

Service Operations

THROTTLE 8 INBOUND LOAD TESTS

UNIT _____

DATE _____

Eng RPM (900)	EMD	<u> </u>	Lube Oil Pres	<u>45 psi</u>
Eng RPM (1050)	GF	<u>10 80</u>	Water Temp	<u>170</u>
Horsepower		<u>2641</u>	Overspeed Setting	<u>OK</u>
Volts (5.3V)	B-23	<u> </u>	RACK SETTING	<u>OK</u>
Volts (7)	C-30	<u>6.23V</u>		
Volts (20)	B-39	<u> </u>		

THROTTLE #1 STALL TEST

OP Mode (PWR)	 	NOT APPLICABLE TO B-23 AND C-30
AMPS (300)	 	
MGA (1220)	 	
Charging Rate (70v)	 	

TL 24V

Throttle 1 (1V)	<u>4.6</u>	NOT WORKING
Throttle 2	<u>18.8</u>	
Throttle 3	<u>28.1</u>	
Throttle 4	<u>36.1</u>	
Throttle 5	<u>46.5</u>	
Throttle 6	<u>53.2</u>	
Throttle 7	<u>59.2</u>	
Throttle 8	<u>62.3</u>	

B-23, B-39, C-30 JP-7 MO3 INSPECTION

MECHANICAL IN HOUSE

WORKED BY:



REVIEW LAB CODE AND PERFORM A COMPLETE AIRBOX/CRANKCASE INSPECTION IF A LAB CODE EXISTS
 WITH THE ENGINE WARM, PRESSURE TEST COOLING SYSTEM AT 20 PSI FOR 15 MINUTES AND IF THE PRESSURE ON THE GAUGE DOES NOT DROP, THEN NO FURTHER ACTION IS REQUIRED
 CHANGE THE FOLLOWING FILTERS AND ASSOCIATED GASKETS:
 FUEL SPIN ON FILTERS. EMD ONLY
 SOAK BACK FILTER. EMD ONLY
 TURBO SPIN ON FILTER. EMD ONLY
 COMPLETE FRA INSPECTION (DAILY INSPECTION CHECKLIST)

OK
 DRS
 X
 DRS

EMD

CARBODY

INSURE SAND NOZZLES AND HOSES ARE IN PLACE AND SECURED. MAKE SURE THEY ARE ALIGNED WITH WHEEL AND TRACK. INSPECT SAND TRAPS AND REPAIR AS NEEDED.
 INSPECT COUPLERS & DRAFT GEARS. MAKE REPAIRS AS NECESSARY
 CHECK KNUCKLE CLEARANCE AND KNUCKLE THROWER, MAKE REPAIRS AS NEEDED AND APPLY SPARE KNUCKLES (E AND F TYPE) (2.5")
 INSPECT PIN LIFTERS CHECKING FOR PROPER HAND CLEARANCE AND ANTI-CREEP
 CHECK SNOWPLOW (IF EQUIPPED) FOR HANDHOLDS AND PROPER DISTANCE
 CHECK AUTO BLOWDOWNS FOR PROPER OPERATIONS IN AUTOMATIC MODE
 ENSURE SUMP DRAINS ARE OPEN AND FREE OF DEBRIS

DRS
 DRS
 DRS
 DRS
 DRS
 DRS
 DRS

TRUCKS

INSPECT WICK BOLT SECUREMENT AND REPAIR IF NECESSARY
 CHECK SUSPENSION BEARING OIL LEVEL
 CHECK JOURNAL BOX OIL LEVEL (FILL TO POINT OF OVERFLOW)
 CHECK GEAR CASES AND INSPECT BULL GEAR (ADD 8lbs. OF GEARCASE GREASE)
 CHECK OIL FILLED GEAR CASES AND FILL (RECORD USAGE BELOW)

DRS

1 TRACTION MOTOR: OIL USED 2 1/2 gal
 # 2 TRACTION MOTOR: OIL USED 2 1/2 gal
 # 3 TRACTION MOTOR: OIL USED 2 1/2 gal
 # 4 TRACTION MOTOR: OIL USED 2 1/2 gal
 # 5 TRACTION MOTOR: OIL USED 2 1/2 gal
 # 6 TRACTION MOTOR: OIL USED 2 1/2 gal

Large vertical checkmark

INSPECT ALL BRAKE HANGERS, HEADS, GUIDES AND STRAPS ENSURING BRAKE SHOES ARE IN LINE WITH WHEELS

DRS

CAB

CHECK FIRE EXTINGUISHERS, DATE AND TAG. REPLACE IF USED OR OUT OF DATE.
 CHECK CAB SEATS FOR PROPER OPERATION INSURING ALL BOLTS ARE IN PLACE AND TIGHT.
 CHECK HANDBRAKE AND INSPECT DATE. MAKE REPAIRS AS NECESSARY

See Defects
 DRS
 DRS

MISC

IN ACCORDANCE WITH FRA 229.23. VERIFY AIR GAUGES (+/- 3PSI) (CALIBRATE AT +/- 1PSI, REQUIRES 130 PSI MR)
 CHECK ALL FLUID LEVELS, ENGINE OIL, COOLING WATER, AIR COMPRESSOR OIL
 DRAIN RETENTION TANK
 TOILET MAINTENANCE:

K. Hasey
 DRS
 DRS
 DRS

A. INSPECT/REPAIR AS NEEDED TOILET DRAIN VALVE & FLOOR SEALS

Cab Seat Inspection:

A. INSPECT THE VERTICAL ADJUSTMENT LEVER. VERIFY THAT THE LEVER OPERATES AND THAT THE SEAT PAN ADJUSTS UP AND DOWN AND DOES NOT DROP SUDDENLY.
 B. LUBRICATE PIVOT POINTS
 C. INSPECT ROTATION ADJUSTMENT LOCKING PIN. VERIFY THAT THE LOCKING PIN OPERATES (PULL OUT TO RELEASE LOCK) AND THAT THE SEAT ROTATES WHEN UNLOCKED.
 D. LUBRICATE THE PIN MECHANISM.
 E. SEAT PAN COMPONENTS: INSPECT THE FORE-AFT FINE ADJUSTMENT LEVER.
 F. VERIFY THAT THE LEVER SLIDES SIDEWAYS TO UNLOCK SEAT FOR/AFT ADJUSTMENT AND SEAT SLIDES FOR/AFT EASILY

DRS
 DRS
 DRS
 DRS
 DRS
 DRS

B-23, B-39, C-30 P-7 MO3 INSPECTION

- G. IF THE SEAT MOVEMENT IS IMPEDED, REMOVE SEAT CUSHION AND INSPECT SEAT PAN ROLLER TRACK FOR DEBRIS, MALFUNCTION, OR LACK OF LUBRICATION.
- H. INSPECT SEAT RAILS AND REPLACE IF DAMAGED OR WORN BEYOND PROVIDING SECURE, STABLE MOUNTING OF SEAT.
- I. INSPECT THE FORE/AFT SEAT POSITIONING TRACK. INSPECT THE SEAT RAILS AND REPLACE IF DAMAGED OR WORN BEYOND PROVIDING SECURE, STABLE MOUNTING OF SEAT.
- J. LUBRICATE THE SEAT RAILS WITH SILICONE LUBRICANT.
- K. INSPECT THE BACKREST RAKE ADJUSTMENT KNOB. VERIFY THAT THE KNOB ROTATES EASILY TO ADJUST BACKREST ANGLE.
- L. INSPECT KNOB FOR CRACKS OR SPLITS AND THAT IT IS SECURELY FASTENED.
- M. INSPECT GEAR MECHANISM FOR ANY WEAR OR DAMAGE.
- N. ENSURE THAT THE BACKREST MECHANICAL STOP IS INTACT AND FUNCTIONS AS INTENDED-- PREVENTS THE SEAT BACKREST FROM RECLINING BEYOND APPROXIMATELY 45 DEGREES BACKWARDS FROM A VERTICAL POSITION.
- O. INSPECT THE LUMBAR SUPPORT ADJUSTMENT LEVER. VERIFY THAT THE ADJUSTMENT LEVER OPERATES EASILY TO ADJUST THE LUMBAR SUPPORT.
- P. VERIFY ALL ARMREST FASTENERS ARE SECURE. REPLACE ANY MISSING OR STRIPPED OUT FASTENERS.
- Q. INSPECT ARMREST SWIVEL FASTENERS. ENSURE SWIVEL FASTENER IS SECURE ON EACH ARMREST SUCH THAT THE ARMREST IS WITHOUT SIDE TO SIDE MOVEMENT. ARMREST SHOULD SWIVEL TO VERTICAL. ARMREST SHOULD NOT DROP DOWN PAST IT'S ORIGINAL STOP.
- R. INSPECT SEAT FABRIC ON SEAT PAN AND BACKREST. INSPECT FOR RIPS, TEARS, OR HOLES. SEAT PAN OR BACKREST COMPONENT MAY BE REPLACED IF THERE IS AN EXCESSIVE RIP, TEAR, OR HOLE.

SEAT PART NUMBERS:

- Cab Seat, Freight with arms: 2043511
- Cab Seat Mid Back: 20425731
- Wall Mounted Pedestal: 20435541
- Trunion Pedestal Assembly: 20425721
- Seat Pedestal Rail Left Side 65": 20422211
- Seat Pedestal Rail Right Side 46": 20422221

INSPECT AND REPAIR AS REQUIRED:

- A. CAB / CARBODY/DOORS/HINGES/WINDOWS/LATCH SEALS/WEATHER STRIPPING AND SEALS/MIRRORS. ALSO LUBRICATE/CHANGE AS NEEDED
- A. CLEAN THE CAB, WINDOWS, AND EQUIPMENT
- COMPLETE WINTERIZATION SHEET (AUGUST - APRIL)
- WASH LOCOMOTIVE ENGINE/ENGINE ROOM/AND AIR COMPRESSOR ROOM
- WASH THE LOCOMOTIVE

Handwritten notes and signatures:
 Large stylized signature/initials spanning rows G through R.
 Below that, a large oval shape.
 Further down, the initials "OK" and "DJS" with a downward-pointing arrow.

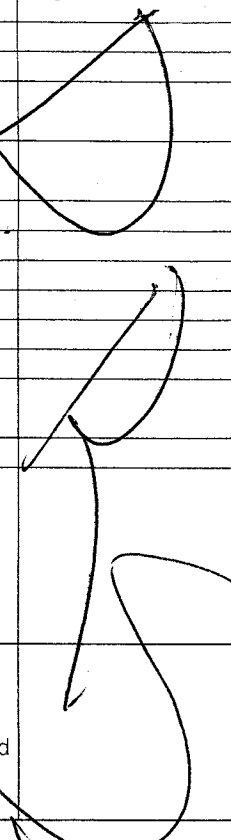
B-23, B-39, C-30, GP-7 MO3 INSPECTION

<i>In-Bound Loadtest Electrical/Mechanical</i>		WORKED BY:
ELECTRICAL		
VERIFY THE OPERATION OF THE GROUND RELAY		DRS
CHECK FOR LOW VOLTAGE GROUNDS (7 watt bulb)		DRS
WHILE IN THROTTLE 3 LOAD TEST, CHECK FOR AC GROUNDS		_____
CHECK OPERATION OF:		_____
A. HEATING		J. Hantz
COMPLETE THE OUTBOUND LOAD TEST SHEETS		_____
GROUND RELAY-(TEST THREE TIMES TO VERY LOCK-OUT)(DYNAMIC & POWER)		J. Hantz
IF EQUIPPED, VERIFY THE OPERATION OF THE LDVR CAMERA		_____
MECHANICAL		
PROPER LUBRICATION? FUEL LEAKS? CAM ROLLER ROTATION? ETC.		DRS
INSPECT FUEL SYSTEM HOSES AND PIPES FOR LEAKS		DRS
INSPECT COOLING SYSTEM:		DRS
A: CHECK HOSES AND PIPES FOR LEAKS		DRS
CHECK OPERATION OF ENGINE PROTECTION DEVICES:		DRS
A. CRANKCASE PRESSURE		DRS
VISUALLY INSPECT AIR COMPRESSOR FOR WATER, AIR OR OIL LEAKS		DRS
PERFORM MANUAL AIR BRAKE TEST		DRS
Verify Flow Gauge	NOTE: 120-	
130 main reservoir is 64 + or - 3,	130-140 main	
reservoir is 60 + o		DRS
PERFORM PENALTY BRAKE TEST		DRS
CHECK FOR CORRECT AIR PRESSURE SETTINGS:		OK
A. MAIN RESERVOIR (130 - 140 PSI)		DRS
B. BRAKE PIPE (90 PSI)		DRS
C. EQUALIZING RESERVOIR (90 PSI)		DRS
D. BRAKE CYLINDER (72 - 74 PSI)		DRS
E. COMPRESSOR CONTROL (130 - 140 PSI +/-5 PSI)		DRS
CHECK FLUID LEVELS BEFORE LOADING:		OK
A: ENGINE OIL		DRS see Defects
B: COOLING WATER		DRS
C: AIR COMPRESSOR OIL		DRS see Defects
TEST OPERATION OF THE FOLLOWING DEVICES:		OK
A. BELL		DRS
B. SANDERS (FORWARD, REVERSE, EMERGENCY)		DRS
C. RADIATOR SHUTTERS		_____

B-23, B-39, C-30, GP-7 MO3 INSPECTION

Revision Date: 06/26/2010
 Issued By: Tim Scalia

ELECTRICAL IN HOUSE	WORKED BY:
SERVICE THE BATTERIES	J. Hartin
VERIFY EVENT RECORDER IS WORKING	J. Hartin
CHECK & RECORD THE DATE ON HEAD END DEVICE <u>None installed</u>	J. Hartin
CLOSELY INSPECT THE HEAD END DEVICE CONNECTOR. ENSURE IT IS TIGHTLY CONNECTED AND NOT CROSS THREADED	J. Hartin
CHECK THE FOLLOWING EQUIPMENT AND THEIR RELATED GUARDS AND LENSES FOR PROPER OPERATION:	J. Hartin
CHECK ALL GROUND AND STEP LIGHTS, FRONT AND REAR HEADLIGHTS, DITCH LIGHTS, CAB LIGHTS, GAUGE LIGHTS, NUMBER PLATES, PLATFORM LIGHTS, ALL WARNING AND INDICATOR LIGHTS	J. Hartin
TRACTION MOTORS AND UNDERFRAME	
CHECK THE TRACTION MOTOR LEADS, VERIFY NO LEADS ARE RUBBING ON THE FRAME	JRS
INSPECT TRACTION MOTOR COVERS AND ENSURE BOLTS ARE IN PLACE AND TIGHT	JRS
CHECK M.U. RECEPTACLE PINS AND LIDS. MAKE NECESSARY REPAIRS	JRS
MAKE SURE M.U. CABLES DO NOT FOUL COUPLERS	Going TO

WINTERIZATION	
	Signature
Winterization - All MMA Locomotives. (August - April)	DR-7
Inspect front and rear cab door seals replace, as needed (NO TAPE)	
Inspect left and right side window seals replace as needed.	
Inspect Electric cabinet door seals replace as needed.	
Operate Cab Heaters-Check condition of Heater Assembly @ 45o F above Ambient Temperature.	
Operate Window Defrosters-Check condition of Defroster @ 45o F above Ambient Temperature.	
If equipped, test the Auto Dump valve for proper operation.	
Test Manual Water Dump Valves, Proper Handle, Location, Orifice is Open.	
Close Winter/ Summer doors if equipped.	
Check Traction Motor cover gaskets, install as needed.	
Check condition of Cab Door Hinges (Lubricate all Hinges)	
Check condition of Cab Door Locks (Lubricate all Locks)	
Inspect Cab Windows Slider Rail, Adjust Top Rail as needed, Lubricate with Silicone Grease.	
Renew all Wiper Blades.	
Criteria for Door seal Replacement:	
A. Seal shows signs of Deterioration and or Medium to Heavy Cracking.	
B. Door seal is Torn or Loose from Door.	
C. With Door in the fully closed position has noticeable crack between door jam and cab carbody.	
Criteria for Window seal Replacement:	
A. Seals shows signs of Deterioration and or Medium to Heavy Cracking.	
B. Seal is Torn or Loose from window seal.	
C. With windows fully in the closed position there is a gap between window frame and carbody.	

Greased Equipment blower
 Greased Comp shaft
 Greased Fan Drive
 Greased rack & pinion

David S
 Kissy

LOCOMOTIVE												DATE		
3609												10-25-10		
Start Readings					Has Shims		END READING					Has Shims		OLD GAUGE
L#1	Flange Height	Flange Thickness	Rim Thickness	Witness Groove	YES	NO	L#1	Flange Height	Flange Thickness	Rim Thickness	Witness Groove	YES	NO	FLANGE THICKNESS MEASUREMENT
L#1	0-18	0-0	3.1				L#1							0-on-0-1-17/64
L#2	0-18	0-0	3.1				L#2							1-on-0-1-15/64
L#3			Wheel coming out				L#3	0-17	0-0	2.12				2-on-0-1-7/32
L#4	0-18	0-0	3.1				L#4							3-on-0-1-5/32
L#5	0-18	0-0	2.14				L#5							4-on-0-1-7/64
L#6			Wheel coming out				L#6	0-17	0-0	2.12				5-on-0-1-3/64
R#1	0-18	0-0	3.1				R#1							6-on-0-1-1/32
R#2	0-18	0-0	3.1				R#2							7-on-0-1-5/64
R#3			Wheel coming out				R#3	0-18	0-0	2.12				8-on-0-1-1/16
R#4	0-18	0-0	3.2				R#4							
R#5	0-18	0-0	2.15				R#5							
R#6			Wheel coming out				R#6	0-18	0-0	2.12				

NEW wheel measurement

WEAR LIMITS FOR ROAD & SWITCH LOCOMOTIVES - MINIMUM DAILY REQUIREMENTS

FRA 1 1/2"	MMA 1 7/16"	Flange Height
FRA 7/8"	MMA 15/16"	Flange Thickness
FRA 1"	MMA 1 1/16"	Rim Thickness
FRA 5/16"	MMA 1/4"	Tread Wear

NEW GAUGE

0-on-0-1-17/64
1-on-0-1-15/64
2-on-0-1-7/32
3-on-0-1-5/32
4-on-0-1-7/64
5-on-0-1-3/64
6-on-0-1-1/32
7-on-0-1-5/64
8-on-0-1-1/16

WEAR LIMITS - ROAD & SWITCH LOCOS - MIN. 92 DAY REQ

WEAR LIMITS - PASSENGER LOCOS - MIN 92 DAY REQ

FLANGE HEIGHT	FLANGE THICKNESS	RIM THICKNESS	TREAD WEAR	FLANGE HEIGHT	FLANGE THICKNESS	RIM THICKNESS	TREAD WEAR
FRA 1 1/2"	FRA 7/8"	FRA 1"	FRA 5/16"	FRA 1 1/2"	FRA 7/8"	FRA 1"	FRA 5/16"
MMA 1 7/16"	MMA 1 1/32"	MMA 1 1/8"	MMA 1/4"	MMA 1 7/16"	MMA 1"	MMA 1 1/4"	MMA 1/4"

CONVERSION CHART FOR WHEEL DIAMETER

8= 37"	15= 37 7/8"	22= 38 3/4"	29= 39 5/8"	36= 40 1/2"
9= 37 1/8"	16= 38"	23= 38 7/8"	30= 39 3/4"	37= 40 5/8"
10= 37 1/4"	17= 38 1/8"	24= 39"	31= 39 7/8"	38= 40 3/4"
11= 37 3/8"	18= 38 1/4"	25= 39 1/8"	32= 40"	39= 40 7/8"
12= 37 1/2"	19= 38 3/8"	26= 39 1/4"	33= 40 1/8"	40= 41"
13= 37 5/8"	20= 38 1/2"	27= 39 3/8"	34= 40 1/4"	41= 41 1/8"
14= 37 3/4"	21= 38 5/8"	28= 39 1/2"	35= 40 3/8"	42= 41 1/4"

NEW GAUGE

0-on-0-1-17/64
1-on-0-1-15/64
2-on-0-1-7/32
3-on-0-1-5/32
4-on-0-1-7/64
5-on-0-1-3/64
6-on-0-1-1/32
7-on-0-1-5/64
8-on-0-1-1/16

LOCOMOTIVE RAIL CLEARANCE

COUPLER HEIGHT	FRONT	PILOT HEIGHT	FRONT	HEIGHT OF HORIZONTAL END HANDHOLD OR UNCOUPLING LEVER IF USED AS HORIZONTAL HANDHOLD	LOCO RAIL CLEARANCE
FRA	MAX 34 1/2" MIN 31 1/2"	FRA	MAX 6" MIN 3"	6"	FRA MIN 2 1/2"
MMA	MAX 34 1/2" MIN 32 1/2"	MMA	MAX 6" MIN 3 1/2"	5 1/2"	MMA MIN 3"

WHEEL DIAMETER MEASUREMENTS ARE TAKEN FROM THE TOP OF THE WITNESS GROOVE. 40" DIAMETER WHEELS WITNESS GROOVE = 36"
42" DIAMETER WHEEL WITNESS GROOVE = 38"

WHEEL MATCHING STANDARDS FOR 6 AXLE LOCOMOTIVES (FRA & MMA STANDARDS ARE THE SAME)

1/4" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS IN THE SAME TRUCK WITHOUT SHIMS.
1 1/4" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS IN THE SAME TRUCK WITH SHIMS APPLIED.
1 1/2" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS, ON DIFFERENT TRUCKS.

NOTE: WHEN FIGURING THE DIFFERENCE IN WHEEL DIAMETER, TO DETERMINE IF SHIMS ARE REQUIRED, YOU MUST USE THE AVERAGE WHEEL DIAMETER FIGURES.
REMEMBER THIS RULE:
0 TO 5 DIAMETER DIFFERENCE NO SHIMS REQUIRED. 6 TO 10 DIAMETER DIFFERENCE ADD APPROPRIATE SHIMS TO BOTH BOXES ON BOTH SIDES OVER 10 IN DIAMETER DIFFERENCE REQUIRES WHEEL CHANGE OR TREAD.
ONLY ONE "X" SHIM EMD PART NUMBER 945991 SHELLED TREAD AND FLAT SPOTS MUST BE TROUDED OR CHANGED WHEN FOUND ON PERIODIC OR UNSCHEDULED MAINTENANCE. KCS CONDEMNING LIMITS FOR SHELLED TREAD ON A SERVICE TRAIL: ONE SHELLED SPOT 1" OR GREATER IN LENGTH OR ONE SHELLED SPOT WITH A DEPTH OF 1/4" OR MORE.

EMPLOYEES SIGNATURE

A. Harney

SUPERVISORS SIGNATURE

[Signature Box]

Unit: _____

Date: _____

DEFECTS FOUND DURING INSPECTION

DEFECT	Both #5 Fire extinguishers out of date	INSPECTED BY:	JRS
REPAIR	C/O Both	CORRECTED BY:	JRS/KH

DEFECT	car body extinguisher Bracket 100520	INSPECTED BY:	JRS
REPAIR	Tightened Bracket	CORRECTED BY:	JRS

DEFECT	Air Compressor 1.5 gal low oil	INSPECTED BY:	JRS
REPAIR	filled w/oil	CORRECTED BY:	JRS

DEFECT	#1 R PA intake gasket leaking	INSPECTED BY:	JRS/BC
REPAIR	C/O gasket	CORRECTED BY:	JRS

DEFECT	High pilot front	INSPECTED BY:	K. Henry
REPAIR	Put plate on 5	CORRECTED BY:	K. Henry

Unit: _____

Date: _____

DEFECTS FOUND DURING INSPECTION

DEFECT _____ / _____ _____ _____	INSPECTED BY: _____
REPAIR _____ _____ _____	CORRECTED BY: _____

DEFECT _____ _____ _____	INSPECTED BY: _____
REPAIR _____ _____ _____	CORRECTED BY: _____

DEFECT _____ _____ _____	INSPECTED BY: _____
REPAIR _____ _____ _____	CORRECTED BY: _____

DEFECT _____ _____ _____	INSPECTED BY: _____
REPAIR _____ _____ _____	CORRECTED BY: _____

DEFECT _____ _____ _____	INSPECTED BY: _____
REPAIR _____ _____ _____	CORRECTED BY: _____

Description of Work Performed

Locomotive ID 3609 Time Started 10-29-10 Time Finished _____

Put on Rail Sweeps DB K/H
Put on CRABLER

Description of Work Performed

Locomotive ID

Time Started

Time Finished

Employee Signature _____ Form to fill out completely and Signature must be legible.

UNIT#	DATE	DESCRIPTION	PART #	QUANTITY	INSTALLED	AWP

Service Operations

THROTTLE 8 OUTBOUND LOAD TESTS

UNIT _____

DATE _____

Eng RPM (900)	FMD	_____	Lube Oil Pres	_____
Eng RPM (1050)	GF	_____	Water Temp	140
Horsepower		2925	Overspeed Setting	_____
Volts (5.3)	B-23	_____	RACK SETTING	_____
Volts (7)	C-30	6.9		
Volts (720)	B-39	_____		

THROTTLE #1 STALL TEST

OP Mode	(PWR)	F	
AMPS	(300)	300	
MGA	(1220)	_____	NOT APPLICABLE TO B-23 AND C-30
Charging Rate	(70v)	74.1	

TL 24T

Throttle 1	(1V)	5.2
Throttle 2		17.4
Throttle 3		32.2
Throttle 4		40.5
Throttle 5		52.6
Throttle 6		62.9
Throttle 7		67.0
Throttle 8	(72V)	70.6