



## **OPERATOR'S MANUAL AND PARTS LIST**

### **16l Knapsack Sprayer - THKS16LTR-B**

Spares & Support: 01793 333212

**[www.thehandy.co.uk](http://www.thehandy.co.uk)**

**Before use please read & understand this manual, paying particular attention to the safety instructions.**

14/11/2012

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**PLEASE READ THIS INSTRUCTION MANUAL BEFORE USE**

## MAIN FUNCTION

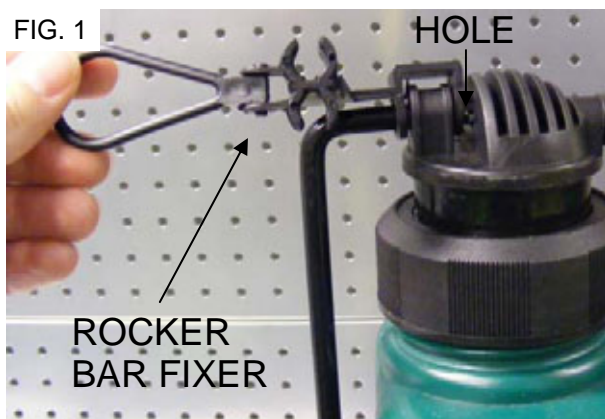
ECONOMICAL, SAFE AND LEAK PROOF, THIS SPRAYER CAN BE USED WITH ALL KINDS OF AGRICULTURAL CHEMICALS.

- A. WELDED CONTAINER
- B. PUMP AND AIR CHAMBER
- C. SPRAYING SYSTEM INCLUDING RUBBER HOSE, TRIGGER, SPRAYER SPINDLE AND SPRAY HEAD
- D. OPERATION ARM AND COMPONENTS
- E. BACK PACK SYSTEM

## FEATURES

- 1. THE CURVED BODY OF THE SPRAYER IS DESIGNED TO BE ERGONOMIC, COMPACT AND SAFE.
- 2. PUMP PRESSURISES THE SPRAYER QUICKLY AND EASILY.
- 3. EASY TO USE LEAK PROOF SWITCH. SPRAYER CAN BE SET TO EITHER CONTINUOUS SPRAY OR SPOT SPRAY ALLOWING FOR DIFFERENT USES AND SAVING WATER BY USING THE APPROPRIATE SETTING.
- 4. RESILIENT SPRAYER BODY IS RESISTANT TO ACIDITY AND WEAR, AND IS WELL SEALED.
- 5. THE SPRAYER CAN BE EQUIPPED WITH DIFFERENT SPRAYING COMPONENTS SUCH AS A SECTOR SPRAY HEAD OR HOLLOW CONICAL SPRAY HEAD AND ADJUSTABLE SPRAY HEAD FOR DIFFERENT USES AND DISTANCES.

FIG. 1



## ASSEMBLY

FIG 1. INSERT THE ROCKER BAR FIXER AS SHOWN ON TO THE TOP OF THE AIR COMPARTMENT.

INSERT THE ROD THROUGH THE ROCKER BAR FIXER AND THE TOP OF THE AIR COMPARTMENT. INSERT THE COTTER PIN THROUGH THE HOLE IN THE ROD.

FIG. 2



FIG 2. CONNECT THE ROCKER BAR FIXTURE TO THE ROD AS SHOWN.

FIG 3. CONNECT THE ROCKER ROD TO THE ROD AND THE BOTTOM OF THE WATER TANK.

FIG. 3

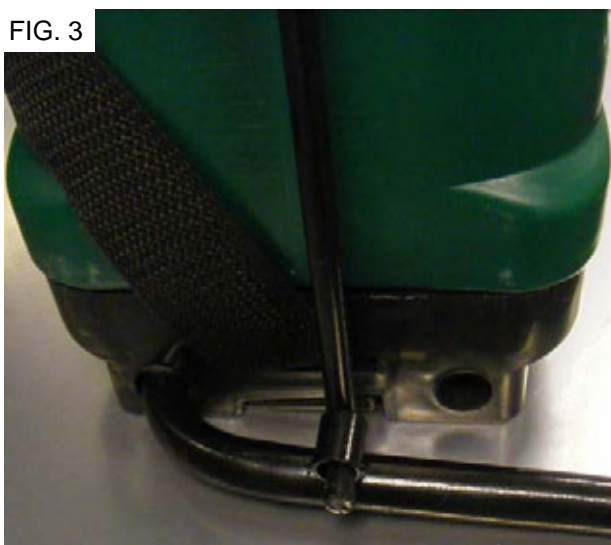


FIG 4. LOOP THE ROCKER LOOP OVER THE ROCKER BAR.

FIG 5. CONNECT THE HOSE CONNECTOR NUT TO THE TOP OF THE AIR COMPARTMENT AS SHOWN.

FIG 6. CLIP THE LANCE TO THE RUBBER BAR FIXER.

FIG. 4



FIG. 5

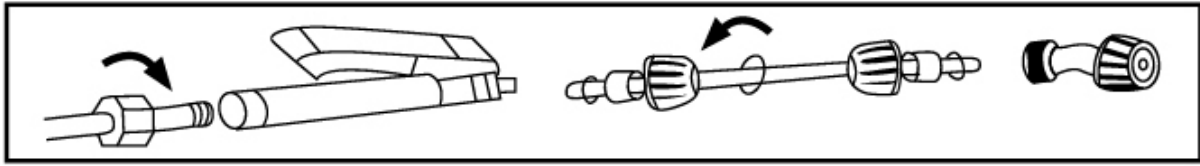


FIG. 6



## INSTALLATION OF THE SPRAYER

INSTALL THE SPRAYER ACCORDING TO THE DRAWING BELOW  
STEP BY STEP



PLEASE NOTE THE PRESSURE LEVER CAN BE ASSEMBLED ON THE OTHER SIDE OF THE SPRAYER. TO DO THIS REMOVE THE SPLIT PIN THAT HOLDS THE ROCKER BAR IN PLACE, THEN REMOVE THE BAR AND INSERT IT INTO THE OTHER SIDE OF THE SPRAYER. REASSEMBLE THE SPLIT PIN AND BAR FIXER AS THEY WERE BEFORE. NOW ADJUST THE CARRYING STRAP, YOU MAY WANT TO CONNECT IT TO THE OTHER SIDE OF THE SPRAYER.

## OPERATION

OPEN THE CAP OF THE CONTAINER , POUR THE LIQUID INTO THE CONTAINER SLOWLY. CLOSE THE CONTAINER TIGHTLY AND LIFT THE SPRAYER ONTO YOUR BACK. PUSH THE LEVER FOR THE PUMP UP AND DOWN AND WHEN THE PRESSURE IN THE AIR CHAMBER INCREASES PRESS THE LEVER AND BEGIN TO SPRAY. WHEN YOU HAVE FINISHED SPRAYING ALWAYS EMPTY THE CONTAINER COMPLETELY. REINSTALL THE SPRAYER AS PER THE INSTRUCTION SHEET SHOWN IN THE ABOVE DIAGRAM.

## NOTICE

THE EXTERNAL PARTS OF THE AIR CHAMBER SHOULD BE LUBRICATED AFTER **50 WORKING HOURS TO AVOID FRICTION.**

## SAFETY MEASURES

- 1: THE USER MUST WEAR A MASK AND GLOVES WHEN SPRAYING. AVOID CHEMICAL CONTACT FROM SKIN AND WASH IMMEDIATELY IF THIS HAPPENS
- 2: NEVER SPRAY FACING INTO THE WIND CHOOSE THE SPRAY HEAD AND THE SPRAYING METHOD FOR THE CORRECT USE.

### THE CHARACTERISTICS AND USAGE OF VARIOUS SPRAY HEADS

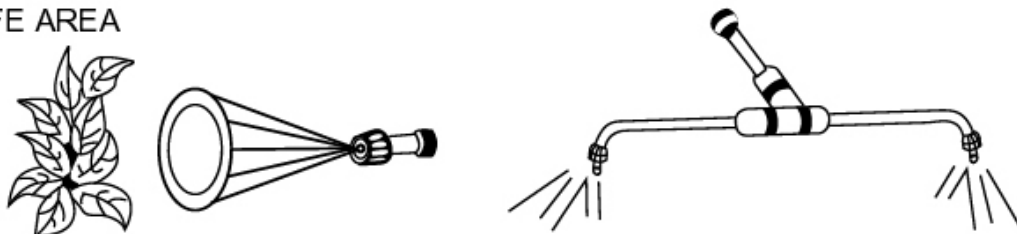
#### A: SECTOR SPRAY HEAD

THE SPRAY IS EVEN, WHICH IS MAINLY USED IN SPRAYING THE WEEDS IN SOIL TREATMENT AND PLANT TREATMENT. IT CAN ALSO BE USED IN INSECTICIDES TO PREVENT DISEASES AND KILL INSECTS DURING THE PERIOD OF SEEDLINGS. WHEN SPRAYING THE LIQUID THE DISTANCE BETWEEN THE SPRAY HEAD AND THE GROUND SHOULD BE ABOUT 50CM OR ABOVE THE TOP OF THE PLANT (WEED) BY 42CM. SPRAY IN THE SAME DIRECTION AS THE WIND. KEEP THE SPRAY HEAD MOUTH PLUMB WITH THE SPRAY SPINDLE. TAKE THE SPRAY **SPINDLE AT ONE SIDE OF THE BODY AND KEEP SOME DISTANCE BETWEEN YOURSELF AND THE SPRAY HEAD TO AVOID TOUCHING THE AREA BEING SPRAYED. WALK IN A STRAIGHT LINE WHERE POSSIBLE.**



#### B: CONICAL SPRAY HEAD

IT CAN BE USED TO SPRAY INSECTICIDE ETC BUT NOT TO BE USED FOR WEEDS. IT IS APPROPRIATE FOR PREVENTING DISEASES AND KILLING INSECTS IN EVERY GROWTH PERIOD OF PLANTS. SOME DISTANCE SHOULD BE KEPT BETWEEN THE SPRAY HEAD AND THE PLANTS WHEN SPRAYING IN ORDER TO AVOID UNEVEN DISTRIBUTION. THE USER SHOULD SPRAY LATERALLY IN THE SAME DIRECTION AS THE WIND IN A ZIG-ZAG PATH TO KEEP THE USER IN A SAFE AREA



## C: ADJUSTABLE SPRAY HEAD

DEPENDING UPON THE JOB THE USER CAN ADJUST THE SPRAY HEAD TO CHANGE THE ANGLE AND THE DISTANCE OF THE SPRAY. THE GREATER THE ANGLE OF THE SPRAYER THE LARGER DROPLETS WILL BE. AT GREATER ANGLES THERE WILL BE LESS MIST AND THE SPRAYER WILL EMIT A COLUMN OF LIQUID, THIS IS MAINLY USED FOR WEED SPRAYING OR FOR PREVENTING DISEASES AND KILLING INSECTS AT THE ROOTS OF THE PLANT.



## SPECIFICATIONS

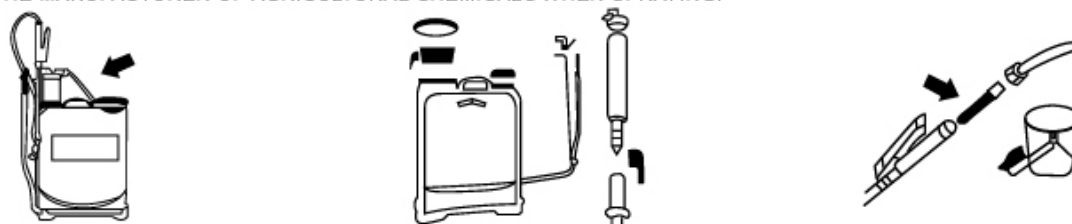
1: TYPE:	BACKPACK
2: CONTAINER CAPACITY:	16 LITRES
3: OPERATION PRESSURE:	0.2-0.4 MPA
4: OPERATION TRAVEL:	60-80 MM
5: BOWL DIAMETER:	45 MM
6: NET WEIGHT:	3.2KG

## TROUBLE SHOOTING

PROBLEM	REASON	SUGGESTIONS
A: leakage and liquid jam. B: having too much pressure when pumping the operating lever.	A: the rubber washers at sealing connection are broken or loose. B: the filter and the spray head are blocked.	A: screw up tightly or change the rubber washers. B: clean the filter and the spray head
low pressure	A: abrasion of the bowl B: abrasion of the sealing ball or there is some dirt at the surface of the sealing ball	A: change the bowl and add some lubricant. B: change the sealing ball. remove the dirt.
Feeling no pressure when operating the operation arm	the sealing ball is missing or has been removed.	fix the sealing ball properly
No hand operation no spray	the air chamber is full of liquid caused by the air leaking	A: open the screw and pour out the liquid from the air chamber. B: check the sealing washers at every point and screw them up.

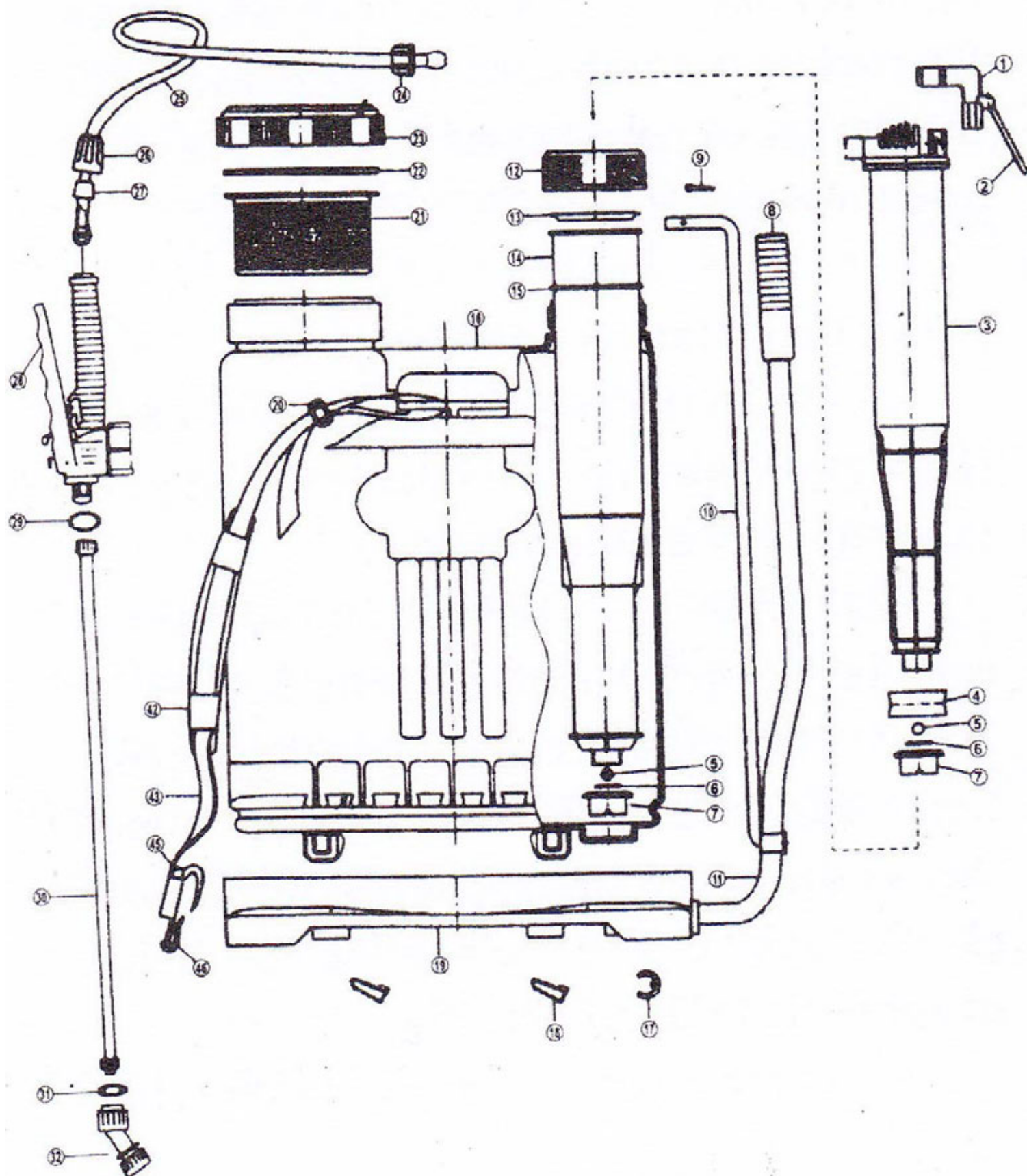
## MAINTENANCE

A: CLEAN THE SPRAYER AS PER DRAWING BELOW AS SOON AS IT HAS BEEN USED. THE USER SHOULD CLEAN MORE CAREFULLY ESPECIALLY AFTER WEED KILLER SPRAYING. ADD SOME WASHING POWDER OR SODA WHEN CLEANING. AFTER SPRAYING WEED KILLER IT IS BEST TO CLEAN THE SPRAYER REPEATEDLY AS IT IS DIFFICULT TO KEEP THE SPRAYER CLEAN FROM USING WEED KILLING AND PESTICIDES AND THEN USING THE SPRAYER AS A FERTILISER SPRAYER. B: PLEASE DO NOT OPERATE ROUGHLY WHEN SPRAYING AS TO AVOID DAMAGE TO THE SPRAYER. C: EXCEPTIONAL CHEMICAL LIQUID IS PROHIBITED TO BE USED. D: PLEASE FOLLOW THE INSTRUCTIONS PROVIDED BY THE MANUFACTURER OF AGRICULTURAL CHEMICALS WHEN SPRAYING.



REGULARLY LUBRICATE THE TREATED FELT SEALING WASHER OF THE AIR COMPARTMENT LID TO ENSURE SMOOTH OPERATION AND PREVENT LEAKS.

# PARTS DIAGRAM



## PARTS LIST AND DESCRIPTION

REF.	PART NO.	DESCRIPTION	REF.	PART NO.	DESCRIPTION
1	TH189-1	ROCKER BAR FIXER	17	TH189-17	ROCKER BAR FASTENER
2	TH189-2	ROCKER	18	TH189-18	SPLIT
3	TH189-3	AIR COMPARTMENT	19	TH189-19	BOTTOM CASE
4	TH189-4	SEAL VALVE	20	TH189-20	CLIP
5	TH189-5	SEAL BALL	21	TH189-21	FILTER SCREEN
6	TH189-6	O-RING	22	TH189-22	SEALING WASHER
7	TH189-7	VALVE CAP	23	TH189-23	MEDICAL CHEST LID
8	TH189-8	ROCKER BAR SLEEVE	24	TH189-24	HOSE CONNECTOR NUT
9	TH189-9	SPLIT	25	TH189-25	HOSE
10	TH189-10	ROD	26	TH189-26	LANCE CONNECTOR NUT
11	TH189-11	ROCKER ROD	27	TH189-27	CAP
12	TH189-12	PRESSURE LID OF AIR COMPARTMENT	28	TH189-28	SWITCH
13	TH189-13	SEALING WASHER	29	TH189-29	O-RING
14	TH189-14	AIR CHAMBER	30	TH189-30	LANCE
15	TH189-15	O-RING	31	TH189-31	O-RING
16	TH189-16	MEDICAL CHEST	32	TH189-32	NOZZLE



## Handy Distribution