MACHINE SPECIFICATION

MONTH OF MANUFACTURE.....REGISTRATION NO:.....

CHASSIS NUMBER.....ENGINE NUMBER:.....

TRANSMISSION PUMP:.....SERIAL NO:.....

MOTOR TYPE FRONT:.....REAR:.....

MOTOR NO: OSF:.....NSF.....OSR.....NSR.....

CAB NO:.....CAB TYPE:.....

HEATER TYPE:.....

BOOST FILTER TYPE:.....SERIAL NO:.....

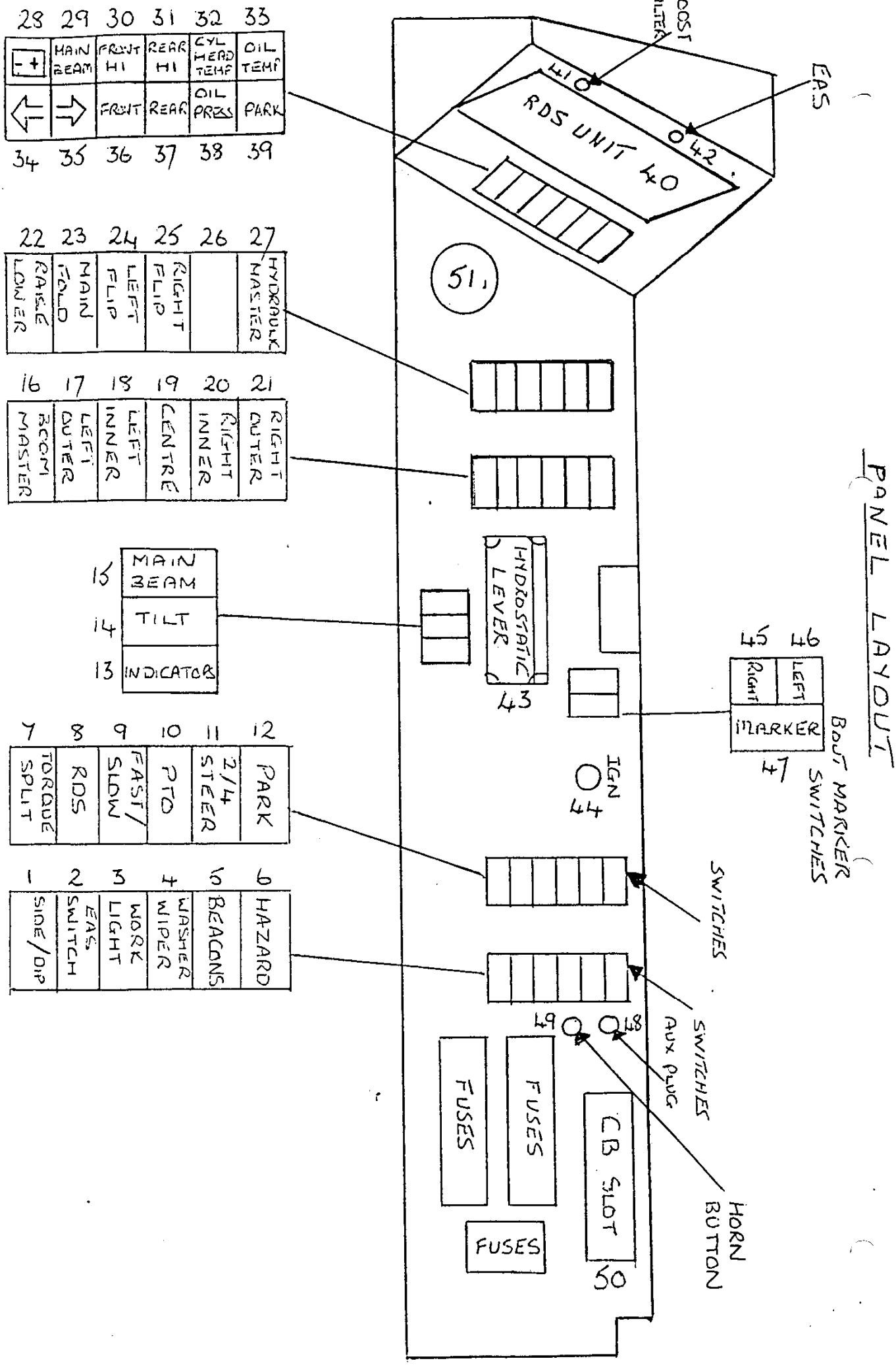
RETURN FILTER TYPE:.....SERIAL NO:.....

TANK SIZE:.....BOOM TYPE:.....

ENGINE OIL TYPE:.....

TRANSMISSION OIL TYPE:.....

PLEASE NOTE THAT ONLY NEVIS 10 SPECIAL IS TO BE USED IN THE TRANSMISSION SYSTEM. IF ANY OTHER TYPE OF OIL IS USED THIS WILL REDUCE THE LIFE OF THE TRANSMISSION AND MAY INVALIDATE THE WARRANTY


PANEL LAYOUT
28 29 30 31 32 33
MAIN BEAM
FRONT HI
REAR HI
CYL HEAD TEMP
OIL TEMP
FRONT
REAR
OIL PRESS
PARK
34 35 36 37 38 39
22 23 24 25 26 27
RAISE LOWER
MAIN FOLD
LEFT FLIP
RIGHT FLIP
HYDRAULIC MASTER
16 17 18 19 20 21
BOOM MASTER
LEFT OUTER
LEFT INNER
CENTRE
RIGHT INNER
RIGHT OUTER
15 MAIN BEAM
14 TILT
13 INDICATOR
7 8 9 10 11 12
TORQUE SPLIT
RDS
FAST/SLOW
PTO
2/4 STEER
PARK
1 2 3 4 5 6
SIDE/DIP
EAS SWITCH
WORK LIGHT
WASHER WIPER
BEACONS
HAZARD
BOOST FILTER
EAS
41
RDS UNIT 40
42
51
HYDROSTATIC LEVER
43
IGN
44
45 46
RIGHT
LEFT
MARKER
47
BOOT MARKER SWITCHES
SWITCHES
SWITCHES
AUX PLUG
49
48
FUSES
FUSES
FUSES
CB SLOT
50
HORN BUTTON

ATLAS CONTROL PANEL

1. SIDE LIGHTS HEADLIGHTS ON /OFF
2. EAS (ELECTRONIC ANTI SLIP) MASTER SWITCH
3. WORK LIGHTS ON/OFF
4. WASH / WIPE ON/OFF
5. BEACON ON/OFF
6. HAZARD WARNING LIGHTS
7. TORQUE SPLIT SELECTION
8. RDS MASTER ON/OFF
9. HIGH / LOW RANGE SELECTION
10. POWER TAKE OFF
11. 2 / 4 WHEEL STEERING
12. PARK BRAKE
13. INDICATOR SWITCH
14. BOOM TILT SWITCH
15. MAIN BEAM / DIP
16. BOOM MASTER SWITCH

17-21 BOOM SECTION SWITCHES

22. BOOM RAISE AND LOWER
23. BOOM MAIN FOLD
24. LEFT OUTER FOLD
25. RIGHT OUTER FOLD
26. BOOM LOCK (ON CERTAIN BOOMS)
27. HYDRAULIC CONTROL MASTER SWITCH
28. BATTERY CHARGING INDICATOR
29. MAIN BEAM INDICATOR

30-31 TORQUE SPLIT INDICATOR

32. CYLINDER HEAD TEMPERATURE LIGHT

33. OIL TEMPERATURE LIGHT

34-35 INDICATOR DIRECTION LIGHTS.

36-37 WHEEL ALIGNMENT INDICATORS

38. LOW OIL PRESSURE WARNING

39. PARK BRAKE WARNING.

40. MAGIC BOX SPRAYER CONTROL SYSTEM

41. BOOST FILTER BLOCKED INDICATOR

42. ELECTRONIC ANTI SLIP LIGHT

43. HYDRASTAT LEVER

44. IGNITION SWITCH

45-46 BOUT MARKER OPERATION SWITCHES

47. BOUT MARKER OPERATION LIGHTS

48. HORN BUTTON

49. 12 VOLT AUXILLIARY POWER SUPPLY

50. CB INSTALLATION SLOT

51. CHARGE PRESSURE GUAGE.

ATLAS 2000 & 1600 OPERATION

INTRODUCTION

Thank you for purchasing an ATLAS self propelled cropsprayer, a little time spent reading this operators manual will ensure that you can operate the vehicle and sprayer safely, and to gain maximum benefit from the many unique features on both the sprayer pack and vehicle.

The manual is seperated into various sections covering SAFETY, MAINTENANCE, AND OPERATION OF THE VEHICLE. Each vehicle is supplied with an operator training course to supplement this instruction book.

It is of vital importance that any operator of the vehicle fully understands how to operate the vehicle correctly. So if additional training for any staff member is required, please ask. Incorrect operation of the vehicle could result in a serious accident with expensive damage to the vehicle systems.

GENERAL SAFETY

1. Never operate the sprayer until all guards are in place.

2. Never start the machine until bystanders are clear.

3, Never perform maintenance or repair work while the machine is running. If you are working on a part of the machine not visible from the cab remove the ignition key.

4. Never work under the machine when it is standing on a jack unless the axle is supported.

5. Great care should be taken when working on sidling ground, particularly on machines with 2500 tanks. The widest track setting on the vehicle will provide the greatest stability.

6. Ensure that any hoses or other hydraulic components are replaced with the same spec as the original.

7. Always wear the correct protective clothing when working with Agrochemicals.

8. When operating the ATLAS 1600 fully laden on the road always drive in low range for maximum braking.

9. Always use low range when operating under field conditions.

10. Never change between high and low range on the move.

DRIVING TECHNIQUE

As with any vehicle it is of vital importance that the operator fully understands how to operate the vehicle safely, and has a clear understanding of the vehicles capabilities. Each ATLAS owner is instructed in the safe operation of the machine, but we would like to draw your attention to the following points.

In the section covering the transmission, we have outlined in simple terms how a hydrastatic transmission works. As with any other transmission if it is operated incorrectly damage to the machine, or worse an accident could occur. Please pay special attention to the driving tips given here.

OPERATION ON THE ROAD FULLY LADEN

When the machine is fully laden stopping distances will be reduced from when the machine is empty. **THINK AHEAD** When coming up to junctions reduce speed with the hydrastat lever earlier and brake smoothly. If the road you are travelling along has a very steep hill or hills travel in **LOW RANGE** until you have passed the difficult section. **THE ATLAS 1600 SHOULD NEVER BE OPERATED ON THE ROAD IN HIGH RANGE FULLY LADEN**

TRAVELLING WITH LIQUID FERTILISER

Liquid fertiliser has a higher specific gravity than water typically between 1.1 to 1.3. this means that it is heavier than water. The weight in a full 2000 litre tank of water and chemical will be approximately 2000 KGS. If filled with liquid fertiliser of a specific gravity of 1.3 the weight will increase to 2600 Kgs over half a ton heavier. We therefore recommend the following:-

1. Establish what the SG of your liquid fertiliser is and calculate its weight. (Litres x SG =Weight in Kgs)

2. On ATLAS 2000 fitted with a 2500 litre tank only travel on the road in low range fully laden. High range may be selected with 2000 Litres or less.

3. On ATLAS 2000 fitted with a 2500 Litre tank **NEVER** travel with more than 2000 Litres of Liquid Fertiliser on the road, and always travel in low range.

4. With an ATLAS 1600 always travel in low range on the road with a full tank, and NEVER Travel with more than 1600 KGS of fertiliser in the tank. (Please note the ATLAS 1600 has a higher road speed than the 2000)

CHARGE PRESSURE GUAGE (51)

This gauge monitors charge or boost pressure. The main hydraulic transmission pump is fed oil under pressure from the smaller boost or charge pump. The charge pressure on all ATLAS machines should always be between 20 to 30 bar within five seconds of start up. If charge pressure does not reach 20 bar within five seconds of start up or drops below 20 bar or goes over 30 bar during operation stop immediately and contact Cleanacres Machinery.

TORQUE SPLIT SELECTOR (7)

The ATLAS 2000 has been designed to cope with steep ground safely and efficiently, and has been fitted as standard with torque split and as an option Electronic Anti Slip (Eas). The torque split biases the power between front and rear axles. For normal operation it should be set in its midway position I.E. 50/50. If a steep hill has to be negotiated, particularly if it has a loose surface or is greasy the switch should be pushed forward which will put the front axle in high range. When coming down steep hills push the switch to the rear, and this will increase the braking ability of the machine.**IN NO CIRCUMSTANCES SHOULD YOU EVER GO DOWNHILL WITH THE FRONT AXLE IN HIGH RANGE EITHER IN FORWARD OR REVERSE.** Always try to anticipate the correct torque settings rather than waiting to lose traction before selection.

ELECTRONIC ANTI SLIP (2)

Electronic Anti Slip (EAS) is fitted as an option to some machines. This unique feature allows the ATLAS to operate on very steep ground with a 24m sprayer or 6m Pneumatic seed drill maintaining maximum traction. The system operates like an Anti lock braking system in reverse. The speed of each wheel is monitored, and if any wheel rotates more than 20% faster than the others the oil flow to that wheel or wheels is reduced until they are rotating at the same speed as the others.

To operate the EAS, the master switch (2) should be switched to the on position as you enter the field. This activates the system so that the wheel speed is monitored. On the right hand foot pedal is the EAS floor switch, this switch should be depressed when the system is required to cut in. The effect of EAS is very similar to a mechanical diff lock. If the foot switch is depressed while negotiating a turn, the vehicles turning circle will be reduced. You may notice on occasions that when the EAS foot switch is depressed particularly when turning the engine RPM will reduce, this is perfectly normal as the throttling valve increases the system pressure.

As with the torque split wherever possible try to anticipate where you will need to engage EAS, and engage the system before you get onto the difficult ground to get maximum benefit. EAS should NOT be used for continual operation as this will increase the system operating temperature.

CAB LAYOUT

AIR CONDITIONING & CARBON FILTRATION

The cab has been designed around the highest safety standards. The filtration unit is built to comply with EC Standard PM 74. The air conditioning system is maintenance free other than the requirement to change the two carbon filters situated centrally on the left and right hand side of the cab roof every 300 hours of operation. The filters are available from your dealer or directly from Cleanacres Machinery.

The air conditioning unit has two fans, one which draws air from outside through the carbon filters and the second fan which passes air through the chiller element in the roof.

The air conditioning controls are situated at the front top right hand side of the roof. The airconditioning is switched on with the black knob with air fan motif in the center, and the temperature is set with the thermostat knob which has a snowflake motif in the center. The cooling fan is three speed and can be set to give the desired level of air flow. Cab temperature can be reduced by rotating the thermostat switch clockwise.

Situated to the right of the AC controls is a red light. If this light comes on one or both of the carbon filters are blocked with dust. This light should **NOT** be used as a guide to replace the filters as the carbon in the element may have degraded before the element has become clogged. Filters should be replaced every 300 hours of operation.

The AC unit can be used to clear condensation on the glass areas of the cab on warm days particularly if it is raining. If the windows are misting up and full cooling of the cab is not required, set the AC fan to slow position and the thermostat to between quarter to half of it maximum.

HEATING SYSTEM

The ATLAS 2000 & 1600 are fitted with very efficient diesel heaters similar to those fitted in lorry sleeper cabs. These are thermostatically controlled. (For full heater instructions please refer to seperate booklet). To get the warm air fully circulated around the cab turn the AC thermostat off (Anti clockwise as far as it will go) and the AC fan on to the desired position.

VEHICLE WARNING LIGHTS (28 to 39)

All the vehicle system warning lights are contained in a bank mounted directly below the sprayer control system. These lights are also wired into an audible buzzer. If a fault occurs the light will come on and the buzzer will sound. If the buzzer sounds stop immediately, and investigate the problem, and if necessary contact Cleanacres Machinery or your dealer for advice or a service visit.

RDS MASTER ON/OFF (8)

This switch provides power to the Magic Box or RDS Delta 3. The power should be switched on prior to starting the vehicle as the Magic Box logs engine hours and engine RPM. For full Magic Box operating instructions, please see seperate instruction book.

HIGH & LOW RANGE SELECTION

The drive motors on the vehicle are two speed. High Range should only be selected for travelling on the road and never used in the field. Low range should always be used for field operation. **NEVER** change from high to low range or vice versa on the move. This will cause a pressure "spike" and could result in a burst hose or expensive damage to the transmission system. On ATLAS 1600 vehicles which have a higher road speed than the 2000 when travelling fully laden always use low range. If a steep hill is to be negotiated fully laden on the road we strongly recommend that low range is selected with the ATLAS 2000 for maximum engine and transmission braking. Remember that if you need to go into low range to climb a hill come back down the same hill in low range. Try to get into the habit of think safety not speed, and only use high road speeds where appropriate and safe. **ALWAYS** REVERSE IN LOW RANGE

POWER TAKE OFF ENGAGEMENT

Always engage the power take off at engine tick over: **DO NOT** engage at high engine RPM, which will inevitably lead to premature coupling failure between the gearbox and compressor. The PTO is set to 540 RPM at 2000 RPM engine speed. If an implement is taken off the vehicle remember to couple together the pressure and return ports of both hydraulic services, this will protect the PTO drive pump in the event of accidentally engaging the PTO without having an implement connected.

2 & 4 WHEEL STEERING (11)

All ATLAS vehicles are fitted with 2 and 4 steering. We strongly advise that 2 wheel steer is selected for travelling on the road. The vehicle is equipped with steering alignment sensors which indicate with lights in the cab (36 &37) when the wheels are in the dead ahead position. When going from two wheel steer to four wheel steer ensure that both lights are lit before changing. The same applies when going from 4 wheel steer to two wheel steer.

The steering circuit is protected by a pressure relief valve. Occasionally, particularly on "fat" tyres, you may find that the front and rear axles become misaligned. This can happen as a result of one of the wheels coming into contact with an immovable object or as a result of a wheel hitting a deep rut at speed, or other objects under similar circumstances.

It is a simple operation to correct this when this happens. In 4 wheel steer mode rotate the steering wheel either left or right until the rear axle indicator comes on. Switch into two wheel steer and rotate the steering wheel left or right till the front axle light comes on. Go back into 4 wheel steer. The axles will now be correctly aligned.

If misalignment (Crabbing) becomes apparent in two wheel steer "(crabbing)" select 4 wheel steer rotate the steering wheel until the rear alignment light comes on and go back into 2 wheel steer. The axles will now be correctly aligned.

PARK BRAKE (12)

The rear motors on the ATLAS 2000 are fitted with disc brakes on a fail safe circuit. If there is an engine failure or boost pressure failure, the brakes will automatically come on. When in normal operation the brakes are applied with the parking brake switch. When the brakes are released, the cabin entry ladder will automatically be raised. Please ensure that bystanders are well clear of the vehicle and not standing on or in the vicinty of the ladder when the brake is released.

SIDE LIGHT / HEADLIGHTS (1)

This is a two position illuminated switch. Push forward one click and this switches on the side lights. Push forward two clicks and headlights will come on.

WORKING LIGHTS (3)

This is a single position illuminated switch and operates both front and rear work lights. The angle of the work lamps in both the horizontal and vertical plain can be adjusted to suit the particular application.

WASH / WIPE (4)

This is a two position switch. The first position engages the windscreen wipers, the second position which is sprung return operates the window washer.

ORANGE BEACON (5)

This is a single position illuminated switch that operates the roof mounted flashing beacon. This beacon should be switched on as soon as you are travelling on the public highway.

HAZARD WARNING LIGHTS (6)

This is a single position illuminated switch. When switched on all four indicators will flash and inside the cab both indicator arrows (34 & 35) will flash.

INDICATOR ROCKER SWITCH (13)

This is a three positioned switch, which is normally in its center position. Push to the left to indicate left push to the right to indicate right. The indicators and hazard warning lights are wired into an audible buzzer which sounds during indication. The direction of indication can be observed on lights (34 & 35).

BOOM TILT SWITCH (14)

This is a sprung return to centre switch, Press right and the boom will incline to the right, press left and the boom will incline to the left. Please note that the hydraulic master switch (27) must be illuminated before the tilt switch will operate.

MAIN BEAM / DIP SWITCH (15)

This is an illuminated switch that operates the dip / main beam of the headlights. This will switch off the driving lights mounted in the front grey cowling as well as setting the main headlights to dip.

BOOM MASTER SWITCH (16)

This is a two position switch and operates all the boom sections. Power to all boom sections is on when this switch is illuminated. This switch is also wired to a foot operated switch mounted on the left hand foot rest. When the dash mounted switch is on, the foot switch may be used if preferred to switch on and off all boom sections simultaneously.

INDIVIDUAL BOOM SECTION SWITCHES (17 to 21)

These switches overide the main boom power supply when it is switched on, and enable you to shutoff individual boom sections when coming into short work.

HYDRAULIC MASTER SWITCH (27)

The main power supply to the Electro-Hydraulic block is fed through this switch. When this is switched off none of the boom hydraulic services will operate.

BOOM HYDRAULIC SERVICES (22 to 26)

The switches operate the hydraulic boom fold, and other hydraulic boom services. On booms that do not have a hinge locking pin one of these switches may be blanked off. Please refer to sprayer manual for correct sequential operation of these switches.

MAGIC BOX OR RDS DELTA 3 (40)

Please refer to seperate instruction manual for this instrument.

BOOST FILTER INDICATOR LED LIGHT EMITTING DIODE

When this light comes on the filter element should be replaced immediately. If the machine is operated for any length of time with this light on, the main transmission pump could become starved of oil and very expensive damage could occur.

EAS LED (42)

This LED indicates that the EAS system is operational, and will illuminate when the EAS system is switched on and the EAS foot switch is depressed. (Please see section covering EAS operation)

HYDRASTAT LEVER (43)

The Hydrastat lever controls the direction of travel of the vehicle, the speed, and the braking. Before the machine can be started the lever must be in the neutral position N. To move forward or backwards the "T" beneath the knob on the top of the lever must be raised. And then the lever can be moved forwards or backwards.ONCE THE LEVER HAS BEEN MOVED OUT OF NEUTRAL RELEASE THE "T" AS IF THIS IS HELD UP IT IS POSSIBLE TO GO STRAIGHT FROM FORWARD TO REVERSE When operating the lever try to move it smoothly with your wrist rather than using your arm. The faster the lever is moved the faster the response you will get, both in braking and acceleration.NEVER GO FROM FORWARD TO REVERSE OR VICE VERSA WHILST THE MACHINE IS MOVING ALWAYS STOP BEFORE CHANGING DIRECTION.

IGNITION SWITCH (44)

All the main systems on the vehicle are powered from the ignition switch. This has three positions. (1) Off (2) Ignition On (3) Start. The start side of the switch is sprung return to ignition on. The engine stop is also on the ignition switch, and the engine will stop when the switch is set to the off position.PLEASE NOTE WHEN WORK IS FINISHED FOR THE DAY SWITCH THE BATTERY ISOLATOR OFF. THIS IS A RED KEY ON THE FRONT OF THE BATTERY BOX

BOUT MARKER OPERATION (45 to 47)

The bout marker is operated by a three positioned non sprung rocker switch. When marking to the left push the switch to the left and the left warning light (46) will come on and marker will start operating. Centralise the switch and the bout marker will stop and no lights will be on. Push the switch to the right and marker will mark to the right. (For full bout marker instructions please refer to seperate booklet)

HORN (48)

This is a sprung round black switch, press this and the horn will sound, release it and the horn will stop.

AUXILLIARY POWER SUPPLY (49)

This is a Hella type auxilliary power supply (12 Volt) suitable for providing power for a mobile telephone or CB Radio. If you are going to plug in any ancillary equipment, please check with Cleanacres Machinery that the power rating of the plug is adequate.

CB RADIO SLOT (50)

This slot is provide for the installation of a CB radio. **PLEASE NOTE IF YOU ARE INSTALLING A CB RADIO ENSURE IT IS AS FAR AWAY AS POSSIBLE FROM THE SPRAYER CONTROL SYSTEM, AND NEVER PICK UP OFF THE SAME POWER SUPPLY AS THE SPRAYER CONTROLLER AS THIS MAY AFFECT ITS OPERATION**

VEHICLE TRANSMISSION SYSTEM

The drive system on ATLAS vehicles is totally hydrastatic, and the way in which it functions is quite straight forward.

THE MAIN TRANSMISSION PUMP (Either an EATON or PA) is mounted directly onto the flywheel end of the engine and rotates at the same speed as the engine. A mechanical cable is operated from the cab (Via the hydrastat lever) and alters the angle of the "Swash" plate within the pump. This plate inturn alters the stroke of the pistons within the pump and the result is an infinitely variable oil output from a fixed engine speed.

A smaller pump the "Boost" or "Charge" pump is mounted internally in the case of an Eaton Pump or externally on the end of the main pump in the case of the PA pump. Its function is to replace oil to the main pump which is lost through internal leakage. It also supplies oil at 20 to 30 Bar to operate the brakes, cabin ladder, and the high and low range. The main drive circuit has a pre-set maximum pressure of 420 Bar.

THE WHEEL MOTORS On ATLAS 2000 machines are of unequal displacement between front and rear axles (Smaller motors on the front MS08 and larger Motors on the rear MS11) This gives the machine greater climbing ability. On the ATLAS 1600 either MS05 or MS08 motors are fitted all round depending on vehicle requirements.

Each motor has ten pistons operating on six cam faces, therefore sixty piston strokes are required to turn the wheel once making slow speed operation very smooth.

The speed of operation depends on two things, the range that has been selected and the engine speed and therefore the flow of the pump. Maximum field speed in low range is 18 KPH. As with any tractor the lower the speed the greater the available power or torque.

TRANSMISSION SYSTEM

In high range, the oil supply to five of the pistons is shut off, therefore the same amount of oil pumped to the motors will result in the motors rotating at twice the speed, but with half the power and half the braking effort.

Mechanical disc brakes are fitted to the rear motors on the ATLAS 2000 and to all MS05 motors when fitted to the ATLAS 1600. The brakes are failsafe in their operation (Spring On Pressure Off), and are held off by the boost pressure. The brakes will automatically apply if the engine is stopped or the boost pressure fails. The primary braking function is carried out by the Hydrastatic pump. This will produce braking torque equal to driving torque.

THE OIL TANK The oil tank on all ATLAS vehicle is mounted at the front of the vehicle to allow maximum air flow over it. The fully baffled tank contains three hundred litres of oil. Due to the capacity of the tank, and the size of the hydraulic pipes the ATLAS machines have the most efficient hydrastatic transmission of any vehicle in its class.

This oil is the LIFE BLOOD of the machine and must be kept exceptionally clean. The vehicle is fitted with a three stage filtration system. Three 125 micron foot strainers which are mounted inside the tank and are maintenance free. One 10 micron boost filter which is mounted behind the near side inspection panel at the front of the machine. This filter is wired to the "Boost" filter warning light inside the cab. And finally a 40 micron return line filter which filters all the oil from the auxilliary circuits returning to tank. This is situated on the top of the oil tank on the front off side of the vehicle. This is fitted with a visual indicator and **WHEN THIS INDICATOR IS RED, THE FILTER SHOULD BE REPLACED IMMEDIATELY**

A Tank level and temperature guage is fitted on the offside rear of the oil reservoir. The oil level when cold should be at the 65 degree C level, and should never be below the minimum level or above the maximum level. Oil levels should be checked when the system is cold.

It is vitally important that the service intervals in the service and maintenance booklet are adhered to. **IF THESE ARE NOT STRICTLY ADHERED TO TRANSMISSION WARRANTY MAY BE INVALIDATED** Cleanacres Machinery operate an oil sampling system, when service is carried out oil samples which are sent off to a laboratory for analysis. Using this system we are able to recommend oil change intervals for specific machines. The reason for this is that the duty cycle of every machine differs, and some machines may need their oil changing more often than others.

ENGINE VM 4105 4105T or 6105TE engines are fitted to ATLAS vehicles. (Please refer to your vehicles specification at the front of this booklet) These engines deliver 90Hp 115Hp & 160Hp at 2500 rpm respectively.

The cooling fins on the cylinders and the oil cooler should be blown out regularly with compressed air. Warning sensors are fitted to the cylinder head, oil pump, and sump. At the first indication of overheating STOP THE WARNING LIGHT WILL SHOW AND A BUZZER WILL SOUND. Rectify the cause before moving off again. Your attention is drawn to the manufacturers hand book and the service schedule. Engine oil and oil filters should be changed every 250 Hours.

AUXILIARY HYDRAULICS Power for the steering, and the sprayer boom services, seed drill and fertiliser hydraulic services are provided by a hydraulic pump mounted at the rear near side of the engine. The PTO service is provided by a large auxiliary pump mounted on the front of the main transmission pump.

The Hydraulic lines pressure and return for both these pumps are run to the offside of the engine via two sets of "Exactor" couplings. These are sized differently and are fitted with male and female fittings to prevent them from being connected the wrong way round.

In use the couplings **MUST ALWAYS** BE CONNECTED, to both the auxilliary equipment and the PTO. If the vehicle chassis is to be moved with out sprayer, spreader, or drill connected,(I.E WHEN DEMOUNTING) please ensure that the short hose couplers provided are connected between flow and return ports of both services. Failure to observe this will result in costly damage to the hydraulic system. The maximum working pressure of both systems is set at 2500 PSI 170 bar.

WHEEL EQUIPMENT.

ATLAS 2000 STANDARD	FRONT	11.2 X 32 8 PLY 32 PSI
	REAR	11.2 X 32 8 PLY 35 PSI
FLOTATION TYRES	GOODYEAR 48-25/200	
	TRELLEBORG 600-55/22.5	
ATLAS 1600	FRONT	11.2 X 28 8 PLY 32 PSI
	REAR	11.2 X 28 8 PLY 35 PSI
FLOTATION TYRES	GOODYEAR 38-20/16	

WHEEL EQUIPMENT

The optional flotation tyres for both ATLAS 1600 & 2000 should be inflated as follow. Front and rear MAXIMUM 20PSI MINIMUM 12 PSI. Always inflate rear tyres by 2 Psi more than front.

WHEN CHANGING WHEELS, DO NOT USE AN AIR RATCHET THE WHEEL NUTS HAVE SPECIFIC TORQUE SETTINGS AS FOLLOWS.

ATLAS 1600	105 FT/LBS
ATLAS 2000	252 FT/LBS

FAILURE TO RESPECT THESE TORQUE SETTINGS COULD RESULT IN WHEEL STUDS BREAKING CAUSING SERIOUS DAMAGE TO THE VEHICLE

MOUNTING & DEMOUNTING IMPLEMENTS

The sprayer, drill, and spreader packs carried on the vehicle can be easily demounted by one man in a matter of minutes.

To demount the implements fit the jack legs at each corner of the implement. Disconnect the two grey electrical plugs and the two RDS plugs from the rear of the cab. Release the air and liquid camlocks on the pressure gauge lines, and disconnect the sprayer sight guage tube from spray tank sump. Lift chemical induction bowl to its demount position, disconnect hydraulic PTO hoses and auxilliary hoses. REMEMBER COUPLE CONNECTIONS TOGETHER WITH PIPES PROVIDED Remove the two securing pins at the rear of the vehicle.

Now raise the rear jacks only so that the bottom rail of the implement is clear of the vehicles chassis by 1". Get into the vehicle and very slowly move forwards until you hear the front connecting hooks on the implement disengage and the hooks hit the bump bar. Stop and apply the parking brake. Now wind up all jacks until the sprayer is completely clear of the chassis. Check that the sump and drain cock are well clear. Now get back into the vehicle and drive clear of the implement.

To refit implements reverse this procedure. HYDRAULIC JACKS ARE AVAILABLE AS AN OPTIONAL EXTRA

STATEMENT OF COMPLIANCE

The Airconditioning system on this vehicle complies with H.S.E. guidelines set out in their document QM74 "Forced Air Filtration Units for Agricultural Vehicles" (Sept 1990), we confirm that the system meets the following criteria:

1. The Air Filter Elements Part No 60134 (designated 'Standard Pesticide') have a particulate efficiency of 95% to BS 3928 Sodium Flame Test Method (0.5 micron average particle size) the filters also include an absorptive carbon element for the removal of chemical odours.

2. The rated flow of fresh filtered air into the cab is 100 C.F.M (170 MTR CU/HR). Given that the internal volume of the cab is approximately 100 Cubic feet this flow is sufficient to change the air 60 times per hour, with the filters in a clean condition,

3. The system incorporates a visual warning device to show the air flow has fallen to 75% of the rated flow. (See note)

4. The system is capable of generationg a positive pressure within the cab of at least 1mm WG.

Note:- Although the visual warning device is set to operate when the low air flow point is reached, it is possible that the absorptive capacity of the carbon will expire before the light comes on, we recommend that the filters be replaced after 300 hours of use.

The performance figures shown regarding the rated airflow have been determined at a supply voltage of 13v - D.C. and air filters in a clean condition.

AIRCONDITIONING TECHNICAL SPECIFICATION

1. Fan/Evaporator Unit 12V 3 Speed Airflow = 250 C.F.M (425 Mtrs CU/HR) on high speed. Cooloing capacity = 17,000 BTU/HR @ 36 Degrees F refrig. Temerature & Air temperature 80 F.W.B.

2. Compressor:- 8.42 Cu.IN. Capacity 12V.

3. Condenser:- 14" x 14" x 1.75"

4. Condenser Fan:- 10" Dia. 7 Blade 1100 C.F.M

5. Receiver Drier C?W Binary Protection Switch.

6. Variable Thermostst Control.

Note:- System operates on R.12 Refrigerant Gas.