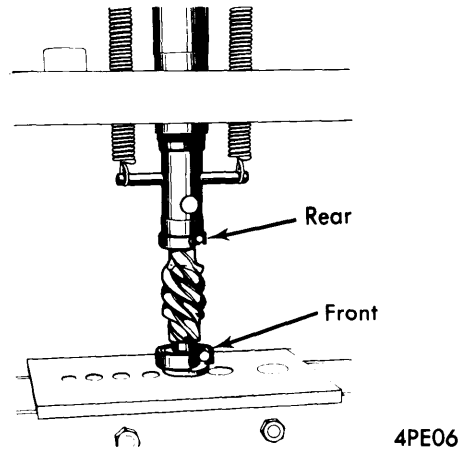
2) With differential removed from carrier housing, remove front oil seal, spacer and rear cap. To remove steel worm gear, dip housing in boiling water until housing is at temperature of water. Place housing in soft jawed vise with spline of worm gear facing downward through vise. Drive worm gear and bearing assembly downward and out of case. Use drift (special tool 8.0505) to remove outer races of differential bearings. *NOTE* — Do not interchange races.



REMOVING STEEL WORM GEAR FROM CARRIER HOUSING

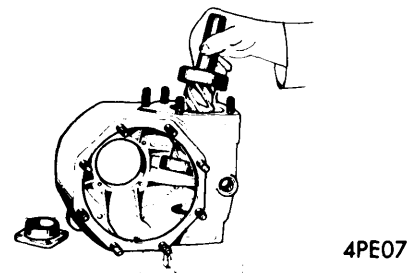
REASSEMBLY & ADJUSTMENT

1) On the steel drive pinion, coat both bearing seats with lubriplate and press on both front and rear bearings. *NOTE* — When pressing bearings, only apply pressure to inner race of bearings.



PRESSING BEARINGS ONTO WORM GEAR SHAFT

2) Place carrier housing in hot water until temperature reaches 190°F (88.0°C). With housing pre-heated, place housing in soft jawed vise with filling hole facing downward. Install pinion worm gear in housing. Hold pinion and install front spacer without its rubber ring. Hold assembly in place by means of cast iron plate, placed over spline end of pinion. Tighten plate with two diagonally opposed nuts.

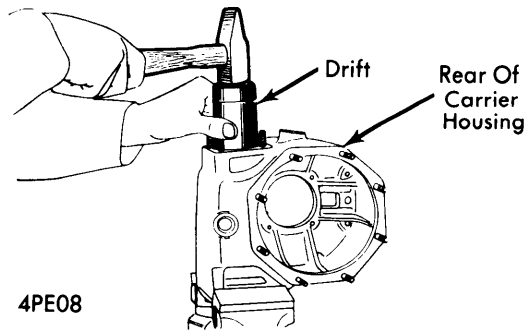


INSTALLING WORM GEAR INTO CARRIER HOUSING

3) Turn housing upside down. Use drift to gently tap bearing outer race (rear bearing), which will drive pinion toward front of case and ensure proper seating of pinion. Use depth measuring tool (special tool N), at rear of case, to determine depth of outer race. Use same tool to determine depth of rear cover. Difference between two measurements is amount of shims to install between rear cover and housing. Install shims and rear cover, with groove facing either side. *NOTE* — Coat mating surfaces with Permatex number 3, but do not install gasket. After installing rear cover, worm gear should rotate

Drive Axles

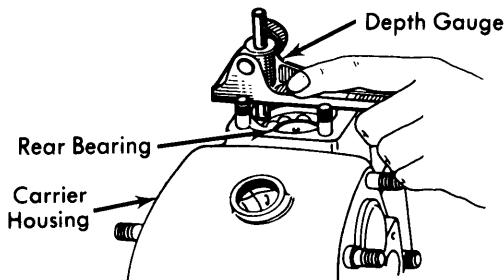
1968-70 PEUGEOT SPLIT HOUSING (Cont.)



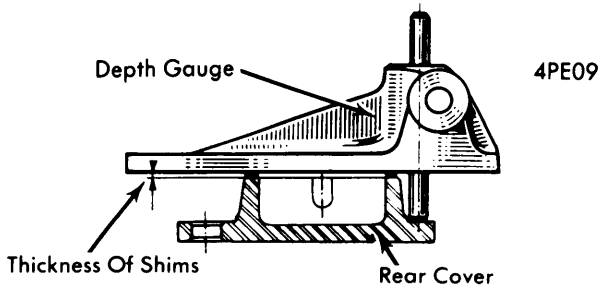
4PE08

SEATING WORM GEAR

freely. Remove front cast iron cover, installed over splined end of pinion worm gear. Install oil seal, rubber ring and front spacer, with groove facing either side.



Measuring Depth Of Rear Worm Bearing

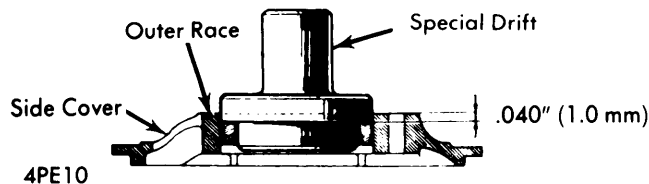


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Measuring Depth Of Rear Bearing Cover

PROCEDURE FOR DETERMINING THICKNESS OF SHIMS FOR REAR WORM GEAR BEARING COVER

4) Use drift (special tool I) to install side bearing outer races (one in housing and one in side cover) to depth of .040" (1.0 mm).

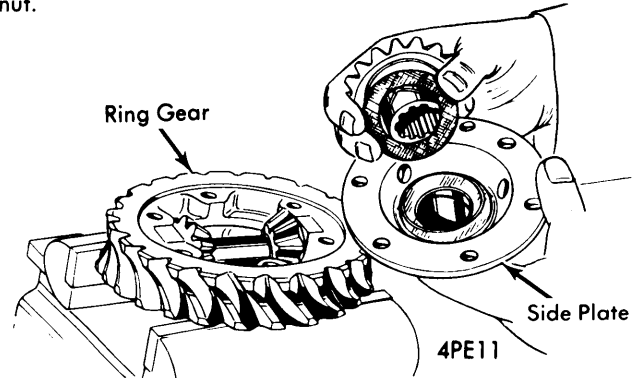


4PE10

INSTALLING SIDE BEARING OUTER RACE

5) If pinion gears were removed from bronze ring gear, reinstall. Install differential side gears into ring gear side plate, using new composition thrust washers. Install ring gear side plates onto bronze gear with $\frac{5}{16}$ " (7.9 mm) holes aligned

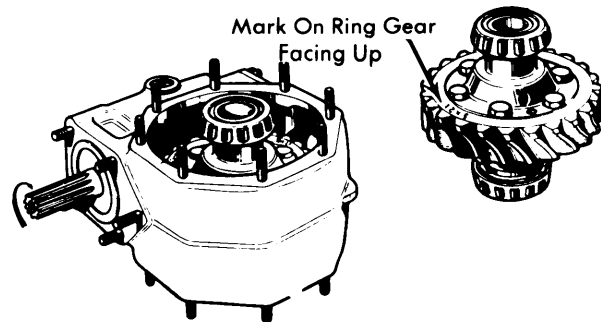
with end of pinion gearshaft. Bolt side plates together using six new bolts. **NOTE** — Bolt heads must be on side of ring gear marked with gear ratio. Torque bolts to specifications and stake bolts by punching metal into one castellation of each nut.



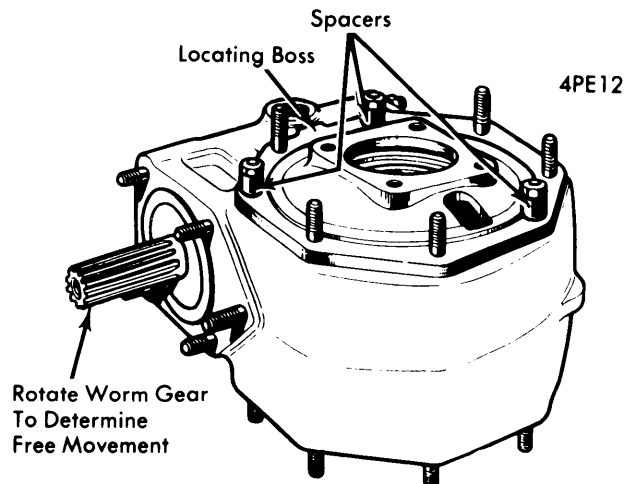
4PE11

REASSEMBLING DIFFERENTIAL

6) With side plates bolted onto bronze ring gear, install assembly into carrier housing (ratio marking should face upward). Differential is properly seated on lower side bearing if it turns freely by rotating worm gear (pinion). Install housing side cover with paper gasket coated with Permatex number 3. **NOTE** — Make sure locating boss is next to drain plug and hole of side cover is facing top of housing. To ensure proper seating of side cover, install spacers (see illustration).



Installing Differential In Housing



4PE12

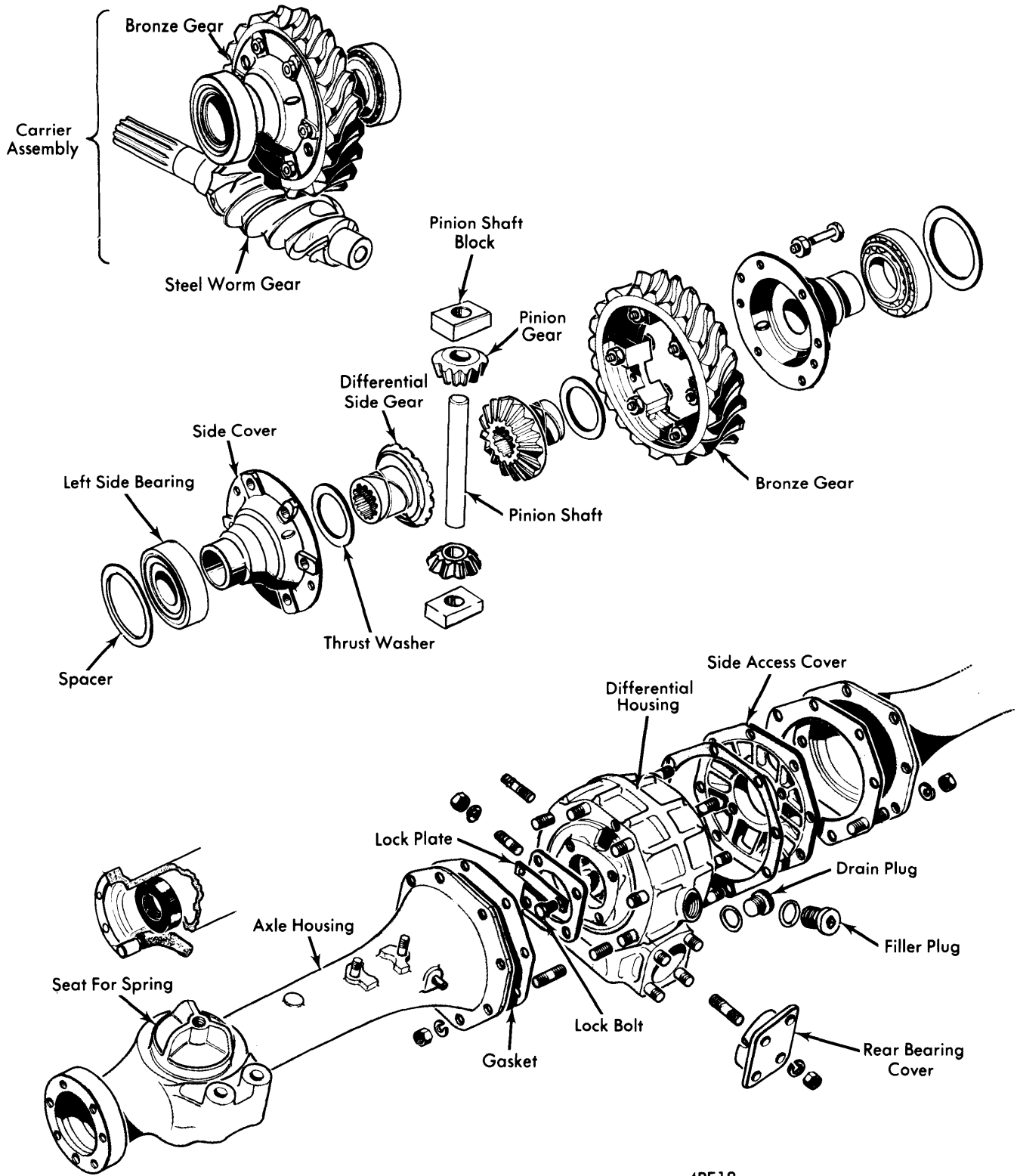
Rotate Worm Gear To Determine Free Movement

Installing Differential Side Cover W/Spacers

PREPARING DIFFERENTIAL FOR ADJUSTMENT

Drive Axles

1968-70 PEUGEOT SPLIT HOUSING (Cont.)

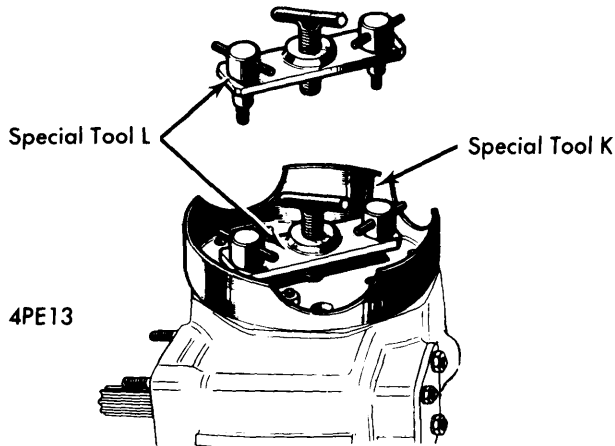


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Drive Axles

1968-70 PEUGEOT SPLIT HOUSING (Cont.)

7) Turn housing over (so housing is sitting on side cover) and align the two $\frac{5}{16}$ " (7.9 mm) holes in side plate with corresponding holes in housing. Install special tool (K) in illustrated position with both fingers fitted through $\frac{5}{16}$ " (7.9 mm) holes of side plate. Secure clamp (special tool L) to press tool "K" correctly onto housing.

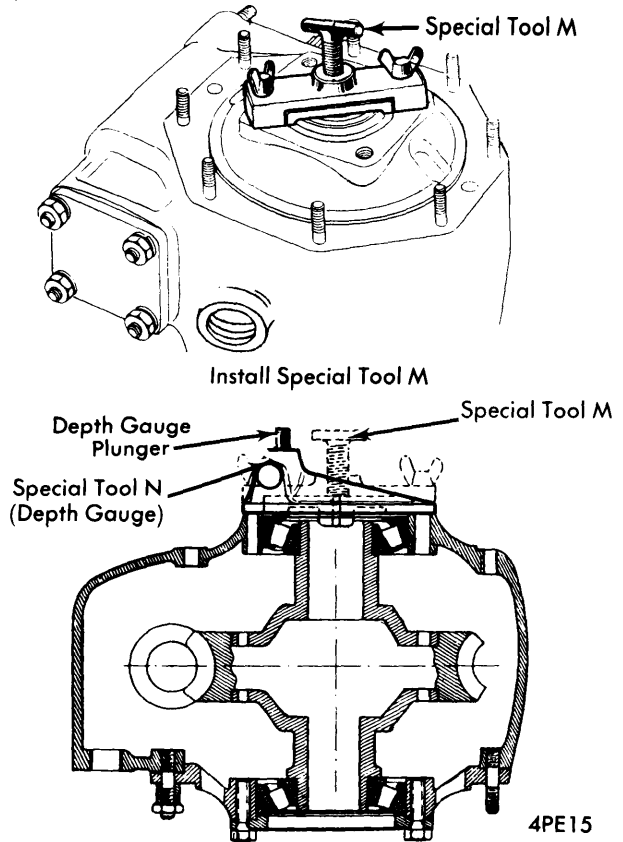


INSTALLING SPECIAL TOOL ON LEFT SIDE COVER

8) Turn assembly over, using special tool (K) as a support. Install special clamp (tool M) and apply slight pressure on outer race of side bearing. Hold depth gauge (tool N) against housing side and push plunger to touch outer race of side bearing. Lock plunger and use gauge "N" to check bearing plate "A" to determine shim thickness. Remove clamp "M" and install shims, bearing plate and both locking straps. Tighten bolts (of locking straps) to specifications.

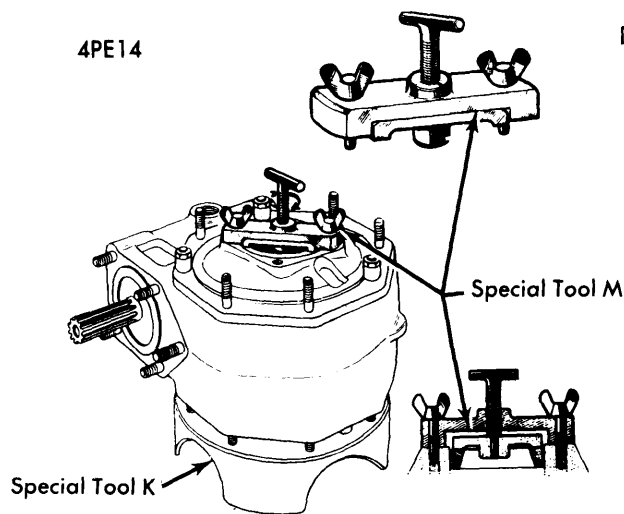
9) Turn assembly over so that it sits on side cover. Remove clamp "L" and tool "K". Install clamp "M" and apply slight

pressure on outer race of side bearing. Use depth gauge (tool N) to determine shim thickness, as outlined in step 8). Remove

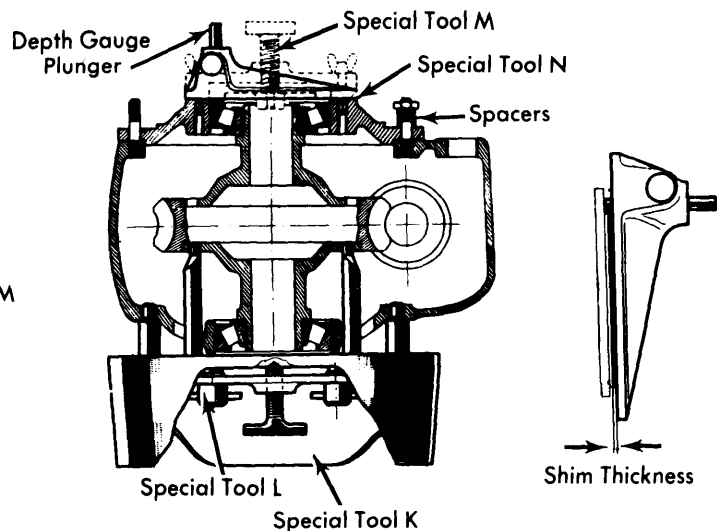


Measuring Depth Of Left Side Bearing Outer Race

INSTALLING SPECIAL TOOLS & MEASURING DEPTH OF LEFT SIDE BEARING



Installing Special Tools



Measuring Depth Of Right Side Bearing Outer Race

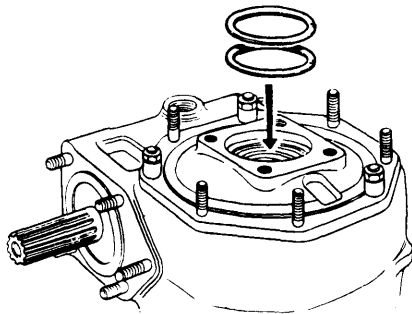
1968-70 PEUGEOT SPLIT HOUSING (Cont.)

clamp "M" and install shims. Install bearing plate and both locking straps. Tighten bolts, of locking straps, to specifications.

10) Remove spacers installed on side cover and install right hand axle housing.

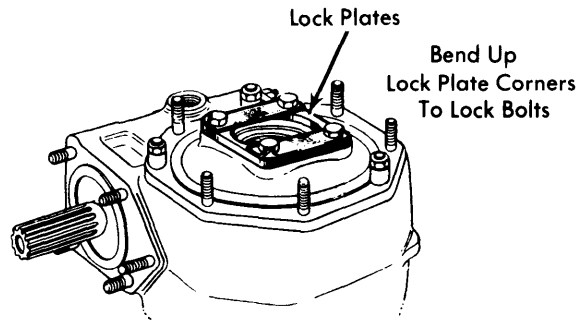
TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Axle Shaft Collar-To-Backing Plate	10 (1.4)
Wheel Lug Nuts	45 (6.2)
Differential Side Cover Bolt.....	50 (7.0)
Differential Side Cover Lock Plate Bolts.....	25 (3.5)



4PE17

Installing Shims



Installing Lock Plates

INSTALLING SHIMS & LOCKING PLATES