

MTT/MAC/MSC/MST-INSP/RSP-5



GENUINE MEGA

SPECIALTY HAULAGE SOLUTIONS FOR CONSTRUCTION & MINING

➤ SCHEDULED/SPECIAL INSPECTIONS & RECOMMENDED SUPPORT PARTS



EQUIPMENT ➤ PARTS ➤ SUPPORT ➤



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Definitions and Abbreviations

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MANUAL USAGE

This technical manual only contains information required to safely install or service a MAC/MAT, MTT/MWT, or an MST/MSC. See the appropriate Maintenance and Operators Safety Manual for specific vehicle system information and maintenance procedures. If your system is not covered in this manual please contact MEGA Corp. Product Support Group at:

US toll free: 1-800-345-8889
Direct: 1-505-345-2661

Or visit our website at www.megacorpinc.com for more detailed contact information.

The exact location of the hazards and descriptions of the hazards are reviewed in this section. All personnel working on or operating the Mega water truck must become familiarized with all the safety messages.

WARNING

Due to the nature of these processes, ensure that all safety information, warnings and instructions are read and understood before any operation or any maintenance procedures are performed. Some procedures take place with heavy components and at moderate heights, ensure proper safety procedures are maintained when performing these actions. Failure to use and maintain proper safety equipment and procedures will cause injury, death or damage to equipment.

NOTE

Only portions of scheduled maintenance inspections, special inspections and recommended support parts may apply to CAT WDS water tanks. Use the -4 installation and appendix drawings to determine applicability.

WARNING, CAUTION AND NOTES

The following definitions are found throughout the manual and apply as follows:

WARNING

Operating procedures and techniques, which could result in personal injury and/or loss of life if not carefully followed.

CAUTION

Operating procedures and techniques, which could result in damage to equipment if not carefully followed.

NOTE

Operating procedures and techniques that are considered essential to emphasize.

USE OF SHALL, WILL, SHOULD AND MAY

Shall and **Will** – Used when application of a procedure is mandatory.

Should – Used when application of a procedure is recommended.

May - Used to indicate an acceptable or suggested means of accomplishment.

SECTION 1

Definitions and Abbreviations

SAFETY MESSAGES

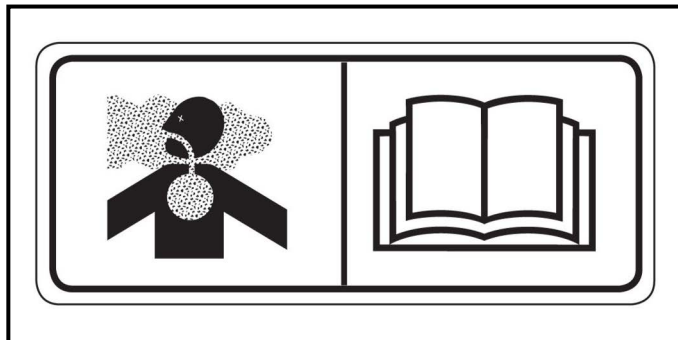
There are several specific safety messages on this machine. The exact location of the hazards and description of the hazards are reviewed in this section. All personnel working on or operating the machine must become familiarized with all the safety messages.

Make sure that all of the safety messages are legible. Clean or replace the safety messages in you cannot read the words. Replace the illustrations if the illustrations are not legible. When you clean the safety messages, use a cloth, water, and soap. Do not use solvent, gasoline, or other harsh chemicals to clean the safety messages. Solvents, gasoline, or harsh chemicals could loosen the adhesive that secures the safety messages. Loose adhesive will allow the safety messages to detach.

Replace any safety message that is damaged or missing. If a safety message is attached to a part that is replaced, install a new safety message on the replacement part.

Toxic Gas Hazard

This safety label is located on the side of the tank and at all water fill entrances.

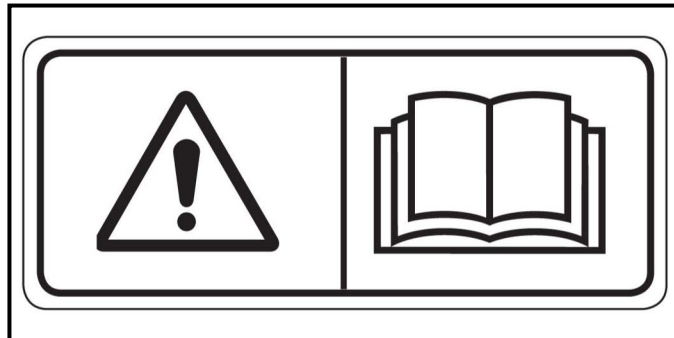


WARNING

Cutting or welding operation on the inside of the tank can cause the accumulation of toxic gases. Read and understand instructions and warnings in the Maintenance Manual. Failure to provide proper ventilation or breathing apparatus while conducting these operations may result in serious injury or death.

Do Not Operate

This safety label is located on the outside of the front and rear control boxes (if equipped).

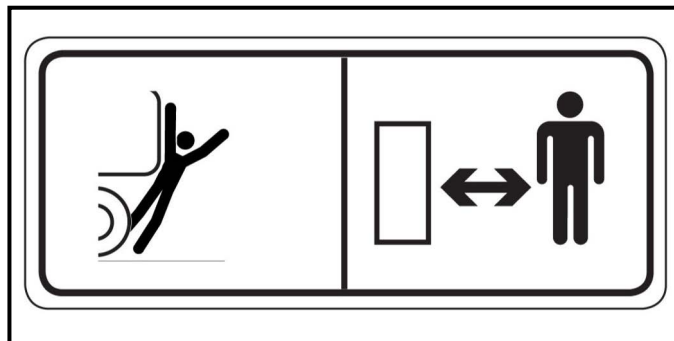


WARNING

Do not open this control box unless you read and understand the instructions and warnings in the Operator and Maintenance Manual. Failure to follow instructions or heed the warnings could result in serious injury or death.

Backing Run Over Hazard

This safety label is located on the rear of the tank and inside the cab.



WARNING

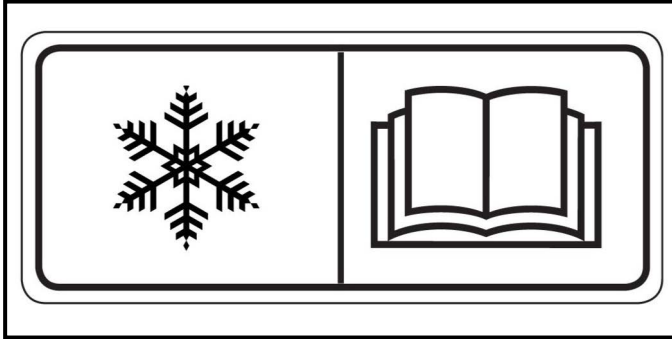
The vehicle is equipped with a back-up alarm. Alarm must sound when operating this vehicle in reverse. Failure to maintain a clear view in the direction of travel could result in serious injury or death.

SECTION 1

Definitions and Abbreviations

Freezing

This safety label is located on the side of the tank, at the sump drain, and on the pump.

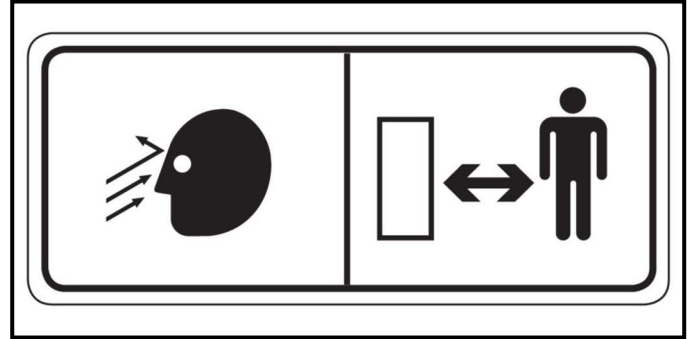


WARNING

Drain tank, fill pipe and valve in freezing weather. Refer to the Operator and Maintenance Manual for the procedure to follow.

High Pressure Water Cannon

This safety label is located on top of the cab control box.



WARNING

Do not operate the water cannon until all personnel are a safe distance away from the vehicle.

Non-Potable

This safety label is located on the side of the tank and sump drain.

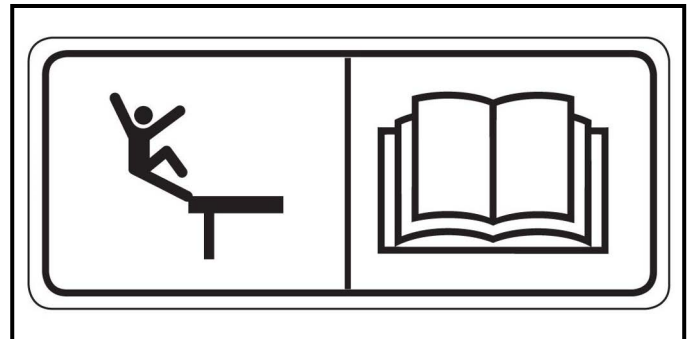


WARNING

Water held within tank is not potable. Do not use tank for transport of water intended for human or animal consumption or serious injury or death may result.

Fall Hazard

This safety label is located at the top of the front and rear of the tank.



WARNING

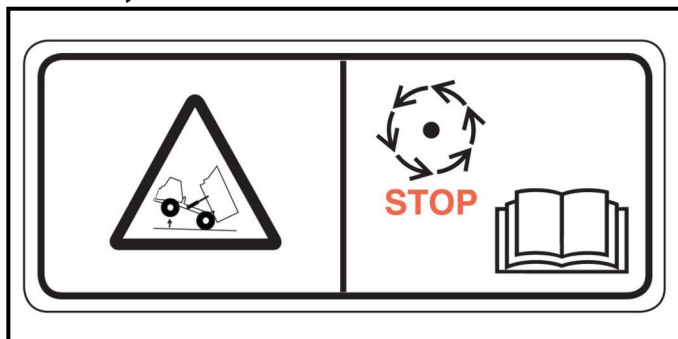
Do not walk on the top of tank without fall arrest PPE. Serious injury or death could occur from a fall.

SECTION 1

Definitions and Abbreviations

Do Not Hoist While in Motion

This safety label is located inside the cab.

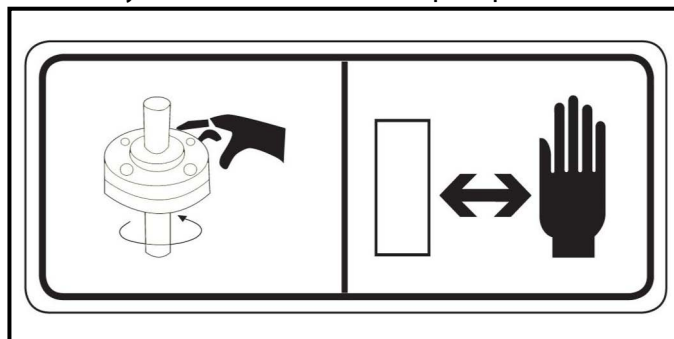


WARNING

Do not engage hoist cylinders while vehicle is in motion. Before engaging hoist, STOP the vehicle. Do not engage hoisting cylinders unless you read and understand the instructions and warnings in the Operator or Maintenance Manual. Failure to follow instructions or heed the warnings will result in injury or death.

Rotating Shaft

This safety label is located on the pump.

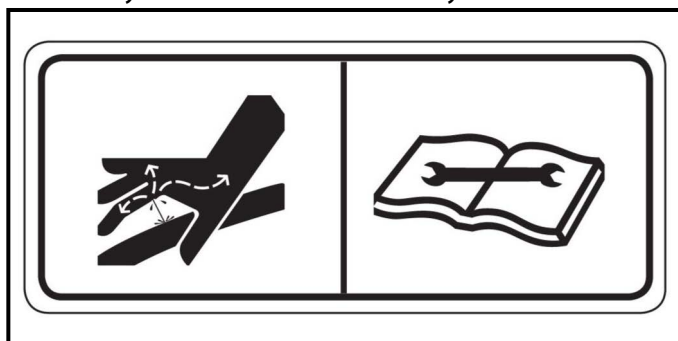


WARNING

Do not place your hand or tools within pump bell while pump is rotating and/or pressure held within the motor supply hose. Refer to the Operator and Maintenance Manual for the procedures to operate and maintain the pump. Failure to follow proper procedures could result in serious injury.

High Pressure Motor

This safety label is located on the hydraulic motor.

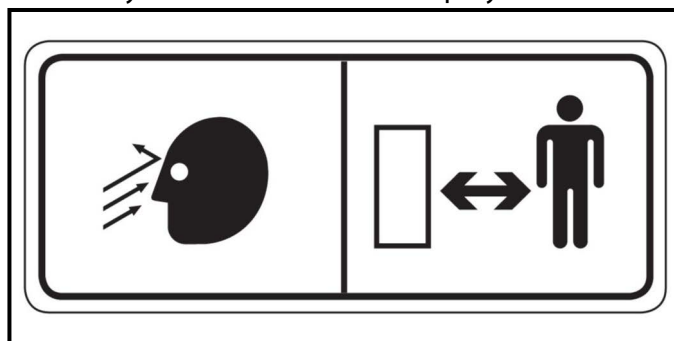


WARNING

Hydraulic motor and supply lines contain oil under high pressure. Improper removal and repair procedures could cause severe injury. To remove or repair, instructions in the Maintenance Manual must be followed.

High Pressure Spray Heads

This safety label is located on the spray bar.



WARNING

Do not operate spray heads until all personnel are a safe distance away from the vehicle.

SECTION 1

Definitions and Abbreviations

Confined Space

This safety label is located near the water tank access and fill ports.



WARNING

Do not enter confined spaces without following established site specific procedures. Failure to follow proper safety procedures will result in serious injury or death.

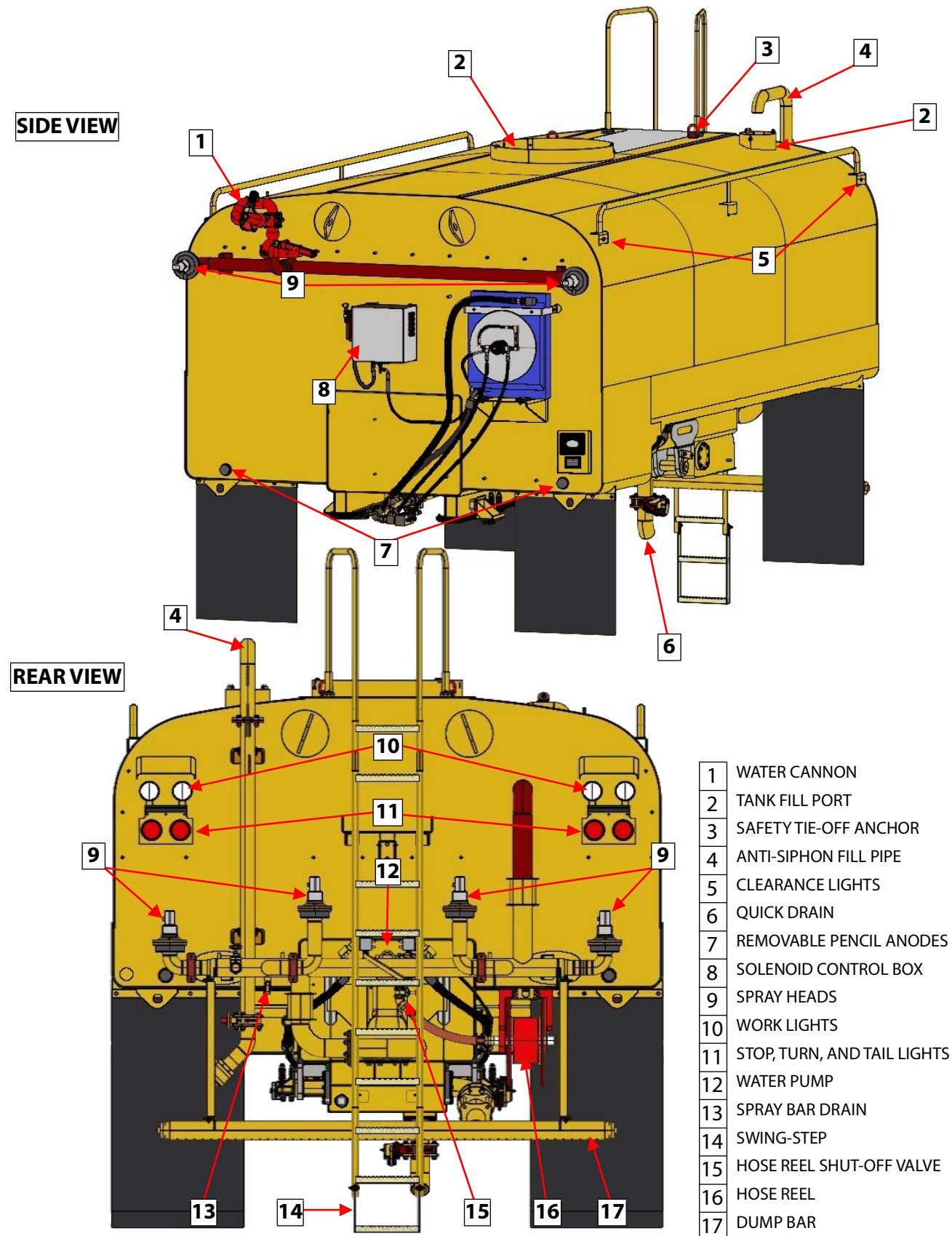
ABBREVIATIONS

BFV	Butterfly Valve
cc	Cubic Centimeters
CCW	Counter Clockwise
CW	Clockwise
fl. oz.	Fluid Ounce
FT	Feet
Ft-lbs	Foot-pounds (unit of torque)
FPM	Feet Per Minute
GPM	gallons per minute
IN/SQ FT	inches per square feet
KM-H	Kilometers Per Hour
Kg	kilograms
Kpa	Kilopascals
l	liters
lpm	Liters per minute
LT	Left as viewed from the operator's position facing forward
m	meters
mm	millimeters
MPH	Miles Per Hour
MAC	Mega Articulated Truck Conversion
MAT	Mega Supplied Articulated Truck and Tank
MSC	Mega Scraper Conversion
MST	Mega Supplied Scraper Tractor and Tank
Nm	Newton meters (unit of torque)
psi	pounds per square inch
RPM	Revolutions Per Minute
RT	Right as viewed from the operator's position facing forward
SQ FT	Square Feet
VDC	Volts, Direct Current

SECTION 1

Definitions and Abbreviations

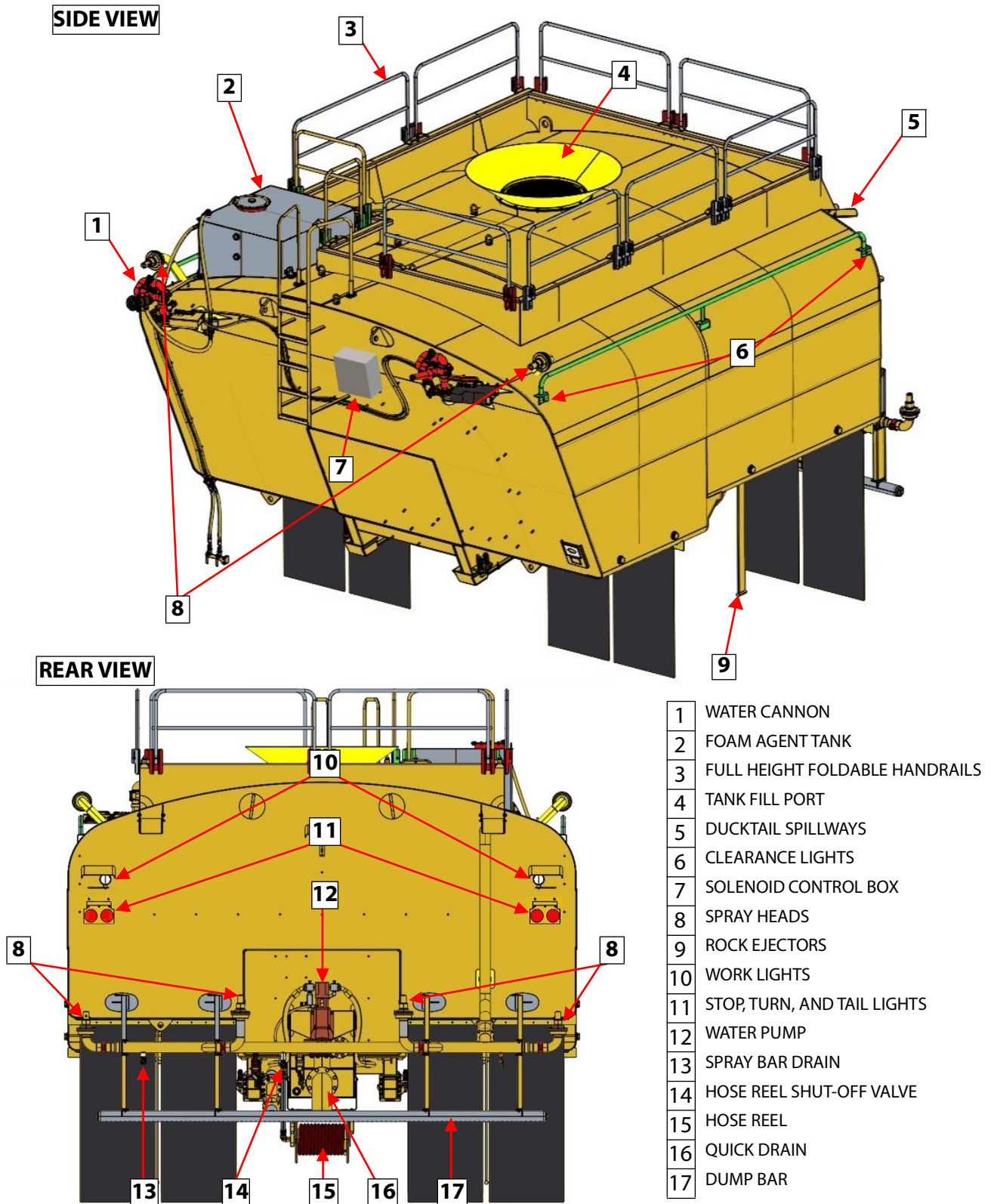
MAC OVERVIEW (TYPICAL)



SECTION 1

Definitions and Abbreviations

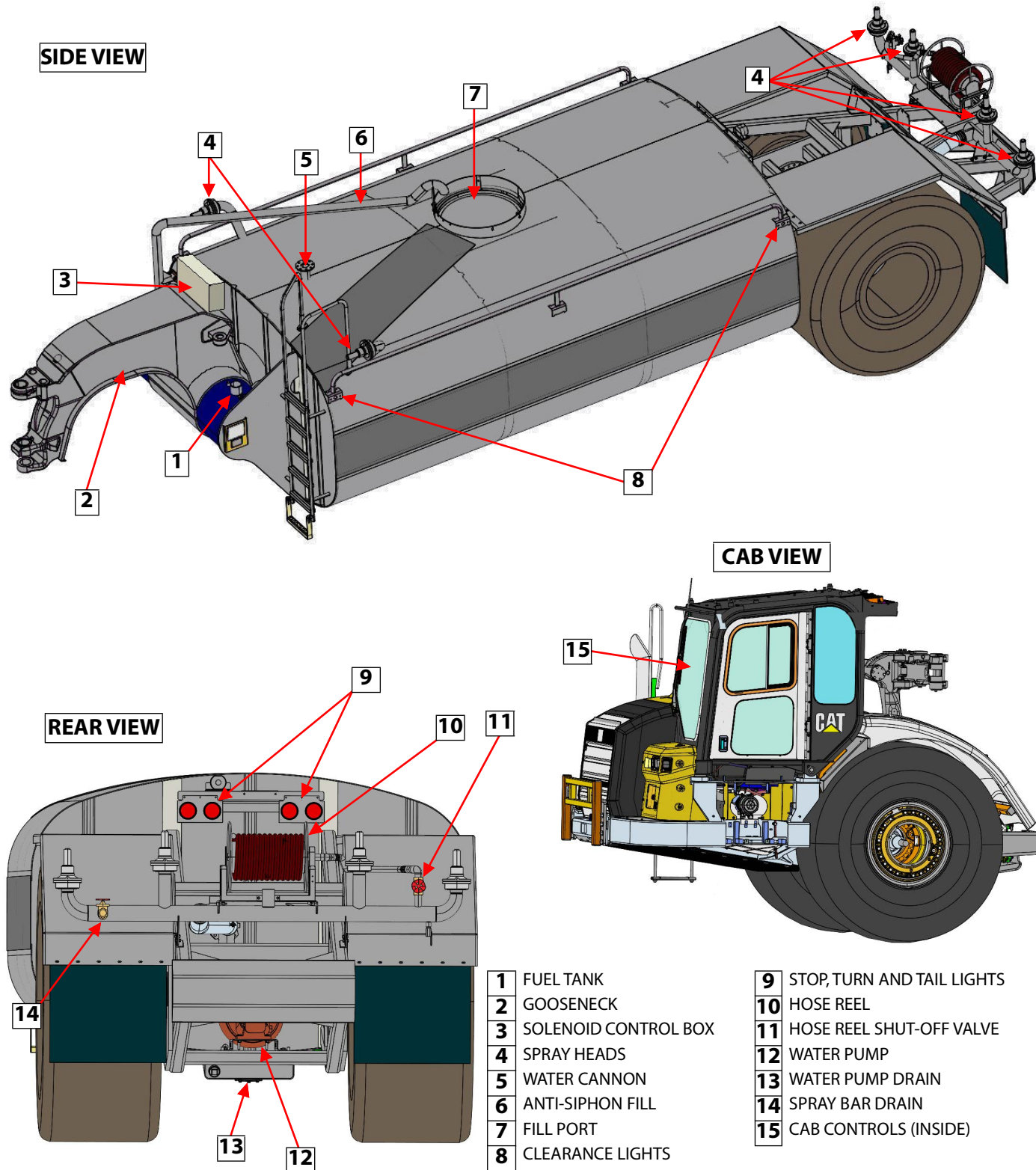
MTT OVERVIEW (TYPICAL)



SECTION 1

Definitions and Abbreviations

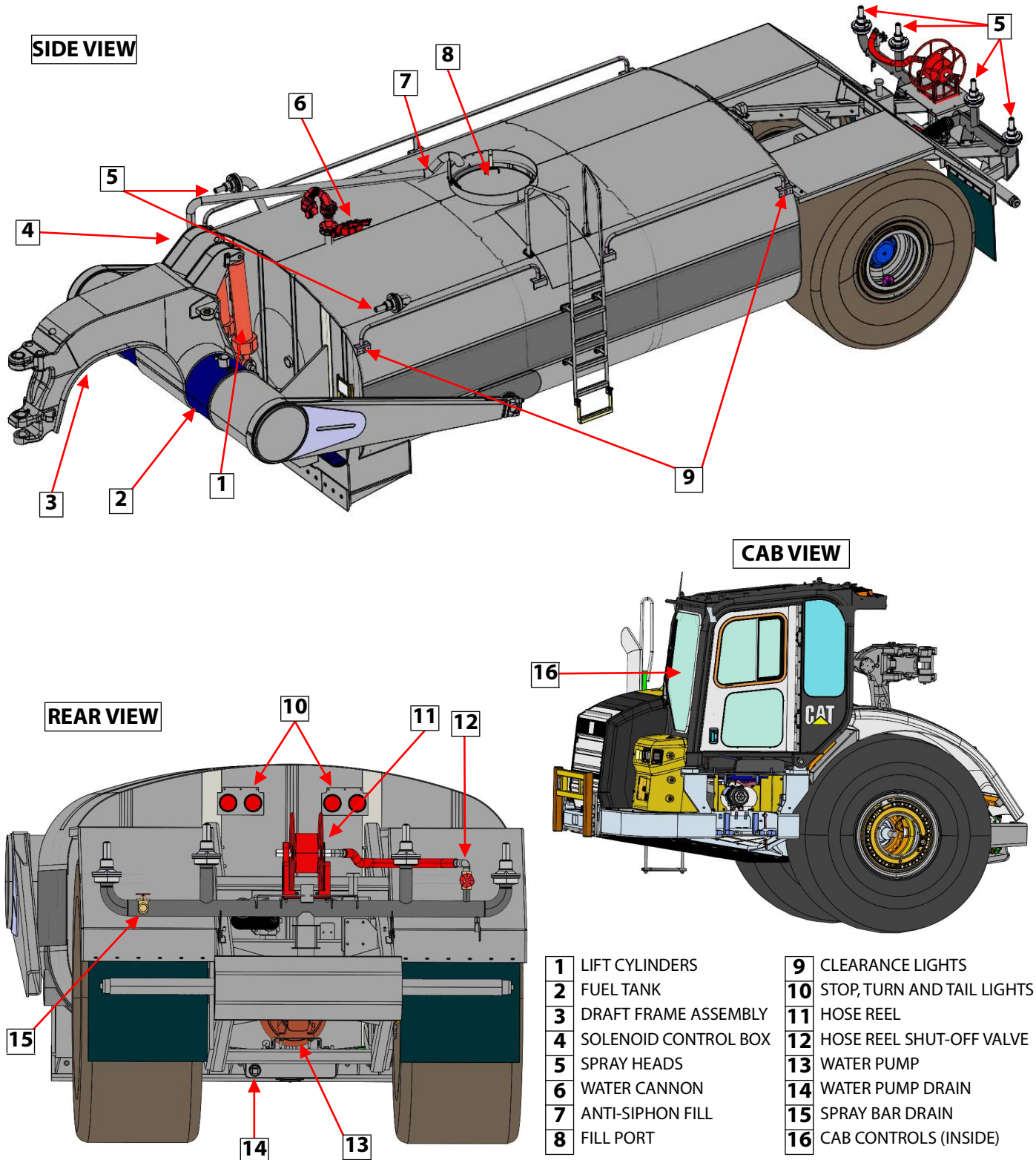
RIGID HITCH MST/MSC 8 OVERVIEW (TYPICAL)



SECTION 1

Definitions and Abbreviations

DROP HITCH MST/MSC 8 OVERVIEW (TYPICAL)



SECTION 1

Definitions and Abbreviations

SECTION 2

Scheduled Maintenance Inspections

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DESCRIPTION

This section establishes scheduled maintenance inspections of the installed MEGA water tank and systems at the designated frequencies. Performing these inspections will identify potential system discrepancies and allow preventative maintenance to be performed before a component or system is rendered totally inoperative.

NOTE

Vehicles operated in extremely low quality water environments may require more frequent inspections.

		FREQUENCY							
STEP	SPRAY HEADS	WEEKLY (150 HRS)	BI-WEEKLY (250 HRS)	MONTHLY (500 HRS)	QUARTERLY (1000 HRS)	SEMI-ANNUAL (2500 HRS)	ANNUAL (5000 HRS)	HOURS PER INSPECTION	TOTAL ANNUAL HOURS
1	Check spray head for damage and clean deflector ring and spray head opening.	X						0.3	15.6
2	Check hydraulic and pneumatic lines for security, damage and leaks.	X						0.3	15.6
3	Check spray head drop-in assembly for leaks with spray head switch OFF and water pump ON. Replace drop-in assembly as required.			X				0.3	3.6
4	Check spray head base plate and upper housing mount bolts for security.			X				0.2	2.4
5	Check spray head adjustable deflector ring for damage and correct adjustment. Apply dry-film lubricant to the deflector inner ring.			X				0.6	7.2
6	Check spray head base plate for evidence of leaks. Replace base plate O-ring as required.						X	0.2	0.2
									44.6 Total

SECTION 2

Scheduled Maintenance Inspections

STEP	CONTROL SYSTEM	FREQUENCY							
		WEEKLY (150 HRS)	BI-WEEKLY (250 HRS)	MONTHLY (500 HRS)	QUARTERLY (1000 HRS)	SEMI- ANNUAL (2500 HRS)	ANNUAL (5000 HRS)	HOURS PER INSPECTION	TOTAL ANNUAL HOURS
1	Check all electrical cables for security and damage. Disconnect, clean and coat Deutsch connector junctions with Dielectric grease as required.			X				0.7	9.6
2	Check all hydraulic and pneumatic solenoids and hosing for security and leaks.				X			0.3	1.2
3	(Hydraulic solenoid box ONLY) Check filter bypass condition. Replace filter if in bypass.				X			.2	0.8
4	Check monitor/nozzle assembly for security leaks and condition. Repair as required.				X			0.2	0.8
5	Check foam agent supply hoses and shut-off valve for security condition and evidence of suction leaks.				X			0.1	0.4
6	Check all in-cab control functions for proper operation. Repair and replace control components as required.				X			0.7	2.8
7	Check hose reel for security mounting and leaks.			X				0.2	2.4
8	Unreel the entire length of hose, pressurize hose and check hose and nozzle for security, wear and leaks.						X	0.6	0.6
									18.6 Total

SECTION 2

Scheduled Maintenance Inspections

STEP	M-4, M-4B WATER PUMP SYSTEM	150 HRS (WEEKLY)	250 HRS (BI-WEEKLY)	500 HRS (MONTHLY)	1,000 HRS (QUARTERLY)	5,000 HRS (ANNUALLY)	HOURS PER INSPECTION	TOTAL ANNUAL HOURS
1	Remove water pump from unit and check: water pump impeller retaining bolt/nut for security and for damage or contact to the impeller, impeller keyways for wear and security, shaft bearings for signs of heating and wear, drive end shaft keyways for signs of damage and heating and seals for security, damage and over or under lubrication. Check volute case for damage or contact. Check both of the impeller wear rings for damage and excessive wear (0.020" or 0.5 mm nominal tolerance) Check packing mount for security. (Disassembly of water pump is required to perform these maintenance operations). Repair as required.					X	5.0	5.0
2A	(This Step For M-4 Pump Only) Check shaft seals for excessive lubricant leakage and water leakage. Lubricate water pump with a manual grease gun only. When lubricating the drive motor side shaft bearing and the impeller end bearing, apply 16 to 20 squirts (injections) of grease (2 fl. oz. or 60 cc) to each. Apply 4 or 5 squirts (injections) of grease to lantern ring grease fitting. Adjust, repair or replace as required.		X				0.3	8.0
2B	(This Step For M-4B Pump Only) Check shaft seals for excessive lubricant leakage and water leakage. When lubricating, apply 5.5 fl oz (150 cc) of grease to the drive end bearing and 2.5 fl oz (75 cc) of grease to the impeller end bearing. Adjust, repair or replace as required.		X				0.3	8.0
3	Check water pump and drive motor for leaks, excessive vibration/noise leaks and evidence of excessive heating. Repair as required.	X					0.3	15.6
4	Check rope seals for excessive water leakage, compression, wear and overheating. Adjust rope packing seal packing gland or replace rope packing seals as required.	X					0.3	15.6
5	Check water pump inlet and discharge piping for security, leakage and misalignment. Repair leaks as required.		X				0.2	5.2
								57.4 Total

SECTION 2

Scheduled Maintenance Inspections

STEP	M-3 WATER PUMP SYSTEM	150 HRS (WEEKLY)	250 HRS (BI-WEEKLY)	500 HRS (MONTHLY)	1,000 HRS (QUARTERLY)	5,000 HRS (ANNUALLY)	MANHOURS PER INSPECTION	Total Annual Hours
1	Remove water pump from unit and check: water pump impeller retaining bolt/nut for security and for damage or contact to the impeller, impeller keyways for wear and security, shaft bearings for signs of heating and wear, drive end shaft keyways for signs of damage and heating and seals for security, damage and over or under lubrication. Check volute case for damage or contact. Check both of the impeller wear rings for damage and excessive wear. Check packing mount for security. (Disassembly of water pump is required to perform these maintenance operations). Repair as required.					X	5.0	5
2	Check shaft seals for excessive lubricant leakage and water leakage. Lubricate water pump with a manual grease gun only. When lubricating the drive motor side shaft bearing and the impeller end bearing, apply 16 to 20 squirts (injections) of grease (2 fl. oz. or 60 cc) to each. Adjust, repair or replace as required.		X				.3	8.0
3	Check water pump and drive motor for leaks, excessive vibration/noise leaks and evidence of excessive heating. Repair as required.	X					.3	15.6
4	Check rope seals for excessive water leakage, compression, wear and overheating. Adjust rope packing seal packing gland or replace rope packing seals as required.	X					.3	15.6
5	Check water pump inlet and discharge piping for security, leakage and misalignment. Repair leaks as required.		X				.2	5.2
								49.4 Total

SECTION 2

Scheduled Maintenance Inspections

STEP	TANK STRUCTURE	WEEKLY (150 HRS)	BI-WEEKLY (250 HRS)	MONTHLY (500 HRS)	QUARTERLY (1000 HRS)	SEMI-ANNUAL (2500 HRS)	ANNUAL (5000 HRS)	HOURS PER INSPECTION	TOTAL ANNUAL HOURS
1	Check body pad and guides for cracks, security and damage. Repair or replace as required.	X						0.3	15.6
2	Visually inspection tank exterior for damage and evidence of leaks. Repair as required.	X						0.3	15.6
3	Check all lights (turn signal, brake, backing, parking, clearance and work) for proper operation. Replace lights as required.	X						0.3	15.6
4	Check filler port trash screen for debris and inspect assembly for security and damage. Repair or replace trash screen as required.	X						0.2	10.4
5	Drain tank and remove water pump sump access cover. Remove trash and inspect sump area for damage.			X				0.5	6.0
6	Remove and inspect magnesium pencil anodes. Reseal or replace as needed.				X			0.5	2.0
7	Check all interior tank structure for leaks, cracks and condition of interior coating. Repair structure and coatings as required.					X		3.0	6.0
									71.2 Total

NOTE

The MSC/MST model water tanks require additional maintenance checks outlined in the following tables.

		FREQUENCY						
STEP	MSC/MST ADDITIONAL	WEEKLY (150 HRS)	MONTHLY (500 HRS)	QUARTERLY (1000 HRS)	SEMI-ANNUAL (2500 HRS)	ANNUAL (5000 HRS)	HOURS PER INSPECTION	TOTAL ANNUAL HOURS
1	Check the trailing axle frame structure for any cracking. Close attention should be paid to all gusseting, as well as to the wheel group mounting plates. Repair structure as required.				X		3.0	6.0
2	Check all components on the trailing axle frame for leaks and/or damage. These components include air tanks, air lines, brake pods, hydraulic connections, spray bar, dump bar, and wheel groups. Repair or replace as required.		X				1.0	12.0

SECTION 2

Scheduled Maintenance Inspections

STEP	MSC/MST ADDITIONAL	FREQUENCY						TOTAL ANNUAL HOURS
		WEEKLY (150 HRS)	MONTHLY (500 HRS)	QUARTERLY (1000 HRS)	SEMI-ANNUAL (2500 HRS)	ANNUAL (5000 HRS)	HOURS PER INSPECTION	
3	(DROP HITCH ONLY) <u>STRUCTURE</u> : Check draft arms, fuel tank and goose neck structure for damage, cracks and security. Repair as required. Inspect draft arm trunnion attaching bolts for security at tank joint. <u>FUEL SYSTEM</u> : Inspect tank, fuel system components and fill system for damage, security and leaks. Repair or replace as required. <u>HYDRAULICS</u> : Inspect lift cylinders, steering cylinders and implement valve for security, damage and leaks. Inspect all hydraulic and pneumatic hoses for damage, security, chaffing and leaks. <u>CONTROLS/ELECTRICAL</u> : Check all wiring harnesses for damage and security. Inspect all connectors and repair as required.		X				2.0	24.0
								42.0 Total (Drop)
4	(RIGID HITCH ONLY) <u>STRUCTURE</u> : Check fuel tank and goose neck structure for damage, cracks and security. <u>FUEL SYSTEM</u> : Inspect tank, fuel system components and fill system for damage, security and leaks. Repair or replace as required. <u>HYDRAULICS</u> : Inspect steering cylinders and water pump control valve for security, damage and leaks. Inspect all hydraulic and pneumatic hoses for damage, security, chaffing and leaks. <u>CONTROLS/ELECTRICAL</u> : Check all wiring harnesses for damage and security. Inspect all connectors and repair as required.		X				1.5	18.0
								36.0 Total (Rigid)

SECTION 3

Special Inspections

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Fire Suppression System.....	3-1		

DESCRIPTION

This section contains special inspection requirements for a specific system after use, an unusual event or storage.

FIRE SUPPRESSION SYSTEM

After Use

1. Flush foam concentrate supply hose, water cannon and nozzle with fresh water.
2. Adequately lubricate adjustable nozzle (if equipped) for smooth operation.
3. Inspect foam concentrate hose for signs of collapsing, kinks, wear or leaks.
4. Wash down all water tank and vehicle surfaces that were exposed to the foam or foam concentrate.

COLD WEATHER OPERATION AND STORAGE

CAUTION

Ensure all water is drained from system when the temperatures are expected to fall below 4.4°C (40°F) for any period of time. Failure to ensure all systems are drained and free from standing water will result in ice formation, which will cause serious damage to shaft, operator, diaphragm, drive motor, water pump, or butterfly valve.

To ensure that all water is drained from tank:

1. Remove any exterior dirt, grease and grime that may trap moisture.
2. Flush all water suction and discharge lines (e.g. water pump, spray heads, monitor, dump bar and hose reel).
3. Ensure all water is drained from the tank.
4. **(If equipped)** Fully extend hose reel and ensure nozzle and hose are fully drained of water.
5. Remove lowest drain plugs on the water pump and the tank. Ensure all suction and discharge lines are drained.
6. (If equipped) Inspect tank interior epoxy coating for wear.
7. Prime and paint any exposed metal.
8. Seal all fill and discharge openings to keep foreign matter out (e.g. dirt, dust, insects, rodents and water).
9. Lubricate the water pump and any other MEGA Water Tank component that require grease.
10. Service all vehicle systems per prime mover service manual.
11. If possible, shelter the pump assembly from the elements.
12. Check to ensure all MEGA solenoid and junction boxes are closed and secure.
13. If possible, shelter entire vehicle from the elements.

SECTION 3

Special Inspections

To restore unit to service from drained storage:

1. Remove all covers and seals from all tank fill/discharge openings and components.
2. Inspect interior of the tank for any foreign matter and condition of epoxy coating (if equipped).
3. Check to ensure all water pump and tank drain plugs are installed.
4. Remove any exterior dirt, grease and grime and treat any corrosion.
5. Service all vehicle systems per prime mover service manual.
6. Fill tank with water and inspect the systems for leaks.
7. (If equipped) Perform a functional check of the hose reel.
8. Perform a full functional check of all MEGA Water Tank cab controls systems.

SECTION 4

Recommended Support Parts

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Analog Control System Parts Group	4-3	Water Cannon Support Parts Group	4-6
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DESCRIPTION

This section contains a listing of recommended support parts that should be available in the supply warehouse. The tables are categorized by specific sub system of the MEGA Water Tank. REMEMBER, all tanks are not configured the same and there are several variations of water pumps, hydraulic drive motors, monitors and BFVs. Ensure MEGA Water Tank serial numbers and actual component part numbers are checked before ordering any parts. Once parts are issued from warehouse stock ensure depleted quantities are replenished to keep the recommended support parts package at 100%.

Several support parts are designated as a "**Quick Change Component (QCC)**" and should be used to minimize repair time of an operational MEGA Water Tank. Broken assemblies can be repaired by maintenance and later returned to the supply warehouse as a serviceable part.

SECTION 4

Recommended Support Parts

A-1. Spray Heads, Hydraulic, Aluminum (025610)

PART DESCRIPTION	PART NO	QTY
1. Cylinder, Hydraulic, 2inch Bore X 1inch Stroke	306808	2
2. Knob, Adjusting Ring	302912	3
3. Spring, Hydraulic SHV	305304	6
4. Drop In Assembly, 3inch SHV	300409	12
5. Diaphragm, 3inch SHV	300208	8
6. O-Ring, 3inch SHV Base	354502	12
7. Cap Screw, 5/16-18 X 1¼ inch, SS	355335	16
8. Washer, Lock, 5/16inch, SS	355337	16
9. Washer, Flat, 5/16inch, SS	355336	16
10. Washer, 0.812 OD X 0.406 ID, Bevel, SS	355295	8
11. Cap Screw, 3/8 inch X 3/4 inch, SS	355294	8

A-2. Spray Heads, Hydraulic, Stainless (047062)

PART DESCRIPTION	PART NO	QTY
1. Cylinder, Hydraulic, 2 inch Bore X 1 inch Stoke	306808	2
2. Knob, Adjusting Ring	306788	2
3. Cap Screw 3/8-16 X 2 inch, Stainless Steel	308917	2
4. Spring, Hydraulic SHV	305304	4
5. Drop In Assembly, 3inch SHV	307322	4
6. Diaphragm	300208	4
7. O-Ring, Base	354502	2
8. Cap Screw, 5/16-18 X 1¼ inch, SS	306661	4
9. Washer, Lock, 5/16 inch, SS	355337	16
10. Washer, Flat, 5/16 inch, SS	355336	16
11. Flat Washer, Eccentric, Stainless Steel	306764	8
12. Cap Screw, 3/8 inch UNC X 1/2 inch, Stainless Steel	306805	8

A-3. Spray Heads, Pneumatic, Aluminum (300198)

PART DESCRIPTION	PART NO.	QTY
1. Quick Discharge Valve, Pneumatic	300468	2
2. Knob, Adjusting Ring	302912	2
3. Spring, Pneumatic SHV	300213	4
4. Drop In Assembly, 3 inch SHV	300409	4
5. Diaphragm	300208	2
6. O-Ring, Base	354502	4
7. Cap Screw, 5/16-18 X 1¼ inch, Stainless Steel	355335	16
8. Washer, Lock, 5/16 inch, SS	355337	16
9. Washer, Flat, 5/16 inch, SS	355336	16
10. Washer, 0.812 OD X 0.406 ID, Bevel, SS	355295	8
11. Cap Screw, 3/8 inch X 3/4 inch	355294	8

SECTION 4

Recommended Support Parts

A-4. Spray Heads, Pneumatic, Stainless Steel (052926)

PART DESCRIPTION	PART NO	QTY
1. Exhaust valve, 1/4 inch NPT -4 NPT, Stainless Steel	309106	2
2. Knob, Adjustment Ring	306788	2
3. Cap Screw 3/8-16 X 2 inch, Stainless Steel	306769	2
4. Spring, Pneumatic SHV	300213	4
5. Drop in Assembly, 3 inch SHV	307322	4
6. Diaphragm	300208	2
7. O-Ring, Base	354502	4
8. Cap Screw, 5/16-18 X 1 1/4 inch, SS	306661	16
9. Washer, Lock, 5/16 inch, SS	355337	16
10. Washer, Flat, 5/16 inch, SS	355336	16
11. Flat Washer, Eccentric, Stainless Steel	306764	8
12. Cap Screw, 3/8 UNC X 1/2 inch, Stainless Steel	306805	8

B. ANALOG CONTROL SYSTEM PARTS GROUP

PART DESCRIPTION	PART NO.	QTY
1. Joystick, Universal **Serial No. Specific Part	303041	1
2. Timer, Intermittent **Serial No. Specific Part	304751	1
3. Switch, SPST, Green Lens (Cab Control)	305019	1
4. Switch, SPST, White Lens (Cab Control)	305020	1
5. Switch, DPDT, No Lens (Cab Control)	305021	2
6. Sensor, Water Level **Serial No. Specific Part		
a. Units with Water Level Volume, >120 inches (Replaces 303822 & 304414)	308740	1
b. Kit to Install 308740 Units that Used 304414 (update FSB 39)	053281	1
7. Electronic Driver Card **Serial No. Specific Part		
a. Contact Customer Support *Upgrades Kits Available		

C. SOLENOID CONTROL BOX PARTS

PART DESCRIPTION	PART NO.	QTY
1. Hydraulic Spray System (Analog & Digital) **Serial No. Specific Part		
a. Solenoid Valve (Solenoid Box)	305156	2
b. Coil, 24 VDC with Connector	305590	2
c. Hydraulic Filter Asm. Repair Parts (305277 Gen 1) **Serial No. Specific Part		
1) Filter Element	305276	1
2) Repair Kit, O-Ring	305918	2
d. Hydraulic Filter Asm. Repair Parts (310262 Gen 2) **Serial No. Specific Part		
1) Filter Element	310263	1
2) Seal Kit, Series A, NF30	310857	2
2. Pneumatic Spray System **Serial No. Specific Part		
a. Valve, Tractor Protection	300945	1
b. Solenoid Valve (Spray Head Valve)	304929	1
c. Solenoid Valve (Butterfly Valve)	304948	1
d. Pressure Regulator/Air Filter, Shut Off, Combination Assembly **Serial No. Specific Part	304945	

SECTION 4

Recommended Support Parts

D. HYDRAULIC SPRAY SYSTEM SUPPORT PARTS With DiSCS® 2.0 CONTROLS

PART DESCRIPTION	PART NO	QTY
1. DiSCS® 2.0 Replacement Switch Bank A (Gen 2) (QCC) (Replaces 309002)	309704	1
2. DiSCS® 2.0 Replacement Switch Bank B (Gen 2) (QCC) (Replaces 309003)	309705	1
3. DiSCS® 2.0 Joystick (QCC)	309004	1
4. DiSCS® 2.0 Water Level Sensor (Replaces 304414)	308740	1
5. DiSCS® 2.0 Water Level Sensor Kit (updated FSB39)	053281	1
6. CAN Splitter Assembly (Replaces 308574, 053432, 057990)	053431	1
7. Cable Assembly, CAN & PGI (Replaces 052508, 052509 & 052749)	061180	1
8. Cable Assembly, Component	052748	1
9. Blanking Plug, 2 Conductor (Replaces 052749 when upgrading to 061180)	053925	1
10. GPS Module Component (Replaces 309001)	310197	1
11. ECOM Cable, DiSCS® 2.0 Control Configuration, PIB 09	053367	1

E. Water Pump Parts Group (M-3)

PART DESCRIPTION	PART NO.	QTY
1. M-3 Pump Station **Serial No. Specific Part (QCC)	304954	1
2. Packing, Rope Set of 4, M-3 Pump	304967	3
3. Shaft Assembly	304955	1
4. Seal, Grease	304960	2
5. Ring, Snap	304957	1
6. Ring, Thrust	304958	1
7. Key, Impeller	304962	2
8. Key, Coupling, M-3 Pump	305101	1
9. Seal, Volute, M-3 Pump	304973	1
10. Bolt, Impeller, M-3 Pump	304972	1
11. Washer, Lock, Impeller, M-3 Pump	304971	1
12. Washer, Impeller, M-3 Pump	304970	1
13. Wear Sleeve, M-3 Pump	304961	1
14. Packing Gland, Set	304969	1
15. Stud, Packing Gland	304966	2
16. Nut, Packing Gland	304757	4

SECTION 4

Recommended Support Parts

F. Water Pump Parts Group (M-3B)

PART DESCRIPTION	PART NO.	QTY
1. M-3B Pump Station **Serial No. Specific Part (QCC)	310381	1
2. Packing, Rope Set of 4, M-3 Pump	304967	3
3. Shaft Assembly	310383	1
4. Seal, Grease	304960	2
5. Ring, Snap	304957	1
6. Ring, Thrust	304958	1
7. Seal, Volute, M-3 Pump	304973	1
8. Bolt, Impeller, M-3 Pump	310386	1
9. Washer, Impeller, M-3 Pump	310385	1
10. Wear Sleeve, M-3 Pump	304961	1
11. Packing Gland, Set	304969	1
12. Stud, Packing Gland	304966	2
13. Nut, Packing Gland	304757	4
14. Coupling, Spline	301927	1

G. WATER PUMP PARTS GROUP (M-4B)

PART DESCRIPTION	PART NO.	QTY
1. M-4B, Standard Cast Water Pump Assembly ** Serial No. Specific Part (QCC)	306200	1
2. M-4B, Corrosion Resistant Water Pump Assembly ** Serial No. Specific Part (QCC)	306201	1
3. Impeller Kit, M-4B	306664	1
4. Rope Packing Kit, M-4B	300719	1
5. Shaft Kit, M-4B	306663	1
6. Gasket, Pump Inlet	302527	1
7. Gasket, Pump Outlet	012930	1
8. Gasket, Sump Flange	040922	1
9. Petcock, Volute Drain, ½" NPT	300460	1
10. Coupling, Splined Drive	301927	1

H. HYDRAULIC DRIVE MOTOR PARTS GROUP

PART DESCRIPTION	PART NO.	QTY
1. Motor, Hydraulic **Serial No. Specific Part		1
2. Flow Control Valve (Replaces 306561 & 309481)	309640	1

SECTION 4

Recommended Support Parts

I. WATER CANNON SUPPORT PARTS GROUP		
PART DESCRIPTION	PART NO.	QTY
1. Joint Rebuild Kit	305141	1
2. Kit, Ball Valve Rebuild	309305	1
3. Ball Valve 12 VDC Assembly (**QCC Part)	307202	1
4. Electric Water Cannon **Serial No. Specific Part		
a. Motor, Gear Assembly	304618	1
b. Motor, Electric (Only)	307585	1
5. Hydraulic Water Cannon **Serial No. Specific Part		
a. Motor, Hydraulic, Gear Assembly	304656	1
b. Motor, Hydraulic (Only)	307586	1
c. Solenoid Valve (Water Cannon Control Valve Assembly)	304858	1
d. Solenoid Coil (Water Cannon Control Valve Assembly)	305590	2

J. MISCELLANEOUS PARTS GROUP		
PART DESCRIPTION	PART NO.	QTY
1. Valve, Butterfly, 3"	300030	1
2. Valve, Butterfly, 4" **Serial No. Specific Part	300031	1
3. Valve, Gate, 1.5" (Spray Bar)	300106	1
4. Valve, 3/4" Ball (Spray Bar)	300627	2
5. Seal, Coupling, 4" Dresser	300820	2
6. O-Ring, #24 (Split Flange)	354816	20
7. Nozzle Tip, Water Cannon, 1.5" **Serial No. Specific Part	300091	1
8. Nozzle Tip, Water Cannon, 1.0" **Serial No. Specific Part	300087	1
9. Anode, Magnesium Pencil **Serial No. Specific Parts	309623	6
10. Sealant, Anti-seize, Magnesium Pencil Anode	310049	1
11. Light, Marker Yellow LED	306117	2
12. Light, Marker Red LED	306116	2
13. Light, 24VDC LED Stop/Turn/TA Red	305049	1

If your system is not covered in this manual or are having difficulties locating the necessary components please contact MEGA Corp. Product Support Group at:

US Toll Free: 1-800-345-8889

Direct: 1-505-345-2661

Or visit our website at www.megacorpinc.com for more detailed contact information.