



OWNERS MANUAL



TS-4046/TS-5048/TS-7054

LTR Design INC
4169 E Boone County Rd
Pittsboro, IN 46167
317-507-0870



TERRA-SPRAY Serial Number _____

Purchase Date _____

Dealer _____

Dealer Phone Number _____

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IMPORTANT SAFETY PRECAUTIONS

DANGER!!

OPERATOR MUST READ BEFORE USING UNIT

Read and understand all instructions before operating this machine. If you do not understand any instructions, refer to someone who does. Failure to do so may result in serious injury or death.

- **ALWAYS** turn off engine and secure the machine when not operating.
- **KEEP HANDS AWAY** from any moving parts and the spinner during operations.
- **NEVER** run machine unless all guards are securely in place.
- **NEVER** repair any parts or make adjustments while machine is in motion.
- **NEVER** wear loose clothing around any moving parts of the machine.
- **NEVER** allow anyone to ride inside or any position other than one operator on the standing plate of the spreader/sprayer.
- **ALWAYS** operate while standing two feet on the riding platform. (Loading on trailer may be an exception.)

- **ALWAYS** take caution with hills, ramps and unsure areas. When unsure if the angle is appropriate, do not try it! Do not traverse slopes over 15% grade or up/down hills over 40% grade.
- **ALWAYS** clear the hopper (if applicable) prior to starting and running machine.
- **ALWAYS** run the machine outdoors, **NEVER** indoors, carbon monoxide **KILLS**.



Specifications

Feature	TS-5048	TS-7054	TS-4046
Liquid Capacity	50 Gallons	70 Gallons	40 Gallons
Hopper Capacity	225 lbs.	225 lbs.	225lbs.
All Wheel Drive/Steer	Standard	Standard	Standard
Width	48"	54"	46"
Length	76"	76"	76"
Weight	1130 lbs.	1195 lbs.	1120 lbs.
Standard Pump	5.3 GPM	5.3 GPM	5.3 GPM

Optional Pump 7 or 14 GPM Zeus pump with alternator
 Accu-Trim System upgrade available

Engine	Honda IGX 700 Briggs 23hp EFI	Honda IGX 700 Briggs 23hp EFI
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Engine Oil Filter	Honda 15400-PLM-A02 Briggs 696854
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Engine Oil	5W-40 Synthetic	5W-40 Synthetic
Engine Capacity	1.8 QT / 1.75 QT	1.8 QT / 1.75 QT

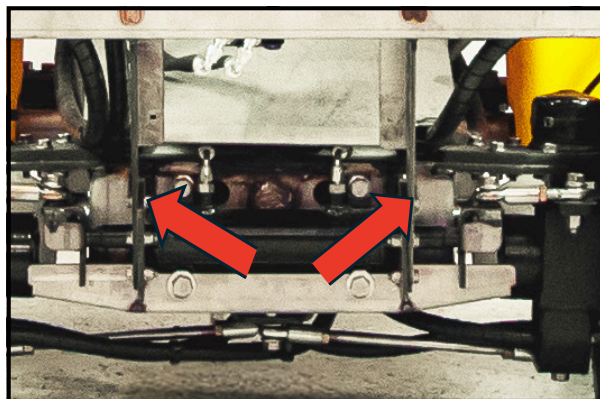
Hydro Oil	5W-40 Synthetic	5W-40 Synthetic
Hydro Capacity	3 Gallons	3 Gallons

Tires	Front 18x8.5x10	Rear 22x10x10
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TERRA-SPRAY TRANSPORTATION

Failure to secure machine may result in serious injury or death.

1. Front Tie Downs – Use front tie-downs on the boom to chain or strap front of unit to the trailer.



2. Rear Tie Down – Use rear tie-down to chain or strap rear of unit to the trailer.



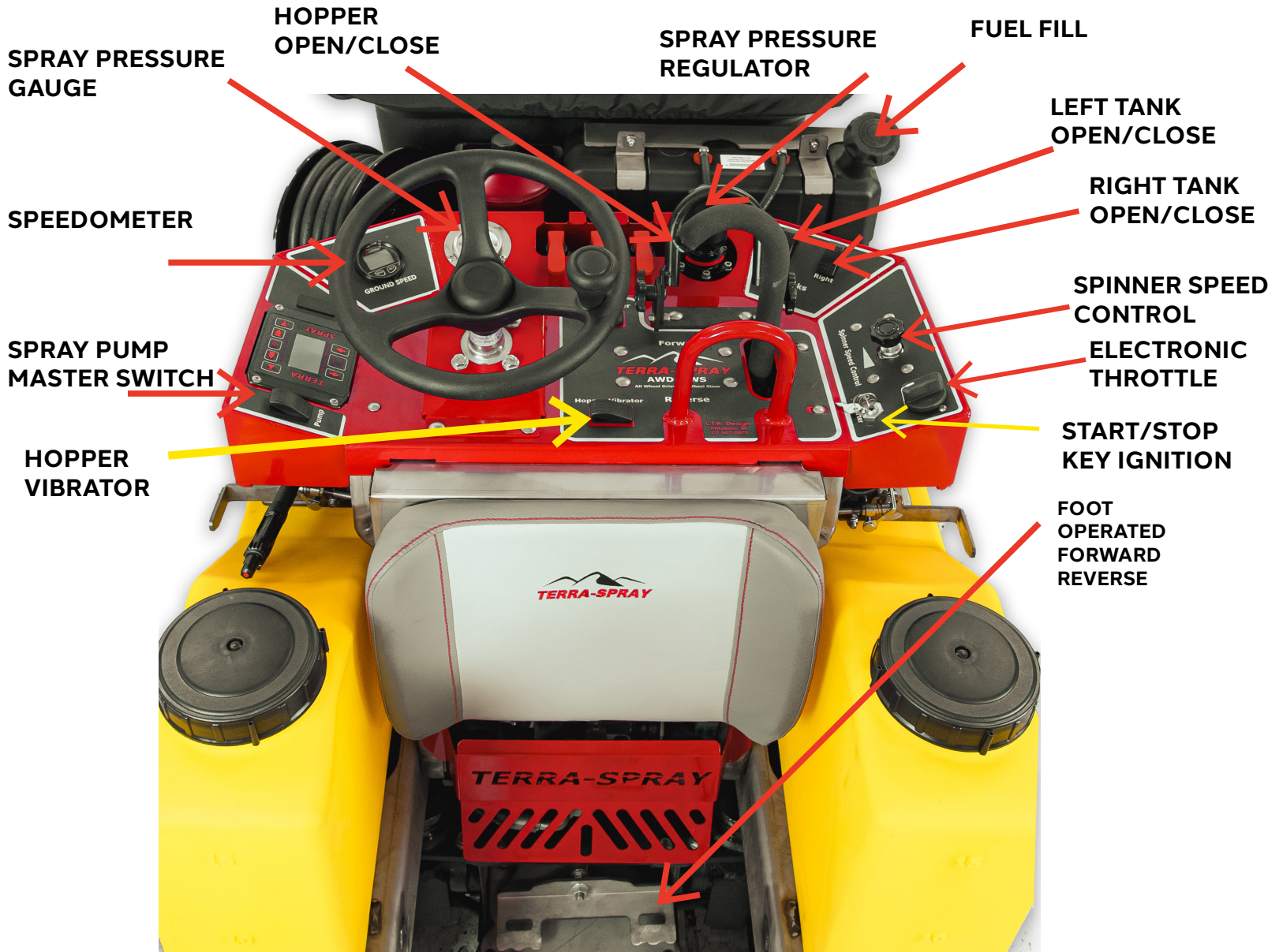
3. Hopper Cover- Be sure to remove the hopper cover when transporting on an open trailer to reduce the risk of losing the cover from the wind blowing it off during transport.



***It is the operator/driver's responsibility to ensure unit is appropriately secured with properly rated equipment**

TERRA-SPRAY

OPERATIONS





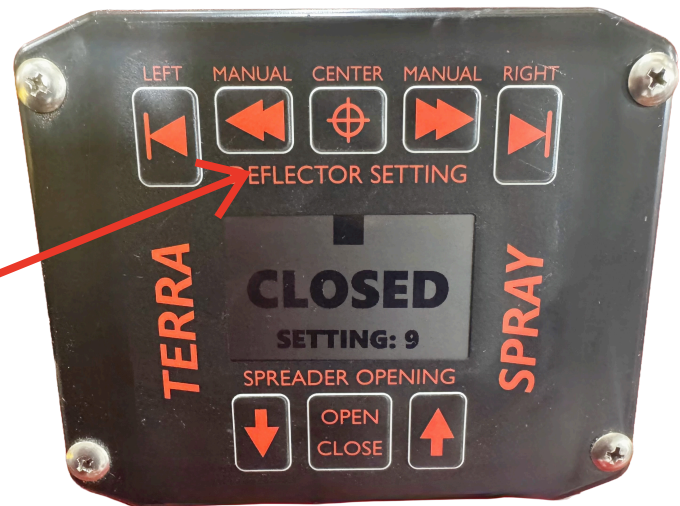
Accu-Trim

For the Accu-Trim system, a recommended starting point for rate control is between settings 9 and 11, depending on the SGN (Size Number Grade) of your fertilizer.

To open or close the hopper use the thumb button on the end of the drive lever. as a secondary method the open close button on the Accu-Trim Panel can be used also.

Use the two inner arrows on the control pad to adjust the spread pattern as needed. Once optimal performance is achieved, save the setting accordingly by holding down the center button for 3 seconds.

Because fertilizer quality and granule size can vary significantly, we strongly recommend calibrating your machine using the calibration guide from Purdue University, available by scanning the QR Code below.





Digital GPS Speedometer

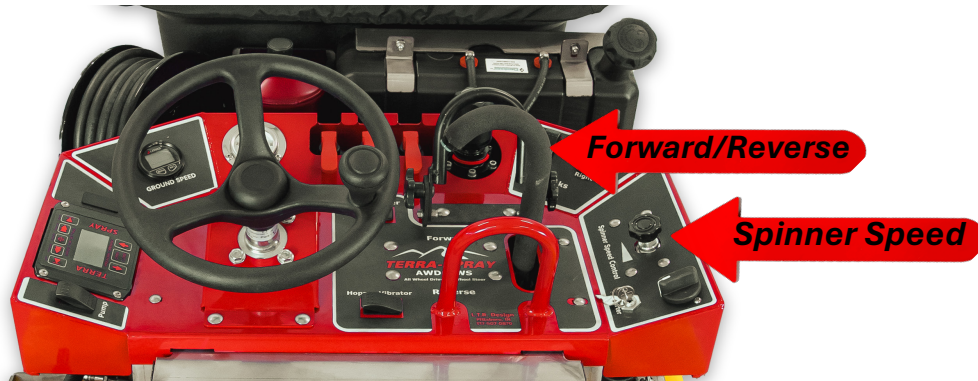


Your machine is equipped with a digital GPS receiver to track your ground speed. If you are inside a building or trailer it may take a minute or two to acquire signal. If P05 is displayed, simply hit the menu button to bring up the MPH. Scan the QR Code for operator manual for the speedometer.





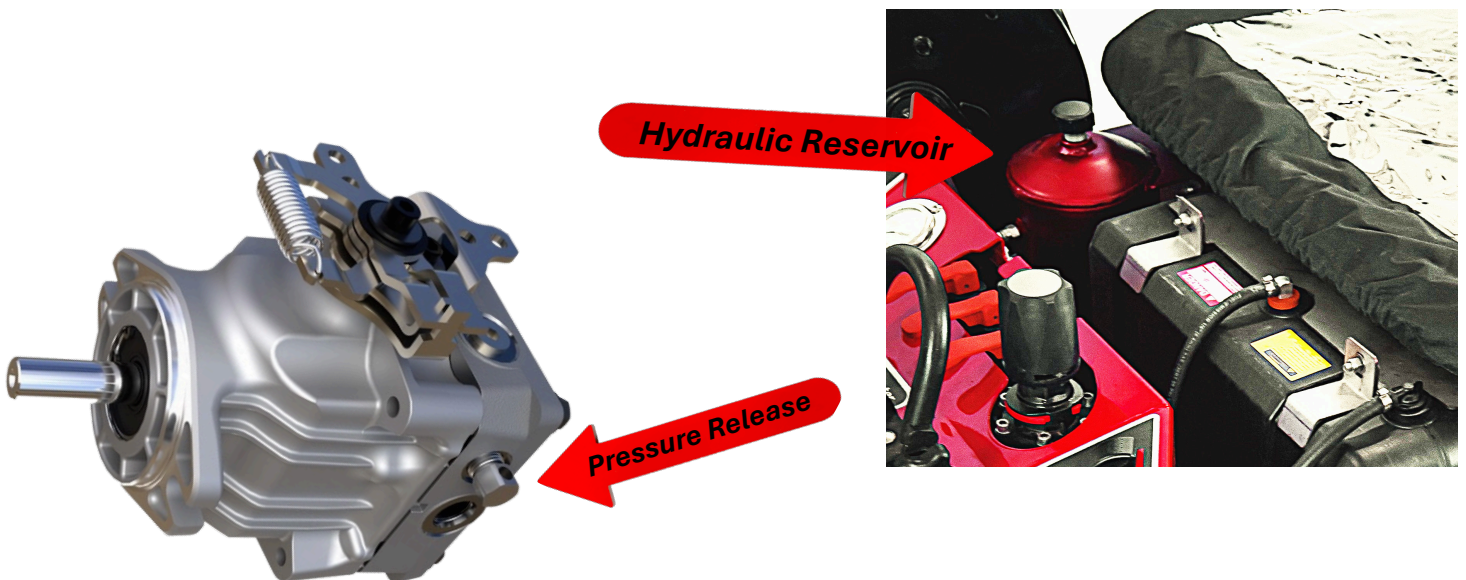
Hydraulic System



The Terra-Spray has hydraulic steering and also uses a hydraulic spinner controlled by the knob on the control panel. Counterclockwise will increase the speed of the spinner adjusting the spreading width.

The drive lever is used for forward and reverse operations. The speed bar can be set to limit the speed to a desired MPH for accurate application rates.

The hydraulic pump has a dump valve located on the bottom side of the pump. a 5/8" socket or wrench can be used to loosen the valve to allow the machine to roll freely. The system is filled with 5w-40 Synthetic Oil. Capacity is about 3 gallons total.





Electrical System



The Terra-Spray with the Honda engine will have two fuse holders located on the inside of the right side upright. The Main engine fuse is a 30amp standard size. The other fuse is the Ignition fuse and controls the 12v battery. The battery size is a YTX14-BS.



Spray System

Use the regulator knob to achieve your desired operating pressure. Threading the knob up allows for full agitation and threading down increases spray pressure reducing agitation.



	Droplet	PSI	GPM	GALLONS PER 1000				GALLONS PER ACRE			
				4	5	6	7	4	5	6	7
AM11002	C	20	0.14	0.24	0.19	0.16	0.14	10.5	8.4	7.0	6.0
	C	30	0.17	0.29	0.24	0.20	0.17	12.9	10.3	8.6	7.3
	M	40	0.20	0.34	0.27	0.23	0.19	14.9	11.9	9.9	8.5
	M	50	0.22	0.38	0.30	0.25	0.22	16.6	13.3	11.1	9.5
	F	60	0.24	0.42	0.33	0.28	0.24	18.2	14.5	12.1	10.4
AM110025	C	20	0.18	0.30	0.24	0.20	0.17	13.1	10.5	8.8	7.5
	C	30	0.22	0.37	0.29	0.25	0.21	16.1	12.9	10.7	9.2
	C	40	0.25	0.43	0.34	0.28	0.24	18.6	14.9	12.4	10.6
	M	50	0.28	0.48	0.38	0.32	0.27	20.8	16.6	13.8	11.9
	M	60	0.31	0.52	0.42	0.35	0.30	22.7	18.2	15.2	13.0
AM11003	VC	20	0.21	0.36	0.29	0.24	0.21	15.8	12.6	10.5	9.0
	VC	30	0.26	0.44	0.35	0.29	0.25	19.3	15.4	12.9	11.0
	C	40	0.30	0.51	0.41	0.34	0.29	22.3	17.8	14.9	12.7
	C	50	0.34	0.57	0.46	0.38	0.33	24.9	19.9	16.6	14.2
	M	60	0.37	0.62	0.50	0.42	0.36	27.3	21.8	18.2	15.6
AM11004	VC	20	0.28	0.48	0.38	0.32	0.27	21.0	16.8	14.0	12.0
	VC	30	0.35	0.59	0.47	0.39	0.34	25.7	20.6	17.1	14.7
	C	40	0.40	0.68	0.54	0.45	0.39	29.7	23.8	19.8	17.0
	C	50	0.45	0.76	0.61	0.51	0.43	33.2	26.6	22.1	19.0
	M	60	0.49	0.83	0.67	0.56	0.48	36.4	29.1	24.2	20.8
AM11005	VC	20	0.35	0.60	0.48	0.40	0.34	26.3	21.0	17.5	15.0
	VC	30	0.43	0.74	0.59	0.49	0.42	32.2	25.7	21.4	18.4
	C	40	0.50	0.85	0.68	0.57	0.49	37.1	29.7	24.8	21.2
	M	50	0.56	0.95	0.76	0.63	0.54	41.5	33.2	27.7	23.7
	M	60	0.61	1.04	0.83	0.69	0.59	45.5	36.4	30.3	26.0
AM11006	XC	20	0.42	0.72	0.58	0.48	0.41	31.5	25.2	21.0	18.0
	VC	30	0.52	0.88	0.71	0.59	0.50	38.6	30.9	25.7	22.0
	C	40	0.60	1.02	0.82	0.68	0.58	44.6	35.6	29.7	25.5
	C	50	0.67	1.14	0.91	0.76	0.65	49.8	39.8	33.2	28.5
	M	60	0.73	1.25	1.00	0.83	0.71	54.6	43.6	36.4	31.2
TDXL11008	XC	30	0.69	1.18	0.94	0.79	0.67	51.4	41.2	34.3	29.4
	XC	40	0.80	1.36	1.09	0.91	0.78	59.4	47.5	39.6	33.9
	XC	50	0.89	1.52	1.22	1.01	0.87	66.4	53.1	44.3	37.9
	XC	60	0.98	1.67	1.33	1.11	0.95	72.7	58.2	48.5	41.6
	TDXL11010	XC	30	0.87	1.47	1.18	0.98	0.84	64.3	51.4	42.9
XC		40	1.00	1.70	1.36	1.13	0.97	74.3	59.4	49.5	42.4
XC		50	1.12	1.90	1.52	1.27	1.09	83.0	66.4	55.3	47.4
XC		60	1.22	2.08	1.67	1.39	1.19	90.9	72.7	60.6	52.0
TDXL11015		XC	30	1.30	2.21	1.77	1.47	1.26	96.5	77.2	64.3
	XC	40	1.50	2.55	2.04	1.70	1.46	111.4	89.1	74.3	63.6
	XC	50	1.68	2.85	2.28	1.90	1.63	124.5	99.6	83.0	71.2
	XC	60	1.84	3.12	2.50	2.08	1.78	136.4	109.1	90.9	77.9
	TCP11020	XC	20	1.41	2.40	1.92	1.60	1.37	105.0	84.0	70.0
XC		30	1.73	2.94	2.36	1.96	1.68	128.6	102.9	85.7	73.5
XC		40	2.00	3.40	2.72	2.27	1.94	148.5	118.8	99.0	84.9
VC		50	2.24	3.80	3.04	2.53	2.17	166.0	132.8	110.7	94.9
VC		60	2.45	4.16	3.33	2.78	2.38	181.9	145.5	121.2	103.9

TERRA-EQUIPMENT.COM

SPRAYER/LIQUID CALIBRATION

Your machine is factory set to put down 1/3 gallon of liquid per 1,000 sq. ft. (at 5 MPH and 40 PSI).

For instance, some products call for 1.1 to 1.5 oz per 1,000 sq. ft.

We would recommend using 1.3 (median value of 1.1 to 1.5).

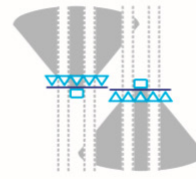
Using a 1/3 gallon tip, you need to multiply by 3, then multiply that amount by the number of gallons put in the tank.

1.3 (median value of 1.1 to 1.5) X 3 (1/3 gallon tip) X gallons of water needed. If filling a 25 gallon tank the equation would look like this: 1.3 X 3 X 25 = 97.5 ounces in 25 gallons of water.

SPRAYER/GRANULAR CALIBRATION

For the Accu Trim system, a recommended starting point for rate control is between settings 6 and 8, depending on the SNG (Size Number Grade) of your fertilizer. Use the two inner arrows on the control pad to adjust the spread pattern as needed. Once optimal performance is achieved, save the setting accordingly.

Because fertilizer quality and granule size can vary significantly, we strongly recommend calibrating your machine using the calibration guide from Purdue University, available by scanning the QR Code below.



Throw fertilizer back to the center of your last pass

Buttons Overview

Outer Arrows (Far Left & Far Right):
These are your trim adjustment buttons — used to select the left or right trim position.

Inner Arrows (Left & Right, next to center button):
These are your macro/line-tune adjustment buttons — used to make small incremental changes.

Center Button:
Used to save the current center or trim settings.
To Set Your Center Point (for the fertilizer being used):
Use the inner left/right buttons to adjust small increments until your spread pattern is centered. Once happy with the pattern, hold the center button for 2 seconds. The display should read: "Setting Saved" — this locks in your center point.

To Adjust Your Left or Right Trim Settings:
Press the far left or far right outer arrow (depending on which trim you want to adjust). Use the inner arrow buttons to adjust how far the trim goes in that direction. Once you're satisfied, hold the outer arrow button (left or right — whichever you're setting) for 2 seconds. The trim setting will be saved for that direction.



Spray System

The TERRA-SPRAY can spray from the right or the left tank or from both tanks at the same time, by selecting the desired tank switch in open position. In the event the electric valve does not work the white override knob can be used.



**Left Tank
Open/Close
Switch**

**Right Tank
Open/Close
Switch**

**Manual Valve
Override**

**Tank Valve
Position
Indicator**





Grease Points/Lubrication

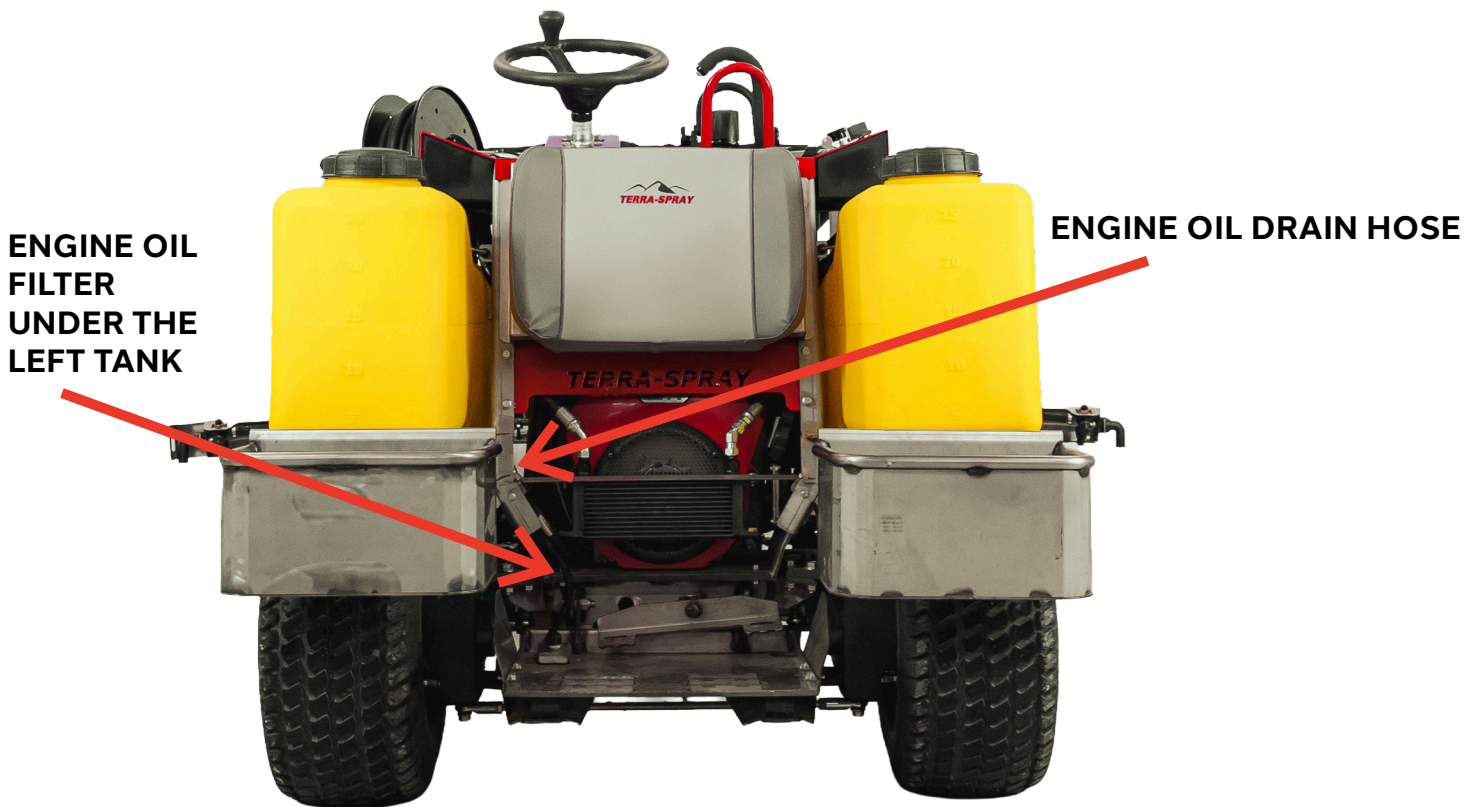


Each Machine has 4 grease points that need to be greased every 50 hrs located on the front and rear steering spindles.

Power washing weekly and allowing the machine to completely air dry is crucial. Then applying WD-40 as a light protecting coating on non painted metal surfaces to lubricate and prevent corrosion will increase the life of the machine.



ENGINE OIL CHANGE



THE ENGINE OIL NEEDS CHANGED AT THE FIRST 20 HR MARK.
THEN EVERY 100 HOURS OR YEARLY AFTER THAT.
HONDA FILTER 15400-PLM-A02. BRIGGS FILTER 696854

WARRANTY

LIMITED WARRANTY

TERRA-SPRAY Products, a DBA of LTR DESIGN INC warrants to the original purchaser, all TERRA-SPRAY products, manufactured by it, to be free from defects in both material and workmanship under normal use and service. TERRA-SPRAY'S, obligation under this warranty shall be limited to replacement or repair of any parts thereof, free of charge to the original purchaser, at its place of business, provided, however, that the part(s) to be replaced or repaired, shall within 1 year after delivery to the original purchaser, be demonstrated to be defective: which determination shall be made by company.

The said components or parts must be returned through the selling dealer or distributor directly to the company with all transportation charges prepaid. Notice of defects shall be furnished in writing to the seller and to the agent through whom the machinery was received, disclosing in full all known defects and failure in operation and use, and reasonable time shall be given to the seller to remedy any such defects and failures.

Failure to make such trial or to give such notice shall be deemed an absolute acceptance by the buyer and satisfaction in full of this limited warranty. Under no circumstances does this warranty cover normal wear of any parts, components or material which, in the opinion of the seller and the company, have been subjected to neglect, misuse, alteration, accident, or if repaired, with parts other than those manufactured by and obtained from TERRA-EQUIPMENT. This warranty does not cover components which are already covered by a separate warranty provided by the supplier of said parts or components. TERRA-EQUIPMENTS obligation under this warranty is limited to repair or replacement, free of charge to the original purchaser, of any part which in the judgment of the company is defective. The company makes no warranty whatsoever in respect to accessories or parts not supplied by the company. The term "original purchaser", as used in this warranty, shall be deemed to mean that person for whom the product is originally supplied.

The company, under this warranty, cannot guarantee that existing conditions beyond its control will not affect its ability to obtain materials or manufacture necessary replacement parts. The company reserves the right to make design changes, or specifications at anytime, without any contingent obligation on its parts to purchasers of machines and parts previously sold. No one is authorized to alter, modify or change the terms of this warranty in any manner. The company warrants the construction of the equipment sold herein and will replace it at its expense for a period of one year from the date hereof, any parts which prove defective as determined under the terms of this limited warranty. This warranty shall apply only within the boundaries of the continental United States.

THIS WARRANTY IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR USE AND PURPOSE AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON ITS PART AND ANY IMPLIED PERSON TO ASSUME FOR IT, ANY OTHER LIABILITY IN CONNECTION WITH A SALE OF THESE PRODUCTS. THIS WARRANTY SHALL NOT APPLY TO THESE PRODUCTS OR TO ANY PART THEREOF WHICH HAS BEEN SUBJECT TO ACCIDENT, NEGLIGENCE, ALTERATION, ABUSE OR MISUSE.



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