### **ATTACHMENT #12**

# CARRIER PREVENTATIVE MAINTENANCE PROGRAM

(20 Pages)

## Preventative Maintenance Program For Mullen Trucking LP Truckload Division

For the purpose of this document Mullen Trucking LP Truckload Division will be referred to as the Company.

The Company has developed it's own Preventative Maintenance Program based on regulatory standards but not restricted to them. In any case that the standards are not followed the Company standards are higher.

The Company has created it's own standards and programs to compliment the Preventative Maintenance Program.

The Company standard for performing the work processes regarding all equipment in the shops is to have the work performed by certified Journeymen or by technicians that are indentured apprentices working under the Journeymen. Wheel installation and repairs will be done by certified workers using manufacturer's specifications. Certified Journeymen technicians or apprentices under the supervision of a certified Journeyman do all Commercial Vehicle Inspections. These inspections will follow the CVIP regulations for the Province of Alberta.

Drivers and Owner Operators are required to perform Pre and Post Trip Inspections on the equipment they are operating.

Company equipment is inspected and serviced as often as possible at our home terminal. Tractors are serviced on an A Service every 25,000 km with a buffer of 5000 km. Road services are not to be done consecutively unless absolutely necessary. See A Service sheet for details.

Seven and nine axle inspections are done on a semi annual schedule using specific inspection criteria. Pin joints on specialized equipment are cleaned and inspected using the magna flux method on a semi annual schedule. These trailers are also serviced as soon as possible after arriving at the home terminal. Leased Operators who operate this type of equipment are also required to follow these inspection guidelines. See Multi Axle Trailer Inspection sheets.

The rest of the trailer fleet is required to be serviced monthly or as soon as practically possible whether at the home terminal or at satellite terminals. See Trailer Service sheet.

Annual CVIP Inspections are done before expiring up to three months in advance. Annual inspections require that all wheels be removed in order to closely inspect the wheel end and wheel components. Certain exemptions to this policy have been exercised depending mainly on the amount of miles the equipment has traveled in the past year. If the trailer hasn't traveled more than 25,000 miles in the past year one wheel will be removed and measurements will be taken from all the wheel ends in accordance with



provincial requirements. If the trailer hasn't moved at all measurements are taken but no wheels will be removed.

If the inspection cannot be done at the home terminal arrangements are made to have it done at a certified shop by a certified technician. When the equipment returns to the home terminal an Alberta CVIP is performed if the cover inspection was done out of Province.

See AB Inspection rough copy.

The maintenance department has developed a method of flagging repairs needed by equipment through both Shaw Tracking Satellite messaging system and the TMW maintenance board. Both of these avenues of communication are available to shop staff as well as front-end dispatchers and co-coordinators so that critical repairs are not missed. Wheel retorque messages are also communicated this way as well as through physical tagging. This process is in place whether the repair or wheelwork is done at our shop or needs to be done on the road.

Satellite communication is also to be used by drivers to report repairs needed and to preplan arrival times for repairs. Satellite macros with fields to be filled in by the driver are available for this purpose.

Light duty and yard equipment have preventative maintenance schedules developed for their individual requirements. The Company has developed our own forklift pre use inspection schedule that is required to be completed at the start of each yard shift.

Leased Operators are required by contract to keep their equipment in safe operating condition and are also required to forward a maintenance summary to the Safety department monthly. They are also required if pulling Mullen equipment to keep it in safe operating condition and report any maintenance issues to the shop regardless of where the trailer is dropped. This is reinforced at the orientation new drivers take and during PDIC training.

Director of Maintenance Vice President

Updated 07/21/10



### **PREVENTATIVE MAINTENANCE**

#### **LEVEL A SERVICE**

•	CAT TRI DRIVES – 20,000 KM	UNIT	
•	<b>CUMMINS - 25,000 KM</b>	DATE	
•	APU - 1,000 HRS	KILOMETERS	
•	CRANK CASE FILTER - 75,000 KM		
	CHECK ALL LIGHTS		
	CHECK ALL LIGHTS		
	CHECK LIGHT CORD & AIR LI	NES	
	CHECK CRANK CASE FILTER -	- LAST CHANGED	
	CHECK COOLANT LEVEL		
	CHECK HOSES		
	TOP UP DEF		
	CHECK BELTS		
	CHANGE FUEL FILTERS		
	CHECK FAN HUB & BLADE &	SHROUD	
•	CHECK IDLER		
	CHECK POWER STEERING RE	SERVOIR	
	CHECK WIPER OPERATION &	WASHER LEVEL	
	CHECK CHARGING SYSTEM		
	CHECK HEATER & AIR CONDI	TION SYSTEMS	
	CHECK HORNS, ELECT & AIR		
	CHECK & LUBE 5 <sup>TH</sup> WHEEL		
	CHECK SERVICE DUE & ALBER	RTA INSPECTION STICKERS	
	CHECK MUD FLAPS		



	DRAIN ENGINE OIL & TAKE SAMPLE
	CHECK TRANSMISSION LEVEL
	CHECK DIFFERENTIAL OIL LEVELS
<del></del>	CHECK STEERING HUB LEVELS & BEARINGS
	CHECK DRIVE LINE & BACKLASH
	CHECK BRAKES, LINING & TRAVEL
***********	CHECK FOR AIR LEAKS
	CHECK FOR WHEEL SEAL LEAKS
	CHECK ALL STEERING COMPONENTS
	CHECK SPRINGS & SHACKLES
	INSPECT TIRES & CHECK PRESSURE
	CHECK CLUTCH ADJUSTMENT
	CHECK EXHAUST SYSTEMS
	CHANGE OIL FILTER
	TIGHTEN PAN PLUGS
	CHECK AIR TANK & MOUNTS
	LUBE CHASSIS
***************************************	CHECK FOR OIL LEAKS
	RECHECK OIL LEVEL



COMPLETED BY \_\_\_\_\_



#### **PRETRIP**

UNIT
DATE
KILOMETERS
 CHECK ALL LIGHTS
 CHECK COOLANT LEVEL
 CHECK POWER STEERING FLUID LEVEL
 CHECK ENGINE OIL LEVEL
 CHECK FOR SERVICE DUE STICKER & ALBERTA INSPECTION STICKER
 CHECK WIPERS & WASHER LEVEL
 CHECK STEERING HUB LEVELS
 CHECK TRANSMISSION LEVEL
CHECK DIFFERENTIAL LEVEL
 CHECK CLUTCH ADJUSTMENT
 LUBE CHASSIS
Completed by



MTL 7128/94

#### A - SERVICE - TRAILERS

ATALL MAITER ALIA ALIA	DATE
STALL WHEEL CHOCKS	UNIT
ECTRICAL	MECHANIC
Clearance lights	
Strobes	<b>2</b> 44644
Stropes Swing out lights	ENGINE
Park lights	Engine Performance
Falk lights Signal lights	Exhaust system
Auxiliary	Fuel tank & Fuel
Auxiliary Brake lights	Controls & Battery
Plugs & connections & harness	
Steering light (13 axles)	STEERING
DY & WHEELS	Steering cylinders
	Steering arms
I.D. plate/ License Plate	Ball joints
Main rails & cross members Deck	Compensator
	Turn table
Load securement devices	Remote Control
Neck locking devices	Cable Control
Vans - Roof & doors	<u>.</u>
Bumper & pads	HYDRAULICS
Rollers	Hydraulic hoses
Government & service sticker	Hydraulic cylinders
Wheels & lug nuts & studs	Hydraulic tank
Tire pressure & wear	Hydraulic Control valves
Hub levels	
Wheel torque	SUSPENSION
Mud flaps	U-bolts
Pins & eyes	Springs & hangers
Lifting rings & lugs &locking pin	Air Bags & pedestals/over ride
Signs	Axle Beam & Bushing
Extendible- Stretch	Shocks
Pull neck	Landing gear
Secondary Attachments	Grease unit
Flips-pins \$ eyes	
	COUPLERS & HITCHES
& BRAKES	Fifth Wheel Saddle
ABS system & light	Trailer Hitch & Swivel pins
Glad hands & rubbers	Secondary Attachments
Condition of air lines	Fifth Wheel Coupler
Air pots & valves & tanks	King Pin & Pick up plate
S-Cams, tubes & bushings & brackets	5th Wheel Slide/Cylinder
Slack adjusters & Linkage	•
Brake shoes /pads	
Wheel seals	
Brake Drums/Rotors	
Calipers/Pot movement	
Dust Covers	
Brake Adjustment	
Air Leakage	
-	
mments	



DATE\_YY\_\_\_\_/\_MM\_\_\_/\_DAY\_\_ Registered Owner's Name\_MULLEN TRUCKING LP\_\_\_Phone 403-652-8866 Fax 403-652-7251 Vehicle Make \_\_\_\_\_Vehicle Model \_\_Year\_ Odometer\_ Unit # License Plate # \_\_\_\_\_ GVWR V.I.N.# Mechanic Tech # C.V.I. Drums / Rotors mm mm Linings / Pads **Push Rod Travel PSI** PSI Cam Bushings/Rotation Bearing End Play **Drums / Rotors** mm mm Linings / Pads **Push Rod Travel PSI PSI** Cam Bushings/ Rotation Bearing End Play Drums / Rotors mm mm Linings / Pads **Push Rod Travel PSI** PSI Cam Bushings/ Rotation Bearing End Play CVIP# COMMENTS **TIRES & WHEELS SUSPENSION Suspension Attachments** Tread Section & depth **Axle Beam Bushings** Sidewalls Air Suspension/ Over ride Tire Pressure **Shock Absorbers** Rims and Lock Rings Wheel Nuts, Studs & /or Clamps **ELECTRICAL SYSTEM** Wheel Hubs **Spoke Wheels** Wiring/ Switches Trailer Cord Wheel Torque Wheel Bearings **Electrical plugs** 

Page 1



Disc Wheels

NEW DRUM 16.5". Max Wear 16.620" 4/7 mm 4/2 mm

Reception/Traiter Inspection Forms/commercial vehicle mond of inspection nov 11 mone 1

NEW DRUM 12,25", Max Wear 12,370" 3// ~~ 3/4 ~~

	DATE		
Registered Owner's Name			
Phone	Fax		
Vehicle Make	Vehicle Model		Year
Odometer	Unit #	License Plate #	
Vehicle Identification numer		Livelise Plate #	GVWR
Mechanics comments			
Inspection Stn #T	ime:PM/AM - C	VIP Cert(if issued)_	Y/N
mechanic name	Signature	Mechanic N	lumer
<b>Vehicle received without Repairs</b>			
to Rejected Items YES	Signature of Vehicle	e Owner	Title

(6



#### **RECORD OF INSPECTION**

Print) egistered Owner's Name \_\_\_ Fax shicle Make Vehicle Model\_ dometer Unit #\_\_\_\_\_ License Plate No.\_\_\_\_\_ GVWR or Bus Cap\_\_\_\_ shicle Identification number\_ **RECORD MEASUREMENTS LEFT FRONT RIGHT** DRUMS/ROTORS . LININGS/PADS m.m m.m. **PSI PUSH ROD TRAVEL** PSI **CAM POTATION** DRUMS/ROTORS LININGS/PADS m.m. m.m. PUSH ROD TRAVEL **PSI** PSI **CAM ROTATION** DRUMS/ROTORS LININGS/PADS m.m. m.m. **PSI** PUSH ROD TRAVEL **PSI** CAM ROTATION DRUMS/ROTORS LININGS/PADS m.m m.m. PSI PUSH ROD TRAVEL PSI CAM ROTATION WHEELS TORQUE CHECKED [...] Identify by location if Wheels Removed at time of Inspection chanic's Comments No Inspection Station Number Inspection Date Time AM/PM CVIP Certificate (if) Issued Name of Inspection Mechanic (Print) Signature of Inspection Mechanic Mechanic Number icle received without Repairs Rejected Items YES Signature of Vehicle Owner or Representative Title Page 1



**OWER TRAIN** 

CELERATOR PEDAL

JEL SYSTEM

CHAUST SYSTEM

HTS

**RIVE SHAFT** 

UTCH

IGINE/TRANSMISSION MOUNT

IGINE SHUT DOWN

UTRAL SAFETY SWITCH & SHIFT PATTERN

ARTER

**JSPENSION** 

SPENSION ATTACHMENTS

**RINGS AND ATTACHMENTS** 

IL SPRING SUSPENSION

**ASION BAR SUSPENSION** 

**RE-RIDE SUSPENSION** 

**3BER LOAD CUSHION** 

**IDEM AXLE WALKING BEAMS** 

SUSPENSION

SUSPENDED NON-DRIVING AXLE

F-STEERING AXLES

XCK ABSORBERS

DRAULIC BRAKE SYSTEM

KING BRAKES

RAULIC SYSTEM

L BRAKE SYSTEM HYDRAULIC CIRCUIT CHECK

RAULIC BRAKE LEAKAGE & PEDAL RESERVE

JUM ASSISTED POWER BRAKES

RAULIC ASSISTED BRAKES

JUM SYSTEM

JUM BOOSTER

JUM RESERVE

JUM PUMP

IT DRUM BRAKES

RAULIC DRUM BRAKES

IT.REAR DISC BRAKES

IBRAKES

ORTIONING VALVE

LOCK BRAKES (IF OEM EQUIPPED)

HINING & WEAR LIMITS BRAKE DRUM 3 DISCS

TRIC BRAKES

**BRAKES — RECORD RESULTS** 

OMPRESSOR

RESSOR AIR BUILD TIME

OVERNOR-IN-OUT-PRESSURE

VIR PRESSURE WARNING SYSTEM

ISTEM LEAKAGE

RESSED AIR RESERVE

SERVOIR AND CHECK VALVES

ILE VALVE

ER BRAKE HAND CONTROL VALVE

RELEASE VALVES

VALVES

OR PROTECTION VALVE

PULL/PULL-PUSH CONTROL VALVES

AIR BRAKES (Cont'd)

AIR PARKING & EMERGENCY BRAKE APPLICATION

AIR BRAKE COMPONENTS

BRAKE MECHANICAL COMPONENTS

SLACK ADJUSTER BRAKE ADJUSTMENT INDICATOR

**BRAKE CAMSHAFTS** 

**CAMSHAFT TRAVEL** 

**BRAKE LININGS** 

BRAKE DRUMS

**BRAKE ADJUSTMENT** 

DISC BRAKES

FRONT BRAKES

ANTI-LOCK BRAKE SYSTEM

MACHINING & WEAR LIMITS, BRAKE DRUMS & DISCS

**STEERING** 

STEERING WHEEL TEST

TRAVEL

STEERING LINKAGE

FRONT WHEEL BEARINGS

GAUGES AND OPERATING INSTRUCTIONS

KINGPIN PLAY RECORD

POWER STEERING

BALL JOINTS

TELESCOPE/TILT STEERING

**INSTRUMENTS AND AUXILIARY EQUIPMENT** 

FIRE EXTINGUISHER

HAZARD WARNING KIT

CLUTCH & BRAKE PEDAL

HORN

SPEEDOMETER

ODOMETER

INDICATOR LAMPS

INSTRUMENTS

CHAIN/HEADACHE RACK

**IDENTIFICATION** 

**AUXILIARY EQUIPMENT** 

FIRST AID KIT

PAINT (SCHOOL BUS ONLY)

SIGNS (SCHOOL BUS ONLY)

ALTERNATING FLASHING RED STOP LAMPS

STOP ARM (SCHOOL BUS ONLY)

PEDESTRIAN GATE (SCHOOL BUS ONLY)

MANUFACTURER'S LABELS

**LAMPS** 

LAMPS

REFLEX REFLECTORS

INSTRUMENT LAMP

HEADLAMP AIMING

AIMING SCREEN

**ELECTRICAL SYSTEM** 

WIRING

BATTERY

SWITCHES
TRAILER CORD

ALTERNATOR

**BODY** 

HOOD OR REAR ENGINE COMPARTMENT DOOR

TILT CAB

AIR SUSPENDED CABS

BODY

LOAD SECUREMENT POINTS

REAR BUMPERS

FRONT BUMPER

STEPWELL (ENTRANCE AND EXIT STEPS)

FLOOR PAN/BAGGAGE FLOOR

SERVICE AND EXIT DOORS

**EMERGENCY DOOR/EXITS** 

DOORS

CAB MOUNT HANDLE AND STEP

WINDSHIELD

WINDSHIELD WIPERS WASHERS

SIDE WINDOW

REAR WINDOW

FRAME RAILS & MOUNTS

SUN VISORS

INTERIOR REAR VIEW MIRROR

EXTERIOR REAR VIEW MIRROR

DRIVER'S SEAT

PASSENGER SEATS

SEAT BELTS/OCCUPANT RESTRAINTS

HEATER

WINDSHIELD DEFROSTER

FENDERS OR MUD-FLAPS

INTERIOR

AUXILIARY COMPARTMENT (SCHOOL BUS ONLY)

PASSENGER VEHICLES FOR PHYSICALLY DISABLED

AUB RAILS (SCHOOL BUS ONLY)

LANDING GEAR

FRAME & CROSS-MEMBERS

SLIDING BOGIE

REAR IMPACT GUARDS

CORROSION

TIRES AND WHEELS

TREAD DEPTH

TREAD SECTION OF TIRE

SIDEWALLS

TIRE PRESSURE

RIMS AND LOCK RINGS

WHEEL NUTS, STUDS AND/OR CLAMPS

WHEELS

HUBS

SPOKE HUB
WHEEL BEARINGS

COUPLERS AND HITCHES

UPPER FIFTH WHEEL

TRAILER HITCH

NO SLACK HITCH

SECONDARY ATTACHMENTS

OSCILLATING FIFTH WHEEL

PERMANENTLY ATTACHED EQUIPMENT

FIFTH WHEEL COUPLER & CONVERTER DOLLY

Request for Maintenance /Cry Sheet

This form is filled out by the driver. It is then given to the Lead Hand who opens a Work Order.

Any problems the driver has with the truck or trailer is recorded on this sheet. This is a 2 part document, the white copy stays with the driver for his records, the yellow copy stays with the work order. Mileage is recorded by driver and the date the unit is required by should be recorded.

Mullen Trucking
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#### **MULLEN TRUCKING INC.**

#### DRIVERS REQUEST FOR MAINTENANCE OR REPAIRS

Unit	_ Kilometers	Date _	-
Booking off ? (Yes) or (No)	Driver	<del>elektrologische aus deben ausbelden</del> das die de	
Date unit required by	Company of the second s	~~*	
			numeral formación (n. s.
E: Explain as clearly as possible			CANAC COPY TO INSPECTOUS BA
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Preventative Maintenance Guidelines for Forklifts and Light Vehicles

Service Intervals:

Fork Lifts, Loader, Bobcat, Grader, Garden Tractor, Yard Pick Ups - 150 Hrs.

Pilot Trucks, Truck Supervisor Pick Ups - Non Synthetic Oil - 5000 Km Synthetic Oil - 10000 Km

Each piece of equipment will have its own specialized requirements for service. The Technician performing the service will follow the service guidelines that are pertinent to the piece of equipment being serviced.

A Forklift Pre Use Inspection will be performed once a week by the oncoming shift. Any deficiencies will be reported to the shop for repair.



## Forklift / Yard Equipment / Light Vehicle Preventative Maintenance

Unit	
Date	
Mileage	

	_ Check all lights
	Service batteries
	Check coolant level and strength
	Check hoses
	Change water filter
	Check belts
	Check idler
	<b>~</b> 1
	Change air filter as required
	Check wiper / washer operation and level
	Check charging system
	Check heater & A/C system
	Check horns, electric/air
	Check service due sticker
	Drain oil and take sample as required
	Check transmission and differential levels
	Check driveline and u joints
	Check brake shoes and drums
	Check for wheel seal leaks
	Check all steering components
	Inspect tires and check pressures
	Check exhaust system
	Change oil filter
	Tighten pan plugs
<del></del>	Lube chassis
· · · · · · · · · · · · · · · · · · ·	Check for leaks
	Recheck oil level

## MATERIAL HANDLING EQUIPMENT PRE-USE INSPECITON CHECKLIST

<b>Date</b>	Odometer	Unit #
VEHICLES Key Off Procedures		
Overhead Guard – are there	e broken welds, missing bolts,	or damaged areas?
Hydraulic Cylinders – is the cylinders?	ere leakage or damage on the l	ift, tilt, and attachment functions of the
Mast Assembly – are there t	oroken weld, cracked or bent a	reas, and worn or missing stops?
Lift Chains and Rollers  Is there wear or damage or k Is there squeaking?	inks, signs of rust, or any sign	that lubrication is required?
Forks Are they cracked, bent, worn Is there excessive oil or wate		
	round the circumference of the ber missing or separated from t	
Battery Check Are the cell caps and termina Are the cables missing insula		
Propane Tank and Locator	Pin – is the tank guard bracke	t properly positioned and locked down?
Propane Hose  Is it damaged? It should not Is the connector threaded on Propane Odor – if you detect problem.	squarely and tightly?	bound in any way. odor, turn off the tank valve and report the
Gas Gauge		
Engine Oil – check levels.		
Hydraulic Fluid – check lev	el.	
☐ Engine Coolant – visually clevel when the engine is running use gloves to protect your hands.	or while the engine is hot. Sta	remove the radiator cap to check the coolant and to the side and turn your face away. Always

Key On / Engine Running Procedures
Check the Gauges – are they working properly?
Oil Pressure Indicator Lamp
Ammeter Indicator Lamp
Hour Meter
Battery Discharge Indicator (test the standard equipment)
Water Temperature Gauge (test the standard equipment)
Steering  Is there excessive free play?  If power steering, is the pump working?
Brakes  If the pedal goes all the way to the floor when you apply the service brake that is the first indicator that the brakes are bad. Brakes should also work in reverse.  Does the parking brake work? The vehicle should not be capable of movement when the parking brake is engaged.
Front, Tail and Brake Lights – if equipped with lights, are they working properly?
☐ Fuel Gauge (if diesel)
☐ Windshield Wipers – do they work properly?
☐ Heater
☐ Horn – does the horn work?
Safety Seat (if equipped) – is it working?
Seat Belt – if there is a seat there must be a seat belt. Is it present and in good working condition?
Load-Handling Attachments  Is there hesitation when hoisting or lowering the forks when using the forward or backward tilt or the lateral travel on the side shift?  Is there excessive oil on the cylinders?
Transmission Fluid – check levels.
Inspected By Date
Updated 02/17/12

### MATERIAL HANDLING EQUIPMENT INSPECTION CHECKLIST

Date	Equipment
Guard and Handles –	are there broken welds, missing bolts, or damaged areas?
Hydraulic Cylinders – cylinders?	is there leakage or damage on the lift, tilt, and attachment functions of the
	t go around the circumference of the tire? of rubber missing or separated from the rim? of that may cause slippage?

Updated 2/17/12

Pre Trip- This inspection is done when there is a change of drivers or the unit has been sitting for an extended period between trips.



#### **PRETRIP**

	บเ	NIT	The second of th
	D	ATE	Management of the second of th
	к	ILOMETERS	
	CHECK ALL LIGHTS		
	CHECK COOLANT LEVEL		
-	CHECK POWER STEERING FLUID LEVEL		
	CHECK ENGINE OIL LEVEL		
	CHECK FOR SERVICE DUE STICKER & ALBERTA INSPECTION STICKER		
	CHECK WIPERS & WASHER LEVEL		
Marks Flores Contains	CHECK STEERING HUB LEVELS		
	CHECK TRANSMISSION LEVEL		
	CHECK DIFFERENTIAL LE	VEL	
	CHECK CLUTCH ADJUST	MENT	
	LUBE CHASSIS		
Completed by			



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