

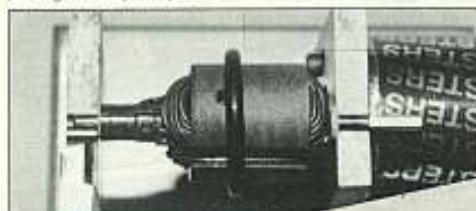
# PRO

## Ten

*Mike Haswell*

Motor maintenance is an area which is often either overlooked, neglected or done in a bad or incorrect way. As a general rule you should take the motor out of your car at least every second heat and give it the 'once over'.

You should remove the springs, putting them in a safe place so you don't lose them, and remove the brushes (oblong carbon pieces) from

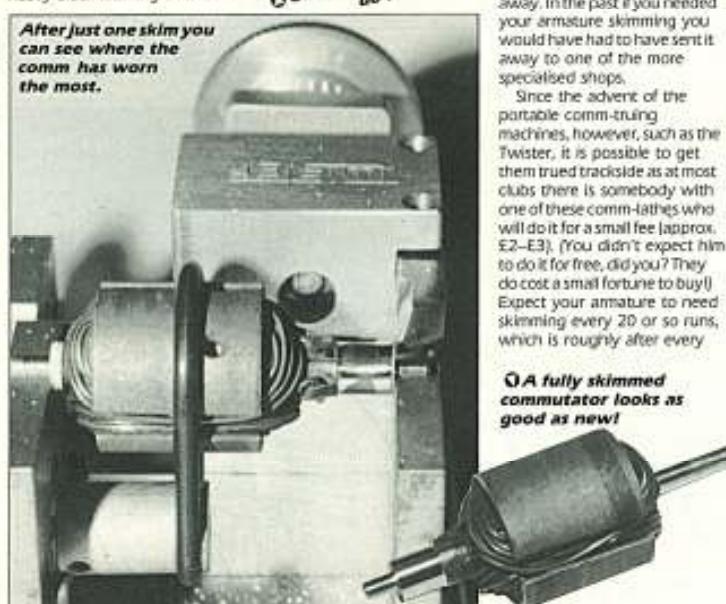


**A dirty, old, worn commutator before skimming.**

their holders. You will notice that the commutator [copper face inside motor] has some black marks on it where the brushes usually run. This is perfectly normal and occurs in all motors to some degree. However, if your armature has heavy black marking over the



**After just one skim you can see where the comm has worn the most.**



commutator then it is time to get it skimmed, as it is probably out of true or deformed.

In severe cases you will notice that

3-4 meetings, for maximum performance.

For the more general cleaning of the commutator and removing of the carbon deposits I use one of the readily available comm cleaning sticks, such as Twister, Trinity or Edge, as it is a quick, easy and very effective way of doing the job.

The sticks are cut in the shape of a brush at one end so that by putting them down the brush holder you can clean the comm without having to take the motor apart. Applying a light pressure, hold the stick against the comm and rotate the motor four or five times in the direction it usually travels. If you leave the pinion on it will make it easier to turn the motor over and if you hold the motor in your left hand you should be turning the motor in an anti-clockwise direction.

Since the advent of the portable comm-truing machines, however, such as the Twister, it is possible to get them trued trackside as at most clubs there is somebody with one of these comm-lathes who will do it for a small fee (approx. £2-£3). (You didn't expect him to do it for free, did you? They do cost a small fortune to buy!) Expect your armature to need skimming every 20 or so runs, which is roughly after every

bows inwards where the brushes have been running and have worn the commutator away. In the past if you needed your armature skimming you would have had to have sent it away to one of the more specialised shops.

One of the things that shouldn't really be used on comm's is Duraglit as this leaves a film/deposit on the copper and between the segments, unless you are extremely careful. Once you have cleaned the comm, move on to the brushes. Most comm sticks have a round end which is used to clean the brushes where they touch the commutator. Put the comm stick into the groove that has been worn where the brush has been running on the comm and rotate it a couple of times across the brush face to remove any carbon deposits. If you have just had your motor skinned it is advisable to fit new brushes to gain maximum advantage from the motor.

Before taking your motor apart you should mark the can and the endbell to show where the timing is set, and also which side the positive goes to. Don't

use a 'permanent marker' as some of the motor cleaning sprays can clean the marks off. Now that you have skimmed your commutator and fitted new brushes, your motor should be as good as new.

**Comm sticks are good for frequent cleaning of the motor.**

Below is a list of all the places to send your Pro Ten entries to for the coming season:

### SOUTHAMPTON

**April 14**

Mick Langridge  
PO Box 76  
Fareham  
Hants  
PO14 4SP.  
Cheques payable to: SRCMCC

**ASHBY/GP**

**May 4-6**  
Jason Dearden  
3 Woodlands Way  
Morda  
Binton-on-Trent  
Staffs DE12 6HE  
Cheques to: AMCC

### CRYSTAL PALACE

**June 2**

Alan Beszant  
138 Grierson Road  
Forest Hill  
London  
SE23 1NX  
Cheques to: LRCC

### HALIFAX

**June 16**

Mrs C Diggins  
76 Westroyd Avenue  
Mirfield  
W Yorks  
WF14 9LB  
Cheques to: YRCMCRC

### BOURNEMOUTH

**July 14**

Colin Newman  
2024 Albert Road  
Parkstone  
Poole  
Dorset  
Cheques to: BRAC

**TAMWORTH**  
**September 29**  
TBA/W Davis  
247 Main Street  
Glascole  
Tamworth  
Staffs  
B77 2AU  
Cheques to: TBA

You should have your entries in for Southampton by now which is only two weeks away. Entry fees are £6 for all Nationals apart from Ashby, which is the British GP, for

which BRCA points are being awarded. If you have any problems contact the Pro Ten secretary on 081-573-2500 (evenings). ☺



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SPEED CONTROLS

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U.K. & European Distributors

All Nosram products available from good model shops. Send £1.00 for a full comprehensive product price list. P&P on all orders £1.00 with same day despatch. 48 hour turnaround on requests with full details. Please add £1.00 for delivery.

**NOSRAM DISTRIBUTOR: 10 BROMEL DRIVE, MALVERN, WORCESTERSHIRE WR14 1LR. TELEPHONE 0562 567655.**

Monday-Friday 9am-5pm. Callers by appointment.

TRADE ENQUIRIES WELCOME

### FORMULA AND SEVILLE

#### SPEED CONTROLLERS

No.1 National	5Ph	£99.95
No.2 Enhanced	5Ph	£26.95
No.3 Expressor	11Ph	£89.95
No.4 Expressor Pro	12Ph	£121.90
No.5 Expressor 5%	12Ph	£139.95

#### FORMULA ONLY SPEED CONTROLLERS

No.5 International	8Ph	£34.95
No.6 International Pro	8Ph	£34.95
No.6 International Pro	7Ph	£79.95
No.6 International Pro 100	7Ph	£99.95
No.6 Very Compact	8Ph	£119.95
No.7 International 5%	8Ph	£119.95

#### MECHANICAL MANAGEMENT

#### ELECTRIC FLIGHT SPEED CONTROLLERS

#### NO.9 Deco Rite

7Ph £55.95

### COMPUTER MATCHED RACING PACK BATTERIES

No.11 Single 1400 SOC	£32.95
No.13 Single 1700 SOC	£34.95

Available in stack or saddle pack

### NOSRAM ACCESSORIES

No.10 Mini Waterproof On/Off Switch	£4.95
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### NEW NEW NOSRAM MODIFIED MOTORS

Hand-built Modified Motors from the USA, available in a variety of weights from 12-17. These motors have been tuned for six-cell racing unlike the majority of American motors which are intended for seven-cell racing. Price £45.00

### NOSRAM PROMOTIONAL RACEMEAN

No.14 Decal Sheet: Pink, Green, White, Red

No.15 T-Shirt £10.95

No.16 Polo Shirt £14.95

No.17 Sweatshirt £18.95

No.19 Umbrella £23.95

All the above items are screen with Nosram logo. Please state size when ordering. Sizes: S, M, L, XL.

**SPEEDMASTER**

### High Performance Speed Controllers

#### SILVER STAR

Variable Forwards Reverse & Braking Powerful — 180 amps (720 pulses) PETs - Forwards and Reversal. Controllable - SUPERATE non linear rate for easier control.

Reliable - Well proven design. Instant Response - To any command in controlled fashion. Stability - One easy set up control.

Size - 68 x 35 x 25/22 mm. (Stepped Top) - Fit Met Optima etc. Weight - 83 gm. approx. including 16 gm heatsink. Price £66.95 inc. VAT - Includes receiver plug and heatsink.

#### TURBO SILVER STAR

Same general specifications as Silver Star, but with 310 amps (1300 pulses) PETs. £66.95 inc. VAT.

#### GOLD STAR

Variable Forwards & Braking Powerful - 180 amps (720 pulses) PETs. New high amp wire. Controllable - SUPERATE non linear rate for easier control.

Reliable - Proven reliability. Improved (Fast Circuit) Brake Fets.

simplicity - LED Indicator for easy set up. New - Tunable Brakes.

Size - 68 x 35 x 22 mm. (Stepped Top) - Fit Met Optima etc. Price £46.95 inc. VAT - Includes receiver plug and heatsink.

#### TURBO GOLD STAR

Top 170 performance.

310 amps (1300 pulses) PETs. Tunable Super Brakes. Price £66.95.

#### POWERPOLE CONNECTORS

Top performance in American magazine test. Modular - 7 colours. 2 modules cost £1.00 to connect 1 wire. S.A.E. for full info. Minimum post free order £5.

#### CONGRATULATIONS

To Mark Austin, winner in January at St Albans Rally Championship using Turbo Silver Star. Clayton Collins was 2nd/FDT using Turbo Gold Star.

Products available from retailers or direct — post free — from:

**SPEEDMASTER**, 60 Mancroft Road, Caddington, Luton, LU1 4EL Tel: 0582 34787