

Operator's Handbook

Silver Selection

Field Spray Unit

SFU06H19
SFU10H19



ASK YOUR DEALER ABOUT THE FULL RAPIDSpray RANGE AND OUR 44 PAGE CATALOGUE

**CUSTOMER
SERVICE
FREECALL**

1800 816 277

FROM MOBILE PHONES PLEASE CALL 03 5866 3266



RSP0008 OH

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READ YOUR OPERATOR'S HANDBOOK CAREFULLY BEFORE MOUNTING AND USING YOUR SPRAYER. KEEP YOUR HANDBOOK IN A SAFE PLACE.

Introduction

Congratulations on your purchase of a Rapid Spray Field Sprayer which is complete and ready for use. The unit is ideally suited to farmers or spray contractors for weed spraying, fence line spraying, spraying of drainage channels and around buildings etc.

Warnings

- ! **1.** When mounting to any vehicle ensure that you have read the Vehicle Owner's Manual and that you comply with all the weight restrictions as specified by the vehicle manufacturer, as overloading can cause injury or death. Remember that 1 litre of water weighs 1 kilogram.
- ! **2.** To ensure your own safety and that of your employees if applicable you must comply with all relevant environmental, work place health and safety legislation and codes of practice.
- ! **3.** Select and wear appropriate Personal protection Equipment in accordance with the label of the product you intend using and your own safe work practices.
- ! **4.** Care should be taken when spraying in windy conditions as spray drift may contaminate the air and may affect the operator or damage adjacent non-target vegetation.
- ! **5.** Once the spraying operation has been completed, decontaminate the spray tank and spray accessories. Dispose of tank rinsings in compliance with current environmental, work place health and safety regulations.
- ! **6.** Personal Protection Equipment must still be worn while decontaminating your sprayer as per warning at 3 above.
- ! **7.** 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.
- ! **8.** Never leave the sprayer unattended without turning off the engine and relieving the line pressure, and flushing the sprayer of any harmful chemicals.
- ! **9.** 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

PRODUCT INFORMATION RISK ASSESSMENT SHEET FIELD SPRAYERS & FIRE FIGHTERS

Task	Hazards	Risk	Control Measures
1. Partially fill the tank with water, start the motor & test the spray unit	Manual handling; slips, trips or falls; petrol; fumes; fingers jammed	med	Concentrate on task; follow safe manual handling techniques:- don't lift on your own if > 20kg, bend knees & keep back straight; keep fingers clear; keep unit at least 8m away from overhead powerlines; fire extinguisher nearby; follow warning stickers on tanks; wear PPE for petrol & fumes-mask & gloves.
2. Check weather conditions & select the appropriate PPE to suit the chemicals to be used	Manual handling; slips, trips or falls	Low	Put on PPE as per the chemical requirements in the Material Safety Data Sheet-coveralls, gloves, safety footwear, glasses & respirator; follow safe manual handling techniques:-don't lift on your own if >20kg, bend knees & keep back straight.
3. Mix chemicals (if applicable) & fill spray tank/fire fighting units	As above; spray drift, chemical spillage, emission of vapors or flammability; weather; untrained visitors	Med	As above; user trained in the state's chemical mixing & administration course eg Chem. Cert; follow the relevant Environment Protection Authority requirements; fire extinguisher present; keep visitors away from the job unless wearing full PPE.
4. Use spray or fire fighter units.	As above; loss of load; heat & cold; noise; exceed load limit of vehicle; hose entanglement; exhaust fumes; terrain & slopes; run over by unit	High	As above; wear clothes to suit heat & cold; wear hearing protection if noise > 85 dBa; follow the manufacturer's safe operation instruction for the vehicle and the spray unit; don't overload - water weighs 1kg for every 1 litre; secure load to vehicle; keep hose tidy; put unit brakes on.
5. Clean up, maintenance & storage	As above	Low	As above; continue to wear PPE for clean up: store unit in a dry, well ventilated area.

Mixing and Filling

The following steps are given as a guide for mixing and filling the sprayer:

1. Read the product label and follow the instructions carefully, taking special note with regard to the order in which the products are added to the tank.
2. Half-fill the spray tank with water only and commence agitation by following these steps:
 - Pressure control lever must be in the “by-pass position”. Turn regulator valve knob in anti-clock wise direction to reduce pressure to “0” bar.
 - Measure the correct quantity of pesticides, using clean measuring jugs used only for this purpose and add to the spray tank while still agitating.
 - Rinse out the measuring jugs and empty containers and pour all rinsings into the spray tank.
 - Top up the spray tank with clean water to the required level.
 - Your spray tank has now been correctly filled and the product thoroughly mixed. Spraying can now commence.
3. To commence spraying, move the pressure control lever clockwise to the “press” position, close the spray gun or boom and turn the adjustment knob in a clock-wise direction until your desired pressure has been reached. Open the spray gun or boom and start spraying.

Calibration

Accurate calibration is an essential element of any spraying function as it ensures that the pesticide is applied at the rate on the product label. Application in excess of the recommended rate is prohibited, can damage crops and is uneconomical.

Calibration must always be carried out:

- When spraying for the first time with new spray equipment
- At the beginning of each season
- After changes of nozzle tips, spraying pressure or speed
- After every 100 hectares of spraying

When calibrating a sprayer, a minimum of coverall, gloves and boots must be worn. A face shield and PVC apron may be included depending on the task and the cleanliness of the sprayer.

Calibration Procedures

The following table gives a step-by-step guidance on the standard method of sprayer calibration

BOOM SPRAYERS HYDRAULIC NOZZLES		EXAMPLE
Read the LABEL	Spray VOLUME Product Dose Spray QUALITY	200 Litres / hectare 50 Litres / hectare Medium
Measure TIME per 100 Metres	Measure time in seconds over land similar to that to be sprayed	41.9 seconds
Calculate SPEED	SPEED = 360 divided by TIME km/h seconds	360/41.9 = 8.6km/h
Measure nozzle SPACING	Normally .5 metres (50cm)	.5 metre
Measure TIME per 100 Metres	OUTPUT = VOLUME X SPEED X SPACE / 600 litres/min litres/hectare km/h metre	200 X 8.6 X 0.5 / 600
Select NOZZLE	Refer to nozzle manufactures data charts or other sources and select the size and type of nozzle that will produce the calculated OUTPUT and required spray QUALITY	41.9 seconds

Now, check the calibration on the sprayer

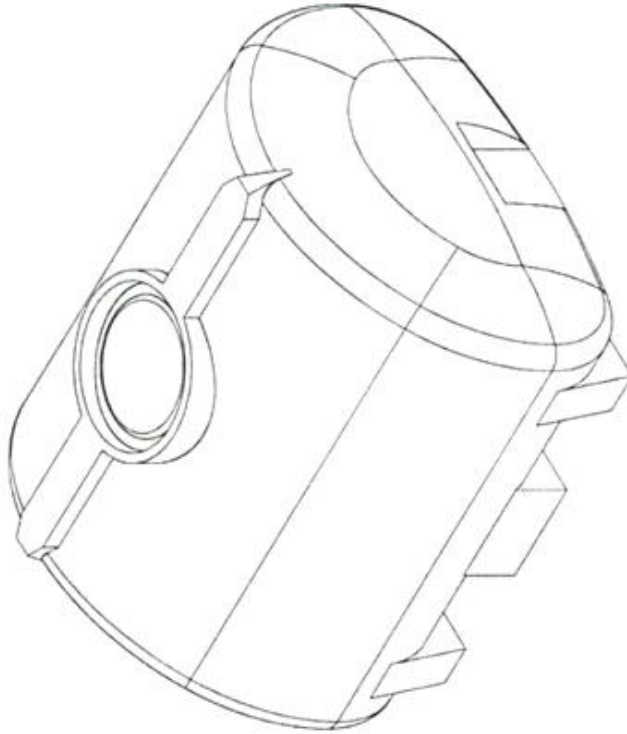
Check Nozzle OUTPUT	With water, check outputs of 4 or more nozzles using a calibrated jug or flow meter. Check all nozzles are aligned correctly and spray patterns	Average output = 41.9 litres/minute
Calibrate SPRAYER	SPEED = 360 divided by TIME km/h seconds	1.4 x 600 / 0.5 / 8.6

As the nozzle output and therefore the spray volume are less than target figures, increase the pressure to, say 2.5 bar and repeat the calibration to achieve 200 litres / hectare

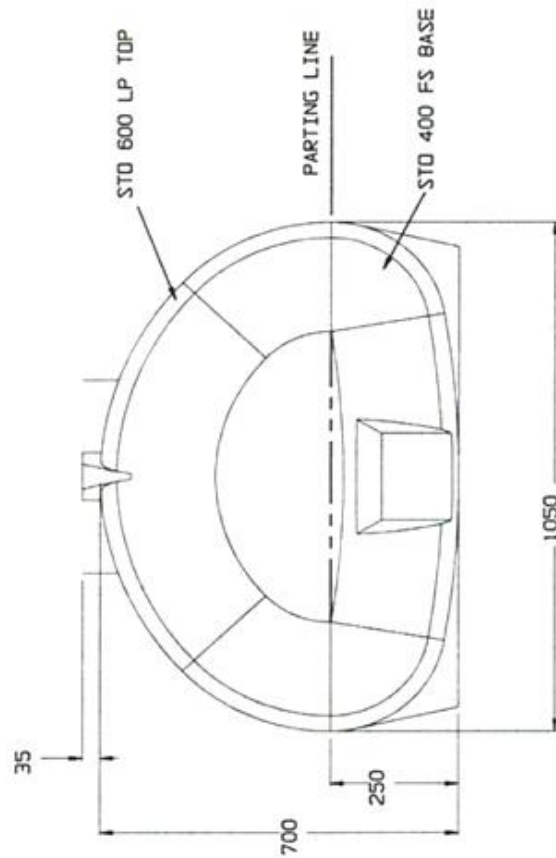
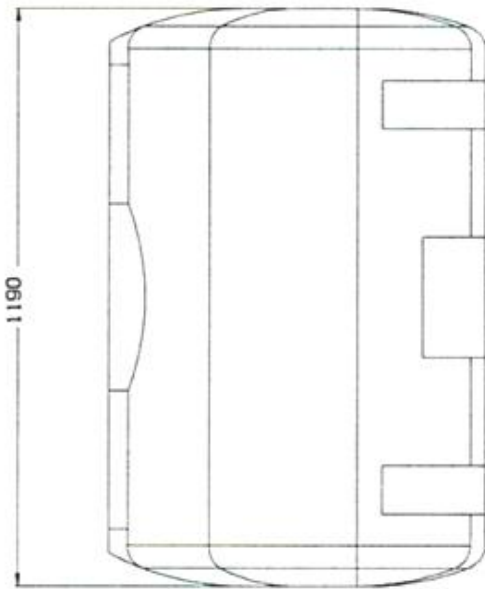
Now, record the details as calculated

Nozzle fitted	11004 - RED
Spray Volume	200 litres/hectare
Spray Pressure	2.5 bar
Spray Quality	Medium
Forward Speed	8.6 km/h

LINE DRAWING 'A'



- NOTES:
- 1) FOR CLARITY MINOR EDGE BLENDING NOT SHOWN
 - 2) DIMENSIONS SHOWN ARE FINISHED SIZES
MOLD DIMENSIONS TO BE INCREASED BY 3%
 - 3) WATER LEVEL CAPACITY HAS BEEN CALCULATED
AS BEING 638 LITRES ASSUMING 8 MM THICK WALLS
 - 4) VOLUME OF FINISHED WALLS HAS BEEN CALCULATED
AS BEING 41 LITRES



TITLE

STD 600 FS

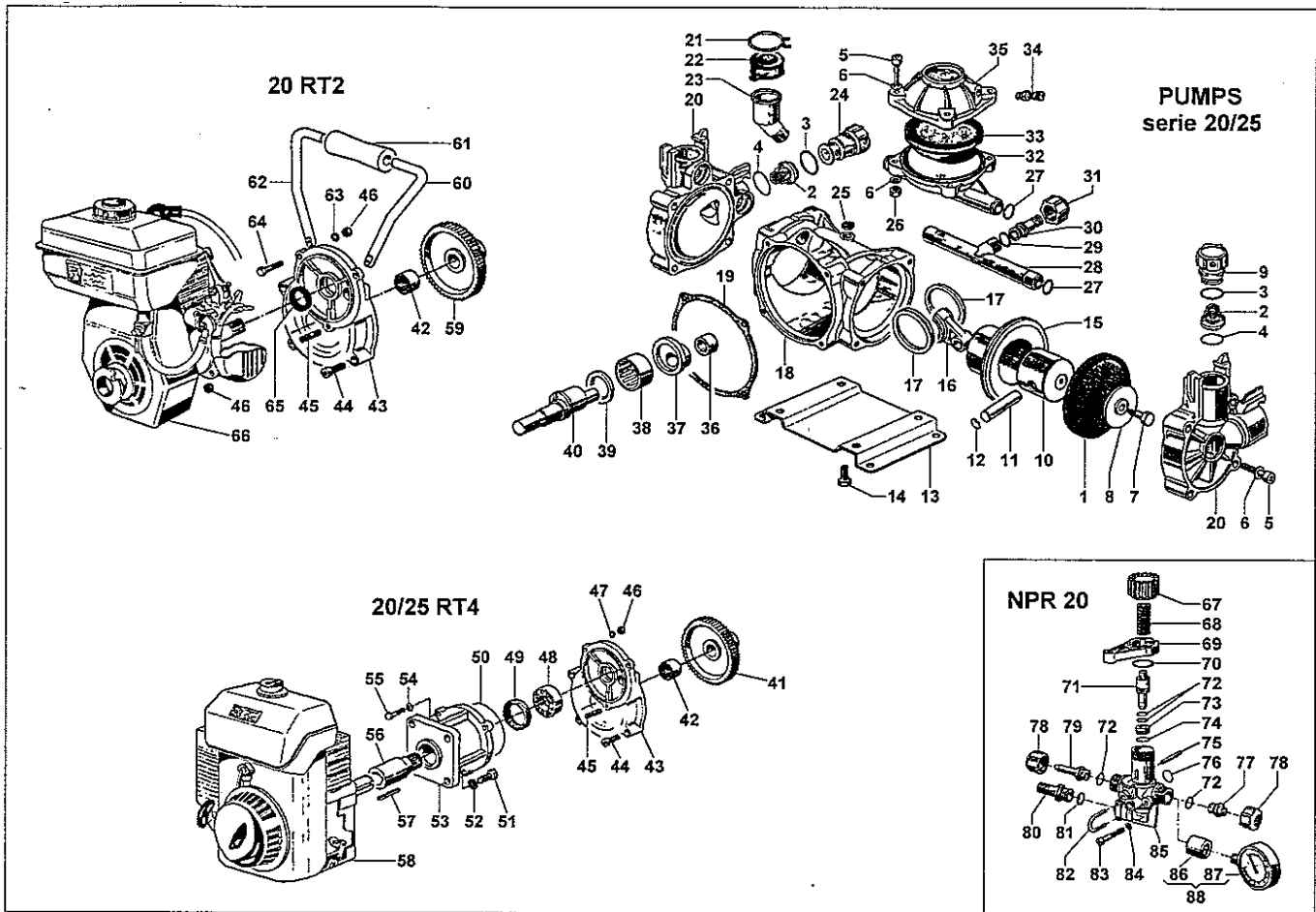
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SHEET 1/1

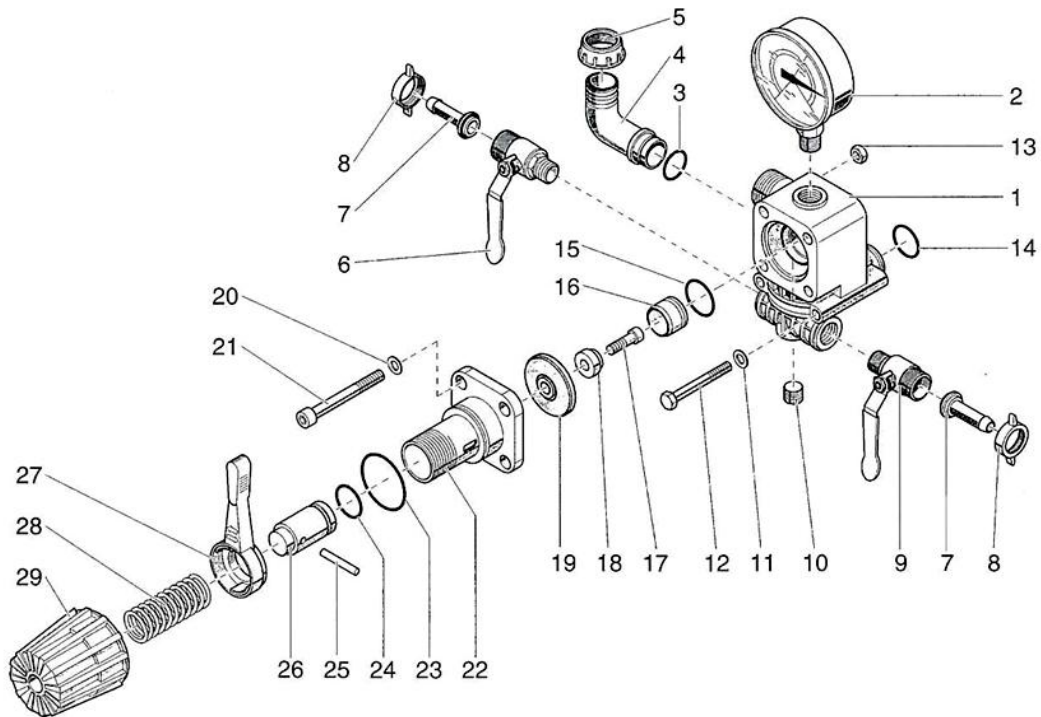
2004/02/09

Spare Parts List (Pump Series 20VF – STAP30) – 22 Litre/min



POS.	CODICE	PART NO.	RÉF.	Q.TY.	DENOMINAZIONE	DESCRIPTION	DESCRIPTION	POS.	CODICE	PART NO.	RÉF.	Q.TY.	DENOMINAZIONE	DESCRIPTION	DESCRIPTION
1	94.0040.31.2			2	MEMBRANA PISTONE			46	81.4525.00.2			3	DADO M5 UNI5588		
1	94.0040.33.2			2	MEMBRANA PISTONE VITON			47	84.3542.00.2			2	ROSETTA D.5, 3x10x1		
2	94.9828.97.3			4	GR. VALVOIA A/M			48	81.2631.00.2			1	CUSCINETTO SFERE		
3	80.3219.00.2			4	ANELLO CR 3,0x25			49	80.2117.00.2			1	ANELLO RADIALE		
4	82.4154.00.2			4	GUARNIZIONE D.30x24x1			50	80.3210.64.2			1	ANELLO CR 2,62x75,87		
5	86.2796.00.2			12	VITE TCEI M8x40 UNI5931			51	86.2566.00.2			4	VITE TE 5/16"-24UNE L-3/4"		
6	84.3685.00.2			16	ROSETTA D.8, 2x15x1,5			52	86.2622.00.2			4	VITE TE M8x22 UNI5739 (HONDA G100)		
7	94.0048.43.2			2	VITE FISSAGGIO MEMBRANA			53	94.3685.00.2			4	ROSETTA D.8, 2x15x1,5		
8	94.0036.32.2			2	PIATTIELLO MEMBRANA			54	94.0210.09.2			1	FLANGIA MOTORI TERMICI ("RT4")		
9	94.0091.98.2			2	TAPPO MANDATA			55	84.3560.00.2			3	ROSETTA D.5,5x15x1,6		
10	94.0017.08.2			2	PISTONE (serie 20)			56	86.1935.10.2			2	VITE TE M5x25 UNI5737		
10	94.0016.08.2			2	PISTONE (serie 25)			56	94.0211.42.2			1	PIGNONE Z=10 (SAE 3/4")		
11	85.2004.00.2			2	SPINOTTO D.10x35			56	94.0228.42.2			1	PIGNONE Z=10 (HONDA G100-S)		
12	80.0003.00.2			4	ANELLO D.10 FER FORO			56	94.0218.42.2			1	PIGNONE Z=10 (HONDA G100-Q)		
13	94.0022.61.2			1	PIEDINO			57	80.6436.00.2			1	LINGUETTA 4,75x5x30		
14	86.2059.00.2			4	VITE TE M6x14 UNI5739			57	80.6445.00.2			1	LINGUETTA 5x5x30 (HONDA G100-S)		
15	94.0007.01.2			2	CMICIA (serie 20)			58	83.2482.00.2			1	MOTORE TERMICO 4T TECUMSEH SAE 3/4"		
15	94.0015.01.2			2	CMICIA (serie 25)			58	83.2362.00.2			1	MOTORE TERMICO 4T B.& S. SAE 3/4"		
16	94.0008.09.2			2	BIELLA SINGOLA			59	94.0213.42.2			1	INGRANAGGIO Z=80 ("RT2")		
17	94.0047.76.2			2	ANELLO SERRAGGIO BIELLA			60	31.1325.61.2			1	SEMIMANICO DESTRO		
18	94.0001.09.2			1	CARTER POMPA			61	82.8410.00.2			1	MANOPOLA		
19	94.0080.72.2			1	GUARNIZIONE COPERCHIO CARTER			62	31.1324.61.2			1	SEMIMANICO SINISTRO		
20	94.0002.09.2			2	TESTATA POMPA			63	84.3539.00.2			5	ROSETTA D.5, 3x10x1		
21	81.7537.00.2			1	FASCETTA D.33			64	86.1943.90.2			2	VITE TCEI M5x45 UNI5931		
22	94.0044.31.2			1	COPERCHIO SERBATOIO			65	80.2035.00.2			1	ANELLO RADIALE		
23	94.0043.32.2			1	SERBATOIO OLIO			66	83.2188.30.2			1	MOTORE TERMICO 2T CM46 SPECIALE		
24	94.0090.98.2			2	TAPPO ASPIRAZIONE			66	83.2100.40.2			1	MOTORE TERMICO 2T OLEOMAC S50 SPECIALE		
25	94.0075.66.2			1	PISTONCINO APPOGGIO			67	94.0203.32.2			1	POMOLO DI REGOLAZIONE		
26	81.4575.00.2			4	DADO M8 UNI5588			68	94.0073.48.2			1	MOLLA		
27	80.3181.00.2			4	ANELLO CR 2,62x15,54			69	94.0202.32.2			1	LEVA SCARICO RAPIDO		
28	94.0014.32.2			1	COLLETTORE			70	80.3199.00.2			1	ANELLO CR 2,62x21,89		
29	80.3060.00.2			1	ANELLO CR 1,78x12,42			71	94.0204.32.2			1	CITTURATORE		
30	84.0521.00.2			1	RACCORDO CURVO D.20			72	80.3174.00.2			4	ANELLO CR 2,62x9,92		
31	82.0042.10.2			1	GALLETTO G.3/4			73	05.0068.51.2			1	SEDE VALVOIA		
32	94.0004.09.2			1	ACCUMULATORE INFERIORE			74	80.3056.00.2			1	ANELLO CR 1,78x8,73		
33	94.0041.31.2			1	MEMBRANA ACCUMULATORE			75	85.1045.00.2			1	SPINA CILINDRICA D.3x30		
33	94.0041.33.2			1	MEMBRANA ACCUMULATORE VITON			76	80.3217.00.2			1	ANELLO CR 3,0x14		
34	86.1605.00.2			1	VALVOIA ARIA			77	94.0201.32.2			1	TAPPO		
35	94.0003.09.2			1	ACCUMULATORE SUPERIORE			78	82.0015.00.2			2	GALLETTO G.1/2		
36	81.2531.00.2			1	CUSCINETTO A RULLINI			79	84.1528.00.2			1	RACCORDO MANDATA D.8		
37	94.0026.32.2			1	DISTANZIALE			80	84.1551.00.2			1	RACCORDO SCARICO D.13		
38	81.2688.00.2			1	CUSCINETTO A RULLINI			81	80.3178.00.2			1	ANELLO CR 2,62x13,1		
39	94.0027.32.2			1	DISTANZIALE			82	94.0206.49.2			1	BALCONETTA		
40	94.0215.26.2			1	ALBERO ECCENTRICO "RT2"- "RT4"			83	86.1943.90.2			2	VITE TCEI M5x45 UNI5931		
41	94.0212.42.2			1	INGRANAGGIO Z=51 ("RT4")			84	84.3542.00.2			2	ROSETTA D.5, 3x10x1		
42	81.2546.00.2			1	CUSCINETTO A RULLINI			85	94.0200.32.2			1	CORPO VALVOIA REGOLAZIONE		
43	94.0208.09.2			1	CARTER RIDUTTORE			86	94.0207.32.2			1	MANICOTTO G.1/2-G.1/4		
44	86.2261.00.2			4	VITE TCEI M6x30 UNI5931			87	83.0010.00.2			1	MANOMETRO		
45	83.8006.00.2			1	FRIGIONIERO M5x18 UNI5914			88	94.9849.97.3			1	KIT MANOMETRO NPR 20		

Spare Parts List KARIN STAP77



Pos.	Part No.	Qty	Description
1	24.0310.32.2	1	Valve Housing
2	83.0080.00.2	1	Pressure Gauge 0-100 Bar
2	83.0010.00.2	1	Pressure Gauge 0-24 Bar
3	80.3060.00.2	1	O-Ring 1.78 x 12.42
4	84.0521.00.2	1	90° Elbow Connector Dia. 20
5	82.0042.10.2	1	Wing Nut G.3/4
6	84.5544.10.2	1	Left Tap G.3/8 - G.1/2
7	84.1544.00.2	2	Outlet Straight Port D.10
8	82.0010.00.2	2	Wing Nut G.1/2
9	84.5544.00.2	1	Right Tap G.3/8 - G.1/2
10	85.2585.00.2	1	Cap G.3/8
11	84.3585.00.2	2	Washer Dia. 6.4 x 12.5 x 1.6
12	86.2426.00.2	2	Screw M6 x 60 UNI5737
13	84.4525.00.2	4	Nut M5 UNI5588
14	80.3218.00.2	1	O-Ring 3.0 x 22
15	80.3059.00.2	1	O-Ring D.1.78 x 11.11
16	24.0320.51.2	1	Valve Seat
17	86.1841.50.2	1	Screw M4 x 12
18	24.0319.51.2	1	Poppet
19	24.0313.36.2	1	HPS Diaphragm
20	84.3539.00.2	4	Washer Dia. 5.3 x 10 x 1
21	86.1944.20.2	4	Screw M5 x 50
22	24.0311.32.2	1	Flange
23	80.3075.00.2	1	O-Ring
24	80.3175.00.2	1	O-Ring 2.62 x 10.78
25	85.1148.00.2	1	Pin
26	24.0314.53.2	1	Guiding Piston
27	24.0312.32.2	1	Lever
28	24.0316.48.2	1	Spring 40 Bar
28	24.0550.48.2	1	Spring 15 Bar
29	24.0321.32.2	1	Knob

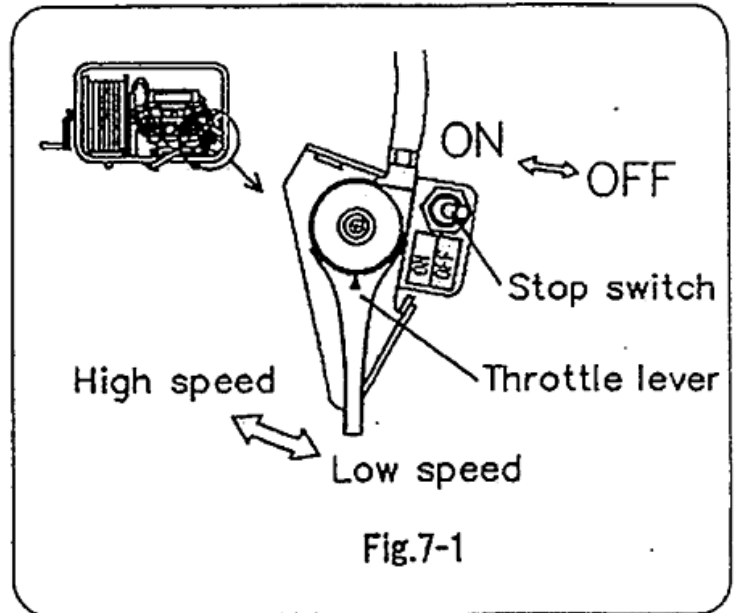
Spares Kits

Rapid Spray Part No.	STAP133							
Kit Part No.	25.9983.97.3							
Kit Description	Karin Kit							
Position No.	3	14	15	16	18	19	23	24
Quantity Incl.	1	1	1	1	1	1	1	1

Operation Procedure

Start-up

1. Confirm that the chemical tank contains chemical.
2. Set the stop switch to the ON position. (Fig 7-1)
3. Push the priming pump on the carburettor several times until fuel begins to flow.
4. Set the throttle lever to the LOW position.
Set the choke lever in the CLOSE position when the engine is cold.
5. Turn the pressure regulating handle to the START position. (Fig 7-2)
6. While holding the sprayer steady, grip the recoil starter handle and yank it quickly.
7. While checking the engine status after start-up, return the choke lever gradually to the OPEN position.
8. For 2 to 3 minutes after start-up, perform warming up.



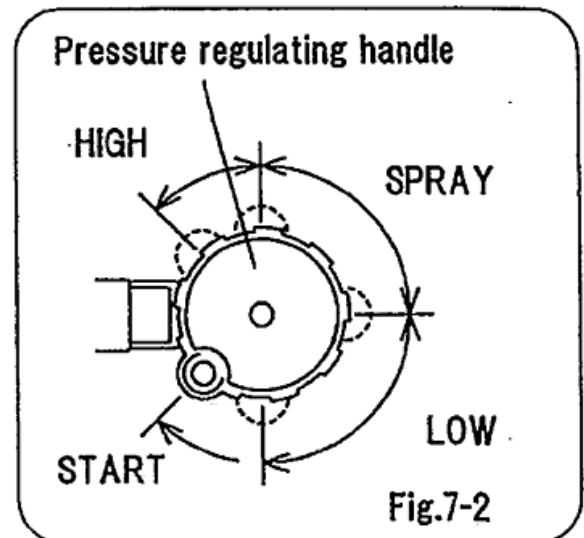
Operation— Manipulating the Pressure Regulating Valve

Turn the pressure regulating handle in the range "LOW ~ SPRAY ~ HIGH" to a position suitable to the work condition while referring to the round protruding portions as the reference. Because fine steps are provided, Fine adjustment is available.

(Fig 7-2)

Use the LOW pressure for spraying the herbicide, use the SPRAY for spraying normal agricultural chemical, and use HIGH pressure for places requiring high pressure (for washing, etc.).

The sprayer requires less power when the regulating valve is set at low pressure. Running the engine with the throttle lever fully open will result in too many revolutions and it is thus recommended to operate with the throttle lever at a medium setting.



Sprayer Decontamination

After use, the sprayer must be thoroughly decontaminated, inside and outside – including pump, hoses, boom and hand lance – to avoid damage to crops from harmful spray residues. Decontamination prevents sprayer corrosion and abrasion. As a guide follow the decontamination procedure below.

- After spraying, rinse out the tank with several changes of water plus a recommended cleaning fluid, brushing the inside of the tank.
- The suction filter mounted on the sprayer frame must be cleaned regularly. Unscrew the filter cover and remove the filter screen and remove the filter screen and gasket. Soak in clean water, brushing with a nozzle brush. Ensure gasket is in position when re-assembling.
- The filter basket strainer is removed by lifting it out of the filter ring. Clean the basket strainer the same way as the suction filter. Replace the basket strainer by exerting a quick downward push ensuring the strainer has seated correctly.
- Nozzles, nozzle filters, nozzle caps and gaskets should be cleaned by soaking in water, brushing with a nozzle brush and allowed to dry. Never blow through the nozzles with your mouth nor use wire or pins to clear any blockages. When re-assembling ensure that the nozzle cap gasket is correctly positioned.

Pump & Engine Maintenance

Maintenance should be carried out once a year.

Pump Maintenance

- Check to make sure that all screws are tightened and that no parts are missing.
- Check to make sure there are no loose connections on hoses, nozzle, lance or cock. Also check that no packing has been cut or torn.
- Thoroughly clean the nozzle and filter (for suction) is easily removable. Occasionally inspect and clean the filter.

Inspect the Engine

- Check to make sure there are no loose or missing screws in any part of the engine.
- Clean the air cleaner.
- Clean and adjust the spark plug
- Clean the cooling fan, air intake opening and parts around the muffler.
- Check the engine oil and change it. Check for oil leaks.
- Inspect the fuel line. Also check if there are any fuel leaks.
- Inspect the fuel filter. Clean the fuel tank.

Cleaning and Storing

When storing the sprayer ensure that it is clean and dry and kept in a ventilated place where there is no chance of freezing.

- Completely remove any water from the pump.
- Pull the recoil starter handle on the engine until there is resistance.
- After removing fuel from the tank, push the priming pump until fuel in the gas line runs out. Remove fuel from the tank once more.
- Check the engine oil and change it. Check for oil leaks.
- Set the throttle lever in the low speed position.
- Wipe away any dirt or dust.

Warranty

This Silver Selection Sprayer has been guaranteed free from defect in materials, workmanship or manufacture for 12 months from the date of purchase. Any parts which appear to us to be defective either in material or workmanship will be replaced or repaired at no cost to the purchaser, subject to the following conditions:

1. The registration card enclosed in this handbook must be returned to us within 7 days of purchase
2. The guidelines in this handbook have been adhered to in every respect.
3. In unlikely event of sprayer failure, this should be reported to your dealer who will act on your behalf to resolve the issue to your satisfaction.
4. Any defective parts will be returned by your dealer within 7 days of failure, together with a report describing the failure and conditions in which the failure occurred.
5. The following are specifically excluded from the terms of warranty –
 - Fair wear and tear to pump moving parts and diaphragms
 - Fair wear and tear to nozzles and nozzle bodies
 - Damage caused by neglect or lack of lubrication
 - Damage caused by misuse or abuse
 - Damage caused while the sprayer is in transit



Manufactured by:

Rapid Spray Southern

Murray Valley Hwy

Nathalia VIC 3638

AUSTRALIA

FRECALL: 1800 816 277

Whilst every care has been taken in the preparation of these instructions, no liabilities can be accepted with regard to errors or omissions. Product specifications are subject to change in line with our commitment to continuous improvement.



WARRANTY REGISTRATION CARD

To validate your warranty, please complete all the details below and post this card.
I have read and understood these instructions.

Sprayer Model _____ Date purchased ____/____/____

Serial Number _____

Purchased from _____

(Dealer Name and Town)

Purchaser's Name _____

Purchaser's Address _____

_____ p/c _____

Purchaser's Signature _____

To help us help you further please complete the following –

Purchaser's Age

- Up to 25
- 25 – 40
- 41-55
- Over 55

Principle Usage

- Commercial Farm
- Hobby Farm
- Industrial
- Home
- Town Council
- Hire Company
- Other

What influenced you to purchase a Rapid Spray product?

- Catalogue received
- Newspaper Advertisement
- Dealer recommendation
- Friend's recommendation
- Better features than other sprayers
- Quality and reliability
- Price
- Past experience with Rapid Spray products

What other Rapid Spray/Rapid Plas products do you use?

- Animal Feeders/Waterers
- RainWater Tanks
- Spray Tanks
- Inter Knapsacks
- Boom Sprayers
- Bertolini Pumps and Controllers



Rapid Spray Southern
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