

# ST820 Precision Tillage

# **Service Manual**



THIS SAFETY ALERT SYMBOL INDICATES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF DEATH OR SERIOUS INJURY. M171C

If Safety Decals on this machine use the words **Danger**, **Warning or Caution**, which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.
- CAUTION: Indicates an potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

If Safety Decals on this machine are ISO two panel Pictorial, decals are defined as follows:

- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW.
- Prohibition symbols such as  $\bigotimes X$  and (stop) if used, are RED.



IMPROPER OPERATION OF THIS MACHINE CAN CAUSE DEATH OR SERIOUS INJURY. BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow CNH America LLC instructions on machine operation and maintenance.

NW-010V2

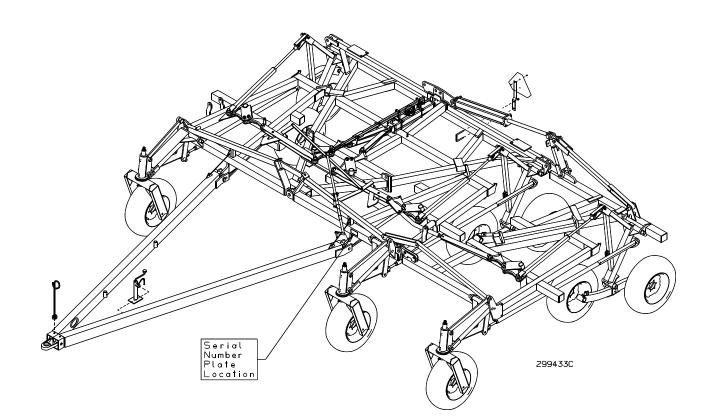
Issued March, 2005

### **REPAIR PARTS IDENTIFICATION**

This implement has a Serial Number plate attached to identify the components installed on this machine. The plate looks like the sample with a number stamped on.

For easy reference, locate the plate at the location shown on the figure. Record the number on this sheet. When requiring repair parts, take this number into your dealer. This Serial Plate was used on machines manufactured to June 2004.

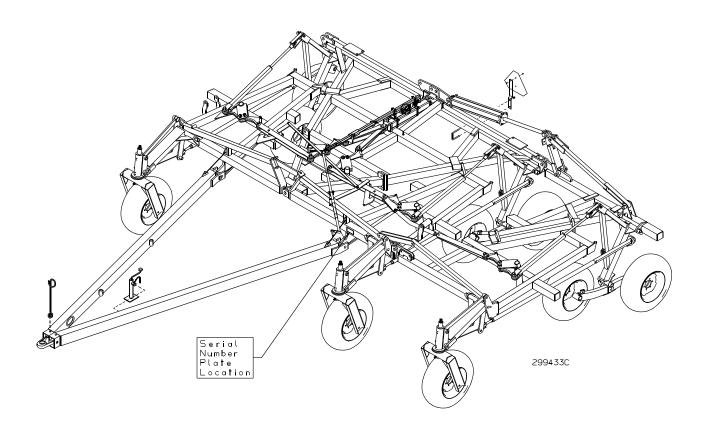




This implement has a Product Identification Number (PIN) plate. The plate looks like the sample at right. For easy reference, locate the PIN plate at the location shown on the figure below. Record the number on this sheet. When requiring repair parts, take this number into your dealer.

**NOTE:** This PIN plate replaces the Serial Number plate found on machines manufactured prior to June 2004.





## **ST820 Service Manual**

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### **GENERAL SERVICE INFORMATION**



Be alert for overhead electrical wires. Failure to stay clear of electrical wires will result in electrocution. Electrocution can occur without direct contact with overhead electrical wires.



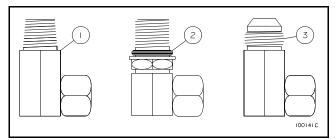
To prevent personal injury when assembling the implement, always block up the raised section. Be sure the section is stable before assembly and never rely on a jack or hydraulic device to support the raised implement.

Always make sure that pressure is relieved from hydraulic circuits before servicing or disconnecting from the tractor. Failure to do so may result in hydraulic fluid being injected into the skin; this may result in gangrene.

### READ ASSEMBLY INSTRUCTIONS CAREFULLY BEFORE YOU BEGIN.

- 1. Be sure to read and follow all instructions to ensure proper assembly and operation of the implement.
- 2. Assembly may require the use of a forklift or other suitable lifting device.
- 3. Implement must be serviced on a flat surface.
- 4. Left and right directions are determined from the rear of the implement facing the direction of forward travel.
- 5. Use a suitable sealant on hydraulic connections. Be careful to prevent sealant from entering the hydraulic system.
- 6. Apply a thread sealant to all female-to-male pipe thread connections.
- 7. Do not allow tape to enter the hydraulic system.
- 8. Do not use a thread sealant on ORB or swivel fitting connections.
- **NOTE:** Pipe thread (1) fittings, o-ring boss fittings (2) and JIC fittings (3) may be the types of hydraulic fittings used.

- **NOTE:** If you are assembling or servicing the implement inside of a building, ensure the door opening is large enough to allow the implement to be removed after assembly. Check the Specifications Tables in this section for the overall height and width in transport position.
- **NOTE:** Additional bolt torque information can be found later in this section.



Hydraulic Fitting Identification

### IMPORTANT INFORMATION

All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel, strictly complying with the instructions given and using, whenever required, the special tools.

Anyone who carries out the above operations without complying with the procedures shall be responsible for the subsequent damages.

The manufacturer and all the organizations of its distribution chain, including - without limitation - national, regional or local dealers, reject any responsibility for damages due to the anomalous behavior of parts and/or components not approved by the manufacturer himself, including those used for the servicing or repair of the product manufactured or marketed by the manufacturer.

In any case, no warranty is given or attributed on the product manufactured or marketed by the manufacturer in case of damages due to an anomalous behavior of parts and/or components not approved by the manufacturer.

The information in this manual is updated at the date of the publication. It is the policy of the manufacturer to aim for continuous improvement. Some information could not be updated due to modifications of technical or commercial type, as well as for suiting the laws and regulations of different countries.

In case of disagreement, refer to your Sales and Service Networks.

### SERVICE TOOLS

There are several service tools/update kits available through the parts department, for ease of diagnosis and servicing the ST820.

ND-035K	Trip shim kit.
ND-897K	Trip shim kit.
ТС-352К	Trip shim kit (for 650 lb trips).
NW-487K	Tube aligning kit.
NW-738K	Ball drive update kit (1.5" ball).
NW-105K	Transport lockout kit (for locking front casters for transport).

SAFETY

### SAFETY-ALERT SYMBOL



This symbol is used to denote possible danger and care should be taken to prevent bodily injury. This symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!** 

### THIS SYMBOL APPEARS WITH TEXT READING "DANGER!", "CAUTION!", OR "WARNING!" THESE WORDS INDICATE THREE LEVELS OF POSSIBLE HAZARDS, THAT ARE DESCRIBED BELOW.



Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. The color associated with Danger is RED.



WARNING! Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The color associated with Warning is ORANGE.



Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. The color associated with Caution is YELLOW.

### **GENERAL SAFETY PRACTICES**

<u>REVIEW</u> this manual and operator's manual before servicing equipment.

<u>NEVER</u> allow anyone unfamiliar, untrained, or complacent to operate the cultivator.

<u>ALWAYS USE</u> the jack supplied when unhooking the cultivator.

<u>NEVER</u> transport the cultivator at speeds higher than 30 km/hr (18 mph).

### SERVICING SAFETY PRECAUTIONS

<u>BLOCK</u> the wheels to prevent movement when servicing.

<u>MAINTAIN YOUR CULTIVATOR</u> in proper working condition. Unauthorized modifications to the machine may impair function and/or safety and affect machine life.

<u>BE SURE</u> the cultivator is securely fastened to a large farm tractor or an air cart that is attached to a large farm tractor before operating hydraulics.

<u>USE EXTREME CARE</u> when making adjustments.

KEEP CHILDREN AWAY from all farm equipment.

<u>BE SURE</u> the press wheels are blocked and wing lock pins are in place before servicing or adjusting opener assemblies or working on the cultivator.



! The tractor engine should be stopped and the wheels blocked to prevent any movement during servicing.

Always be sure that the depth control safety lock is in place when servicing the cultivator.

Always be sure the wings are in field position before servicing the cultivator.

Escaping hydraulic fluid is a serious hazard. Escaping hydraulic fluid that is under pressure can penetrate the skin, causing serious injury. Relieve pressure before disconnecting the hydraulic lines.

Check/tighten all connections before applying pressure.

Never use your hand to search for leaks. Use a piece of cardboard or paper. If any fluid is injected into the skin, seek immediate medical attention. Gangrene may result if the wound is not treated within a few hours. Check your hydraulic fluid containers for warnings concerning the hydraulic fluids you use.

DO NOT walk within the radius of raised cultivator wings.

### SAFETY DURING OPERATION

DO NOT ALLOW ANYONE ON THE CULTIVATOR while operating the cultivator hydraulics.

NEVER disconnect the tractor from the cultivator while the cultivator wings are raised.

KEEP CHILDREN AWAY from the cultivator during operation.

NEVER STAND within the radius of the raised wings. Hydraulic or mechanical failure may result in rapid or uncontrolled falling of the wings.

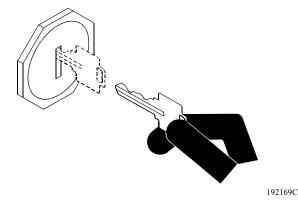
OPERATE the wings only on level ground with the depth control fully raised.

### PARK ON LEVEL GROUND and block adequately.

AVOID moving machines.

098001M1

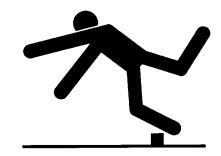
DISENGAGE POWER AND SHUT DOWN the tractor engine (remove the key from the tractor ignition), be certain that all moving parts have stopped, and all pressure in the system is relieved **BEFORE** cleaning, adjusting or lubricating the cultivator.





<u>READ</u> the operators manual thoroughly.

KEEP service area clean.



098002M1

DO NOT enter tight areas.

<u>BE CERTAIN</u> machine is tagged 'out of order' or work area is supervised.



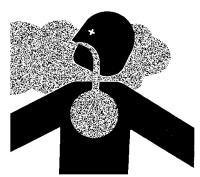
098003M1

 $\underline{\text{BE CERTAIN}}$  all moving parts have stopped before servicing.



098004M1

AVOID toxic vapors. Breath clean air.



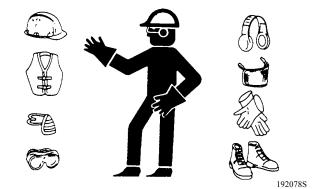
0960039S

DO NOT permit smoking.



196150S

WEAR protective clothing.



### **AIR AND AIR HOSES**

<u>COMPRESSOR HOSES</u> may move unexpectedly when suddenly disconnected.



098005M1

098006M1

<u>USE PROPER</u> air nozzles. Do not use compressed air to clean clothes or direct it toward any part of yourself.

clean clothes or direct it toward any part of yourself.

AVOID getting chemicals into eyes. Use eye protection.

098007M1

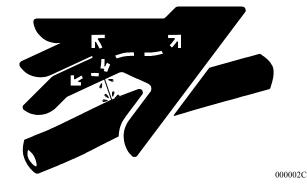
### HYDRAULICS AND HYDRAULIC LEAKS

AVOID high-pressure fluids.

ESCAPING HYDRAULIC FLUID IS A SERIOUS HAZARD. Escaping hydraulic fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting the hydraulic lines. Check/tighten all connections BEFORE applying pressure.

<u>BEWARE</u> excessive hydraulic pressure. Explosive structural failure can result.

<u>BEWARE</u> air locks in cylinders. Large cylinder displacements can occur without hydraulic oil flow.



### SHIELDS

<u>REPAIR</u> damaged shields.

KEEP all shields in place.

<u>BE EXTRA CAUTIOUS</u> when repairing or servicing without protective shields.



098008M1

### ELECTRICAL

<u>REMOVE</u> the ground wire to avoid arcing contacts.

REMOVE GROUND WIRE when welding.



098009M1

### TIRES

USE A CAGE IF POSSIBLE when setting tires on rims.

<u>AVOID</u> excessive air pressure.

<u>DO NOT OVER-INFLATE</u> tires. <u>NEVER</u> lean over a tire while inflating it.



0960041S

### SAFETY DURING TRANSPORT

<u>CHECK</u> with local authorities regarding transport on public roads. Obey all applicable laws and regulations.

<u>ONLY TOW</u> at a safe speed (30 km/hr/18 mph). Use caution when turning corners or meeting traffic.

<u>BE SURE</u> transport lighting is plugged in and that the red taillight(s), amber flashers, and amber signal lights are all working properly.

<u>ALWAYS</u> be certain that no one is behind or near the cultivator before moving it.

<u>BE SURE</u> all safety transport locks are in place before transporting the cultivator.

<u>BE SURE</u> the reflector decals are clearly visible from all sides of the cultivator and the 'Slow Moving Vehicle' sign is at the rear of the cultivator in clear view of overtaking traffic.

<u>BE SURE</u> the tractor weight is equal to or greater than the total weight of the air cart and cultivator.

### SAFETY DECALS

<u>KEEP SAFETY DECALS CLEAN</u>. Wipe clean when necessary.

<u>CHECK</u> that the safety decals are not obstructed by the openers. If the decals are covered up, replace in a location that is clear to view.

<u>REPLACE</u> missing or unreadable decals. New decals are available from your dealer.

<u>BE SURE</u> all the wheel bolts are torqued to proper specifications before transporting the cultivator.

WATCH for power poles and overhead power lines.

<u>ALWAYS</u> lock the tractor drawbar when transporting the cultivator.

<u>ALWAYS</u> park the cultivator on level ground and block the wheels before unhooking from the towing vehicle.

<u>NEVER</u> subject the cultivator to steep side grades while in transport position.

<u>ALWAYS</u> use the hitch jack supplied with the cultivator when unhooking from the tractor.

NEVER brake or decelerate during cornering.

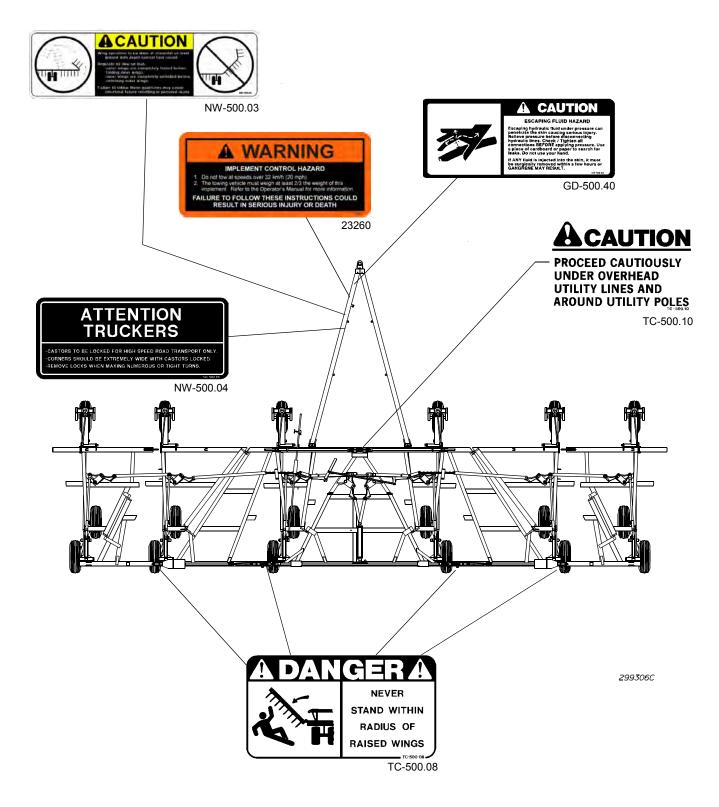
<u>ALWAYS</u> enter corners slowly. <u>SLOW</u> the machine to turning speed before entering a corner. <u>DO NOT</u> decelerate while executing the turn.

To replace decals:

- 1. Remove the old decal. Clean the area where the new decal will be affixed.
- 2. Remove the decal backing. Carefully affix the decal to the cultivator.
- 3. Work the air bubbles out from under the decal. Use a clean piece of paper or the decal backing itself.

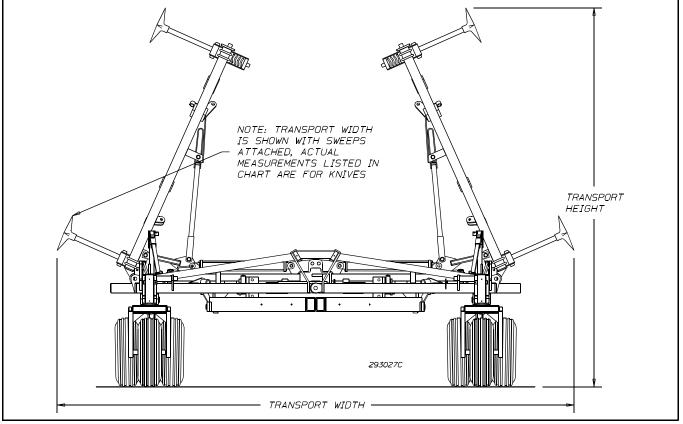
### **DECAL LOCATIONS**

The following safety decals are affixed to the cultivator.

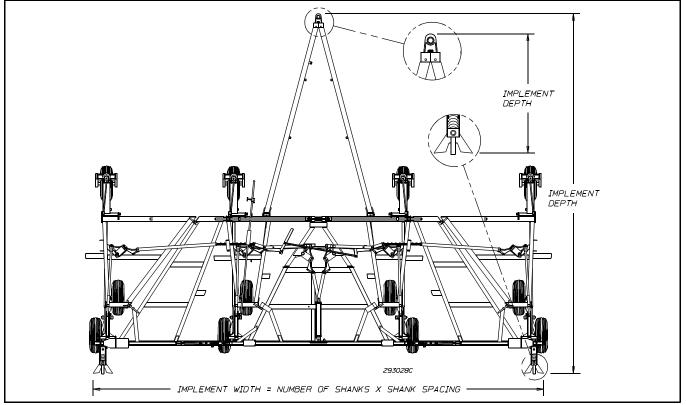


Safety Decal Locations

### **SPECIFICATIONS (STANDARD)**



Front View - 3-Section



Top View - 3-Section

## MACHINE SPECIFICATIONS - NORTH AMERICA - IMPERIAL UNITS IMPLEMENT DIMENSIONS

		Vidth (Feet)		Number of	of Shanks	Width	of Cut			
	center	inner	outer	9"	12"	9"	12"	Transport Width	Transport Height	Overall Length
	13	-	6	35	-	26'3"	-	18'8"	12'6"	25'4"
	13	-	6	37	-	27'9"	-	18'8"	12'6"	25'4"
	13	-	6	-	27	-	27'	18'8"	12'6"	25'4"
	13	-	6	-	29	-	29'	18'6"	12'6"	25'4"
	13	-	9	43	-	32'3"	-	18'6"	15'2"	25'4"
	13	-	9	45	-	33'9"	-	18'6"	15'2"	25'4"
	13	-	9	-	33	-	33'	18'6"	15'2"	25'4"
sle	13	-	9	-	35	-	35'	18'6"	15'2"	25'4"
ode	16	-	9	47	-	35'3"	-	21'8"	15'2"	26'2"
Ň	16	-	9	49	-	36'9"	-	21'8"	15'2"	26'2"
<b>3-Section Models</b>	16	-	9	-	36	-	36'	21'8"	15'2"	26'2"
ect	16	-	9	-	38	-	38'	21'8"	15'2"	26'2"
3-S	13	-	12	51	-	38'3"	-	18'8"	17'11"	25'4"
	13	-	12	53	-	39'9"	-	18'8"	17'11"	25'4"
	13	-	12	-	39	-	39'	18'8"	17'11"	25'4"
	13	-	12	-	41	-	41'	18'8"	17'11"	25'4"
	16	-	12	55	-	41'3"	-	21'8"	17'11"	26'2"
	16	-	12	57	-	42'9"	-	21'8"	17'11"	26'2"
	16	-	12	-	42	-	42'	21'8"	17'11"	26'2"
	16	-	12	-	44	-	44'	21'8"	17'11"	26'2"
	13	9	12	59	-	44'3"		18'8"	13'10"	26'2"
	13	9	6	61	-	45'9"	-	18'8"	13'10"	24'4"
S	13	9	6	-	45	-	45'	18'8"	13'10"	24'4"
del	13	9	6	-	47	-	47'	18'8"	13'10"	25'4"
Mo	16	9	6	63	-	47'3"	-	21'8"	13'10"	26'2"
ection Models	16	9	6	65	-	48'9"	-	21'8"	13'10"	26'2"
ecti	16	9	6	-	48	-	48'	21'8"	13'10"	26'2"
5-Se	16	9	6	-	50	-	50'	21'8"	13'10"	26'2"
21	16	12	6	71	-	53'3"	-	21'8"	16'10"	26'2"
	16	12	6	73	-	54'9"	-	21'8"	16'10"	26'2"
	16	12	6	-	54	-	54'	21'8"	16'10"	26'2"
	16	12	9	-	56	-	56'	21'8"	16'10"	26'2"
	16	12	9	79	-	59'3"	-	21'8"	16'10"	26'2"
	16	12	9	81	-	60'9"	-	21'8"	16'10"	26'2"
	16	12	9	-	60	-	60'	21'8"	16'10"	26'2"
	16	12	9	-	62	-	62'	21'8"	16'10"	26'2"

NOTE: Dimensions include sweeps; 12" sweeps on 9" shank spacing, and 16" sweeps on 12" shank spacing. Specifications subject to change without notice.

### **IMPLEMENT WEIGHT**

		Number	of Shanks	Total Weight (lbs)			
	Base Width	9" Shank Spacing	12" Shank Spacing	550 lb trips 9" Shank Spacing	650 lb trips 12" Shank Spacing		
	26'3"	35	-	11,648	-		
	27'9"	37	-	11,881	-		
	27'	-	27	-	11,145		
	29'	-	29	-	11,417		
	32'3"	43	-	12,913	-		
ser	33'9"	45	-	13,177	-		
chir	33'	-	33	-	12,400		
Ma	35'	-	35	-	12,686		
uo	35'3"	47	-	13,567	-		
<b>3-Section Machines</b>	36'9"	49	-	13,831	-		
3-S	36'	-	36	-	13,002		
	38'	-	38	-	13,288		
	38'3"	51	-	14,782	-		
	39'9"	53	-	15,046	-		
	39'		39	-	14,037		
-	41'	-	41	-	14,323		
	41'3"	55	-	15,478	-		
	42'9"	57	-	15,742	-		
	42'	-	42	-	14,682		
	44'	-	44	-	14,967		
	44'3"	59	-	18,351	-		
	45'9"	61	-	18,584	-		
<i>(</i> 0	45'	-	45	-	17,443		
ines	47'	-	47	-	17,715		
achines	47'3"	63	-	19,096	-		
	48'9"	65	-	19,329	-		
5-Section M	48'	-	48	-	18,136		
Sec	50'	-	50	-	18,408		
Ω.	53'3"	71	-	20,874	-		
	54'9"	73	-	21,107	-		
	54'	-	54	-	19,669		
	56'	-	56	-	19,941		
	59'3"	79	-	22,222	-		
	60'9"	81	-	22,486	-		
	60'	-	60	-	21,007		
	62'	_	62	-	21,293		

NOTE: Weights provided are based on a 550 lb trips for 9" spacing and 650 lb trips for 12" spacing; and do not include ground engaging tools or harrows.

### **MACHINE SPECIFICATIONS - NORTH AMERICA - METRIC UNITS**

### IMPLEMENT DIMENSIONS

	Frame Width (Meters)		Number of Shanks		Width of Cut (Meters)		Width	Transport Height	Overall Length	
	center	inner	outer	229 mm	305 mm	229 mm	305 mm	(Meters)	(Meters)	(Meters)
	3.96	3.96 -		35	-	8	-	5.7	3.8	7.7
	3.96	-	1.83	37	-	8.5	-	5.7	3.8	7.7
	3.96	-	1.83	-	27	-	8.2	5.7	3.8	7.7
	3.96	-	1.83	-	29	-	8.8	5.6	3.8	7.7
	3.96	-	2.74	43	-	9.8	-	5.6	4.6	7.7
	3.96	-	2.74	45	-	10.3	-	5.6	4.6	7.7
S	3.96	-	2.74	-	33	-	10.1	5.6	4.6	7.7
del	3.96	-	2.74	-	35	-	10.7	5.6	4.6	7.7
Ň	4.88	-	2.74	47	-	10.8	-	6.6	4.6	8
uo	4.88	-	2.74	49	-	11.2	-	6.6	4.6	8
ctio	4.88	-	2.74	-	36	-	10.9	6.6	4.6	8
<b>3-Section Models</b>	4.88	-	2.74	-	38	-	11.6	6.6	4.6	8
e	3.96	-	3.66	51	-	11.7	-	5.7	5.5	7.7
	3.96	-	3.66	53	-	12.1	-	5.7	5.5	7.7
	3.96	-	3.66	-	39	-	11.9	5.7	5.5	7.7
	3.96	-	3.66	-	41	-	12.5	5.7	5.5	7.7
	4.88	-	3.66	55	-	12.6	-	6.6	5.5	7.9
	4.88	-	3.66	57	-	13	-	6.6	5.5	7.9
	4.88	-	3.66	-	42	-	12.8	6.6	5.5	7.9
	4.88	-	3.66	-	44	-	13.4	6.6	5.5	7.9
	3.96	2.74	3.66	59	-	13.5	-	5.7	4.2	7.9
	3.96	2.74	1.83	61	-	13.9	-	5.7	4.2	7.4
	3.96	2.74	1.83	-	45	-	13.7	5.7	4.2	7.4
	3.96	2.74	1.83	-	47	-	14.3	5.7	4.2	7.7
	4.88	2.74	1.83	63	-	14.4	-	6.6	4.2	8
S	4.88	2.74	1.83	65	-	14.9	-	6.6	4.2	8
del	4.88	2.74	1.83	-	48	-	14.6	6.6	4.2	8
Мо	4.88	2.74	1.83	-	50	-	15.2	6.6	4.2	8
uo	4.88	3.66	1.83	71	-	16.3	-	6.6	5.1	8
cti	4.88	3.66	1.83	73	-	16.7	-	6.6	5.1	8
5-Section Models	4.88	3.66	1.83	-	54	-	16.5	6.6	5.1	8
5	4.88	3.66	2.74	-	56	-	17.1	6.6	5.1	8
	4.88	3.66	2.74	79	-	18	-	6.6	5.1	8
	4.88	3.66	2.74	81	-	18.5	-	6.6	5.1	8
	4.88	3.66	2.74	-	60	-	18.3	6.6	5.1	8
	4.88	3.66	2.74	-	62	-	18.9	6.6	5.1	8

**NOTE:** Dimensions include sweeps - 305 mm sweeps on 183 mm or 229 mm shank spacing, and 410 mm sweeps on 305 mm shank spacings. Specifications subject to change without notice.

### **IMPLEMENT WEIGHT**

	Base Model	Number	Total Weight (kgs)			
	Width (Meters)	229 mm Shank Spacing	305 mm Shank Spacing	229 mm Shank Spacing 250 kg trips	305 mm Shank Spacing 295 kg trips	
	8	35	-	5,283	-	
	8.5	37	-	5,389	-	
	8.2	-	27	-	5,055	
	8.8	-	29	-	5,179	
	9.8	43	-	5,857	-	
	10.3	45	-	5,977	-	
	10.1	-	33	-	5,625	
sle	10.7	-	35	-	5,754	
po	10.8	47	-	6,154	-	
Σ	11.2	49	-	6,274	-	
<b>3-Section Models</b>	11	-	36	-	5,898	
Sec	11.6	-	38	-	6,027	
ų	11.7	51	-	6,705	-	
	12.1	53	-	6,825	-	
	11.9	-	39	-	6,367	
	12.5	-	41	-	6,497	
	12.6	55	-	7,021	-	
	13	57	-	7,141	-	
	12.9	-	42	-	6,660	
	13.4	-	44	-	6,789	
	13.5	59	-	8,324	-	
	14	61	-	8,430	-	
	13.7	-	45	-	7,912	
	14.3	-	47	-	8,035	
	14.4	63	-	8,662	-	
G	14.9	65	-	8,768	-	
dels	14.6	-	48	-	8,226	
Ň	15.2	-	50	-	8,350	
on	16.2	71	-	9,468	-	
ecti	16.7	73	-	9,574	-	
5-Section Mod	16.5	-	54	-	8,922	
4)	17.1	-	56	-	9,045	
	18.1	79	-	10,080	-	
	18.5	81	-	10,200	-	
	18.3	-	60	-	9,529	
	18.9	-	62	-	9,658	

**NOTE:** The weights provided do not include ground engaging tools or harrows.

### MACHINE SPECIFICATIONS - AUSTRALIA- IMPERIAL UNITS

### IMPLEMENT DIMENSIONS

Frame Width (Feet)				Number of Shanks for the following shank spacing widths			for the	Width of Cut (Feet) for the following shank spacing widths			Transport Height	Overall Length
	center	inner	outer	7.2"	9" / 9" alternate	12"	7.2"	9" / 9" alternate	12"	Width	neight	Length
	13	-	6	43	-	-	25'10"	-	-	18'8"	12'6"	25'4"
	13	-	6	-	35	-	-	26'3"	-	18'8"	12'6"	25'4"
	13	-	6	47	-	-	28'2"	-	-	18'8"	12'6"	25'4"
	13	-	6	-	-	29	-	-	29'	18'6"	12'6"	25'4"
<u>s</u>	13	-	6	-	39	-	-	29'3"	-	18'8"	12'6"	25'4"
ode	13	-	9	57	-	-	34'2"	-	-	18'8"	15'2"	25'4"
<b>3-Section Models</b>	13	-	9	-	-	35	-	-	35'	18'6"	15'2"	25'4"
tio	13	-	9	-	47	-	-	35'3"	-	18'8"	15'2"	25'4"
Sec	16	-	9	62	-	-	37'2"	-	-	21'8"	15'2"	26'2"
မု	16	-	9	-	-	38	-	-	38'	21'8"	15'2"	26'2"
	16	-	9	-	51	-	-	38'3"	-	21'8"	15'2"	26'2"
	13	-	12	-	-	41	-	-	41'	18'8"	17'11"	25'4"
	13	-	12	-	55	-	41'3"	-	-	18'8"	17'11"	25'4"
	16	-	12	-	-	44	-	-	44'	21'8"	17'11"	26'2"
	16	-	12	68	-	-	40'10"	-	-	21'8"	17'11"	26'2"
	16	-	12	-	59	-	-	44'3"	-	21'8"	17'11"	26'2"
	13	9	6	77	-	-	46'2"	-	-	18'8"	13'10"	26'2"
	13	9	6	-	-	47	-	-	47'	18'8"	13'10"	26'2"
	13	9	6	-	63	-	-	47'3"	-	18'8"	13'10"	26'2"
	16	9	6	82	-	-	49'2"	-	-	21'8"	13'10"	26'2"
dels	16	9	6	-	-	50	-	-	50'	21'8"	13'10"	26'2"
Ň	16	9	6	-	67	-	-	50'3"	-	21'8"	10'10"	26'2"
ion Models	16	12	6	92	-	-	55'2"	-	-	21'8"	16'10"	26'2"
ecti	16	12	6	-	-	56	-	-	56'	21'8"	16'10"	26'2"
5-Secti	16	12	6	-	75	-	-	56'3"	-	21'8"	16'10"	26'2"
	16	12	9	102	-	-	61'2"	-	-	21'8"	16'10"	26'2"
	16	12	9	-	-	62	-	-	62'	21'8"	16'10"	26'2"
	16	12	9	-	83	-	-	62'3"	-	21'8"	16'10"	26'2"

**NOTE:** Dimensions include sweeps - 12" sweeps on 7.2" or 9" shank spacing, and 16" sweeps on 12" shank spacing. Specifications subject to change without notice.

### **IMPLEMENT WEIGHT**

Base Model Width (Feet)					Т	otal Weight witl	ו:
			umber of Shank	(S	350 lb trips	550 lb trips	650 lb trips
		7.2" Shank Spacing			7.2" Shank Spacing	9" and 9" Alternate Shank Spacing	12" Shank Spacing
	25.8	43	-	-	11,978	-	-
	26.25	-	35 / 35	-	-	11,648	-
	28.2	47	-	-	12,604	-	-
	29	-	-	29	-	-	11,417
	29.25	-	39 / 39	-	-	12,175	-
3-Section Models	34.2	57	-	-	14,267	-	-
Mo	35	-	-	35	-	-	12,686
ion	35.25	-	47 / 47	-	-	13,567	-
ecti	37.2	62	-	-	15,042	-	-
3-5	38	-	-	38	-	-	13,288
	38.25	-	51 / 51	-	-	14,188	-
	41	-			-	-	14,323
	41.25	-	55 / 55	-	-	15,403	-
	44	-	-	44	-	-	14,967
	40.8	68	-	-	-	16,439	-
	44.25	-	59 / 59	-	-	18,351	-
	46.2	77	-	-	19,974	-	-
	47	-	-	47	-	-	17,715
s	47.25	-	63 / 63	-	-	18,868	-
ode	49.2	82	-	-	20,791	-	-
ection Models	50	-	-	50	-	-	18,408
stio	50.25	-	67/ 67	-	-	19,613	-
5-Sec	55.2	92	-	-	22,673	-	-
ά.	56	-	-	56	-	-	19,941
	56.25	-	75 / 75	-	-	21,391	-
	61.2	102	-	-	24,259	-	-
	62	-	-	62	-	-	21,293
	62.25	-	83 / 83	-	-	22,833	-

NOTE: Weights provided do not include ground engaging tools or harrows.

### **MACHINE SPECIFICATIONS - AUSTRALIA - METRIC UNITS**

### IMPLEMENT DIMENSIONS

F	Frame Width (Meters)			Number of Shanks for the following shank spacing widths			Width of Cut (Meters) for the following shank spacing widths			Width	Transport Height	Overall Length
	center	inner	outer	183 mm	229 mm	305 mm	183 mm	229 mm	305 mm	(Meters)	(Meters)	(Meters)
	3.96	-	1.83	43	-	-	7.9	-	-	5.7	3.8	7.7
	3.96	-	1.83	-	35	-	-	8	-	5.7	3.8	7.7
	3.96	-	1.83	47	-	-	8.6	-	-	5.7	3.8	7.7
	3.96	-	1.83	-	-	29	-	-	8.8	5.6	3.8	7.7
<i>(</i> <b>0</b>	3.96	-	1.83	-	39	-	-	8.9	-	5.7	3.8	7.7
dels	3.96	-	2.74	57	-	-	10.4	-	-	5.7	4.6	7.7
Moe	3.96	-	2.74	-	-	35	-	-	10.7	5.6	4.6	7.7
l nc	3.96	-	2.74	-	47	-	-	10.8	-	5.7	4.6	7.7
3-Section Models	4.88	-	2.74	62	-	-	11.3	-	-	6.6	4.6	8
Şe	4.88	-	2.74	-	-	38	-	-	11.6	6.6	4.6	8
Ś	4.88	-	2.74	-	51	-	-	11.7	-	6.6	4.6	8
	3.96	-	3.66	-	-	41	-	-	12.5	5.7	5.5	7.7
	3.96	-	3.66	-	55	-	12.6	-	-	5.7	5.5	7.7
	4.88	-	3.66	-	-	44	-	-	13.4	6.6	5.5	8
	4.88	-	3.66	68	-	-	12.4	-	-	6.6	5.5	8
	4.88	-	3.66	-	59	-	-	13.5	-	6.6	5.5	8
	3.96	2.74	1.83	77	-	-	14.1	-	-	6.6	4.2	8
	3.96	2.74	1.83	-	-	47	-	-	14.3	6.6	4.2	8
	3.96	2.74	1.83	-	63	-	-	14.4	-	5.7	4.2	8
G	4.88	2.74	1.83	82	-	-	15	-	-	6.6	4.2	8
dels	4.88	2.74	1.83	-	-	50	-	-	15.2	6.6	4.2	8
Mo	4.88	2.74	1.83	-	67	-	-	15.3	-	6.6	3.3	8
luo	4.88	3.66	1.83	92	-	-	16.8	-	-	6.6	5.1	8
ctic	4.88	3.66	1.83	-	-	56	-	-	17.1	6.6	5.1	8
5-Section Models	4.88	3.66	1.83	-	75	-	-	17.2	-	6.6	5.1	8
5	4.88	3.66	2.74	102	-	-	18.7	-	-	6.6	5.1	8
	4.88	3.66	2.74	-	-	62	-	-	18.9	6.6	5.1	8
	4.88	3.66	2.74	-	83	-	-	19	-	6.6	5.1	8

NOTE: Dimensions include sweeps - 305 mm sweeps on 183 mm or 229 mm shank spacing, and 410 mm sweeps on 305 mm shank spacings. Specifications subject to change without notice.

### **IMPLEMENT WEIGHT**

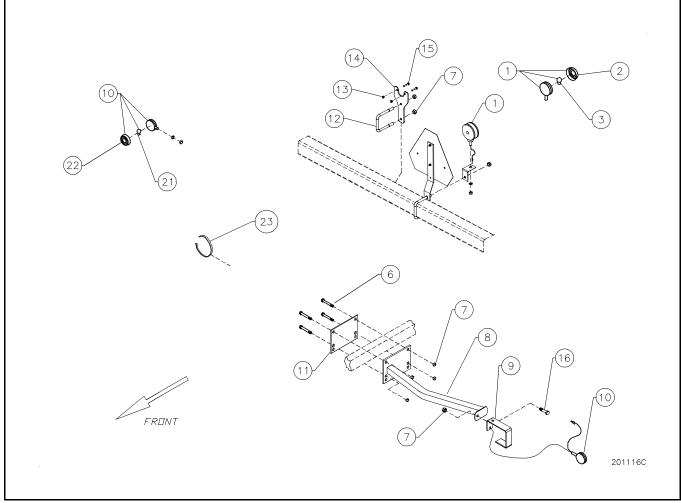
		N	umber of Shanl	~	Т	otal Weight (k	g)
		N		15	160 kg trips	250 kg trips	295 kg trips
Base Model Width (Meters)		183 mm Shank Spacing	229 mm and 229 mm alternate Shank Spacing	305 mm Shank Spacing	183 mm Shank Spacing	229 mm and 229 mm alternate Shank Spacing	305 mm Shank Spacing
	7.9	43	-	-	5,433	-	-
	8	-	35 / 35	-	-	5,283	-
	8.6	47	-	-	5,717	-	-
	8.8	-	-	29	-	-	5,179
<u>s</u>	8.9	-	39 / 39	-	-	5,523	-
ode	10.4	57	-	-	6,471	-	-
ž	10.7	-	-	35	-	-	5,754
lior	10.8	-	47 / 47	-	-	6,154	-
3-Section Models	11.3	62	-	-	6,823	-	-
3-6	11.6	-	-	38	-	-	6,027
	11.7	-	51 / 51	-	-	6,436	-
	12.5	-	-	41	-	-	6,497
	12.6	-	55 / 55	-	-	6, 987	-
	13.4	-	-	44	-	-	6,789
	12.4	68	-	-	7,457	-	-
	13.5	-	59 / 59	-	-	8,324	-
	14.1	77	-	-	9,060	-	-
	14.3	-	-	47	-	-	8,035
	14.4	-	63 / 63	-	-	8,558	-
S	15	82	-	-	9,431	-	-
del	15.2	-	-	50	-	-	8,350
Ň	15.3	-	67 / 67	-	-	8,896	-
uo	16.8	92	-	-	10,284	-	-
cti	17.1	-	-	56	-	-	9,045
5-Section Models	17.2	-	75 / 75	-	-	9,703	-
2	18.7	102			11, 004	-	-
	18.9	-	-	62	-	-	9,658
	19	-	83 / 83	-	-	10, 357	-

NOTE: Weights provided do not include ground engaging tools or harrows.

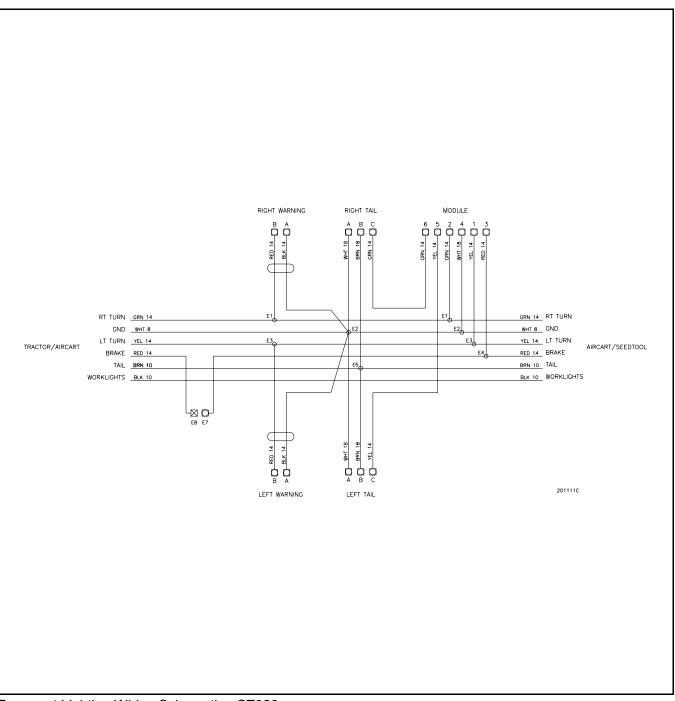
### REFLECTOR DECALS, SLOW MOVING VEHICLE SIGN AND TRANSPORT LIGHTING

REF	DESCRIPTION	REF	DESCRIPTION
1	TAIL LIGHT ASSEMBLY, RED	10	LIGHT ASSEMBLY, WARNING - AMBER
2	LENS, RED	11	BACKING PLATE, UNIVERSAL
3	BULB, DOUBLE CONTACT	12	U-BOLT SQ .5" X 4.125"W X 5.25"D
4	MOUNT BRACKET, RED LIGHT	13	LOCKNUT .313" UNC
5	MOUNT BRACKET, RED LIGHT	14	BRACKET, PLUG RECEPTACLE
6	BOLT .5 X 3.5 GR. 5	15	BOLT .313 X 1.5 GR. 5
6	BOLT .5 X 5.5 GR. 5	16	BOLT .5 X 1 GR. 5
6	BOLT .5 X 7.5 GR. 5	21	BULB, SINGLE CONTACT
7	LOCKNUT .5" UNC	22	LENS, AMBER
8	BRACKET, AMBER LIGHT	23	CABLE TIE STRAP 21"
9	SHIELD, AMBER SAFETY LIGHT	23	CABLE TIE STRAP 14"

Transport Lights, Reflector Decals and SMV Sign



Transport Lighting Assembly



Transport Lighting Wiring Schematic - ST820

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