

**OPERATION / MAINTENANCE
AND PARTS MANUAL
MR-25H
VIBRATORY SINGLE DRUM ROLLER**



Read this instruction manual before operating this equipment

August 31, 2009

SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES

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OVERVIEW

Before you operate, maintain, or in any other way, use this machine, read and study this manual. Know how to safely use the roller's controls and what you must do for safe maintenance.

BEFORE YOU OPERATE, MAINTAIN OR IN ANY OTHER WAY, OPERATE THIS MACHINE:

READ and STUDY this manual. **KNOW** how to safely use the unit's controls and what you must do for safe maintenance.

The machine has been built in accordance with state-of-the-art standards and the recognized safety rules. Nevertheless, its use may constitute a risk to life and limb of the user or of third parties, or cause damage to the machine and to other material property.

ALWAYS wear or use the proper safety items required for your personal protection.

For reasons of security, long hair must be tied back or otherwise secured, garments must be close-fitting and no jewelry -such as rings - may be worn. Injury may result from being caught up in the machinery or from rings catching on moving parts.

If you have **ANY QUESTIONS** about the safe use or maintenance of this unit, **ASK YOUR SUPERVISOR OR CONTACT ANY MEIWA DISTRIBUTOR. NEVER GUESS - ALWAYS CHECK.**

Never make any modifications, additions or conversions which might affect safety without the supplier's approval. This also applies to the installation and adjustment of safety devices and valves as well as to welding work on load-bearing elements.

Observe all fire-warning and fire-fighting procedures. •

PRE-START INSPECTION

INSPECT your machine. Have any malfunctioning, broken or missing parts corrected or replaced before use.

Check the machine at least once per working shift for obvious damage and defects. Report any changes (incl. changes in the machine's working behavior) to the competent organization/person immediately. If necessary, stop the machine immediately and lock it.

Take the necessary precautions to ensure that the machine is used only when in a safe and reliable state.

Operate the machine only if all protective and safety oriented devices, such as removable safety devices, emergency shut-off equipment, sound-proofing elements and exhausts, are in place and fully functional.

SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES

The electrical equipment of machines is to be inspected and checked at regular intervals. Defects such as loose connections or scorched cables must be rectified immediately.

VERIFY that all the instruction and safety labels are in place and readable. These are as important as any other equipment on the roller.

NEVER fill the fuel tank, with the engine running, while near an open flame, or when smoking. ALWAYS wipe up any spilled fuel **immediately**.

CHECK for WARNING tags placed on the machine. DO NOT operate the equipment until repairs have been made and the WARNING tags are removed by authorized personnel.

KNOW the location of the Emergency Shut-Down Control if the machine is so equipped.

OPERATING

In the event of safety-relevant modifications or changes in the behavior of the machine during operation, stop the machine immediately and report the malfunction to the competent authority/person.

Always wear the prescribed ear protectors.

Always make sure that no person or obstruction is in your line of travel. Watch your step to avoid tripping.

USE extreme caution and be observant when working in close quarters or congested areas.

Before beginning work, familiarize yourself with the surroundings and circumstances of the site, such as obstacles in the working and traveling area, the soil bearing capacity and any barriers separating the construction site from public roads.

When traveling on public roads, ways and places always observe the valid traffic regulations and, if necessary, make sure beforehand that the machine is in a condition compatible with these regulations.

Always keep at a distance from the edges of building pits and slopes.

DO NOT run the engine in a closed building for an extended length of time. EXHAUST FUMES CAN KILL.

DO NOT operate the roller on non-compactable material, such as concrete or hardened asphalt.

MAINTENANCE

Observe the adjusting, maintenance and inspection activities and intervals set out in the operating instructions, including information on the replacement of parts and equipment. These activities may be executed by skilled personnel only.

Ensure that the maintenance area is adequately secured.

Observe the adjusting, maintenance and inspection activities and intervals set out in the operating instructions, including information on the replacement of parts and equipment. These activities may be executed by skilled personnel only.

After cleaning, examine all fuel, lubricant, and hydraulic fluid lines for leaks, loose connections, chafe marks and damage. Any defects found must be rectified without delay.

Always tighten any screwed connections that have been loosened during maintenance and repair. •

Any safety devices removed for set-up, maintenance or repair purposes must be refitted and checked immediately upon completion of the maintenance and repair work.

SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES

Ensure that all consumables and replaced parts are disposed of safely and with minimum environmental impact. AVOID, whenever possible, servicing, cleaning or examining the unit with the engine running.

NEVER fill the fuel tank, with the engine running, while near an open flame, or when smoking. ALWAYS wipe up any spilled fuel immediately.

ALWAYS disconnect the spark plug before performing any work on the unit.

DO NOT alter the engine governor settings from that indicated in the engine manual.

ALWAYS replace damaged or lost decals. Refer to the Parts Manual for the proper location and part number of all decals.

Carry out welding, flame-cutting and grinding work on the machine only if this has been expressly authorized, as there may be a risk of explosion and fire.

Before carrying out welding, flame-cutting and grinding operations, clean the machine and its surroundings from dust and other Inflammable substances and make sure that the premises are adequately ventilated (risk of explosion).

SECTION 2 - INTRODUCTION

EXCELLENT CHOICE! The MEIWA SEISAKUSHO MR-25H VIBRATORY SINGLE DRUM ROLLER you have chosen will give you many hours of maintenance free operation resulting in a faster return of your investment.

Safe operation depends on reliable equipment and the use of proper operating procedures. Performing the checks and services described in this manual will help keep your machine in good condition. These recommended operation procedures will help you to avoid unsafe practices.

Safety notes have been included throughout this manual to help you avoid injury and prevent damage to the equipment. These notes are not intended to cover all eventualities; it is impossible to anticipate and evaluate all possible methods of operation.

Therefore, you are the only person who can guarantee safe operation and maintenance.

It is important that any procedure not specifically recommended in this manual be thoroughly evaluated from the standpoint of safety before it is implemented.

Continuing improvement and advancement of product design may cause changes to your machine which may not be included in this publication. Each publication is reviewed and revised, as required, to update and include these changes in later editions.

MEIWA SEISAKUSHO reserves the right to modify or make changes within a specific model group without notice and without incurring any liability to retrofit units previously shipped from the factory. Contact your MEIWA SEISAKUSHO Distributor for non-routine maintenance information that is not covered in this publication.

Always check and record the serial number of your machine. Refer to Figure 2-1. Check to ensure that the Operation, Maintenance and Parts Manual is with the machine.


















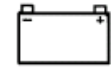

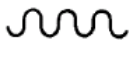










Figure 2-1

SECTION 3 - SYMBOL IDENTIFICATION AND METRIC CONVERSION

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INTERNATIONAL MACHINE SYMBOLS

The following explains the meaning of international symbols that may appear on your machine



















	OIL PRESSURE		BRAKE		HOURS
	WATER TEMPERATURE		HORN		NEUTRAL
	ON / OFF		CAUTION		LOW ENGINE RPM.
	LIGHTS		FUEL		BRAKE-PARK
	WATER		SLOW		VIBRATION
	BATTERY		FAST		AMPLITUDE
	AMMETER OR VOLTMETER		TRANSMISSION		FREQUENCY
	AIR PRESSURE		GREASE		CAUTION-PRESSURIZED
	LOW AIR PRESSURE		OIL		
	ENGINE RPM		HYDRAULIC OIL		

**SECTION 3 - SYMBOL IDENTIFICATION AND METRIC CONVERSION
INTERNATIONAL HIGHWAY SYMBOLS**

The following symbols may also appear in a yellow square instead of a red triangle.

	Road bends		Uneven road
	Dangerous bend		Ridge
	Double bend		Dip
	Dangerous descent		Slippery road
	Steep ascent		Loose gravel
	Carriageway narrows		No entry for power driven vehicles
	Carriageway narrows		No entry for vehicles exceeding length
	"end of priority" sign		No entry for vehicles exceeding length
	Oncoming traffic has priority		Falling rocks
	Priority over oncoming traffic		Pedestrian crossing
	Swing bridge		Road work
	Road leads onto quay or river bank		Light signals

SECTION 3 - SYMBOL IDENTIFICATION AND METRIC CONVERSION

	Two-way traffic		“give way” sign
	Other dangers		Stop sign (new)
	Level crossing		Stop sign (old)
	Level crossing		“priority road” sign
	No entry		No entry for vehicles exceeding weight
	Closed to all vehicles in both directions		No entry for vehicles axle weight exceeding
	Intersection, user must give way		No u-turn
	Intersection, user must give way		No turn direction shown
	Intersection, user must give way		No entry for power driven vehicles

SECTION 3 - SYMBOL IDENTIFICATION AND METRIC CONVERSION

TO CONVERT	OMREGNET FRA	INTO TIL	MULTIPLY BY MULTIPLICERES MED
Bar		Pound/sq.in	14.50
Bar		Kilopascals	100.
Centigrade		Fahrenheit	$(C^{\circ} \times 9/5) + 32$
Centimeters		Inches	0.3937
Centimeters		Millimeters	10.0
Circumference		Radians	6.283
Cubic centimeters		cu.inches	0.06102
Degrees (angle)		Radians	0.01745
Degrees/sec.		Revolutions/min	0.1667
Feet		Meters	0.3048
Feet/min		Meters/min.	0.3048
Foot-pounds		Kg-meters	0.1383
Gallons		Liters	3.785
Hertz		Vibrations/min.	60.
Horsepower		Kilowatts	0.7457
Inches		Centimeters	2.540
Inches		Millimeters	25.40
Kilograms		Pounds	.250
Kilogram meters		-Pounds	7.233
Kilopascal		Pounds/sq.in	0.1450
Kilopascal		Bars	0.01
Kilowatts		Horsepower	1.341
Liters		Gallons (U.S. liq)	0.2642
Liters		Pints (U.S. liq)	2.113
Liters		Quarts (U.S. liq)	1.057
Meters		Feet	3.281
Meters		Inches	39.37
Meters/min		Feet/sec	0.05468
Miles/hr		kms/hr	1.609
Millimeters		Inches	0.03937
Newtons		Pounds	4.448
Newton-meter		Pound-feet	0.737
Pounds		Kilograms	0.4536
Pounds		Newtons	0.225
Pound feet		Newton-meter	1.356
Pounds/ft.		kgs/meter	1.488
Pounds/sq in		Bars	0.06895
Pounds/sq in		Kilopascals	6.895
Quarts (liq)		Liters	0.9463
Radians		Degrees	57.30
Radians/sec		Revolutions/min	9.549
Revolutions/min		Degrees/sec	6.0
Revolutions/min		Radians/sec	0.1047
Temperature (°C) + 17.78		Temperature (°F)	1.8
Temperature (°F) - 32		Temperature (°C)	5/9
Tons (short)		Tons (metric)	0.9078
Vibrations/min		Hertz	0.0167

SECTION 4 - OPERATING CONTROLS AND INSTRUMENTS

Contents	Page
THROTTLE LEVER _____	1
PROPULSION CONTROL _____	1
RECOIL STARTER _____	1
STOP SWITCH _____	2
CHOKE LEVER _____	2
FUEL COCK _____	3
ENGINE OIL DIPSTICK _____	3
SPRINKLER VALVE _____	3
HANDLE LOCKING PIN _____	4

THROTTLE LEVER

The Throttle Lever (Figure 4-1) is located on the handle and is used to control engine rpm and vibration. The position furthest from the operator is the Idling position, the middle position is the Driving position and the position closest to the operator is the Vibrating position.

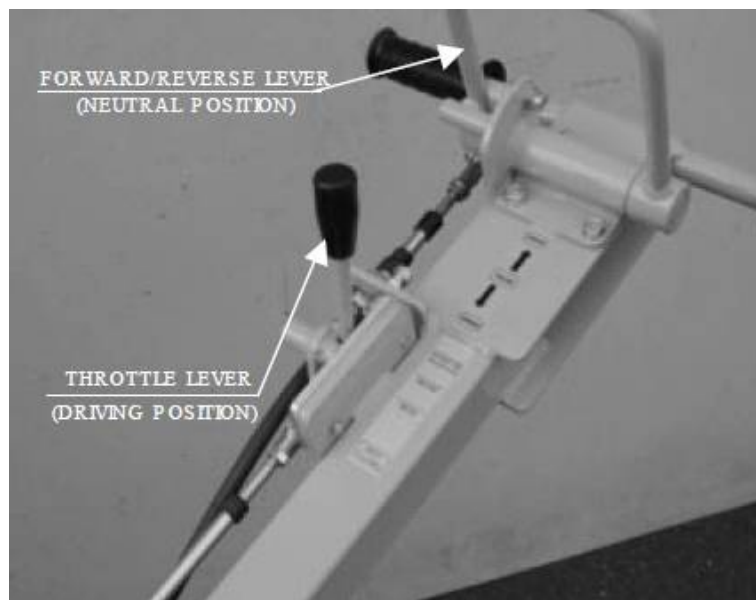


Figure 4-1

PROPULSION CONTROL

The Propulsion Control (Forward/Reverse) Lever (Figure 4-1) is located on the handle and is used to control the machine travel direction and speed of travel. The position furthest from the operator is the Forward travel direction, the middle position is the Neutral position and the position closest to the operator is the Reverse direction position. The farther the lever is moved from the Neutral position, in either direction, the faster the travel speed.

RECOIL STARTER HANDLE

The Recoil Starter Handle (Figure 4-2) is located on the left side of the machine. Pull the handle forcibly to start the engine.

SECTION 4 - OPERATING CONTROLS AND INSTRUMENTS

STOP SWITCH

The Stop Switch (Figure 4-2) is located on the engine beside the recoil start handle. Depress and hold the Stop button until the engine stops.

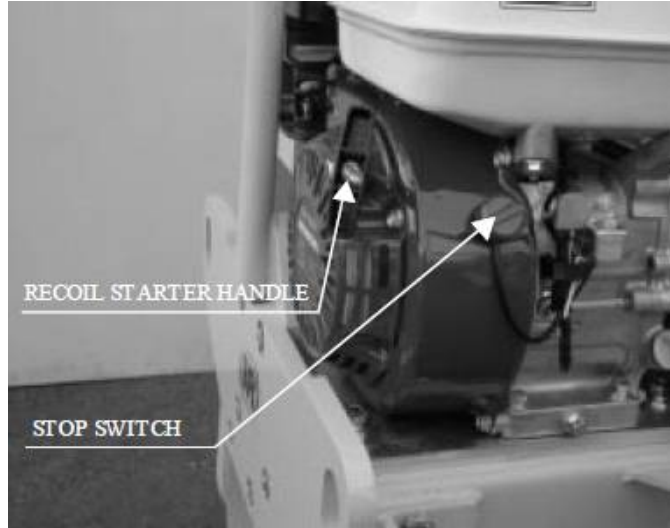


Figure 4-2

CHOKE LEVER

The Choke Lever (Figure 4-3) is located on the right side of the engine (front of machine) and is used to enrich the fuel mixture when starting a cold the engine.

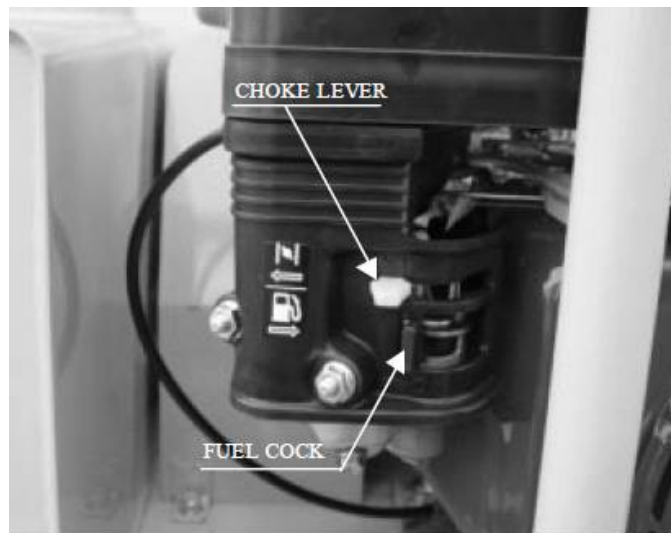


Figure 4-3

SECTION 4 - OPERATING CONTROLS AND INSTRUMENTS

FUEL COCK

The Fuel Cock (Fuel Shut-Off Valve) (Figure 4-3) is located next to the choke and is used to control the flow of fuel from the fuel tank to the engine. Always close the fuel cock when the engine is shutdown.

ENGINE OIL DIPSTICK

The Engine Oil Dipstick is located on the side of the engine. Always maintain the oil level to the full mark on the dipstick.

SPRINKLER VALVE

The Sprinkler Valve (Figure 4-4) is located on the spray bar on the front of machine. the water system is gravity feed, therefore, the valve must be closed to shut-off the flow of water to the spray bar.



Figure 4-4

SECTION 4 - OPERATING CONTROLS AND INSTRUMENTS

HANDLE LOCK

The Handle Lock (Figure 4-5) is used to release the handle so that it can be folded for storage.



Figure 4-5

SECTION 5 - OPERATING INSTRUCTIONS

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SAFETY CHECKS - PRESTART

Before starting each day, in addition to the 10 Hour Daily Routine Maintenance, check or inspect the following items to ensure trouble free performance.



Before performing any maintenance, service or repairs, read, understand and follow SECTION 1 - SAFETY PRECAUTIONS AND GUIDELINES of this manual to avoid personal injury.

1. Check fluid lines, hoses, fittings, and filler openings, drain plugs, muffler, engine, safety shrouds and the area underneath the unit for signs of leakage. Correct the damage before operating.
2. Use the information in the "Routine Maintenance" sections of this manual in conjunction with the Lubrication Chart to perform any required fluid checks and maintenance.
3. Check the oil level. Oil should be to the Full mark on the dipstick (Figure 5-1).

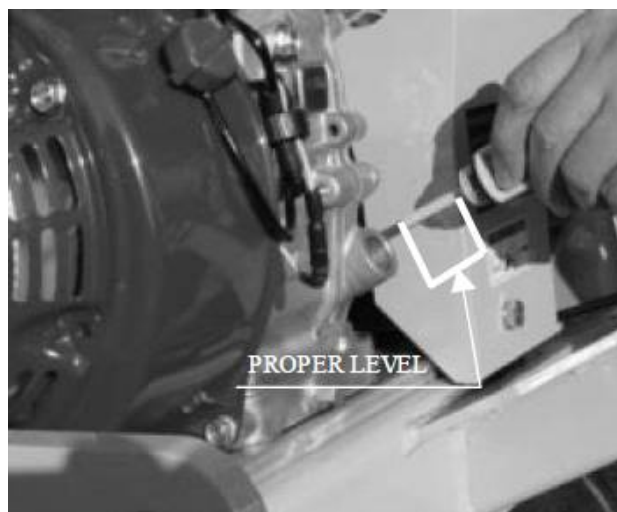


Figure 5-1

4. Inspect the entire unit for damaged or missing parts and repair or replace as needed.

SECTION 5 - OPERATING INSTRUCTIONS

WARNING

Fuel is flammable. May cause severe injury or death.

Shutdown the engine, extinguish all open flames and do not smoke while working with fuel.

Always wipe up spilled fuel.

5. Check the fuel level. If necessary fill the fuel tank with clean non-leaded gasoline per specifications in Section 6 of this manual.
6. Check all fastening hardware to ensure it is tight and none is missing or broken.
7. Check the air cleaner element (Figure 5-2) to ensure it is not dirty or damaged.

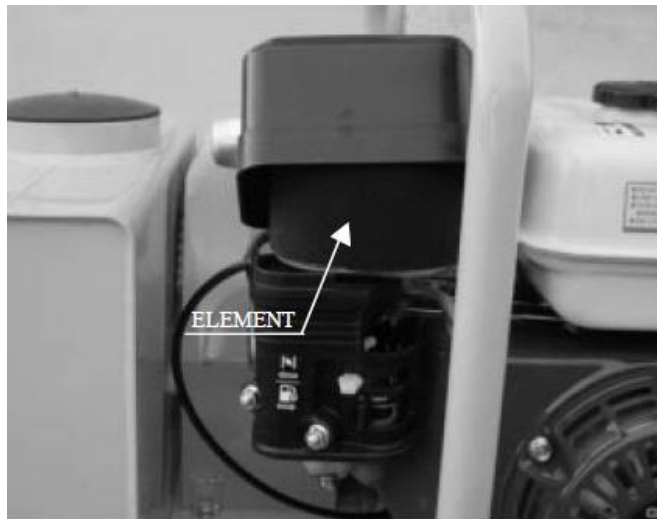


Figure 5-2

8. Ensure the water tank is full and the sprinkler cock is closed.
9. Do not operate faulty equipment.
10. Be observant of people and obstructions within the work area.
11. Know the job site requirements such as then umber of required passes to achieve the desired density.

SECTION 5 - OPERATING INSTRUCTIONS

START-UP PROCEDURE

IF YOU ARE IN DOUBT OF THE OPERATION OF THIS UNIT AFTER READING THESE PROCEDURES- SEE YOUR SUPERVISOR.

1. Ensure propulsion control (Forward/Reverse Lever) (Figure 5-3) is in the "Neutral" position.
2. Place the Throttle Control Lever (Figure 5-3) in the "Driving" position.

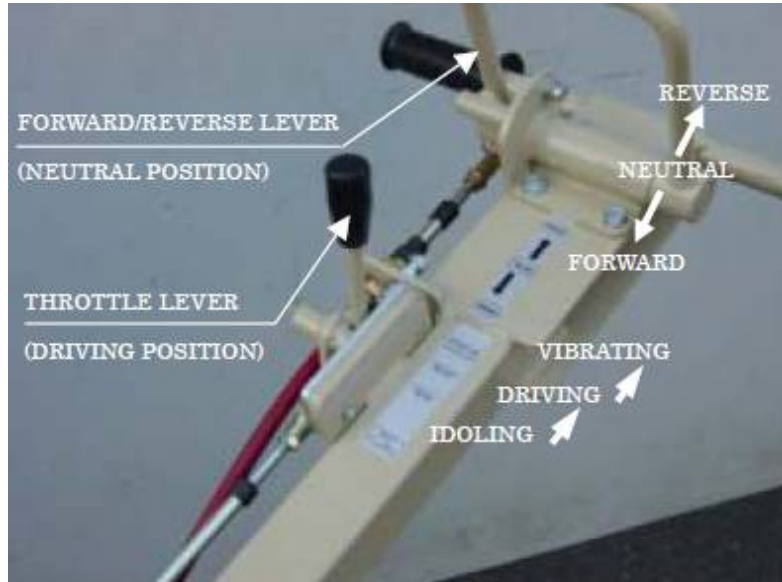


Figure 5-3

3. Close the choke lever and open the fuel cock on the fuel tank. Refer to Figure 5-4.

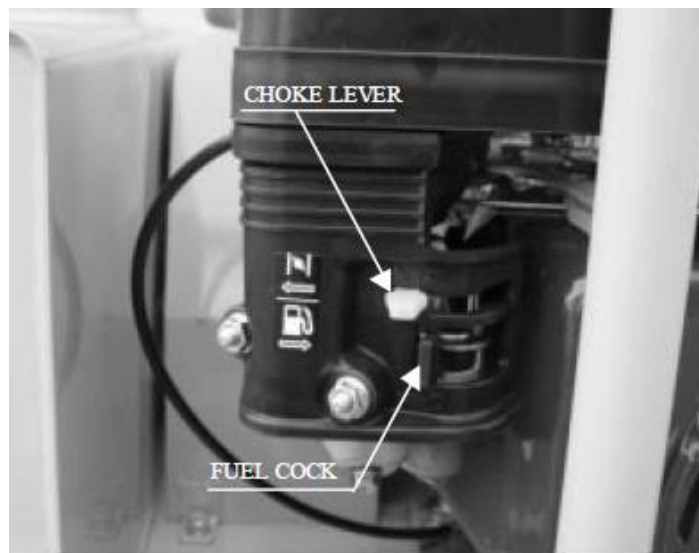


Figure 5-4

SECTION 5 - OPERATING INSTRUCTIONS

4. Ensure the work area is clear of all personnel and obstructions.
5. Pull the recoil start handle (Figure 5-5) forcibly. After each pull, allow the rope to retract slowly to avoid breaking or twisting the rope.



Figure 5-5

⚠ CAUTION

Idling the engine unnecessarily for long periods of time wastes fuel and shortens engine life. Unburned fuel causes carbon formation; oil dilution; formation of lacquer or gummy deposits on the valves, pistons and rings; and rapid accumulation of sludge in the engine.

6. Allow the engine to run at low throttle with no load for approximately five minutes. Never race the engine during the warm-up period.

ROLLER OPERATION

After the engine has been started and allowed to warm up, the roller is then ready for operation in accordance with the following procedure:

1. Check the area for people or obstructions.
2. Start the water sprinkler system if desired.
3. Position the Throttle control to the "Driving" position.

SECTION 5 - OPERATING INSTRUCTIONS

⚠ WARNING

Due to the step less speed change system it is necessary to position the propulsion control (forward/reverse lever) to the Neutral position momentarily before changing direction of travel.

4. Move the Propulsion Control (Forward/Reverse Lever) to achieve the desired direction and safe speed of travel as determined by conditions. The further the control is moved from the Neutral (N) position, in either direction, the greater the travel speed in that direction. Return the control to the neutral position for normal braking. Refer to Figure 5-6.

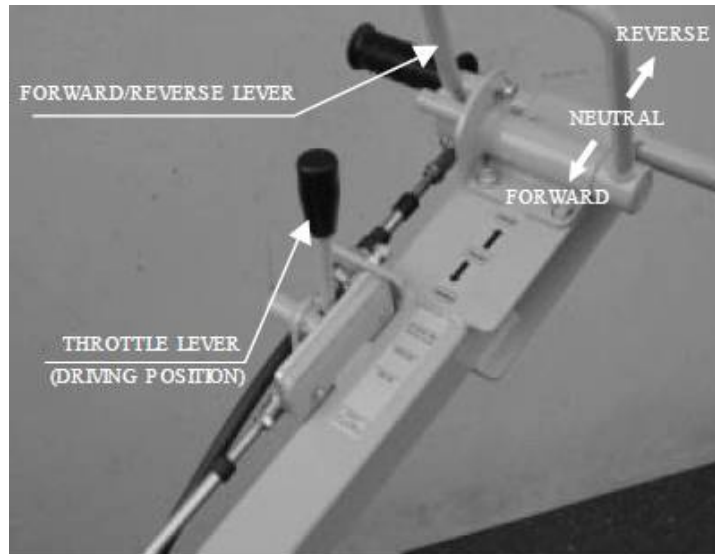


Figure 5-6

SECTION 5 - OPERATING INSTRUCTIONS

5. Once the roller is in motion, move the Throttle Lever to the Vibration position and vibration will start. Refer to Figure 5-7.



Figure 5-7

SHUT-DOWN PROCEDURE

NOTE:

Whenever possible, roller movement should be stopped with the roller on a solid level surface.

1. Return the Propulsion Control (Forward/Reverse Lever) to the "Neutral" position. Refer to Figure 5-8.

SECTION 5 - OPERATING INSTRUCTIONS

2. Stop roller vibration by moving the Throttle Control to the (Idle) position. Refer to Figure 5-8. Allow the engine to idle for approximately five minutes to avoid a high initial heat rise and allow heat dissipation.
3. Press and hold the engine stop button until the engine stops. Refer to Figure 5-9.

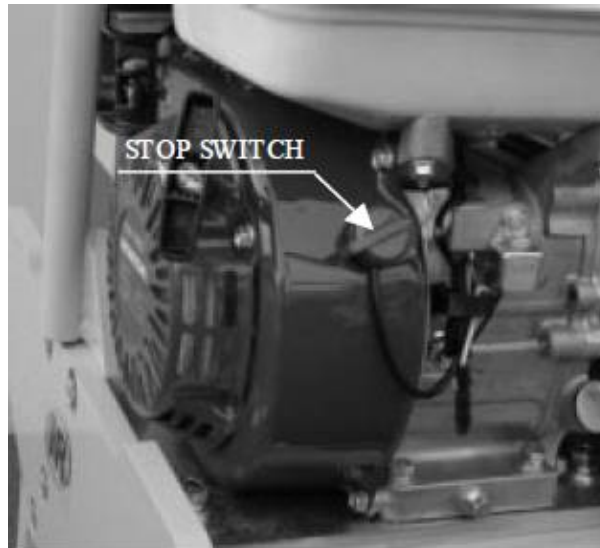


Figure 5-9

4. Close the fuel cock by moving the lever to the horizontal position.
5. Shut off the water spray system.
6. Chock the machine to prevent it from moving.
7. Fill the fuel tank with clean, unleaded, automotive gasoline to prevent condensation in the fuel tank.

GENERAL COMPACTION TIPS

1. It is advised to begin the compaction process as soon as the hot asphalt mat will support the weight and force of the machine without unnecessary material displacement. With the typical asphalt mix, the temperature range at which to begin compacting will be 2600 to 2900 Fahrenheit (1270 to 1430 C). It is only reasonable that unstable, tender mixes will require cooling to a lower temperature than stable, harsh mixes.
2. To prevent marks on the mat, under no circumstances halt the propulsion of the roller while vibrating.
3. Be certain that the drum is clean and that the water sprinkle system is functioning and the drum is wet before proceeding onto the fresh asphalt mat. Mud or other foreign matter on the drum will discolor or contaminate the asphalt, resulting in a poor job.
4. When compacting a new asphalt mat, always maneuver the unit on previously compacted material to avoid scuffing and marking. Compact the full width of the mat before proceeding with successive pass coverage.
5. When compacting a longitudinal joint, place approximately three quarters of the drum width on the hot, uncompacted side and use vibration. This ensures an even, well-connected joint. Never compact a longitudinal joint from the cold side using vibration, as damage to the pavement could result.

SECTION 5 - OPERATING INSTRUCTIONS

6. Continue vibrating coverage passes until the desired density level has been reached. If at any time the drum starts to “bounce”, turn off the vibration and complete compacting in the static mode. Another sign of approaching maximum density is when the drum wipes the asphalt from aggregate on the mat surface, exposing light colored, uncoated surfaces. This indicates that the material is sufficiently dense so that the aggregate cannot be pushed down to the mat.
7. Finish rolling in the static mode to erase any minimal marks or seams which might be observed. Normally, all compaction will have been accomplished before the mat temperature drops below 175° Fahrenheit (79°C). Below this temperature continued vibratory compaction could weaken the bond in the stabilized asphalted concrete material.
8. Never leave the roller standing on the finished surface before it has thoroughly cooled or set. The weight of the unit alone can cause depressions in the mat beneath the drum which will virtually be impossible to remove.

STORAGE

1. Drain the fuel tank and the carburetor.
2. Close the fuel cock.
3. Drain the water tank.
4. Clean the unit of all dirt, grease or other material.
5. Store in a clean, dry location.

TOWING



Never transport the roller unless it is adequately tied down and chocked.



Towing of the unit is to be limited to off the job site, onto the transporter, and off of the transporter into the shop.

In the event of an engine problem or other malfunction, it may become necessary to remove your unit from the job site. A lifting lug has been provided in the unit's center of gravity for ease of lifting the machine on to or off the possibly transporter. It is recommended to lift the unit rather than tow it. However, if circumstances do not permit lifting of the unit, towing may become.

SECTION 5 - OPERATING INSTRUCTIONS

Necessary for a very short distance. Push the towing valve (short circuit valve) and tow the roller. Refer to Figure 5-10.

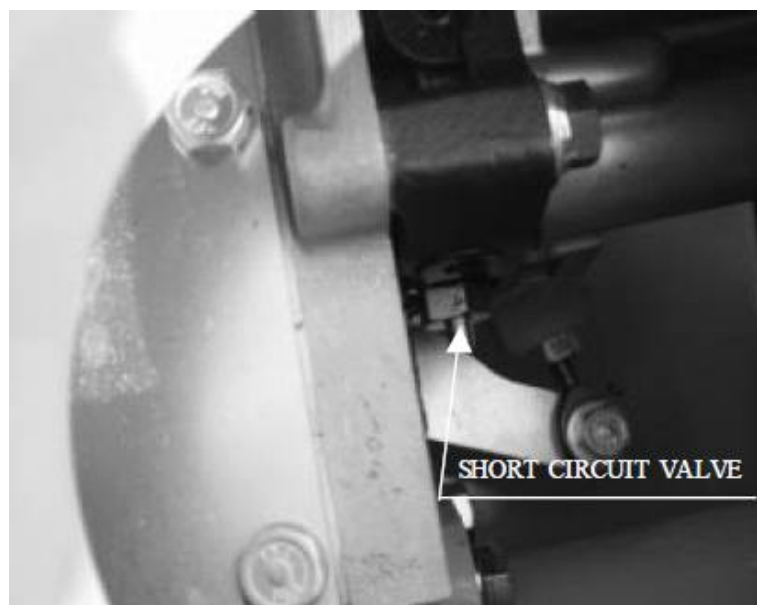


Figure 5-10

SECTION 6 - FUEL AND LUBRICATION SPECIFICATIONS

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RECOMMENDED ENGINE OILS	3
RECOMMENDED HYDRAULIC OIL	3
TEMPERATURE VISCOSITY RECOMMENDATIONS	3

GENERAL INFORMATION

Lubrication is an essential part of preventive maintenance, affecting to a great extent the useful life of the unit. Different lubricants are needed and some components in the unit require more frequent lubrication than others. Therefore, it is important that the instructions regarding types of lubricants and the frequency of the application be explicitly followed. Periodic lubrication of the moving parts reduces to a minimum the possibility of mechanical failures.

The lubrication chart shows those items requiring regular service and the interval in which they should be performed. Details concerning fuel, oil and other lubricants follow the lubrication chart. A regular service program should be geared to the items listed under each interval. On the following pages each item is listed in the sequence in which lubrication and maintenance is to perform. These intervals are based on average operating conditions. In the event of extremely severe, dusty or wet operating conditions, more frequent lubrication than specified may be necessary.

Specific recommendations of brand and grade of lubricants are not made here due to regional availability, operating conditions, and the continual development of improved products. Where questions arise, refer to the requirements and specifications in this manual or the component manufacturer's manual.

All oil levels are to be checked with the machine parked on a level surface, and while the oil is cold, unless otherwise specified.

On plug type checkpoints, the oil levels are to be at the bottom edge of the check port.

All grease fittings are SAE STANDARD unless otherwise indicated. Grease non-sealed fittings until grease is seen extruding from the fitting. One ounce (28 grams) of EP-MPG equals one pump on a standard one pound (0.45 kg) grease gun.

Over lubrication on non-sealed fittings will not harm the fittings or components, but under lubrication will definitely lead to a shorter lifetime.

Unless otherwise indicated, items not equipped with grease fittings, such as linkages, pins, levers, etc. should be lubricated with oil once a week. Motor oil, applied sparingly, will provide the necessary lubrication and help Prevents the formation of rust. An Anti-Seize compound may be used if rust has not formed, otherwise, the component must be cleaned first.

Grease fittings that are worn, or those that have a stuck check ball, must be replaced.

All filters and filter elements for air, fuel, engine oil, and hydraulic fluid must be obtained through MEIWA. Ordering the recommended filters and elements as listed in the Parts Catalog will ensure the proper size and filtration for the machine. Use only genuine MEIWA replacement parts.

To prevent minor irregularities from developing into serious conditions that might involve shutdown and major repairs, several other services or checks are recommended for the same intervals as the periodic lubrication. The purpose of these services or checks, which require only a few minutes, is to ensure the uninterrupted and safe operation of the unit by revealing the need for adjustment caused by normal wear.

Thoroughly wash all fittings, caps, plugs, etc. with nonflammable, non-toxic cleaning solution before servicing, to prevent dirt from entering while performing the service.

Lubricants must be at operating temperature when draining.

Visually check the entire unit in regard to cap screws, nuts and pins being properly secured. Spot check several cap screws and nuts for proper torque. If any are found loose, a more thorough investigation must be made.

SECTION 6 - FUEL AND LUBRICATION SPECIFICATIONS

SERVICE FUNCTIONS:

S - CHECK A - ADD G - GREASE T - TORQUE AR - AS REQUIRED
 C - CHANGE D - DRAIN F - FILL CL - CLEAN FTLH - FILL TO LEVEL HOLE

SERVICE INTERVAL	DESCRIPTION	SERVICE	REMARKS	QUANTITY
10 HRS. OR DAILY	FASTENING HARDWARE ENGINE OIL FUEL TANK AIR CLEANER	S, T S,A S,A S,CL	SEE PAGE 6-3 UNLEADED FUEL	FULL ON DIPSTICK
50 HRS. OR WEEKLY	HYDRAULIC OIL	S	SEE PAGE 6-3	
100 HRS. OR MONTHLY	ENGINE OIL BELTS	C S	SEE PAGE 6-3	0.6 QT. (0.6L)
500 HRS. OR SEMI-ANNUAL	HYDRAULIC OIL OIL FILTER	C C	ISO 46	1.1 QT. (1 L.)
1000 HRS. OR ANNUAL	WATER TANK	CL		1



**Improper Maintenance Can be hazardous.
 Understand maintenance safety prior to working.
 Consult machine manual and MEIWA dealer.**

SECTION 6 - FUEL AND LUBRICATION SPECIFICATIONS

RECOMMENDED ENGINE OILS

The following engine oils meet the requirements of engine oil to be used in this machine:

Shell Oil Company Shell X-100

Mobil Oil Company Mobil Multi Grade

Also Refer to engine manufacturer's manual.

RECOMMENDED HYDRAULIC OILS

The following hydraulic oils meet the requirements of the hydraulic oils to be used in this machine:

Shell Oil Company Shell Tellus Oil #46

Mobil Oil Company Mobil DTE25

TEMPERATURE VISCOSITY RECOMMENDATIONS

Air temperature in degrees F (Degrees C) -- Recommended Oil Viscosity

77 to 120 (25 to 45)	SAE #40
50 to 86 (10 to 30)	SAE #30
32 to 68 (0 to 20)	SAE #20
23 to 59 (-5 to 15)	SAE 20W
14 to 41 (-10 to 5)	SAE 10W
-13 to 14 (-25 to -10)	SAE 5W
14 to -18 (-10 to -30)	SAE 10W-30W

SECTION 7 - INITIAL BREAK-IN MAINTENANCE

Contents	Page
GENERAL	1
ENGINE OIL	1
HYDRAULIC OIL FILTER	1

GENERAL

Any new equipment requires an initial modification of the maintenance schedule to properly break-in the various systems and component units. Perform this one time initial break-in maintenance at the times specified below IN ADDITION TO the 10 hour, 50 hour and 100 hour maintenance tasks, which are described on the following pages. After the initial phase, the regular intervals should be followed.

ENGINE OIL

Change the engine oil after the first 50 hours of operation and thereafter every 100 hours of operation. Use only the type of oil recommended in Section 6 - FUEL AND LUBRICATION SPECIFICATIONS. Refer to SECTION 10 - 100 HOUR OR MONTHLY ROUTINE MAINTENANCE for the proper procedure.

HYDRAULIC OIL FILTER

Change the hydraulic oil filter after the first 24 hours of operation and thereafter every 500 hours or semi-annually. Refer to SECTION 12 - 500 HOUR OR SEMI-ANNUAL ROUTINE MAINTENANCE for the proper procedure.

SECTION 8 - 10 HOUR OR DAILY ROUTINE MAINTENANCE

Contents	Page
FASTENING HARDWARE _____	1
ENGINE OIL _____	1
FUEL TANK _____	2
COOLING FINS, BLOCK AND AIR INTAKE SCREEN _____	3
AIR CLEANER _____	4

FASTENING HARDWARE

Check all fastening hardware to ensure that it is secure and none is missing. Ensure that any hardware being replaced is of the proper type.

ENGINE OIL

Check the engine oil level at the start of each day and maintain level at the full mark on the dipstick. Refer to Figure 8-1.

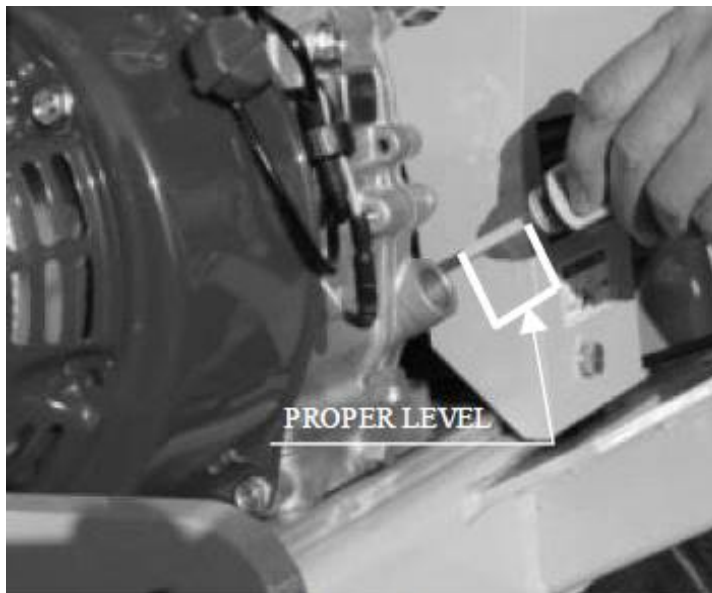


Figure 8-1

If necessary, fill the crankcase with the proper type of oil for the ambient temperature. Normally SAE 30 can be used for year round operation. Additional engine oil specifications can be found in SECTION 6 - FUEL AND LUBRICATION SPECIFICATIONS.

SECTION 8 - 10 HOUR OR DAILY ROUTINE MAINTENANCE

FUEL TANK

The fuel tank is located on top of the engine. Refer to Figure 8-2.



Figure 8-2

⚠ WARNING

Never fill the fuel tank with the engine running, while near an open flame, while the engine is hot smoking, or when smoking. Always wipe up spilled fuel.

Fill the tank at the end of each day to prevent condensation. Use only fresh clean unleaded gasoline.

SECTION 8 - 10 HOUR OR DAILY ROUTINE MAINTENANCE

COOLING FINS, BLOCK AND AIR INTAKE SCREEN

⚠ CAUTION

Never operate the engine blower housing or cooling shrouds removed. These direct air flow past the cooling fins. Removal will result in improper air circulation.

Air is drawn into the cooling shroud by fins provided on the flywheel. The rotating air screen and cooling fins on the block and cylinder head must be kept clean and unobstructed at all times. Refer to Figure 8-3.



Figure 8-3

SECTION 8 - 10 HOUR OR DAILY ROUTINE MAINTENANCE

AIR CLEANER

The air cleaner is a dry type with a replaceable element. The air purifier extends engine life by preventing contaminants from being drawn into the engine. It must be cleaned whenever dirt build up restricts airflow to the engine. Dust passing through the air purifier, even through small holes, will cause rapid engine wear. Ensure that the air purifier is clean and undamaged before operating the engine. Never operate the engine with the air purifier element removed.

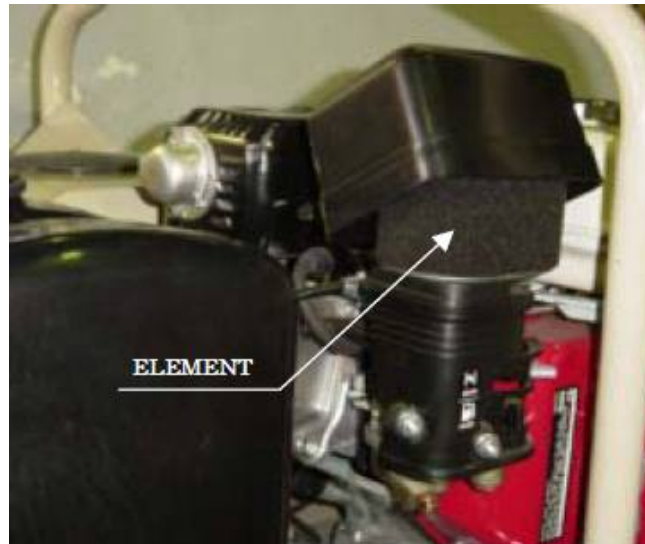


Figure 8-4

SECTION 9 - 50 HOUR OR WEEKLY ROUTINE MAINTENANCE

Contents

Page

HYDRAULIC OIL _____

1

HYDRAULIC OIL

⚠ CAUTION

A clean n contaminant-free system is extremely important to the proper operation of the roller. Take care when working around or on the hydraulic system to ensure its complete cleanliness.

The hydraulic reservoir supplies hydraulic oil to the machine's hydraulic system. For this reason, the hydraulic oil level must be checked weekly. Maintain the hydraulic oil level to the Full mark on the dipstick attached to the fill cap. Refer to Figure 9-1 and to the hydraulic oil specifications in SECTION 6 - FUEL AND LUBRICATION SPECIFICATIONS.



Figure 9-1

SECTION 10 - 100 HOUR OR MONTHLY ROUTINE MAINTENANCE

Contents	Page
ENGINE OIL _____	1
BELTS _____	1

ENGINE OIL

⚠ CAUTION

USE EXTREME CARE WHEN WORKING AROUND A WARM ENGINE TO AVOID BURNS.

The engine oil is to be changed at this interval. Drain the oil by removing the drain plug from the bottom of the engine crankcase.

To ensure the complete removal of any contaminants suspended in the oil, this operation should be performed while the engine is still warm. Refer to Figure 10-1.

After draining the oil, clean and install the drain plug. Refill the crankcase to the full mark on the dipstick. Refer to oil specifications in SECTION 6 - FUEL AND LUBRICATION SPECIFICATIONS.

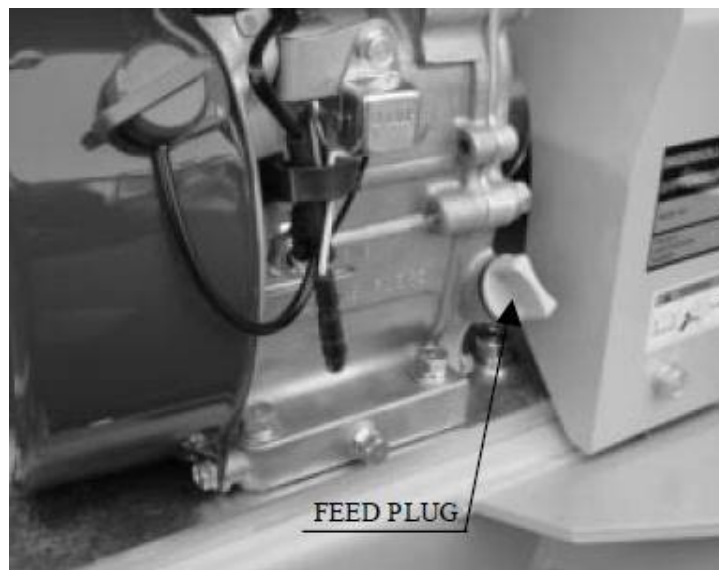


Figure 10-1

BELTS

Check all belts for tightness and damage. Refer to SECTION 14 - ROUTINE ADJUSTMENTS for the belt adjustment procedures.

SECTION 11 - 300 HOUR OR QUARTERLY ROUTINE MAINTENANCE

NOTE:

No maintenance is required at this time interval.

SECTION 12 - 500 HOUR OR SEMI-ANNUAL ROUTINE MAINTENANCE

Contents**HYDRAULIC OIL AND FILTER****Page****1**

HYDRAULIC OIL AND FILTER

⚠ CAUTION

A clean contaminant-free system is extremely important to the proper operation of the roller. Use care when working around or on the hydraulic system to ensure its complete cleanliness.

The hydraulic oil is to be changed at this time interval as well as replacement of the hydraulic oil filter. The hydraulic oil filter is located on the side of the hydraulic oil tank. Refer to Figure 12-1.



Figure 12-1

⚠ WARNING

Hydraulic oil must be at normal operating temperature when draining the system. Caution should be used when working with a warm system. Hot fluids can cause burns.

1. Place suitable container under the hydraulic oil filters and drains the tank by removing the filter. Dispose of the used hydraulic oil in accordance with local guidelines.
2. Ensure that all hydraulic oil is drained from the system.
3. Fill the new filter about half full with fresh, clean hydraulic oil.
4. Lightly coat the filter gasket with hydraulic oil and install the filter on the tank.
5. Fill the tank with fresh, clean hydraulic oil. Refer to hydraulic oil specifications in SECTION 6 of this manual.
6. Wipe up any spilled hydraulic oil and start the engine. Check for any leaks and proper operation.

SECTION 13 - 1000 HOUR OR ANNUAL ROUTINE MAINTENANCE

Contents

WATER TANK

Page

1

WATER TANK

At least once a year, more often if conditions warrant, drain the water tank. To drain, remove the plug from the bottom of the water tank and allow water to drain. Clean the tank.

When the unit is to stand idle in areas affected by freezing temperatures, drain all water from the system. Ensure that all water is removed from the tank, hosing and spray bars. Add permanent type antifreeze.

NOTE:

To prevent damage to the asphalt, before start-up, remove all anti-freeze and flush the system with water. Fill the tank with fresh clean water.

SECTION 14 - ROUTINE ADJUSTMENTS

Contents	Page
DRIVING TIMING BELT	1
VIBRATION TIMING BELT	2
DRIVING V-BELT	3

DRIVING TIMING BELT

1. Loosen the four (4) bolts that secure the bearing case. Refer to Figure 14-1.

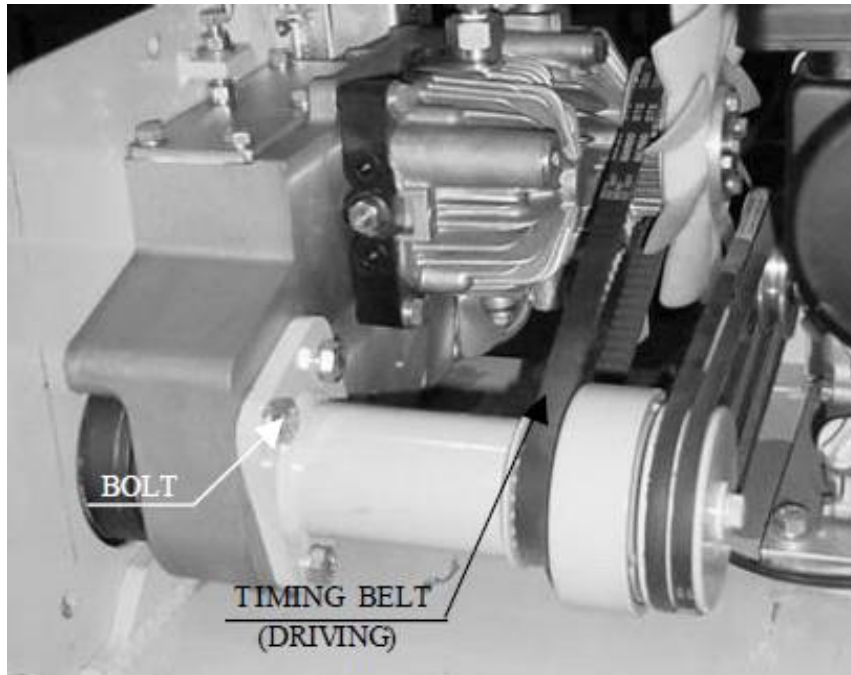


Figure 14-1

2. Adjust the tension on the belt by pressing downward on the center of the belt with about 1 pound of force until a slight deflection is obtained.
3. Tighten the four (4) bolts to secure the bearing case.

SECTION 14 - ROUTINE ADJUSTMENTS

VIBRATION TIMING BELT

1. Loosen the four (4) bolts securing the gear case. Refer to Figure 14-2.

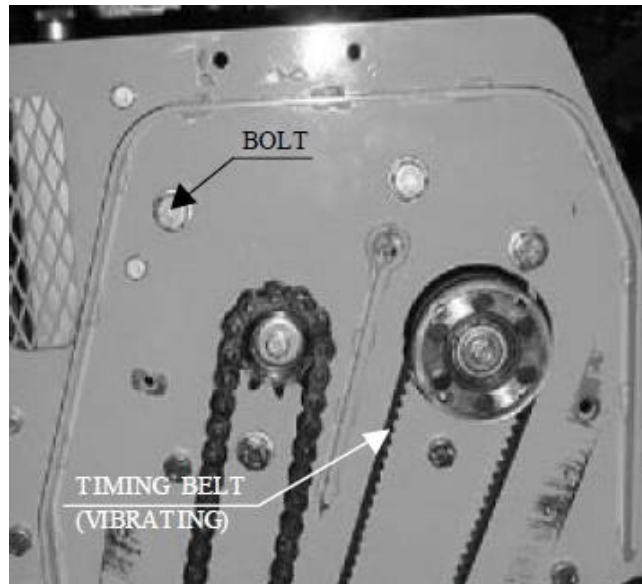


Figure 14-2

2. Move the position of the gear case by turning the bolt on top of the case until the proper belt tension is obtained. Refer to Figure 14-3.

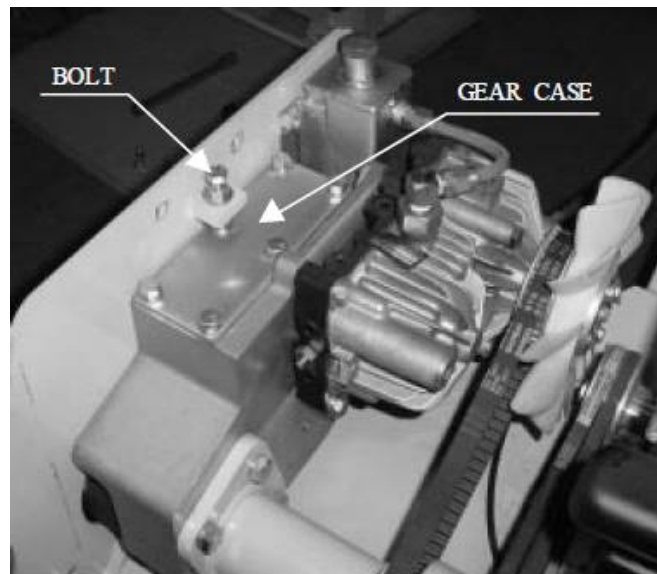


Figure 14-3

SECTION 14 - ROUTINE ADJUSTMENTS

3. Proper belt tension is achieved when a 1 pound force applied to the center of the belt produces a deflection of approximately 1/4 inch.
4. Tighten the four (4) bolts to secure the gear case.

DRIVING V-BELT

1. Loosen the four (4) bolts that secure the engine base. Refer to Figure 14-4.

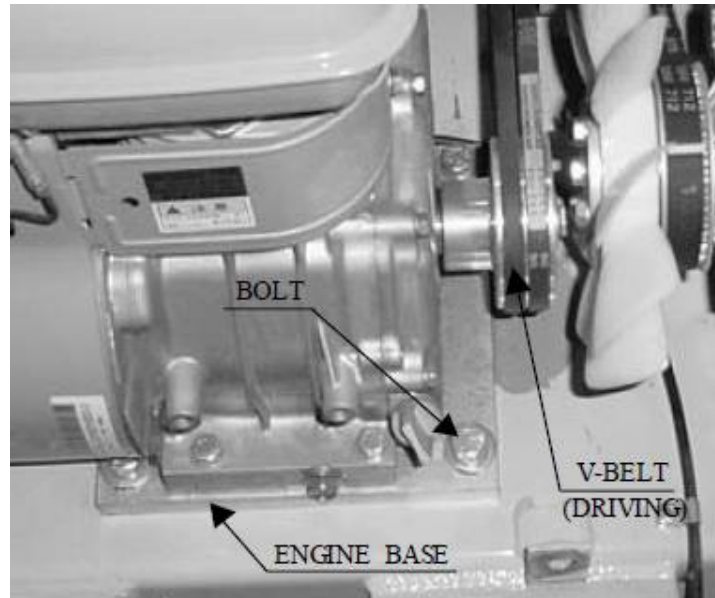


Figure 14-4

2. Move the engine base until the proper belt tension is obtained.
3. Proper belt tension is achieved when a 1-pound force applied to the center of the belt, between the pulleys, produces a slight deflection.
4. Tighten the four (4) bolts to secure the engine base.

SECTION 15 - MISCELLANEOUS AND OPTIONAL EQUIPMENT

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WATER SPRINKLER SYSTEM _____	1
LIFTING ARM _____	1
STORAGE HANDLE _____	1

WATER SPRINKLER SYSTEM

The water sprinkler system consists of a water tank located on the front of the roller and a sprinkler bar with the necessary hose. IT is provided to keep the drum wet while compacting asphalt.



Figure 15-1

LIFTING ARM

The lifting arm is located in the center of the machine and allows for easy and quick loading and unloading of the machine from a truck. Refer to Figure 15-2.



Figure 15-2

STORAGE HANDLE

The handle on the roller can be folded up making it possible to store the roller in a smaller area.

SECTION 16 - SCHEMATICS

NOTE:

No Electrical or Hydraulic Schematics are available for the roller.

SECTION 17 - SPECIFICATIONS

SPECIFICATIONS

MODEL	MR-25H
WEIGHT	551 pounds (250 kg)
VIBRATION FREQUENCY	4460 rpm (74.3 Hz)
CENTRIFUGAL FORCE	1984 pounds (8.8 kN)
TRAVEL SPEED	0 -1.5 mph (0-2.4 km/hr)
OVERALL LENGTH	60.4 inches (1535 mm)
OVERALL HEIGHT	38.8 inches (985 mm)
OVERALL WIDTH	25.6 inches (650 mm)
ENGINE (MAKE & MODEL)	Honda GX160K1 air-cooled, 4 cycles, 9.9 cu. in.
ENGINE HORSEPOWER	5.2 HP (3.8 kW)
ENGINE RPM (UNLOADED)	3800rpm
FUEL TANK CAPACITY	3.81 qt (3.6L)
FUEL	Unleaded Automotive gasoline
STARTING SYSTEM	Recoil starter
WATER CAPACITY	21.2 qt (20L)

