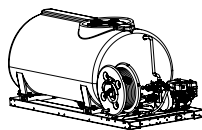
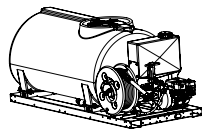


# **FIRE RANGER™**



# **FOAM RANGER™**




## **OWNER'S MANUAL**

### **Product Codes:**

SMFB060FG120GH, SMFB100FG120GH,  
SMF200FG120GH, SMF250FG120GH,  
SMF300FG120GH, SMF400FG120GH,  
SMFFB060FG120GH, SMFFB100FG120GH,  
SMFF200FG120GH, SMFF250FG120GH,  
SMFF300FG120GH, SMFF400FG120GH

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# INTRODUCTION

**Congratulations!** You now own an Enduraplas fire control sprayer. Durable design and construction assure you a lifetime of extreme performance. No sprayer is tougher. No sprayer will last longer.

Take a look through this owner's manual to learn how the pros use their Enduraplas sprayer.



**Watch Instruction Videos:**  
[www.youtube.com/enduraplas](http://www.youtube.com/enduraplas)

# WARNINGS

1. When connecting this sprayer to your UTV, pickup (or vehicle), ensure that you have read the vehicle's Owner's Manual and that you comply with all the weight restrictions as specified by the vehicle's manufacturer, as overloading can cause injury or death. Remember that 1 gallon of water weighs 8.33 pounds.
2. To ensure your own safety and that of others, you must comply with all relevant environmental, work place health, safety legislation and codes of practice.
3. Select and wear appropriate Personal Protection Equipment in accordance with the label of the product you intend to use.
4. Improper or careless use of this sprayer can cause serious injury. Minors should never be allowed to use this sprayer. This sprayer should not be used when bystanders or animals are in the area. This sprayer should never be used while children are in the area.
5. Never leave the sprayer unattended without turning off the pump, relieving the line pressure, and flushing the sprayer of any harmful chemicals.
6. You must be in good mental health to operate this sprayer and not be under the influence of alcohol or any drugs that could impair your vision, physical strength, dexterity, judgment, or other mental capacity.
7. Be alert and never touch any part of the engine exhaust system (muffler, shield, header pipes, etc.) while the engine is running. Always allow enough time, after stopping the unit, for proper cooling of the muffler and surrounding parts.
8. Refuel engine with care. Gasoline is flammable, and gasoline vapor can explode. Refuel in a well-ventilated area, with the engine stopped.



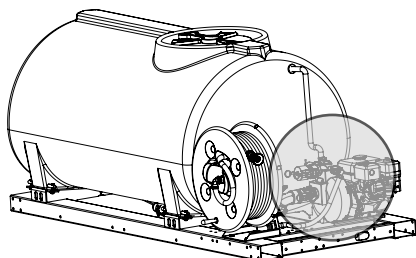
9. Never run the pump in a closed or confined area. Exhaust gas contains carbon monoxide which is poisonous to humans. Avoid inhalation of exhaust gas.
10. No modifications and/or alterations may be made to this sprayer. Any such modifications not only void the sprayer warranty but can make the unit dangerous to anyone operating the pump.
11. Always inspect hoses and piping to avoid burst injuries.



**Watch Instruction Videos:**  
[www.youtube.com/enduraplas](http://www.youtube.com/enduraplas)

## GETTING STARTED

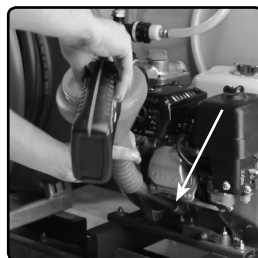
### Operating the Sprayer



1) Fill the engine with regular gasoline.



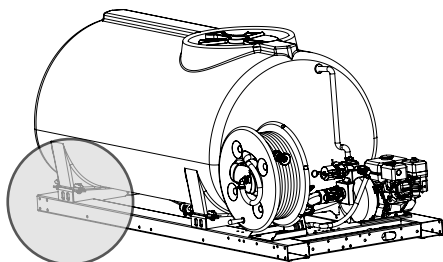
2) Remove oil cap and fill the engine with 0.53 US qt. (16.96 oz. or 0.5 Liters) of 10W-30 engine oil.



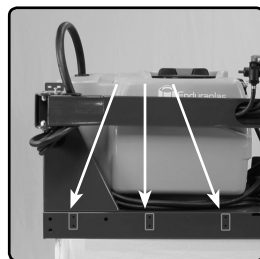
**Watch Instruction Videos:**  
[www.youtube.com/enduraplas](http://www.youtube.com/enduraplas)

**GETTING STARTED**

## Mounting the Sprayer



**1)** If you have a 60-100 gallon unit and wish to use the d-ring tie-down system, find your desired mounting points on each side of the frame.



**2)** Install two d-ring tie-downs on each side of the frame using the supplied nuts and bolts.



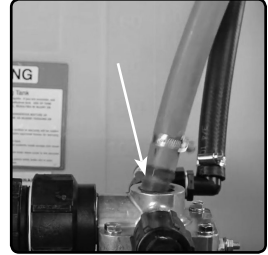
**3)** On 200-400 gallon units, there are built-in tie-down points on the frame.



## GETTING STARTED

### Priming the Sprayer

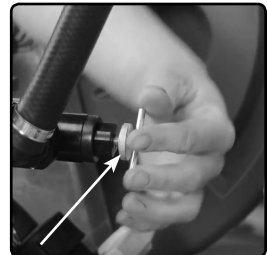
1) You need to ensure your pump is correctly primed. Start by pulling off the red cap and put water in the pump.



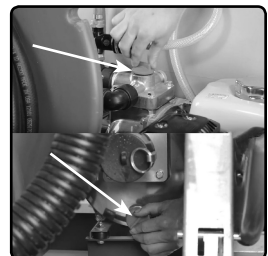
2) Fill the tank with water.



3) Open pressure relief all the way by turning the t-handle counter clockwise.



4) Before starting your engine, make sure the drain plug and prime plug are tightened securely and properly holding the seal O-rings in place.



## GETTING STARTED

6) Start the engine and increase the RPMs. Open the tank lid and check the water is recirculating back into the tank.



### 7) Foam Ranger™ Only:

Open the valve at the discharge nozzle. As soon as water begins to flow, your pump should be primed. To avoid overheating the pump, **DO NOT** allow it to run continuously without spraying.

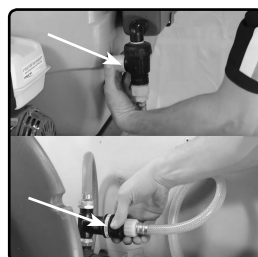


## ADDING FOAM TO FOAM RANGER™

1) Fill the foam tank with foaming agent.

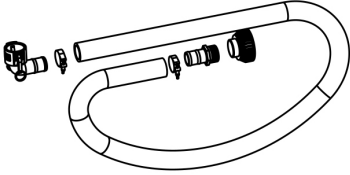


2) Open the foam tank valve and turn the dial clockwise to the desired foam rate.

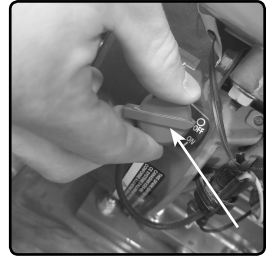


## GETTING STARTED

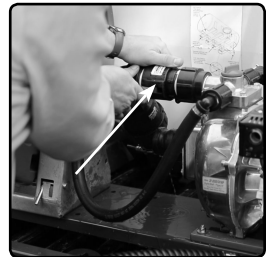
### Using the QUICK-FILL™ Draft Kit



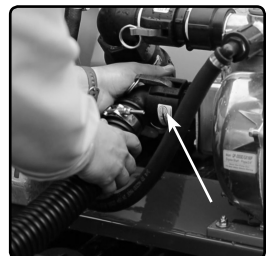
1) Turn off engine.



2) Remove cam-lock cap from large top outlet on pump, detach the suction hose from pump and attach to top outlet.



3) Attach suction hose from Quick-Fill™ draft kit to suction part of pump. Ensure water is present in the bottom of the pump housing to allow unit to self prime.

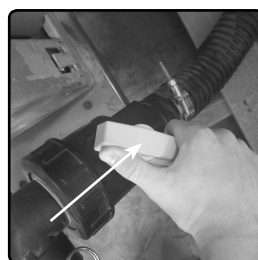


## GETTING STARTED

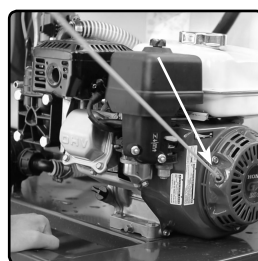
**4)** Place foot strainer and hose into water source and ensure strainer is in clean water free of sludge, etc.



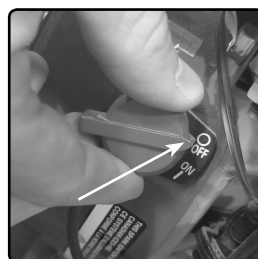
**5)** Open ball valve between pump and tank.



**6)** Start engine and operate until tank is full. We recommend opening tank lid while filling tank.



**7)** When tank is full, turn engine off and close valve between pump and tank  
Reverse steps 3 to 2.



# MAINTAINING



**Watch Instruction Videos:**  
[www.youtube.com/enduraplas](http://www.youtube.com/enduraplas)

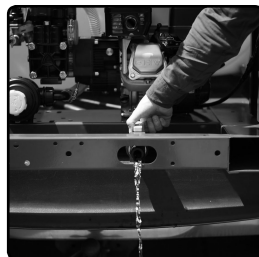


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# STORING / WINTERIZING

## 1) Drain Tank

Fill the tank with clean water, start the pump and open all spray ends. If you have a spray gun or boom, make sure you spray until clean water is coming through.



## 2) Blow out Plumbing Lines

Using compressed air, blow out the hose lines to remove all water from the system.



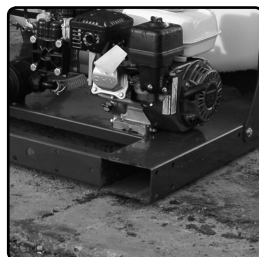
## 3) Flush with Anti-freeze

Pour a small amount of anti-freeze into the tank and run the pump until the colored liquid starts coming through the spray ends.



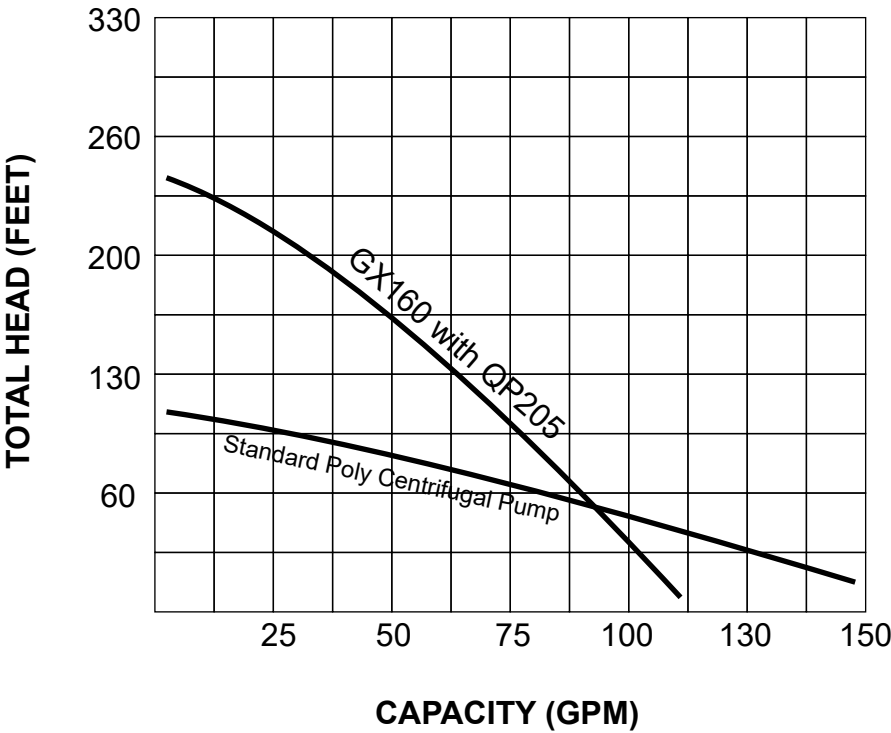
## 4) Store Sprayer Inside

Turn off the sprayer ends so the remaining anti-freeze does not leak out.



# PUMP PERFORMANCE

An Aussie® QP205 pump performs at this level when powered with a GX160 Honda® engine. The QP205 and GX160 is used on the Fire Ranger™ and Foam Ranger™.



**Watch Instruction Videos:**  
[www.youtube.com/enduraplas](http://www.youtube.com/enduraplas)

# TROUBLESHOOTING

CONDITION	CAUSE	REMEDY
Pump will not prime	<ul style="list-style-type: none"><li>1) Insufficient motor RPM</li><li>2) Air leak on suction plumbing</li><li>3) Blocked/Restricted intake hose</li><li>4) Filter cap disengaged</li><li>5) Filter gasket damaged/missing</li></ul>	<ul style="list-style-type: none"><li>1) Increase motor RPM until pump primes</li><li>2) Tighten/replace fittings &amp; hose clamps. Verify suction hoses are in good condition</li><li>3) Remove blockage from suction line, ensure line is not kinked</li><li>4) Lock filter cap into position</li><li>5) Replace filter gasket</li></ul>
Pressure drops/ fluctuates during standard operation	<ul style="list-style-type: none"><li>1) Restriction on suction line</li><li>2) Pump sucking air</li><li>3) Plugged filter</li><li>4) Damaged regulator</li></ul>	<ul style="list-style-type: none"><li>1) Inspect tank and suction lines and remove restriction</li><li>2) Tighten fittings</li><li>3) Remove and clean filter mesh and housing</li><li>4) Remove regulator stem and inspect for broken parts/pieces</li></ul>

CONDITION	CAUSE	REMEDY
Hand gun loses pressure	<b>1)</b> Debris in hose or nozzle <b>2)</b> Pump losing prime <b>3)</b> Pump pressure dropping/fluctuating	<b>1)</b> Unthread nozzle tip and clean <b>2)</b> See Remedy for 'Pump will not prime or loses prime' <b>3)</b> See Remedy for 'Pressure drops/ fluctuates during standard operation'



**Watch Instruction Videos:**  
[www.youtube.com/enduraplas](http://www.youtube.com/enduraplas)

# WARRANTY

1. Poly Tank Limited Warranty - Subject to other terms in this Limited Warranty, Manufacturer warrants to the original end user that this Tank will be free from material defects caused during the manufacturing process for a period of 5 years from the Purchase Date provided such warranty to the original end user shall be extended to 10 years from the Purchase Date if the original end user registers the Tank with Manufacturer within 30 days of the Purchase Date. To register the Limited Warranty, registration must be completed in accordance with the requirements set forth at [enduraplaswarranty.com](http://enduraplaswarranty.com)

Other Products and Parts Limited Warranty - Subject to other terms in this Limited Warranty, Manufacturer warrants to the original end user that products and parts manufactured by Manufacturer (other than tanks) will be free from material defects caused during the manufacturing process for a period of 1 year from the Purchase Date unless otherwise expressly stated in writing by Manufacturer that an extended warranty applies.

2. Other Warranties Disclaimed and Excluded

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE LIMITED WARRANTY HEREIN STATED, AND MANUFACTURER EXPLICITLY DISCLAIMS AND EXCLUDES ANY AND ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, CUSTOM OR USAGE OF TRADE, AND COURSE OF DEALING. NO AGENT, EMPLOYEE OR REPRESENTATIVE OF MANUFACTURER HAS AUTHORITY TO BIND MANUFACTURER TO ANY REPRESENTATION OR WARRANTY EXCEPT AS STATED IN THIS LIMITED WARRANTY.

3. Limitation of Liability under the Limited Warranty - In addition to those warranties disclaimed and excluded in clause 2 above, Manufacturer expressly further limits its warranty and liability under the Limited Warranty as set forth below in this clause 3.

3.1. The liability of Manufacturer under this Limited Warranty is excluded to the extent that any defect has been caused or contributed to by:

- a) any accident, contamination, tampering, willful damage, abuse, modification, improper storage, improper use (including but without limitation the storage of material) or negligent act of, or omission by, any person other than Manufacturer;
- b) the improper installation of the Goods, or deterioration of the base on which any of the Goods rest or are mounted to;
- c) any damage to the Goods caused by storm, wash away, landslide, mudslide, lightning, or any other natural phenomenon, vermin or other pests, and any undermining of the base of the Tank through any cause whatsoever;
- d) the repositioning of the Goods from their original installation;
- e) weathering or degradation of the Goods due to extreme climatic conditions;
- f) improper installation of extra fittings;
- g) any staining or discoloration, including from trees or ash fall-out from fires or other causes;
- h) a Tank not being placed on a base that is free of any protruding objects of any kind;
- i) a Tank being used for any purpose other than the storage of suitable liquids at the ambient temperatures.

3.2. Without limiting the generality of clause 3.1:

- a) Manufacturer will not be liable for any personal injury, indirect or incidental damages, consequential losses, loss of liquids, loss of profit or any like claims whatsoever arising from any use of, or incidental to, or repairs to any of the Goods by a party other than Manufacturer;
- b) to the extent that any component or material (including, but without limitation the polyethylene) used in the manufacture of any of the Goods is supplied and/or manufactured by a third party, the liability of Manufacturer is limited to Manufacturer's right of redress (if any) against the third-party supplier/manufacturer;
- c) Tanks feature a vented lid at the time of manufacture. Any subsequent pressurization of the Tank by removing the vent, sealing the vent, or otherwise will cause this Limited Warranty as to such Tank to be null and void.
- d) The liability of Manufacturer under this Limited Warranty is limited to, at Manufacturer's discretion:
- e) providing a replacement Good (including shipping but excluding other replacement costs);
- f) refunding an amount equal to a sum equal to the current Retail price divided by the months in the warranty, multiplied by the months remaining in the warranty period;
- g) repairing the Good at no cost.

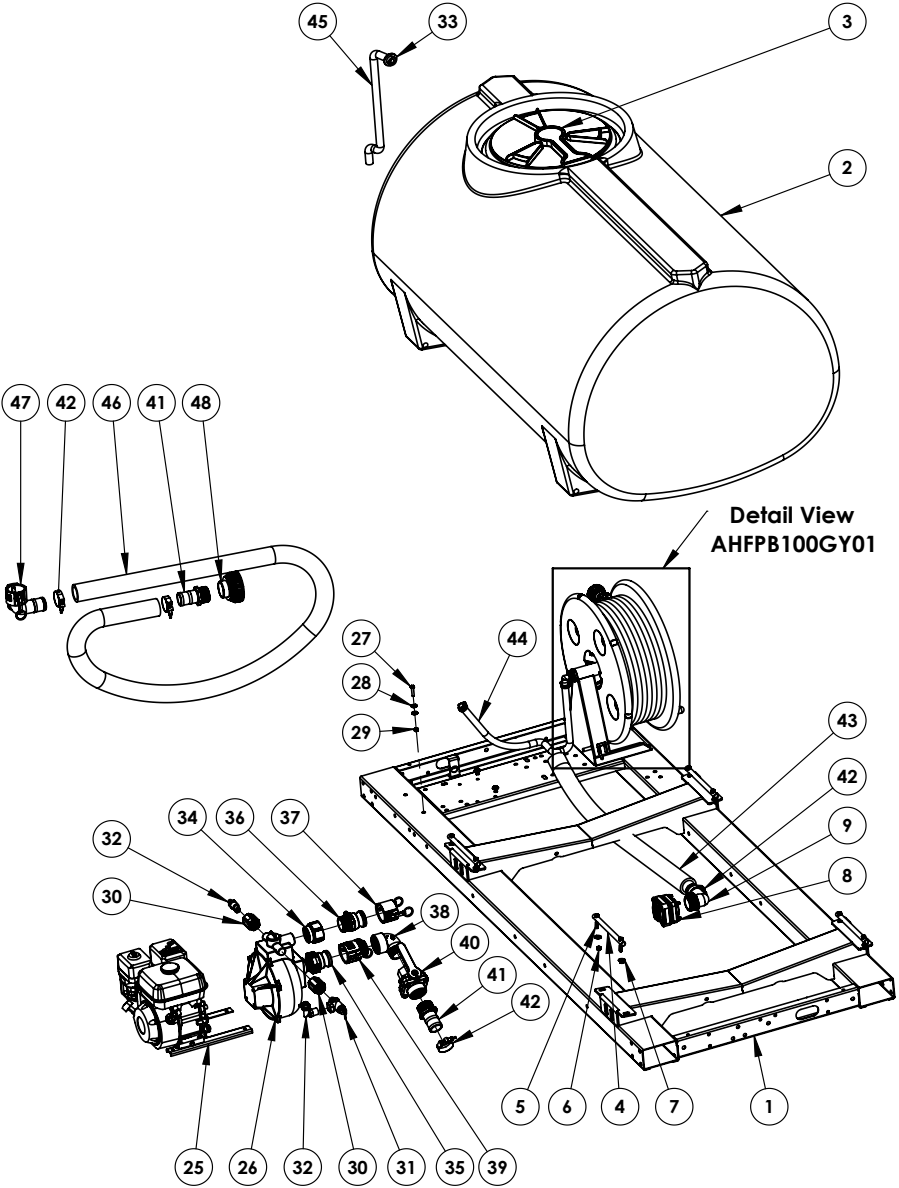
4. Proof of Purchase - The original invoice or other similar proof of purchase of the applicable must be provided by Purchaser to Manufacturer when making a claim under this Limited Warranty. Warranty claims must be received in writing by Manufacturer within the Limited Warranty period.



5. Claims and Questions - If you have questions about this Limited Warranty or to make a warranty claim, contact Manufacturer at: [customercare@enduraplas.com](mailto:customercare@enduraplas.com)
6. Definitions - For this Limited Warranty the following definitions apply:
  - a) Manufacturer means Enduraplas LLC.
  - b) Purchase Date means the date upon which the applicable goods were purchased by the original end user.
  - c) Purchase Price means the actual price paid for the Tank by the original Purchaser.
  - d) Tank means the storage Tank manufactured by Manufacturer and purchased by the original end user Purchaser being the subject matter of the Limited Warranty.
  - e) Good(s) mean Tanks and/or other products or parts manufactured by Enduraplas LLC.
  - f) Limited Warranty means this written Limited Warranty.
7. State Law - Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to certain parties. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to certain parties. This limited warranty gives specific legal rights and other rights, which vary from state to state, may also apply.
8. Governing Law - This Limited Warranty will be governed by the laws of the State of Minnesota, without giving effect to any choice of law rule that would cause the application of the laws of any other jurisdiction.

# OVERVIEW

FIRE RANGER™



# PARTS LIST

ITEM NO.	PART #	DESCRIPTION	QTY.
1	AZFFM0300	300-400Gal Fire/ProMaster Frame	1
2	THD00400	400 gal sump tank only	1
3	CFLP16HV	16 inch Hypro Lid Hinged	1
4	AZP02	11/16 x 10.5" tie down pin	4
5	CHBZ030925	.375 x 2 Bolt	8
6	CHNZN0325	3/8 Nylock nut	12
7	CHWZF035	3/8 Flat washer	16
8	CBBF235	2" Bolted Tank Flange	1
9	CBHB20090	2 Male Thread x 2 hose Shank 90	1
24	CFCW001	Clamp for 3/4 hose	4
25	CPEH01	GX160-Honda Engine	1
26	CPPA006	Aussie wet end kit	1
27	CHBZ020725	5/16 x 1-1/2 bolt	4
28	CHWZF025	5/16 Flat washer	8
29	CHNZN0225	5/16 Nylock nut	4
30	CBRC100075	1 x .75 Poly Reducing Coupling	2
31	CVRV20660158	.75 Pressure Relief Valve	1
32	CFPE04M04B	.75 Male Thread x .75 Hose Barb 90	2
33	CPFG15	3/4 Press fit hose grommet	1
34	CBRC200150	2 x 1-1/2" Poly Reducer Coupling	1
35	CB200A	Male Adapter 2 Female Thread	1
36	CB200F	Male Adapter to Male Thread	1
37	CB200CAP	2 Cap	1
38	CBSL200-90	2" Poly Street Elbow 90	1
39	CB200B	Female coupler to male thread	1
40	CBVS204FP	2 x 2 Female NPT Thread	1
41	CBHB200	2 Male Thread x 2 Hose Shank	2
42	CBTC231	2" T-Bolt Hose Clamp 2.31 MIN	4
43	CLUPEB10009	2" hose from fitting to pump	1
44	CLUESB020004	.75 Hose from Hose Reel to Pump	1
45	CLUESB020004	.75 Return Hose from pump back to tank	1
46	CLUPEB10009	2 suction hose for FF	1
47	CB200C90	90 Female coupling to hose shank	1
48	CFFP09B	2 Poly Foot Strainer	1

**FIRE RANGER™**

**FIRE RANGER™**

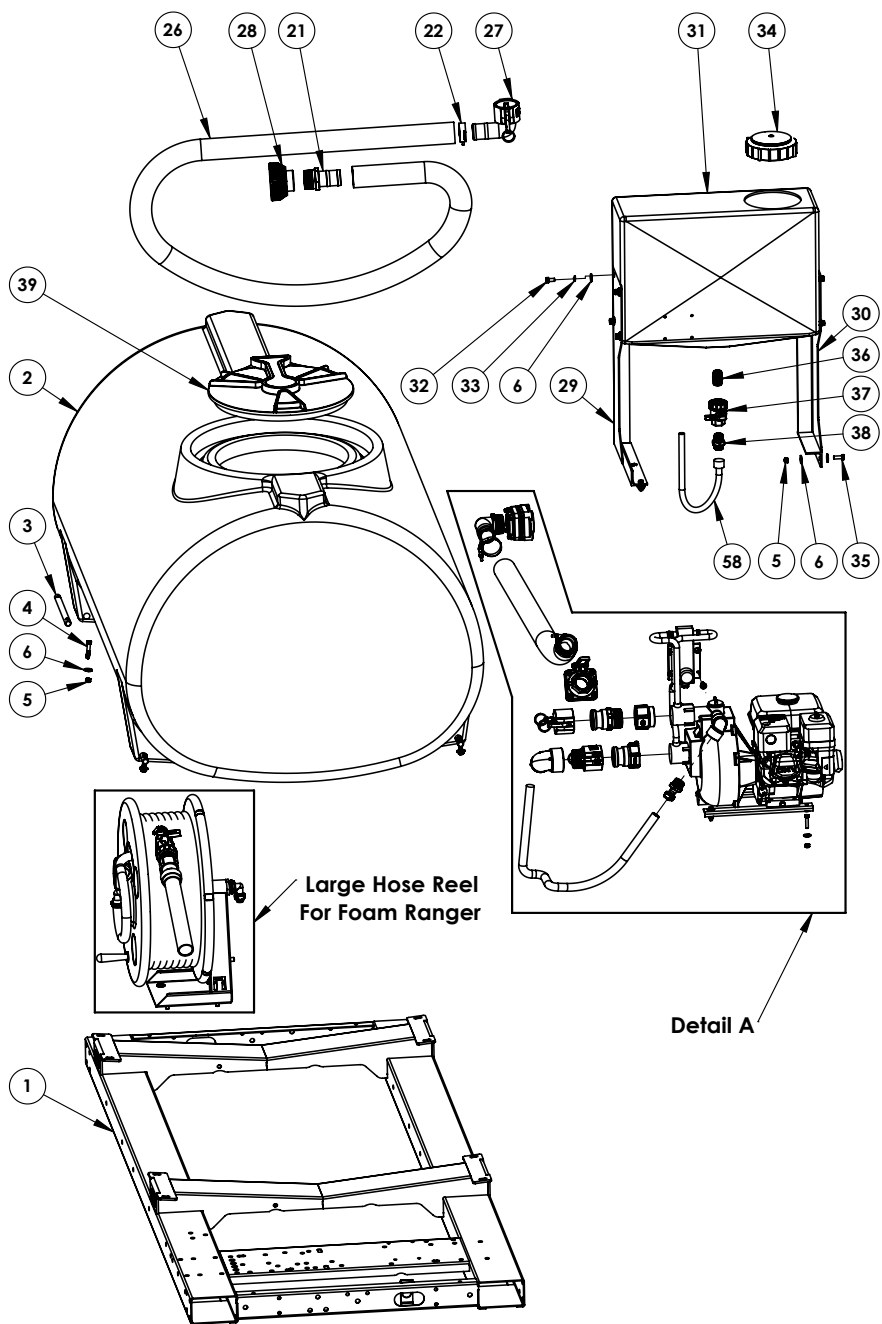




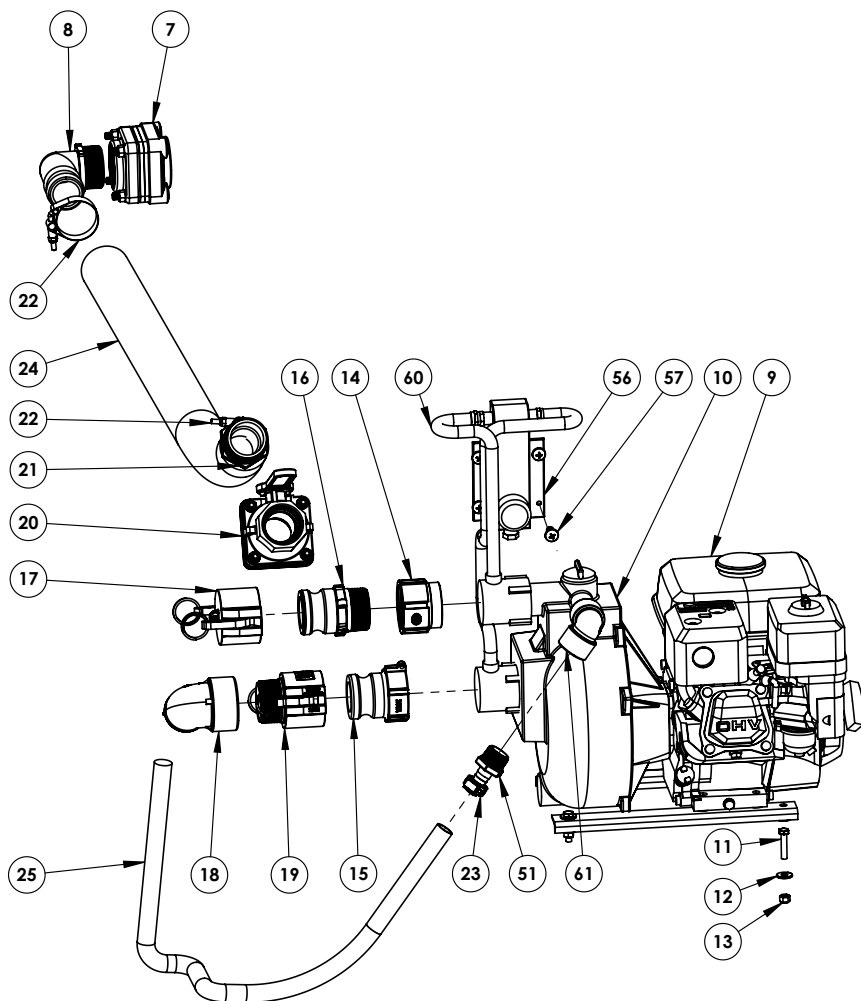
**Watch Instruction Videos:**  
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# OVERVIEW

FOAM RANGER™



# DETAIL VIEW A



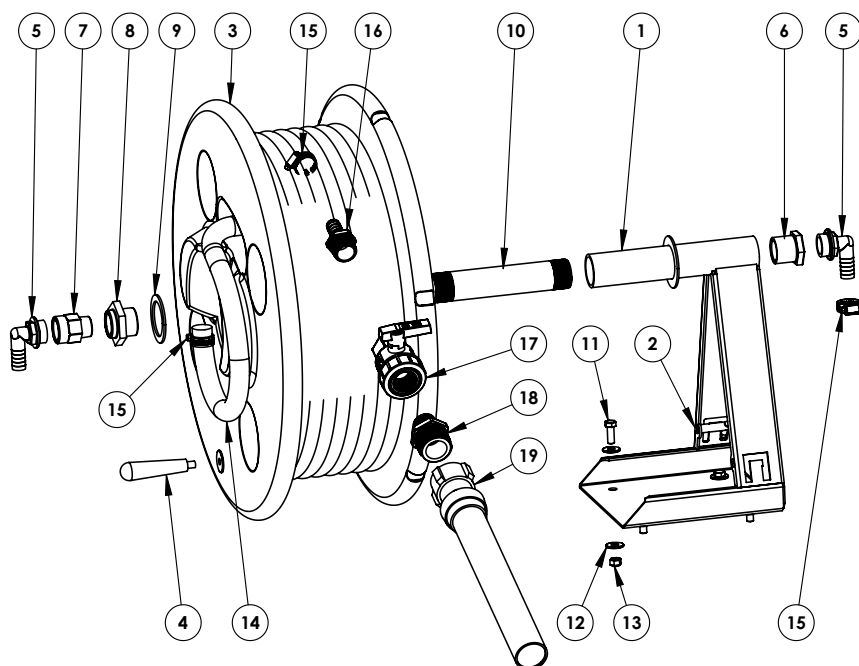
# PARTS LIST

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1	AZFP0300	300-400Gal Fire/ProMaster Frame	1
2	THD00400	400 gal sump tank only	1
3	AZP02	11/16 x 10.5" tie down pin	4
4	CHBZ030925	.375 x 2 Bolt	8
5	CHNZ0325	3/8 Nylock nut	16
6	CHWZF035	3/8 Flat washer	32
7	CBBF235	2" Bolted Tank Flange	1
8	CBHB20090	2 Male Thread x 2 hose Shank 90	1
9	CPEH01	GX160-Honda Engine	1
10	CPPA006	Aussie wet end kit	1
11	CHBZ020725	5/16 x 1-1/2 bolt	4
12	CHWZF025	5/16 Flat washer	8
13	CHNZ0225	5/16 Nylock nut	4
14	CBRC200150	2 x 1-1/2" Poly Reducer Coupling	1
15	CB200A	Male Adapter 2 Female Thread	1
16	CB200F	Male Adapter to Male Thread	1
17	CB200CAP	2 Cap	1
18	CBSL200-90	2" Poly Street Elbow 90	1
19	CB200B	Female coupler to male thread	1
20	CBVS204FP	2 x 2 Female NPT Thread	1
21	CBHB200	2 Male Thread x 2 Hose Shank	2
22	CBTC231	2" T-Bolt Hose Clamp 2.31 MIN	4
23	CFCW001	Clamp for 3/4 hose	4
24	CLUPEB10009	2" hose from fitting to pump	1
25	CLUESB020004	.75 Hose from Hose Reel to Pump	1
26	CLUPEB10009	2 suction hose for FF	1
27	CB200C90	90 Female coupling to hose shank	1
28	CFFP09B	2 Poly Foot Strainer	1
29	AZKF0004	Left Tank Bracket for Foam Ranger	1
30	AZKF0005	Right Tank Bracket for Foam Ranger	1
31	AMFFTG	15 Gal Foam Ranger Tank	1
32	CHBZ030425	3/8 x 3/4 bolt	8
33	CHWZL035	3/8 Lock washer	8
34	CVTL06	6" vented tank lid	1
35	CHBZ030525	3/8 x 1 bolt	8
36	CFFP04M04M	3/4 Short Nipple	1
37	CVPBV234	3/4 FPT Union Valve	1
38	CBGHMT075MPT	.75 Male NPT X .75 Garden Hose Male Thread	1
39	CFLP16HV	16 inch Hypo Lid Hinged	1
51	CBHB100075	1 Male thread x .75 hose barb	2
54	ASFFN02	15GPM Air Aspirating Foam Nozzle	1
56	ASFF03	4171 Scotty Kit Through-the-pump	1
57	CHMZ010335	.25 x .75 phillips pan head	4
60	ASFFH01	Pressure Hose for 4171 Scotty Kit	1
61	CBEL10090	1 Poly Pipe Elbow 90	1



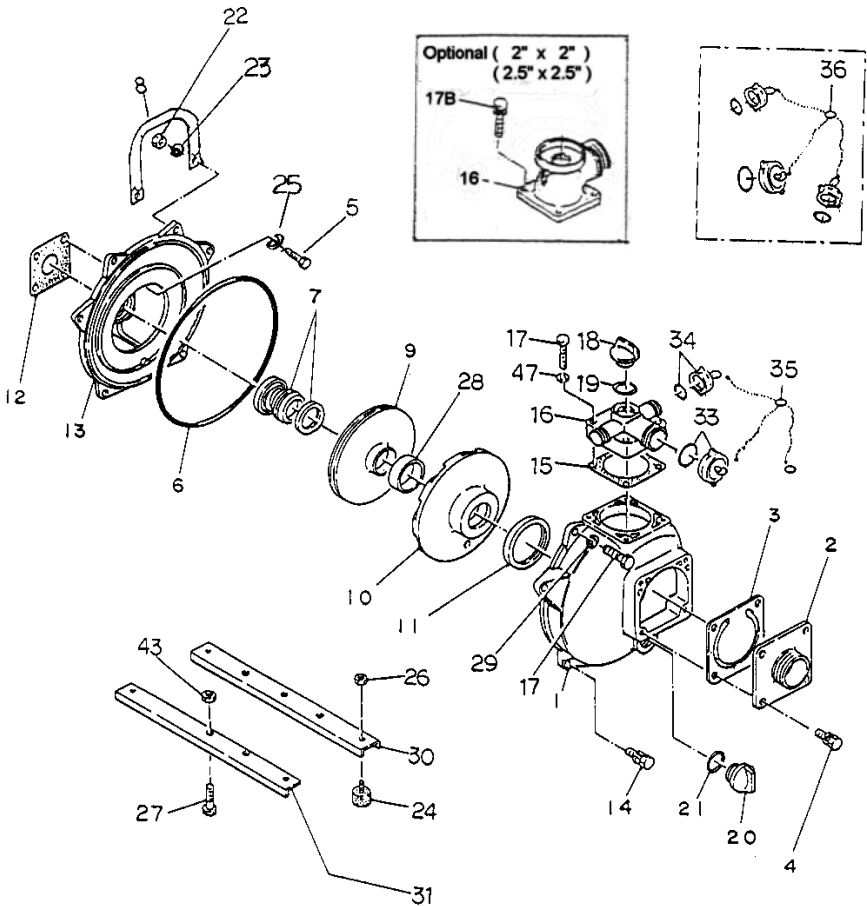
# LARGE HOSE REEL

ITEM NO.	PART #	DESCRIPTION	QTY.
1	AZKH0001	Base Mount Frame for 100 HR	1
2	AZKH0017	Lock for Lg HR	1
3	AMAH02GY	HR100 Reel Only	1
4	CFRH03C	PHENOIC TAPERED HANDLE	1
5	CFRB03	1 BSP to 20mm Tail Brass Elbow	2
6	CFRB01	Back End Brass Nut for HR	1
7	CFRB04	1 BSPM to 1 BSPF Brass Swivel	1
8	CFRB02	Swivel End Brass Nut for HR	1
9	CHWZF205	2.75 Flat Washer-HR	1
10	CFRP05M05M	1 X 9 SS Nipple Tube	1
11	CHBZ030525	3/8 x 1 bolt	4
12	CHWZF035	3/8 Flat washer	8
13	CHNZN0325	3/8 Nylock nut	4
14	CLUESB020004	3/4 hose from swivel into HR	1
15	CFCW001	Clamp for 3/4 hose	3
16	CBHB100075	1 Male thread x .75 hose barb	1
17	CVPBV2100	1 Inch FPT Union Valve	1
18	CBRN150100	1.5 x 1 Reducer Nipple	1
19	ASFFN02	15GPM Air Aspirating Foam Nozzle	1



# OVERVIEW & PARTS LIST

PUMP



Item No.	Part #	Description	QTY.
1	Q4364-100010 Q7304-100010	Casing Casing with Logo	1
2	Q1803-100160	2" suction cover	1
2	Q4725-060160-0011	1.5" suction cover	1
2	Q4904-000160	2.5" suction cover	1
3	Q1378-350350	Check valve	1
4	Q018105-0825	Bolt set with spring washer	4
5	Q019115-0525	Bolt	4

# PARTS LIST

Item No.	Part #	Description	QTY.
6	Q048935-2550	O-ring (casing)	1
7a	Q080311-2320	Mechanical seal	1
7b	Q080311-2320V	Viton mechanical seal	1
8	Q1883-207010-0003	Handle	1
9a	Q1806-060031	Impeller 3/4" P shaft (37mm boss)	1
9b	Q1803-060031	Impeller W shaft (18mm boss)	1
9c	Q1814-060030	Impeller 5/8" P shaft (GX200E only)	1
9d	Q2242-060030	Impeller for Robin DY23 & DY27 only	1
10	Q1803-100130	Volute casing	1
11	Q1378-330620	Volute casing packing	1
12	Q1211-390610	Casing cover packing	1
13	Q9358-100020	Mounting flange - P type	1
13	Q1378-100020	Mounting flange - W type	1
14	Q018105-0825	Bolt set with spring washer	4
15	Q1803-330360	Delivery cover packing	1
16	Q1814-100090	Delivery cover packing (3way outlet)	1
16	Q1803-000090	Delivery elbow 2"	1
16	Q4904-000090	Delivery elbow 2.5"	1
17	Q010505-0845	Bolt	6
18	Q063121-1100ASS	Flooding cap with o-ring	1
19	Q048035-0300	O-ring (flooding cap)	1
20	Q063121-1100ASS	Flooding cap with o-ring	1
21	Q048035-0300	O-ring (drain cap)	1
22	Q020915-0080	Flange nut	2
23	Q040145-0080	Washer	2
"24,26, 27,30, 31,43"	QSKIDSET	Skid set	1
28	Q1803-521220	Liner ring	1
29	Q045125-0080	Spring washer	2
36	QCAPS&CHAINS	Caps & chains	1
47	Q045125-0080	Spring washer	4



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