TURFCO®

OPERATOR'S MANUAL
MAINTENANCE MANUAL
PARTS LIST

TURFCO®
WIDESPIN™
Spinner Attachment

for the
CR-10 Construction-Renovation Unit

Product Number 86154

Manual Number 662922

DANGER - IF INCORRECTLY USED THIS MACHINE CAN CAUSE SEVERE INJURY. THOSE WHO USE AND MAINTAIN THIS MACHINE SHOULD BE TRAINED IN ITS PROPER USE, WARNED OF ITS DANGERS, AND SHOULD READ THE ENTIRE MANUAL BEFORE ATTEMPTING TO SET-UP, OPERATE OR SERVICE THE MACHINE.

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Service Level Maintenance

WARNING

THE FOLLOWING SERVICE AND ADJUSTMENT PROCEDURES ARE FOR QUALIFIED SERVICE LEVEL PERSONNEL ONLY.

TO AVOID SERIOUS INJURY,
Do Not Attempt To Service any Part of the Spinner Attachment or the CR-10 Unit When It Is Operating.

TO AVOID SERIOUS INJURY,
Always Follow All Safety Hazard Warnings. Work Safely And Wear The Appropriate Safety Gear When Servicing The CR-10 Unit and the Spinner Attachment.

Properly Secure The CR-10 Unit Before Starting Any Adjustment, Service or Lubrication Procedures.

LATCH ASSEMBLY ADJUSTMENT *(See Figure 8)*

When the latch assemblies are installed on the CR-10 Unit, they should provide a positive "drawing" force on the attachment. This force must be tight enough to properly secure the attachment to the CR-10 Unit. The latch assembly handle should require a firm (but not excessive) force to close the latch assembly handle into its locked position.

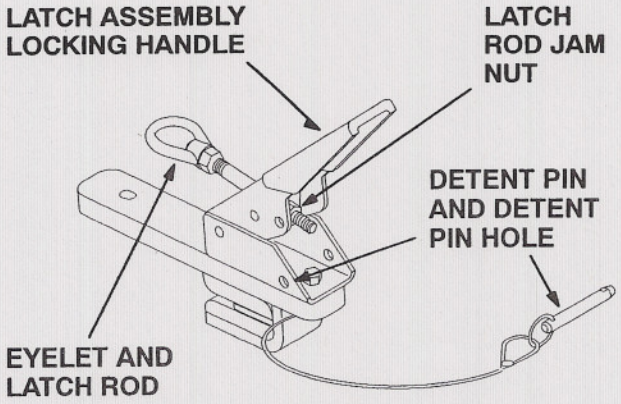


FIGURE 8

If the latch assembly or the attachment is loose (or too tight) when installed, an adjustment to the latch assembly draw can be made. Loosen the rear jam nut on the latch rod and turn the rod to adjust. Do not loosen the jam nut at the eyelet and turn the eyelet to adjust. Check the setting before locking the jam nut.

Before adjusting the latch rod, check that the latch assemblies can be fully inserted into the pockets on the CR-10 Unit attachment mounting brackets. Also check the condition of the latch pins on the mounting brackets.

LEFT AND RIGHT HAND SPINNER WHEELS

The spinner wheels receive hydraulic power from the CR-10 Unit. The spinner wheels start to operate as soon as the CR-10 hand held switch is in the ON (I) position for the attachment. Direction of rotation is opposite from each other. The left hand wheel spins clockwise, the right hand wheel spins counterclockwise (as viewed from the rear of the CR-10). The spinner wheels are a direct drive from the hydraulic motors. Check the following items to troubleshoot the spinner wheels:

- Check for a buildup of material on the surfaces of the spinner wheels and vanes. Check for a buildup of material or obstructions caught under the spinner wheels.
- Check for restricted operation with other components. Spinner wheels should not rub on the directional shields. Check for loose or out-of-position spinner shields.
- Check for loose hydraulic motors or out-of-position hydraulic motors (Additional information can be found in the Hydraulic Section).
- Check for damaged hydraulic hoses or fittings.
- Check the hydraulic solenoid valve (located near the attachment speed control) on the CR-10 Unit. hydraulic motors or out-of-position hydraulic motors (Additional information can be found in the CR-10 Unit manual in the Hydraulic Section).
- Check for loose electrical connections on the CR-10 hand held switch (Additional information can be found in the CR-10 Unit manual in the Electrical Section).

Refer to "Adjusting WideSpin Spinner Vane Angle" in this section for information regarding vane and settings and adjustment.

CR-10 ELECTRICAL SYSTEM

The Spinner Attachment does not have any electrical components of its own. The ON/OFF function is part of the main CR-10 Unit and the CR-10 hand held ON/OFF switch. Refer to the CR-10 Construction-Renovation Unit manual for information regarding the CR-10 electrical system.

ADJUSTING WIDE*SPIN* SPINNER DIVERTER
(See Figure 9 and 10)

The diverter controls the amount of overlap occurring in the center of the spread (See Figure 9). Normal adjustments to the spinner tilt control, attachment speed control and the CR-10 metering gate will usually correct any overlap problems in the spread pattern. However, because of the large variations in different types, weights and moisture contents of top dressing materials, it may be necessary to also readjust the diverter.

The diverter is adjustable up and down. The lower the diverter is set, the more "trimming effect" it will have on controlling the amount of overlap.

- Loosen both diverter locking nuts.
- Slide diverter up or down, retighten lock nuts.

Additional overlap control can be done by changing the vane angle. Refer to "Adjusting WideSpin Spinner Vane Angle" on the next page.

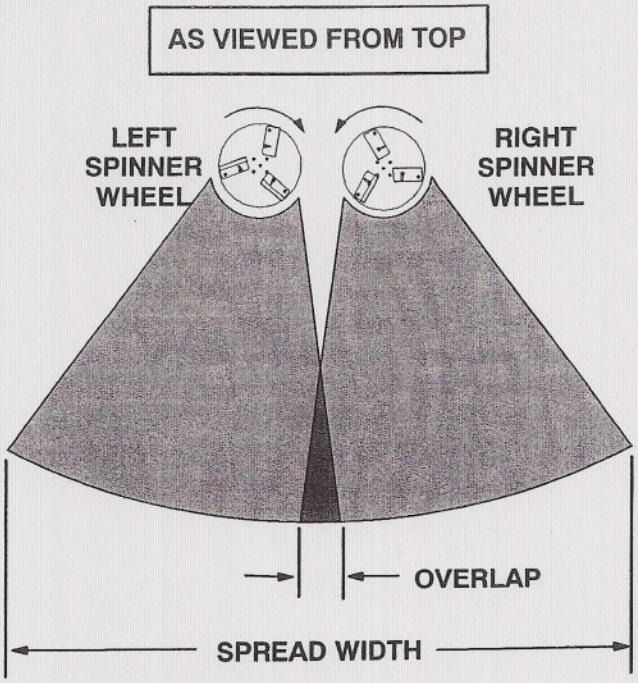


FIGURE 9

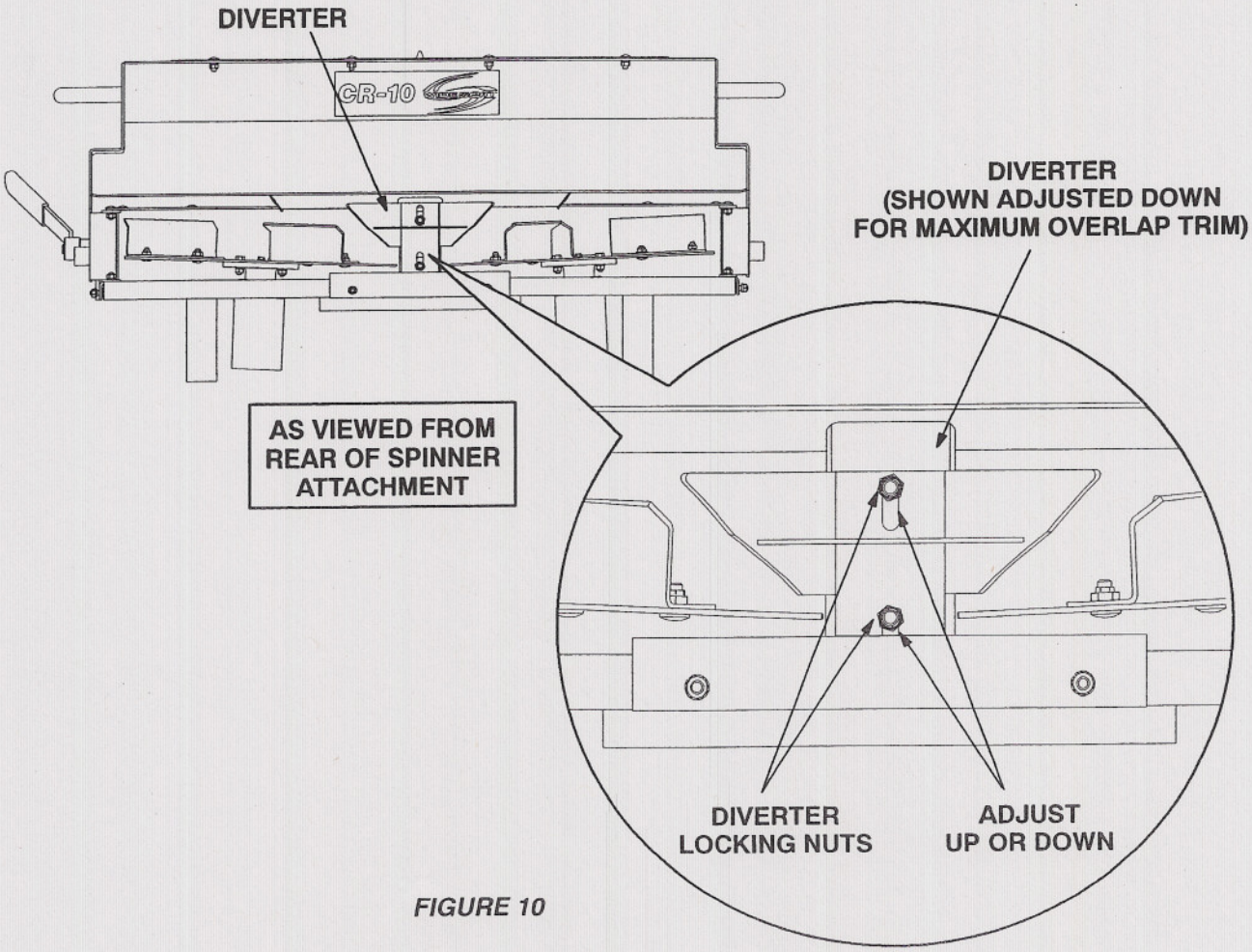


FIGURE 10

ADJUSTING WIDE*SPIN* SPINNER VANE ANGLE
(See Figure 9 and Figure 11)

The mounting angle of the vanes on the spinner wheels is adjustable. Changing the angle of the vanes will vary the width, pattern and overlap of the spread. Normal adjustments to the spinner tilt control, spread diverter, the attachment speed control and the CR-10 metering gate will usually correct any problems in the spread pattern. However, because of the large variations in different types, weights and moisture contents of top dressing materials, it may be necessary to change the vane mounting angles.

Decreasing the vane angle tightens up the spread pattern (more overlap in the center and a narrower spread width). Increasing the vane angle and opens up the spread pattern (less overlap in the center and a wider spread width).

Start adjustment at the minimum vane angle (standard factory vane angle setting).

- Loosening the locking nut on the vane. (It is not necessary to loosen the nut on the other end of the vane.)
- Move the vane approximately 1/4 the length of the slot and retighten the locking nut.
- Adjust all vanes equally. Test and readjust as needed.

NOTE: Because the right and left spinner wheels rotate in opposite direction, the right and left vanes are a mirror image of each other (See Figure 11).

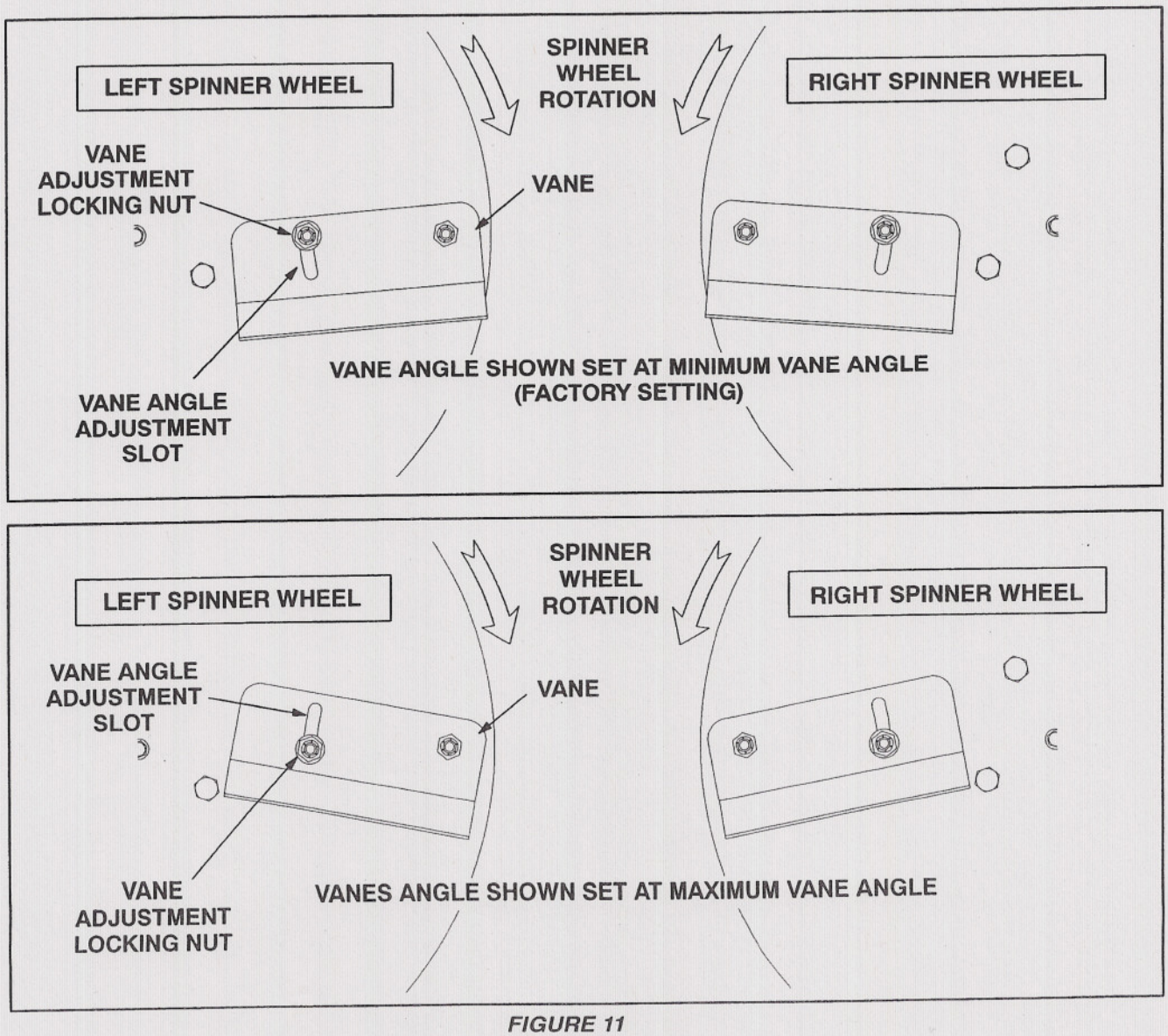


FIGURE 11

HYDRAULIC SYSTEM *(See Figure 12)*

DANGER

TO AVOID SERIOUS INJURY, Never Service Any Part Of The Hydraulic System With The Pump Operating. High Hydraulic Pressure And High Oil Temperatures Can Cause Serious Injury Or Death.

Do Not Use Your Fingers Or Hands To Check For Hydraulic Leaks. High Pressure Leaks Can Puncture The Skin And Force Oil Into The Body. This Can Cause Severe Injury Or Death.

Be Aware of High Hydraulic Oil Temperatures. Serious Burns and Injuries Are Possible.

Check the condition of the hydraulic hoses. Leaks and worn hoses should be fixed or replaced before the machine is put into service. The hydraulic system has pipe thread fittings on some of the components. If disassembled, reseal the pipe thread fitting with Teflon® tape or pipe dope. The steel hydraulic piping is equipped with flared fittings that do not require the use of Teflon® tape or pipe dope.

HYDRAULIC OIL

Hydraulic fluid to operate the Spinner Attachment is provided by the tractor. Check the fluid level at the tractor to assure that proper fluid levels and volume is being supplied to both the CR-10 Unit and the Spinner Attachment.

DRAINING SPINNER ATTACHMENT HYDRAULIC SYSTEM

The hydraulic system is self-bleeding and does not normally store or retain any pressure when not in operation. However, in the event of failure of certain components, hydraulic pressure can be trapped in the system. Before servicing any component, check for any remaining hydraulic pressure.

- Allow time for the hydraulic oil in the system to cool.
- Disconnect the quick release fittings from the CR-10.
- Be prepared to safely catch and contain approximately 0.47 liter (1/2 quart) of hydraulic oil.

Draining the spinner attachment hydraulic system can be done by removing the male quick release fitting from the end of the PRESSURE IN hose.

HYDRAULIC SCHEMATIC

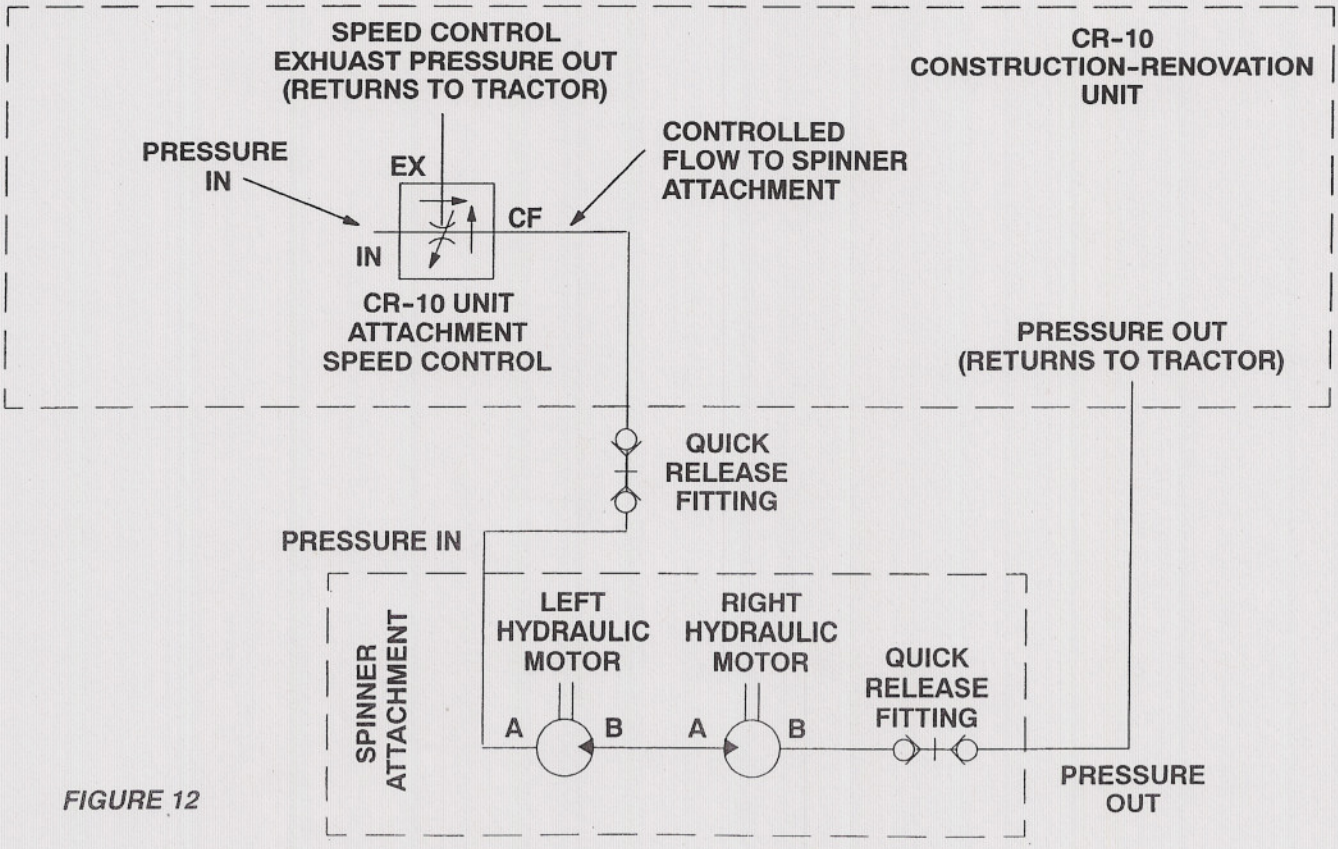


FIGURE 12

⚠ WARNING ⚠

TO AVOID SERIOUS INJURY,
Be Aware of the Possibility of Trapped High Pressure in the Hydraulic System.
Always Wear the Proper Personnel Safety Gear When Servicing the Hydraulic System.

Some hydraulic oil will always remain in the system and in the components. Always be prepared to properly catch and contain any remaining hydraulic oil when servicing the hydraulic system components.

SPINNER WHEEL HYDRAULIC MOTORS

The hydraulic motors power the spinner wheels. The motor operates at 723 RPM @ a continuous flow rate of 56.8 liters per minute (15 gallons per minute) and a maximum continuous operating pressure of 124.11 bar (1800 PSI).

The hydraulic lines are routed to operate the motors in opposite directions. Rotation of the left hand motor (spinner wheel) is clockwise. Rotation of the right hand motor (spinner wheel) is counterclockwise. Rotations are as viewed from the rear of the CR-10 looking forward.

If the motors are operating in reverse or operating in the same direction, check the possibility of reversed connections at the hoses suppling pressure to the motor.

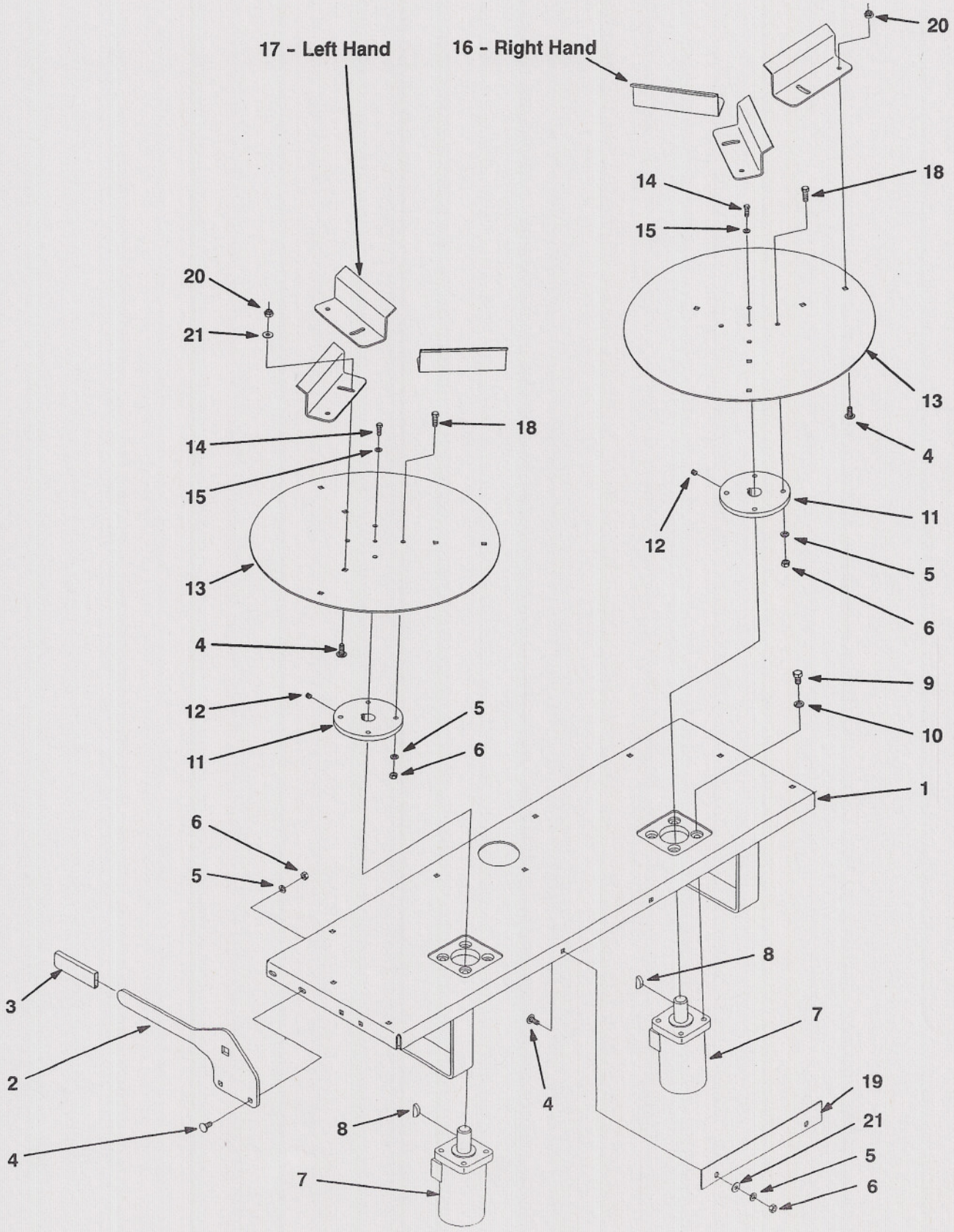
If the hydraulic motor fails to operate, check the following:

- Quick-disconnects not properly attached.
- Low oil level in tractor.
- Damaged or non-functional CR-10 Attachment Speed Control Spinner Speed (Refer to CR-10 Unit manual).
- Damaged or non-functional CR-10 hydraulic solenoid valve (Refer to CR-10 Unit manual).
- Tractor relief valve is bypassing all hydraulic power back to the tractor (Refer to Tractor's Operator's Manual).
- Loose motor, check mounting plate, screws and mounting position.
- Jammed, damaged or non-functional hydraulic spinner motors or spinner wheels.

Set Screw Torque Settings

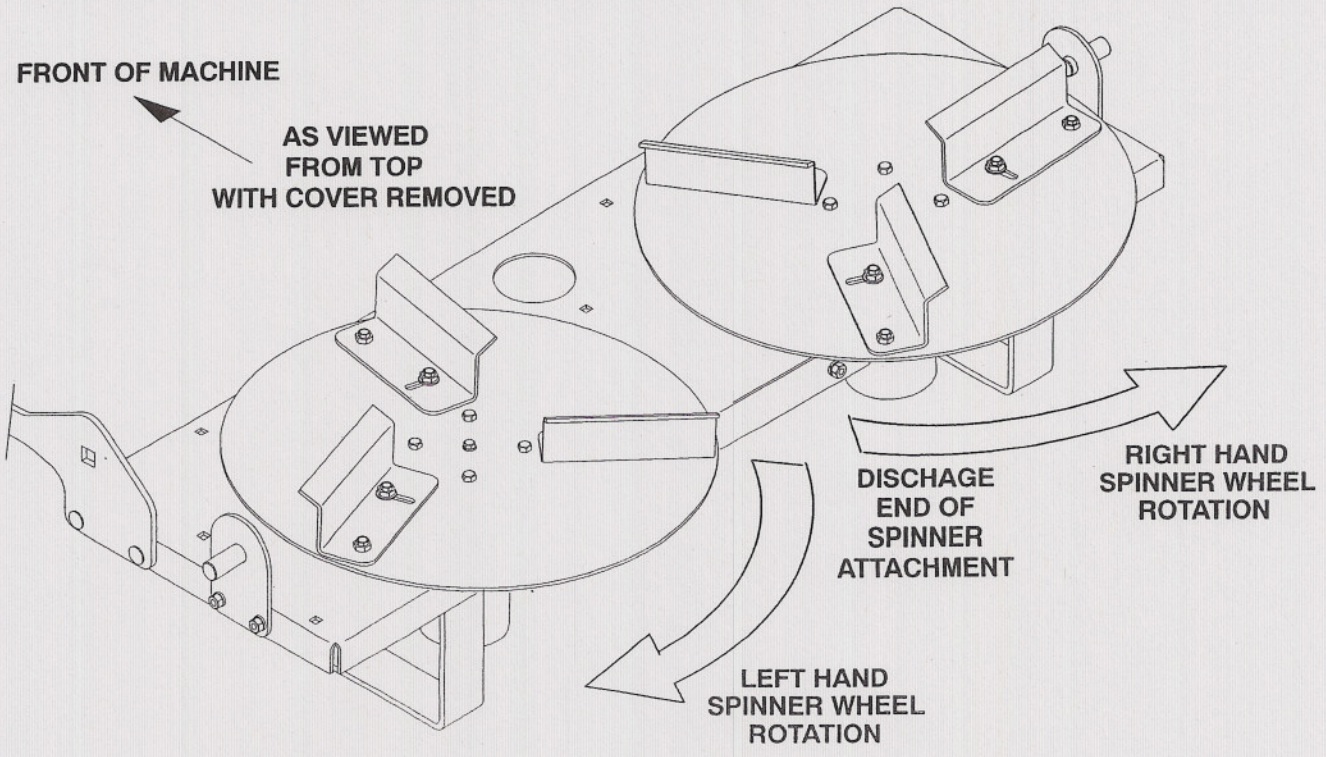
SET SCREW DIAMETER (INCHES)	HEX WRENCH FLAT (INCHES)	TORQUE (INCH-POUNDS)	TORQUE (FOOT-POUNDS)	TORQUE (NM)
.190" (#10)	3/32"	27	2.2	3.1
1/4"	1/8"	63	5.2	7.1
5/16"	5/32"	120	10	13.5
3/8"	3/16"	214	17.8	24.2
7/16"	7/32"	324	27	36.6
1/2"	1/4"	464	38.7	52.4
5/8"	5/16"	994	82.8	112.3

WIDE*SPIN* Spinner Base and Spinner Wheel Assemblies

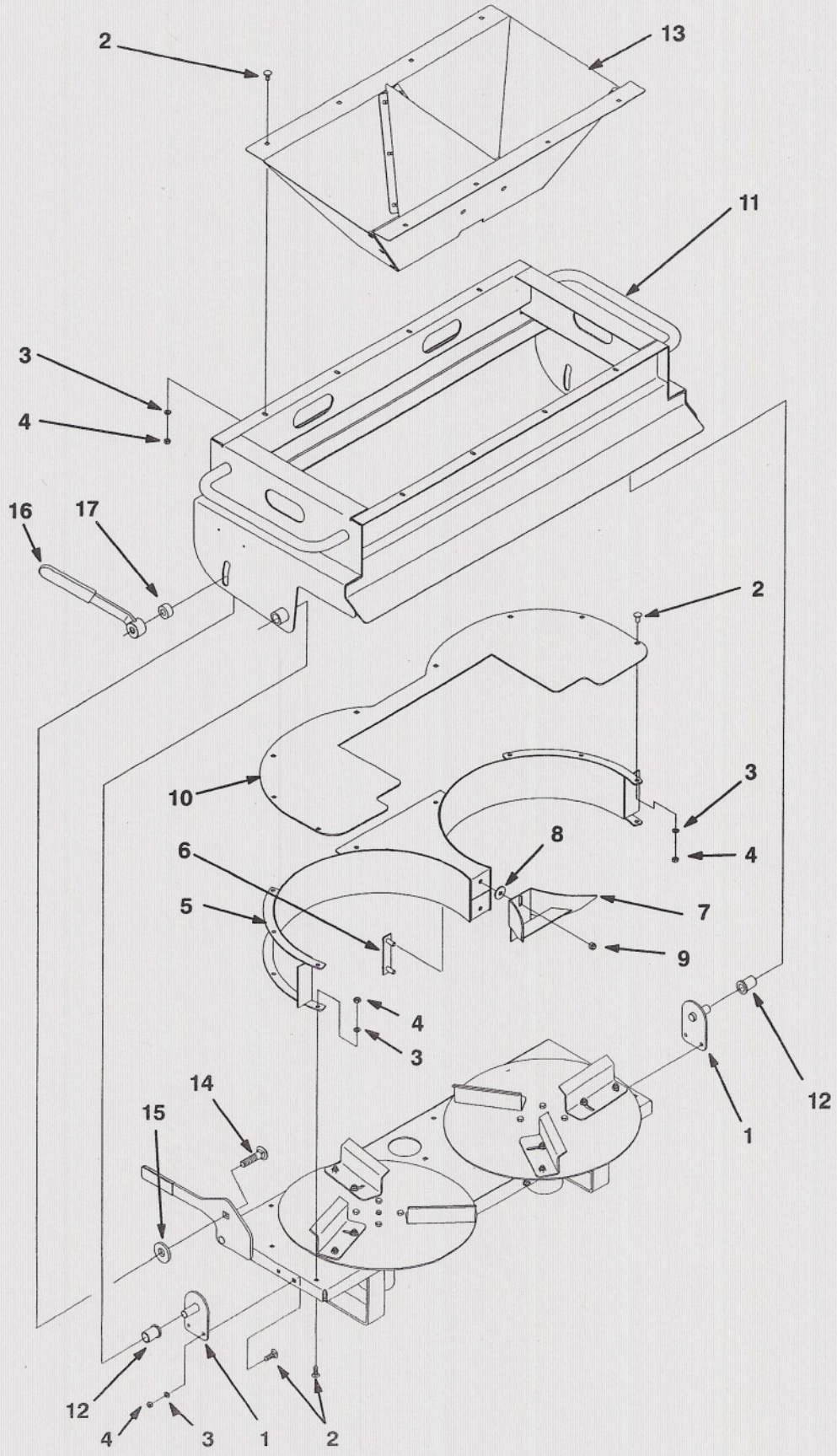


WIDE*SPIN* Spinner Base and Spinner Wheel Assemblies

Item No.	Part No.	Description	Qty.
1	662105	Frame, Spinner	1
2	662110	Handle	1
3	657208	Grip, Handle	1
4	658240	Bolt, Carriage, 5/16"-18 x 3/4"	16
5	446134	Washer, Lock, 5/16"	12
6	443106	Nut, Hex, 5/16"-18	12
7	660617	Motor, Hydraulic, Spinner Wheel	2
8	463031	Key, Woodruff, " x 1"	2
9	400258	Screw, Hex Head, 3/8"-16 x 3/4"	8
10	446142	Washer, Lock, 3/8"	8
11	660700	Coupler, Spinner Wheel to Hydraulic Motor	2
12	415519	Screw, Set, 5/16"-18 x 3/8"	2
13	662911	Plate, Spinner Wheel	2
14	400108	Screw, Hex Head, 1/4"-20 x 3/4"	2
15	446128	Washer, Lock, 1/4"	2
16	662912	Vane, Spinner, Right Hand	6
17	662913	Vane, Spinner, Left Hand	6
18	400188	Screw, Hex Head, 5/16"-18 x 1"	8
19	662902	Retainer, Sand	1
20	444808	Nut, Hex, 5/16"-18 Flexloc	12
21	452004	Washer, Flat, 5/16" ID x 3/4" OD x 1/16" Thick	8



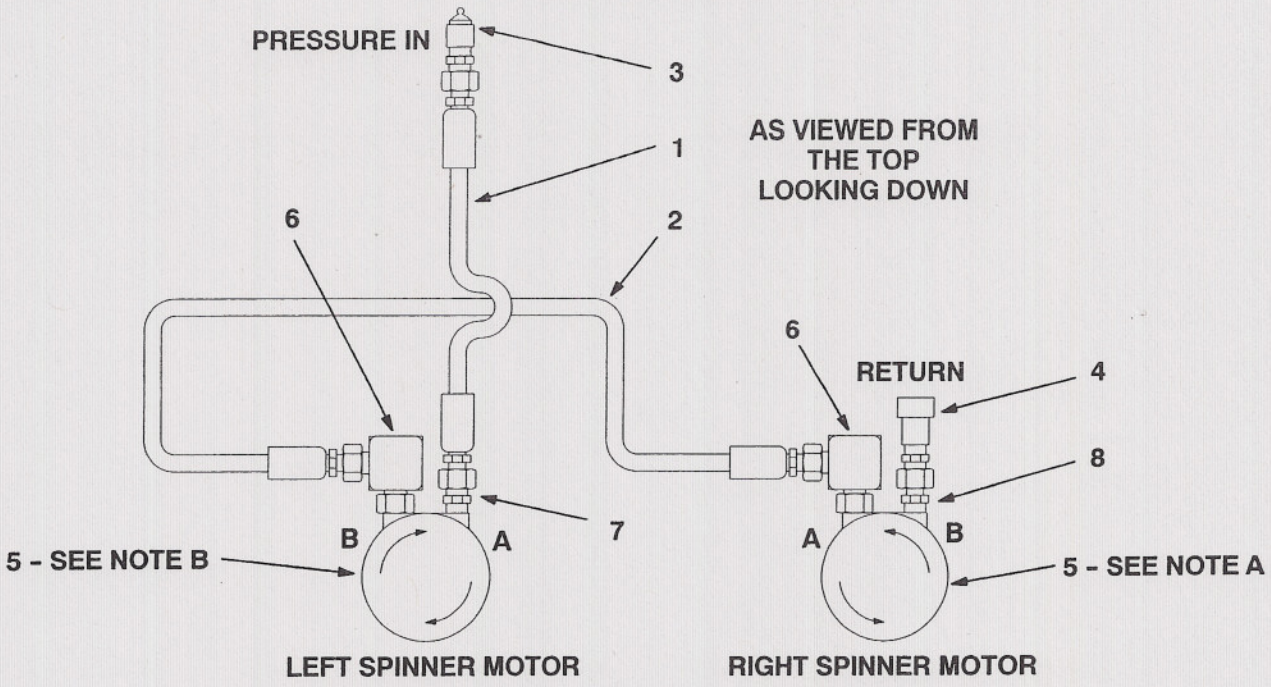
WIDE*SPIN* Spinner Cover and Guide Assembly



WIDE*SPIN* Spinner Cover and Guide Assembly

Item No.	Part No.	Description	Qty.
1	661515	Pivot	2
2	658240	Bolt, Carriage, 5/16"-18 x 3/4"	29
3	446134	Washer, Lock, 5/16"	29
4	443106	Nut, Hex, 5/16" - 18	29
5	662104	Guide, Spinner Assembly	1
6	662915	Bracket, Diverter	1
7	662903	Diverter, CR-10	1
8	499059	Washer, Flat, 0.391" ID x 1-1/4" OD x 3/32" Thick	2
9	444810	Nut, Hex, 3/8"-16 Flexloc	2
10	662108	Cover, Support	1
11	662107	Support, Spinner	1
12	661400	Bearing, Plastic Flange, Iglide	2
13	662908	Hopper, Spinner, WideSpin CR10	1
14	661698	Bolt, Carriage, 5/8"-11 x 2"	1
15	661020	Washer, Special	1
16	659126	Handle, Locking	1
17	661687	Spacer, Handle	1

Hydraulic System



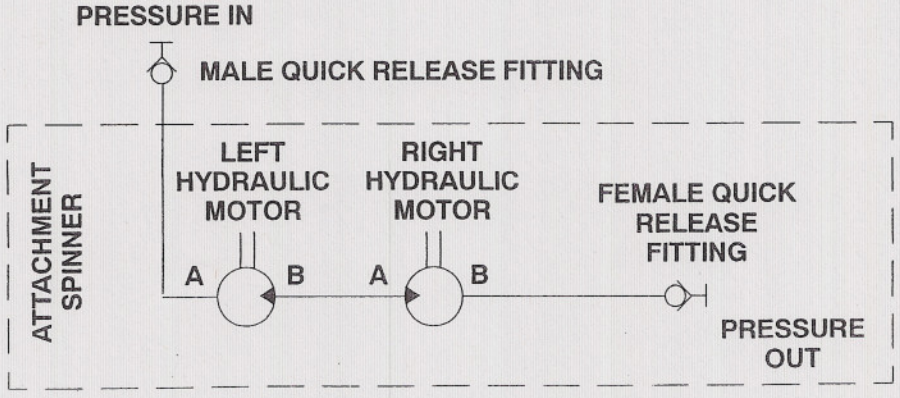
NOTE A:
Shaft Rotation Is Counterclockwise When Looking From The (Shaft End Of Motor).

NOTE B:
Shaft Rotation Is Clockwise When Looking From The Top (Shaft End Of Motor)

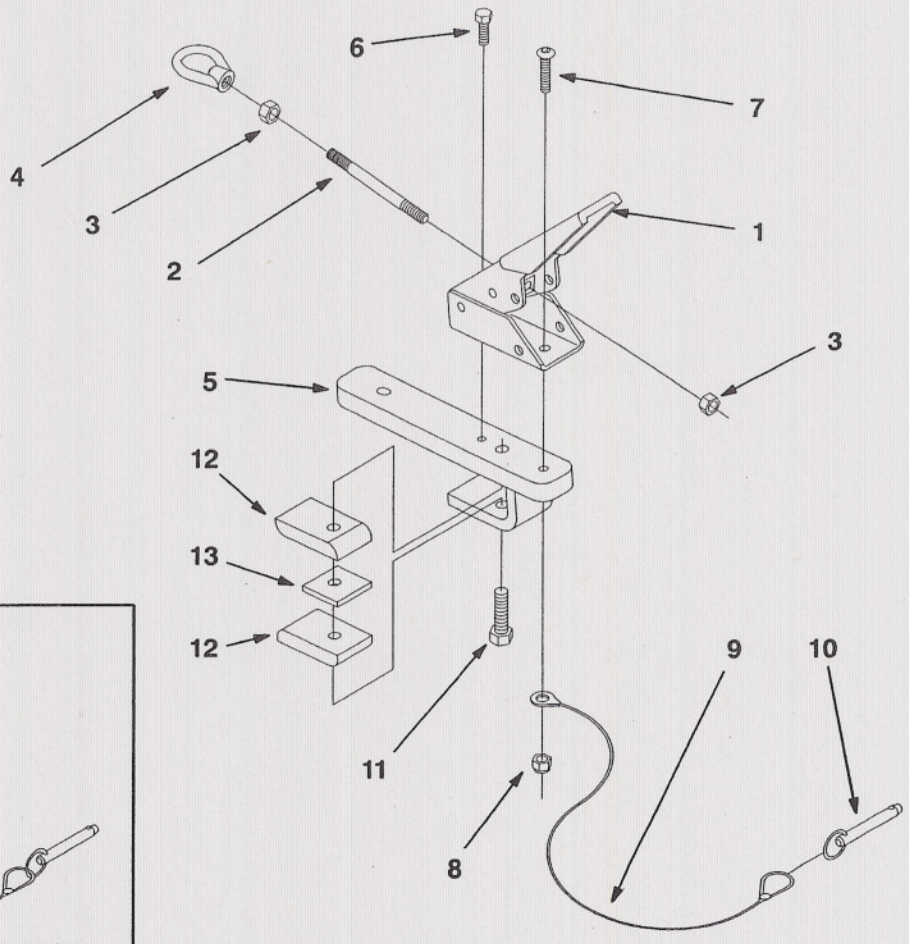
Use Teflon Tape Or Pipe Sealant On All Npt (Pipe Thread) Fittings

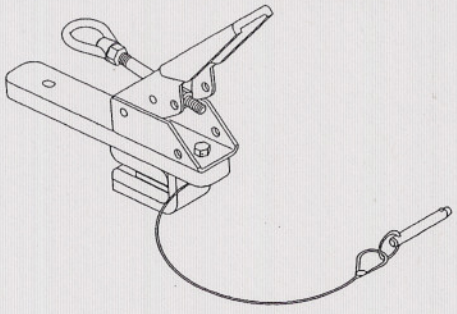
Item No.	Part No.	Description	Qty.
1	661825	Hose Assembly, Quick Disconnect to Hydraulic Motor	1
2	661822	Hose Assembly, Right Spinner Motor to Left Spinner Motor	1
3	661801	Coupler, Quick Disconnect, Male 1/2"	1
4	661802	Coupler, Quick Disconnect, Female 1/2"	1
5	660617	Motor, Hydraulic, Spinner	2
6	659908	Elbow, 7/8"-18 Male O-Ring to 3/4"-16 Male 37 Degree Flare	2
7	657250	Adapter, 7/8"-14 Male O-Ring to 3/4"-16 Male 37 Degree Flare	1
8	661874	Adapter, 7/8"-14 SAE O-Ring to 1/2"-14 Male NPT	1

HYDRAULIC SCHEMATIC



Latch Assembly

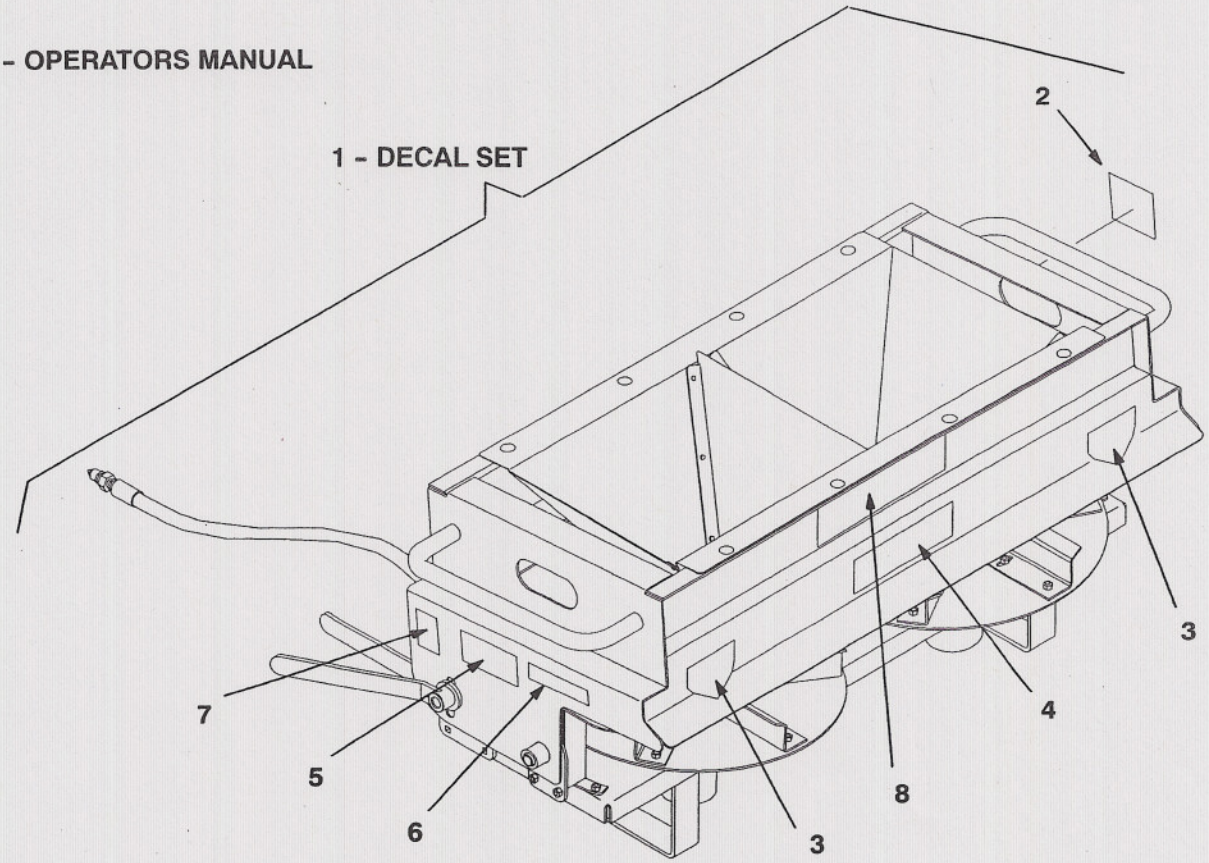




COMPLETE LATCH ASSEMBLY
TURFCO PART NUMBER 661936

Item No.	Part No.	Description	Qty.
1	661927	Latch Draw, Adjustable	1
2	662011	Rod, Latch	1
3	443114	Nut, Hex, 7/16"-14	2
4	662012	Nut, Eye, 7/16"-14	1
5	661937	Base, Latch	1
6	400108	Screw, Hex Head, 1/4"-20 x 3/4"	1
7	662235	Screw, Button Head, 1/4"-20 x 1-1/4"	1
8	444830	Nut, Hex, 1/4"-20 Flexloc	1
9	658327	Lanyard, Nylon	1
10	661939	Pin, Ring, Detent	1
11	400270	Screw, Hex Head, 3/8"-16 x 2"	1
12	661940	Pad, Latch, Plastic	2
13	661941	Spacer, Latch Pad	1

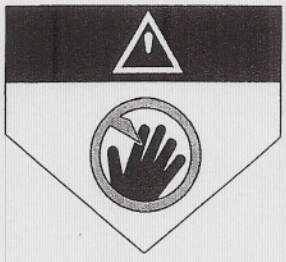
Decals



Item No.	Part No.	Description	Qty.
1	662918	Decal Set, Includes Items 2 Thru 8	1
2		Decal, Product Identification	1
3		Decal, "DANGER - Keep Hands and Feet Away" European and Domestic	2
4		Decal, "DANGER - Stay Clear While Spinners Are Operating" European and Domestic	1
5		Decal, WARNING - High Pressure Fluid Hazard" European and Domestic	1
6		Decal, Warning, "Securely Hitch the CR-10 to the Tractor Before Installing the Spinner Attachment"	1
7		Decal, Warning, Read Manual	1
8		Logo, CR-10 WideSpin	1
9	662922	Manual, Operators, CR-10 Spinner Attachment (Not Shown) Includes Parts List	1

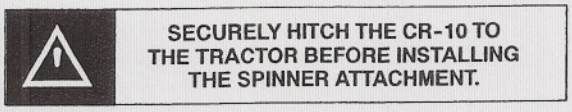
Decals

DOMESTIC

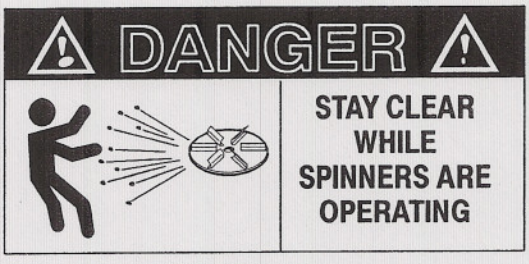


EUROPEAN

A.



B.



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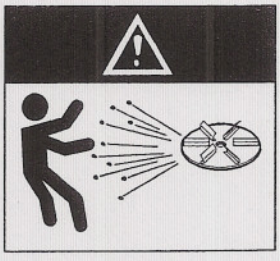

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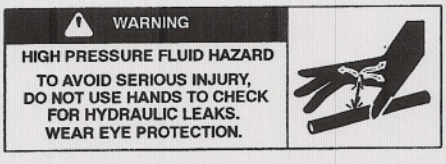
C.

D.



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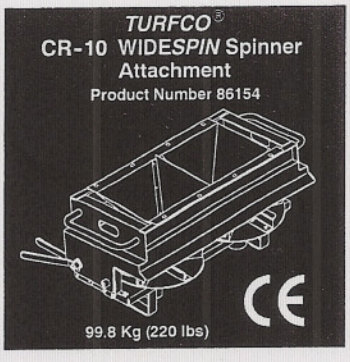
E.



F.

G.

A. DANGER - Hand Hazard Warning
B. Warning - Hitch Before Installation
C. DANGER - Stay Clear While Operating
D. Warning - Read Manual
E. Warning - High Pressure Hydraulics Warning
F. Product Identification
G. CR-10 WideSpin Logo

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