

WARRANTY

Burroughs Sprayer Mfg. warrants each new Burroughs product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the machine or components not to exceed three consecutive months from the date of delivery of the new Burroughs product to the original purchaser.

Under no circumstances will it cover any merchandise or components thereof which, in the opinion of the company, has been subjected to negligent handling, misuse, alteration, an accident, or if repairs have been made with parts other than those obtainable through Burroughs Sprayer Mfg.

The company in no way warrants engines, batteries, tires or other trade accessories since these items are warranted separately by their respective manufacturers.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that in our judgment shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to Burroughs Sprayer Mfg. through the dealer and distributor from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature, direct, consequential, or contingent, to person or property. This warranty does not extend to loss of crops, loss because of delay in harvesting, or any expense or loss incurred for labor, supplies, substitute machinery, rental or for any other reason.

THERE ARE NO WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE INTENDED OR FITNESS FOR ANY OTHER REASON.

This warranty is subject to any existing conditions of supply which may directly affect our ability to obtain materials or manufacture replacement parts.

Burroughs Sprayer Mfg. reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify, or enlarge this warranty nor the exclusions, limitations and reservations.



LOWE CO. PRINTS



7/5/02

Owner's & Operator's Manual

This manual is the owners manual for all Sprayers.

"Quality Products Since 1955"

"DO NOT USE OR OPERATE SPRAYING EQUIPMENT UNTIL THIS MANUAL AND INSTRUCTIONS HAVE BEEN READ AND UNDERSTOOD"

$$\text{GPA} = \frac{\text{GPA} \times \text{MPH} \times \text{W}}{5940}$$

$$\text{GPA} = \frac{5940 \times \text{GPM (Per Nozzle)}}{\text{MPH} \times \text{W}}$$

GPM - Gallons Per Minute
 GPA - Gallons Per Acre
 MPH - Miles Per Hour

- Nozzle spacing (in inches) for broadcast spraying
- Spray width (in inches) for single nozzles, band spraying or boomless spraying.
- Row spacing (in inches) divided by the number of nozzles per row for directed spraying.

Tractor Speeds

Speed In MPH (Miles Per Hour)	Time Required In SECONDS to travel a Distance of:		
	100 feet	200 feet	300 feet
3.0	23	45	68
3.5	20	39	58
4.0	17	34	51
4.5	15	30	45
5.0	14	27	41
6.0	—	23	34
7.0	—	19	29
7.5	—	18	27
8.0	—	17	26
9.0	—	15	23

Nozzle Spacing

If the nozzle spacing on your boom is different than those tabulated, multiply the tabulated GPA coverages by one of the following factors.

Where Tables Are Based on 20" Nozzle Spacing									
Other Spacing	8"	10"	12"	14"	16"	18"	22"	24"	30"
Conversion Factor	2.5	2	1.57	1.43	1.25	1.11	.91	.83	.66

Where Tables Are Based on 40" Nozzle Spacing									
Other Spacing	28"	30"	32"	34"	36"	38"	42"	44"	48"
Conversion Factor	1.43	1.33	1.25	1.18	1.11	1.05	.95	.91	.83

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The purpose of this manual is to assist the operator in the operation of Burroughs Sprayer Mfg. spraying products.

We urge the operator to read and follow the recommendations in this manual prior to operating any Spraying Equipment.

Burroughs Sprayer Mfg. would like to thank you, the Customer, for purchasing our product. Our company has been manufacturing "Quality Products Since 1955"



OPERATOR SAFETY PRECAUTIONS

"Do Not Allow Anyone To Operate This Equipment Who Has Not Been Properly Trained In Its Safe Operations."

Before installing Spraying Equipment onto Tractor or Vehicle the Operator should:

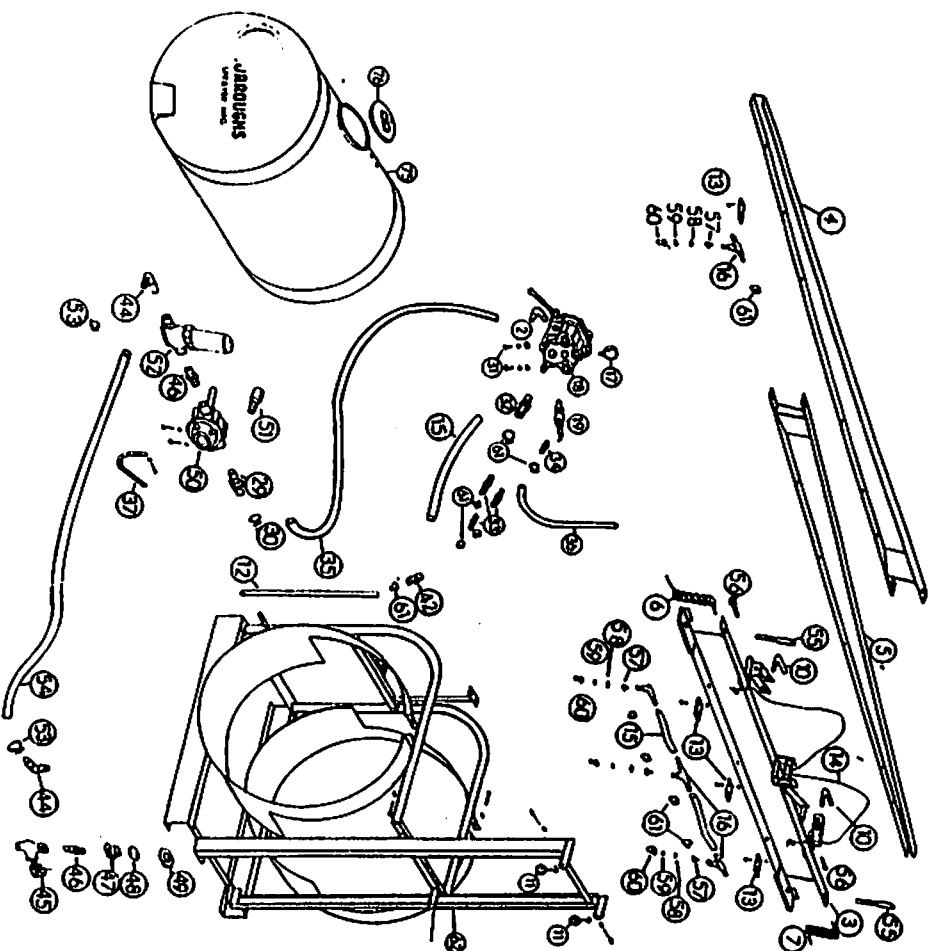
- I. Be thoroughly familiar with spraying equipment and the operation of this equipment before turning it on.
- II. Be sure safety shields, guards, chains, and warning labels are in working order and in place.
- III. Turn off tractor or vehicle and remove key before servicing equipment.
- IV. Read instructions on chemicals being used and ask your chemical dealer on proper use and safety with such chemicals in your spraying equipment.
- V. Be sure Booms are in transport position when traveling roads.
- VI. Be sure safety signs are mounted are visible.

* Always Think... The Safe Way is The Best Way

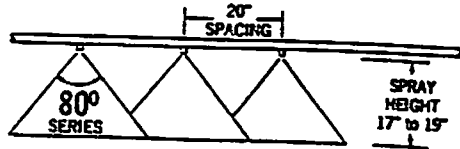
Key No. Parts

Burroughs Model T1105

7/5/02



TeJet Standard Flat Spray Tips



TeJet FLAT SPRAY TIP NO. and strainer screen size	Liquid Pressure in p.s.i.	Capacity 1 Nozzle in G.P.M.	GALLONS PER ACRE			
			4	5	7.5	10
			M.P.H.	M.P.H.	M.P.H.	M.P.H.
8001 •6.4 GPA (100 Mesh)	20	.07	5.3	4.3	2.8	2.2
	25	.08	5.9	4.7	3.1	2.4
	30	.09	• 6.4	5.1	3.4	2.6
	40	.10	7.4	6.0	4.0	3.0
	50	.11	8.3	6.7	4.5	3.4
80015 •9.7 GPA (100 Mesh)	20	.11	7.8	6.3	4.3	3.2
	25	.12	8.8	7.1	4.7	3.6
	30	.13	• 9.7	7.7	5.2	3.9
	40	.15	11.1	8.9	6.0	4.5
	50	.17	12.4	10.0	6.7	5.0
8002 •12.9 GPA (50 Mesh)	20	.14	10.5	8.4	5.6	4.2
	25	.16	11.8	9.4	6.3	4.7
	30	.17	• 12.9	10.3	6.9	5.2
	40	.20	14.8	11.8	7.9	5.9
	50	.23	16.5	13.2	8.8	6.6
8003 •19 GPA (50 Mesh)	20	.21	15.7	12.6	8.4	6.3
	25	.24	17.6	14.1	9.4	7.1
	30	.26	• 19	15.4	10.3	7.7
	40	.30	22	17.8	11.8	8.9
	50	.34	25	20	13.2	10.0
8004 •26 GPA (50 Mesh)	20	.28	21	16.8	11.2	8.4
	25	.32	24	18.7	12.5	9.4
	30	.35	• 26	21	13.7	10.3
	40	.40	30	24	15.8	11.9
	50	.45	33	27	17.7	13.3
8005 •32 GPA (50 Mesh)	20	.35	26	21	14.0	10.5
	25	.40	29	23	15.7	11.7
	30	.43	• 32	26	17.2	12.9
	40	.50	37	30	19.8	14.9
	50	.56	42	33	22	16.6
8006 •39 GPA (50 Mesh)	20	.42	31	25	16.9	12.6
	25	.47	35	28	18.7	14.1
	30	.52	• 39	31	21	15.5
	40	.60	45	36	24	17.8
	50	.67	50	40	27	20
8008 •52 GPA (50 Mesh)	20	.56	42	34	22	17
	25	.63	47	37	25	19
	30	.69	• 52	41	27	21
	40	.80	59	48	32	24
	50	.89	66	53	35	27
8010 •64 GPA (No Strainer)	20	.70	53	42	28	21
	25	.78	59	47	31	24
	30	.86	• 64	51	34	26
	40	1.00	74	59	40	30
	50	1.11	83	66	44	33

Standard on
Burroughs
Herbicide
Sprayers

Standard on
Burroughs
Nitrogen
Ground Drive
Sprayers

for row crop spraying

7/5/02

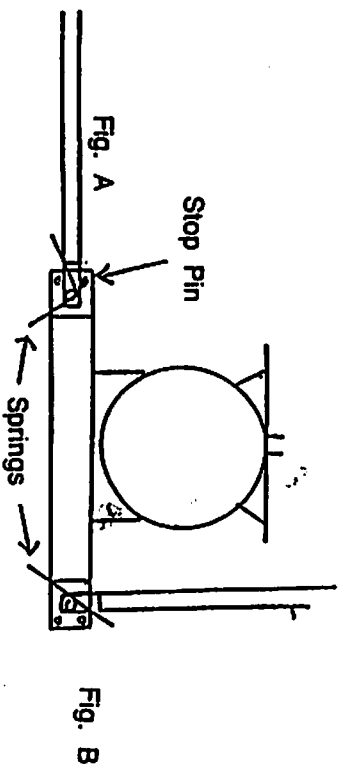
COMBI- NATION TeJet DISC AND CORE NO.	Liquid Pressure in P.S.I.	Capacity in G.P.M. per Nozzle	GALLONS PER ACRE—40" ROW SPACING								
			ONE NOZZLE PER ROW			TWO NOZZLES PER ROW			THREE NOZZLES PER ROW		
			3 MPH	4 MPH	5 MPH	3 MPH	4 MPH	5 MPH	3 MPH	4 MPH	5 MPH
D2-13 (4514-20)	40	.08	4.0	3.0	2.4	7.9	5.9	4.7	11.8	8.8	7.1
	60	.10	4.9	3.7	3.0	9.9	7.4	5.9	14.8	11.1	8.9
	80	.11	5.4	4.1	3.3	10.9	8.2	6.6	16.3	12.3	9.8
	100	.12	5.9	4.5	3.6	11.8	8.8	7.1	17.8	13.4	10.7
	150	.14	6.9	5.2	4.2	13.8	10.4	8.3	21	15.6	12.5
D2-23 (4514-20)	250	.17	8.4	6.3	5.0	16.7	12.5	10.0	25	18.9	15.1
	400	.21	10.4	7.8	6.2	21	15.6	12.5	31	23	18.7
	40	.10	4.9	3.7	3.0	9.9	7.4	5.9	14.9	11.1	8.9
	60	.13	6.2	4.6	3.7	12.4	9.3	7.4	18.5	13.9	11.1
	80	.14	6.9	5.2	4.2	13.9	10.4	8.3	21	15.6	12.5
D2-23 (4514-20)	100	.16	7.7	5.8	4.6	15.4	11.6	9.2	23	17.3	13.8
	150	.19	9.2	6.9	5.5	18.3	13.7	11.0	27	21	16.5
	250	.23	11.3	8.4	6.8	23	16.9	13.5	34	25	20
	400	.28	13.9	10.4	8.3	28	21	16.7	42	31	25
	40	.12	5.8	4.4	3.5	11.7	8.8	7.0	17.5	13.4	10.5
D3-23 (4514-20)	60	.14	6.9	5.2	4.2	13.9	10.4	8.3	21	15.6	12.5
	80	.16	7.9	5.9	4.8	15.8	11.9	9.5	24	17.8	14.4
	100	.18	8.7	6.5	5.2	17.4	13.1	10.5	26	19.5	15.6
	150	.21	10.3	7.8	6.2	21	15.5	12.4	31	23	18.6
	250	.26	12.8	9.6	7.7	26	19.2	15.4	38	29	23
D2-25 (4514-20)	400	.32	15.8	12.8	9.5	32	24	19.0	47	35	28
	40	.16	8.0	6.0	4.8	15.9	11.9	9.6	24	17.9	14.3
	60	.19	9.6	7.2	5.8	19.2	14.4	11.5	29	22	17.3
	80	.22	10.9	8.2	6.6	22	16.4	13.2	33	25	19.5
	100	.25	12.1	9.1	7.3	24	18.1	14.5	36	27	22
D3-25 (4514-32)	150	.29	14.5	10.9	8.7	29	22	17.5	44	33	26
	250	.37	18.3	13.7	11.0	37	28	22	55	42	33
	400	.46	23	17.1	13.7	46	35	28	68	51	41
	40	.19	9.4	7.0	5.6	18.7	14.0	11.2	28	21	16
	60	.23	11.3	8.5	6.8	23	17.0	13.5	34	26	20
D3-25 (4514-32)	80	.26	12.9	9.7	7.7	26	19.4	15.5	39	29	23
	100	.29	14.4	10.8	8.7	29	22	17.3	43	33	26
	150	.35	17.3	13.0	10.4	35	26	21	52	39	31
	250	.44	22	16.5	13.1	44	33	26	66	49	40
	400	.55	27	20	16.3	54	41	33	82	61	49
D3-45 (4514-32)	40	.23	11.4	8.6	6.9	23	17.1	13.7	34	26	21
	60	.28	13.9	10.4	8.4	28	21	16.7	42	32	25
	80	.33	16.2	12.2	9.7	32	24	19.4	49	36	29
	100	.36	18.0	13.5	10.8	36	27	22	54	41	33
	150	.44	22	16.3	13.0	43	33	26	65	49	39
D4-25 (4514-32)	250	.56	28	21	16.7	56	42	33	84	63	50
	400	.71	35	26	21	70	53	42	105	79	63
	40	.29	14.2	10.6	8.5	28	21	17	43	32	25
	60	.35	17.3	13.0	10.4	35	27	21	52	39	31
	80	.40	19.8	14.9	11.9	40	30	24	60	45	35
D4-25 (4514-32)	100	.45	22	16.5	13.2	44	33	26	66	50	40
	150	.54	27	20	16.0	53	40	32	80	60	46
	250	.68	34	25	20	68	51	41	101	76	60
	400	.86	43	32	26	85	64	51	128	96	76
	D4-45 (4514-32)	40	.36	17.7	13.2	10.6	35	27	21	53	40
60		.43	21	16.0	12.8	43	32	26	64	48	37
80		.50	25	18.5	14.8	49	37	30	74	56	44
100		.56	28	21	16.7	55	42	35	83	62	49
150		.68	34	25	20	67	51	40	101	76	60

Standard on
Burroughs
Row Crop
Sprayers

Set Up / Installation Instructions

- I. Mount sprayer to Tractor Hitching Device with retainers to prevent accidental unhitching.
- II. Refer to Chart of Formulas to determine Gallons Per Acre for your requirement and Tractor Speed and R.P.M.
(Example: spraying clear water, nozzle spacing 20" apart, 8004 tips, 4 M.P.H., 30 PSI. will spray 26 gallons per acre).
- III. Fill tank half-full with clean water strained through a 100 mesh screen, most well water contains sand and water from lakes, rivers, or ditches will most always contain some sand or debris.
- IV. Be sure cut-off valve is open under tank.
- V. Install Pump properly on the PTO shaft with chains and safety guard shields in place.
- VI. Turn T-Handle on Pressure Relief Valve counter-clockwise 5 or 6 times in order to set desired pressure before starting pump.
- VII. Start tractor and set RPM at speed you have determined for tractor speed for spraying.
- VIII. Turn Tee Valve handle to selected setting of Booms. Lever is raised for Spraying to start. Lever is lowered for Spraying to stop. Raise lever and engage PTO on tractor.

- IX. With Tee Valve lever raised, turn relief valve T-Handle clockwise to increase required pressure for Spraying.
- X. Ask your chemical supplier for the amount(s) of chemical(s) to use per gallon of water, etc.
- XI. Ask your chemical supplier about regulations and requirements of gloves, chemical masks, clothing and other accessories that should be worn or used when using chemicals.



To install Boom and Spring.
Position Boom to relieve
Tension of Spring Fig. B.
Spring applying tension
To Boom in Fig. A.

TROUBLE SHOOTING

This section is a condensed chart to help you if unsatisfactory operation occurs.

- 1) Identify the "Symptom" that best applies
- 2) Check the "Possible Causes"
- 3) Perform the recommended "Remedy"

If you are unable to determine and correct the trouble, consult your authorized dealer.

A. SPRAYING OPERATION

SYMPTON	POSSIBLE CAUSE	REMEDY
Pressure gauge won't read.	Trash in end. Broken gauge.	Check gauge. Clean by using air hose or replace as required.
Good pressure cut off, no pressure cut on.	Intake hose soft inside. Crimp in hose. Clogged strainer. Trash drawing over outlet fitting inside tank.	Replace hose. Clean or replace strainer. Clean out tank, check outlet hole for trash. Clean fitting.
Spraying stops	Trash drawing over outlet fitting inside tank.	Clean out tank, check outlet hole for trash. Clean.
Pumps good water but no pressure.	Defective relief valve spring. Defective pressure gauge. Defective agitator in tank.	Replace relief spring kit or relief valve. Replace gauge. Replace agitator.
Pressure doesn't change	Defective relief valve. Defective pressure gauge.	Replace spring kit or relief valve. Replace pressure gauge.

A. SPRAYING OPERATION (con't)

SYMPTON	POSSIBLE CAUSE	REMEDY
No pressure	Defective relief valve. Defective pressure gauge. Defective agitator in tank. Defective pump.	Repair or replace relief valve. Replace pressure gauge. Replace agitator in tank. Repair or replace pump.
Boom sprays when cut off.	Damaged control valve inside. Trash inside control	Repair or replace control valve. Clean out trash.
Water coming out of pump end or shaft end.	Defective seals.	Replace seals. check bearings and replace if needed.
Water leaking at front of Tee Valve Control.	Damaged packing glands.	Replace with repair kit or replace Tee Valve.
Water leaking at large nut at tank fitting	Worn O-Ring	Replace gasket and check tank for cracks.
Sprayer has good pressure but won't spray.	Intake line clogged. Strainer clogged inside tank.	Clean hoses, strainer, and/or tank. Lift Tee Valve lever to "on" position.

Burroughs

Key No. Parts Burroughs Model 71105

Useful Formulas
 GPA — Gallons Per Acre
 MPH — Miles Per Hour
 (Per Nozzle) = $\frac{GPA \cdot MPH \cdot W}{3940}$ $GPA = \frac{3940 \cdot GPA}{GPA \cdot MPH \cdot W}$
 MPH = W

- GPA — Gallons Per Minute
- GPA — Gallons Per Acre
- MPH — Miles Per Hour
- W — Nozzle spacing (in inches) for broadcast spraying
- Spray width (in inches) for single nozzles, band spraying or boomless spraying.
- Row spacing (in inches) divided by the number of nozzles per row for directed spraying.

Tractor Speeds

Speed in MPH (miles per hour)	Times Required in SECONDS to travel a Distance of:		
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4.0	17	34	51
4.5	15	30	45
5.0	14	27	41
6.0	—	23	34
7.0	—	19	29
7.5	—	18	27
8.0	—	17	26
9.0	—	15	23

Nozzle spacing

If the nozzle spacing on your boom is different than those tabulated, multiply the tabulated GPA coverage's by one of the following factors:

Where Tables are Based on 20" Nozzle Spacing

Other Spacing	8"	10"	12"	14"	16"	18"	22"	24"	30"
Conversion Factor	2.5	2	1.67	1.43	1.25	1.11	.91	.83	.66

Where Tables are Based on 40" Nozzle Spacing

Other Spacing	26"	30"	32"	34"	36"	38"	42"	44"	48"
Conversion Factor	1.43	1.33	1.25	1.18	1.11	1.05	.95	.91	.83

