









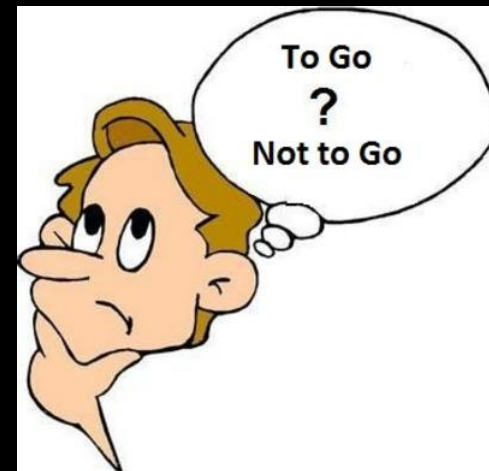




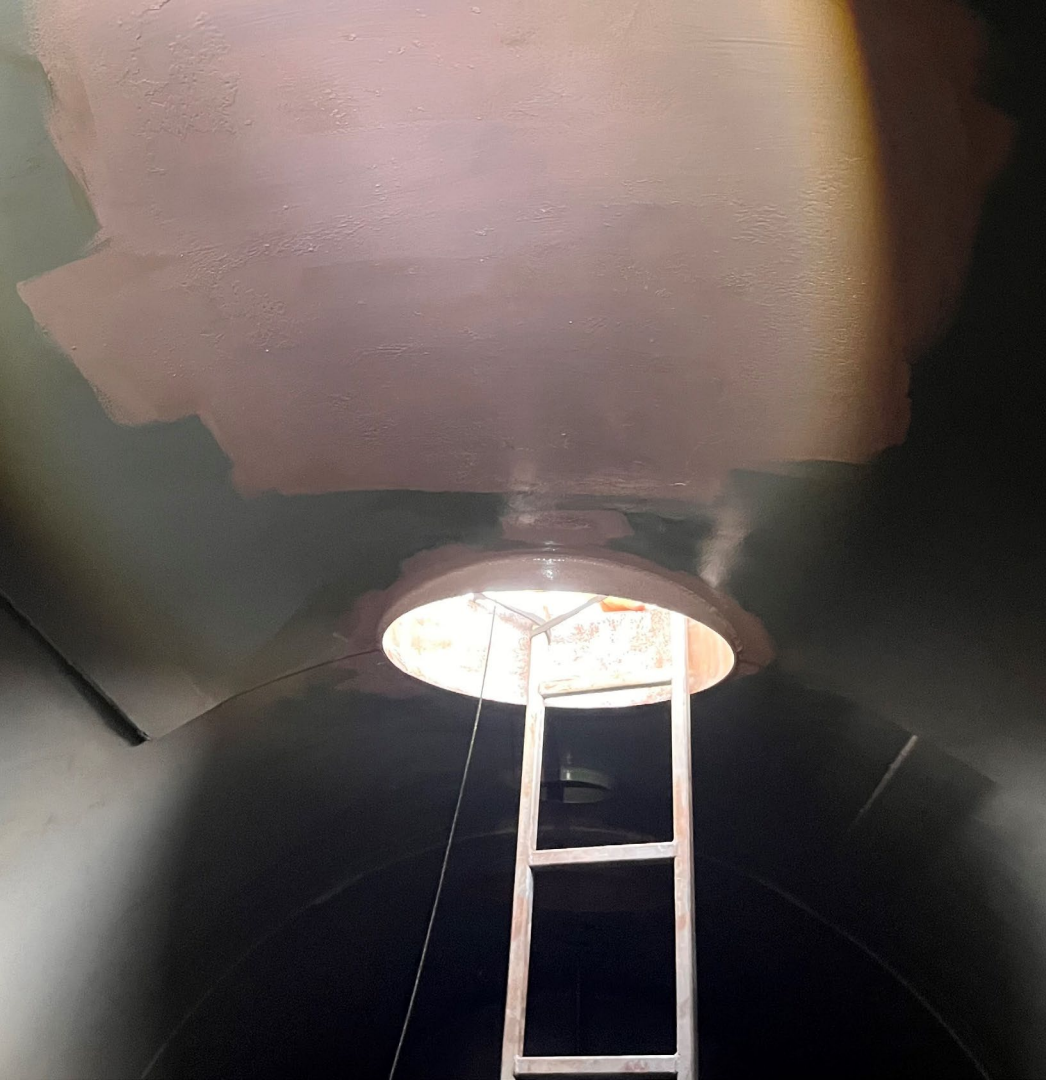
Step #2

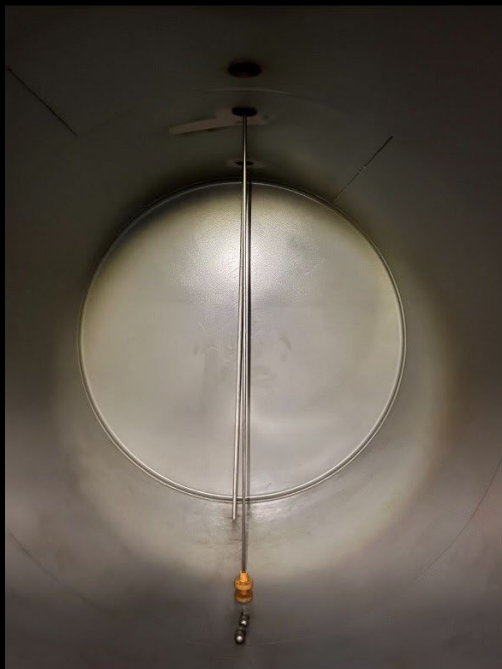


Step #2



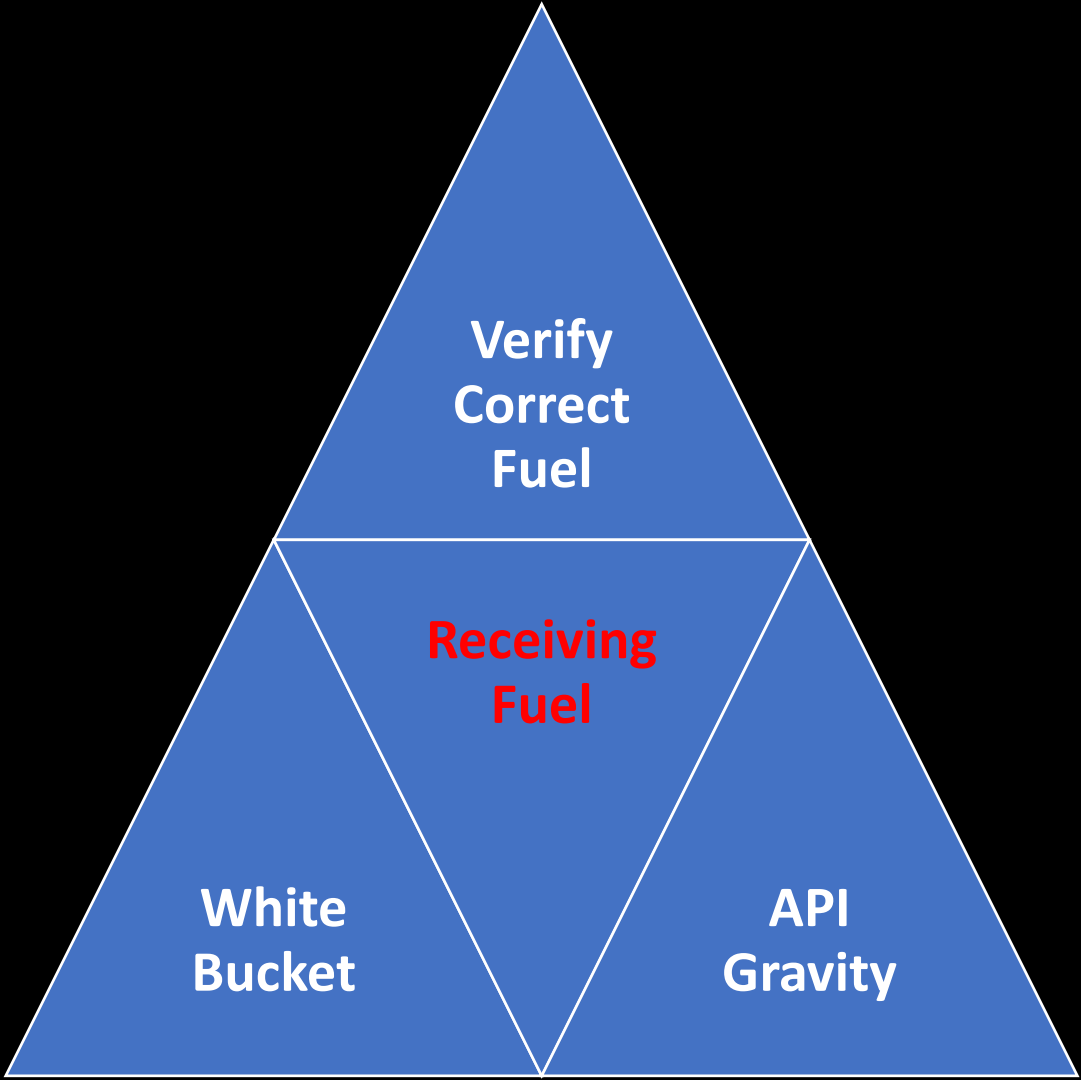












**Verify
Correct
Fuel**

**Receiving
Fuel**

**White
Bucket**

**API
Gravity**

White Bucket

Is there Water in Fuel?

Yes

Dissolved Water
(Water in Solution)

Free Water
(Undissolved Water)



Rating a White Bucket Sample

Solid Contaminant Rating

- 1 – Clear
- 2 – Slight particulate matter
- 3 – Particulate matter
- 4 – Dirty

Moisture Content Rating

- A – Bright
- B – Hazy
- C – Cloudy
- D – Wet (free water)
- E – Surfactants

API Gravity

Measure the gravity (density) of fuel; a significant change may indicate contamination by another product

Verify that the corrected API Gravity is within $\pm 1^\circ$ API of the BOL API Gravity



API Corrected Gravity Example



API Gravity Instructions

- Align the **Observed API Gravity** reading from the hydrometer (outer white ring) **1** with the **Observed Fuel Temperature** reading from the thermometer (blue ring). **2**
- Read the **Corrected API Gravity** at the 60°F line. **3**

Fuel Receipts

- Record the Observed API Gravity, Observed Fuel Temperature and Corrected API Gravity.
- Prior to accepting the load, verify the Corrected API Gravity is within +/- 1° API of the value reported on the Bill of Lading

Observed API gravity 46

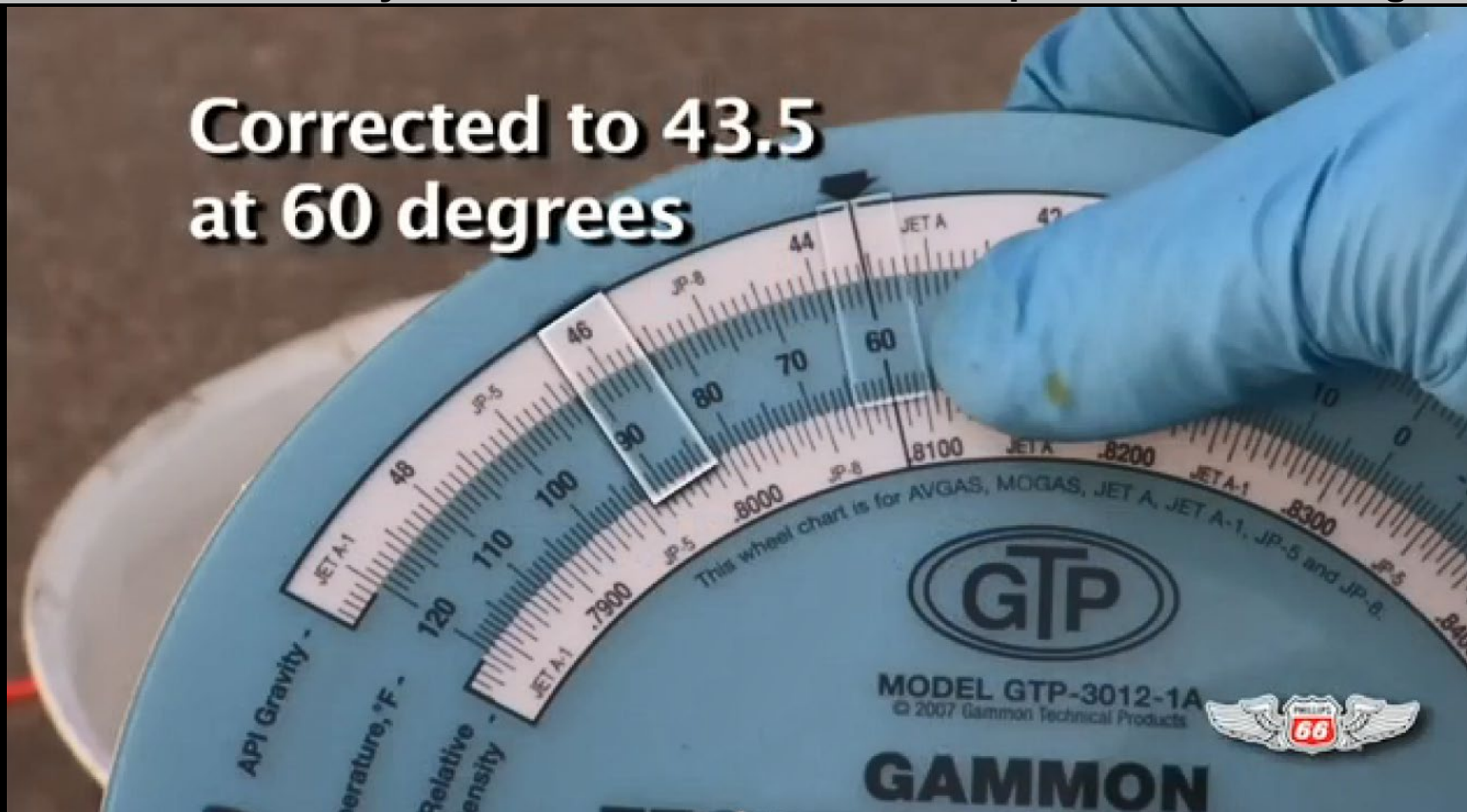


**Observed
Temperature
88 degrees**



Observed API Gravity was 46 and the Observed Temperature was 88 degrees

Corrected to 43.5
at 60 degrees



Compare your Corrected API Gravity of 43.5 to the Bill of Lading API Gravity of 43.2

833

agreed to by the shipper and accepted for himself and his assigns.

GRS	NET	ADD/BLEND	MEAS	GRAVITY	TEMP/PSI	MTR	OCTANE
3000	3014	4 N	GAL	43.2	51.6	61	.0
2001	2009	4 N	GAL	43.2	52.3	61	.0
3002	3014	4 N	GAL	43.2	52.0	62	.0

Compared to 43.2 on Bill of Lading

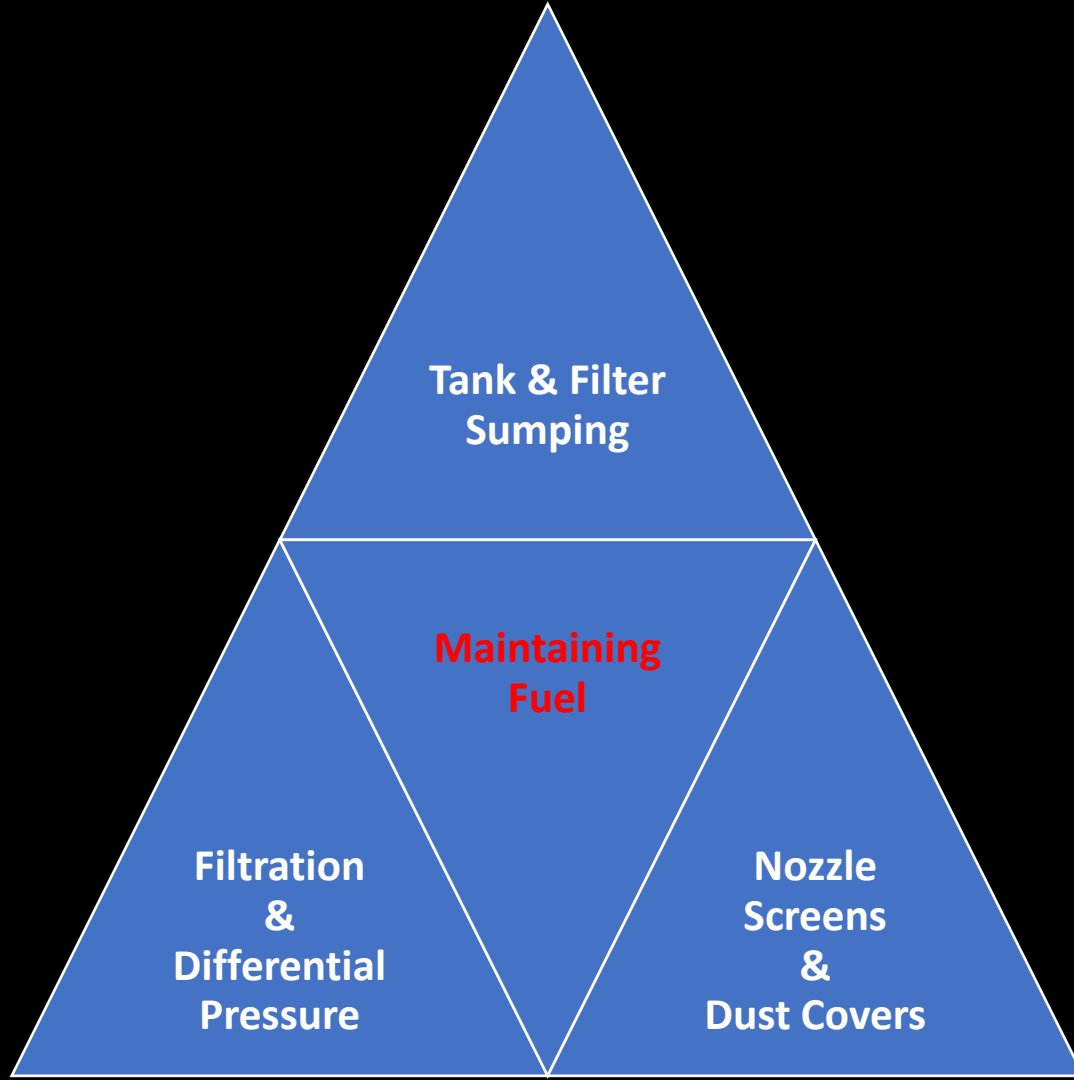


Receipt of Fuel Toolboxes



A simple fix that can help you avoid a costly mistake...

“Label and Secure “Your” Fill Points”



White Bucket

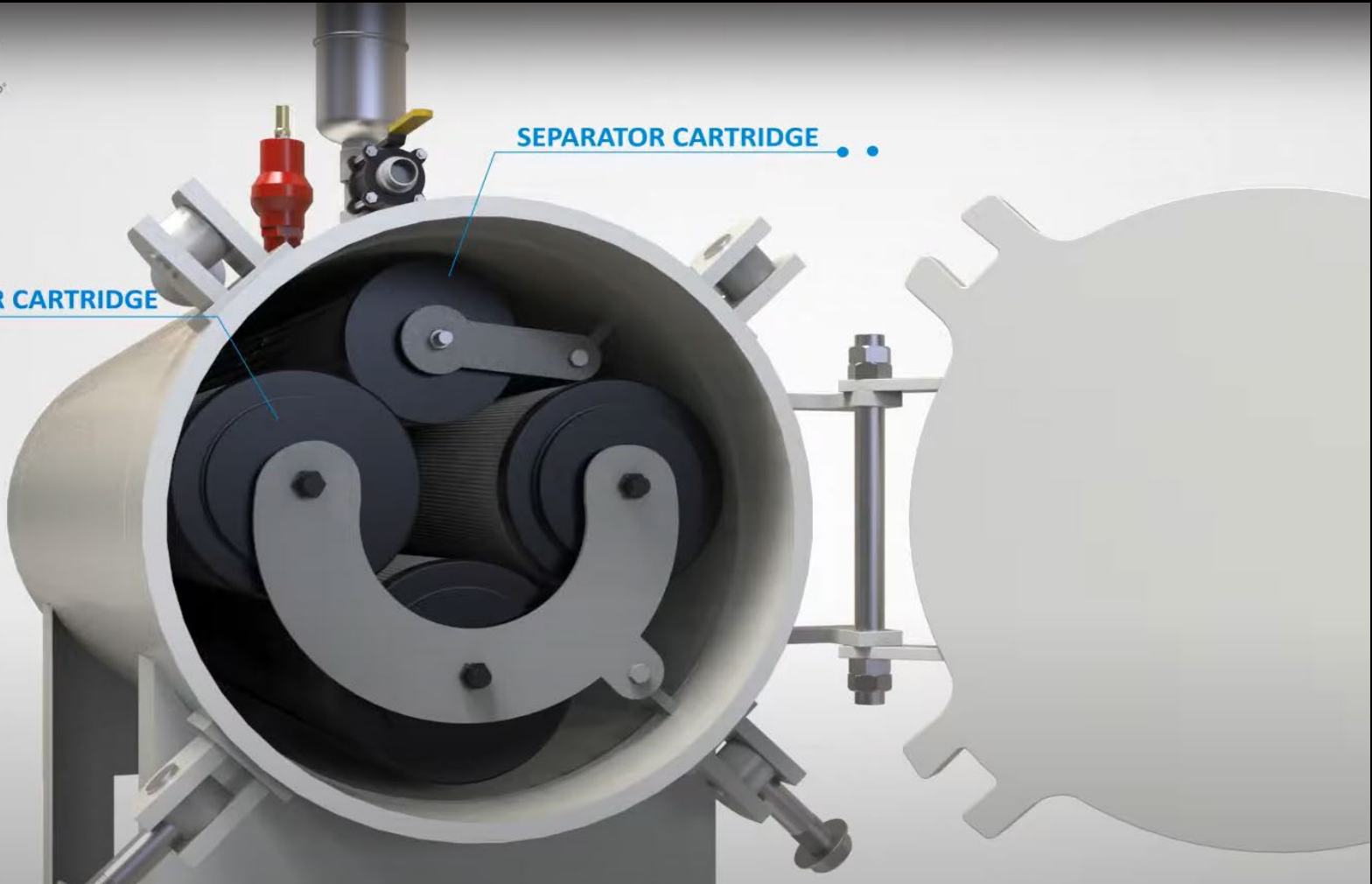
Tank & Filter Sumping?

1. Looking for Water & Particulates
2. Also, anything else that does not look normal
3. Clean, Dry, On Spec Fuel is the Goal
4. People are depending on you



SEPARATOR CARTRIDGE

COALESCER CARTRIDGE



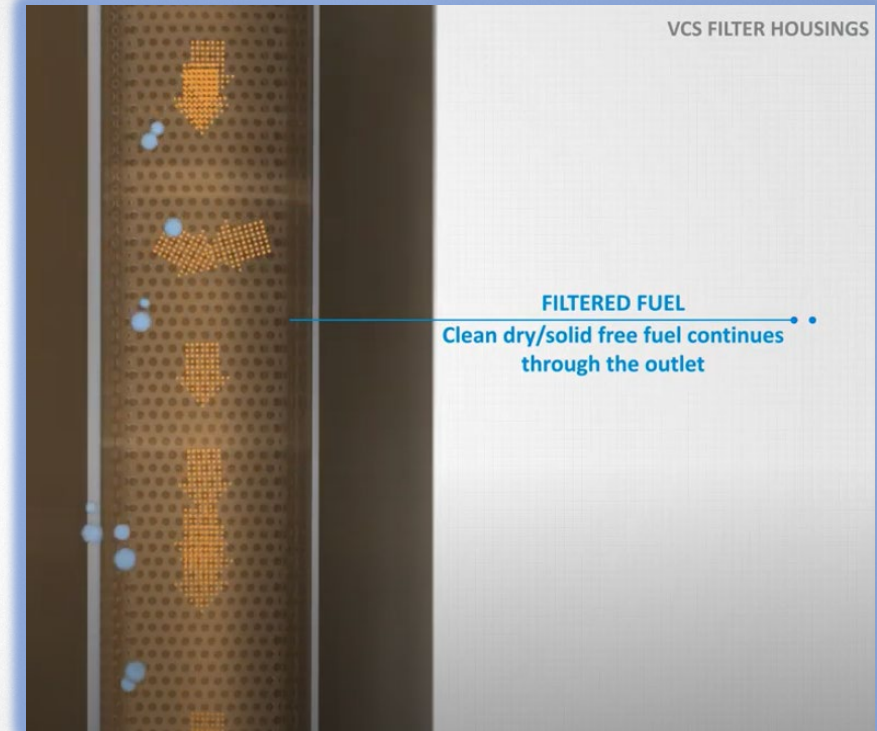
1st Stage – Coalescer Element

- Removes particulate contaminants
- Coalesce entrained free water into big water droplets
- Fuel flow direction – “Inside to Out”



2nd Stage – Separator Element

- Repels previously coalesced water droplets
- Elements made of water repellent material (Teflon or Synthetic material)
- Fuel flow direction – “Outside to In”



Are Your Filter Elements...

- Latest Edition
- Correct for Fuel Type

Coalescer / Separator (Two-Stage)

- EI 1581 – 6th Edition (Category C)
 - Jet A
 - Avgas 100LL
- EI 1581 – 6th Edition (Category M)
 - Jet A with FSII
 - Jet A
 - Avgas 100LL

Monitor

(Water Absorbing)

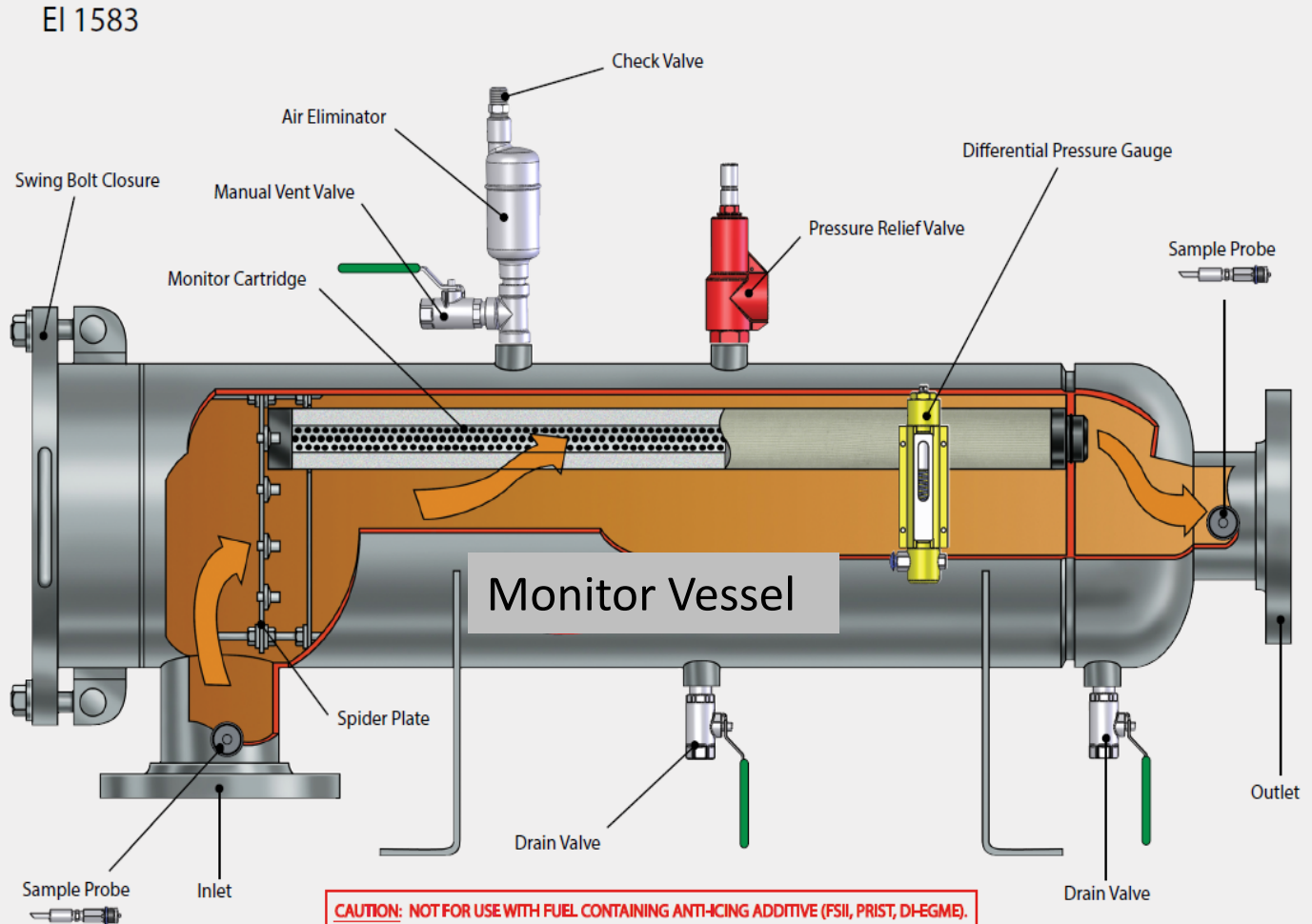
EI 1583

7th Edition

Jet A

Avgas 100LL

Being Discontinued
by Aviation Industry



CAUTION: NOT FOR USE WITH FUEL CONTAINING ANTI-ICING ADDITIVE (FSII, PRIST, D-EGME). THIS INCLUDES PRE-MIXED AND MILITARY FUELS CONTAINING THIS ADDITIVE.

Monitor

(Water Absorbing)

EI 1583

7th Edition

Jet A

Avgas 100LL

- Removes particulate contaminants
- Removes free water with a water absorbing material called SAP (Super Absorbent Polymer)
- Fuel flow direction – “Outside to In”
- Should never be used with fuel containing FSII (Fuel System Icing Inhibitor)
 - Prist
 - Dice
 - DiEGME
 - Anti-Icing Additive

Being Discontinued by Aviation Industry

New Filter Technology replacing Monitors

Water Barrier Filtration by Velcon Filters

- Removes particulate contaminants
- Water droplets are blocked by hydrophobic material
- Fuel flow direction – “Outside to In”
- Can be used with fuel containing FSII (Fuel System Icing Inhibitor)
 - Prist
 - Dice
 - DiEGME
 - Anti-Icing Additive

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Direct Reading Differential Pressure Gauge

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GTP-534
ORIGINAL MODEL



GTP-534-PB-PH
PEAK-HOLD
With Push Button
TEST VALVE

The PEAK-HOLD feature registers the highest reading, locking the piston so the operator can see maximum differential pressure for the most recent fueling operation. Turning the large knob releases the piston so that it can return to zero.



GTP-534 PBF
PUSH BUTTON
IN FRONT
(optional button position)



GTP-8980
GAMMON GAUGE™
CONTROL SYSTEM
Meets ATA-103 and
IATA JIG Bulletin 58.



GTP-534 PB
PUSH BUTTON
3-WAY TEST VALVE

Do all your employees understand Differential Pressure and why it is so important?

Differential Pressure helps determine the condition of your Filter Elements



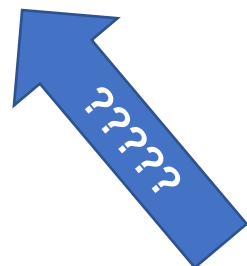
GTP-534-PB-PH
PEAK-HOLD
With Push Button
TEST VALVE



Test Button



Reset Button



?????

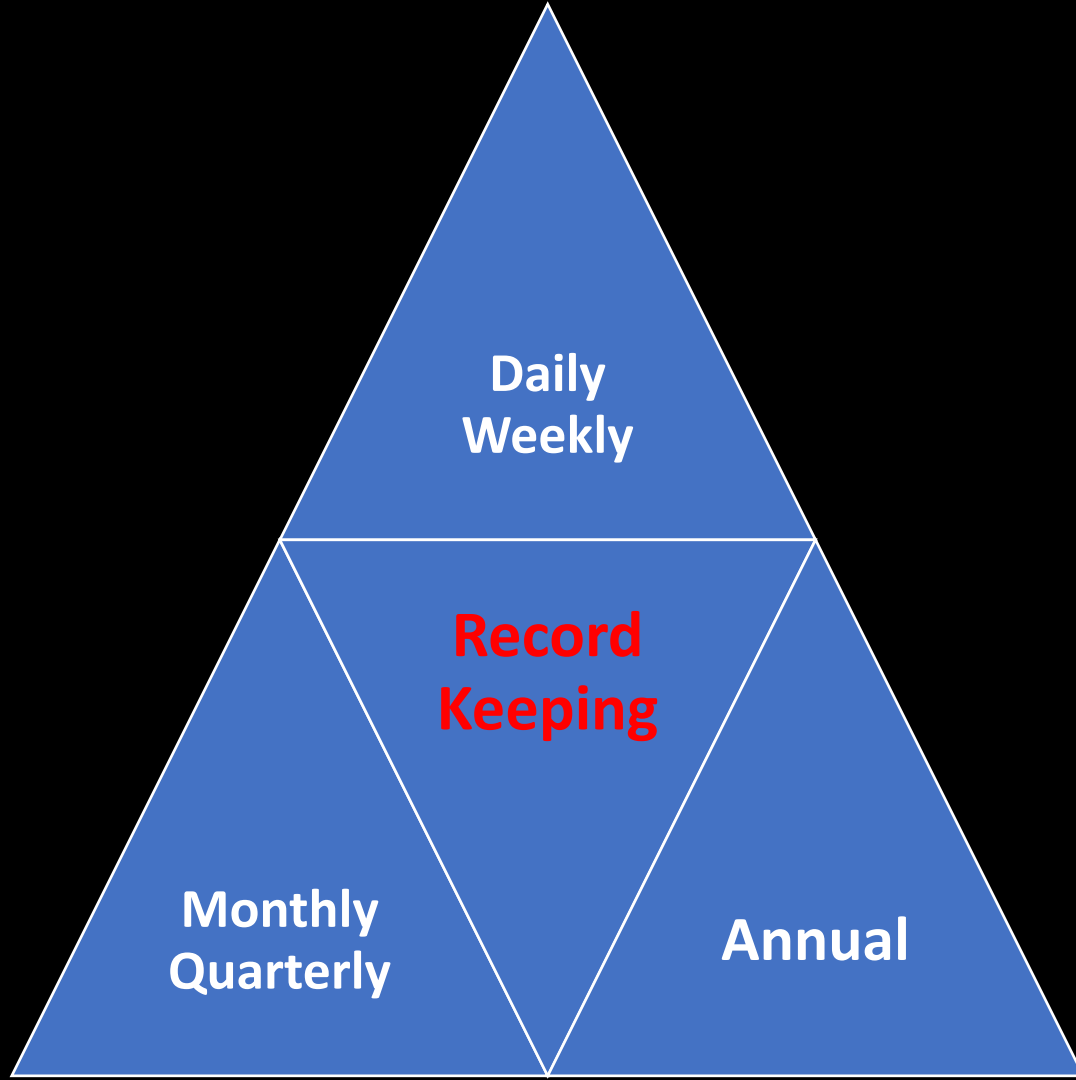




GTP-534-PB-PH
PEAK-HOLD
With Push Button
TEST VALVE

Does your FBO document Differential Pressure?

- During off-load of product from transport
- During transfer of product to the refueler
- During sell of product to aircraft



**Daily
Weekly**

**Record
Keeping**

**Monthly
Quarterly**

Annual



Good organization is the key to finding information when you need it.

- Aircraft Incident
- Customers Questions
- Audits



Receiving
Fuel

Training

Maintaining
Fuel

Record
Keeping

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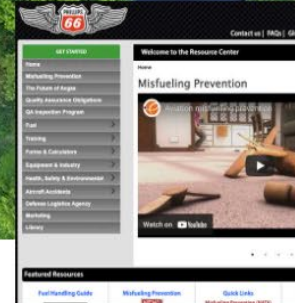
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Verify Fuel Type

www.VerifyFuel.com

MISFUELING PREVENTION PROGRAM

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- ▶ Safety 1st Clean
- ▶ Fuel QC Management System
- ▶ ISBAH
- ▶ Misfueling Prevention Program
 - ▶ Misfueling References
- ▶ Part 135 Training Center
- ▶ Views from the Ramp Podcast
- ▶ Safety 1st Verify
- ▶ Safety 1st onSITE



General Aviation Misfueling Prevention is an awareness program for all aircraft refueling stakeholders. Whether you have completed the first generation program or not, you will want to be sure to update your training today! The new program refreshes the original content and addresses new misfueling risks associated with unleaded avgas and the introduction of an additional grade of fuel at airports. Misfueling is preventable if we all work together!

NATA Operational
Best Practices

Fuel Type and
Grade
Confirmation Form

EI 1597 Publication
& Misfueling
Prevention Video

Additional
Resources

DEF Contamination
Prevention

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