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# Zero Turn Sprayer Owner's Manual

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Models: ZT25D22B,  
ZT25D52B, ZT25D53B,  
ZT25D5ZBL

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## **PK Products**

1910 Lookout Drive  
North Mankato, MN 56003

[www.pkproductline.com](http://www.pkproductline.com)

*2011 Model Year*

# 25 GALLON 12-VOLT ZERO TURN SPRAYER OWNER'S MANUAL

## OPERATION:

1. Partially fill tank with just a few gallons of water for testing.
2. Make sure the gauge, all electrical connections and fittings are secure. CAUTION: Do not over-tighten plastic fittings! They will strip.
3. Close all valves. Using the in-line switch, turn power on to the pump. The pump should immediately begin pumping. If it does not, re-check all connections. The pump should pump until it reaches maximum spraying pressure of 45-60 PSI, then shut off. Squeeze the trigger mechanism on your spray wand. The pump should resume pumping and wand should begin spraying. Twist the nozzle on the end of the gun to adjust the desired spray pattern (wide fog to straight stream).
4. To adjust the pump pressure to 20 to 30 PSI, adjust the pressure with the sprayer running by opening or closing the by-pass valve. The by-pass valve is the ¼-turn valve on the "Y" valve located on the manifold. The "Y" valve has two ¼-turn shut-offs. One shuts off the boom and one adjusts the pressure (by-pass). The by-pass valve is connected to the hose that returns to the tank. The more the bypass valve is opened, the lower the pressure will be. To adjust the pressure, turn on the pump, open valve to boom and adjust the by-pass (slowly) until 20 PSI is reached, then shut off the boom valve only. There may be an elevation in the pressure. This is normal as the full capacity of the pump is being returned to the tank. This is called by-pass agitation. The pressure for boom spraying is now set. There should still be pressure to the spray gun and the pump will run continuously until shut off with the switch and as long as the by-pass valve remains open.

## MAINTENANCE:

### WARNING: DRAIN, FLUSH, NEUTRALIZE & FLUSH AGAIN!

**WHY?** If sprayer is not drained and is left untreated for more than two days, chemicals or chemical residue can cause damage to the internal components of the pump and gun. Chemical residue can cause damage to the valves, diaphragms and packings that will cause them to leak or fail. This is called "chemical attack" and is normally not covered under warranty and could be costly to repair.

**WHEN?** After spraying chemicals, changing from one chemical to another or getting ready for storage or winter.

**HOW?** It is recommended to always drain, flush and neutralize the "Nutra-Sol" or other chemical neutralizers, rinse and drain again. Other neutralizers could be recommended by the chemical manufacturer(s) or your county extension agent. Nutra-Sol is available at PK Products or at most of our dealers. To neutralize your sprayer, mix neutralizer according to the manufacturer's recommendation and running it through the sprayer gun until neutralizer mixture is emptied from tank. Always read and follow chemical manufacturer's instructions for mixing and disposing of wastewater from sprayer.

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**Symptoms of chemical attack:**

1. Pump motor runs with little or no pressure.  
Remedy: Needs valve repair kit or replace pump.
2. Pump leaks.  
Remedy: Needs diaphragm repair kit or replace pump.
3. Spray gun handle leaks.  
Remedy: Replace gun.

**WHEEL BEARINGS**

Oil wheel bearings each time the sprayer is used! Apply a few drops of any motor oil SAE-30 or 10W-30 on the axle against the wheel bearing and on both sides of the wheel. Spin the wheel two turns to allow bearing to absorb the oil. Failure to oil bearings can cause premature wheel bearing failure.

**MAXIMUM RECOMMENDED OPERATION SPEED**

The maximum recommended operation speed is 5MPH. Exceeding recommended speed may cause wheel bearing failure.

**WINTER STORAGE:**

Any chemical/water mixture should be drained from the sprayer. Flush and neutralize the sprayer as explained above in the maintenance section. Winterize the sprayer by flushing the sprayer with a gallon of a non-petroleum based (non-toxic) RV anti-freeze (100% solution). Cycle the anti-freeze through the sprayer and leave it in the sprayer over the winter. In the spring, drain and flush the anti-freeze from the sprayer before using it again.

**WARRANTY:**

Your PK Sprayer authorized dealer is the best resource for parts and service. Please have your model number and purchase date available when you call your dealer. In most cases, issues can be resolved over the phone.

PK Sprayers are warranted for one year from date of purchase against manufacturer defect. Commercial users receive a 6-month warranty.

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## APPLICATION CHART

Chemical manufacturers may recommend application rates in gallons per 1,000 square feet or gallons per acre. The following tip chart shows the two recommendations.

Once you know how much pressure and the amount of spray (from the tip chart), then check the speed chart to adjust your tractor / sprayer need.

The following tip chart is based on a #3 flood tip with a spray height of 18".

Pressure (PSI)	Capacity (GPM)	Gallons per Acre – Based on Water				
		1mph	2mph	3mph	4mph	5mph
10	.30	45	22.5	14.9	11.3	9
20	.42	63	31.5	21	15.8	12.4
30	.52	78	39	26.2	19.5	15.7
Pressure (PSI)	Capacity (GPM)	Gallons per 1,000 Square Feet – Based on Water				
		1mph	2mph	3mph	4mph	5mph
10	.30	1.0	.50	.34	.25	.21
20	.42	1.4	.72	.48	.36	.28
30	.52	1.8	.90	.60	.45	.36

Speed in MPH	Seconds Required to Travel a Distance of:		
	100 Feet	200 Feet	300 Feet
1.0	68	136	205
2.0	34	68	102
3.0	23	45	68
4.0	17	34	51
5.0	14	27	41

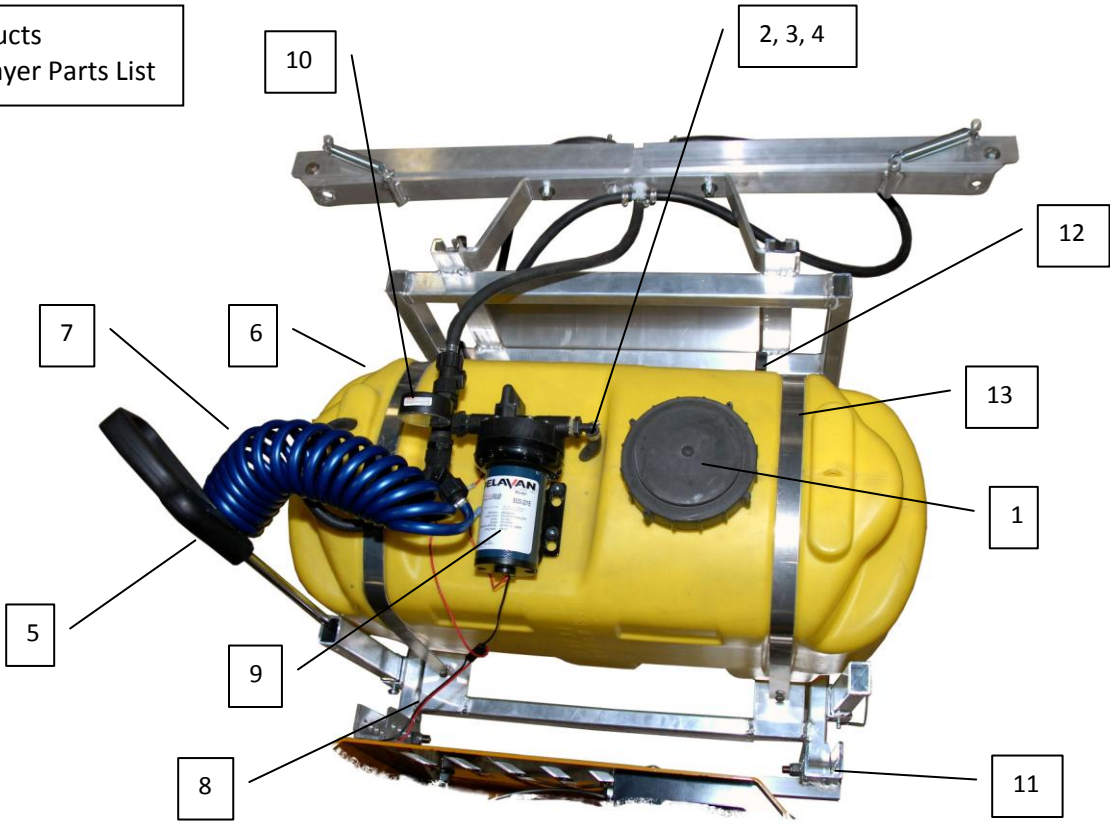
The speed chart shows the number of seconds needed to travel 100, 200 or 300 foot distances. Mark off one of these distances, set your tractor throttle, and (with a running start) travel the distance. Adjust the throttle until the tractor travels the distance in the number of seconds shown on the chart. Once you've reached the throttle setting needed, mark the throttle location so you can stop and return again to the same speed.

Fill tank with water and the proper amount of chemical. Drive to the starting location for spraying. Adjust to required pressure with the bypass side of the Y-valve. Determine this from nozzle tip chart and application rate recommended by the chemical manufacturer. When ready, turn the boom side of the Y-valve on and drive at previously set throttle mark.

### **PK Products**

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ZTR Sprayer Parts List



Item #	Part #	Description
1	20035	5" Tank lid
2	28218	3/8" x 18" Hose
3	23338	Strainer filter
	23340	Drain cap
4	20005	1/4" x 7/8" Hose clamp
5	25518	Deluxe hand gun
6	20025	25-Gallon tank only
7	23815	3/8" x 15' Coiled hose
8	23233	Switch On / Off
9	27812	2 GPM Delavan pump
	25850	5 GPM Delavan pump
	28981	Screws for pump (4 req)
10	21241	100 PSI Gauge
11	20001	Aluma ZT Frame
	21111	10" Tire & rim
12	22100	Hand gun clip kit
13	22222	Aluma straps kit
	28825	PK Products decal

<b>Aluma 2-Nozzle Boom</b>	
22332	Aluma 2-nozzle boom
28243	3/8" x 43" Hose (pump)
28219	3/8" x 19" Hose (boom)
21214	Gauge tee
29285	Single valve
22669	Drain cap washer
23834	Swivel nut
23838	Hose barb
22406	Nozzle body (3/8" elbow adapter)
22512	Lock nut
28079	Strainer
29978	Tee 2-nozzle
28027	Nozzle nut
20003	Gray nozzle
22235	Y-Valve
23312	1/2" x 1/2" Adapter (5 GPM pump)
27856	3/4" x 1/2" Adapter nipple
21238	Reducing nipple (2 GPM pump)
28212	3/8" x 12" Hose (return)
23888	3/8" x 3/8" Elbow
27777	1/4" x 5/16" Hose clamp
23488	1/2" x 3/8" Elbow fitting (5 GPM)

<b>Aluma 2-Nozzle Boomless</b>	
22331	Aluma 2-nozzle boomless
28224	3/8" x 24" Hose (pump)
21214	Gauge tee
22669	Drain cap washer
23834	Swivel nut
23838	Hose barb
22406	Nozzle body (3/8" elbow adapter)
22512	Lock nut
28079	Strainer
24676	Spray tip adapter
29916	RH Boomless nozzle
29917	LH Boomless nozzle
22235	Y-valve
23312	1/2" x 1/2" Adapter (5 GPM pump)
27856	3/4" x 1/2" Adapter nipple
28218	3/8" x 18" Hose
28212	3/8" x 12" Hose (return)
23488	1/2" x 3/8" Elbow fitting (5 GPM)
27777	1/4" x 5/16" Hose clamp

<b>Aluma 3-Nozzle Boom</b>			
22333	Aluma 3-Nozzle Boom	28079	Strainer
28243	3/8" x 43" Hose (pump)	29282	Cross
28240	3/8" x 40" Hose (boom)	28027	Nozzle nut
21214	Gauge tee	20003	Gray nozzle
29285	Single valve	23312	1/2" x 1/2" Adapter (5 GPM pump)
22669	Drain cap washer	27856	3/4" x 1/2" Adapter nipple
23834	Swivel nut	28212	3/8" x 12" Hose (return)
23238	Hose barb	23488	1/2" x 3/8" Elbow fitting (5 GPM)
22406	Nozzle body (3/8" elbow adapter)	22235	Y-Valve
22512	Lock nut	27777	1/4" x 5/16" Hose clamp

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