WHEELS—WHEEL BEARINGS

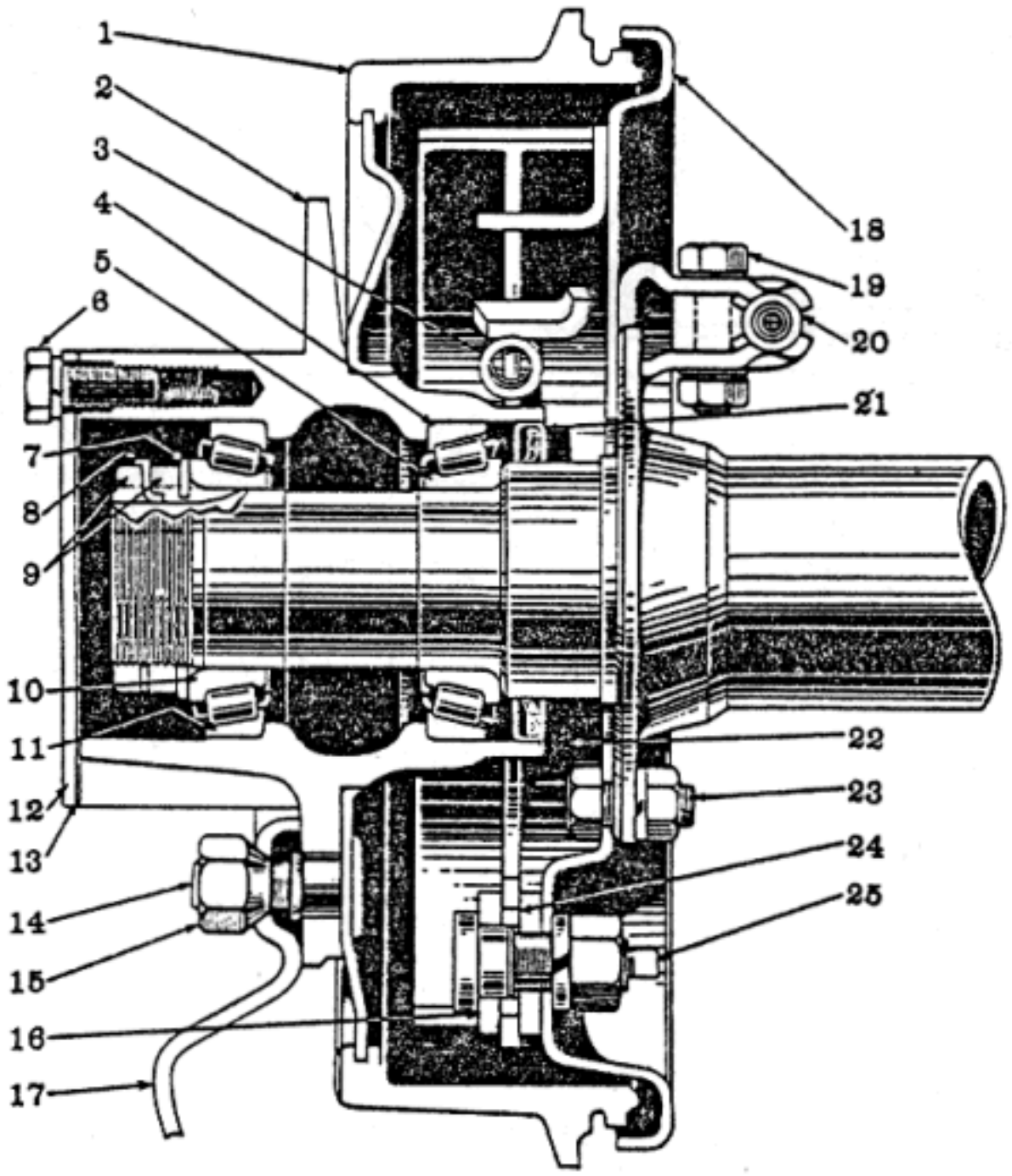

FIG. 12—WHEEL BEARINGS

Item No.	Gov't Group No.	Bantam Part No.	Willys Part No.	Name
1	1302	R-20731	A-472	Brake Drum
2	1302	R-10111	A-1691	Wheel Hub (with Bearing Cups)
3	1203	14371	637905	Brake Shoe Return Spring
4	1302	R-21160	52943	Roller Bearing Cup
5	1302	R-21159	52942	Coned Roller Bearing
6	1302	1X10-R	6299	Hub Cap Screw
7	1302	R-21161	A-865	Outer Wheel Bearing Washer
8	1302	R-21163	A-867	Outer Wheel Bearing Nut Lockwasher
9	1302	R-21162	A-866	Wheel Bearing Nut
10	1302	R-21159	52942	Cone and Roller Bearing
11	1302	R-21160	52943	Roller Bearing Cup
12	1302	14255	A-6038	Hub Cap
13	1302	R-21031	A-904	Wheel Flange Gasket
14	1302	R-20051	A-473	Wheel Hub Bolt L.H. thd. (Willys A-474; Bantam R-20050, R.H. thd.)
15	1302	R-11028	A-475	Wheel Hub Bolt Nut L. H. thd. (Willys A-476; Bantam R-11027, R.H. thd.)
16	1203	14369	637901	Brake Shoe Anchor Pin Plate
17	1301	14231	A-5467	Divided Combat Wheel Assembly
18	1208	14358	A-6458	Brake Backing Plate Assembly L.H. (Willys A-6459; Bantam 14357, R.H.)
19	1208	1X46-R	6609	Conduit Bracket Backing Plate Screw
20	1201	14325	A-6406	Cable and Conduit Assembly
21	1302	R-21164	A-864	Hub Oil Seal Assembly
22	1202	14359	116549	Brake Shoe Lining Assembly—Forward (Willys 116550; Bantam 14362, Reverse)
23	1200	1X26-R	A-903	Brake Backing Plate Screw
24	1203	14368	637900	Brake Shoe Anchor Pin Cam
25	1203	14367	637899	Brake Shoe Anchor Pin

The wheels are carried on two opposed tapered roller bearings. Bearings are adjustable for wear and their satisfactory operation and long life depend upon periodic attention and correct lubrication. See Fig. 12.

Wheel bearings cannot be checked for adjustment properly unless brakes are free from dragging on brake drums and are in fully released position.

Wheel Bearings

1. Raise vehicle with jack so that tires clear the floor.
2. With hands test sidewise shake of the wheel. If bearings are adjusted too loose, shake of wheel will be perceptible. If bearing adjustment is too tight, the bearings will bind and the rollers may break or become overheated.

If this test indicates adjustment is necessary, proceed as follows:

Adjustment

1. With wheels still on jack remove hub cap.
2. Bend lip of nut lockwasher so that adjustment locknut and lock can be removed.
3. Tighten adjusting nut until wheel binds, at the same time rotating wheel to make sure all bearing surfaces are in proper contact.
4. Then back off nut about ⅙ turn or more if necessary making sure wheel rotates freely.
5. Replace locknut and lockwasher. Do not fail to bend over lip on nut lockwasher.
6. When hub is completely assembled, test wheel shake before removing jack.

When reinstalling hubs and drums, the hubs with the right hand threaded studs are placed on the right hand side of vehicle. The left hand threaded studs are on the left hand side, viewing vehicle from the rear.

Brake Drum

The brake drums are attached to the wheel hubs by five serrated bolts. These bolts are also used for mounting the wheels to the hubs.

To remove a brake drum, drive out the serrated bolts and remove the drum from hub.

When placing drum on hub, make sure that the contacting surfaces are clean and flat. Line up holes in drum with those in hub and force drum over shoulder on hub. Insert five new serrated bolts through drum and hub and drive the bolts into place solidly. Place a round piece of stock in vise approximately the diameter of the head of the bolt and place hub and drum assembly over it so that it rests against head of the bolt then swedge bolt into countersunk section of hub with punch.

The runout of the face of the drum should be within .003". If runout is found to be greater than .003" it will be necessary to reset bolts to correct the condition.

Left hand hub bolts are identified with an "L" stamped on head of the bolt.

The left hand threaded nuts can be identified by a groove around the hexagon faces.

Hubs containing the left hand threaded hub bolts are installed on the left hand side of vehicle.

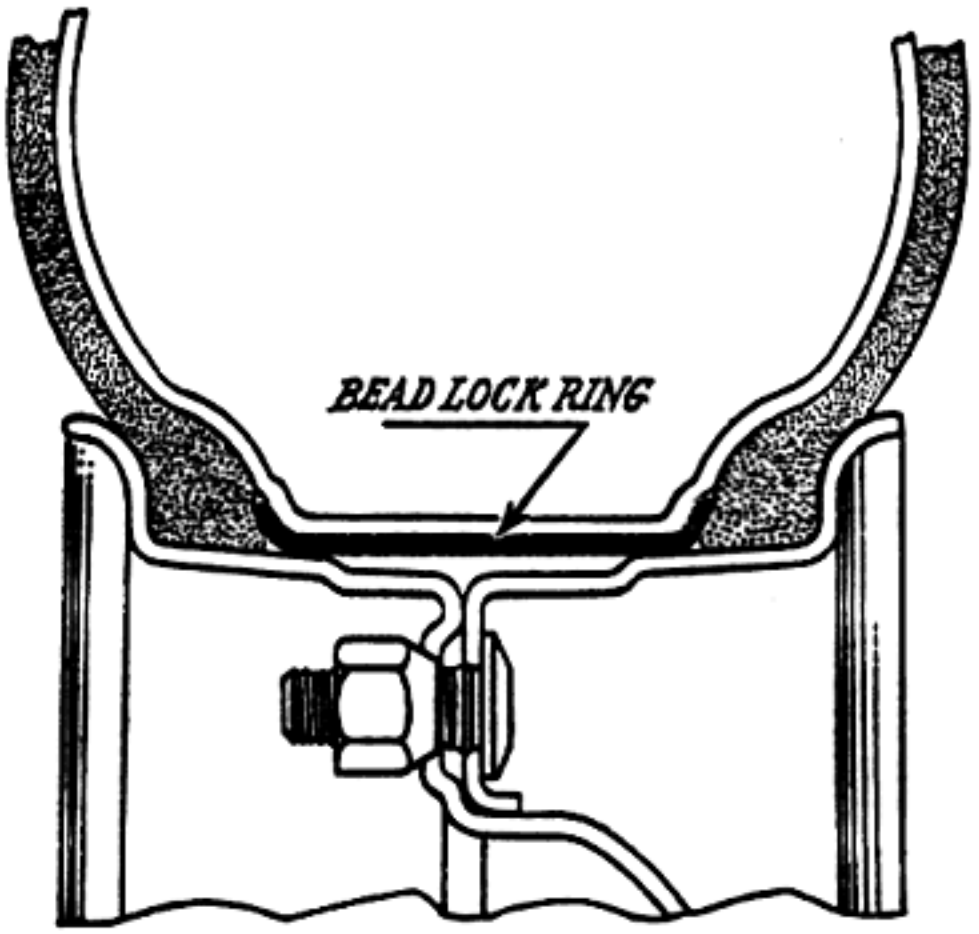

FIG. 13—COMBAT WHEEL

Tires

One of the most important factors of safe vehicle operation and probably the most neglected is correct tire maintenance. Tires must sustain the weight of the loaded vehicle, withstand more than ordinary rough service, provide maximum safety over all types of territory, and furnish the medium on which the vehicle can be maneuvered with ease.

Tire pressures should be consistently maintained for safe operation. An under inflated tire is dangerous and too much flexing causes breakage of the casing fabric resulting in a failure. Over-inflation in time may cause a blowout. Inflate tires to 30 pounds pressure.

When removing a tire, first remove the wheel and be sure to deflate the tire before removing the rim nuts. After removing the rim nuts, remove the outer rim then remove the tire after which remove the bead locking ring and tube from the tire. When mounting the tire the procedure is reversed. See Fig. 13. Do not put too much air in the tube when mounting. Combat wheel rim bolt and hub bolt torque reading 60-70 ft. lbs.

When tightening the wheel stud nuts, alternately tighten opposite nuts to prevent wheel runout. After nuts have been tightened with the wheel jacked up, lower jack until wheel rests on the floor and retighten the nuts.

WHEEL SPECIFICATIONS

Wheels:		
Make	Kelsey-Hayes	
Rim	16x4.50 Combat Wheels	
Tires	Straight Side—6 Ply—16 x 6.00	
Type Tread	Non-directional	
Make	Goodyear "All Service"	
Tire Pressure	30 lbs.	
Bearings:	**Inner**	**Outer**
Make	Timken	Timken
Cone and roller	18590	18590
Cup	18520	18520