Ref. BO7/4

J.C.

TYRES

and your

LANCHESTER

★ The contents are important to the comfort and performance of your Lanchester.

FOREWORD

Behind the Dunlop tyre of to-day lie nearly sixty years of experience in tyre building. This booklet contains information the motorist requires to enable him to get the best service possible from his tyres.

The Air is the Real "Tyre"

THE whole principle of the pneumatic tyre is the employment of compressed air to form a cushion between the vehicle and the road. The inner tube is merely the " container," and the outer cover its protective covering. The air carries the load.

A pneumatic tyre is therefore a means of containing a quantity of compressed air around a vehicle wheel to support the load, absorb shock, and give that rigidity to a flexible tyre through which can be transmitted the power for driving and retarding the vehicle. The tyre manufacturer supplies the tube, and the cover. The quantity of compressed air necessary to make the tyre pneumatic is not supplied by the tyre manufacturer.

It is the duty of the tyre user to supply and maintain the correct air pressure, without which the pneumatic tyre cannot function efficiently.

If pressure is less than specified by the tyre manufacturer, the life of the cover and tube will be diminished, mainly because of the excessive bending and flexing to which they will be subjected. (Pressure is conveniently measured in lb. per square inch.)

Thus, the key to economical and efficient tyre service is : " Maintain the correct pressure—test your tyres at least weekly." Any loss of air can be made up then with very little effort. A gauge applied to the valve must be used : it is seldom possible to detect an under-inflated tyre from its appearance.

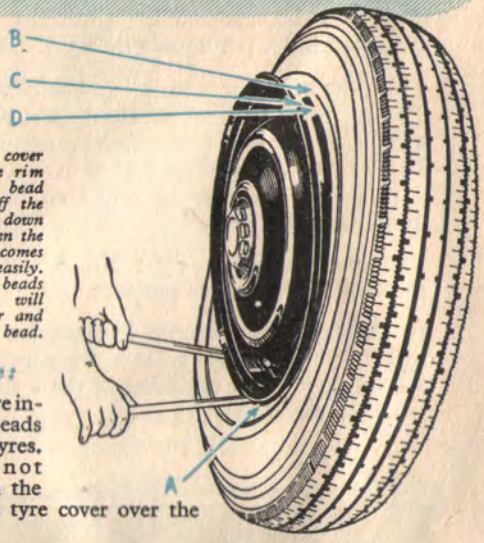
The Dunlop Pencil Type No. 6 Gauge illustrated is specially made for this purpose.

In the calibrated column is housed a small valve tool which, when removed from the gauge, is intended for the extraction and replacing of the inside mechanism of the tyre valve.

CORRECT PRESSURE means COMFORT plus MILEAGE

FITTING AND REMOVAL INSTRUCTIONS FOR

Wired Type Tyres on Well-Base Rims



You cannot pull *the cover bead at "A" over the rim flange until the cover bead at "B" is pushed off the rim shoulder "C" down into the well "D," then the cover bead at "A" comes over the rim flange easily. Remember, the cover beads are inextensible—force will only damage the cover and cannot stretch the bead.*

Special Note:

Inextensible wires are incorporated in the beads of wired type tyres. Therefore, do not attempt to stretch the wire beads of the tyre cover over the rim flange.

Force is unnecessary and may be dangerous, as it merely tends to damage the cover beads and serves no useful purpose.

Fitting or removing will be quite easy if the wire beads are carefully adjusted into the rim well; if it is found to be difficult, the operation is not being correctly performed.

Water on levers considerably eases the fitting and removing of beads.

To Remove Tyre

1. Remove all valve parts to deflate the tyre and push both beads off the bead seats of the rim.
2. Commence to remove the bead on the valve side of the cover. Insert a lever at the valve position and, while pulling on this lever, push the bead into the well of the rim diametrically opposite the valve.
3. Insert a second lever about 2 ins. away from the first lever and gradually prise the bead over the rim flange.
4. Continue with one lever while holding the removed portion of the bead with the other lever. The tube can then be removed.
5. Stand the cover upright with the wheel in front.
6. Insert a lever from the front between the bead and the flange and pull the cover back over the flange.
7. If difficult to remove, keep the strain on the bead with the lever and tap off with a rubber mallet.

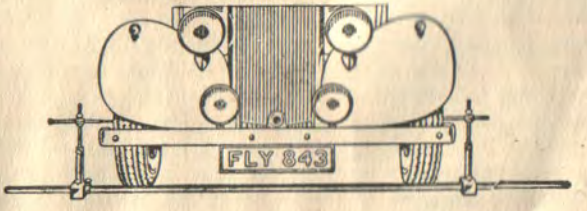
To Fit Tyre

1. Place the cover on top of the wheel and push as much as possible of the lower bead by hand into the well of the rim. Insert a lever to prise the remaining portion of the lower bead over the rim flange.
2. Slightly inflate the tube until it begins to round out and insert it in the cover with the valve through the hole in the rim. (Take care that the valve, which is fitted in the side of the tube, is on the correct side of the rim.)
3. Commence to fit the second bead by pushing it into the well of the rim diametrically opposite the valve.
4. Lever the bead over the flange either side of this position, finishing at the valve until the bead is completely fitted.
5. Ease the valve in the rim hole and push upwards by hand to enable the beads to seat correctly, and then pull the valve firmly back into position.
6. Inflate the tyre and see that the beads are seated evenly round the rim : check by the line on the cover.
7. Remove valve core to deflate the tube completely, but do not disturb the beads of the cover. Then re-inflate to recommended working pressure. The object of double inflation is to permit any stretched portions of the tube to re-adjust themselves in the cover and relieve any strains in the tube.

Misalignment causes rapid wear

In the normal course of wear and tear, or through minor impacts, the wheels of a car often develop irregularities or cease to point exactly in the direction of motion. Every Dunlop Service Depot and competent garage possesses an alignment gauge, and can test the wheels of any car : if a number of cars are kept, it would pay to purchase a gauge, such as the efficient Dunlop gauge illustrated.

Most cases of misalignment can be corrected by adjustment of the tie-rod—a few minutes' work for any competent mechanic. The front wheels should be set in accordance with the chassis makers' recommendation, or, in the absence of any statement to the contrary, between parallel and a maximum toe-in of $\frac{1}{8}$ in. Rear wheels must be parallel to each other.



Forethought saves Afterthought

Oil and grease have a very detrimental effect on rubber, and should never be allowed to remain in contact with tyres for any length of time.

Oil can be removed from tyres by the use of a rag and a very little petrol; use petrol sparingly, as this also is a solvent of rubber.

Why Tyre results vary

Scientific investigations of the actual effect of some of the major factors have been made, and the results are surprising.

Speed.—Some motorists drive habitually at higher average speeds than others. The rate of tread wear at 50 m.p.h. is nearly double that at 30 m.p.h.

Acceleration.—During wheel slippage, caused by rapid acceleration, excessive tread wear takes place through abrasion of the tyre against the road surface.

Braking.—Some owners "drive on the brakes." It is established that where this practice is adopted, and especially if stops are frequent, the rate of tread wear increases considerably.

Weather.—Tyres wear more than twice as quickly on the warm, dry roads of summer as on cold and wet surfaces common in winter.

With any one type of car, a combination of high-speed driving, rapid acceleration and fierce braking, could reduce the life of tyres to one quarter of the mileage that would be obtained by normal treatment.

Repair of cuts and other damage

Cuts and other damage, affecting only the rubber of the tread and walls, except superficial injuries, should have a vulcanised repair. By this means, any extension of the injury can be prevented.

Damage to the cover of a more serious nature, affecting the fabric, needs attention at once. Proper plant and specialised knowledge being necessary, it is recommended that such repairs should always be entrusted to an expert tyre repairer. The use of gaiters or liners in damaged tyres should be permitted only as a temporary measure until repairs are possible.

Tube injuries up to ¼ in. can be repaired with specially prepared patches such as the Dunlop "Vulcafix" patch or a vulcanised repair can be made. More extensive damage needs a proper vulcanised repair.

The Tyre Valve and Cap

Dunlop car tyres have tubes with rubber valves, *i.e.*, the valve mechanism is housed in a rubber stem. A small valve cap screws on the end of the valve. The valve core embodies what is primarily a non-return valve to facilitate inflation and pressure checking, and forms a working air seal. The valve cap provides a positive air seal and excludes dust and dirt. The valve is, therefore, not complete without a cap, which should be screwed down firmly by hand.

Main points of Tyre Care

1. Avoid under-inflation and over-inflation by checking pressure at least weekly and adjust pressure when necessary.
2. Avoid sudden stops and fierce acceleration.
3. Drive at a moderate speed round turns.
4. Avoid kerbing and other causes of severe impact.
5. Do not allow flints, etc., to remain embedded in the tread.
6. Have damage repaired immediately.
7. Change tyres round regularly, including the spare.
8. Keep brakes in proper adjustment.
9. Have wheels checked frequently for misalignment and other mechanical irregularities.
10. See that caps are fitted to valves.

Note :

It is a good practice to change tyres round at intervals of about 2,000 miles and to bring the spare into use, thus securing evenness of wear and preventing the spare being kept out of use too long.

INFLATION PRESSURES

for

DUNLOP TYRES

fitted to

LANCHESTER

1948 cars

Model	Tyre Size	Inflation Pressure (lb. per square inch)	
		Front tyres	Rear tyres
10 h.p. LD. 10	5.25–16	26	28

Tyre pressures are important and it is recommended that they should be checked regularly with a reliable gauge.

Failure to comply with the above recommendation will probably give unsatisfactory results.

Memoranda

Licence Renewal — Car	
Licence Renewal — Driving	
Insurance Premium due	
Last decarbonised	
Plugs replaced	
Radiator flushed	
Oil last drained — engine	
Oil last drained — gearbox	
Oil last drained — back axle ..	
Battery last inspected	
Brakes last adjusted	
Brakes last relined	
Wheel alignment last checked ..	
Tyres last renewed	
Tyres last interchanged	

Tyres: restore lost pressure every _____

Maintain correct pressures regularly

DUNLOP

Quality plus Service

The design of Dunlop tyres is the result of years of scientific research by Dunlop technical experts in many Dunlop factories throughout the world ; the raw materials are drawn from Dunlop rubber estates and Dunlop cotton mills, and their quality is rigidly controlled at every stage ; the equipment of the Dunlop factories is the last word in modern and efficient labour-saving machinery.

A fully equipped Service Department is maintained at all Dunlop Depots, staffed by tyre experts who have at the same time an intimate knowledge of the users' requirements. Through this organisation, the wide experience of the Dunlop Company on tyre and wheel problems of all kinds is always at the disposal of motorists entirely without cost or obligation. Application can be made personally or by letter to the Service Department at any Dunlop Depot (see list on opposite page) or to the Service Supervisor, Fort Dunlop, Birmingham, 24. Telegrams : Dunlops Phone Birmingham. Telephone : Erdington 2121 (P.B.X.).

Dunlop Sales and Service Depots

		Telegrams	*Telephones*
BELFAST	Dunlop House, Upper Arthur Street	*Pneumatic Phone Belfast*	24866
BIRMINGHAM	Dunlop House, Livery Street, 3	*Dunlopdum Phone Birmingham*	Central 8585
BRISTOL	Broad Plain, 2	*Pneumatic Phone Bristol*	26281
CARDIFF	Grey Friars Road	*Pneumatic Phone Cardiff*	8241
LEEDS	Westgate, 1	*Pneumatic Phone Leeds*	29701
LIVERPOOL	24 Cornhill, Park Lane, 1	*Inflater Phone Liverpool*	Royal 6141
LONDON	Dunlop House, 1 Albany St., N.W.1	*Inflator Phone Norwest, London*	Euston 3434
	159 Acre Lane Brixton, S.W.2	*Dunlopdum Phone Brixton London*	Brixton 6416
	411, Mile End Road, Bow, E.3	*Dunlotyre Phone Bochurch, London*	Advance 4093
	94 Greenwich High Road, S.E.10	*Dunrubco Phone Green, London*	Tideway 2451
MANCHESTER	12 Ardwick Green South, Ardwick, 13	*Inflater Phone Manchester*	Ardwick 3361
NEWCASTLE-ON-TYNE	College Avenue, 2	*Inflator Phone Newcastle*	21041
NORWICH	99 Chapel Field Road	*Pneumatic Phone Norwich*	21244
NOTTINGHAM	192 Mansfield Road	*Pneumatic Phone Nott'm.*	66606
PLYMOUTH	14-17 Manor Street	*Dunlop Phone Plymouth*	4146
SOUTHAMPTON	9-10, St. Mary St.	*Pneumatic Phone Southampton*	76434

DUNLOP RUBBER CO. (SCOTLAND) LTD.

ABERDEEN	52-60, Leadside Road	*Pneumatic Phone Aberdeen*	Central 20211
EDINBURGH	4-8, Canning Street, 3	*Inflater Phone Edinburgh*	23232
GLASGOW	48-60 & 70-78 North Wallace Street, C.4	*Pneumatic Phone Glasgow*	Bell 3411/9
INVERNESS (Sub-Depot)	Millburn Road, East Gate		Inverness 1661
DUNDEE (Sub-Depot)	34, Blinshall Street		Dundee 4447

THE IRISH DUNLOP CO. LTD.

CORK	Dunlop House, Lower Glanmire Rd.	*Pneumatic Cork*	613
DUBLIN	Dunlop House, Lower Abbey St., C.8	*Pneumatic Dublin*	76711