

CHECKING AND ADJUSTING FRONT MOUNTING CLEARANCE

- 1 Slide the right side gaiter back to give access to the adjuster and plastic washer.
- 2 Push or lever the engine to the right until all slack in the isolastic mounting has been taken up. Holding the engine unit in this position, use feeler gauges to measure the clearance between the plastic washer and bright plated adjuster collar. (See Fig. F20)
- 3 If the clearance exceeds 0.010 in. (0.25 mm) the unit should be readjusted.
- 4 Following the procedure defined in Technical Data: Slack of the main mounting central bolt, and slide spring clips clear of holes in adjuster.

Andover Norton

How to Service & Adjust Isolastic Engine Mountings

We are the only supplier of Commando & Dominator parts using the original factory drawings. Our products are mostly made in England and to original specification. We also offer Norton Rotary spares, factory service manuals and literature for **NORTON** and **TRIUMPH** motorcycles.



ISOLASTIC ENGINE MOUNTINGS

The Mark III Commando Isolastic Suspension comprises redesigned, adjustable front and mounting units employing fully bonded rubber by simplifying assembly procedure and eliminating tilting in service. Adjustment is straight-forward (requires no special tools). A spoke or suitable screwdriver is all that is required as a tommy bar in the adjustable end cap, which is located on the hand side at the front and the left hand side of the mounting. The opposite side in each case has a end cap located by a grub-screw lock.

ADJUSTING ENGINE MOUNTINGS

Prior to checking adjustment or dismantling not Mark III models must be supported by a stand or box placed below the main frame tubes with the stand folded. This is necessary due to the stand mounted direct onto the engine plates on these models. On such models the mountings would be under the with the centre stand in use. Proceed as follows:

SECTION F16

ATTENTION TO REAR MOUNTING

After considerable usage it may be expected the rear mounting and groups have suffered wear/deterioration due to corrosion. If the unit is to be removed from the frame as described in Section F15 the need for attention to these fittings comparatively rare, and can usually be left until power unit has to be dismantled for a major overhaul.

With the power unit removed as described in F15 rear mounting is accessible and although the main tube is smaller in diameter and longer, the basic design is similar in every aspect to the front layout, except opposite – and adjustment and an easier fit or rubbers in the bore – needing no special tool extraction or assembly.

The procedure for dismantling, cleaning, lubricating and assembly are the same as for the front.

The adjustment drill is identical – lock up lightly “lock-off” 1 1/2 holes after reassembly in the frame rear mounting stud is also located up to 30 It (4.15 Kg/m). Refer to F15 for details.

Note: Mark III model Commandos have been with bronze-loaded PTFE plastic washers (brown colour) in place of the cream coloured polyurethane washers fitted to earlier models. These washers wear and deteriorate; therefore, we recommend always be fitted as replacements.



Fig. 31 Mark III adjustable rear mounting. Engineering 6

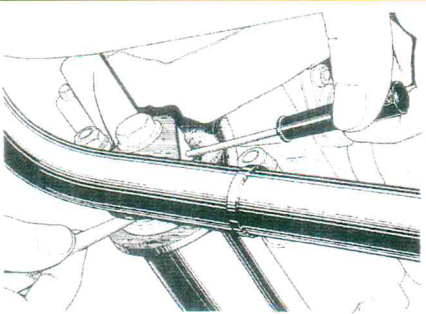


Fig. 20 Checking front mounting clearance

SECTION F14

CHECKING AND ADJUSTING REAR MOUNTING CLEARANCE

- 1 Slide the left side gaiter back to give access to the face ring and plastic washer.

- 2 Push the rear wheel to the left firmly and measure the clearance between the plastic washer and bright plated adjusting collar.
- 3 If the clearance exceeds 0.010 in. (0.25 mm) the unit should be readjusted.
- 4 Following the procedure defined in Technical Data: Slack of the main mounting central bolt, and slide spring clip clear of holes in adjuster.
- 5 Insert suitable size tommy bar (spoke or similar) into a convenient hole in the adjusting collar and screw up until there is no clearance.
- 6 Back-off adjuster, moving 1 1/2 holes only (to unscrew), replace spring clip and gaiter.
- 7 Tighten main bolt to 30 lbs./ft. (4.15 Kg/m) torque.
- 8 The clearance will now be approximately 0.008 in. (0.152 mm) as recommended.

- 6 Back-off adjuster, moving 1 1/2 holes only (to unscrew), replace spring clips and gaiter.
- 7 Tighten main bolt to 30 lbs./ft. (4.15 Kg/m) torque.
- 8 The clearance will now be approximately 0.008 in. (0.152 mm) as recommended.

SECTION F15

ISOLASTIC ENGINE MOUNTINGS DISMANTLING AND RENEWAL

Routine checking of clearances will present little difficulty with the new adjustable mountings and with the fully bonded rubbers and provision to take up any wear of the plastic washers, it is unlikely that replacements will ever be required.

However, where a mounting has seen long service it may be desirable to clean out the unit and/or examine the plastic washers, etc. for uneven wear or damage. In this event the complete unit will have to be removed to gain access to the components.

It is no longer possible to extract the end caps (as previous practice) after removal of the centre bolt or stud.

The front mounting is reasonably accessible but the rear unit can only be dismantled after a major step-down of the primary transmission as described in Section C13/14.

DISMANTLING FRONT MOUNTING

In order to withdraw the mounting bolt completely it may be necessary to detach the right hand exhaust pipe as described in Section 19.

- 1 Remove the self locking nut and plain washer from the left hand side of the central mounting bolt.
- 2 Align the flats on the bolt head to clear the timing cover as the bolt is withdrawn.
- 3 Using a soft metal drift, gently drive the bolt out to the weight of the engine and avoiding damage to the threads.
- 4 Remove the two 1/2" dia. bolts securing the plates to the crankcase. Lift the mounting away.
- 5 Remove gaiters both ends.
- 6 Slide back the spring clip on the adjusting end and with a spoke or similar tommy bar unscrew and remove the end cap, holding the assembly in a vice if necessary.
- 7 The plastic washer on the right hand and the facing ring can now be removed and cleaned or replaced as required.
- 8 The opposite (fix) end and cap on the left hand side is located to the centre sleeve by a grub screw. See illustration F21. It is not essential to remove this end, unless the washer needs replacing, and the inner sleeve with bonded rubbers can be withdrawn from the mounting tube sufficiently to allow examination and cleaning of the washer and faces.

If the entire unit is to be dismantled it should be possible to drive the centre sleeve out without excessive force, the operation being eased by use of a rubber lubricant applied to the bore. Additional side pressure, applied by inserting a suitable sized bar into the central sleeve will assist extraction. The front mounting's are a lighter designed fit than the rear rubbers.

- 9 The engine mounting, end-caps, facing rings and plastic washers can now be thoroughly cleaned and examined. Remove all dirt and corrosion and where excessive wear, uneven thickness or damage is evident, replacement is advised. It will be necessary to unlock the grub screw and remove the fixer and cap if new items are needed on the left hand end.
- 10 In the unlikely event of deterioration of the rubbers a replacement bonded unit will be required. Rubbers are no longer available separately.

REASSEMBLY: FRONT MOUNTING

- 1 Hold the mounting securely in a vice, left hand side upmost.
- 2 (Using a silicone grease such as Release! No. 7). Slightly grease the contact faces of the facing ring, plastic washer, and fixed (left hand) end cap. These items will still be sandwiched between the fixed end and left hand rubber if found OK, and dismantled intact, otherwise new components will be assembled in the correct order with the end-cap flush with the sleeve and the grub screw locked-up securely.
- 3 Paint the edges of the large rubbers with rubber lubricant and squeeze the right hand rubber into the mounting tube. (It has been found quite feasible to assemble the new rubber units without recourse to the original approved body 053971, but where this is the original it should still simply enter into the tube). Work the unit through the mounting tube until the fixed end is fitting snugly on the plastic washer and face ring.
- 4 Replace the left hand gaiter.
- 5 Remove and invert the assembly in the vice, right hand side upmost.
- 6 Using a silicone grease such as Release! No. 7, lightly grease the contact faces of the facing ring, plastic washer (both sides) and adjusting (screwed) end-caps. Insert spoke or similar tommy bar in a

hole and screw down until the flange pinches the washer.

- 7 Replace the right hand gaiter.
- 8 The mounting is now ready for re-installation on the crankcase.
- 9 N.B. Adjustment is finalised with the unit in position.
- 9 Grease outer faces, lightly and after the mounting to the lower crankcase lug and hold loosely in position with the bottom stud.
- 10 Press the mounting up to engage with the crankcase lug and fit the top stud.
- 11 Secure both top and bottom stud nuts to 25 ft./lbs. (2.40 Kg/m) torque.
- 12 Fit the main mounting bolt from the right side. It will be necessary to align a flat on the hexagon to pass the timing case.

This is facilitated by levering the power unit in the frame, supporting the weight of the engine to relieve the load on the bolt.

Push the mounting bolt fully home, fit the washer and nut. Do not tighten at this stage.

Ensure that the gaiters are still located properly over the mounting, using a small screwdriver to assist this operation if necessary.

With the main mounting nut still slack, slide the spring clip away from the holes in the adjustable end-cap. Insert suitable sized tommy bar (a spoke or similar) into a convenient hole and screw up “finger-tight”, taking up all clearance.

- 13 Back off the adjuster, moving (unscrewing) 1 1/2 holes only, replacing spring clip. This will give 0.008 in./0.152 mm as recommended.
- 14 Tighten the main bolt to 30 lbs./ft. (4.15 Kg/m) torque.

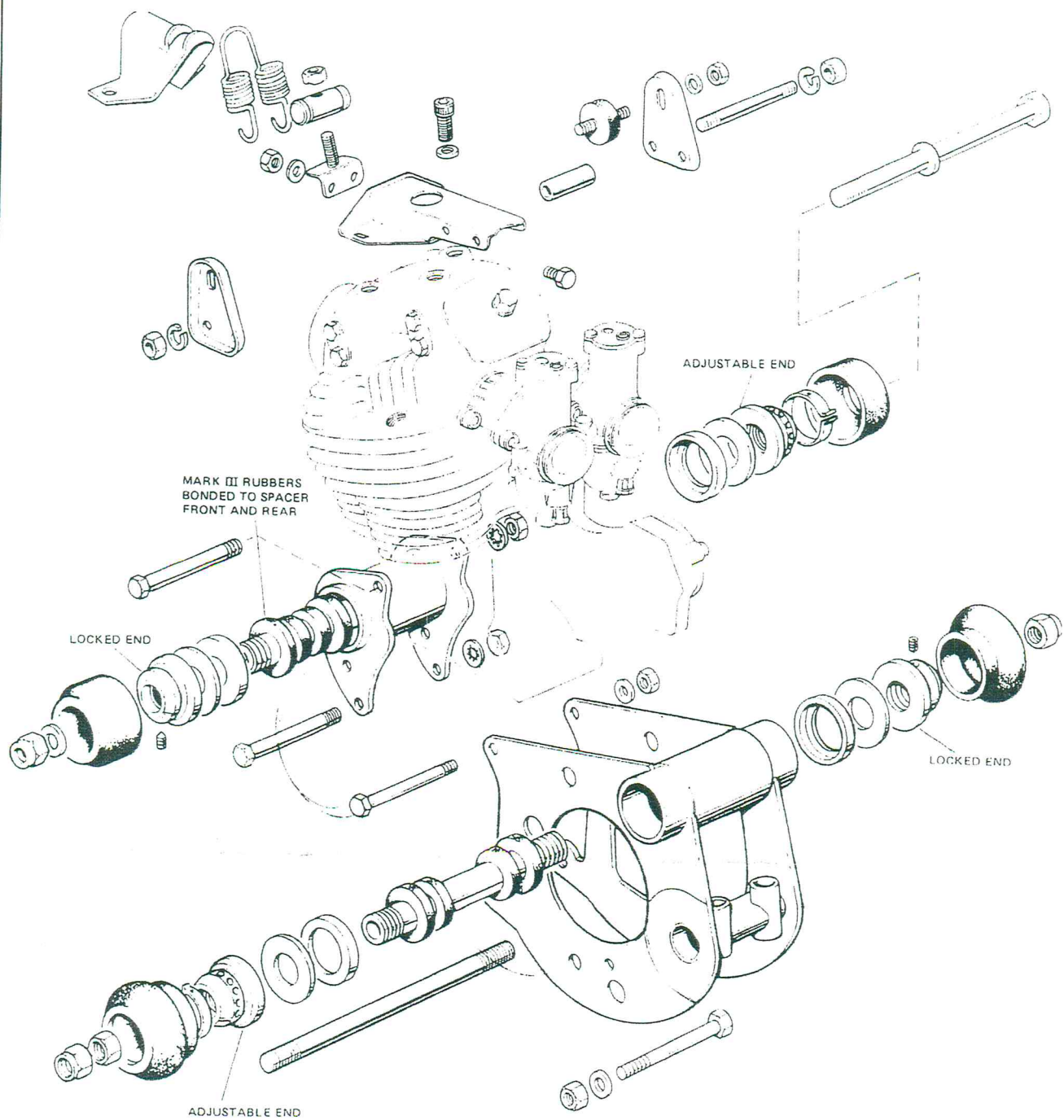


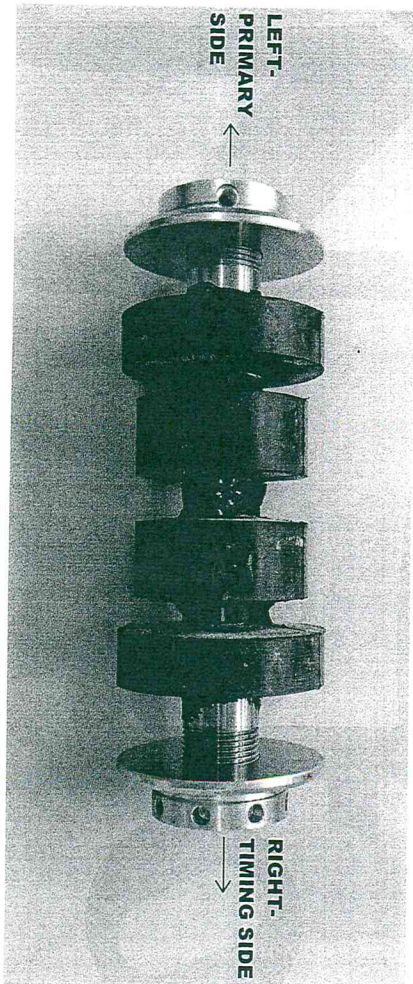
Fig F14 Isolastic mountings exploded view

NOW BUY GENUINE NORTON FACTORY SPARES FROM OUR SALES COUNTER IN ANDOVER, HAMPSHIRE

Order on-line: www.andover-norton.co.uk Tel: 01625 875 555

06.7337

ENSURE ORIENTATION OF ADJUSTER AND ABUTMENT IS
AS SHOWN BELOW TO MAINTAIN ALIGNMENT OF UNEQUAL
LENGTH ENGINE MOUNT TUBE USED ON PRE-MK3 MODELS.



with compliments



ANDOVER NORTON
International Ltd.

Andover Norton International Ltd.
Unit 4 Brunel Gate
Portway West Business Park
Andover, Hants. SP10 3SL
England
Tel (0044) (0) 1264 359555
Fax (0044) (0) 1264 748409
E-mail office@andover-norton.co.uk
Web www.andover-norton.co.uk
Company Reg No. 03020586

The exclusive Source of
all Genuine Norton Commando
and Norton Dominator
Factory Spare Parts

Norton
Motors
GROUP