



INVOICE #: 2018
DATE: November 4, 2004

TO:



VEHICLE: McLaren M8E/D
SERIAL #: 80-08

RE: Fuel system plumbing

<u>DATE</u>	<u>LABOR</u>	<u>HOURS</u>
October 6	Remove fuel system plumbing after metering unit on motor. Relocate pressure relief valve and re-plumb system to collector pot and return to fuel cell. Heat shrink all new rerouted lines. Make new fuel pressure line from engine bay to fuel pressure gauge.	

3.8 Hours (js)

3.8 Hours @ \$75.00 per hour \$285.00

Total Labor \$285.00

Parts

12'-3 hose @ \$4.21 per foot	\$ 50.52
12'-3 shrink tube @ \$4.25 per/ft	51.00
10'-6 shrink tube @\$6.50/ft	65.00
1 Radiator cap	<u>7.20</u>

Subtotal Parts \$173.72

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7.5% Sales Tax
Total Parts

13.03
\$186.75

Total Due this Invoice

\$471.75

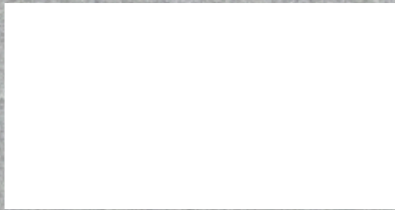
THANK YOU FOR YOUR BUSINESS

pl. «(10/02
Ch. 9671



INVOICE #: 2040
DATE: January 19, 2005

TO:



VEHICLE: McLaren M8E/D
SERIAL #: 80-08

RE: Service

<u>DATE</u>	<u>LABOR</u>	<u>HOURS</u>
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December 15	Go over car and assist Tim as required with disassembly of accessories.	
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1.3 Hours

Tony assist brake loose wheel nuts and place car on stands. Assist Tony remove bodywork. Remove wheels, mark and take to storage. Clean wheel nuts from old anti-seize. Remove all associated hardware and remove rear shocks, drive shafts and outer "U" joints, R/ARB complete, rear cross member, rear uprights, etc. Remove rear lower inboard suspension mounting blocks. Disconnect rear trailing links from rear uprights and remove rear uprights. Remove associated hardware and remove differential side plates and differential.

4.0 Hours (trf)

December 16	Start sourcing correct master cylinders etc. Go over parts of car to be serviced. Inspect ring and pinion - OK. Call and research exhaust tail pipe system.	
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2.7 Hours

Clean differential oil drain plugs/magnets. Remove snap rings and remove rear output shafts. Remove snap rings and heat side plates and remove races, shims and bearings, and clean all parts including side

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plates. Clean output shafts and tumble and take to crack check. Remove camber links from rear uprights and associated hardware. Remove rear upright through pins and associated hardware. Remove rear drive shafts and clean. NOTE: Prior to rear axle removal, it appeared that either one or both rear wheel bearings in each upright were "notchy" and may need to be replaced. Final determination will be made when bearings are removed and cleaned and inspected. Remove gearbox bearing carrier and gear ratios and clean all parts. Remove front brake duct hoses and cockpit cooling hoses. Remove associated hardware and remove front spindles. Clean all parts (noticed that front wheel bearings also need to be inspected and possibly replaced). Remove all associated hardware and remove front shock/spring assemblies. Disconnect F/ARB from front uprights. Remove front brake calipers and brake rotors. Remove upper camber plates and camber links from front uprights. Remove front upper upright Thompson joint ball caps. Remove lower ball joint hardware on front uprights and remove front uprights. Remove all associated hardware and remove front lower "A" arms. Remove foot box access panel. Measure pedal locations for future reinstallation placement. Remove all associated hardware and brake lines and remove front brake and clutch master cylinders and reservoirs. Remove door and pack for shipping.

7.5 Hours (trf)

December 20 Measure rear spring perch heights and note for reassembly. Remove rear springs from shocks, springs perches, top collars, etc. Remove shock top and bottom bearing bushings. Clean springs and all parts and shock mounting hardware, and tumble spring perches and top collars. Clean and polish rear lower "A" arms. Ball hone rear lower "A" arm pivot bores to remove scale, dirt, and corrosion. Clean and polish rear "A" arm pivot rods. Clean and polish rear "A" arm pivot rod bushings to remove rust and corrosion. Disassemble and clean rear drive shafts, yokes, "U" joints, bearings and races, etc. Tony assist jig assemble left rear drive shaft with new roller bearings to check for fit and disassemble. Take rear drive shafts and yokes to crack check. Fetch rear output shafts from crack check. Install rear side plate bearings, shims, races, snap rings, etc. Install drive shaft bolts to rear output shafts and install rear output shafts and snap rings. Clean main differential case outer. Remove rear lower suspension mount from gearbox main case and clean, inspect and reinstall. Clean rear lower suspension mounting blocks. NOTE: While using the differential unit as weight on the side plate bearing races (as is the norm), noticed that at least two of the ring gear bolts were loose, even with locking tabs still in place. Removed all ring gear bolts and disassemble differential and clean all parts. Source and fetch new pawls and ring gear bolts. Pre-lube and assemble differential with new pawls. Locktite, install and torque ring gear bolts. Clean rear rotors and rotor hats.

SPECIAL NOTE:

A general observation while disassembling parts on this project is that there is very serious and widespread rust, oxidation, corrosion, water damage, to almost all parts. At an outward glance, this damage is not readily visible but upon disassembly it is quite obvious. This situation would appear to have been a long term problem and has not occurred just in the last ten to twelve months but much earlier than that. TO THAT END, time spent cleaning the parts and removing the oxidation, rust, corrosion from the disassembled parts is extremely time consuming. There is no alternative other than to do the job correctly and clean the parts correctly.

7.3 Hours (trf)

0.5 Hour (trf) FOC

December 21 Remove differential oil pump drive bolts and drill for lock wire. Reinstall bolts with Loctite and lock wire bolts. Clean and tumble front upright pivot plates. Lock wire ring gear bolts. Pre-lube bearings on side plates and differential. Install differential and side plates. Tony assist check pinion backlash and side plate pre-load. Remove steering column from rack. Remove steering rack clevises. Remove steering rack, photograph and disassemble rack and clean all parts. Tumble steering rack mounting hardware. Pack all spindles, ball joints, steering rack and pinion, and rack end clevises for shipping to crack check.

3.8 Hours (trf)

1.3 Hours (trf) FOC

December 22 Clean and wax rear cross member. Remove R/ARB mounting blocks and Delrin bushings from R/ARB. Remove R/ARB drop links and clean and polish links. Clean and polish R/ARB. Lube Delrin bushings and install to R/ARB along with mounting blocks. Pre-lube remaining bearings and install differential, side plates with sealant and lower/rear "A" arm mounting blocks, etc. and all associated hardware. Install rear cross member and associated hardware. Install R/ARB and all associated hardware. Install R/ARB drop links. Clean and polish rear cross member/shock tower braces and install after shimming braces to fit correctly. Disconnect rear brake calipers from lines for rebuild. Measure rear camber links and remove rod ends and clean and tumble all parts. Clean and tumble rear spindle nuts, thrust washers and nuts. Clean, polish and install rear shift linkage after sourcing new mounting bolts for shift "U" joints.

4.5 Hours (trf)

NOTE:

Upon final installation of differential and side plates, differential bearing pre-load was found to be too much by Tony. Then, at no charge to

owner, removed rear cross member and all associated hardware, and remove differential side plates and differential. Removed bearings, races, output shafts, etc from side plates after Tony assist measure gap between side plates and bearings. Clean all differential parts removed.

December 23 Remove rear upright inner bearings complete with yokes due to yokes being seized into bearings. Fabricate removal tool and remove rear upright yokes from bearings. Remove outer rear upright bearings. Clean rear uprights. Take rear upright yokes to crack check. Clean, inspect, test, and repack all rear wheel bearings. Take and fetch rear upright through pins to crack check. Fetch rear drive shafts from crack check and assemble roller bearings and drive shafts with grease. Soft assemble gearbox bearing carrier with ratios and pre-lube. Source and install missing roller bearing in main case lay shaft bearing. Assemble right rear upright and bearings, snap rings, etc. and oil upright hot.

5.0 Hours (trf)

December 24 Remove front wheel bearings, snap rings, and seals. Clean front uprights. Clean, inspect, and repack left front wheel bearings and reinstall to left front upright with snap rings and new seal. Clean and inspect right front wheel bearings and pack right front outer bearing and install with snap ring and new seal. Oil right front upright hot. Right front inner wheel bearing is marginal and Tony will make decision to change to new or not - did not install right front inner wheel bearing at this time. Clean and tumble front spindle mounting nuts, bolts, thrust washers, etc. Clean front brake pads and inspect. Clean and tumble front uprights pivot block mounting hardware. Measure front shock/spring perch heights and disassemble front shock/spring assemblies. Clean and tumble front shocks, springs, spring perches, spring collars, etc. Remove front shock eye bushings.

4.3 Hours (trf)

December 27 Measure lengths and remove rod ends from left and right front camber links and clean links and rod ends. Anti-seize and reinstall rod ends, setting both sides equal, and polish links. Remove front castor links. Measure lengths and remove rod ends from left and right front castor links and clean links and rod ends. Anti-seize and reinstall rod ends, setting both sides equal, and polish links. Measure lengths and remove rod ends from left and right front lower "A" arms and clean "A" arms and rod ends. Anti-seize and reinstall rod ends, setting both sides equal, and polish "A" arms.

NOTE: While cleaning front suspension link threads with bottle brush, notice large amounts of scale and rust came from tubes inside.

Remove F/ARB and associated hardware, and remove Delrin bushings. Clean Delrin bushings, mounting, blocks and F/ARB. Polish F/ARB and reinstall bushings and blocks and reinstall F/ARB. Clean, blow, and vacuum foot box and pedal area. Wipe down old dirt and brake fluid from cockpit foot box.

2.7 Hours (trf)
0.8 Hour (trf) FOC]

December 29 Order shims and hardware for side plates. Order replacement tailpipes.

0.9 Hour

Cut lock wire from brake rotor hat bolts, remove bolts, and disassemble brake rotor from hats and retaining rings. Clean all parts. Note: 50% of rotor hat retaining bolts need to be replaced. Tumble rotor hats and rings. Wipe down front of tub (angle/wheel well/outer) and cockpit inner side and top from dirt and rubber and some brake fluid. Remove brake reservoir hoses and clean hoses. Clean and tumble brake and clutch master cylinder reservoirs. Disassemble and hone clutch master cylinder and check for condition-cylinder no good - Tony ordered new brake master cylinder. Machine up F/ARB drop link spacers (to replace stacked washers) for lower front 'A' arm mount and soft install. Clean and polish F/ARB drop links. Install new right front upright inner wheel bearing and snap ring and oil right front upright hot.

4.8 Hours (trf)
0.3 Hour (FOC)

December 30 Remove pedal push rods from new front brake master cylinders and source and modify new push rods and install. Chase pedal push rod threads on rod receivers for clutch and brake pedals. Source new upper mounting hole bolts and anti-seize mounting hardware and install new front brake master cylinders. Install brake pedal push rods, adjust brake pedals and lock down jam nuts. Source and modify new clutch pedal push rod for later installation.

1.3 Hours (trf)

53 Hours @ \$75.00 per hour	\$3,975.00
2.9 FOC Hours @ \$75.00 per hour	(217.50)

Total Labor	\$3,757.50
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Parts

2 FSC022 front upright seals @ \$15.24 ea.	\$ 30.48
2 FSC027 front wheel bearing @ \$43.96 ea.	87.92

2 FSC047 top ball joints - front suspension @ \$185.00 ea.	370.00
10 Ring gear bolts @ \$13.50 ea.	135.00
8 LG217 plungers @ \$32.75 ea.	262.00
1 .875 AP master cylinder FSC178	229.00
1 .812 AP master cylinder FSC179	229.00
1 .875" Clutch slave cylinder FSC209	229.00
2 7/16 x 3 1/2" SCHS (rear/lower "A" arm) @ \$3.50 ea.	7.00
48 3/8 x 3/8 Roller bearings (driveshaft) @ \$1.23 ea.	59.04
2 7/16 x 3 3/4 SHCS @ \$4.10 ea.	8.20
4 5-282x U/joints @ \$52.35 ea.	209.40
1 7/16 x 1/2 Left hand rod end (right rear lower radius rod)	84.00
1 7/16 x 1/2 Right hand rod end	84.00
Miscellaneous fastners	25.00
2 CP2261-6 Brake rotors @ \$245.00 ea.	490.00
2 CP2261-7 Brake rotors @ \$245.00 ea.	<u>490.00</u>

Subtotal Parts	\$3,029.04
7.5% Sales Tax	<u>227.18</u>
Total Parts	\$3,256.22

Shipping

Crack test out package 1 and 2	\$ 21.95
Windscreen shields out	9.45
Crack test return	11.54
Brake rotors	<u>29.74</u>

Total Shipping	\$ 72.68
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Sublet

Crack test axles, balljoints, and steering	\$ 245.00
Crack test drive shafts and suspension(Huffaker)	180.00
4 Rebuild Calipers @ \$165.00 ea.	<u>660.00</u>

Total Sublet	\$1,085.00
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Total Due this Invoice	\$8,171.40
Less Deposit Check #9703	<u>(3,000.00)</u>

Total Due	<u>\$5,171.40</u>
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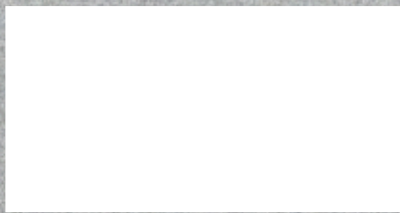
THANK YOU FOR YOUR BUSINESS

pd. 1/24/05
ch. 9707



INVOICE #: 2051
DATE: March 3, 2005

TO:



VEHICLE: McLaren M8E/D
SERIAL #: 80-08

RE: Service January hours

<u>DATE</u>	<u>LABOR</u>	<u>HOURS</u>
January 3	Install shims to differential side plates and install side plate bearings and snap rings. Grease and install rear output shafts. Install bearing races and shims to differential side plates. Pre-lube bearings and install side plates and differential and tighten all associated hardware. Check differential pre-load. Remove side plates and differential and silicone seal side plates and reinstall with differential and all associated hardware and through bolts, etc. Install lower rear "A" arm mounting plates. Install rear cross member and associated hardware.	

FOC

Source and modify new rear camber/shock bolts and soft install. Tighten rear cross member braces. Anti-seize and assemble rear camber links with new rod ends as necessary. Remove right rear upper trailing link and measure on trammel bar and remove rod ends and clean all parts. Polish and reassemble right rear upper trailing link. Remove left rear upper trailing link. Source and fetch new rod end for left rear lower trailing link. Grease new rear Spicer/'U' joints. Install new 'U' joints to rear drive shafts with anti-seize.

3.8 Hours (trf)

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January 4 Strip down both rear shocks and check units. Both units completely different. Will need to research how to source period correct parts. Machine up hub mount for left rear upright to set up for remachining of top pin bore.

3.5 Hours

Remove remaining trailing links and disassemble, clean and polish. Reassemble trailing links and rod ends (new rod ends where necessary) with anti-seize and measure trailing links on trammel jig to set side-to-side distances equal. Polish rear lower 'A' arms a final time and install to chassis with associated hardware and anti-seize. Source and modify new rear lower trailing link bolts and soft install to upright clevis. Polish upright clevis pins and anti-seize and soft install to rear lower 'A' arms. Source and soft install new 7/16" jet nuts and washers to output shaft bolts. Remove starter and clean and file "touch" mark on Bendix collar. Apply blue Dykem Bendix collar. Paint stick wear/touch marks on oil pan. Install starter and set up Bendix bump wiring. Bump Bendix, remove starter and inspect rub marks. Lightly file and hand machine oil pan edge and button head pan Allen bolt. Re-Dykem Bendix collar and re-paint pan edge. Reinstall starter and repeat bump process. R & R starter one more time to clearance Bendix collar and final/hard reinstall starter. Install fire sleeve to starter 6 gauge line and solenoid line and hook up starter wiring. Fabricate and test fit rear anti roll bar drop link lower spacers.

5.5 Hours (trf)

January 5 Set up upright in mill. Machine up distance pieces to set upper and lower upright pin bores parallel to each other. Find center of top pin bore and machine oversize to get round hole in order to fit new bushing sleeve.

1.9 Hours

January 6 Machine up sleeve for upright top pin bore. Heat upright and press sleeve into place. Fine machine and surface area for washer. Machine up new top clevis washer for rod end. Test fit replacement tail pipes.

2.5 Hours

Install wheel bearings, seal and snap rings to left rear upright (post clevis hole repair). Check all spindle drive pins for tight and found that front drive pins were tight and rears were loose. Remove rear spindle drive pin nuts and applied Loctite. Reinstall and torque nuts. Lock wire drive pin nuts. Lube grease seal on uprights. Polish rear upright drive yokes and front upright spindle retaining caps. Anti-seize all spindle retaining caps and yokes and splined surfaces. Install all spindles to uprights

with associated spindle retaining bolts roll pins, and nuts and caps, etc. and torque all spindle bolts and nuts. Install rear drive shafts to rear uprights with 'U' joints and anti-seize on 'U' joint caps. Anti-seize upright through pins, bushings, bushing surfaces, etc. and install rear uprights and through pins and torque through pin nuts. Hard install inner drive shaft to output shafts less nut torque. Install rear upright upper clevises with anti-seize and new mounting nuts and high area washers. Install rear camber links to rear uprights. Install rear trailing links to upright clevises with new mounting hardware for rear/upper rod end clevises. Assist preliminary fitting of straight pipe collectors/tail pipes.

7.0 Hours (trf)

January 7 Work out shock valving to make parts order for the UK.

0.5 Hour

Lube and assemble steering rack. Temporary install steering rack, ends, clevises, steering column/'U' joint, etc. Begin preliminary rear suspension alignment, measuring, etc. Tony assist begin rear castor/bump steer set-up.

4.0 Hours (trf)

January 10 Finish removing pistons from shock shafts and measure foot valve washers and pistons to order correct parts from U.K.

1.2 hours

Assist Charles with cleaning of chassis. Begin sorting front suspension for reassembly.

0.5 Hour (trf)

Clean cockpit, engine, rear suspension, body and nose box.

4.5 Hours (cm)*

January 11 NOTE: Mounting bolts and hardware for front upper 'A' arms, castor links (front and rear of links), and camber/shock/nose frame, was not acceptable with regard to shoulder and grip lengths. Source, modify and shorten as necessary. Replace this hardware with correct mounting hardware. Install front upper and lower "A" arms with associated hardware and anti-seize. Install front castor links and associated hardware. At this time did not hard install upper camber/shock bolt because shock absorber was out for servicing. Install Delrin Thompson ball joint inserts to caps and receivers on front upper

and lower "A" arms. Lube and install new upper Thompson joints to upright top plates and install split pins to castle nuts. Install front upright top plates and anti-seize mounting hardware. Remove right front upright mounting plate and shorten Thompson joint threads to fit as necessary to clear upright plate mounting recess. Reinstall right front Thompson joint. Lube and install lower front 'A' Thomson joints and anti-seize and install Thompson joint caps. Remove front toe links from Ackerman plates and brake duct mounting. Measure and disassemble and clean front toe links, rod ends, and jam nuts, etc. Anti-seize and re-assemble rod ends to toe links. Hard install front uprights and associated hardware. Install front toe links, Ackerman plates, brake duct mounts, brake duct hose, etc. Lock wire right front upright top plate bolts.

4.8 Hours (trf)

January 12 Install Delrin Thompson ball joint inserts to left front upper Thompson joint cap and anti-seize and install cap. Lock wire all front Thompson joint caps. Remove front and rear brake master cylinders and source and modify an alternate set of pedal push rods. This was done because as the car was delivered, the brake pedal seemed to be adjusted quite fat to the rear of the throttle pedal. With new master cylinders and rebuilt brake calipers, the brake pedal adjustment with the existing rods may be too long causing the pedal not to be able to be adjusted properly. The alternate set of pedal push rods will allow for a wide range of adjustment. Reinstalled front brake master cylinders and associated hardware and adjusted pedal. Assemble left rear brake rotor to hat and anti-seize and lock wire rotor hat bolts. Install left rear rotor/hat assembly. Chase threads on upright brake caliper ears and caliper mounting bolts (where damaged). Install brake caliper and pads, and lock wire left rear brake caliper bolts. Remove left rear brake line end and install heat sleeve to brake line and reinstall hose end. Assist Charles set up bump steer jig and assist with static alignment and bump steer and castor settings. Assist set final rear bump steer.

3.4 Hours (trf)

Set caster, zeroe toe and remove bump/droop steer on rear wheels.

2.6 Hours (cm)

January 13 Assist Charles with front bump steer and alignment. Hard install/tighten steering rack mounting bolts. Assemble right rear brake rotor to hat and anti-seize and lock wire rotor hat bolts. Install right rear rotor/hat assembly. Chase threads on right rear upright upper brake caliper mounting ear. Install right rear brake caliper and pads, and lock wire right rear brake caliper bolts. Remove

burned/melted plastic spiral wrap from right rear brake line. Remove right rear brake line end and install heat sleeve to brake line and reinstall hose end. Install right rear brake line to caliper. Clean rear body mount/differential cooler mount and brake ducts and hoses. Torque inner drive shaft nuts. Remove gear ratios and re-clean from pre-lube. After pre-lubing and assembling ratios to bearing carrier, it was decided to change ratios to a usable set.

2.8 Hours (trf)

Set caster, zeroed toe and remove bump/droop steer on front wheels. Nut and bolt front suspension.

3.9 Hours (cm)

January 14 Go thru gear stack and determined that it is good for Laguna, Sears, and possibly Thunderhill. Reassemble stack into bearing carrier and refit into main case. Talk to different sources and found that rear tail hanger can be traced back to Bob Lee, therefore possibly back to when originally imported into country in 1976. The existing tail hanger looks like a badly modified stock M8E part. I still believe that the tail hanger should be replaced with larger diameter tubing and better triangulation as per the team cars of 1970 that ran similar bodywork.

3.4 Hours (cm)

Install bearing carrier mounting hardware (Tony stabbed box and ratios). Seal and install bearing carrier end cover and associated hardware. Install bodywork/rear wing mount/differential cooler mount and associated hardware. Install differential cooler lines. Install shift linkage. Tie off clutch bleed line. Install collectors. Shorten collector hose clamps to fit and install to collector support and collectors. Lock wire collector support hose clamps. Fill gear oil. Install rear brake ducting and mounts to rear calipers and lock wire mounting bolts. Fabricate plate for ratios list and install with list. Install replacement jump plug and associated wiring.

2.3 Hours (trf)

January 19 Assemble front rotors to hats and lock wire bolts. Install front rotors and install front calipers and pads and lock wire caliper bolts. Hook up front brake lines to calipers. Remove right rear brake rotor and change over mounting hardware to new bolts. Reinstall rotor.

1.3 Hours (trf)

January 25 Deliver front shocks to sublet for servicing. Make sketch and drawing to send to UK for rear tail hanger.

1.1 Hour (cm)

56 Hours @ \$75.00 per hour	\$4,200.00
4.5 * Hours @ \$44.00 per hour	<u>198.00</u>
Total Labor	\$4,398.00

NOTE: Robin Automotive rates were increase as of January 1, 2005 to \$90.00 per hour. This job will be billed at old rate until completion. New rates will go into effect March 15, 2005.

Parts

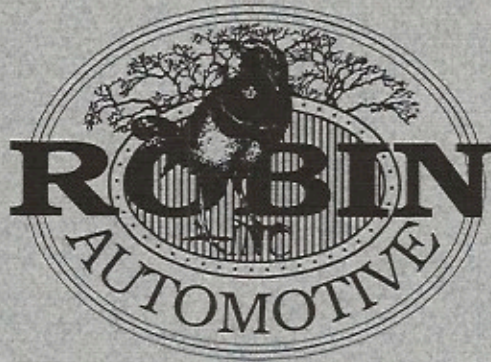
1 Gray jump plug	\$ 12.50
2 Gallons Redline HD gear oil @ \$33.96 per gallon	67.92
48 NAS rotor hat bolts (pre drilled) @ \$1.23 ea.	59.04
3 24" Lengths brake fluid inlet hose @ \$9.95 ea.	29.85
3 CP2623-30 Inlet connection push on fixtures @ \$19.50 ea.	<u>58.50</u>

Subtotal Parts	\$ 227.81
7.5% Sales Tax	<u>17.09</u>
Total Parts	\$ 244.90

Total Due this Invoice	<u>\$4,642.90</u>
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THANK YOU FOR YOUR BUSINESS

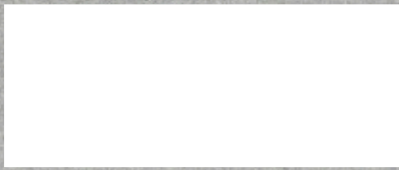
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ch. 9725



INVOICE #: 2095

DATE: June 9, 2005

TO:



VEHICLE: McLaren M8E/D

SERIAL #: 80-08

RE: Service- February hours

<u>DATE</u>	<u>LABOR</u>	<u>HOURS (TRF)</u>
February 2	Check on shocks.	0.4 Hours
February 2	Source and fetch brake master cylinder fill hoses. Source and fetch master cylinder inlet fittings and install.	0.7 Hours (trf)
February 7	Look into new lines from master cylinder. Need to drain coolant, drill off clamps and remove lines. Remove water lines. Remove water line where it is touching on oil pump belt. Oil system plumbed incorrectly.	3.8 Hours
February 8	Follow up on shocks and email UK for parts.	0.6 Hours
February 9	Make up mounting/blanking washer for rear brake line, fit new fitting to cylinders and front bulkhead panel. Make up hard lines from master cylinder to bulkhead fittings.	2.1 Hours
	Assist Tony building solid brake and clutch lines.	0.5 Hours (cm)
February 11	Make up lines from master cylinder to bulkhead. Remove hard lines from inside tub. Make up panel washer to seal large hole in front panel. Drill holes for bulkhead fittings.	1.1 Hours

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Mount brake and clutch reservoirs to brackets. Run tubing from reservoirs to masters. 0.8 Hours (cm)

February 12 Try to remove rusting hard lines through tub but tubes are old and collapsed when trying to re-bend to new shape. Make up and route two lines through tub. 1.7 Hours

February 14 Tie off loom and lines to new brake lines in cockpit area. Assist with bleeding brakes and new master cylinder. Check for leaks. Start working on water system where touching on oil pump belt. Make new water tube and weld to original part. Make new -12 lines from cylinder heads to Y connector to water tube to radiator. Hours

Assist bleed brakes and clutch. Place battery on charge. 0.5 Hours (trf)

Install right front wheel speed sensor magnet to right front rotor hat ring. FOC

Seated clutch and brake line fittings. Refit lines to masters. Clamp reservoir lines to masters and reservoirs. Assist Tony and Tim bleeding brakes. Clean bleeders. 1.0 Hours (cm)

February 15 Source and purchase water bleed tube from radiator to header tank. Remove header tank and locate bleeder holes. Weld -4 bleeder nipples onto header tank. 1.1 Hours

February 17 Fit radiator breather fitting; drill out holes in swirl pot. 0.5 Hours (cm)

February 18 Assist Tony routing breather line from radiator to swirl pot. Attempt to start car. 0.5 Hours (cm)

March 7 Shorten and zip tie radiator bleed line. Fit front panel to pedal box area. Swap out rear shock tops and swap out mounting bearings. Build up rear shocks and spring assemblies and fit to car. Put car on ground and level car to rough in ride height. After ride height set, check and adjust camber as required. Loaned Client two shock tops of same height in order to get correct set up on perch heights. Will replace w/ correct parts when new tops are fabricated. 3.4 Hours

March 22 Set up alignment plate and set corner weights. 1.5 Hours

Assist Tim removing bodywork. Disconnect left front sway bar link. 0.5 Hours (cm)

March 23 Set alignment.

3.0 Hours

Assist wipe down cockpit and rear fiberglass fire wall/seat back. Blow out tub and cockpit. Assist installing rear fiberglass fire wall/seatback and upholstery. Tie off right front wheel speed sensor line. Tire off rear brake lines to rear lower "A" arms. Assist taking the car off of scale pad.

0.5 Hours (trf)

Assist Tony with corner weights and ride height. Assist Tony setting final toe. Re-center rack and align steering wheel to straight. Re-lock wire steering column.

2.3 Hours (cm)

March 24 Remove gear lever and work at getting rid of excess play in lever box. Problem was with lever but also found a major problem in shifter linkage box.

1.0 Hours

Assist Tony chase shift lever loose problem. Assist start and warm car and check for operation. Charles assist install bodywork.

1.3 Hours (trf)

Torque wheels. Wipe down bodywork. Charge battery. Re-route tachometer cable. Polish side curtain windows. Check air pressures and inflate tires. Polish wheels. Assist Tony and Tim adjusting shift linkage. Assist Tony and Tim starting up car. Check for leaks. Refit bodywork and cover with plastic.

3.8 Hours (cm)

March 30 Work on lever and shifter box. Remove material out of box to allow lever to move further into pocket. Will need new box made eventually. Remove intermediate link to make threaded adjuster. Cut link, machine up parts and weld link together.

3.8 Hours

March 31 Fit new linkage section and adjust lever to center of shift box. Start and run up motor. Bolt right front cell cover back in place. Relieve eschant tubes for linkage rod.

2.8 Hours

Labor

41.9 Hours @ \$ 75.00 per hour

*duplicates
4/13/05
?*

\$ 3,142.50

Total Labor

\$ 3,142.50

Sublet

Front shocks rebuild @ \$165.00 ea.	\$ 330.00
Rear shocks rebuild, includes new bodies and internals	<u>850.00</u>
Total Sublet	\$ 1,180.00

Parts

2 pair Delrin Thompson Cup inserts @ \$50.00 ea.	\$ 100.00
3 Adapters, Male/Male, -3 to -3 @ \$5.59 ea.	16.77
1 Adapter, Male/Male, -3 to -4	4.06
3 Brake hose @ \$9.95 ea.	29.85
1 Adapter, -4 to -4, 90#	9.62
1 Adapter, -3 to -3, 90#	24.06
3 Tube nuts, -4 @ \$ 1.12 ea.	3.36
3 Tube nuts sleeves, -4 @ \$ 1.14 ea.	3.42
5 Tube nuts, -3 @ \$ 1.03 ea.	5.15
5 Tube nut sleeves, -3 @ \$ 1.03 ea.	5.15
1 bulkhead nut, -4	1.60
1 bulkhead nut, -3	1.31
6 #10 mini clamps @ \$.95 ea.	5.70
3, -3 copper washers @ \$.65 ea.	1.95
10' ¼ radiator bleed tube @ \$1.35 per ft.	13.50
2 -4 weld on fittings @ \$5.88 ea.	11.76
1 Adapter, -4 to 1/8NPT	9.85
1 -4 push on fitting, #90	18.95
1 -4 push on fitting, #45	18.95
1 -4 hard cap	<u>3.08</u>

Subtotal Parts	\$ 288.09
Tax @ 7.75%	<u>22.33</u>

Total Parts \$ 310.42

Shipping

Bleeder tubing \$ 4.49

Total Due this Invoice

\$ 4,637.41

THANK YOU FOR YOUR BUSINESS

pd. 6/14/05
ch. 9770

Jongbloed Racing Inc.

17680 Butterfield Blvd. Suite #280
Morgan Hill, CA 95037
408.776.1380 ph
408.776.1390 fax

Invoice

Date	Invoice #
6/28/2005	93

Bill To

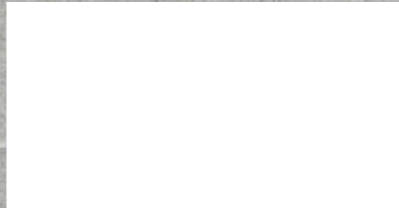
Ship To

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
	credit card	RD	6/28/2005	Will Call		
Quantity	Item Code	Description			Price Each	Amount
1	Wheel set	Wheel set McLaren M8E 15x11 and 15x16 Sales Tax			3,600.00 8.25%	3,600.00T 297.00
					Total	\$3,897.00



INVOICE #: 3006
DATE: July 20, 2005

TO:



VEHICLE: McLaren M8E/D
SERIAL #: 80-08

RE: Post WCC

<u>DATE</u>	<u>LABOR</u>	<u>HOURS</u>
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June 14 Carry out inspection of car and go through owner job list. Order new windscreen. Assist with installation of gearstack. Layshaft forward bearing is becoming loose and needs to be replaced in future. This caused delay in refitting of stack into gearcase.

1.5 Hours

Place car on stands. Remove wheels and tires. Repair left front tire puncture. Remove foot box access panel. Check steering rack and steering column "U" joints and mounting hardware for tight. Clean, blow, and vacuum cockpit. Nut and bolt foot box area. Remove seat upholstery and fiberglass firewall. John S. assist tighten oil pump belt tension. Initial nut and bolt front and rear of chassis. Nut and bolt headers and find header bolt missing on front left hand side primary. Drill un-drilled header bolts for lock wire and lock wire all header bolts. Load test and place battery on charge. Disconnect battery. Bleed brakes and clutch. Check oil and water levels. Check rear spindle bolts for tight. Check motor mount plate for tight. Remove gearbox bearing carrier and all associated hardware, body mount, differential cooler mount, etc. and clean all parts and gear ratios. Pre-lube and assist

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reinstall bearing carrier and ratios after machining lead into lay shaft.
Remove differential oil cooler lines and remove body mount for repair.

5.3 Hours (trf)

June 15 Weld up rear tail hanger bracket.

0.6 Hour

Clean wheels and over-air. Disassemble differential cooler and tail light and associated hardware. From rear body mount. Strip paint from cracked areas and clean rear body mount for repair. Inspect rear body mount for further cracking. Reassemble differential cooler and associated parts to rear body mount from repair. Install rear body mount. Fill gear oil. Final nut and bolt of rear of chassis.

2.0 Hours (trf)

June 16 Install new "U" joints to drive shafts.

2.7 Hours (trf)

July 9 Drill holes in new wing braces and mount wing onto car.

0.6 Hour

12.7 Hours @ \$90.00 per hour

Less 3.8 hours @ \$90.00 (March 30th dupe billing)

\$1,143.00

~~342.00~~

CREDITED
ON 6/29/05
BILL

Total Labor

\$ 801.00

1,143.00

Parts

2 Side screens @ \$145.00 ea.

290.00

1 Windscreen

600.00

4 Piece rear wing mount bushings @ \$45.00 ea.

180.00

4 U/Joints @ \$52.10 ea.

208.40

Subtotal Parts

\$1,278.40

7.75% Sales tax

99.08

Total Parts

\$1,377.48

Shipping

Windscreen
Total Shipping

\$ 35.00
35.00

Total Due this Invoice

~~\$2,213.48~~
2,555.48

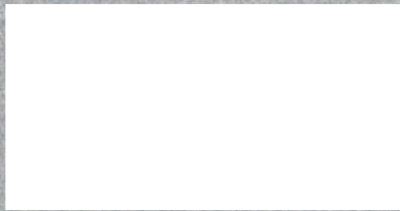
THANK YOU FOR YOUR BUSINESS!

pd. 7/24/05
Ch. 9790



INVOICE #: 3057
DATE: September 28, 2005

TO:



VEHICLE: McLaren M8E/D
SERIAL #: 80-08

RE: Prep Portland

<u>DATE</u>	<u>LABOR</u>	<u>HOURS</u>
August 22	Research sources for driveshaft service/replacement parts.	1.0 Hour
August 25	Pick up loaned shock and upright as spares.	0.7 Hour

Owner assist break loose wheel nuts. Owner assist remove bodywork. Place car on stands. Mark and remove wheels and tires. Blow and clean out large amount of dirt, debris and rocks from Laguna Seca from cockpit, nose box, and engine/gearbox area (less vacuuming of cockpit, done at a later time by CM). Remove left rear upright, shock/spring, lower "A" arm, brake caliper, brake pads, brake rotor and all associated hardware. Remove left rear upright drive flange, wheel bearings, yoke and associated hardware. Remove left rear wheel bearings and associated snap rings and clean and repack wheel bearings. Mark left rear brake pads. Clean all left rear upright parts and left rear brake rotor and caliper and associated hardware. Clean and grease left rear

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upright wheel bearings. Disassemble and clean all left rear drive shaft parts and yokes (broken and serviceable). Clean left rear driveshaft slider bearings and cages. Remove right rear drive shaft and remove all Spicer joints. Clean right rear drive shaft parts and yokes. Remove right rear upright, brake caliper, brake pads, brake rotor and all associated hardware. Remove right rear upright drive flange, wheel bearings, yoke and associated hardware. Mark right rear brake pads. Clean all right rear upright parts and right rear brake rotor and caliper and associated hardware. Remove right rear wheel bearings and associated snap rings and clean and repack wheel bearings. Clean right rear upright and reinstall wheel bearings and grease seal and oil upright hot. Disassemble and clean right rear driveshaft slider bearings and cages. Grease right rear drive shaft slider bearings and cages and reassemble right rear drive shaft. Reinstall right rear drive yoke and flange and associated hardware and torque axel nut and bolt. Install new Spicer joints to right rear drive shaft.

7.8 Hours (trf)

Clean car.

1.3 Hours (cm)*

August 26 Speak with driveshaft service to sort out minor sourcing problems.

0.8 Hour

Service and install new caliper seals to front brake calipers and reinstall calipers and associated hardware. Lock wire caliper bolts (front calipers removed by CM).

1.5 Hours (trf) FOC

Nut and bolt all but rear suspension. Change oil and replace filter with new supplied by owner. Clamp oil filter and lockwire.

1.4 Hours

August 27 Take one set wheels to sublet to have new tires mounted.

0.5 Hour (cm)*

August 29 Machine up shim for upright to 'A' arm. Fit hub yoke to left rear axle and lap in splines for assembly. Check with sublet regarding driveshafts. Check other items regarding damage to left rear corner. Make up tooling and straighten ears on Lower 'A' arm.

4.3 Hours

Pre-lube and assemble new Spicer joints to right rear drive shaft. Hone right rear upright pivot bores and polish right rear upright pivot rod. Install right rear upright, shock and spring assembly, suspension, camber link, upright through pin, etc. Install right rear brake caliper, pads and rotor. Lock wire caliper mounting bolts. Install and lock wire right rear brake duct to caliper. Install right rear ARB drop link to upright. Hone new left rear pivot pin bores. Hone and polish left rear upright pivot bushings. Polish left rear upright pivot pin. Pre-lube and test assemble left rear upright, pivot pin and "A" arm and check for fit. Measure left rear upright pivot pin spacer for fabrication by Tony. Install bearings and grease seal and snap rings to new left rear upright and oil upright hot. Remove left rear brake line and fabricate and install new line complete with fire sleeve and heat shrink tubing (this was done due to evidence that broken drive shaft hit brake line and damaged line).

6.2 Hours (trf)

August 30 Carry out lapping and fit inboard 1350 yoke to drive shaft. Get grinder and relieve upright internal area for clearance for new hub yoke diameter. After reassembly with driveshaft found that more materiel removal had to be done for clearance of driveshaft weld yoke. Disassembly post event showed that borrowed uprights had originally been incorrectly machined.

3.6 Hours

Swap out old left rear shock parts to new shock, including bearings, retaining rings, etc. Install new McLaren correct shock top to left rear shock. Remove and replace right rear shock and swap out shock top to McLaren correct extended shock top. Hone yokes on left rear upright, pre-lube and assemble outer yokes. Polish left rear upright ground by Tony. Re-grease left rear upright outer axel bearing and install axel and all associated hardware and upright yoke, etc. Torque left rear upright axle retaining nut and bolt. Disassemble left rear axle and drive yoke from upright for machining for drive shaft yoke clearance. Assemble left rear upright complete with outer yoke and disassemble numerous times to get correct clearance and fit. Grease and assemble left rear drive shaft and bearings, cages, end cap, etc. Lube and assemble left rear upright pivot pin, 'A' arm, and all associated hardware. Drill vent hole in left rear upright outer drive shaft yoke. Install inner drive yoke to drive shafts. Assist soft install left rear upright, drive shaft, suspension, shock and spring assembly etc. NOTE: This was extremely time consuming due to bent and out of alignment mounting holes at upper shock mounts etc. Numerous installation and removal processes to get mounting correct. Install battery cable protective boots.

7.8 Hours (trf)

August 31 Assist with initial engine start and fluids check. At this time the fuel pump switch failed and fell apart. Source a new mil-spec type switch and fit to the dash.

1.2 Hours

Hard install left rear upright, trailing links, camber links, shock/spring assembly, etc. Install wheels/tires. Place car on ground. Assist torque wheels. Assist start car and top off and check fluid levels. Assist install bodywork.

2.0 Hours (trf)

Polish bodywork. Assist Tony, Tim and John loading equipment and cars into transporter.

3.0 Hours (cm)

41.3 Hours @ \$90.00 per hour	\$3,717.00
1.5 FOC Hours @ \$90.00 per hour	(135.00)
1.8 *Hours @ \$57.00 per hour	<u>102.60</u>
Total Labor	\$3,684.60

Parts

8 Caliper seals	\$ (FOC)
1 Axle yoke GSC098	625.00
1 1410 Weld yoke	113.13
1 Driveshaft yoke 1350 FSC122 inboard	525.00
1 Output shaft flange1350	46.66
1 Spicer 1410 U joint	45.04
3 Spicer 1350 U Joints @ \$52.10 ea.	156.30
7 Quarts 15w-50 Mobil 1 @ \$4.99 ea.	34.93
1 4" Hose clamp	3.75
1 CV2 Grease	9.75
1 DGF Spray	7.49
3' -3 Aeroquip hose(brake line) @ \$4.04 per foot	12.12
2 Koni shock bearing @ \$32.00 ea.	64.00
2 McLaren/Koni extended shock tops @ \$125.00 ea.	125.00
1 set battery cable covers	18.00
1 Dash switch	<u>21.29</u>
Subtotal Parts	\$1,807.46
7.75% Sales Tax	<u>140.88</u>
Total Parts	\$1,948.34

Sublet

Weld yoke for driveshaft \$ 75.00

Total Sublet \$ 75.00

Total Due this Invoice \$5,707.14

Less deposit check #9812 (3,000.00)

Total Due this Invoice \$2,707.14

THANK YOU FOR YOUR BUSINESS

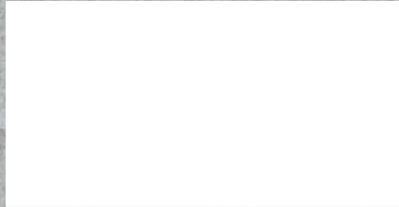
pd. 10/4/05

Ch. 9821



INVOICE #: 3085
DATE: November 2, 2005

TO:



VEHICLE: McLaren M8E
SERIAL #: 80/08

RE: Parts Supplied

Parts

1 LG239 Input shaft	\$725.00
Subtotal Parts	\$725.00
7.75% Sales Tax	56.18
Total Parts	\$781.18
Total Due this Invoice	\$781.18
Less check #9826	(725.00)
Balance Due This Invoice	\$ 56.18

*pd. 11/8/05
ch 9835*

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INVOICE #: 3095
DATE: November 30, 2005

TO:



VEHICLE: McLaren M8E/D
SERIAL #: 80-08

RE: Prep Laguna SCCA

<u>DATE</u>	<u>LABOR</u>	<u>HOURS</u>
September 12	Remove right rear upright grease seal and replace with new (wrong size seal had been installed by others). Source new left hand side rear upright grease seal. Remove rear body mount and associated hardware. Remove bearing carrier and associated hardware and remove gear ratios. Clean ratios and mounting hardware, etc. Remove right hand drive shaft and associated hardware. Remove differential side plates, necessary suspension, suspension pick-up points, etc. Remove differential. Remove rear cross-member. Remove main differential case from chassis and clean. Remove input shaft and clutch bobbin assembly, clutch and clutch bleed lines. Remove clutch, clean and inspect. Disassemble and inspect input shaft bearing and seal and reassemble. No fault found with seal as shaft. Oil leak not from input seal.	4.5 Hours (trf)
September 13	Remove lower bell housing studs. Found they were metric parts. Measure up and make drawing of stud requested.	0.7 Hour

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Clean and disassemble rear side plates, output shafts, bearings, races, seals, etc. Install new side plate oil seals and reassemble side plate bearings and races, etc. Oil side plates hot. Reinstall rear output shafts, snap rings, etc. Remove differential main case lay shaft bearing and replace with new. Oil main case hot. Remove engine trunions and bell housing and clean. Peen rivets on clutch drive disc. Assemble and install clutch. Check torque on ring gear bolts. Install differential and side plates and all associated hardware, sealant, suspension pick-up points, etc. Seal and install input shaft. Install clutch bobbin and clutch lines. Input shaft need to be replaced. Owner advised and parts ordered.

3.8 Hours (trf)

Blow out, clean and vacuum car.

2.0 Hours (cm)*

September 14 Machine and install new bell housing studs.

1.3 Hours

Disassemble drive shafts and "U" joints. Clean and replace with new "U" joints. Install nut and bolt and retaining washer to right rear upright, axle and yoke. Torque axle mounting hardware. Clean right rear shock/spring assembly. Clean and grease right rear upright pivot pin and grease right rear upright pivot bores. Clean and install right rear lower "A" arm. Soft install right rear upright, shock/spring assembly, braces, camber link, pivot pin, etc. Install right rear drive shaft and torque inboard drive shaft nuts. Clean and install left rear lower "A" arm. Clean and soft install left rear shock/spring assembly. Clean and install left rear camber link. Pre-lube ratios and bearing carrier and pre-assemble ratios. Pack left rear upright for shipping to chromating.

4.6 Hours (trf)

Remove headers for welding and clean.

0.5 Hour (cm)*

Sept 15 Nut and bolt. Bleed brakes. Check lines, hoses and clamps. Check belts. Check seatbelts. Check pads and rotors, fire system, header and clutch. Check and empty catch cans. Clean and inspect front wheels and tires.

2.8 Hours (cm)

Assist bleed brakes and clutch.

0.7 Hour (js)*

September 16 Refit front wheels. Refit nose section. Refit access panel. Remove collector brackets and paint black.

1.0 Hour (cm)*

September 19 Investigate oil leak from oil pan/rear area. Reposition car on stands to enable viewing of oil pan. Clean oil pan where apparent leak. Assist John S. begin repair for oil pan leak traced to flaw and/or pin hole in oil pan.

1.0 Hour (trf)

Clean motor oil pan. Repair split causing oil leak.

1.0 Hour (js)

September 21 Weld up broken exhaust tab and review car.

0.7 Hour

Clean left rear upright from chromate. Chase threads and bores and wash in solvent tank. Install left rear bearings and seals and snap rings to left rear upright. Oil upright hot. Anti-seize all parts and install left rear upright, drive shaft, "U" joints, shock/spring assembly, R/ARB drop link, suspension, brake pads, rotor and caliper, etc., and all associated mounting hardware. Torque drive shaft nuts. Tie off hoses and lines near left rear upright. Install brake ducting. Lock wire left rear brake ducting and left rear brake caliper bolts. Assist install seatback and cockpit upholstery. Obtain and install rear wheels and tires. Over-air tires. Install left hand side primary exhaust pipes after repair and lock wire header bolts. Install left hand exhaust collector and clamp. Refill motor oil drained for oil pan repair. Fill with gear oil. Assist start and warm car and check fluids and operation. Assist fetch bodywork. Assist place car on ground. Assist torque wheels.

3.8 Hours (trf)

Nut and bolt car rear. Fit wheels. Lift down rear body and fit to car. Lower car off stands. Start and run motor.

2.0 Hours (js)

26.2 Hours @ \$90.00 per hour

\$2,358.00

4.2 *Hours @ \$57.00 per hour

239.40

Total Labor

\$2,597.40

Parts

2 DSC116 outer wheel bearings @ \$71.90 ea.	\$ 143.80
2 DSC119 inner wheel bearings @ \$53.55 ea.	107.10
1 1410 U joint	45.04
3 1350 U joints @ \$52.10 ea.	156.30
4 DSC114 Rear upright seals @ \$14.70 ea.	58.80
2 LG2054 @ \$14.85 ea.	88.50
2 Side plate seals @ \$14.85 ea.	29.70
1 LG2341 (RNA-6908) layshaft bearing	80.82
2 Exchange large dog rings @ \$140.00 ea.	280.00
8 3/8 Jet nuts @ \$.79 ea.	6.32
1 Gallon Redline H/D gear oil	39.00
1 Castrol SRF	<u>88.98</u>
Subtotal Parts	\$1,124.36
7.75% Sales Tax	<u>87.14</u>
Total Parts	\$1,211.50

Sublet

Chromate rear upright M8C	\$ 55.00
Repair M8C upright and machine 1 x M8C and 2 x M8D uprights	780.00
3 Gear grind 23/33, 34/41, 37/38 @ \$75.00 ea.	<u>225.00</u>
Total Sublet	\$1,060.00

Shipping

Upright out M8C	\$ 12.55
Upright chromate return	11.83
Uprights out M8D	<u>12.62</u>
Total Shipping	\$ 37.00

Total Due this Invoice

\$4,905.90

THANK YOU FOR YOUR BUSINESS!

pd. 12/3/05
Ch. 9897