## SIGN-OFF FORM

Meridian Manufacturing Inc. follows the general Safety Standards specified by the American Society of Agricultural Engineers (ASAE), and the Occupational Safety and Health Administration (OSHA). Anyone who will be using or maintaining the bin must read and clearly understand ALL Safety and Maintenance information presented in this manual.

Review this information annually, before the season start-up.
Make these periodic reviews of SAFETY and USAGE a standard practice for all of your equipment.
This form is provided for your record keeping to show that all personnel who will be working with the equipment have read and understand the information in this manual. Copy this page to continue record.

| Date | Employee's Signature | Employer's Signature |
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## Attention Dealers:

You can register products online through the Dealer Login: http://dealers.meridianmfg.com/login/
It is mandatory to register your product in order to qualify for future warranty claims that may arise. Knowingly falsifying information on this form will result in the voiding of the product warranty.

You may scan/photograph this completed form (must be legible), email it to: register@meridianmfg.com
A copy of this form may also be mailed to Meridian Manufacturing Inc.

| Buyer's Name | Dealer's Name |
| :---: | :---: |
| Address | Address |
| City, Prov/State | City, Prov/State |
| Postal/Zip Code | Postal/Zip Code |
| Phone Number | Phone Number |

Note: Registering a product in multiple entry format is only allowed when the product has the same model number and the same dealer, however each serial number must be legibly listed for each unit. Delivery dates for a multiple entry must be within a one month time frame.

Product Information $\qquad$
Model \# $\qquad$ Serial \# $\qquad$
Invoice Date $\qquad$

Important: Please send this form to the Meridian Manufacturing Inc. location which built this product being registered. If you require further assistance call you're dealer or the Meridian outlet nearest to your location.

We want to thank you for purchasing a Meridian manufactured product. Whether this is your first Meridian purchase or you have been a customer for years, you are now part of the Meridian community of customers and we appreciate your business.

It is important that you now complete the product registration information and this form indicating you have received delivery. This registration and information is necessary to ensure you have access to warranty and product updates in the event it be required in the future.

Registration can be completed by using this form or visiting your dealer who will complete the form online. You will be given access to the Meridian Community and become eligible for updates, special offers and prizes.

Again, thank you for choosing Meridian.

I have thoroughly instructed the buyer on the above described equipment. The review included the content of this manual, equipment care, adjustments, safe operation and warranty policy.

Date $\qquad$ Dealer's Signature $\qquad$
The above equipment and this manual have been received by me. I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.
$\qquad$ Buyer's Signature $\qquad$

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## Section 1: INTRODUCTION

Thank you for choosing a Meridian ${ }^{\circledR}$ Fuel Tank.
Codes, Regulations and Guidelines:
Designed and built to meet CAN/ULC-S601-14 standards for strength and durability. Your fuel tank will give years of environmentally safe, trouble free use. To ensure this performance, it is critical that everyone who will be working around or maintaining the tank, read and understand the Safety, Operation and Maintenance information within this manual.

Fuel storage tanks fall under a variety of governmental jurisdictions; therefore the references in this manual are provided only as a general outline. You may be subject to different legislation and governing bodies in your specific location.

## IT IS THE TANK OWNER'S RESPONSIBILITY TO DETERMINE WHAT CODES AND REGULATIONS MUST BE FOLLOWED IN YOUR LOCAL AREA

Meridian Manufacturing Inc. assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from, the use of this manual.

Information provided herein is of a descriptive nature. Meridian Manufacturing Inc. reserve the right to modify the equipment design and specifications without any preliminary notice.

## SERIAL NUMBER

The serial number is located at the rear.
Have the serial number available when communicating with the dealer or factory and requesting service or asking for information.

Tank Model No: $\qquad$
Tank Serial No: $\qquad$
Auxiliary Equip: $\qquad$


Fig 1-Serial number located at the rear of tank

Meridian ${ }^{\circledR}$ Fuel Tanks are designed to meet CAN/ULC-S601-14 standards for strength and durability. They can accommodate a variety of fuel types and features a 100\% containment system that is designed to prevent costly leaks.

## Standard Features:

- CAN/ULC-S601-14 Approved
- 100\% Secondary Containment
- Heavy Gauge Construction
- Two fully welded heavy duty saddles
- Lifting Lugs
- Emergency Vents
- Spare Fittings/Ports
- Ladder and Platform
- Spill Box with Fill Port and Dip Port (Not included with Econo Tank)
- Premium Powder Coat Finish
- Dip Stick and Side Dip Stick Holder


## Note:

Images shown include the optional skid base for measurement purposes.

Letters refer to the measurements in the table on the next page.


Fig 2 - Tank measurements, shown with optional skid
Table 2 - Tank Measurements

| MODEL | ITEM \# | TANK DIAMETER (A) | INTERNAL DIMENSION (ID X LENGTH) | SKID WIDTH <br> (B) | TANK LENGTH <br> (C) | LENGTH BETWEEN SADDLES <br> (D) | LENGTH w/EXT-SKID (E) | TANK OVERALL HEIGHT (F) | PUMP OVERALL HEIGHT <br> (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MDW-10000 | 64100 | 64" | 63" ID x 209" | 4'9" | 17' 5" | 14' 11" | 23' 9" | 5' 8" | $7{ }^{\prime \prime}$ |
| MDWE-15000 | 64088 | 90 " | $89^{\prime \prime}$ ID x 147" | 5' 4" | 12' 4" | N/A | N/A | 8 | 9'7" |
| MDWE-25000 | 64089 | 90 " | 89"ID $\times 247^{\prime \prime}$ | 5' 4" | 20' 7 " | N/A | N/A | 8 | 9'7" |
| MDWE-35000 | 64090 | 90" | 89"ID $\times 349^{\prime \prime}$ | 5' 4" | 29'1" | N/A | N/A | 8 ' | 9'7" |
| MDW-15000 | 64003 | 90" | $89^{\prime \prime}$ ID $\times 147^{\prime \prime}$ | 6 6' ${ }^{\prime}$ | 12' 4" | 8'7" | 19'7" | 7'9" | 9'1" |
| MDW-25000 | 64010 | 90 " | 89"ID $\times 247$ " | 6' ${ }^{\prime \prime}$ | 20' 8" | 16' 11 " | 27' 11" | 7'9" | 9'1" |
| MDW-35000 | 64035 | 90" | 89" ID x 349" | $6{ }^{\prime}{ }^{\prime \prime}$ | 29' 2" | 25' 5" | 36 '1" | 7'9" | 9'1" |
| MDW-50000 | 64050 | 120" | $118^{\prime \prime}$ ID $\times 279$ " | $7{ }^{\prime \prime}$ | 23' 4" | 18' 4" | 31' 6" | 10' 3" | 11' ${ }^{\prime \prime}$ |
| MDW-65000 | 61413 | 120" | $118^{\prime \prime}$ ID $\times 363$ " | $7{ }^{\prime \prime}$ | 30' 4" | 25' 4" | 38' ${ }^{\prime \prime}$ | $10^{\prime} 3^{\prime \prime}$ | 11' 7 " |
| MDW-75000 | 64076 | 120 " | $118^{\prime \prime}$ ID $\times 423^{\prime \prime}$ | 7' ${ }^{\prime \prime}$ | 35' 4" | $30^{\prime} 4^{\prime \prime}$ | $43^{\prime} 6^{\prime \prime}$ | $10^{\prime} 3^{\prime \prime}$ | 11' ${ }^{\prime \prime}$ |
| MDW-100000 | 64105 | $10^{\prime} 7 \prime$ | $125^{\prime \prime}$ ID $\times 495$ " | 8' ${ }^{\prime \prime}$ | 41' 4" | 36 ' ${ }^{\prime \prime}$ | $49^{\prime} 6^{\prime \prime}$ | $10^{\prime} 8$ " | 12 ' |
| d bed is $1^{\prime} 1 / 4$ " thick • Rear Ladder is 24 " wide • Rear Staircase is 29 " wide |  |  |  |  |  |  |  |  |  |

## Section 2: SAFETY

The Safety Alert Symbol means:

## ATTENTION!

BECOME ALERT!
3 Big Reasons why safety is important to you:

- Accidents Disable and Kill
- Accidents Cost
- Accidents Can Be Avoided

YOUR SAFETY IS INVOLVED!

The following signal words are used in this manual to express the degree of hazard for areas of personal safety.

When you see the symbol and/or the signal words described below, obey the accompanying message to avoid possible injury or death.

Indicates a hazardous situation that, if not avoided, will result

## $!$ DANGER

 in death or serious injury. This signal word is limited to the most extreme situations. Typically for machine components which, for functional purposes, cannot be guarded.Indicates a hazardous situation, if not avoided, could result in

## A WARNING

 death or serious injury. This word identifies hazards that are exposed when guards are removed. It may be used to alert against unsafe practices.Indicates a hazardous situation, if not avoided, could result in minor or moderate injury. It may be used to alert against unsafe practices.

## NOTICE

## SAFETY INSTRUCTIONS

Indicates practices or situations which may result in the malfunction of, or damage to equipment.

Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

### 2.1 SAFETY ORIENTATION

YOU are responsible for the SAFE usage and maintenance of your Meridian® Fuel Tank. Be sure that everyone who will maintain or work around it, is familiar with the safety, maintenance procedures.

This manual will take you step-by-step through your working day. It will alert you to all the safe practices that should be adhered to while using the tank.

Remember, you are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a regular part of your safety program. Be certain that everyone who will work with this equipment follows these procedures.

Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Fuel tank owners must give instructions to employees before allowing them to use the tank.
- Procedures must be reviewed annually thereafter, as per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- Think SAFETY! Work SAFELY!


### 2.2 GENERAL SAFETY

- Read and understand the owner's manual and all safety decals before using or maintaining the fuel tank.
- The Fuel Tank has been designed for the specific purpose of storing diesel fuel. DO NOT modify or use this tank for any application other than which it was designed.
- Only trained, competent persons shall use the tank. An untrained person is not qualified to use it and operate its auxiliary equipment.
- Have a first-aid kit available for use should the need arise.
- Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.

- This tank is not intended for use by children.
- Wear personal protective equipment (PPE). This list may include but is not limited to:
- Eye protection
- Work gloves
- Respirator or filter mask
- Hi-Visibility safety vest

- Stay away from power lines. Electrocution can occur without direct contact.

- Never use alcoholic beverages or drugs which can hinder alertness or coordination while using the tank.
- Consult your doctor about operating machine while taking prescription medications.


### 2.3 EQUIPMENT SAFETY GUIDELINES

- Safety of the workers and bystanders is one of the main concerns when designing and developing this fuel tank. However, every year many accidents occur which could have been avoided by a few seconds of thought, and a more careful approach to handling equipment.
- In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with safety guards removed.
- Equipment should never be used in this condition. All guards must
 be in place. If removal becomes necessary for repairs, replace the guard prior to use.
- This equipment is dangerous to children and persons unfamiliar with its operation.
- NEVER lift or attempt to transport the tank when it contains fluid.
- Use care when climbing the ladder or working on the platform to prevent injury from falling.
- Keep the ladder and platform clean and free of debris.
- Do not modify the equipment in any way. Unauthorized modification result in serious injury or death and may impair the function and life of the equipment.


### 2.4 SAFETY DECALS

- Keep safety decals clean/legible at all times.
- Replace safety decals that are missing or have become illegible.
- All safety decals have a part number in the lower right hand corner. Use this part number when ordering replacements.
- Safety decals are available from your authorized distributor, dealer's parts department or from the factory.


### 2.4.1 Applying Decals:

1. Be sure the application area is clean and dry. Ensure the surrounding temperature is above $10^{\circ} \mathrm{C}\left(50^{\circ} \mathrm{F}\right)$.
a. Remove all dirt, grease, wax from surface.
b. Clean with a non-ammonia based cleaner.
c. Wipe the clean surface with isopropyl alcohol on paper towel, and allow to dry.
2. Determine the exact position before you remove the backing paper.
3. Peel a small portion of the split backing paper.
4. Align the decal over the specified area. Use a squeegee to carefully press the small portion, with the exposed adhesive backing, into place.
5. Slowly peel back the remaining paper and carefully smooth the rest of the decal into place.
6. Small air pockets can be pierced with a pin and smoothed out using the squeegee, or a piece of sign backing paper.

7. ULC Plate (part \#20027) Located on rear of tank
8. Serial Number Decal Located below ULC Plate

| EMERCENCY VENTS SWMLL BE INSTALLE PMIOR TO USE. DO NOT PLUG OR USE FOR aLtLenativi pipime. |
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3. Emergency Venting Decal (part \#20105) Located below emergency vents

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4. Containment Inspection Warning Decal (part \#20045) Located below containment inspection port

5. Lifting Lug Warning Decal (part \#19037) Located below lifting lug

6. Vent Warning Decal (part \#20026) Located below 3" port

DO NOT FLL THIS TANK WHEN
DISPENSING IS IN OPERATION
7. Fill Warning Decal (part \#20022) Located below vented fill cap

8. Danger Safety Decal (part \#20048) Located on both ends of tank
9. Consult Authority Decal (part \#20046)


Fig 4 - Fuel tank decal location

### 2.6 ENVIRONMENTAL REGULATIONS

- The fuel tank installer shall ensure that all environmental requirements are taken and implemented in accordance with the local authority having jurisdiction.
- This tank must be installed by a qualified tank installer who shall consult with the proper authorities with jurisdiction to ensure all requirements of CAN/ULC-S601-14 and all Federal, Provincial and Local codes are being met prior to installation. Failure to do so, could void your warranty.
- Protect Fuel Tank Against Vehicle Traffic:

The installer is to ensure that the fuel tank is adequately protected against damage from vehicular traffic in compliance with all Federal, Provincial and Local Codes.

- Regular Inspection and Maintenance:

The fuel tank is to be inspected annually and any repairs to the exterior coating shall be made at the time of inspection in accordance with the coating manufacturer's instructions.

### 2.7 FUEL TANK SAFETY

- Do not lift or transport the tank when it contains fluid.
- Install the tank away from buildings, property lines, public paths or high traffic areas.
- Protect the tank against damage from vehicular traffic in compliance with all Federal, Provincial and Local Codes.
- Install the tank on a well prepared, level base designed to hold the tank full of liquid.


### 2.8 FUEL TRANSFER SAFETY

- Procedures must be in place when transferring fuel from a delivery vehicle to the tank. Although some transfer procedures are unique to those facilities, the following general safety procedures must always be followed:
- DO NOT smoke when operating or refueling the fuel tank.
- Keep sparks, flames \& hot material away from the fuel tank.
- Turn vehicle ignition off and remove key from ignition before refueling.
- Keep vehicles at least 1.5 m (5') away from the fuel tank at all times.
- Never leave the tank unattended while refueling is in process.
- DO NOT overfill. 95\% capacity is the maximum legal limit.
- Always turn pump off when finished fueling operations.
- Always store pump nozzle in drip pot when not in operation.
- ALWAYS determine how much fuel your tank can safely hold. Over-filling the tank will cause spills.
- Check the fuel level by dip checking the tank prior to any fuel transfer.
- Determine a Safe Gauge Height (SGH) this is how much fuel a tank can hold allowing for expansion due to temperature variations.
- $90 \%$ full in the summer months
- $95 \%$ full in the winter months
- ALWAYS start the fuel transfer at a reduced rate. This reduces the potential for the build up of static electricity.
- ALWAYS maintain good communication with the driver of the delivery vehicle. Poor communication between the tank operator and the delivery driver often leads to spills and accidents.


## Section 3: SITE AND INSTALLATION

## A WARNING <br> - Read and understand the Operator's Manual, and all safety decals, before using. <br> - Never lift or attempt to transport tanks containing fluid. <br> - Inspected the fuel tank annually. <br> - Ensure that all environmental requirements are taken and implemented in accordance with the local authority having jurisdiction. <br> - Ensure that the fuel tank is adequately protected against damage from vehicular traffic in compliance with all Federal, Provincial and Local Codes.

This document only covers general installation instructions. Consult the correct authority having jurisdiction in your area prior to tank installation.

## IMPORTANT:

This tank must be installed by a qualified tank installer who shall consult with the proper authorities with jurisdiction to ensure all requirements of CAN/ULC-S601-14 and all Federal, Provincial and Local codes are being met prior to installation. Failure to do so, could void your warranty.

Note:
All timber/crates used in shipping must be completely removed from the tank prior to installation.

## Choosing a Location:

The tank shall be placed at a safe distance from buildings, other tanks, roadways, waterways, property lines and all public paths. Refer to local authorities for applicable codes.


Fig 5 - Tank location


### 3.1 TANK FOUNDATION

The foundation specifications will depend on your local soil conditions.

Meridian Manufacturing Inc. will not assume any liability for results arising from a poorly prepared foundation.

Meridian strongly advises you to consult a civil engineer regarding the site you choose. A professional engineer will check the soil conditions and soil load bearing capacity. They can use the tank's empty and full weights to advise on preparing the proper base.

The site should be in a well-drained location with all silt, organic, and loose soil removed. Topsoil should be excavated, and a gravel foundation be laid.

The gravel foundation should be FIRMLY PACKED, uniform, level and extend beyond the perimeter of the tank. It should not vary by more than $1 / 4$ " over a span of four feet. It must be capable of carrying $100 \%$ of the weight of the full tank.

The tank skid, saddle or cradle shall be the only part of the tank in contact with the foundation or base.

### 3.2 TANK INSTALLATION

## Lifting and Transporting Fuel Tanks:

Only the lifting lug weldments on the tank shall be used for unloading or transporting the empty fuel tank. DO NOT lift or transport tanks containing fluid at any time.

## Inspecting Fuel Tanks:

The tank installer shall ensure that all fittings, have not loosened during transportation. They must be sealed and tight.

Check all painted areas of the tank for damage due to shipping and also at final installation. All scratched or scuffed areas must be touched up with paint prior to use. If the damages are deemed to affect the integrity of the tank, contact your distributor or dealer prior to putting any product in the tank.

## Tank Venting:

The emergency vents are installed by Meridian. The normal vent is to be field-installed by a qualified tank installer prior to use of the tank to prevent pressure or vacuum inside the tank during filling, emptying, or atmospheric temperature changes that may occur.

## Containment Inspection:

The containment tank should be checked on a regular basis, to confirm that neither precipitation nor product has accumulated therein. The disposal of any liquid found in the containment shall be disposed of in accordance with the requirements of the authority having jurisdiction.

## Overfill Protection:

The tank installer must ensure that an approved OVERFILL PROTECTION DEVICE is installed in the tank prior to the tank being filled with any fuel.

## Fuel Level Inspection Port:

This port is located in the 25" Spill Box on top of the tank. The 2" lockable port allows the tank to be probed with the dip stick located on the side of the tank in order that the remaining level of fuel is established (refer to the tank depth chart in the owner's manual) before the refueling of the tank begins.

## Spill Box Connection:

Ensure the hose is properly secured to the 3" connection inside the Spill Box before refueling begins. Never leave while refueling the tank. After the refueling process is completed, drain the hose before disconnecting to eliminate any spilling of fluid. Attach the fill cap and close the Spill Box lid.

## Bottom Fill System (Optional):

The 3" bottom fill system has a one way valve installed at the factory to prevent fuel from flowing back down the fill line. Ensure the one-way valve has not been tampered with and is installed correctly (arrow pointing up). Secure the fill hose to the three inch bottom fill connection and then open the ball valve on the bottom fill before beginning the refueling process. Never leave while the refueling of the tank is in process. After refueling is complete drain the hose to eliminate any chance of spilled fuel. Close the ball valve, remove the hose and replace the fill cap on the bottom fill.

## Inspecting Fuel Tank Containment System:

The containment should be checked on a regular basis, to confirm that neither product nor water has accumulated therein. Take immediate remedial action if product or water is found. The disposal of any liquid found in the containment shall be disposed of in accordance with the requirements of the authority having jurisdiction.

## Environmental Regulations:

The fuel tank installer shall ensure that all environmental requirements are taken and implemented in accordance with the local authority having jurisdiction.

## Protect Fuel Tank Against Vehicle Traffic:

The installer is to ensure that the fuel tank is adequately protected against damage from vehicular traffic in compliance with all Federal, Provincial and Local Codes.

## NOTICE

CORROSION HAZARD
Microbial corrosion can be caused by water \& debris getting into the tank.

## Regular Inspection and Maintenance:

The fuel tank must be inspected regularly. All repairs to the exterior coating shall be made at the time of inspection in accordance with the coating manufacturer's instructions.

Refer to the Petroleum Equipment Institute (PEI) website or Steel Tank Institute for more information on removing water and debris, and preventing corrosion inside the tank.

## Section 4: OPERATION



Hazard controls and accident prevention are dependent upon the personnel operating and maintaining the equipment. Their awareness, concern, prudence and proper training are crucial.

It is the responsibility of the owner and operators to read this manual and to train all personnel before they start working with this tank. By following recommended procedure, a safe working environment is provided for the operator, co-workers and bystanders in the area around the work site.

### 4.1 TANK COMPONENTS

Port and vent sizes may vary. Component positions may change, depending on tank size and included options.


### 4.2 COMPONENTS AND CONTROLS

Before working with this tank, all operators must familiarize themselves with the location and function of the components and controls.

Locations of components and options may vary.

## Liquid Level Gauge:

This gauge give a general reading of the amount of fuel in the tank.

## IMPORTANT:

Do not depend on Level Gauge when filling the tank. Use dipstick and dip chart.

Always dip and measure level before and after filling the tank.

## Spill Box:

Inside the 25" Spill Box is the 3" Fill port, covered by a male cam lock, and 2" Dip port.
Note: If tank is equipped with a Rear-Mount Bottom Fill isystem, there will be no Cam Lock in the Spill Box.

## 2" Containment Tank Inspection Port:

The Inspection Port is on the end of the tank beside the Spill Box. See Figure 9.

- An optional Leak Detection Gauge can be added to the port.


## Emergency Vents:

- The primary emergency vent is located at the centre of the tank. See Figure 10.
- A secondary containment vent is positioned along on the side, at the rear of the tank.


Fig 8 - Liquid level gauge


Fig 9 - Containment Inspection Port w/ Leak Detection Gauge


Fig 10 - Primary emergency vent


Fig 11-Secondary containment emergency vent

## NOTICE

LIFTING HAZARD Never lift tank with fuel inside.

## Lifting Lugs:

There are two Lifting Lugs on the tank.

## Various Sized Ports:

Depending on the size of tank, there are 2", 3 ", 4 " and 6 " ports along the top, to accommodate the optional equipment.

## Dip Stick:

A dip stick is provided, and is stored along the side of the tank. See Figure 12.

## Ladder and Platform:

A ladder and platform are attached to the rear of the tank, for access to the Fill and Dip Ports.

## Econo Style Tank (Optional):

This style tank includes a fully integrated skid base which is the full length of the tank.

## Standard or Extended Skids (Optional):

The tank can be placed on a skid base.

- The Standard Skid is the length of the tank.
- The Extended Skid includes a platform at the front and rear of the tank.


## Explosion Proof On/Off Switch \& Light:

The indicator light illuminates when the pump is ON, as a reminder to turn it OFF when refueling is complete.


Fig 12 - Dip stick holder and ladder


Fig 13 - Econo style tank


Fig 14 - Tank with extended skid


Fig 15 - Fill-Rite and On/Off Switches

## Fill-Rite 901 Meter:

This meter indicates the number of litres used at the time of re-fueling, and also a continuous read-out of the total litres used. See Figure 15

## Bottom Fill System (Optional):

The bottom fill system can be installed at the front and/or rear of the tank. The system is available with:

- MECO audible overfill alarm
- Automatic shutoff valve

The end of the bottom fill tube contains a male cam lock and a ball valve. Located just above the elbow, is the one-way valve, which will prevent fuel from siphoning back.


Fig 16 - MECO Overfill Alarm is connected to the fill tube


Fig 17 - Bottom fill tube with cam lock


Fig 18 - Pump and Delivery system

### 4.3 INSTRUCTIONS FOR FUEL DELIVERY PERSONNEL

## IMPORTANT:

All 15,000-100,000 Litre tanks sold in Manitoba and Ontario must have an Overfill Shutoff Valve installed (Part \#70021) prior to be put in service and filled with fuel.

1. The fuel delivery personnel shall ensure that all applicable Federal, Provincial and Local Codes are met during the filling of the tank.
2. The fuel delivery personnel shall be familiar with, and trained on, proper above ground tank filling procedures.
3. The fuel delivery personnel responsible for transferring product to an above ground tank shall take all reasonable steps to prevent spillage.
4. The fuel delivery personnel shall remain in constant view of the transfer nozzle and fill pipe and shall be in constant attendance at the discharge control valve when the tank is being filled.

### 4.4 TOP FILL FUEL TRANSFER

## A WARNING <br> DO NOT dispense fuel when transfer is in process

1. Have a pre-transfer meeting with the delivery vehicle operator, to determine the correct product is being transferred into the correct tank.
2. Inspect the tank and transfer hose:

- Check that the vents are unobstructed.
- Check the transfer hose for leaks, cracks or damage. If leaks are present or later appear, stop transfer, repair as necessary.

3. Lift the Spill Box Cover to expose the 3" male Cam Lock Fill Port and 2" Dip Port.
4. Clean the area before refueling begins.
5. Check the fuel level, through the dip port, to determine the quantity needed.
6. Remove the cotter pins from each side of the 3" Cam Lock that secures the Fill Cap.

- Lower the retraining latches and pull off the Fill Cap.

7. Attach the transfer hose around the 3 " male Cam Lock and hand tighten the connection.

## Note:

If the delivery vehicle does not have a matching 3" female Cam Lock, then fill with a nozzle through the 3 " fill port.
8. Start delivery vehicle pump and slowly begin fuel transfer.

- Use the Dip Port to monitor and measure the filling process.
- Only increase the flow of the product when you are sure there are no problems.

9. DO NOT WALK AWAY DURING TRANSFER.

- Continuously monitor the transfer of fuel.
- At all times, keep open communication between delivery vehicle and tank operator.
- DO NOT OVERFILL.


## Guidelines:

In summer, fill tank no more than $90 \%$ full. In winter, fill tank no more than $95 \%$ full.
10. Reduce fuel transfer rates when nearing the top of the tank to avoid overfilling the tanks.

- Notify the delivery vehicle operator when the transfer procedure is almost complete.

11. Turn off the delivery vehicle delivery pump.
12. Remove delivery hose.

- Secure the hose back on the delivery vehicle.

13. Dip tank and record amount of fuel delivered.
14. Close the fill lid and the Dip Port lid.

- Lock the 3" Cam Lock.
- Secure with the cotter pins.

15. Close and secure the Spill Box cover.


Fig 19 - Inside the Spill Box on standard tank

### 4.5 BOTTOM FILL FUEL TRANSFER (if equipped)

## A WARNING <br> DO NOT dispense fuel when transfer is in process

There are three options for bottom fill systems:

- Front-side mount
- Rear mount
- Dual bottom fill (multiple compartment tanks)

Fuel is pumped, under pressure from the delivery vehicle, using the 3 " Cam Lock located at the base of the tank, in through the top.

1. Have a pre-transfer meeting with the delivery vehicle operator, to determine the correct product will be transferred into the correct tank.
2. Inspect the tank and transfer hose:

- Check that the vents are unobstructed.
- Check the transfer hose for leaks, cracks or damage. If leaks are present or later appear, stop transfer, repair as necessary.

3. Check fuel level to determine the quantity needed.

- Use the 2" Dip Port inside the Spill Box.

4. If the tank is equipped with a MECO Audible Overflow Alarm:

- Before fuel transfer, push the test switch to ensure the audible alarm is functioning correctly.
- MECO alarms use a 9V Lithium Battery and should be tested before each fuel transfer.
- Batteries should be replaced annually as preventative maintenance.

5. Close the fill ball valve to the "OFF" position.
6. Wipe the area around the 3 " Cam Lock to prevent fuel contamination.
7. Remove the cotter pins from each side of the 3" Cam Lock that secures the Fill Cap.

- Rotate the retraining latches and pull off the Fill Cap.

8. Attach the transfer hose around the 3" male Cam Lock and hand tighten the connection.
9. Open the fill ball valve to the "ON" position.
10. Start delivery vehicle pump and slowly begin fuel transfer.

- Use the Dip Port to monitor and measure the filling process.
- Only increase the flow of the product when you are sure there are no problems.

11. DO NOT WALK AWAY DURING TRANSFER.

- Continuously monitor the transfer of fuel.
- At all times, keep open communication between delivery vehicle and tank operator.
- DO NOT OVERFILL.


## Guidelines:

In summer, fill tank no more than $90 \%$ full. In winter, fill tank no more than $95 \%$ full.
12. Reduce fuel transfer rates when nearing the top of the tank to avoid overfilling the tanks.

- Notify the delivery vehicle operator when the transfer procedure is almost complete.

13. Turn off the delivery vehicle delivery pump.
14. Close the fill ball valve to the "OFF" position.
15. Remove the delivery hose and return it to the delivery vehicle.
16. Dip tank and record amount of fuel delivered.
17. Close the fill lid. Lock the 3" Cam Lock and secure with the cotter pins.
18. Close the Dip Port lid and secure the cover.

### 4.6 MEASURING FUEL LEVEL

## 1. DANGER

Never smoke around the fuel tank or expose the tank to direct flame.

## Note:

For more accurate results wait 30-60 minutes after refueling then dip check the tank. This allows fuel to settle and will give more accurate readings.

1. Remove the dip stick from its storage location at the side of the tank.

- Wipe off the stick to remove dust and debris, so the tank will not be contaminated.

2. Lift the Spill Box cover.

- Open the 2" Dip Port lid.

3. Insert the dip stick into the tank until it reaches the bottom.

## Note:

Ensure the dip stick is inserted with the lowest number on the dip stick placed toward the bottom of the tank.
4. Take note of the amount of fuel, in centimeters (cm), that is showing on the stick.
5. Close the Dip Port lid.

- Secure with cotter pin.


Fig 20 - Dip stick location


Fig 21 - Dip stick


Fig 22 - Inside Spill Box is the Dip Port
6. Close and secure Spill Box cover.
7. Compare the number of centimeters on the dip stick with the Fuel Tank Dip Chart, in this manual, to determine the amount of fuel in the tank. Refer to the charts in Section 7.

### 4.7 PUMP OPERATION

## $\triangle$ WARNING

Always keep the nozzle in contact with the container being filled during the filling process to minimize the possibility of static electricity build up.

There are various options available for the fuel pump and delivery system. Consult the pump manual. It will give specific installation, operation and maintenance information.

### 4.7.1 Dispensing Fuel (General):

1. Reset Meter to "0" (if applicable).

- Do not reset meter while dispensing fuel.

2. Remove dispensing nozzle from the boot or drip pot.
3. Inside the control box, switch the lever to the "ON" position to power the pump.
4. Insert nozzle into the container to be filled.
5. Operate the nozzle to dispense fluid.

- Release nozzle when the desired amount of fluid has been dispensed.

6. Move the lever to the "OFF" position.
7. Remove the dispensing nozzle from the container and store it in the boot or drip pot.

### 4.7.2 Locking the Pump:

Optional drip pots and chains are available. The chain can be wrapped around the handle and secured with a padlock.

- With the pump turned off, and the nozzle in the stored position, a pad lock can be inserted through the locking link and the nozzle handle opening.


Fig 24 - Pump filter and meter


Fig 25 - Nozzle boot


## Section 5: SERVICE AND MAINTENANCE

## A WARNING

- Review the Operator's Manual and all safety decals before maintaining the tank.
- Enure all power to the pump is turned off prior to performing any service or maintenance.
- DO NOT smoke when inspecting the tank.
- Keep sparks, flames \& hot material away from the fuel tank.
- Installed venting must meet industry standards.


### 5.1 TANK INSPECTION

## NOTICE

CORROSION HAZARD
Microbial corrosion can be caused by water \& debris getting into the tank.

Refer to the Petroleum Equipment Institute (PEI), or Steel Tank Institute websites for information on removing water and debris, and preventing corrosion inside the tank.

### 5.1.1 Daily:

- Check the tank for leaks.
- Inspect the emergency vent(s), including the seal area, for dust, debris, snow, or ice. Remove any obstruction.
- If the tank is equipped with a MECO Audible Overflow Alarm:
- Push the test switch to ensure the audible alarm is functioning correctly.
- Inspect all vent components for damage, corrosion, or excessive wear.
- If any wear is found, replace the vent.
- Repair any wear or damage to the exterior coating at the time of inspection.


### 5.7.1 Annually:

- Check the secondary containment and internal tank for leakage.
- Check pump and meter for proper operation.
- Check the calibration of the meter, if equipped.
- If the tank is equipped with a MECO Audible Overflow Alarm:
- Replace the 9V Lithium Battery.
- Make sure the anchor bolts are securely attached to the concrete pad.
- Thoroughly clean the tank and pump.


### 5.2 FUEL METER MAINTENANCE

### 5.2.1 Calibration:

For accurate measurement and to prevent meter damage, the meter and piping must always be filled with liquid and be free of air.

Typically, fuel meters can be calibrated for either Litres or U.S. gallons. Calibration is normally required before installation, after disassembly, after wear due to normal operation, or when changing from gallons to liters.

1. If equipped, verify whether the meter installed on the tank is factory calibrated for Litres or U.S. gallons.
2. Select a container of known volume; a five gallon container or larger should be used.
3. Fill a container to the known volume.
4. Check the reading on the meter.

- If the meter is incorrect, adjust the calibration screw to obtain either more or less diesel fuel.
- Follow the OEM instructions for the specific meter being used.

5. Repeat Steps 3 and 4 until the calibration is correct.

### 5.2.2 Maintenance:

The fuel meter should operate maintenance free. However, certain liquids can dry out while in the meter housing, causing the meter to stop functioning. If this occurs, the meter should be thoroughly cleaned, as per instructions below.

1. Remove the meter from the pump.
2. Pour a flushing fluid into the meter and allow it to penetrate the internal components.
3. If possible, pump the flushing fluid through the meter.
4. If the flushing procedure does not fix the problem, the meter should be repaired by an authorized dealer or replaced.

- Disassembly of the meter is not recommended.

5. Calibrate the meter following the calibration instructions in this section.

### 5.2.3 Storage:

If the meter is to be stored for an extended period of time, clean it thoroughly to help protect the meter from internal damage.

## Section 6: TROUBLESHOOTING

In this section, is a list of common problems, causes and solutions which may be encounter.
If problems are confronted which are difficult to solve, even after having read through this section, please contact your authorized dealer, distributor or the Meridian Manufacturing Inc. Before you call, please have this Operator's Manual and the unit's serial number ready.

| Problem | Possible Cause | Possible Solution |
| :--- | :--- | :--- |
| Pump Won't Prime | Suction line problem | Check for leaks in suction line |
|  | Bypass valve open | Remove and inspect valve. Must move freely and <br> be free of debris |
|  | Vanes sticking | Check vanes and slots for nicks, burrs and wear |
|  | Outlet blocked | Inspect rotor \& vanes for excessive wear or <br> damage. Replace if necessary |
|  | Vapor Lock | Check pump outlet, hose, nozzle \& filter for <br> blockage |
| Low Capacity | Excessive dirt in screen | Reduce vertical and horizontal distance from <br> pump to liquid. |
|  | Suction line problem | Remove automatic nozzle |
|  | Bypass valve sticking | Check suction line for leaks or restrictions; it may <br> be too small, too long or not airtight |
|  | Remove and inspect valve; must move freely \& be <br> free of debris |  |
|  | Vanes sticking | Check vanes and slots for wear |
|  | Excessive rotor or vane <br> wear | Inspect rotor \& vanes for excessive wear or <br> damage. Replace if necessary |
| Low Capacity | Hose or nozzle damage | Replace hose or nozzle |
|  | Plugged filter | Replace filter |
|  | Fill tank |  |


| Problem | Possible Cause | Possible Solution |
| :---: | :---: | :---: |
| Pump runs slowly | Incorrect voltage | Check incoming line voltage while pump is running |
|  | Vanes sticking | Inspect vanes and slots for nicks, burrs and wear |
|  | Wiring problem | Check for loose connections |
|  | Motor problem | Return to place of purchase |
| Motor stalls | Bypass valve sticking | Remove and inspect valve. Must move freely and be free of debris |
|  | Low voltage | Check incoming line voltage while pump is running |
|  | Excessive rotor or vane wear | Check rotor \& vanes for excessive wear or damage |
|  | Debris in pump cavity | Clean debris from pump cavity |
| Motor overheats | Pumping high viscosity fluids | These fluids can only be pumped for short periods of time (less than 30 minutes duty cycle) |
|  | Clogged screen | Remove and clean screen |
|  | Restricted suction pipe | Remove and clean pipe |
|  | Motor failure | Return to place of purchase |
|  | Pump rotor lock-up | Clean and check pump rotor and vanes |
| Motor Inoperative | No power | Check incoming power |
|  | Switch failure | Return to place of purchase |
|  | Motor failure | Return to place of purchase |
|  | Thermal protector failure | Return to place of purchase |
|  | Incorrect/loose wiring | Check wiring |
| Fluid Leakage | Bad O-ring gasket | Check all O-ring gaskets |
|  | Dirty Shaft Seal | Clean seal \& seal cavity |
|  | Bad Shaft Seal | Replace seal |
|  | Incompatible Fluid | Refer wetted parts list to fluid manufacturer |
|  | Loose fasteners | Tighten fasteners |
| Pump hums but will not operate | Dirt in Pump cavity | Clean out pump cavity |
|  | Motor failure | Return to place of purchase |
|  | Broken Key | Remove all debris \& replace key |

## Section 7: REFERENCE

For information not included here, or for a digital copy of this manual, please call your dealer, or Meridian Manufacturing Inc. directly for assistance. Visit our website at: www.meridianmfg.com

Specifications and measurements are subject to change without notice.

10,000 LITRE FUEL TANK DIP CHART
Primary Tank = 63" I.D. x 208.5" Long

| DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> (CM) (LITRE) |  | $\begin{aligned} & \text { DEPTH } \\ & \text { (CM) } \end{aligned}$ | VOLUME <br> (LITRE) | DEPTH VOLUME <br> (CM) <br> (LITRE) <br> 109 |  | DEPTH VOLUME <br> (CM) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 9 | 28 | 1251 | 55 | 3239 | 82 | 5491 | 109 | 7724 | 136 | 9644 |
| 2 | 25 | 29 | 1316 | 56 | 3320 | 83 | 5576 | 110 | 7802 | 137 | 9704 |
| 3 | 46 | 30 | 1381 | 57 | 3401 | 84 | 5660 | 111 | 7881 | 138 | 9763 |
| 4 | 71 | 31 | 1448 | 58 | 3482 | 85 | 5745 | 112 | 7958 | 139 | 9820 |
| 5 | 99 | 32 | 1515 | 59 | 3564 | 86 | 5830 | 113 | 8036 | 140 | 9877 |
| 6 | 130 | 33 | 1584 | 60 | 3646 | 87 | 5914 | 114 | 8113 | 141 | 9933 |
| 7 | 163 | 34 | 1652 | 61 | 3728 | 88 | 5998 | 115 | 8189 | 142 | 9987 |
| 8 | 199 | 35 | 1722 | 62 | 3810 | 89 | 6083 | 116 | 8265 | 143 | 10040 |
| 9 | 237 | 36 | 1792 | 63 | 3893 | 90 | 6167 | 117 | 8341 | 144 | 10091 |
| 10 | 277 | 37 | 1864 | 64 | 3976 | 91 | 6251 | 118 | 8415 | 145 | 10141 |
| 11 | 319 | 38 | 1935 | 65 | 4059 | 92 | 6334 | 119 | 8490 | 146 | 10190 |
| 12 | 363 | 39 | 2008 | 66 | 4142 | 93 | 6418 | 120 | 8563 | 147 | 10237 |
| 13 | 408 | 40 | 2081 | 67 | 4226 | 94 | 6502 | 121 | 8636 | 148 | 10283 |
| 14 | 455 | 41 | 2154 | 68 | 4309 | 95 | 6585 | 122 | 8709 | 149 | 10327 |
| 15 | 504 | 42 | 2229 | 69 | 4393 | 96 | 6668 | 123 | 8781 | 150 | 10369 |
| 16 | 554 | 43 | 2303 | 70 | 4477 | 97 | 6751 | 124 | 8852 | 151 | 10409 |
| 17 | 605 | 44 | 2379 | 71 | 4561 | 98 | 6834 | 125 | 8922 | 152 | 10447 |
| 18 | 658 | 45 | 2455 | 72 | 4645 | 99 | 6916 | 126 | 8992 | 153 | 10483 |
| 19 | 712 | 46 | 2531 | 73 | 4730 | 100 | 6998 | 127 | 9061 | 154 | 10516 |
| 20 | 768 | 47 | 2608 | 74 | 4814 | 101 | 7080 | 128 | 9129 | 155 | 10547 |
| 21 | 824 | 48 | 2685 | 75 | 4899 | 102 | 7162 | 129 | 9196 | 156 | 10575 |
| 22 | 882 | 49 | 2763 | 76 | 4983 | 103 | 7243 | 130 | 9263 | 157 | 10600 |
| 23 | 941 | 50 | 2842 | 77 | 5068 | 104 | 7324 | 131 | 9329 | 158 | 10621 |
| 24 | 1001 | 51 | 2920 | 78 | 5152 | 105 | 7405 | 132 | 9394 | 159 | 10638 |
| 25 | 1062 | 52 | 2999 | 79 | 5237 | 106 | 7485 | 133 | 9458 |  |  |
| 26 | 1124 | 53 | 3079 | 80 | 5322 | 107 | 7565 | 134 | 9521 |  |  |
| 27 | 1187 | 54 | 3159 | 81 | 5407 | 108 | 7644 | 135 | 9583 |  |  |

## 15,000 LITRE FUEL TANK DIP CHART

Primary Tank $=88-3 / 4$ " I.D. $\times$ 146-7/8" Long

| $\begin{array}{\|c\|} \hline \text { DEPTH } \\ \text { (CM) } \\ \hline \end{array}$ | VOLUME (LITRE) | DEPTH VOLUME(CM)(LITRE) |  | DEPTH VOLUME(CM) $\quad$ (LITRE) |  | DEPTH VOLUME <br> (CM) |  | DEPTH VOLUME <br> (CM) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 7 | 40 | 1782 | 79 | 4642 | 118 | 7872 | 157 | 11047 | 196 | 13716 |
| 2 | 21 | 41 | 1846 | 80 | 4723 | 119 | 7956 | 158 | 11124 | 197 | 13772 |
| 3 | 39 | 42 | 1911 | 81 | 4803 | 120 | 8040 | 159 | 11201 | 198 | 13827 |
| 4 | 59 | 43 | 1977 | 82 | 4884 | 121 | 8124 | 160 | 11277 | 199 | 13882 |
| 5 | 83 | 44 | 2043 | 83 | 4965 | 122 | 8207 | 161 | 11353 | 200 | 13935 |
| 6 | 109 | 45 | 2110 | 84 | 5046 | 123 | 8291 | 162 | 11429 | 201 | 13988 |
| 7 | 137 | 46 | 2177 | 85 | 5127 | 124 | 8374 | 163 | 11504 | 202 | 14039 |
| 8 | 167 | 47 | 2245 | 86 | 5208 | 125 | 8458 | 164 | 11579 | 203 | 14090 |
| 9 | 199 | 48 | 2313 | 87 | 5290 | 126 | 8541 | 165 | 11654 | 204 | 14140 |
| 10 | 233 | 49 | 2382 | 88 | 5372 | 127 | 8625 | 166 | 11728 | 205 | 14189 |
| 11 | 268 | 50 | 2452 | 89 | 5454 | 128 | 8708 | 167 | 11802 | 206 | 14236 |
| 12 | 305 | 51 | 2522 | 90 | 5536 | 129 | 8791 | 168 | 11875 | 207 | 14283 |
| 13 | 343 | 52 | 2592 | 91 | 5618 | 130 | 8874 | 169 | 11948 | 208 | 14328 |
| 14 | 383 | 53 | 2663 | 92 | 5700 | 131 | 8957 | 170 | 12020 | 209 | 14372 |
| 15 | 424 | 54 | 2735 | 93 | 5783 | 132 | 9039 | 171 | 12092 | 210 | 14415 |
| 16 | 467 | 55 | 2806 | 94 | 5866 | 133 | 9122 | 172 | 12164 | 211 | 14457 |
| 17 | 510 | 56 | 2879 | 95 | 5949 | 134 | 9204 | 173 | 12235 | 212 | 14498 |
| 18 | 555 | 57 | 2952 | 96 | 6031 | 135 | 9287 | 174 | 12306 | 213 | 14537 |
| 19 | 601 | 58 | 3025 | 97 | 6114 | 136 | 9369 | 175 | 12376 | 214 | 14574 |
| 20 | 649 | 59 | 3098 | 98 | 6198 | 137 | 9451 | 176 | 12446 | 215 | 14610 |
| 21 | 697 | 60 | 3172 | 99 | 6281 | 138 | 9533 | 177 | 12515 | 216 | 14645 |
| 22 | 746 | 61 | 3247 | 100 | 6364 | 139 | 9615 | 178 | 12584 | 217 | 14677 |
| 23 | 796 | 62 | 3321 | 101 | 6448 | 140 | 9696 | 179 | 12652 | 218 | 14708 |
| 24 | 848 | 63 | 3396 | 102 | 6531 | 141 | 9777 | 180 | 12719 | 219 | 14737 |
| 25 | 900 | 64 | 3472 | 103 | 6615 | 142 | 9859 | 181 | 12786 | 220 | 14764 |
| 26 | 953 | 65 | 3548 | 104 | 6698 | 143 | 9939 | 182 | 12853 | 221 | 14789 |
| 27 | 1007 | 66 | 3624 | 105 | 6782 | 144 | 10020 | 183 | 12919 | 222 | 14810 |
| 28 | 1062 | 67 | 3701 | 106 | 6866 | 145 | 10101 | 184 | 12984 | 223 | 14829 |
| 29 | 1118 | 68 | 3777 | 107 | 6950 | 146 | 10181 | 185 | 13049 | 224 | 14845 |
| 30 | 1174 | 69 | 3855 | 108 | 7033 | 147 | 10261 | 186 | 13113 | 225 | 14855 |
| 31 | 1232 | 70 | 3932 | 109 | 7117 | 148 | 10341 | 187 | 13176 |  |  |
| 32 | 1290 | 71 | 4010 | 110 | 7201 | 149 | 10420 | 188 | 13239 |  |  |
| 33 | 1349 | 72 | 4088 | 111 | 7285 | 150 | 10500 | 189 | 13301 |  |  |
| 34 | 1409 | 73 | 4166 | 112 | 7369 | 151 | 10579 | 190 | 13363 |  |  |
| 35 | 1469 | 74 | 4245 | 113 | 7453 | 152 | 10658 | 191 | 13423 |  |  |
| 36 | 1530 | 75 | 4324 | 114 | 7537 | 153 | 10736 | 192 | 13483 |  |  |
| 37 | 1592 | 76 | 4403 | 115 | 7621 | 154 | 10814 | 193 | 13543 |  |  |
| 38 | 1655 | 77 | 4483 | 116 | 7705 | 155 | 10892 | 194 | 13601 |  |  |
| 39 | 1718 | 78 | 4562 | 117 | 7788 | 156 | 10970 | 195 | 13659 |  |  |

# 25,000 LITRE FUEL TANK DIP CHART 

Primary Tank $=88-3 / 4$ " I.D. $\times 246-7 / 8$ " Long

| DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> (CM) (LITRE) |  | DEPTH VOLUME(CM) $\quad$ (LITRE) |  | DEPTH VOLUME <br> (CM) (LITRE) |  | DEPTH VOLUME <br> (CM) (LITRE) |  | DEPTH VOLUME <br> (CM) (LITRE) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 13 | 40 | 2997 | 79 | 7809 | 118 | 13243 | 157 | 18583 | 196 | 23072 |
| 2 | 35 | 41 | 3105 | 80 | 7944 | 119 | 13384 | 158 | 18713 | 197 | 23167 |
| 3 | 65 | 42 | 3215 | 81 | 8080 | 120 | 13524 | 159 | 18842 | 198 | 23260 |
| 4 | 100 | 43 | 3325 | 82 | 8215 | 121 | 13665 | 160 | 18970 | 199 | 23351 |
| 5 | 139 | 44 | 3436 | 83 | 8351 | 122 | 13806 | 161 | 19098 | 200 | 23441 |
| 6 | 183 | 45 | 3549 | 84 | 8488 | 123 | 13947 | 162 | 19225 | 201 | 23530 |
| 7 | 230 | 46 | 3662 | 85 | 8624 | 124 | 14087 | 163 | 19352 | 202 | 23617 |
| 8 | 281 | 47 | 3776 | 86 | 8761 | 125 | 14228 | 164 | 19478 | 203 | 23702 |
| 9 | 334 | 48 | 3892 | 87 | 8898 | 126 | 14368 | 165 | 19603 | 204 | 23786 |
| 10 | 391 | 49 | 4008 | 88 | 9036 | 127 | 14508 | 166 | 19728 | 205 | 23868 |
| 11 | 451 | 50 | 4124 | 89 | 9174 | 128 | 14648 | 167 | 19852 | 206 | 23948 |
| 12 | 513 | 51 | 4242 | 90 | 9312 | 129 | 14788 | 168 | 19976 | 207 | 24026 |
| 13 | 577 | 52 | 4361 | 91 | 9450 | 130 | 14927 | 169 | 20098 | 208 | 24102 |
| 14 | 644 | 53 | 4480 | 92 | 9589 | 131 | 15067 | 170 | 20220 | 209 | 24177 |
| 15 | 714 | 54 | 4600 | 93 | 9728 | 132 | 15206 | 171 | 20341 | 210 | 24249 |
| 16 | 785 | 55 | 4721 | 94 | 9867 | 133 | 15345 | 172 | 20462 | 211 | 24319 |
| 17 | 859 | 56 | 4843 | 95 | 10006 | 134 | 15483 | 173 | 20582 | 212 | 24387 |
| 18 | 934 | 57 | 4965 | 96 | 10146 | 135 | 15622 | 174 | 20700 | 213 | 24453 |
| 19 | 1012 | 58 | 5088 | 97 | 10286 | 136 | 15760 | 175 | 20818 | 214 | 24516 |
| 20 | 1091 | 59 | 5212 | 98 | 10425 | 137 | 15898 | 176 | 20936 | 215 | 24577 |
| 21 | 1172 | 60 | 5336 | 99 | 10565 | 138 | 16036 | 177 | 21052 | 216 | 24635 |
| 22 | 1255 | 61 | 5461 | 100 | 10706 | 139 | 16173 | 178 | 21168 | 217 | 24690 |
| 23 | 1340 | 62 | 5587 | 101 | 10846 | 140 | 16310 | 179 | 21282 | 218 | 24742 |
| 24 | 1426 | 63 | 5713 | 102 | 10986 | 141 | 16447 | 180 | 21396 | 219 | 24790 |
| 25 | 1514 | 64 | 5840 | 103 | 11127 | 142 | 16584 | 181 | 21509 | 220 | 24836 |
| 26 | 1603 | 65 | 5968 | 104 | 11268 | 143 | 16720 | 182 | 21621 | 221 | 24877 |
| 27 | 1694 | 66 | 6096 | 105 | 11409 | 144 | 16856 | 183 | 21731 | 222 | 24914 |
| 28 | 1787 | 67 | 6225 | 106 | 11549 | 145 | 16991 | 184 | 21841 | 223 | 24946 |
| 29 | 1880 | 68 | 6354 | 107 | 11690 | 146 | 17126 | 185 | 21950 | 224 | 24972 |
| 30 | 1976 | 69 | 6484 | 108 | 11831 | 147 | 17261 | 186 | 22058 | 225 | 24989 |
| 31 | 2072 | 70 | 6615 | 109 | 11972 | 148 | 17395 | 187 | 22165 |  |  |
| 32 | 2170 | 71 | 6745 | 110 | 12114 | 149 | 17529 | 188 | 22270 |  |  |
| 33 | 2269 | 72 | 6877 | 111 | 12255 | 150 | 17662 | 189 | 22375 |  |  |
| 34 | 2370 | 73 | 7009 | 112 | 12396 | 151 | 17795 | 190 | 22478 |  |  |
| 35 | 2471 | 74 | 7141 | 113 | 12537 | 152 | 17928 | 191 | 22580 |  |  |
| 36 | 2574 | 75 | 7274 | 114 | 12678 | 153 | 18060 | 192 | 22681 |  |  |
| 37 | 2678 | 76 | 7407 | 115 | 12819 | 154 | 18192 | 193 | 22781 |  |  |
| 38 | 2783 | 77 | 7541 | 116 | 12960 | 155 | 18323 | 194 | 22879 |  |  |
| 39 | 2889 | 78 | 7675 | 117 | 13102 | 156 | 18453 | 195 | 22976 |  |  |

## 35,000 LITRE FUEL TANK DIP CHART

Primary Tank $=88-3 / 4$ " I.D. $\times$ 348-3/4" Long

| $\begin{array}{\|c\|} \hline \text { DEPTH } \\ \text { (CM) } \\ \hline \end{array}$ | VOLUME (LITRE) | DEPTH VOLUME <br> (CM) (LITRE) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> (CM) |  | DEPTH VOLUME <br> (CM) |  | DEPTH VOLUME <br> (CM) (LITRE) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 18 | 40 | 4204 | 79 | 10954 | 118 | 18575 | 157 | 26066 | 196 | 32362 |
| 2 | 50 | 41 | 4356 | 80 | 11143 | 119 | 18772 | 158 | 26248 | 197 | 32495 |
| 3 | 91 | 42 | 4509 | 81 | 11333 | 120 | 18970 | 159 | 26429 | 198 | 32625 |
| 4 | 140 | 43 | 4664 | 82 | 11523 | 121 | 19168 | 160 | 26609 | 199 | 32754 |
| 5 | 195 | 44 | 4820 | 83 | 11714 | 122 | 19365 | 161 | 26788 | 200 | 32880 |
| 6 | 256 | 45 | 4978 | 84 | 11905 | 123 | 19562 | 162 | 26967 | 201 | 33004 |
| 7 | 323 | 46 | 5137 | 85 | 12097 | 124 | 19759 | 163 | 27144 | 202 | 33126 |
| 8 | 394 | 47 | 5297 | 86 | 12289 | 125 | 19956 | 164 | 27321 | 203 | 33246 |
| 9 | 469 | 48 | 5458 | 87 | 12481 | 126 | 20153 | 165 | 27497 | 204 | 33363 |
| 10 | 549 | 49 | 5621 | 88 | 12674 | 127 | 20350 | 166 | 27672 | 205 | 33478 |
| 11 | 632 | 50 | 5785 | 89 | 12868 | 128 | 20546 | 167 | 27846 | 206 | 33590 |
| 12 | 719 | 51 | 5950 | 90 | 13062 | 129 | 20742 | 168 | 28019 | 207 | 33700 |
| 13 | 810 | 52 | 6117 | 91 | 13256 | 130 | 20938 | 169 | 28191 | 208 | 33807 |
| 14 | 904 | 53 | 6284 | 92 | 13450 | 131 | 21133 | 170 | 28362 | 209 | 33912 |
| 15 | 1001 | 54 | 6452 | 93 | 13645 | 132 | 21328 | 171 | 28532 | 210 | 34013 |
| 16 | 1101 | 55 | 6622 | 94 | 13840 | 133 | 21523 | 172 | 28701 | 211 | 34112 |
| 17 | 1204 | 56 | 6793 | 95 | 14036 | 134 | 21718 | 173 | 28869 | 212 | 34207 |
| 18 | 1310 | 57 | 6964 | 96 | 14231 | 135 | 21912 | 174 | 29036 | 213 | 34299 |
| 19 | 1419 | 58 | 7137 | 97 | 14427 | 136 | 22106 | 175 | 29201 | 214 | 34388 |
| 20 | 1530 | 59 | 7310 | 98 | 14623 | 137 | 22300 | 176 | 29366 | 215 | 34473 |
| 21 | 1644 | 60 | 7485 | 99 | 14820 | 138 | 22493 | 177 | 29529 | 216 | 34554 |
| 22 | 1760 | 61 | 7660 | 100 | 15016 | 139 | 22686 | 178 | 29691 | 217 | 34631 |
| 23 | 1879 | 62 | 7837 | 101 | 15213 | 140 | 22878 | 179 | 29852 | 218 | 34704 |
| 24 | 2000 | 63 | 8014 | 102 | 15410 | 141 | 23070 | 180 | 30011 | 219 | 34772 |
| 25 | 2123 | 64 | 8192 | 103 | 15607 | 142 | 23261 | 181 | 30169 | 220 | 34836 |
| 26 | 2249 | 65 | 8371 | 104 | 15805 | 143 | 23452 | 182 | 30326 | 221 | 34894 |
| 27 | 2376 | 66 | 8551 | 105 | 16002 | 144 | 23643 | 183 | 30482 | 222 | 34945 |
| 28 | 2506 | 67 | 8732 | 106 | 16200 | 145 | 23833 | 184 | 30636 | 223 | 34990 |
| 29 | 2638 | 68 | 8913 | 107 | 16398 | 146 | 24022 | 185 | 30788 | 224 | 35026 |
| 30 | 2771 | 69 | 9095 | 108 | 16595 | 147 | 24211 | 186 | 30940 | 225 | 35051 |
| 31 | 2907 | 70 | 9278 | 109 | 16793 | 148 | 24399 | 187 | 31089 |  |  |
| 32 | 3044 | 71 | 9462 | 110 | 16991 | 149 | 24587 | 188 | 31237 |  |  |
| 33 | 3183 | 72 | 9646 | 111 | 17189 | 150 | 24774 | 189 | 31384 |  |  |
| 34 | 3324 | 73 | 9831 | 112 | 17387 | 151 | 24961 | 190 | 31529 |  |  |
| 35 | 3466 | 74 | 10016 | 113 | 17585 | 152 | 25147 | 191 | 31672 |  |  |
| 36 | 3611 | 75 | 10203 | 114 | 17783 | 153 | 25332 | 192 | 31814 |  |  |
| 37 | 3756 | 76 | 10390 | 115 | 17981 | 154 | 25517 | 193 | 31954 |  |  |
| 38 | 3904 | 77 | 10577 | 116 | 18179 | 155 | 25700 | 194 | 32092 |  |  |
| 39 | 4053 | 78 | 10765 | 117 | 18377 | 156 | 25884 | 195 | 32228 |  |  |

## 50,000 LITRE FUEL TANK DIP CHART

## Primary Tank = 118" I.D. $\times 279$ " Long

| DEPTH VOLUME(CM) $\begin{aligned} & \text { (LITRE) }\end{aligned}$ |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> $\begin{array}{ll}\text { (CM) } & \text { (LITRE) }\end{array}$ |  | DEPTH VOLUME(CM) $\quad$ (LITRE) |  | DEPTH VOLUME(CM) $\quad$ (LITRE) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME(CM) $\quad$ (LITRE) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 16 | 44 | 4553 | 87 | 12037 | 130 | 20771 | 173 | 29866 | 216 | 38546 | 259 | 45901 |
| 2 | 46 | 45 | 4704 | 88 | 12230 | 131 | 20982 | 174 | 30076 | 217 | 38736 | 260 | 46046 |
| 3 | 85 | 46 | 4856 | 89 | 12423 | 132 | 21192 | 175 | 30285 | 218 | 38926 | 261 | 46189 |
| 4 | 130 | 47 | 5009 | 90 | 12617 | 133 | 21403 | 176 | 30494 | 219 | 39115 | 262 | 46332 |
| 5 | 182 | 48 | 5164 | 91 | 12812 | 134 | 21614 | 177 | 30703 | 220 | 39303 | 263 | 46472 |
| 6 | 239 | 49 | 5321 | 92 | 13008 | 135 | 21825 | 178 | 30912 | 221 | 39490 | 264 | 46611 |
| 7 | 300 | 50 | 5478 | 93 | 13204 | 136 | 22036 | 179 | 31120 | 222 | 39677 | 265 | 46748 |
| 8 | 367 | 51 | 5637 | 94 | 13400 | 137 | 22248 | 180 | 31328 | 223 | 39863 | 266 | 46883 |
| 9 | 437 | 52 | 5797 | 95 | 13597 | 138 | 22459 | 181 | 31536 | 224 | 40048 | 267 | 47017 |
| 10 | 511 | 53 | 5958 | 96 | 13795 | 139 | 22671 | 182 | 31744 | 225 | 40232 | 268 | 47149 |
| 11 | 589 | 54 | 6121 | 97 | 13993 | 140 | 22883 | 183 | 31951 | 226 | 40415 | 269 | 47279 |
| 12 | 671 | 55 | 6285 | 98 | 14192 | 141 | 23094 | 184 | 32158 | 227 | 40598 | 270 | 47408 |
| 13 | 756 | 56 | 6449 | 99 | 14392 | 142 | 23306 | 185 | 32364 | 228 | 40780 | 271 | 47534 |
| 14 | 844 | 57 | 6615 | 100 | 14591 | 143 | 23518 | 186 | 32570 | 229 | 40960 | 272 | 47659 |
| 15 | 935 | 58 | 6782 | 101 | 14792 | 144 | 23730 | 187 | 32776 | 230 | 41140 | 273 | 47781 |
| 16 | 1029 | 59 | 6951 | 102 | 14993 | 145 | 23942 | 188 | 32982 | 231 | 41320 | 274 | 47902 |
| 17 | 1125 | 60 | 7120 | 103 | 15194 | 146 | 24155 | 189 | 33187 | 232 | 41498 | 275 | 48020 |
| 18 | 1225 | 61 | 7290 | 104 | 15396 | 147 | 24367 | 190 | 33392 | 233 | 41675 | 276 | 48137 |
| 19 | 1327 | 62 | 7461 | 105 | 15598 | 148 | 24579 | 191 | 33596 | 234 | 41851 | 277 | 48251 |
| 20 | 1432 | 63 | 7634 | 106 | 15801 | 149 | 24791 | 192 | 33800 | 235 | 42027 | 278 | 48363 |
| 21 | 1539 | 64 | 7807 | 107 | 16004 | 150 | 25003 | 193 | 34004 | 236 | 42201 | 279 | 48472 |
| 22 | 1648 | 65 | 7982 | 108 | 16207 | 151 | 25216 | 194 | 34207 | 237 | 42375 | 280 | 48579 |
| 23 | 1760 | 66 | 8157 | 109 | 16411 | 152 | 25428 | 195 | 34409 | 238 | 42547 | 281 | 48684 |
| 24 | 1874 | 67 | 8333 | 110 | 16616 | 153 | 25640 | 196 | 34612 | 239 | 42718 | 282 | 48786 |
| 25 | 1990 | 68 | 8511 | 111 | 16820 | 154 | 25852 | 197 | 34813 | 240 | 42889 | 283 | 48886 |
| 26 | 2109 | 69 | 8689 | 112 | 17025 | 155 | 26065 | 198 | 35015 | 241 | 43058 | 284 | 48983 |
| 27 | 2229 | 70 | 8868 | 113 | 17231 | 156 | 26277 | 199 | 35216 | 242 | 43226 | 285 | 49077 |
| 28 | 2352 | 71 | 9048 | 114 | 17437 | 157 | 26489 | 200 | 35416 | 243 | 43393 | 286 | 49168 |
| 29 | 2476 | 72 | 9229 | 115 | 17643 | 158 | 26701 | 201 | 35616 | 244 | 43559 | 287 | 49256 |
| 30 | 2603 | 73 | 9410 | 116 | 17850 | 159 | 26913 | 202 | 35815 | 245 | 43724 | 288 | 49341 |
| 31 | 2731 | 74 | 9593 | 117 | 18056 | 160 | 27124 | 203 | 36014 | 246 | 43888 | 289 | 49423 |
| 32 | 2861 | 75 | 9776 | 118 | 18264 | 161 | 27336 | 204 | 36212 | 247 | 44051 | 290 | 49501 |
| 33 | 2993 | 76 | 9960 | 119 | 18471 | 162 | 27548 | 205 | 36410 | 248 | 44212 | 291 | 49575 |
| 34 | 3127 | 77 | 10145 | 120 | 18679 | 163 | 27759 | 206 | 36607 | 249 | 44372 | 292 | 49646 |
| 35 | 3262 | 78 | 10331 | 121 | 18887 | 164 | 27971 | 207 | 36804 | 250 | 44531 | 293 | 49712 |
| 36 | 3399 | 79 | 10518 | 122 | 19095 | 165 | 28182 | 208 | 37000 | 251 | 44688 | 294 | 49774 |
| 37 | 3538 | 80 | 10705 | 123 | 19304 | 166 | 28393 | 209 | 37195 | 252 | 44845 | 295 | 49831 |
| 38 | 3678 | 81 | 10893 | 124 | 19513 | 167 | 28604 | 210 | 37390 | 253 | 45000 | 296 | 49883 |
| 39 | 3820 | 82 | 11082 | 125 | 19722 | 168 | 28815 | 211 | 37585 | 254 | 45153 | 297 | 49929 |
| 40 | 3964 | 83 | 11272 | 126 | 19932 | 169 | 29025 | 212 | 37778 | 255 | 45306 | 298 | 49968 |
| 41 | 4109 | 84 | 11462 | 127 | 20141 | 170 | 29236 | 213 | 37971 | 256 | 45457 | 299 | 49998 |
| 42 | 4255 | 85 | 11653 | 128 | 20351 | 171 | 29446 | 214 | 38163 | 257 | 45606 | 300 | 50015 |
| 43 | 4403 | 86 | 11844 | 129 | 20561 | 172 | 29656 | 215 | 38355 | 258 | 45754 |  |  |

Operator's Manual: 10,000-100,000 L Fuel Tank

## 65,000 LITRE FUEL TANK DIP CHART

Primary Tank $=118^{\prime \prime}$ I.D. $\times 363^{\prime \prime}$ Long

| DEPTH <br> (CM) | VOLUME <br> (LITRE) | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | $\begin{array}{\|cc\|} \hline \text { DEPTH VOLUME } \\ \text { (CM) } & \text { (LITRE) } \\ \hline \end{array}$ |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | $\begin{array}{ll} \hline \text { DEPTH VOLUME } \\ \text { (CM) } & \text { (LITRE) } \\ \hline \end{array}$ |  | DEPTH VOLUME <br> (CM) (LITRE) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 21 | 44 | 5926 | 87 | 15667 | 130 | 27036 | 173 | 38874 | 216 | 50172 | 259 | 59745 |
| 2 | 60 | 45 | 6122 | 88 | 15918 | 131 | 27310 | 174 | 39147 | 217 | 50420 | 260 | 59934 |
| 3 | 110 | 46 | 6320 | 89 | 16170 | 132 | 27584 | 175 | 39419 | 218 | 50666 | 261 | 60121 |
| 4 | 169 | 47 | 6520 | 90 | 16423 | 133 | 27859 | 176 | 39692 | 219 | 50912 | 262 | 60306 |
| 5 | 237 | 48 | 6722 | 91 | 16677 | 134 | 28133 | 177 | 39964 | 220 | 51157 | 263 | 60489 |
| 6 | 311 | 49 | 6925 | 92 | 16931 | 135 | 28408 | 178 | 40235 | 221 | 51401 | 264 | 60669 |
| 7 | 391 | 50 | 7131 | 93 | 17186 | 136 | 28683 | 179 | 40506 | 222 | 51644 | 265 | 60848 |
| 8 | 477 | 51 | 7337 | 94 | 17442 | 137 | 28958 | 180 | 40777 | 223 | 51886 | 266 | 61024 |
| 9 | 569 | 52 | 7546 | 95 | 17699 | 138 | 29233 | 181 | 41048 | 224 | 52127 | 267 | 61198 |
| 10 | 666 | 53 | 7755 | 96 | 17956 | 139 | 29509 | 182 | 41318 | 225 | 52366 | 268 | 61370 |
| 11 | 767 | 54 | 7967 | 97 | 18214 | 140 | 29784 | 183 | 41588 | 226 | 52605 | 269 | 61540 |
| 12 | 873 | 55 | 8180 | 98 | 18473 | 141 | 30060 | 184 | 41857 | 227 | 52843 | 270 | 61707 |
| 13 | 984 | 56 | 8395 | 99 | 18732 | 142 | 30336 | 185 | 42126 | 228 | 53079 | 271 | 61871 |
| 14 | 1098 | 57 | 8611 | 100 | 18992 | 143 | 30612 | 186 | 42394 | 229 | 53315 | 272 | 62033 |
| 15 | 1217 | 58 | 8828 | 101 | 19253 | 144 | 30888 | 187 | 42662 | 230 | 53549 | 273 | 62193 |
| 16 | 1339 | 59 | 9047 | 102 | 19515 | 145 | 31164 | 188 | 42930 | 231 | 53782 | 274 | 62350 |
| 17 | 1465 | 60 | 9267 | 103 | 19777 | 146 | 31440 | 189 | 43197 | 232 | 54014 | 275 | 62504 |
| 18 | 1594 | 61 | 9489 | 104 | 20039 | 147 | 31716 | 190 | 43463 | 233 | 54245 | 276 | 62655 |
| 19 | 1727 | 62 | 9712 | 105 | 20303 | 148 | 31992 | 191 | 43729 | 234 | 54474 | 277 | 62804 |
| 20 | 1864 | 63 | 9936 | 106 | 20566 | 149 | 32269 | 192 | 43995 | 235 | 54703 | 278 | 62949 |
| 21 | 2003 | 64 | 10162 | 107 | 20831 | 150 | 32545 | 193 | 44260 | 236 | 54930 | 279 | 63092 |
| 22 | 2145 | 65 | 10389 | 108 | 21096 | 151 | 32821 | 194 | 44524 | 237 | 55155 | 280 | 63232 |
| 23 | 2291 | 66 | 10617 | 109 | 21361 | 152 | 33097 | 195 | 44788 | 238 | 55380 | 281 | 63368 |
| 24 | 2439 | 67 | 10847 | 110 | 21627 | 153 | 33374 | 196 | 45051 | 239 | 55603 | 282 | 63501 |
| 25 | 2591 | 68 | 11077 | 111 | 21894 | 154 | 33650 | 197 | 45314 | 240 | 55825 | 283 | 63631 |
| 26 | 2745 | 69 | 11309 | 112 | 22161 | 155 | 33926 | 198 | 45576 | 241 | 56045 | 284 | 63757 |
| 27 | 2902 | 70 | 11542 | 113 | 22428 | 156 | 34202 | 199 | 45837 | 242 | 56264 | 285 | 63879 |
| 28 | 3061 | 71 | 11777 | 114 | 22696 | 157 | 34478 | 200 | 46098 | 243 | 56482 | 286 | 63998 |
| 29 | 3223 | 72 | 12012 | 115 | 22964 | 158 | 34754 | 201 | 46358 | 244 | 56698 | 287 | 64112 |
| 30 | 3387 | 73 | 12249 | 116 | 23233 | 159 | 35030 | 202 | 46618 | 245 | 56912 | 288 | 64223 |
| 31 | 3554 | 74 | 12486 | 117 | 23503 | 160 | 35306 | 203 | 46876 | 246 | 57125 | 289 | 64329 |
| 32 | 3724 | 75 | 12725 | 118 | 23772 | 161 | 35581 | 204 | 47135 | 247 | 57337 | 290 | 64431 |
| 33 | 3895 | 76 | 12965 | 119 | 24042 | 162 | 35857 | 205 | 47392 | 248 | 57547 | 291 | 64528 |
| 34 | 4070 | 77 | 13206 | 120 | 24313 | 163 | 36132 | 206 | 47649 | 249 | 57755 | 292 | 64620 |
| 35 | 4246 | 78 | 13447 | 121 | 24584 | 164 | 36407 | 207 | 47905 | 250 | 57962 | 293 | 64706 |
| 36 | 4424 | 79 | 13690 | 122 | 24855 | 165 | 36682 | 208 | 48160 | 251 | 58167 | 294 | 64787 |
| 37 | 4605 | 80 | 13934 | 123 | 25126 | 166 | 36957 | 209 | 48414 | 252 | 58371 | 295 | 64861 |
| 38 | 4788 | 81 | 14179 | 124 | 25398 | 167 | 37231 | 210 | 48668 | 253 | 58572 | 296 | 64928 |
| 39 | 4972 | 82 | 14425 | 125 | 25671 | 168 | 37506 | 211 | 48921 | 254 | 58772 | 297 | 64988 |
| 40 | 5159 | 83 | 14671 | 126 | 25943 | 169 | 37780 | 212 | 49173 | 255 | 58971 | 298 | 65039 |
| 41 | 5348 | 84 | 14919 | 127 | 26216 | 170 | 38054 | 213 | 49424 | 256 | 59167 | 299 | 65078 |
| 42 | 5539 | 85 | 15167 | 128 | 26489 | 171 | 38327 | 214 | 49674 | 257 | 59362 | 300 | 65100 |
| 43 | 5731 | 86 | 15417 | 129 | 26763 | 172 | 38601 | 215 | 49923 | 258 | 59554 |  |  |

## 75,000 LITRE FUEL TANK DIP CHART

## Primary Tank = 118" I.D. x 423" Long

| DEPTH (CM) | VOLUME (LITRE) | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME(CM) (LITRE) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> (CM) <br> (LITRE) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 25 | 44 | 6907 | 87 | 18260 | 130 | 31511 | 173 | 45308 | 216 | 58476 | 259 | 69634 |
| 2 | 70 | 45 | 7136 | 88 | 18553 | 131 | 31830 | 174 | 45626 | 217 | 58765 | 260 | 69854 |
| 3 | 128 | 46 | 7367 | 89 | 18847 | 132 | 32150 | 175 | 45944 | 218 | 59053 | 261 | 70072 |
| 4 | 197 | 47 | 7600 | 90 | 19141 | 133 | 32470 | 176 | 46261 | 219 | 59339 | 262 | 70287 |
| 5 | 276 | 48 | 7835 | 91 | 19437 | 134 | 32790 | 177 | 46578 | 220 | 59624 | 263 | 70501 |
| 6 | 362 | 49 | 8072 | 92 | 19733 | 135 | 33110 | 178 | 46895 | 221 | 59909 | 264 | 70711 |
| 7 | 456 | 50 | 8311 | 93 | 20031 | 136 | 33430 | 179 | 47211 | 222 | 60192 | 265 | 70919 |
| 8 | 556 | 51 | 8552 | 94 | 20329 | 137 | 33751 | 180 | 47527 | 223 | 60474 | 266 | 71125 |
| 9 | 663 | 52 | 8794 | 95 | 20628 | 138 | 34072 | 181 | 47842 | 224 | 60754 | 267 | 71328 |
| 10 | 776 | 53 | 9039 | 96 | 20928 | 139 | 34393 | 182 | 48157 | 225 | 61034 | 268 | 71528 |
| 11 | 894 | 54 | 9286 | 97 | 21229 | 140 | 34714 | 183 | 48471 | 226 | 61312 | 269 | 71725 |
| 12 | 1018 | 55 | 9534 | 98 | 21530 | 141 | 35036 | 184 | 48785 | 227 | 61589 | 270 | 71920 |
| 13 | 1147 | 56 | 9784 | 99 | 21833 | 142 | 35357 | 185 | 49098 | 228 | 61865 | 271 | 72112 |
| 14 | 1280 | 57 | 10036 | 100 | 22136 | 143 | 35679 | 186 | 49411 | 229 | 62139 | 272 | 72301 |
| 15 | 1418 | 58 | 10289 | 101 | 22440 | 144 | 36000 | 187 | 49723 | 230 | 62412 | 273 | 72487 |
| 16 | 1561 | 59 | 10544 | 102 | 22745 | 145 | 36322 | 188 | 50035 | 231 | 62684 | 274 | 72670 |
| 17 | 1707 | 60 | 10801 | 103 | 23050 | 146 | 36644 | 189 | 50346 | 232 | 62954 | 275 | 72849 |
| 18 | 1858 | 61 | 11059 | 104 | 23356 | 147 | 36966 | 190 | 50657 | 233 | 63223 | 276 | 73026 |
| 19 | 2013 | 62 | 11319 | 105 | 23663 | 148 | 37288 | 191 | 50967 | 234 | 63491 | 277 | 73199 |
| 20 | 2172 | 63 | 11581 | 106 | 23970 | 149 | 37610 | 192 | 51277 | 235 | 63757 | 278 | 73369 |
| 21 | 2334 | 64 | 11844 | 107 | 24279 | 150 | 37932 | 193 | 51585 | 236 | 64022 | 279 | 73535 |
| 22 | 2501 | 65 | 12109 | 108 | 24587 | 151 | 38254 | 194 | 51893 | 237 | 64285 | 280 | 73697 |
| 23 | 2670 | 66 | 12375 | 109 | 24897 | 152 | 38576 | 195 | 52201 | 238 | 64546 | 281 | 73856 |
| 24 | 2843 | 67 | 12642 | 110 | 25207 | 153 | 38898 | 196 | 52508 | 239 | 64806 | 282 | 74011 |
| 25 | 3019 | 68 | 12911 | 111 | 25517 | 154 | 39219 | 197 | 52814 | 240 | 65065 | 283 | 74162 |
| 26 | 3199 | 69 | 13181 | 112 | 25829 | 155 | 39541 | 198 | 53119 | 241 | 65322 | 284 | 74309 |
| 27 | 3382 | 70 | 13453 | 113 | 26140 | 156 | 39863 | 199 | 53424 | 242 | 65577 | 285 | 74452 |
| 28 | 3568 | 71 | 13726 | 114 | 26453 | 157 | 40185 | 200 | 53728 | 243 | 65830 | 286 | 74590 |
| 29 | 3756 | 72 | 14000 | 115 | 26765 | 158 | 40506 | 201 | 54031 | 244 | 66082 | 287 | 74724 |
| 30 | 3948 | 73 | 14276 | 116 | 27079 | 159 | 40828 | 202 | 54334 | 245 | 66332 | 288 | 74853 |
| 31 | 4143 | 74 | 14553 | 117 | 27393 | 160 | 41149 | 203 | 54635 | 246 | 66581 | 289 | 74977 |
| 32 | 4340 | 75 | 14831 | 118 | 27707 | 161 | 41470 | 204 | 54936 | 247 | 66827 | 290 | 75095 |
| 33 | 4540 | 76 | 15111 | 119 | 28022 | 162 | 41791 | 205 | 55236 | 248 | 67072 | 291 | 75208 |
| 34 | 4743 | 77 | 15391 | 120 | 28337 | 163 | 42112 | 206 | 55535 | 249 | 67315 | 292 | 75315 |
| 35 | 4949 | 78 | 15673 | 121 | 28653 | 164 | 42433 | 207 | 55834 | 250 | 67556 | 293 | 75416 |
| 36 | 5156 | 79 | 15956 | 122 | 28969 | 165 | 42753 | 208 | 56131 | 251 | 67795 | 294 | 75510 |
| 37 | 5367 | 80 | 16240 | 123 | 29285 | 166 | 43074 | 209 | 56428 | 252 | 68032 | 295 | 75597 |
| 38 | 5580 | 81 | 16526 | 124 | 29602 | 167 | 43394 | 210 | 56723 | 253 | 68267 | 296 | 75675 |
| 39 | 5795 | 82 | 16812 | 125 | 29920 | 168 | 43714 | 211 | 57018 | 254 | 68500 | 297 | 75745 |
| 40 | 6013 | 83 | 17100 | 126 | 30237 | 169 | 44033 | 212 | 57312 | 255 | 68731 | 298 | 75804 |
| 41 | 6233 | 84 | 17388 | 127 | 30555 | 170 | 44352 | 213 | 57604 | 256 | 68960 | 299 | 75849 |
| 42 | 6455 | 85 | 17678 | 128 | 30874 | 171 | 44671 | 214 | 57896 | 257 | 69187 | 300 | 75875 |
| 43 | 6680 | 86 | 17969 | 129 | 31192 | 172 | 44990 | 215 | 58187 | 258 | 69412 |  |  |

## 100,000 LITRE FUEL TANK DIP CHART

Primary Tank = 125" I.D. x 495" Long

| $\begin{aligned} & \text { DEPTH } \\ & \text { (CM) } \end{aligned}$ | VOLUME <br> (LITRE) |
| :---: | :---: |
| 1 | 30 |
| 2 | 84 |
| 3 | 155 |
| 4 | 238 |
| 5 | 332 |
| 6 | 436 |
| 7 | 550 |
| 8 | 671 |
| 9 | 800 |
| 10 | 936 |
| 11 | 1078 |
| 12 | 1227 |
| 13 | 1383 |
| 14 | 1544 |
| 15 | 1710 |
| 16 | 1882 |
| 17 | 2060 |
| 18 | 2242 |
| 19 | 2429 |
| 20 | 2621 |
| 21 | 2817 |
| 22 | 3017 |
| 23 | 3222 |
| 24 | 3431 |
| 25 | 3644 |
| 26 | 3861 |
| 27 | 4082 |
| 28 | 4307 |
| 29 | 4535 |
| 30 | 4767 |
| 31 | 5002 |
| 32 | 5240 |
| 33 | 5482 |
| 34 | 5728 |
| 35 | 5976 |
| 36 | 6228 |
| 37 | 6482 |
| 38 | 6740 |
| 39 | 7001 |
| 40 | 7264 |
| 41 | 7530 |
| 42 | 7800 |
| 43 | 8071 |
| 44 | 8346 |
| 45 | 8623 |
| 46 | 8903 |
| 47 | 9185 |


| DEPTH VOLUME <br> (CM) (LITRE) |  | DEPTH VOLUME <br> (CM) (LITRE) |  |
| :---: | :---: | :---: | :---: |
| 48 | 9470 | 95 | 25024 |
| 49 | 9757 | 96 | 25390 |
| 50 | 10047 | 97 | 25757 |
| 51 | 10339 | 98 | 26126 |
| 52 | 10633 | 99 | 26495 |
| 53 | 10930 | 100 | 26865 |
| 54 | 11228 | 101 | 27237 |
| 55 | 11529 | 102 | 27609 |
| 56 | 11833 | 103 | 27982 |
| 57 | 12138 | 104 | 28357 |
| 58 | 12445 | 105 | 28732 |
| 59 | 12755 | 106 | 29108 |
| 60 | 13066 | 107 | 29485 |
| 61 | 13380 | 108 | 29862 |
| 62 | 13696 | 109 | 30241 |
| 63 | 14013 | 110 | 30621 |
| 64 | 14332 | 111 | 31001 |
| 65 | 14654 | 112 | 31382 |
| 66 | 14977 | 113 | 31764 |
| 67 | 15301 | 114 | 32146 |
| 68 | 15628 | 115 | 32530 |
| 69 | 15956 | 116 | 32914 |
| 70 | 16287 | 117 | 33299 |
| 71 | 16618 | 118 | 33684 |
| 72 | 16952 | 119 | 34070 |
| 73 | 17287 | 120 | 34457 |
| 74 | 17624 | 121 | 34844 |
| 75 | 17962 | 122 | 35232 |
| 76 | 18302 | 123 | 35621 |
| 77 | 18643 | 124 | 36010 |
| 78 | 18986 | 125 | 36400 |
| 79 | 19331 | 126 | 36790 |
| 80 | 19677 | 127 | 37181 |
| 81 | 20024 | 128 | 37573 |
| 82 | 20373 | 129 | 37964 |
| 83 | 20723 | 130 | 38357 |
| 84 | 21074 | 131 | 38750 |
| 85 | 21427 | 132 | 39143 |
| 86 | 21781 | 133 | 39537 |
| 87 | 22137 | 134 | 39931 |
| 88 | 22493 | 135 | 40325 |
| 89 | 22851 | 136 | 40720 |
| 90 | 23210 | 137 | 41115 |
| 91 | 23571 | 138 | 41511 |
| 92 | 23932 | 139 | 41907 |
| 93 | 24295 | 140 | 42303 |
| 94 | 24659 | 141 | 42700 |


| DEPTH (CM) | VOLUME <br> (LITRE) | DEPTH VOLUME <br> (CM) <br> (LITRE) |  | DEPTH VOLUME <br> (CM) |  | $\begin{array}{\|l\|l} \text { DEPTH VOLUME } \\ \text { (CM) } & \text { (LITRE) } \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 142 | 43096 | 189 | 61772 | 236 | 79342 | 283 | 93689 |
| 143 | 43493 | 190 | 62163 | 237 | 79690 | 284 | 93936 |
| 144 | 43891 | 191 | 62554 | 238 | 80037 | 285 | 94179 |
| 145 | 44288 | 192 | 62945 | 239 | 80382 | 286 | 94420 |
| 146 | 44686 | 193 | 63335 | 240 | 80726 | 287 | 94657 |
| 147 | 45084 | 194 | 63725 | 241 | 81068 | 288 | 94890 |
| 148 | 45482 | 195 | 64114 | 242 | 81408 | 289 | 95120 |
| 149 | 45881 | 196 | 64502 | 243 | 81748 | 290 | 95346 |
| 150 | 46279 | 197 | 64890 | 244 | 82085 | 291 | 95569 |
| 151 | 46678 | 198 | 65277 | 245 | 82421 | 292 | 95788 |
| 152 | 47076 | 199 | 65663 | 246 | 82755 | 293 | 96003 |
| 153 | 47475 | 200 | 66049 | 247 | 83088 | 294 | 96214 |
| 154 | 47874 | 201 | 66434 | 248 | 83419 | 295 | 96421 |
| 155 | 48273 | 202 | 66818 | 249 | 83748 | 296 | 96624 |
| 156 | 48672 | 203 | 67202 | 250 | 84076 | 297 | 96822 |
| 157 | 49072 | 204 | 67585 | 251 | 84401 | 298 | 97016 |
| 158 | 49471 | 205 | 67967 | 252 | 84725 | 299 | 97205 |
| 159 | 49870 | 206 | 68349 | 253 | 85048 | 300 | 97390 |
| 160 | 50269 | 207 | 68730 | 254 | 85368 | 301 | 97570 |
| 161 | 50668 | 208 | 69109 | 255 | 85686 | 302 | 97744 |
| 162 | 51067 | 209 | 69489 | 256 | 86003 | 303 | 97914 |
| 163 | 51466 | 210 | 69867 | 257 | 86317 | 304 | 98078 |
| 164 | 51865 | 211 | 70244 | 258 | 86630 | 305 | 98236 |
| 165 | 52264 | 212 | 70621 | 259 | 86940 | 306 | 98388 |
| 166 | 52663 | 213 | 70996 | 260 | 87249 | 307 | 98534 |
| 167 | 53062 | 214 | 71371 | 261 | 87555 | 308 | 98674 |
| 168 | 53460 | 215 | 71745 | 262 | 87859 | 309 | 98806 |
| 169 | 53859 | 216 | 72117 | 263 | 88162 | 310 | 98931 |
| 170 | 54257 | 217 | 72489 | 264 | 88462 | 311 | 99048 |
| 171 | 54655 | 218 | 72860 | 265 | 88759 | 312 | 99157 |
| 172 | 55053 | 219 | 73230 | 266 | 89055 | 313 | 99256 |
| 173 | 55451 | 220 | 73599 | 267 | 89348 | 314 | 99345 |
| 174 | 55848 | 221 | 73967 | 268 | 89639 | 315 | 99422 |
| 175 | 56245 | 222 | 74333 | 269 | 89927 | 316 | 99485 |
| 176 | 56642 | 223 | 74699 | 270 | 90213 | 317 | 99530 |
| 177 | 57039 | 224 | 75063 | 271 | 90497 |  |  |
| 178 | 57435 | 225 | 75427 | 272 | 90778 |  |  |
| 179 | 57831 | 226 | 75789 | 273 | 91056 |  |  |
| 180 | 58227 | 227 | 76150 | 274 | 91332 |  |  |
| 181 | 58623 | 228 | 76510 | 275 | 91605 |  |  |
| 182 | 59018 | 229 | 76868 | 276 | 91876 |  |  |
| 183 | 59412 | 230 | 77225 | 277 | 92143 |  |  |
| 184 | 59807 | 231 | 77582 | 278 | 92408 |  |  |
| 185 | 60201 | 232 | 77936 | 279 | 92670 |  |  |
| 186 | 60594 | 233 | 78290 | 280 | 92929 |  |  |
| 187 | 60987 | 234 | 78642 | 281 | 93186 |  |  |
| 188 | 61380 | 235 | 78993 | 282 | 93439 |  |  |

## LIMITED WARRANTY STATEMENT

Meridian Manufacturing Inc., (hereinafter referred to as Meridian) hereby warrants the tank(s) sold by it to be free from any defect in material or workmanship under normal use and service for a period of two (2) years from the date of shipment. Meridian also warrants the structural integrity of the tanks(s) for a period of ten (10) years from the date of shipment. Meridian's obligation under this warranty shall be limited to the repair or replacement only, FOB the original point of shipment, of any defective parts or portions of the tank or accessories manufactured by Meridian. Any warranty claim must be reported to the Meridian within two (2) years for general and coating claims or ten (10) years for structural claims, from the date of shipment and in the manner as referred to in paragraph 2 herein.

THIS WARRANTY IS SUBJECT TO THE FOLLOWING LIMITATIONS, PROVISIONS AND CONDITIONS:

1. This warranty does not apply to:
d. Any product sold by Meridian where it is used in areas exposed to corrosive or aggressive conditions including salt water, acids, alkaloid, ash, cement dust, animal waste or other corrosive chemicals.
e. Failures or defects arising out of damage during shipment or during storage on site.
f. Materials replaced or repaired under this warranty except to the extent of the remainder of th applicable warranty.
g. Damage resulting from misuse, negligence, accident or improper site preparation by others.
h. Products that have been altered or modified by others.
i. (in the case of coating failures) failure as the result of damage, lack of proper maintenance or failure to remove road salt or other contaminants that may have come in contact with the tank surface.
j. Products that have not been installed strictly in accordance with the Meridian's manuals and instructions.
2. The obligation of Meridian under this warranty shall not arise unless the Meridian is notified and this warranty is presented together with a written statement specifying the claim or defect within thirty (30) days after the failure is first detected or made known to the owner and within two (2) years for general and coating claims and ten (10) years for structural claims, from the shipment date. Meridian in its sole discretion shall determine if the claim is valid and whether correction of the defect or failure shall be made by repair or replacement of the materials.
3. The coating warranty is based on the Manufacturer's performance specification for polyester powder finishes and does not include repair of minor blemishes or rusting that is normally part of the general maintenance of the tank.
4. The obligation of Meridian hereunder extends only to the original owner and to the Meridian dealer to whom the materials may have been initially sold. This warranty shall not be subject to any assignment or transfer without the written consent of Meridian.
5. The customer shall acknowledge that it has made its own independent decision to approve the use of the supplied materials and also the specific fabrication and construction procedures utilized to complete the tank, and has satisfied itself as to the suitability of these products for this particular application.
6. The foregoing sets forth the only warranties applicable to said materials and said warranties are given expressly and in lieu of all other warranties, expressed or implied, statutory or otherwise, of merchantability or fitness for a particular purpose and all warranties which exceed or differ from said warranties herein are disclaimed by the Manufacturer.
7. The owners sole and exclusive remedy against Meridian shall be limited to the applicable warranty set forth herein and the endorsements, if any, issued together with this document and no other remedy (including but not limited to the recovery of assembly or disassembly costs, shipping costs, direct, incidental, special, indirect or consequential damages for lost profits, lost sales, injury to person or property or any other loss, whether arising from breach of contract, breach of warranty, tort, including negligence, strict liability or otherwise) shall be available to the owner or Meridian Dealer or any other person or entitles whether by direct action or for contribution or indemnity or otherwise.
8. The financial obligation of Meridian under this warranty shall be limited to the repair or replacement of the product as originally supplied and in no event shall exceed the original cost of the product supplied.
9. Meridian shall not have any obligation under any warranty herein until all accounts for materials, installation and erection of the said product thereof and for labor and other work performed by Meridian or its dealers have been paid in full by the owner.

Register your product at: www.merdianmfg.com
For warranty information send an email to: warranty@meridianmfg.com

## WARRANTY REQUEST PROCEDURE

1. The product must be registered with Meridian Manufacturing Inc.
2. The purchaser must contact the dealer, from where the unit was purchased, immediately upon discovery of any defects.
3. A completed Warranty Request Form must be submitted by the dealer to Meridian's warranty representative for review and any subsequent course of action.

- Warranty requests must be completed with ALL required information in order for it to be considered for approval.
- Send photographs of the entire piece of equipment, and of the specific area of concern.

4. Warranty repair work will only be performed by Meridian or an approved representative of Meridian. Warranty work completed prior to Meridian's approval will NOT be honoured. Failure to follow this procedure may affect any or all of this warranty.
5. All warranty requests will be adjudicated at the sole discretion of Meridian and in accordance with the terms and conditions of the warranty.

## MERIDIAN

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Lethbridge, AB: (800) 661-1436
Winkler, MB: (800) 665-7259
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