

## **FITTING INSTRUCTIONS FOR MGC POWER STEERING**

### **FROM MGOC YOU WILL NEED; MODIFIED STEERING ARMS**

- CENTRE THE STEERING AND HOLD THE STEERING WHEEL CENTRAL BY USING A BUNGEE CORD (OR SIMILAR) FROM THE BOTTOM OF THE WHEEL TO A SEAT RUNNER.
- REMOVE THE TOP AND BOTTOM INDICATOR SHROUD.
- CHECK THAT THE CLIPPED CAM USED TO 'KNOCK' OFF THE INDICATORS IS ROUGHLY CENTRAL WITH THE 2 SMALL FINGERS. IF NOT THEN CORRECT.
- SUGGEST: THE COLUMN IS STOPPED FROM SLIDING DOWN THE COLUMN TUBE BY PLACING A PAIR OF LONG NOSED MOLE GRIPS ON THE COLUMN SHAFT NEXT TO THE OUTER COLUMN TUBE.
- LOOSEN FRONT WHEEL NUTS / SPINNER.
- JACK UP FRONT OF CAR AND SUPPORT WITH AXLE STANDS UNDER CHASSIS.
- REMOVE FRONT ROAD WHEELS.
- REMOVE STEERING RACK.
- THOROUGHLY CLEAN RACK MOUNTINGS AND CHECK FOR ANY CRACKING OR DISTORTION; IF FOUND REPAIR BEFORE PROCEEDING ANY FURTHER.
- IF THE 2 CAPTIVE NUTS ON THE RACK MOUNTINGS, NEAREST TO THE CROSS MEMBER ARE IN ANY WAY SUSPECT REMOVE THEM.
- AFTER ANY NECESSARY WELDING CLEAN OFF AND REPAINT / PROTECT
- REMOVE THE STANDARD STEERING ARMS. FIT THE ONES SUPPLIED BY MGOC. TORQUE BOLTS TO 60 LBS FT.
- REMOVE ALTERNATOR. MAKE SURE THAT THE SLIDING BUSH IN THE REAR MOUNTING IS FREE.
- REMOVE THE ALTERNATOR PULLEY AND FIT THE NEW DOUBLE PULLEY.
- IF THE ENGINE MOUNTINGS ARE OLD OR HAVE SAGGED REPLACE THEM.
- REMOVE OR DO NOT REFIT THE LOWER BOLT NEAREST TO THE BULKHEAD ON DRIVERS SIDE.
- FIT THE RACK MOUNTING BRACKET AND TIGHTEN BOLTS / C'SK SCREW TO 25 / 30 LBS FT.
- FIT PAS RACK AND CENTRE SIDE TO SIDE, USING THE PIECE OF METAL 114 LONG BETWEEN THE RAM AND THE FLAT OF THE RAM NUT. CLEARANCE BETWEEN THE TOP OF THE RAM AND THE SUMP MAY BE SMALL, IF NEEDED GENTLY DENT THE SUMP TO GIVE REQUIRED CLEARANCE.

FIT INTERMEDIATE COLUMN. CHECK THAT THERE IS COMPLETE FREEDOM OF MOVEMENT, NO FOULING OR BINDING OF ANY KIND. EXTRA CLEARANCE FOR THE LOWER COLUMN UJ AND THE BODY CAN BE GAINED BY USING THE SLACK IN THE RACK MOUNTING HOLES, IF NOT NEEDED THEN PUSH THE RACK REARWARDS AS THE BOLTS ARE TIGHTENED.

SOMETIMES IT MAY BE NECESSARY TO RE-DRILL THE RACK MOUNTING HOLES, FROM 10mm to 11 or 12 mm diameter IN ORDER TO ACCOMPLISH THIS. THIS SHOULD ALLOW THE RACK TO BE

POSITIONED SO THAT THERE IS NO FOULING AND A MINIMUM OF 3mm CLEARANCE IS AVAILABLE ROUND THE INTERMEDIATE STEERING SHAFT.

- WHEN TIGHTENING THE SPECIAL BOLT AT THE RACK END OF THE COLUMN BE VERY CAREFUL! THE BOLT HAS AN ECCENTRIC CAM AND IT MAY BE HELPFUL TO HOLD THE HEAD OF THE BOLT WITH MOLE GRIPS TO MAKE SURE THAT IT IS AS TIGHT AS POSSIBLE AGAINST THE PINION SHAFT AS THE M8 NYLOC IS BEING TIGHTENED.
- TIGHTEN THE STEERING COLUMN JOINT BOLT TO 20 LBS FT.
- FIT THE TRACK ROD ENDS TO THE STEERING ARMS, CENTRE TO CENTRE SHOULD BE ABOUT 1115 mm; CHECK CLEARANCES ON ANY BALANCE WEIGHTS ON THE INSIDE OF THE RIM.

#### **FITTING THE ALTERNATOR AND PUMP:**

- REMOVE THE 4 BOLTS HOLDING THE FRONT SIDE COVER THAT CORRESPOND WITH THE HOLES IN THE PUMP MOUNTING BRACKET. CLEAN THE COUNTER BORED RECESSES.
- FIT THE BRACKET WITH THE 4 SPACERS BETWEEN THE BRACKET AND COVER. MAKE SURE THAT THE SPACERS SIT CORRECTLY. TIGHTEN THE 4 BOLTS TO 20 LBS FT.
- CLEARANCE BETWEEN THE WASHER RESERVOIR AND THE ALTERNATOR PULLEY MAY BE A PROBLEM. REMOVE ANY PADDING BETWEEN RESERVOIR AND THE BODY AND SHORTEN THE STRAP IF NECESSARY.
- REVERSE THE ALTERNATOR ADJUSTING ARM SO THAT IT CURVES DOWNWARD INSTEAD OF UPWARD.
- REFIT THE ALTERNATOR, BUT PUT THE NEW FAN BELT ONTO THE PULLEY BEFORE FITTING THE MAIN PIVOT BOLT, USING 3 THIN WASHERS TO START WITH BETWEEN THE FRONT ALTERNATOR MOUNTING AND THE BRACKET. USE THESE WASHERS TO CORRECTLY ALIGN THE BELT AND PULLEYS.
- FIT THE PUMP TO THE BRACKET WITH 1 THIN WASHER BETWEEN THE PUMP AND THE BRACKET FRONT AND BACK, USE THESE WASHERS TO CORRECTLY ALIGN THE PUMP PULLEY AND BELT. FIT THE PULLEY AND THE BELT, THEN TIGHTEN.
- FIT THE RESERVOIR MOUNTING BRACKET, WITH THE HORSESHOE SHAPE UPWARDS, TO THE OIL PRESSURE CAPILLARY BRACKET NEAR THE MASTER CYLINDERS, IN DOING SO SUBSTITUTE THE THICKNESS OF THE BRACKET FOR THE SPACER THAT IS ALREADY THERE.
- SLIDE AND CLIP THE RESERVOIR TO THE BRACKET.
- FIT PAS HOSES:
- BE CAREFUL AND BE CLEAN WHEN DOING THE FOLLOWING OPERATIONS:
- REMOVE THE TWO GREEN BUNGS IN THE RACK HEAD.
- PLACE THE SMALL PIPE SEAT INTO THE TOP (SMALLER) UNION WITH THE 45 DEGREE SIDE FACING OUTWARDS AND THE 60 DEGREE SIDE INWARDS
- REPEAT FOR THE LARGER.
- PLACE THE PRESSURE PIPE INTO THE RACK UNION ( IF NECESSARY BEND TO AVOID FOULING).
- THE BANJO CONNECTION GOES ONTO THE PUMP HOUSING WITH A DOWTY WASHER EACH SIDE.

- THE BANJO SHOULD LIE NEUTRALLY, FLAT ONTO THE SURFACE. SECURE THIS END AND TIGHTEN. TORQUE 40 LBS/FT.
- NOW TIGHTEN THE RACK END FROM UNDERNEATH.
- FIT AND TIGHTEN THE RETURN HOSE TO THE RACK. (LOWER / LARGER FITTING)..
- CONNECT FEED HOSE TO THE PUMP AND RESERVOIR, CUT TO LENGTH AS NECESSARY, AND SECURE WITH JUBILEE CLIPS. DO NOT ALLOW THE HOSE TO KINK.

\*\*\* HOSES MUST NOT RUB OR FOUL OTHER COMPONENTS. USE EDGE PROTECTOR AND TYRAPS

\*\*\* SPACE IS A LITTLE TIGHT IN THIS INSTALLATION BUT IT IS POSSIBLE.

REMEMBER THE RACK DOES NOT MOVE AND THE PUMP ONLY HAS VERY LIMITED MOVEMENT.

### **COMPLETION**

FILL WITH FLUID, APPROXIMATELY 1 LITRE TOTAL (DEXRON RII).

START ENGINE

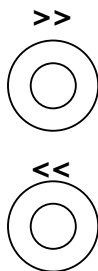
WORK STEERING WHEEL FROM LOCK TO LOCK 8 TO 10 TIMES, TOP UP FLUID WHILE DOING SO; – DO NOT HOLD ON FULL LOCK.

TOP UP FLUID, CHECK FOR LEAKS.

IF EVERYTHING IS OK, LOWER CAR FROM STANDS AND DRIVE A SHORT DISTANCE. DETERMINE WHERE THE STEERING WHEEL IS RELATIVE TO THE STRAIGHT-AHEAD POSITION.

SEE DIAGRAM TO CORRECT.

TO TURN STEERING WHEEL:



TURN TRACK ROD ENDS:

N/S - IN  
O/S - OUT

N/S - OUT  
O/S - IN

DO THIS AND TEST DRIVE AGAIN

IF OK, THEN RE-TRACK TO 1/16 TO 1/8 INCH, 16 TO 24 MINUTES, 1.6 TO 2.4 MM TOE IN.

**WHEN FIRST DRIVING, TAKE TIME TO BECOME  
ACCUSTOMED TO THE STEERING.**