



AG SPRAY EQUIPMENT

OWNERS MANUAL



TR 300 ECONOMY TRAILER SPRAYER

HAMILTON # 20, BOOMJET #10,

BOOM XT & 8 ROW BOOM

HYPRO 8 ROLLER PUMP

TR 300 ECONOMY SPRAYER

AG SPRAY EQUIPMENT

OWNER'S MANUAL

Congratulations on purchasing your new trailer sprayer. This manual is designed to aid you in operating your new sprayer.

WARRANTY

All Field Sprayers are under warranty by **Ag Spray Equipment** for a one year period from the date of purchase. This warranty only applies to defects in workmanship or manufactures defects in their components. This warranty does not cover any misuse, abuse, or parts that may freeze & break. Owners are responsible for these issues. Parts proven defective before the one year period will be replaced at no charge.

Ag Spray Equipment must be notified immediately of any defects or broken parts on the sprayer, before the one year period occurs. Waiting until after the one year period whether the sprayer has been ran once, twice, or none at all warranty is void. No product will be accepted for return without authorization.

All returned goods must be packaged securely and shipped with transportation charges prepaid.

For further information regarding parts or warranty, contact:

Ag Spray Equipment
1100 New Industry Lane
Hopkinsville, KY 42240
Phone: 1-800-637-7172

Operation & Instructions of New Sprayer

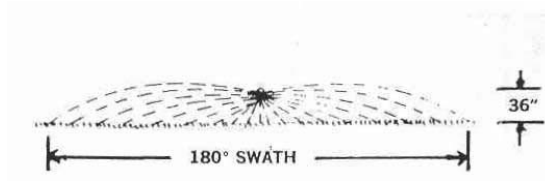
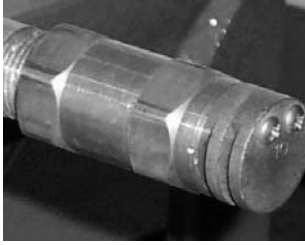
First, back your tractor up to the hitch of the sprayer and use a hitch pin to connect tractor to sprayer. Then, connect the PTO coupler on the pump to the shaft by depressing the coupler & sliding it on the shaft letting go of the coupler to allow lock pins to fall into the grooves on the shaft. Wrap chain around draw bar to keep pump from turning.

Next, fill the tank at least _ to _ full of just plain water with no chemicals. Make sure that the suction line shut off valve is open. Screw the pressure regulator part of the way out & make sure agitation valve is _ of the way open if supplied. This ensures that you do not peg the gauge & break it. Also, make sure the tank valve is on.

You are now ready to try out your sprayer. By engaging PTO lever & pulling throttle to the 540RPM mark on the RPM gauge turn boom valve on & adjust the desired pressure that you will need to operate at. Adjust pressure with the pressure regulator & not the agitation valve because you need to keep agitation constant.

CALIBRATING YOUR SPRAYER

HAMILTON NOZZLE 654201



CALIBRATING YOUR SPRAYER

To determine pressure & GPA with a boomless nozzle use this calibration for it is different than a boom calibration:

$$\text{GPA} = \frac{495 \times \text{GPM}}{\text{MPH} \times \text{Swath in feet}}$$

EXAMPLE:

$$\frac{495 (\text{constant}) \times 4.2\text{gpm}}{4\text{mph} \times 50\text{ft swath}} = \frac{2079}{200} = 10.395 \text{ GPA}$$

Refer to Chart

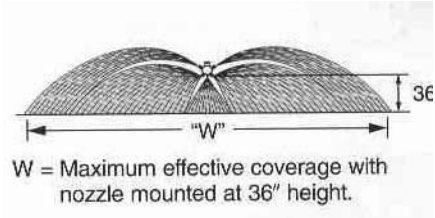
OPERATING DATA OF 180* NOZZLES

SPRAYERS ARE SUPPLIED w/ #10

Orifice Number	PSI	GPM		Swath	GALLON PER ACRE				
		180*	180*		3 MPH	4 MPH	5 MPH	8 MPH	10 MPH
#5	30	1.7	44'	6.4	4.8	3.8	2.4	1.9	
	40	2.0	46'	7.2	5.4	4.3	2.7	2.2	
	50	2.2	48'	7.6	5.7	4.5	2.9	2.3	
	60	2.4	50'	7.9	5.9	4.8	3.0	2.4	
#10	30	3.7	50'	12.2	9.2	7.3	4.6	3.7	
	40	4.2	50'	13.9	10.4	8.3	5.2	4.2	
	50	4.6	52'	14.6	10.9	8.8	5.5	4.4	
	60	5.0	52'	15.8	11.9	9.5	5.9	4.8	
#20	30	5.1	54'	15.6	11.6	9.3	5.8	4.7	
	40	5.9	54'	18.0	13.5	10.8	6.8	5.4	
	50	6.7	56'	19.7	14.8	11.8	7.4	5.9	
	60	7.1	58'	20.2	15.1	12.1	7.6	6.1	

- GPM = Gallons Per Minute
- GPA = Gallons Per Acre
- MPH = Miles Per Hour
- PSI = Pressure Per Square Inch

SPRAYING SYSTEMS 5880 BOOMJET NOZZLE

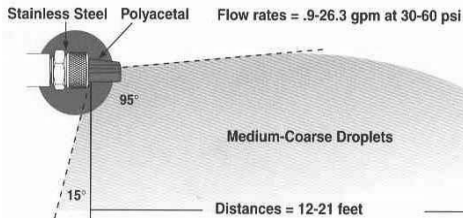


***NOTE:** BOOMJET SPRAYERS ARE STANDARD w/ **#10** NOZZLES & a HYPRO 6 or 8 ROLLER PUMP.

IF A **#20** NOZZLE IS USED THEN YOU NEED TO GO TO A HYPRO 5 ROLLER PUMP & 1" PLUMBING BECAUSE OF THE VOLUME NEEDED.

Nozzle	OC	Fitting (2)	Fitting (1)	PSI	GPM	"W" (FEET)	GPA				
							4 MPH	5 MPH	7.5 MPH	10 MPH	15 MPH
5880-3/4-2TOC10	OC10	H1/4U-0508HE	H1/4VVL-11004 with 50 mesh strainer	20	2.83	39.5	8.9	7.1	4.7	3.5	2.4
				30	3.46	40	10.7	8.6	5.7	4.3	2.9
				40	4.00	40.5	12.2	9.8	6.5	4.9	3.3
5880-3/4-2TOC20	OC20	H1/4U-0520HE	H1/4VVL-9506 with 50 mesh strainer	20	6.08	47	16.0	12.8	8.5	6.4	4.3
				30	7.45	50	18.4	14.8	9.8	7.4	4.9
				40	8.60	52	20	16.4	10.9	8.2	5.5

HYPRO BOOM X TENDER TIPS





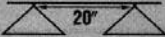
***NOTE: YELLOW TIP-XT024 IS USED.**

BROADCAST & TURF Applications				Application Rate (GPA) Miles Per Hour										
Thread	XT Model	PSI	GPM	4	5	6	7	8	10	12	14	16	18	20
1/4" MNPT	XT010	30	0.9	8.9	7.1	6.0	5.1	4.5	3.6	3.0	2.6	2.2	2.0	1.8
		40	1.0	10.3	8.3	6.9	5.9	5.2	4.1	3.4	2.9	2.6	2.3	2.1
		50	1.1	11.5	9.2	7.7	6.6	5.8	4.6	3.8	3.3	2.9	2.6	2.3
		60	1.2	12.6	10.1	8.4	7.2	6.3	5.1	4.2	3.6	3.2	2.8	2.5
1/4" MNPT	XT020	30	1.7	12.6	10.1	8.4	7.2	6.3	5.0	4.2	3.6	3.2	2.8	2.5
		40	2.0	14.6	11.6	9.7	8.3	7.3	5.8	4.9	4.2	3.6	3.2	2.9
		50	2.2	16.3	13.0	10.9	9.3	8.1	6.5	5.4	4.7	4.1	3.6	3.3
		60	2.4	17.8	14.3	11.9	10.2	8.9	7.1	5.9	5.1	4.5	4.0	3.6
1/4" MNPT	XT024	30	2.1	14.3	11.4	9.5	8.2	7.1	5.7	4.8	4.1	3.6	3.2	2.9
		40	2.4	16.5	13.2	11.0	9.4	8.3	6.6	5.5	4.7	4.1	3.7	3.3
		50	2.7	18	14.8	12.3	10.5	9.2	7.4	6.1	5.3	4.6	4.1	3.7
		60	2.9	20	16.2	13.5	11.5	10.1	8.1	6.7	5.8	5.1	4.5	4.0
3/8" MNPT	XT043	30	3.7	23	18.4	15.4	13.2	11.5	9.2	7.7	6.6	5.8	5.1	4.6
		40	4.3	27	21.3	17.7	15.2	13.3	10.6	8.9	7.6	6.7	5.9	5.3
		50	4.8	30	23.8	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9
		60	5.3	33	26.1	21.7	18.6	16.3	13.0	10.9	9.3	8.1	7.2	6.5

TEEJET SPRAY TIP CALIBRATION

For 8 Row Boom

Standard boom comes W/8003VP poly tips.

 	PSI	GPM	GPA 											
			4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	9 MPH	10 MPH	12 MPH	14 MPH	16 MPH	18 MPH	20 MPH
D25143-UB-8502 (DG, TJ60, TP, XR) 8002 (AI, DG, TJ60, TP, TT, XR) 11002 1/4TTJ02	15	0.12	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.0	2.5	2.2	2.0	1.8
	20	0.14	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.5	3.0	2.6	2.3	2.1
	30	0.17	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.2	3.6	3.2	2.8	2.5
	40	0.20	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.0	4.2	3.7	3.3	3.0
	50	0.22	16.3	13.1	10.9	9.3	8.2	7.3	6.5	5.4	4.7	4.1	3.6	3.3
	60	0.24	17.8	14.3	11.9	10.2	8.9	7.9	7.1	5.9	5.1	4.5	4.0	3.6
D25143-UB-8503 (DG, TJ60, TP, XR) 8003 (AI, DG, TJ60, TP, TT, XR) 11003 AIUB8503	15	0.18	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.5	3.8	3.3	3.0	2.7
	20	0.21	15.6	12.5	10.4	8.9	7.8	6.9	6.2	5.2	4.5	3.9	3.5	3.1
	30	0.26	19.3	15.4	12.9	11.0	9.7	8.6	7.7	6.4	5.5	4.8	4.3	3.9
	40	0.30	22	17.8	14.9	12.7	11.1	9.9	8.9	7.4	6.4	5.6	5.0	4.5
	50	0.34	25	20	16.8	14.4	12.6	11.2	10.1	8.4	7.2	6.3	5.6	5.0
	60	0.37	27	22	18.3	15.7	13.7	12.2	11.0	9.2	7.8	6.9	6.1	5.5
D25143-UB-8504 (DG, TJ60, TP, XR) 8004 (AI, DG, TJ60, TP, TT, XR) 11004 AIUB8504 1/4TTJ04	15	0.24	17.8	14.3	11.9	10.2	8.9	7.9	7.1	5.9	5.1	4.5	4.0	3.6
	20	0.28	21	16.6	13.9	11.9	10.4	9.2	8.3	6.9	5.9	5.2	4.6	4.2
	30	0.35	26	21	17.3	14.9	13.0	11.6	10.4	8.7	7.4	6.5	5.8	5.2
	40	0.40	30	24	19.8	17.0	14.9	13.2	11.9	9.9	8.5	7.4	6.6	5.9
	50	0.45	33	27	22	19.1	16.7	14.9	13.4	11.1	9.5	8.4	7.4	6.7
	60	0.49	36	29	24	21	18.2	16.2	14.6	12.1	10.4	9.1	8.1	7.3

Formula:
$$\frac{\text{GPA} \times \text{MPH} \times \text{Nozzle Spacing}}{5940}$$

Example:
$$\frac{20\text{gpa} \times 4\text{mph} \times 20''}{5940} = \frac{1600}{5940} = .27\text{gpm}$$

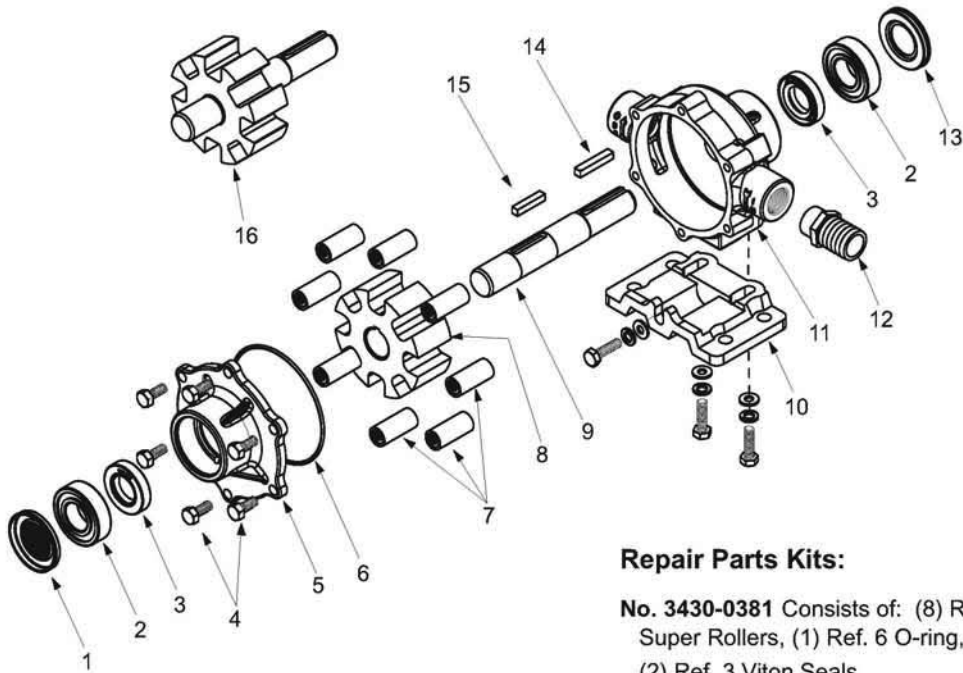
Take the GPM that you figured & look down the GPM chart to figure what pressure you need to run at that desired speed.

***NOTE:** If spraying liquid nitrogen you will need to multiply the conversion factor w/ the gpa, mph, & nozzle spacing.

Conversion Factor: 28% Nitrogen - 10.65 lbs. per gal. - 1.13
 32% Nitrogen - 11.00 lbs. per gal. - 1.15

Example:
$$\frac{20\text{gpa} \times 4\text{mph} \times 20'' \times 1.13}{5940} = \frac{1808}{5940} = .31\text{gpm}$$

Series 7560



Note: When ordering parts, give quantity, part number, description and complete model number. Reference numbers are used ONLY to identify parts in the drawing and NOT to be used as order numbers.

Repair Parts Kits:

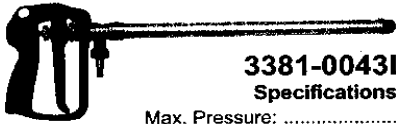
No. 3430-0381 Consists of: (8) Ref. 7 Super Rollers, (1) Ref. 6 O-ring, and (2) Ref. 3 Viton Seals

No. 3430-0167 Consists of: (8) Ref. 7 Polypropylene Rollers, (1) Ref. 6 O-ring, and (2) Ref. 3 Viton Seals

No. 3430-0622 Consists of: (1) Ref. 8 Phenolic Rotor, (1) Ref. 9 Shaft, and (1) Ref. 15 Key

Ref. No.	Qty. Req'd	Part No.	Description	Ref. No.	Qty. Req'd	Part No.	Description
1	1	2300-0020	Bearing Cover	8	1	0403-7500P	Phenolic (Standard)
2	2	2008-0001	Sealed Ball Bearing	9	1	0510-7500	Shaft (416 Stainless)
3	2	2112-0003	Viton Seal (Standard)	10	1 kit	3420-0003	Base Kit - Includes: (1) Base, (3) Bolts and (3) Washers
3	2	2112-0001	Buna-N Seal (Optional)	11	1	0104-7500C	Body (Cast Iron) with seal
4	6	2210-0004	Bolts	11	1	0104-7500N	Body (Ni-Resist) with seal
5	1	0204-7500C	Endplate (Cast Iron) with seal	11	1	0104-7500X	Body (SilverCast) with seal
5	1	0204-7500N	Endplate (Ni-Resist) with seal	12	1	2404-0052	1" Hose Barb
5	1	0204-7500X	Endplate (SilverCast) with seal	13	1	2300-0022	Shaft Bearing Cover
6	1	1720-0014	O-ring Gasket for Endplate	14	1	1610-0005	Key
7	8	1005-0004	Super Roller (Standard)	15	1	1610-0059	Key (Stainless Steel)
7	8	1002-0004	Polypropylene Roller (Optional)	16	1	N/A	Metal Rotor Assembly. Use Kit No. 3430-0622 (Phenolic rotor)
7	8	1052-0004	Buna-N Roller (Optional)				
7	8	1055-0004	Teflon Roller (Optional)				

Models 3381-0043 and 3381-0043L



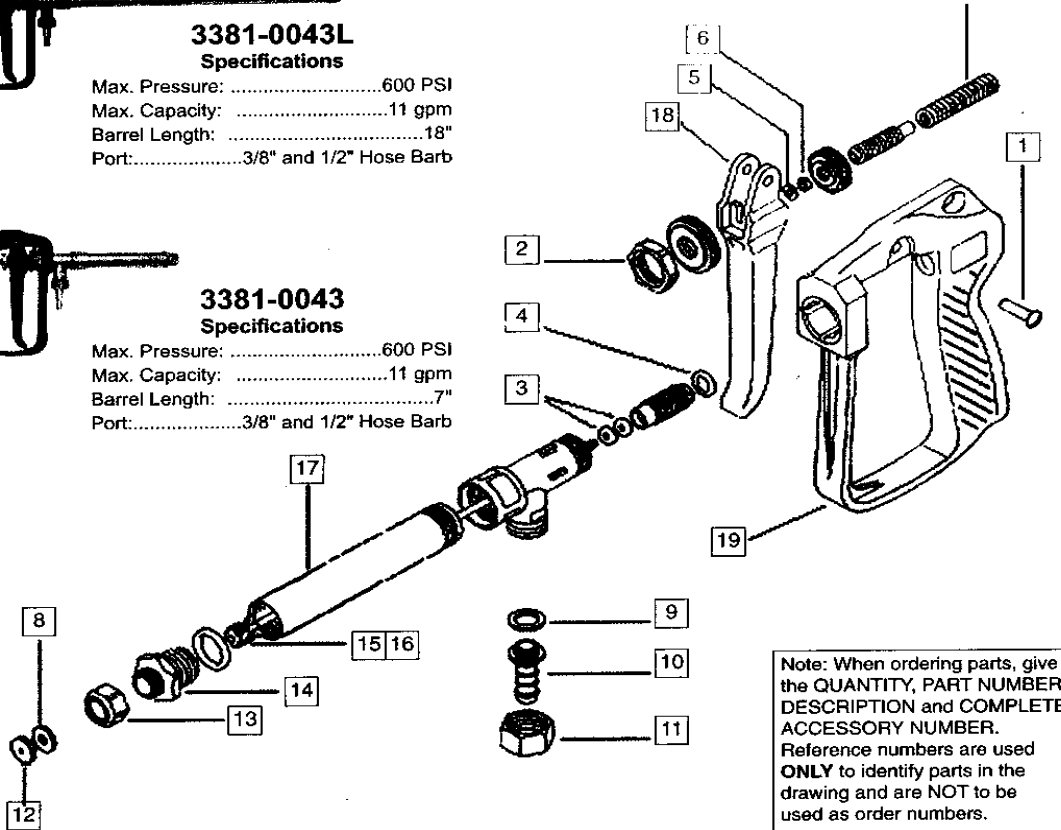
3381-0043L
Specifications

Max. Pressure:600 PSI
 Max. Capacity:11 gpm
 Barrel Length:18"
 Port:.....3/8" and 1/2" Hose Barb



3381-0043
Specifications

Max. Pressure:600 PSI
 Max. Capacity:11 gpm
 Barrel Length:7"
 Port:.....3/8" and 1/2" Hose Barb



Note: When ordering parts, give the QUANTITY, PART NUMBER, DESCRIPTION and COMPLETE ACCESSORY NUMBER. Reference numbers are used ONLY to identify parts in the drawing and are NOT to be used as order numbers.

These parts are ONLY available as 3430-0435 KIT

Ref. No.	Part No.	Description
1	9920-35.1508.4	Pin
2	9920-35.301.27	Nut
3	9920-27.602.39	O-ring (quantity: 2)
4	9920-260.602.14	O-ring
5	9920-35.1506.20	Washer
6	9920-27.301.28	Nut
7	9920-27.1003.25	Spring
8	9920-27.601.34	Gasket
9	9920-162.601.6	Gasket

Ref. No.	Part No.	Description
10	9920-162.1502.2	Hose Barb
11	9920-162.605.21	Ring Nut
12	AMT-15015	Standard Nozzle Ceramic Tip 1.5 (other nozzles available, see chart on back)
13	9920-27.605.48	Ring Nut
14	9920-35.1701.11	Brass Reducing Nipple
15	9920-31.204.36	Rod & Core for 18" Barrel
16	9920-32.204.37	Rod & Core for 7" Barrel
17	9920-35.1703.67	18" Barrel
18	9920-35.902.9	Trigger
19	9920-35.802.22	Handle

TROUBLE SHOOTING

PROBLEM	CAUSES & REMEDIES
1. NO PRESSURE	A. PUMP NOT PROPERLY PRIMED B. STRAINER STOPPED UP C. PUMP SUCKING AIR or PUMP HAS AIR LOCK. CHECK HOSES FOR CRACKS or HOLES. MAKE SURE FITTINGS ARE TIGHT. CENTRIFUGAL PUMP MAY HAVE AIR LOCK. UNSCREW 1/8" PLUG FROM TOP UNTIL WATER SHOOTS OUT OF IT D. SUCTION LINE SUCKING TOGETHER – NEED STIFFER HOSE E. WORN or LEAKING SEALS
2. PUMP RUNS, BUT LOW PRESSURE	A. SUCTION LINE & FITTINGS STOPPED UP or HOSE KINKED B. WORN ROLLERS or IMPELLAR C. STOPPED UP STRAINER
3. PUMP PRESSURE GOOD BUT LOW OUTPUT THROUGH NOZZLES	A. NOZZLE SIZE MAYBE TOO SMALL. CHECK CALIBRATION & GALLONS PER ACRE B. OUTLET LINE TOO SMALL or BLOCKED OFF C. BY-PASS OPEN TOO MUCH. CLOSE A LITTLE MORE
4. EXCESSIVE VIBRATION or NOISE	A. POSSIBLE LOOSE COULER – DAMAGED SHAFT B. EXCESSIVE PTO or ENGINE SPEED C. IMPELLAR or INTERNAL PROBLEM