

(00491) COMPRESSION CK.
REPLACE R. AXLES

OVERHAULS, CONTINUED.

30 JUN - REAR PARKING BRAKE LINKAGE - REMOVE CABLE SHORTENER @ FRONT,
SHORTEN REAR CABLE ~ 1" @ RR BRAKE LINKAGE CLEVIS.

REAR U-JOINT REPL (DETAILS - WORKSHEET)

435- 440 10 JUL 79 TEST RIDE - BROKEN LR AXLE (RR CRACKED)
BREATHERS THROW OIL EVERYWHERE(?)

5 AUG LR AXLE REPL W/ VMC USED (250 BT) (DETAILS - WORKSHEET)

20 AUG RR " " W/ VECTOR SPARE 'CONNIE' "

- 491 TEST RIDE - BREATHERS STILL THROW OIL BRES LEAKS RADIATOR
TIGHTEN OIL P. GA. FIT @ BLOCKS - LEAK
RE-STRUT/MOD CARRS → HIGHER IDLE

COMPRESSION CK. (WARM) (ALL PLUGS LOOK OK)

1	2	3	4	5	6	7	8	9	10	11	12
151	165	155	155	164	158	170	169	156	166	164	160
LHS AVG: 158						RHS AVG: 164.2					

O/A MB: 161

491 21 AUG RE-ADJUST FRONT BRAKES (PULLED TO LEFT)

CLEAN UNDERSIDE ATTACH CO TUBES IN RHS BREATHER ~~BRK~~

504 REPL 'TUBE-TYPE' BREATHERS W/ ORIGINAL WRAP TUBES W/ TOWER 'CATCHERS'
DRIVE TO BERKELEY FOR FUEL & BACK (CAUTIONAL DR) - NO OIL AT BREATHERS

22 AUG 79 DRIVE TO SUE PATIENCE'S - HAYWARD

567 @ 5000 RPM - PUKES OIL FROM RHS BREATHER!

Δ RHS BREATHER TO TR. TYPE:

(GT-TYPE GOES STRAIGHT UP.)



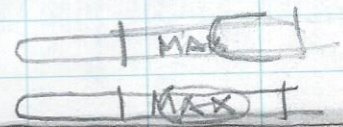
(TERRY TOWEL 'MUFFS' WRAPPED AROUND PIPES JUST UNDER FILLER CAPS)

612 23 AUG 79 DRIVE TO LAFAYETTE / TEST W/ GREEN / BACK

STILL THROWS OIL @ 5000 RPM - SEEMS TO BE LEAKING @
REAR SEAL (SLINGER) OVER SK, TOO. OVERFULL? DEM

SUGGESTED DRAINING 1 QT.

DIPSTICK BEFORE
AFTER



TRIUMPH THUNDERBOLT

642 24 AUG 79 TEST RUN HWY 24 UNTIL 5000 RPM + NOTHING

NO OIL OUT OF BREATHER - STILL SHOWING @ TIMING HOLE (ARROWS)

& DRAIN HOLE BELOW - LEAKY SLINGER?

SHOWS 'SURGE' ON CORNERS OIL P SHOWS 40 PSI @ LOWEST POINT.

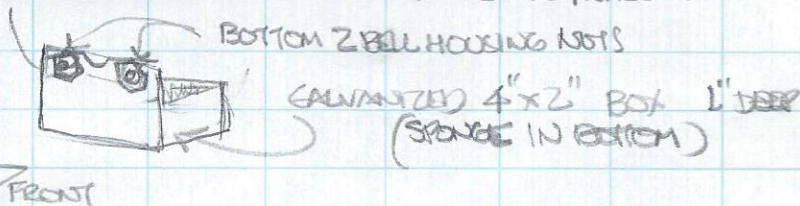
OK TIMING @ MAX ADVANCE - BOTH OK,

OIL LVL: ~ 1/2 BETWEEN MARKS ON BACK OF STICK.

TO READ OIL LVL: ROTATE STICK 360° IN HOLE BEFORE EXTRACTING
ADD OIL - 1 PT



ADD 'CATCH BOX' UNDER REAR CRANKCASE DRAIN HOSE UNDER FLYWHEEL.



- 692
- SAN LEONARDO (RDC MEETING) USED 5000 RPM - NO OIL BLEND OUT OF RUS BREATHER
 - UNDERSIDE OF TRANSMISSION ONLY - AS MUCH AS BEFORE - FIX SPONGE TO UNDERSIDE OF PERFORATED PLATE
 - OIL LVL: ——— MAX (COLD) ↑
 - CATCH BOX SHOWS LITTLE OIL.
 - CAN'T DECIDE IF LEAK IS ENGINE, GEARBOX OR BOTH

821

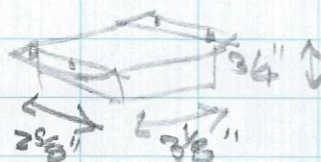
80-DRM ROAD - 24-6RB & DEAN'S HOUSE VIA GORDENS

129KM (~80MILES)

OIL IN CATCH BOX: 5-6CC

OIL IN SPONGE: LITTLE

BUILD CATCH BOX - 2' FOR UNDER GEARBOX PERFORATED PLATE.



$$29.6 \text{ CC} = 1 \text{ OZ}$$

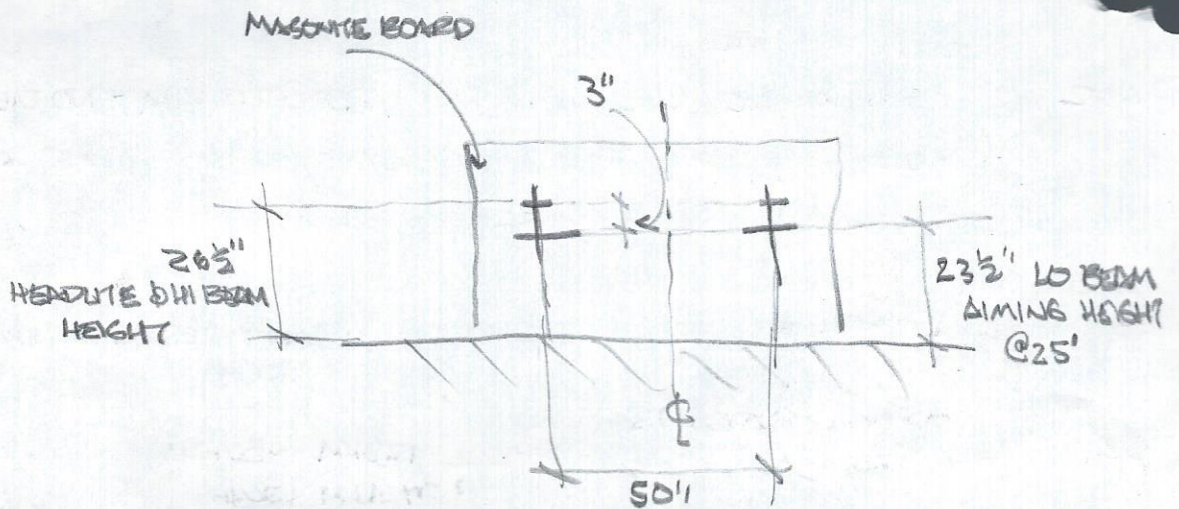
$$6 \text{ CC} \approx .20 \text{ OZ}$$

$$.2 \text{ OZ} / 80 \text{ MI} = X \text{ OZ} / 1000 \text{ MI}$$

$$X = \frac{200}{80} \cdot \frac{1}{2} = 2.5$$

LEAKAGE @ REAR OF CRANKCASE ~ 3 OZ / 1000 MI.

HEADLIGHT ALIGNMENT



12.79 → TOO HIGH W/2S CAL BAS.

ADJ. CAM CHAIN TENSIONER
 Δ OIL FILTERS

- 863 27 MAR 79 TO ANALYSIS

OIL PGM. LINE DID NOT LEAK
 NEW NOISES - GENERATOR?

OIL SURGE
 AS USUAL
 (40-60 PSI)

OIL LVL:  ADD 1 PT → MAX ↑

ADD 1/2 PT (LOCAL) → MAX ↑
 (+3 OZ (REST OF CAN) - NO CHANGE)
 TOTAL ADD: ~3/4 QT.

104 28 MAR 79 TO SERVICE/ELEVATOR (151K ~ 90MI) 10 OIL v 9 MFG

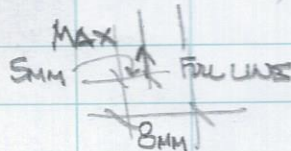
OIL: MAX (NO CHANGE) - SAME SURGE
 ADD 1 PT: MAX ↑

ADJUST CAM CHAIN TENSIONER - LOOSEN PINCH BOLT (10MM SQ), ^(CW) RE-TIGHTEN & RUN IN
 6MM BACKUP SCREW. TIGHTEN 10MM LOCKWIT, REPL. CAP.

OK H2O & BRAKE FLUID LVL - OK.

1086 30 APR 79 HAYWARD

UP TO 4 BK ONCE - OIL LVL SAME (MAX) - NONE OUT BREATHERS - SAME SURGE
 ADD 1 PT.




1130 31 APR 1979 S.F. (1515 MOTOR)

OIL LVL OK. 5-S.S.K RPM SMOOTHLY - NOTHING OUT OF BREATHERS OIL SURGE SEEMS LESS

ADJUST HEADLIGHTS

← ADJ DIAGRAM INST. SHEET IN PRODUCT DATA SECTION

REPLACE RHS (250 TR-TYPE ) BREATHER W/GT (STRAIGHT) ORIGINAL,
 + S.S. SCREEN 'BAFFLE' IN LOWER END. (OK NEXT RIDE FOR OIL THROWN OUT.)

1206 1 52 PM 79 TO ALVAMEDA

5K BURSTS TO 6K. NO OIL SPILL SAME OIL SURGE

1251 3 50 PM 79 JOSEPH'S/MANOR

OIL LVL MAX ↑ ADD 1 PT MAX ↑

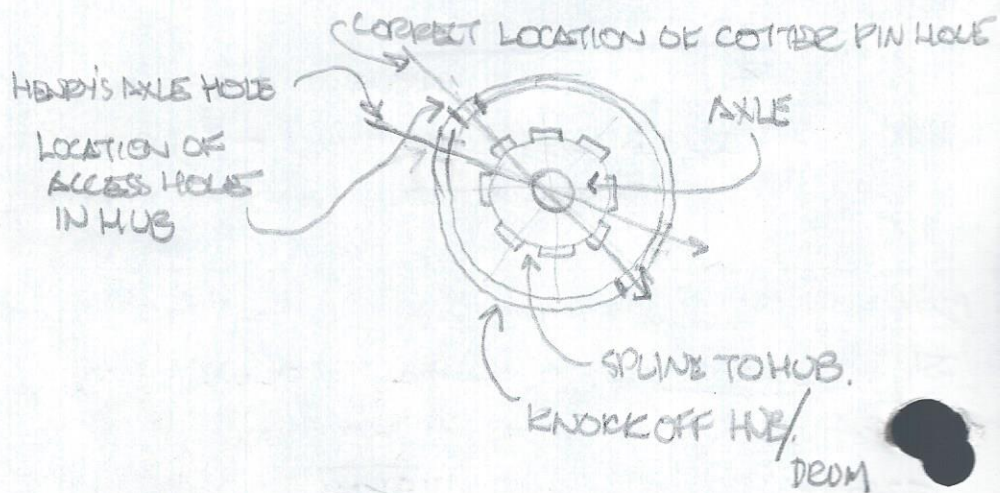
1324 9 20 PM 79

MAX ↑ + 1 PT → MAX ↑ 

1538 11 (OCCIDENTAL) 1105 KM $\frac{2}{3} \uparrow \frac{1}{3}$

Δ OIL/TREATZ/CLEAN SCREENS - Metal shows on front of in Screen housing.

KENDALL BT. 1 40WT (9 QT) → MAX ↑ TO MAX LINE



Δ FLOAT LVLS. (TWICE)
Δ REAR SHOCKS
NEW FRONT AXLE U.S. MFG.

~1660 20 SEPT 79 SET IDLE MIXTURE @ JOSEPH'S - RUN CLEANER @ PART THROTTLE
IDLE STILL A BIT ROUGH.

1666 22 SEPT 79 Δ FLOAT LEVELS TO 4MM (FROM 3MM) [LOOSE]
↓
1701 STILL FEELS ROUGH - RE-SYNCH CARBS/ADJ LINKAGE CK IDLE MIX: #5 & #6 (MOST
OBVIOUS ON #6 DON'T RESPOND LIKE THE OTHERS - THESE PLUSES LOCK POWER
THAN OTHERS - HEAVY IDLE CURRENT ON #3 RHS CARB?
ALL IDLE ADJ 1/4 - 1/2 TURNS BOTTOMED OUT → RPM DROP, EXCEPT #6 &
PREVILY #5.

23 SEPT INSPECT BEARING SPRINGS / SHOCK LINKAGE FOR SOURCE OF 'CREAKING' NOISES
WHEN SUSPENSION FLEXES - LUBE @ ALL MOVING JOINTS (WITHOUT DISASSEMBLY)
W/SPRAY MOLYBDENUM DISULPHIDE.

16000 SQUEAKS IN REAR STILL THERE - SPRAY EVERYTHING AGAIN - SILICONE SPRAY

16000 28 OCT 79 CK IGN TIMING EACH SIDE 1 VS 6 FOR SYNCH: 7 VS 12 FOR SYNCH
SYNCH OK, BOTH SIDES - MAX ADV. (MA) OK, BOTH SIDES
RHS DWELL: 46-47° LHS DWELL: 50°

SILICONE SPRAY TEMPORARILY ELIM NOISE IN REAR SUPP. IT'S BACK AS LOUD OR
LOUDER THAN BEFORE.

2045 31 OCT 79 Δ FLOAT LEVELS FROM 4 TO 5MM: RE-SYNCH/IDLE ADJ @ ~1100 RPM
(STILL IDLES ROUGHER THAN IT SHOULD) ALL IDLE SURCOS RESPOND, BUT
NOT ALIKE - AIR WORKS @ STARTS.

2046 3 NOV 79 Δ REAR SHOCKS (OLD ONES WERE SEEPING FLUID)
BENCH COMPARISON SHOWS OLD ONES GET SLIGHTLY SOFTER THAN REPL: PAIR
(REPL. W/SHOCKS OBTAINED FROM HANK VAN HILL - YEARS AGO: OK. LUL/CLOW/SET)
• SILICONE SPRAY EVERYTHING - STILL CREAKS & SQUEAKS.

2104 16 NOV 79 INSTALL LHD R.R. AXLE (MFG: HENRY'S MACHINE WORKS - AMMHEM)
• MFG ERROR - COTTER PIN HOLE DRILLED WRONG: SEE DIAG ON OPP PAGE
→ CAR RUNS WORSE - BACKFIRE ON DECELERATION / POOR MID-RANGE
PERFORMANCE - FLOAT LVL TOO LOW.
~~COTTER PIN PAGE~~

Δ FLOAT LEVELS - AGAIN (3rd time)
LUBE / OIL
Δ REAR BRAKE HOSE / FLUSH BRAKES

2104 17 NOV 79 CK PLUGS - 2 @ RANDOM: #12 & #9 - LOOK LEAN -
CHECK JETTING (TYP.) MAIN: 165 A/C 200 EMULS. F8
w/ W/C DRILL SIZE * 52 #7

Δ FLOATS TO 3MM

Δ 'COLD START' SETTING FROM E (SUMMER) TO I (WINTER) - TRY TO
IMPROVE RELUCTANT COLD START: IMPROVEMENT IS MARGINAL
(TEST DRIVE LATER)

19 NOV 79

TEST DRIVE TO MILLS - RUNS MUCH BETTER / IDLES BETTER - POSTPONE CRAB
REBUILD

REPAIR TURN SIGNAL SW - REBUILD BROKEN BAKELITE W/ DEV/CON
DIAGRAM & DETAILS - SEE DIAGRAM W/ 10.25.75 NOTES.

7 DEC 79 LOWER HEADLIGHTS 1 TURN

2441 15 DEC 79 OIL @: MAX ↑ ADD 1 QT → TO FULL LINE
(900 KM ON OIL)

REMOVE PLUGS - INSP LOOK SLIGHTLY OILY #10 & #12:

(#2, 4, 5, 12 MORE SO THAN OTHERS)

→ CLEAN ALL PLUGS - GAP @ .035"

RE-SET COLD START TO ~~E~~ - A BACK TO I AFTER PM COLD START

2502 18 DEC 79 - LOWER HEADLIGHTS 2 TURNS EACH (TOTAL: 3 TURNS FROM ADD. OF 9-1-79)
- CK PLUGS #10 & #12 - STILL CLEAN @ INSP, BUT WET.

3254 6 APRIL 80 - AFTER FR. BRASS, TIMBER CONE, ETC, (IN THE P.M.) (11-12 MPG)
↓ - LUBE Δ OIL (9 QTS. KENDALL 40 WT) @ FILTER
- REPL BROKEN LUBE NIPS; OUTSIDE END, RHS STEERING ARM
- Δ REAR BRAKE HOSE (TWO @ AXLE END)

3334 12 APRIL 80

- FLUSH FRONT BRAKES (2 PUMPS EACH CYL)
- RF BRAKES NOT FULLY RELAXING: LOWER OIL CORROSION: PISTON STICKING
REMOVE PISTON (WO BREAKING INTO HYDRAULICS) 400 SANDPAPER CYL
SANDPAPER PISTON / CLEAN (TRICHLOR) P&S / ASSEMBLE W/ LIGHT COAT
OF GIBLING'S BRAKE ASSY GREASE ON PISTON.

105,000
87,500

17,500

4560
3254

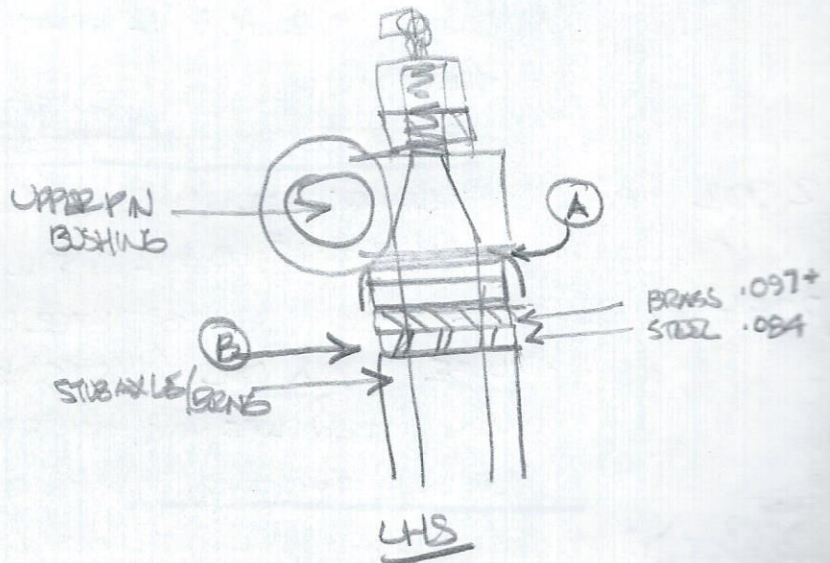
1306

1105069
87351

11,702

5013
2441

2572



Δ PLUGS (5013 7/80)

RE. BUSH-OUTER F. SUSP. (5069 8-9/80)

3334 4/12 (cont)

FRONT/INSUP UPPER PISTON OK - GIVING GEARS & ASSEMBLY -

BLEED F. BRAKES

ADJ FRONT BRAKES

"BALANCE" F. WHL. BY MOVING ON SPINDLES (W. RT. DRUM) TO →
NO ROTATION @ ANY OF 90° POSITIONS. MARK EACH

3487

OK RE WHL OILS FOR WORNNESS - BOTH DOY.

4560

4/22

(AFTER SANTA BARBARA TRIP) (SOME RAIN)

OK F. SUSP - BOTH SIDES A BIT LOOSE - LUBE F. SUSP ONLY (LUBE OUTER LHS NOT DONE) - NO. TIE ROD ENDS OR SPRING PIVOTS

OK OIL: DOWN TO 'X' ON MAX - 1306 KM ADD 1/2 QT → 1/2 between MAX & FULL

5/24. Δ FRANTZ FILTER ADD 1 QT. OIL.

4730

6.9

OK OK @ 'X' ON MAX.

5013

7.12

" "

ADD 1/2 QT → 1/2 between 'X' & Full

5013

7.13

Δ FOULED PLUGS NEW B7 ES (250 KM)

5069

8/80

F. SUSP. LOOSE AGAIN - DISASSEMBLE

17,700 KM SINCE
RE. BUSHING.

LHS

OUTER PINS WORN AGAIN! (~.0015) - POSSIBLE PICKUP POINT MISALIGN.
FROM 59 TAF WRECK.

RHS

SHOWS SHINY SPOTS - USEABLE

GRIND - HARD CHROME - GRIND ALL 4 PINS. (WARD HARD CHROME)

BUSH W/ MERCEDES BUSHING STOCK (BOB MELLOW)

(BSP: RUSSELL GEMMILL RST.)

BOTH KINGPIN END FLOATS WRONG.

(80) PS
SEE WORKSHEET FOR DETAILS

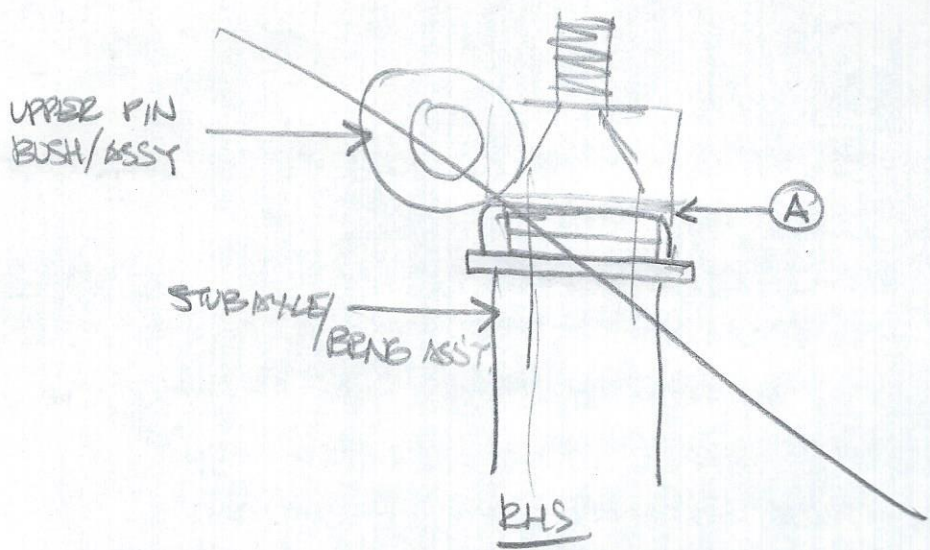
← LHS

"AS IS" - UPPER PIN BUSHING PART DOESN'T SEAT ON TAPER

REMOVE .037 BRASS → ~.050 GAP (END FLOAT FOR STUB AXLE)

FOR SLIGHT DRAG: .015" BRASS @ (A)

.021" STEEL @ (B)



START

0.10
0.15

OHVAL BRAKE EQUILIZER
GRIND F. DRUMS

F. SUSP. OVERHAUL, CONT.

DETAILS: WORKSHEET

← RHS

HAS END FLOAT "AS IS"

ADD .015" @ (A) → SLIGHT DRAG.

(80) F-S

9.26.80 OVERHAUL BRAKE EQUILIZER (FRONTLINE) INLET SIDE WAS FILTHY.

ATTEMPT TO CORRECT SLIGHT BRAKE PULL TO LEFT - SEE WORKSHEET

→ MAY BE ALIGNMENT

10.16.80 CK/SET ALIGNMENT: AUTOWERKE

FRONT	FACTORY	MEAS		SET	
		L	R	L	R
CAMBER	+1°	+55'	+50'	→	(SAME)
CASTER	+2½°	+2¾-3°	+2½	→	(SAME)
KING PIN INCL.	8°				
TOE IN.	esp. 7/64" = 15'	1° TOE OUT			15" (7/16") TOE IN. w/SPACER BAR

STEERING BOX ADJUSTED

ADD REAR BRAKES (½ FLAT FROM LOCKED)

REAR		MEAS	
		L	R
TOE IN		+5'	+5'
CAMBER		-30°	-30°

FRONT BRAKES STILL PULL TO LEFT - DRUM/SIDE PROBLEM ON LEFT SIDE

BRAKE DRUM I.D.'S

L	R
14.195"	14.190"

DRUMS NEED TO BE CLEANED UP

F. DRUMS GROUND @ FRICTION MATERIALS → 14.202

14.199

MMT. REMOVED

.007

.009

10.20.80

TEST DRIVE (GPS/CENTENNIAL)

INITIAL SEVERE PULL TO LEFT W/ LF WHL LOCKUP. AS BRAKES WERE WARMED UP, THIS ALMOST COMPLETELY DISAPPEARED. A LITTLE PULL @ VERY LOW SPEED. NEEDS MORE SETTING.

11.2.80

5300 CR OIL : @ MAX ↑ + ½ qt = | MAX ↓ |

5454 Δ OIL/FILTER 9 QT KENDALL 40WT

~~6531~~ 6531 APPROX PR BRAKE TRUP
LURE FRONT END & REAR (SLICON SPRAY)
(CONTINUED NEXT PAGE)

5877
1/81
Δ PLUGS - GAP @ .025
REMOVES CD UNITS

1.2.81 5877

RHS CD OR COIL FAILURE: DISCONN BOTH CD'S: USE LUCAS COILS.
Δ PLUGS: GAP @ .025 (B TES)

1.6.81 6531 (AFTER FT. BRAGG VACATION)

LUBE F. SUSP & REAR SUSP (SILICONE SPRAY) - (NO U-JOINT LUBES)

CK VALVE CLEARANCES:

8E	~ 1/2 TIGHT	2I	2 TIGHT
4E	~ 1/2 LOOSE	8I	1 "
11E	1 "	4I	2 LOOSE
9E	1 "	7I	5 TIGHT
6E	5 LOOSE	5I	6 TIGHT
12E	2 LOOSE	11I	2 LOOSE

TORQUE HEADS - TAKE UP ON #:

RHS: 4, 5, 7, 12
LHS: 4, 5, 6, 8, 9, 13

Δ FRANK FILTER + 1 QT OIL.

6.18.81

6708 (PREP FOR SPRING)

FT. PIPES/CATCH CANNS TO BOOSTERS & RADIATOR

TIRES @ 36 PSI (SPARE: 30 PSI)

+ 1 QT OIL TO → FULL

TOP UP RADIATOR (TO BOTTOM OF FILLER PIPES @ HEADERS TANK) ~ 1 PT.

CK BATTERY LVL - OK.

6.21.81

6838 FATHER'S DAY CARDS/SUR HOT!

190°-200° F H₂O T. ~ 220° F OIL @ 6500 RPM (OIL P. ~ 60 PSI)

TRAP 36 COLD → TOO WARM? → 40 F / 41 K HOT.

- 4 PSI → TOO SOFT? EITHERWAY IS OK ± (RADIALS!)

6.27/28/81

6895 - @ GEORGE'S: STREET UP → HOME LOW OIL P. ~ 20 @ 1500 SO @ 4000

REMOVE/INSP/CLEAN OIL P. BELIEVING LOOKS OK

NOW: 35-40 PSI @ 1000. SURELY 2600 @ 4000

12/19/5 TELF INSTRUMENT ANALYSIS

FUEL GA.

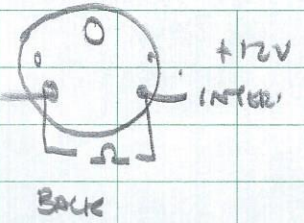
'BENZINA' VEGHA (SWG)

Ω

800

THINE

'SERB'



METER DOESN'T READ-

'FUEL - VEGHA

500

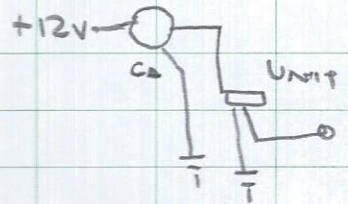
CONNECT TO ORIG TANK SENDING UNIT (VEGHA)-

IT WORKS:

SENDING UNIT

"Full" 95

"Empty" 6.5



OIL TEMP

STEWART WARNER

117.6

SENDING UNIT

"Full" 220

"Empty" 31

OIL TEMP GA.

VEGHA

93.7

S.W.

118

→ SENDING UNIT = 368 Ω

WATER TEMP GA

'VEGHA

90.2

SW

119.8

→ SENDING UNIT = 368 Ω

OIL PRESSURE GA - VEGHA : DIRECT READ-

CALIB VS. SHOP STD. + SEP.

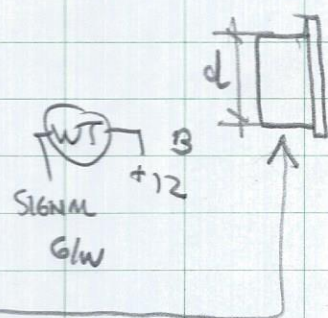
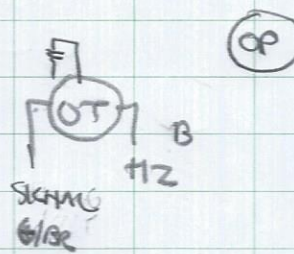
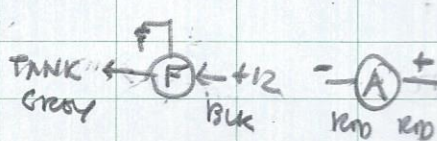
AMMETER

Ω : 0.5 Ω

From REAR OF DASH, FACING BACKWARD

SW

PINK REAR



dsw: 56mm

dvein: 60mm

ORIG FUEL TANK GA SENDING UNIT CASKET

OD: 67mm

FD 51mm

BOU CIRCUM: 61mm

(.00433 km)

TDF OVERHAUL

11/78 - 6/79

SUMMARY

ENGINE

BLOCK: BORES HONED TO FIT PISTONS (KNURLED)

- CRANK OK/MAG/POLISHED/CLEANED
- RODS OK (NEW PISTON PIN BUSHINGS)
- " BAL.

H.A.T. RACING

SAMMY HALE

"

TAK'S SPEED & MACHINE

• HEADS: SET ASIDE AS IS (O'HAUL ~ 2-3,000 K)

• BAL CRANK/FLYWHEEL/CLUTCH

M BLAZIC

TIMING COVER: ALL RINGS/SEALS REPLACED

- H2O PUMP O'HAUL
- ASSEMBLE OIL PUMP W/MOLYKOTE
- NEW TIMING CHAIN (35-3)

HIND-GEISWOLD RESTORATION

BENG ENGINEERING

OTHER

• RADIATOR OK/REPAIR

MAYO RADIATOR

• EX PIPES/HEADERS SANDBLASTED/PAINTED: NEW HANGERS.

• GEN/STARTER O'HAUL

ALBANY GENERATOR

• REBUILD CLUTCH

FRICTION MATERIALS

• REPAIR T/O BENG.

• SURFACE FLYWHEEL/SPOTFACE BOTH HOLES

TITO'S (STAN PETERSON)

• GROOVE PISTONS FOR O/S RINGS (COMP. ONLY)

STAN PETERSON

PARTS

• MAIN BENG (.030) / THROST WASHERS (CUP .005THIN): BOB NEWELL

• RED BENG (STD)

• PISTON PIN BUSHINGS

• " RINGS

• TIMING CHAIN

• ALL FRONT COVER BENG/SEALS, INCL H2O PUMP

• ALL RADIATOR HOSES

18.79 OVERHAUL, CONT

GEARBOX

COMPLETE REBUILD

- ALL GEARS/PLAIN BEINGS O.K.
- REPL. ALL ROLLER & BOWL BEINGS / SEALS / O-RINGS (2)
- REVERSE SYNCHRO RINGS (4)
- REPL. SHIFTING RINGS (2)

DRIVESHAFT

STRAIGHTEN

AL BLAZIC

BALANCE

"

WELD/GRIND TO SIZE REAR END

"

REPLACE REAR "U-JOINT" - DONUT (?)

COSMETIC

• BODYWORK (MINOR) / REPAINT

STEVIE PATIENCE

(EVERYTHING BUT REAR WINDOW REMOVED FOR REPAINT)

- REPL. TAILLIGHTS W/ ORIGINAL-TYPE (REPLICAS: VECTOR INDUSTRIES)
- STRIP OUT UPHOLSTERY FWD OF WEATHERS PLATFORM / REPL INSUL / CLEAN UPHOLSTERY
- REPL. WINDSHIELD (FAF)
- NEW DOOR RUBBER INSUL. (FAF / VECTOR IND.)
- RELOCATE OUTSIDE RV MIRROR (TO DOOR)
- NEW WEATHERSTRIP - TRUNK
- STRIP OUT / REPAINT ENGINE COMPARTMENT & FRONT FRAME ASSY.
- REPL. HORNS W/ AIR HORNS (CLOSER TO ORIG) (FAF)
- PAINT ENGINE, GEARBOX, CAM COVERS, REMOVE OIL FILTER, ETC.
- PLATE CAM COVER ACCORN NUTS.
- INSUL. CUBE GU HEADLAMPS (AUTOWORLD)