Vehicle Attachment 1
Arizona DPS Vehicle Inspection Reports

Dolan Springs, AZ
HWY-09-MH-09

(14 Pages)

DRIVER/VEHICLE EXAMINATION REPORT

Arizona Department of Public Safety
Commercial Vehicle Enforcement Bureau
P. O. Box 18410
Phoenix, AZ 85005
Phone: (928)913-0950 Fax: (602)223-2330

Report Number: AZ0176000399
Inspection Date: 01/30/2009
Start Time: 05:00 PM **End Time:** 07:00 PM
Inspection Level: I - Full
HM Inspection Type: None

AGNES WANG
[redacted]
USDOT#: 01379776 **Phone#:** [redacted]
MC/MX#: 526301 **Fax#:**
State#:

Driver: DONG, HAN D
License#: [redacted] **State:** CA
Date of Birth: [redacted]
CoDriver:
License#: **State:**
Date of Birth:

Location: US 93
Highway: US 93
County: MOHAVE, AZ
MilePost: 28.1 **Shipper:**
Origin: GRAND CANYON WEST, A **Bill of Lading:**
Destination: LAS VEGAS, NV **Cargo:** PASSENGERS

VEHICLE IDENTIFICATION

Unit	Type	Make	Year	State	Plate #	Company #	VIN	GVWR	CVSA #	CVSA Issued #	OOS Sticker
1	MC	CHEV	2007	CA	CP89739		1GBE5V12X7F409235				

BRAKE ADJUSTMENTS

Axle #	1	2
Right	N/A	N/A
Left	N/A	N/A
Chamber	DISC	DISC

VIOLATIONS

Section Code	Type	Unit	OOS	Citation #	Verify	Crash	Violations Discovered
395.8(f)(1)	F	D	N		N	N	Drivers record of duty status not current (Last entry 01/30@0830 Off duty)
395.8	F	D	N		N	N	General logbook violation, incomplete office address (daily as req.)
393.83(d)	**F**	**1**	**Y**		**U**	**N**	**Exhaust leak under body at connection (shown by soot marks)**
390.21(a)	F	1	N		N	N	Not marked in accordance with regulations (No US before DOT#)
393.62(a)	F	1	N		N	N	Front left emergency exit window not marked in accordance with standard 571.217 (one handle not marked)

HazMat: No HM Transported. **Placard:** No **Cargo Tank:**

Special Checks: Post Crash

* Pursuant to the authority contained in ARS 28-5204, I hereby declare vehicles with defects followed by a "Y" in the OOS column of the Violations section of this report to be OUT OF SERVICE. No person shall remove the Out of Service stickers applied to these vehicles, or operate such vehicles until the Out of Service defects have been repaired and the vehicles have been restored to safe operating conditions. Driver's initials: _____

Signature Of Repairer X:_____ Facility:_____ Date:_____

**** WARNING ***** If this box is checked (__), a separate traffic citation was issued to the violator. Please refer to the issued traffic citation for additional information. This is in addition to any action required by this report.

DRIVER & MOTOR CARRIER: This report must be furnished to the above named motor carrier. The motor carrier shall sign below and return, by mail or fax, within 15 days to:

Arizona Department of Public Safety
Commercial Vehicle Enforcement Bureau
PO Box 18410
Phoenix, Arizona 85005-8410
Fax: (602) 223-2330

The undersigned certifies that all violations noted on this report have been corrected and action has been taken to assure compliance with the Federal Motor Carrier Safety and Hazardous Material Regulations as adopted by Arizona Revised Statutes 28-5204 insofar as they are applicable to motor carriers and drivers.

Signature Of Motor Carrier X:_____ Title:_____ Date:_____

Report Prepared By: J FEIGLEY Badge #: 6362
X [redacted]

Copy Received By: HAN DONG
X_____

AZ0176000399

ARIZONA DEPARTMENT OF PUBLIC SAFETY

2102 WEST ENCANTO BLVD. P.O. BOX 6638 PHOENIX, ARIZONA 85005-6638 (602) 223-2000

"Courteous Vigilance"

JANICE K. BREWER
Governor

ROGER VANDERPOOL
Director

MECHANICAL INSPECTION REPORT

Date: February 02, 2009 **DR#** 2009-005834

Officer: Jeremy L. Feigley **Badge#** 6362

Inspected by: Dick G. Eagen **Badge#** 4441
ASE Certified Automotive Technician
Timothy A. Morrison **Badge#** 5036
ASE Certified Automotive Technician

Others Present: Larry L. Yohe
Senior Accident Investigator NTSB

Vehicle inspected: Model: Starcraft 29 Passenger Shuttle bus
Make : Chevrolet C5500 Chassis
Year: 2007
Mileage: 63,734

VIN# 1GBE5V12X7F409235

License Plate: California CP89739

Vehicle inspected at: Arizona Department of Transportation
3650 East Andy Devine Bldg. # 3036 Bay T
Kingman, Arizona

Photographs: Officer Jeremy L. Feigly **Badge#** 6362

FINDINGS:

LIGHTING

Left headlight intact and functioning normally.
Right headlight broken, accident damage.
Rear tail lights, clearance lights brake and turn signal lights functioning normally.

TIRES

Left front tire, Goodyear G647, 225/70R19.5. Air pressure measured at (80)psi. Manufacture's recommended pressure max load (95)psi. Tread depth measured at 11/32in.
Right front tire, Goodyear G647, 225/70/19.5. Air pressure measured at (0) psi. Tire flat accident induced. Manufacture's recommended pressure max load (95)psi. tread depth measured at 10/32in.
Left rear outside dual, Goodyear G647, 225/70/19.5. Air pressure measured at (0)psi. Tire flat accident induced. Manufacture's recommended pressure max load (95)psi. Tread depth measured at 9/32in.
Left rear inside dual, Goodyear G647, 225/70/19.5. air pressure measured at (57)psi. Manufacture's recommended pressure max load (95)psi. Tread depth measured at 9/32in.
Right rear outside dual, Goodyear G647, 225/70/19.5. Air pressure measured at (0)psi. Tire flat accident induced. Manufacture's recommended pressure max load (95)psi. Tread depth measured at 9/32in.One nail was found in tire. Tire was demounted and checked for nail penetration into casing. None found.
Right rear inside dual, Goodyear G647, 225/70/19.5. Air pressure measured at (0)psi. Tire flat accident induced. Manufacture's recommended pressure max load (95)psi. Tread depth measured at 9/32in.Two nails were found in tire. Tire was aired to 95 psi and checked for leaks. None found.

BRAKES

Left front brake rotor measured at 39.1 mm. Manufacture's minimum thickness 36.1mm. Brake rotor within manufacture's specifications.
Left front brake pads measured at outboard pad 21/32in. inboard pad 20/32in. Brake pads within manufacture's specifications.
Left front brake caliper, caliper slide pins, brake line and antilock wiring and wheel sensor in satisfactory condition.
Right front brake rotor measured at 39.1 mm. Manufacture's minimum thickness 36.1 mm. Brake rotor within manufacture's specifications.

Right front brake pads measured at outboard pad 20/32in. inboard pad 20/32in. Brake pads within manufacture's specifications.
Right front brake caliper, caliper slide pins, brake line and antilock wiring and wheel sensor in satisfactory condition.
Right rear brake rotor measured at 38.9 mm. Manufacture's minimum thickness 36.1 mm. brake rotor within manufacture's specifications.
Right rear brake rotor heat checking found on outside portion of rotor.
Right rear brake pads measured at outboard pad 9/32in. inboard pad 8/32in. Brake pads within manufacture's specifications.
Right rear caliper upper piston cracked at pad end. Lower piston heat cracks inside piston.
Right rear caliper, caliper pins, brake line and antilock wiring and wheel sensor in satisfactory condition.
Left rear brake rotor measured at 38.9 mm. Manufacture's minimum thickness 36.1 mm. brake rotor within manufacture's specifications.
Left rear brake rotor heat checking found on outside portion of rotor.
Left rear brake pads measured at outboard pad 8/32in. inboard pad 8/32in. Brake pads within manufacture's specifications.
Left rear caliper pistons showed heat cracks on inside of pistons.
Left rear caliper, caliper pins in satisfactory condition.
Left rear brake line and antilock wiring were torn away from their connectors, accident induced.
Brake master cylinder low on fluid from left rear brake line torn and leaking fluid.
Brake hydro-max booster in satisfactory condition.

STEERING AND SUSPENSION

All steering linkage intact without undue free play and when jacked up steering rotated from axle stop to axle stop with no binding.
Left front leaf springs and shackle mounts in satisfactory condition.
Left front shock absorber in satisfactory condition.
Right front leaf springs and shackle mounts in satisfactory condition.
Right front shock absorber in satisfactory condition.
Right rear leaf spring and shackle mounts in satisfactory condition.
Right rear upper shock absorber mount broken, accident induced.
Right rear shock absorber in satisfactory condition.
Left rear leaf spring broken, accident induced.
Left rear leaf spring shackle mounts in satisfactory condition.
Left rear shock absorber upper mount broken, accident induced.

Left rear shock absorber in satisfactory condition.
Rear anti sway bar attachment links broken, accident induced.
After market "MoreRide" system bent plates at the rubber dampener attachment points on the left side. Accident induced.

Conclusion:
In my opinion, the 4 channel antilock brake system was functioning as per manufacture's specifications. The left rear brake line and antilock wiring harness were torn from the attachment points during the accident. The rear brake caliper piston cracks are a wear item that would have to be addressed at the vehicle's service intervals but were not a contributing factor. The steering components were functioning as per manufacture's specifications. The rear shock absorber upper mounts, rear sway bar links and the left leaf spring were all broken during the accident. An explanation of the hydra-boost system follows.
The hydro-max auxiliary brake system is an auxiliary brake assist system that ensures brake assist is available if the engine stalls or if there is a malfunction in the power steering/brake assist system. The system consists of the following components. Electronic brake control module, pump, pump motor, motor control relay and hydraulic control switch. The electronic brake control monitors the fluid flow switch and energizes the motor control relay when assist is required. When the flow switch is closed, the motor turns on whenever the EBCM detects that the brake is applied. The ECBM periodically performs electrical diagnostic tests on the fluid flow switch, motor, motor control relay and the stop lamp switch. If a failure is detected the ECBM sets a DTC and may turn on a warning indicator.

Dick G. Eagen

[redacted]

Fleet Service Supervisor
Arizona Department of Public Safety

LEFT FRONT TIRE AND RIM FAILURE ANALYSIS

TIME: _____ LEFT FRONT TIRE AND RIM IS INSPECTED FOR DEFICIENCIES

DATE: 02/02/09

DR#: 2009-005734

RIM SIZE 19.5 X 6.75

RIM CONSTRUCTION STEEL

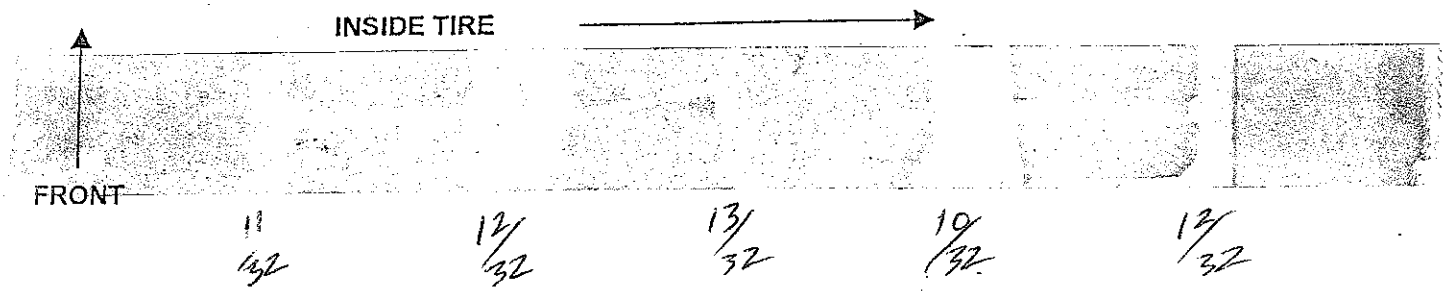
TIRE SIZE. 225/70 R 19.5

LOAD RANGE G

TIRE MANUFACTURE GOODYEAR G647

AIR PRESSURE 80 PSI COLD ~~80 PSI~~

TIRE MANUFACTURES RECOMMENDED MAX LOAD [redacted] LBS 95 MAX AIR PRESS



NOTES:

RIGHT FRONT TIRE AND RIM FAILURE ANALYSIS

TIME: _____ RIGHT FRONT TIRE AND RIM IS INSPECTED FOR DEFICIENCIES

DATE: 02/02/09

DR#: 2009-005834

RIM SIZE 19.5 X 6.75

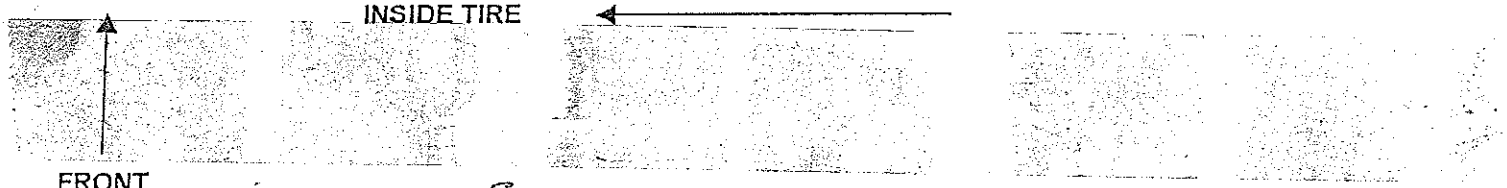
RIM CONSTRUCTION _____

TIRE SIZE. 225/70R/19.5

TIRE MANUFACTURE GOODYEAR G647 RSS LOAD RANGE F

AIR PRESSURE FLAT PSI COLD

TIRE MANUFACTURES RECOMMENDED MAX LOAD 3640 LBS 95 MAX AIR PRESS
SINGLE LOAD



NOTES:

DPS 5036

LEFT REAR TIRE AND RIM FAILURE ANALYSIS

TIME: _____ LEFT REAR TIRE AND RIM IS INSPECTED FOR DEFICIENCIES

DATE: 02/03/09 DUAL

DR#: 2009-005834

RIM SIZE 19.5 X 6.75

RIM CONSTRUCTION STEEL SOLID RIM

TIRE SIZE. 225/70R 19.5

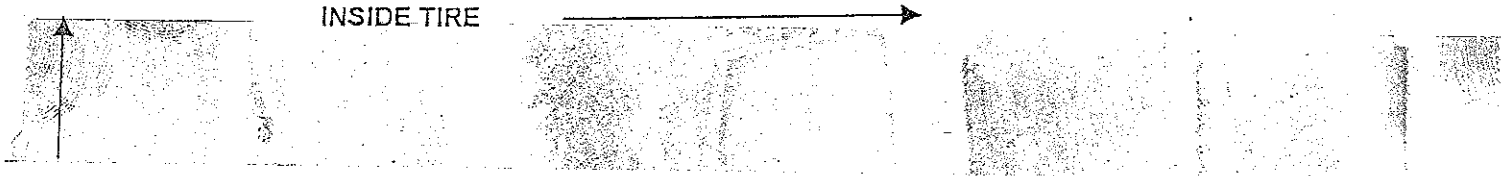
TIRE MANUFACTURE GOODYEAR G647 RSS LOAD RANGE - F

~~70~~ 57

AIR PRESSURE 90 FLAT PSI COLD

TIRE MANUFACTURES RECOMMENDED MAX LOAD 3115 LBS 95 MAX AIR PRESS

INSIDE TIRE →



FRONT

9/32 7/32 10/32 7/32 8/32

NOTES:

9/32 11/32 9/32 7/32 8/32

DPS 5036

RIGHT REAR TIRE AND RIM FAILURE ANALYSIS

TIME: _____ RIGHT REAR TIRE AND RIM IS INSPECTED FOR DEFICIENCIES

DATE: 02/03/09 DUAL

DR#: 2009-005834

RIM SIZE 19.5 X 6.75

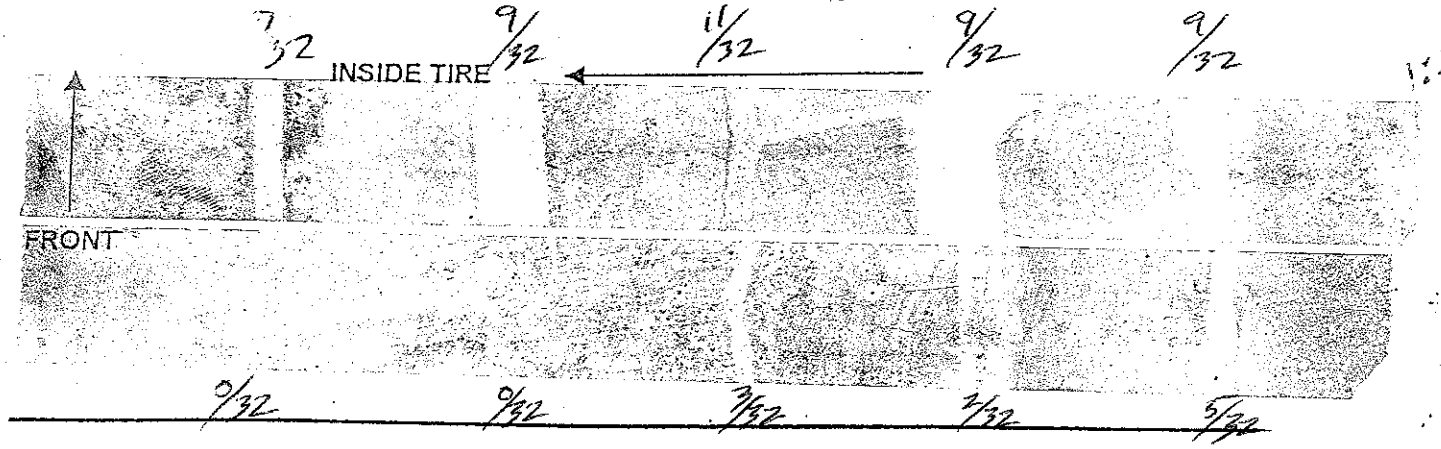
RIM CONSTRUCTION STEEL

TIRE SIZE. 225/70R 19.5

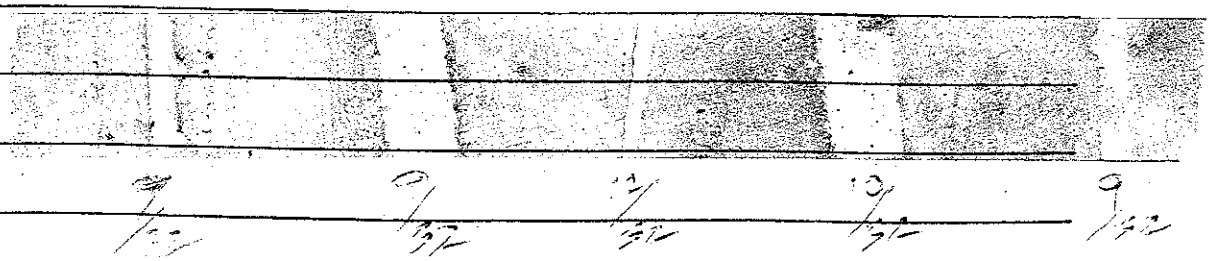
TIRE MANUFACTURE GOODYEAR G647 LOAD RANGE F

AIR PRESSURE O/D FLAT I/D FLAT 95 PSI COLD

TIRE MANUFACTURES RECOMMENDED MAX LOAD 3415 LBS 95 MAX AIR PRESS



NOTES:



O/D ① NAIL - TIRE WAS DEMOUNTED - NAIL DID NOT PENETRATE CASING DUAL

I/D ② NAILS - TIRE WAS AIRED UP ON 02/03 NO LEAKS

DPS 5036

LEFT FRONT DISC BRAKE SYSTEM FAILURE ANALYSIS

TIME: _____ LEFT FRONT BRAKING SYSTEM IS INSPECTED FOR DEFICIENCIES

ROTOR MEASURED AT 1.540 IN 39.12 MM

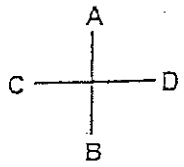
DATE: 02/02/09

DR#: 2009-005834

BRAKE ROTOR MEASUREMENT

A _____ B _____

C _____ D _____



MINIMUM ROTOR THICKNESS

SPEC _____

MINIMUM LINING THICKNESS

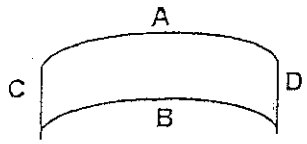
SPEC 1/16 IN

BRAKE LINING CONSTRUCTION

BONDED (●)

RIVETED ( )

INBOARD PAD MEASUREMENT



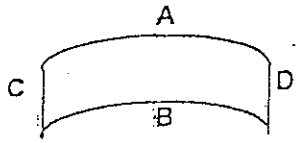
A 20/32

B 20/32

C 20/32

D 20/32

OUTBOARD PAD MEASUREMENT



A 21/32

B 21/32

C 20/32

D 21/32

NOTES: ROTOR + CALIPER IN SAT CONDITION

INNER + OUTER BEARINGS + WHEEL SEAL IN SAT CONDITION

LINES + ABS WIRING INTACT. SLIDE PINS MOVE FREELY

RIGHT FRONT DISC BRAKE SYSTEM FAILURE ANALYSIS

TIME: _____ RIGHT FRONT BRAKING SYSTEM IS INSPECTED FOR DEFICIENCIES

DATE: 12/02/09

DR#: 2009-005834

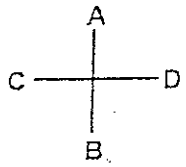
ROTOR MEASURED 1.552 IN

39.13MI

BRAKE ROTOR MEASUREMENT

A _____ B _____

C _____ D _____



MINIMUM ROTOR THICKNESS

SPEC _____

MINIMUM LINING THICKNESS

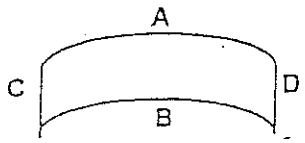
SPEC 1/16 IN

BRAKE LINING CONSTRUCTION

BONDED (●)

RIVETED ( )

INBOARD PAD MEASUREMENT



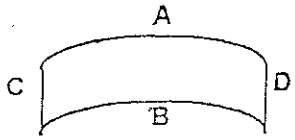
A 20/32

B 21/32

C 20/32

D 20/32

OUTBOARD PAD MEASUREMENT



A 19/32

B 20/32

C 21/32

D 20/32

NOTES: ROTOR & CALPER IN SAT CONDITION

INNER & OUTER BEARINGS IN SAT CONDITION

SEAL SAT CONDITION. LINES & ABS WIRING INTACT

SLIDE PINS MOVE FREELY

LEFT REAR DISC BRAKE SYSTEM FAILURE ANALYSIS

TIME: _____ LEFT REAR BRAKING SYSTEM IS INSPECTED FOR DEFICIENCIES

DATE: 02/03/09

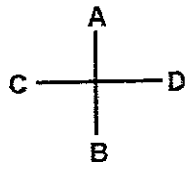
DR#: 2009-005834

ROTOR MEASURED AT

BRAKE ROTOR MEASUREMENT

A _____ B _____

C _____ D _____



MINIMUM ROTOR THICKNESS 1.535 IN

SPEC _____ 38.91 MM

MINIMUM LINING THICKNESS

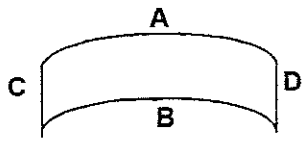
SPEC 1/16 IN

BRAKE LINING CONSTRUCTION

BONDED (●)

RIVETED ( )

INBOARD PAD MEASUREMENT



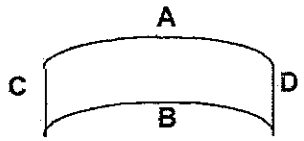
A 7/32

B 8/32

C 11/32

D 6/32

OUTBOARD PAD MEASUREMENT



A 8/32

B 9/32

C 9/32

D 7/32

NOTES:

CALIPER PISTONS CUPS HAIR LINE ~~SCRATCHED~~ CRACKS

RUBBER BRAKE LINE TORN FROM CONNECTOR / ACCIDENT INDUCED

~~PIPE~~ ABS WIRING TORN / ACCIDENT INDUCED.

SLIDE PINS MOVE FREELY

DPS 5036

RIGHT REAR DISC BRAKE SYSTEM FAILURE ANALYSIS

TIME: 07:45 RIGHT REAR BRAKING SYSTEM IS INSPECTED FOR DEFICIENCIES

DATE: 02/13/09

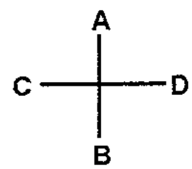
DR#: 2009-005834

ROTOR MEASURED
ACTUAL
1.529 IN
38.90 mm

BRAKE ROTOR MEASUREMENT

A ____ B ____

C ____ D ____



MINIMUM ROTOR THICKNESS

SPEC ____

MINIMUM LINING THICKNESS

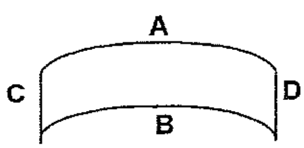
SPEC 1/16 IN

BRAKE LINING CONSTRUCTION

BONDED ◉

RIVETED ○

INBOARD PAD MEASUREMENT



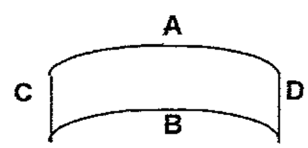
A 8/32

B 8/32

C 7/32

D 10/32

OUTBOARD PAD MEASUREMENT



A 9/32

B 9/32

C 8/32

D 9/32

NOTES:

DUAL PISTON CALIPER – UPPER PISTON CRACKED ~~[illegible]~~ ON OUTER

BOTH PISTONS HAVE HAIRLINE CRACKS ON INSIDE OF CYL. HEAT RELATED

ROTOR HEAT CRACKED. LINE + ABS WIRING INTACT

~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ SLIDE PINS MOVE FREELY