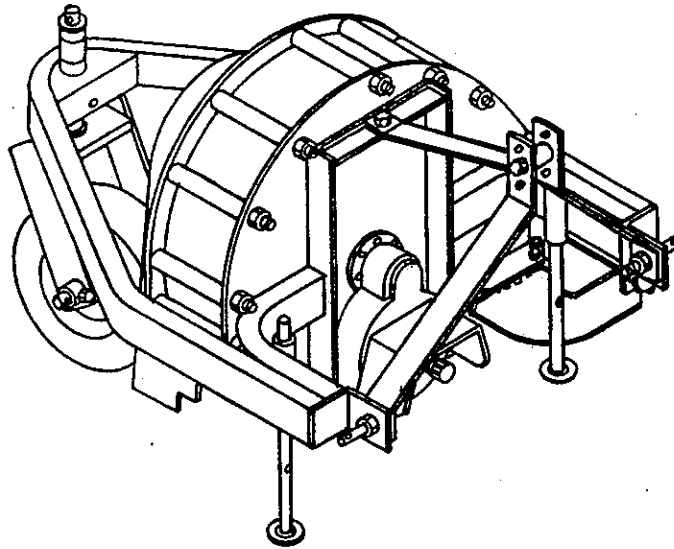


OPERATOR'S MANUAL PARTS MANUAL



3 POINT HITCH DEBRIS BLOWER

CATEGORIE " B "

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TO THE PURCHASER

This new debris blower was carefully designed to give years of dependable service.

This manual has been provided to assist in the safe operation and service of your debris blower.

NOTE: All photographs and illustrations in the manual may not necessarily depict the actual models or equipment, but are intended for reference only and are based on the latest product information available at the time of publication.

Familiarize yourself fully with the safety recommendations and operating procedures before putting the machine to use. Carefully read, understand and follow these recommendations and insist that they be followed by those who work with you.



THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE IT, BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY AND CAREFULLY READ THE MESSAGE THAT FOLLOWS.

Record your debris blower model and serial number. Your dealer requires this information to give you prompt, efficient service when ordering parts or attachments. Service with genuine **RAD** parts when replacement parts are required.

Right hand and left hand are determined by sitting on tractor seat facing forward.

MODEL: _____ **SERIAL NUMBER:** _____ **DATE PURCHASED** _____



SAFETY PRECAUTIONS

WHENEVER YOU SEE THIS SYMBOL



IT MEANS :

ATTENTION !

BECOME ALERT !

YOUR SAFETY IS INVOLVED !



The signal word "DANGER" signifies that a source of extreme danger to a person on or near a machine exists as a result of the very nature of the machine itself. This danger to persons is such that it would result in a high likelihood of death or permanent injury if the recommended precautions are not taken.



The signal word "WARNING" indicates that a source of danger to a person on or near a machine exists which may result in death or injury if the recommended precautions are not taken.

A CAREFUL OPERATOR IS THE BEST OPERATOR. MOST ACCIDENTS CAN BE AVOIDED BY OBSERVING CERTAIN PRECAUTIONS. READ AND TAKE THE FOLLOWING PRECAUTIONS BEFORE OPERATING THESE ATTACHMENTS TO HELP PREVENT ACCIDENTS. EQUIPMENT SHOULD BE OPERATED ONLY BY THOSE WHO ARE RESPONSIBLE AND INSTRUCTED TO DO SO.

GENERAL PREPARATION

1. Read this manual carefully to acquaint yourself with the equipment as well as the tractor operator's manual. Working with unfamiliar equipment can lead to accidents. Be thoroughly familiar with the controls and proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
2. Keep hands, feet, and clothing away from power driven parts.
3. Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable noises.
4. Reduce noise level (lower RPM) when working near hospitals or in the vicinity of people, etc.
5. Eye protection must be worn at all times.
6. Always use a dust mask when working in dusty conditions.
7. Keep safety decals clean of dirt and grime.
8. Be sure the PTO is in OFF position before starting the engine.

OPERATION AND MAINTENANCE

THE FOLLOWING PRECAUTIONS ARE SUGGESTED BEFORE OPERATING THIS ATTACHMENT TO HELP PREVENT ACCIDENTS.

1. Never allow children to operate equipment. Never allow adults to operate equipment without proper instruction.
2. Very high velocity discharge can project objects with considerable force up to 75 feet from machine.
3. Keep the area of operation (75 feet from machine) clear of all persons and animals.
4. Never allow passengers to ride on the attachment.
5. Never operate the attachment without good visibility and lighting.
6. Never operate the attachment without guards, shields and other safety protective devices in place.
7. Never direct discharge toward bystanders, buildings, cars, etc.
8. Disengage power to attachment when transporting or when not in use.
9. Stop engine and remove ignition key before leaving operator's position.
10. Take all possible precautions when leaving the vehicle unattended; disengage the PTO, lower the attachment, set the parking brake, stop the engine and remove the key.
11. Wait for all movements to stop before starting to adjust, lubricate, clean the attachment.
12. Keep plastic materials away from intense heat and open flame.
13. If the debris blower should start to vibrate abnormally, stop the engine immediately and check for the cause. Vibration is generally a warning of trouble.
14. Periodically inspect all moving parts for wear and replace with authorized service parts if an excessive amount of wear is present.

15. Do not modify or alter this equipment or any of its components, or any equipment function without first consulting your dealer.
16. Replace all missing, illegible, or damaged safety decals. See list of decals at the end of this manual.

THE TRACTOR

1. Read the Operator's Manual carefully before using tractor. Lack of operating knowledge can lead to accidents.
2. Always use an approved Roll Over Protective Structure and seat belt for safe operation. Overturning a tractor without a ROPS can result in death or injury. If your tractor is not equipped with a ROPS and seat belt, see your dealer.
3. Always use the seat belt when the ROPS is installed. Do not use the seat belt if the ROPS is removed from the tractor.
4. Use the handholds and step plates when getting on and off the tractor to prevent falls. Keep steps and platform cleared of mud and debris.
5. Do not permit anyone but the operator to ride on the tractor. There is no safe place for extra riders.
6. Never run the tractor engine in a closed building without adequate ventilation as the exhaust fumes are very dangerous.
7. Use an SMV (slow moving vehicle) emblem and the flasher warning lamps when traveling on public roads, day or night, unless prohibited by law in your area.
8. Never park the tractor on a steep incline.
9. Use care when backing up.
10. Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for the hidden hazards of traffic. Always drive tractor at speed compatible with safety

OPERATION

OPERATING CONTROLS

Manual Nozzle Rotation

The nozzle (fig.1, item 1) can be rotated 230°. Set direction of the nozzle by turning the handle clockwise to rotate nozzle toward tractor or counterclockwise to rotate nozzle away from tractor.

Engaging & Disengaging Blower

Refer to tractor operator's manual for proper instructions on PTO operation and adjustments.

Optional Hydraulic Nozzle Rotation

Use the auxiliary valve handle: when pushed forward the nozzle rotates in a counterclockwise direction to the left, and when pulled back the nozzle rotates to the right in a clockwise direction.

Optional Electric Nozzle Rotation

Placing the toggle forward, rotates the nozzle toward the tractor. Placing the toggle backward, rotates the nozzle away from the tractor. If movements are different simply reverse motor lead wires.

Optional Electric Nozzle Deflector

Placing the toggle forward, lowers the deflector (fig.1, item 2). Placing the toggle to the rear raises the deflector. (If movements are different simply reverse actuator lead wires).

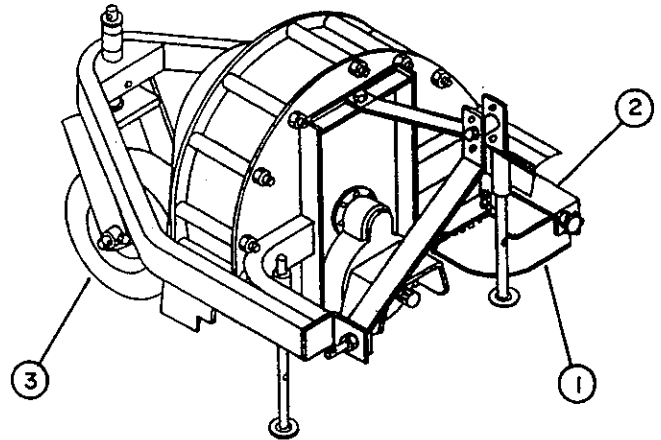


FIGURE 1

ADJUSTMENTS



WARNING: Before making any adjustment, turn engine off, set parking brake, remove ignition key and wait for all movements to stop.

Nozzle Deflector

To adjust the deflector (fig.1, item 2), loosen knob, select angle and fasten knob securely.

Front Gauge Wheel

Set gauge wheel (fig.1, item 3) height according surface conditions (make sure nozzle clears the ground in all conditions). To set height, remove linch pin from wheel bracket, place the sleeve spacers either on upper or lower side of blower frame, and reinstall the linch pin.

Tire Pressure

Inflate to 20 psi and check daily.

Hydraulic Lines (If equipped)

Check hoses for leaks using cardboard every 100 hours of operation or monthly.

LUBRICATION

Air Blast Nozzle

Oil base every 24 hours of operations.

Front Wheel

Grease the fitting every 8 hours of operation.

Gearbox

Check oil level by side plug (fig.1, item 1) every 40 hours of operation or monthly. Make sure oil is up to the level plug, if not add SAE 90 oil. Replace oil every 100 hours of operation or yearly.

Driveline

Grease each u-joint fitting every 8 hours of operation. Slide drive shaft apart and coat sliding surfaces with grease every 24 hours of operation.

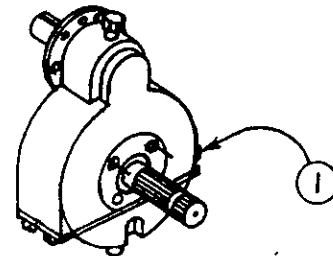


FIGURE 1

DISMOUNTING

- a) Raise blower approximately 2" from ground. Stop engine, set parking brake and remove ignition key.
- b) Carefully set parking stands in most extended position by placing hair pins on underside stand supports.
- c) Set blower in float position and relieve hydraulic pressure.
- d) Disconnect driveline from tractor PTO shaft and option(s) wires & hoses (if equipped).
- e) Disconnect tractor upper and lower hitch arms from blower. Move tractor away from attachment.

ASSEMBLY

STEP 1: ATTACHING DEBRIS BLOWER

- a) Insert nozzle rotation handle (fig.1, item 1) through handle support (fig.1, item 2) on attaching frame, and inside rotation tube (fig.1, item 3). Lock in place with a 10-24 x 1" allen capscrew and a nylon lock nut. Do not tighten.
- b) Attach tractor upper and lower links to blower attaching frame (fig.2, item 1). Adjust anti-sway blocks and upper link so that the main frame is level.
- c) Raise blower approximately 1" off the ground.
- d) Turn engine off, set parking brake, remove ignition key.
- e) Set parking stands (fig.2, item 2) in raised position by placing hair pin on upper side of stand support.
- f) Check full lifting range of the blower to make sure driveline is no too long. If the driveline is too long it must be cut equal on both portion (see instruction sheet). It is important to keep in mind that in all operating positions the two driveline portions must overlap at least 3" (76.2mm).
- g) Connect driveline to tractor PTO shaft.



WARNING: This shaft turns at very high RPM. If the collar is not locked to shaft in gearbox, or if the yoke at the tractor end is not secured properly, the driveline can fly loose with great force capable of causing serious injury or death.

- h) Adjust rotation handle length so that it is convenient to the operator when the blower is fully raised.
- i) Check and adjust all adjustment settings (page 4) and maintenance (page 5).

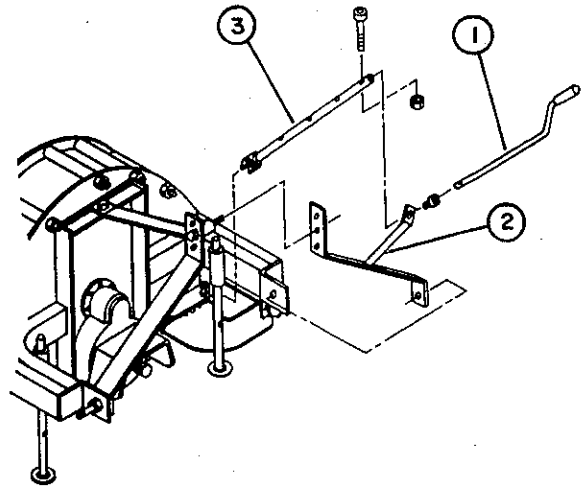


FIGURE 1

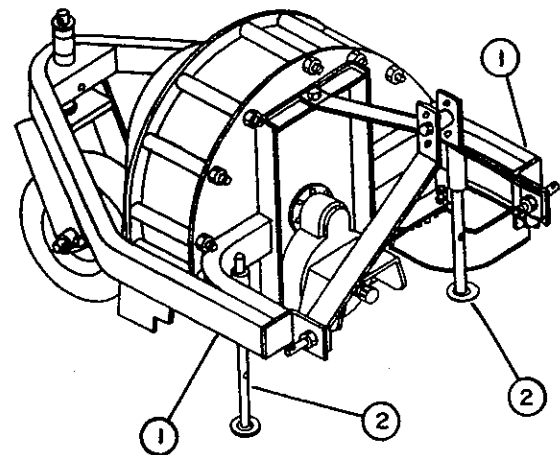


FIGURE 2

OPTIONAL HYDRAULIC NOZZLE ROTATION

- a) Remove rotation support from nozzle base lip, remove rotation worm with joint and handle, and other rear retaining plate.
- b) Insert the 1 11/16" long bushing (fig.7, item 1) in the rotation bracket (fig.7, item 2).
- c) Install longest tube end of rotation worm (fig.7, item 3) in the bushing in rotation bracket.
- d) Insert locking collar (fig.7, item 4) over rotation worm. Install a 1/8" x 3/16" x 1" key in the hydraulic motor shaft keyway.
- e) Install hydraulic motor (fig.7, item 5) on rotation bracket and inside rotation worm. Secure the motor on the rotation bracket using two 3/8" x 1 1/4" bolts, flatwashers (on motor side), lockwashers and nuts. Torque to 35-42 lbs/ft.
- f) Install rotation bracket assembly on upper side of nozzle base lip and worm inside bushing (fig.7, item 6) in tube weldment. Secure assembly with two more retaining plates on under side of nozzle base lip and four 1/4" x 3/4" bolts, lockwashers & nuts. Remove linear play by sliding worm against rotation bracket and locking collar toward worm, tighten the locking collar set screws and all bolts.
- g) Install a connector 7/8" O.R.B. male x 9/16"-18 J.I.C. male (fig.7, item 7) in each port of hydraulic motor. Tighten.
- h) Using thread sealant, attach a male quick coupler with rubber dust cap (fig.7, item 8) (not included) on free end of hoses (dust cap ring must be on hose before installation).

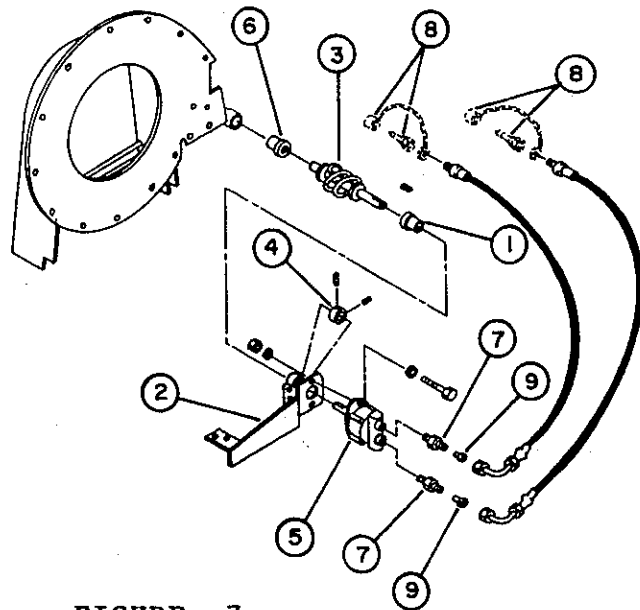


FIGURE 7

- i) Connect the two hydraulic hoses to the motor, placing a flow restrictor (fig.7, item 9) in connector (fig.7, item 7).

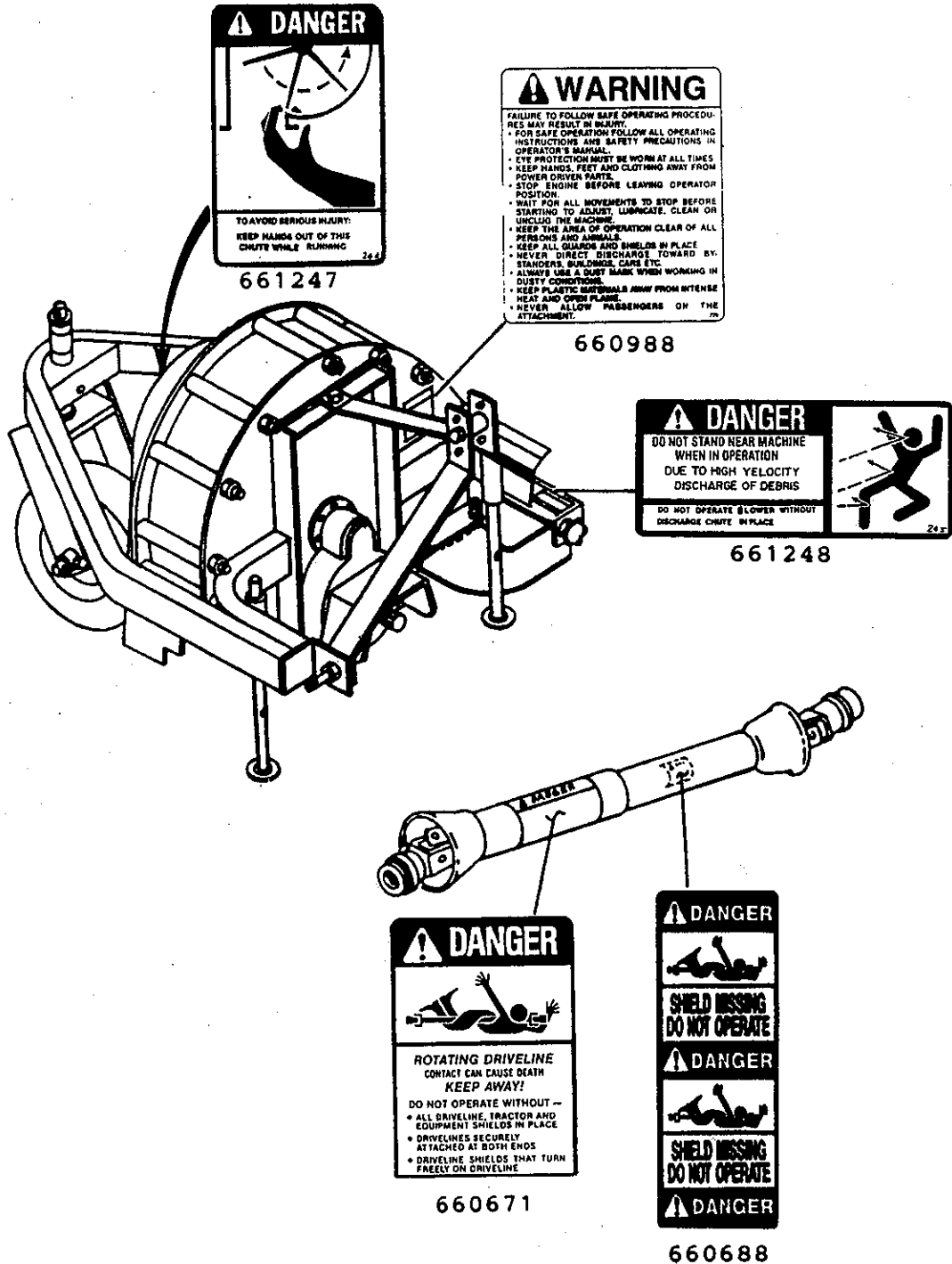
⚠ WARNING: Escaping hydraulic/diesel fluid under pressure can penetrate the skin causing serious injury.

- Do not use your hands to check for leaks. Use a piece of cardboard or paper to search for leaks.
- Stop engine and relieve pressure before connecting or disconnecting lines.
- Tighten all connections before starting engine or pressurizing lines.

If any fluid is injected into the skin, obtain medical attention immediately or gangrene may result.

- j) Connect hoses to tractor couplers. If nozzle rotation movements match operating control description on page 4, identify male couplers to female couplers using the colored plastic rings (if not, relieve pressure and switch coupler location).

REPLACE IMMEDIATELY IF DAMAGED



⚠ DANGER

TO AVOID SERIOUS INJURY:
KEEP HANDS OUT OF THIS
CHUTE WHILE RUNNING

24.4

661247

⚠ WARNING

FAILURE TO FOLLOW SAFE OPERATING PROCEDURES MAY RESULT IN INJURY.

- FOR SAFE OPERATION FOLLOW ALL OPERATING INSTRUCTIONS AND SAFETY PRECAUTIONS IN OPERATOR'S MANUAL.
- EYE PROTECTION MUST BE WORN AT ALL TIMES.
- KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
- STOP ENGINE BEFORE LEAVING OPERATOR POSITION.
- WAIT FOR ALL MOVEMENTS TO STOP BEFORE STARTING TO ADJUST, LUBRICATE, CLEAN OR UNLOAD THE MACHINE.
- KEEP THE AREA OF OPERATION CLEAR OF ALL PERSONS AND ANIMALS.
- KEEP ALL GUARDS AND SHIELDS IN PLACE.
- NEVER DIRECT DISCHARGE TOWARD BYSTANDERS, BUILDINGS, CARS ETC.
- ALWAYS USE A DUST MASK WHEN WORKING IN DUSTY CONDITIONS.
- KEEP PLASTIC MATERIALS AWAY FROM INTENSE HEAT AND OPEN FLAME.
- NEVER ALLOW PASSENGERS ON THE ATTACHMENT.

660988

⚠ DANGER

DO NOT STAND NEAR MACHINE
WHEN IN OPERATION
DUE TO HIGH VELOCITY
DISCHARGE OF DEBRIS

DO NOT OPERATE SLOWER WITHOUT
DISCHARGE CHUTE IN PLACE

24.5

661248

⚠ DANGER

ROTATING DRIVE LINE
CONTACT CAN CAUSE DEATH
KEEP AWAY!

DO NOT OPERATE WITHOUT —

- ALL DRIVE LINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE
- DRIVE LINES SECURELY ATTACHED AT BOTH ENDS
- DRIVE LINE SHIELDS THAT TURN FREELY ON DRIVE LINE

660671

⚠ DANGER

SHIELD MISSING
DO NOT OPERATE

⚠ DANGER

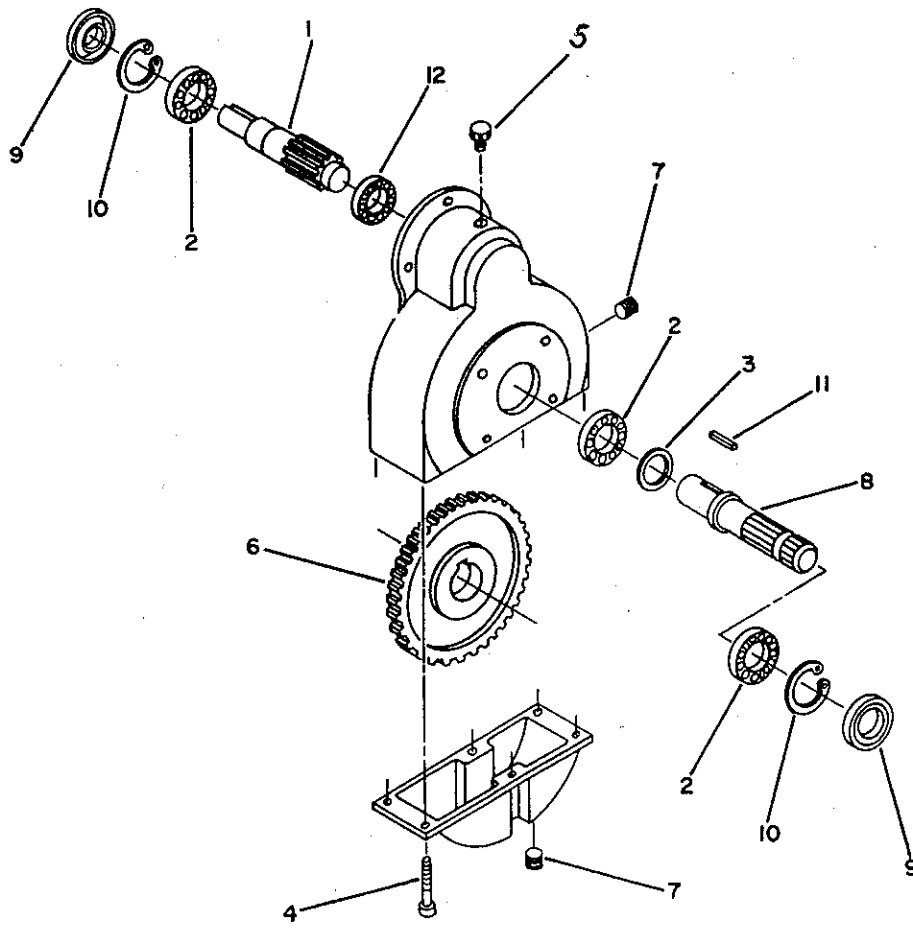
SHIELD MISSING
DO NOT OPERATE

⚠ DANGER

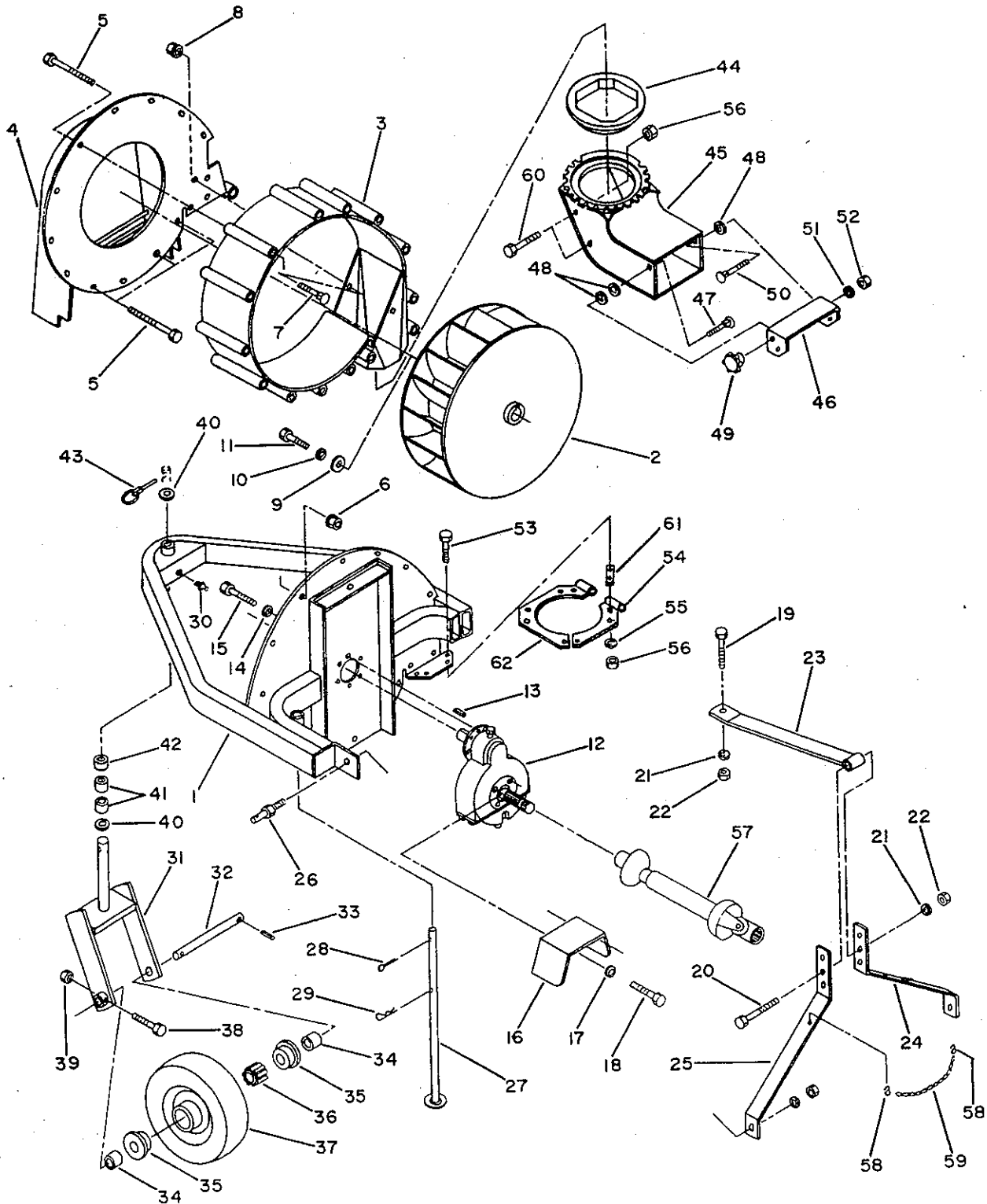
660688

GEAR BOX (664533)

REF	DESCRIPTION	QTY	PART #
2	Bearing	3	661091
3	Spacer	1	661089
4	Bolt M10 x 18	6	-----
6	Gear	1	661087
7	Plug socket head 3/8" gas	2	661265
8	Shaft	1	661086
9	Oil seal	2	659845
10	Snap ring	2	656654
11	Parrallel key	1	661092
12	Bearing	1	661090
1	Pinion shaft	1	661088
5	Breather 3/8" gas	1	656662



3 POINT HITCH DEBRIS BLOWER



3 POINT HITCH DEBRIS BLOWER

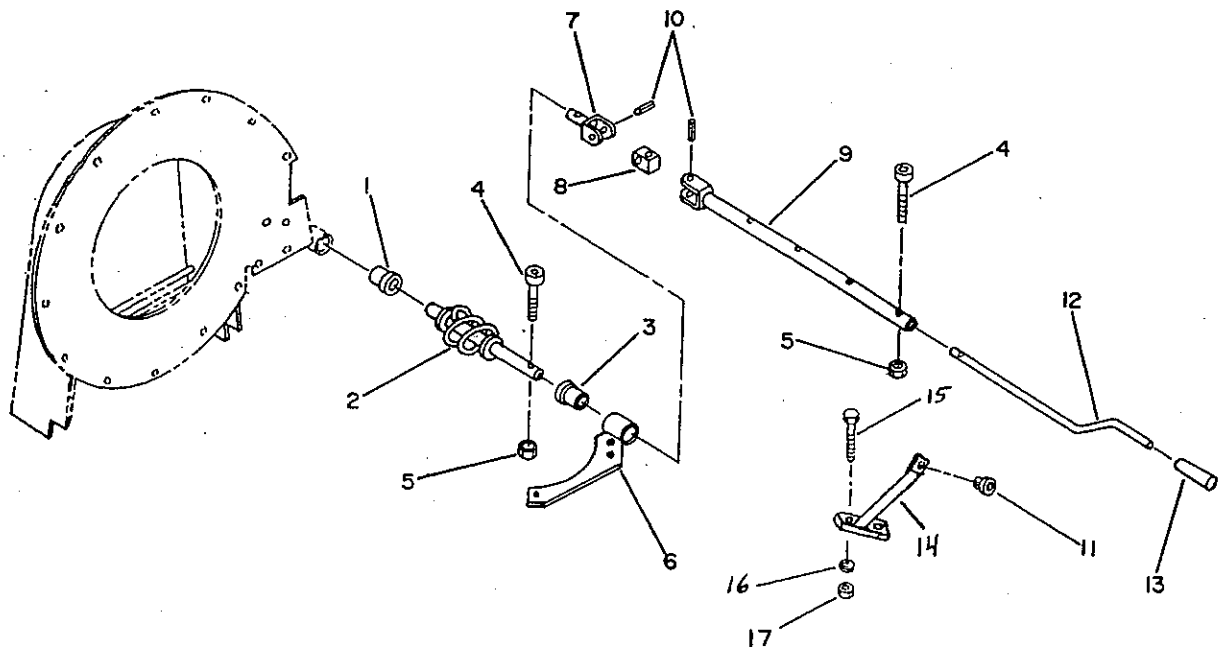
REF	DESCRIPTION	QTY	# PARTS
1	Housing	1	661105 -
2	Impeller (cw)	1	661111 - 1 ✓
3	Impeller housing	1	661112 -
4	Intake cover	1	661108 -
5	Hex bolt (3/8"NC x 6 1/2")	16	O/L
6	Flange nut (3/8"NC)	16	O/L
7	Carriage bolt (5/16"NC x 5/8")	2	O/L
8	Flange nut (5/16"NC)	2	O/L
9	Fan flat washer	1	661204 -
10	Lock washer (3/8")	1	O/L
11	Hex. bolt (3/8"NC x 1")	1	O/L
12	Gear box	1	66 4533 -
13	Key 5/16" x 5/16" x 1 3/4"	1	661166 -
14	Lock washer (8mm)	6	O/L
15	Hex. bolt (8mm x 1,25 x 20mm)	6	O/L
16	Driveline guard	1	661120 -
17	Lock washer (10mm)	2	O/L
18	Hex. bolt (10mm x 1,25 x 15mm)	2	O/L
19	Hex. bolt (5/8"NC x 1 3/4")	1	O/L
20	Hex. bolt (5/8"NC x 3 3/4")	1	O/L
21	Lock washer (5/8")	2	O/L
22	Hex. nut (5/8"NC)	2	O/L
23	Upper hitch	1	661109 -
24	Hitch arm	1	661123 -
25	Hitch arm	1	661123 -
26	Hitch pin (cat #1)	2	654196 -
27	Parking stand	2	661121 - 6 ✓
28	Cotter pin (5/32"dia. x 1 1/2")	2	O/L
29	Hair pin (5mm dia. x 100mm)	2	O/L
30	Grease fitting (1/4"NF)	1	654106 -
31	Wheel bracket	1	661127 - 2 ✓
32	Wheel pin	1	660484 -
33	Roll pin (1/4"dia. x 1 1/2")	1	O/L
34	Shim	2	661119 - 4 ✓
35	End cap	2	661199 - 4 ✓
36	Carbon roller bearing	1	661198 - 14 ✓
37	Wheel and tire assembly	1	660658 - 10 ✓
38	Hex. bolt (1/4"NC x 2")	1	O/L
39	Lock nut (1/4"NC ,nylon)	1	O/L
40	Wheel flat washer	2	660486 -
41	Sleeve spacer 1"	2	661118 -
42	Sleeve spacer 1/2"	1	661117 -
43	Linch pin (5/16"dia.)	1	O/L

3 POINT HITCH DEBRIS BLOWER

REF	DESCRIPTION	QTY	PART #
44	Nylon ring	1	657338-
45	Air blast nozzle	1	661098-2✓
46	Deflector	1	661100-2✓
47	Bolt (5/16" NC x 1", carriage)	1	0/L
48	Nylon washer (7/16" dia hole, flat)	3	658468-
49	Knob (5/16" NC)	1	657309-
50	Bolt (5/16" NC x 3/4", carriage)	1	0/L
51	Nylon washer (11/32" dia hole, flat)	1	658467-
52	Nut (5/16" NC, nylon lock)	1	0/L
53	Bolt (1/4" NC x 1", hex)	8	0/L
54	Rotation support (c/w rotation)	4	661508-2✓
55	Washer (1/4, lock)	8	0/L
56	Nut (1/4" NC, hex)	10	0/L
57	Driveline	1	661169-
58	"S" hook	2	0/L
59	Chain	1	661222-
60	Bolt (1/4" NC x 1/2", hex)	2	0/L
61	Spacer	4	661498-8✓
62	Retaining plate (c/w rotation)	1	661496-2

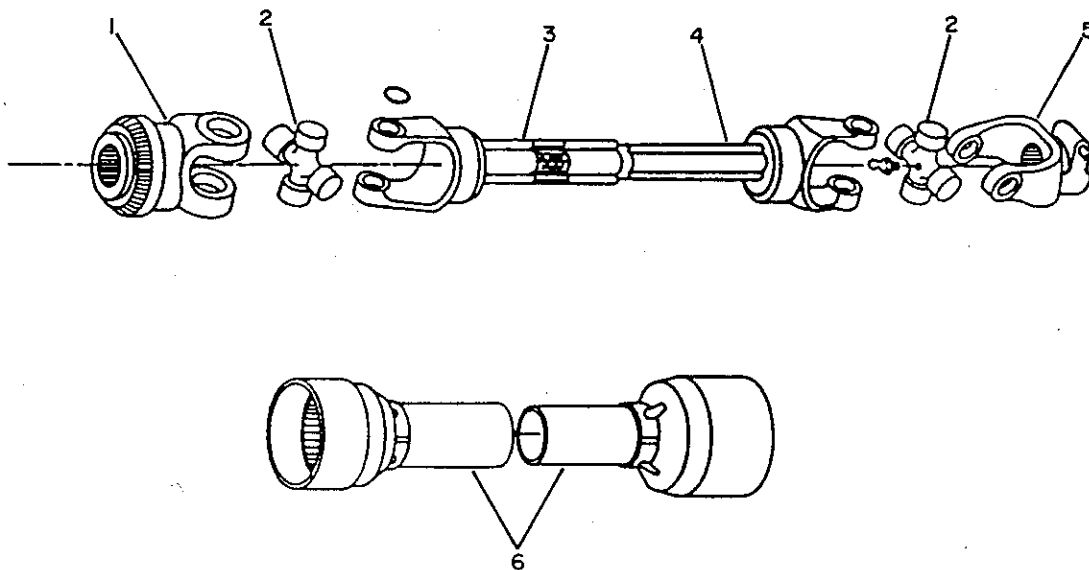
MANUAL NOZZLE ROTATION SYSTEM (9484)

REF	DESCRIPTION	QTY	# PARTS
1	Plastic bushing 1 5/16"	1	657335
2	Rotation worm (ccw)	1	661283
3	Plastic bushing 1 11/16"	1	657336
4	Socket head capscrew(10-24NC x 1", allen)	1	O/L
5	Lock nut (10-24NC, nylon)	1	O/L
6	Rotation support (c/w rotation)	1	661508
7	Rotation yoke	1	659595
8	Universal block	1	658193
9	Rotation tube	1	660188
10	Roll pin (3/16"dia. x 1 1/4")	2	O/L
11	Plastic grommet	1	657390
12	Handle	1	658252
13	Handle grip	1	656797
14	Handle support	1	661721
15	Hex. bolt (5/16"NC x 1")	2	O/L
16	Hex. nut (5/16"NC)	2	O/L
17	Lock washer (5/16")	2	O/L



DRIVELINE FOR 3 POINT HITCH (661169)

REF	DESCRIPTION	QTY	PART #
1	Slide collar yoke	1	660764
2	Universal joint kit	2	660765
3	Outer tube yoke	1	661387
4	Inner tube yoke	1	661388
5	Yoke quick disconnect	1	661389
6	Shields with safety chains	1	661390



RAD


WARNING

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- EYE PROTECTION MUST BE WORN AT ALL TIMES.
- KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
- STOP ENGINE BEFORE LEAVING OPERATOR POSITION.
- WAIT FOR ALL MOVEMENTS TO STOP BEFORE STARTING TO ADJUST, LUBRICATE, CLEAN OR UNCLUG THE MACHINE.
- KEEP THE AREA OF OPERATION CLEAR OF ALL PERSONS AND ANIMALS.
- KEEP ALL GUARDS AND SHIELDS IN PLACE.
- NEVER DIRECT DISCHARGE TOWARD BYSTANDERS, BUILDINGS, CARS ETC.
- ALWAYS USE A DUST MASK WHEN WORKING IN DUSTY CONDITIONS.
- KEEP PLASTIC MATERIALS AWAY FROM INTENSE HEAT AND OPEN FLAME.
- NEVER ALLOW PASSENGERS ON THE ATTACHMENT.

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DANGER

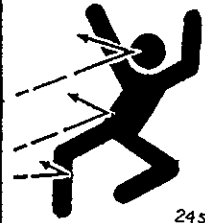


TO AVOID SERIOUS INJURY:
KEEP HANDS OUT OF THIS
CHUTE WHILE RUNNING

244

DANGER


DO NOT STAND NEAR MACHINE
WHEN IN OPERATION
DUE TO HIGH VELOCITY
DISCHARGE OF DEBRIS



DO NOT OPERATE BLOWER WITHOUT
DISCHARGE CHUTE IN PLACE

245

DANGER



ROTATING DRIVELINE
CONTACT CAN CAUSE DEATH
KEEP AWAY!

DO NOT OPERATE WITHOUT —

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE

DANGER



**SHIELD MISSING
DO NOT OPERATE**

DANGER

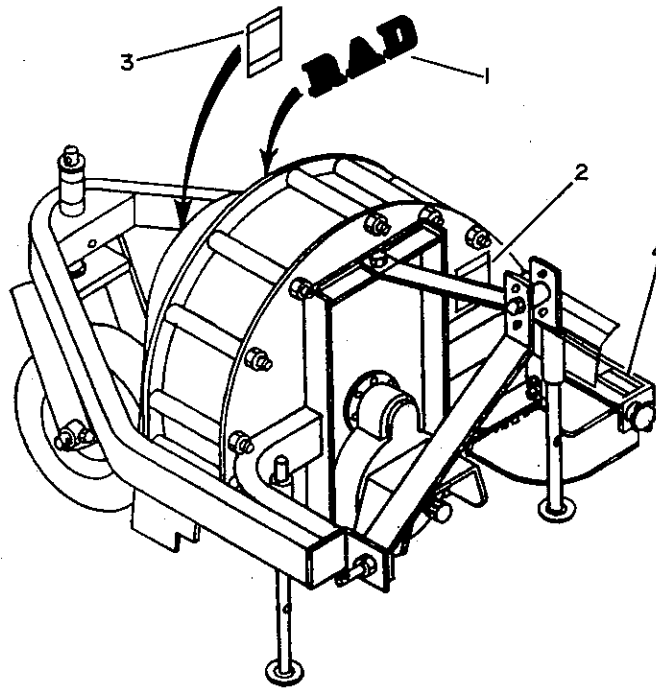


**SHIELD MISSING
DO NOT OPERATE**

DANGER

DECALS

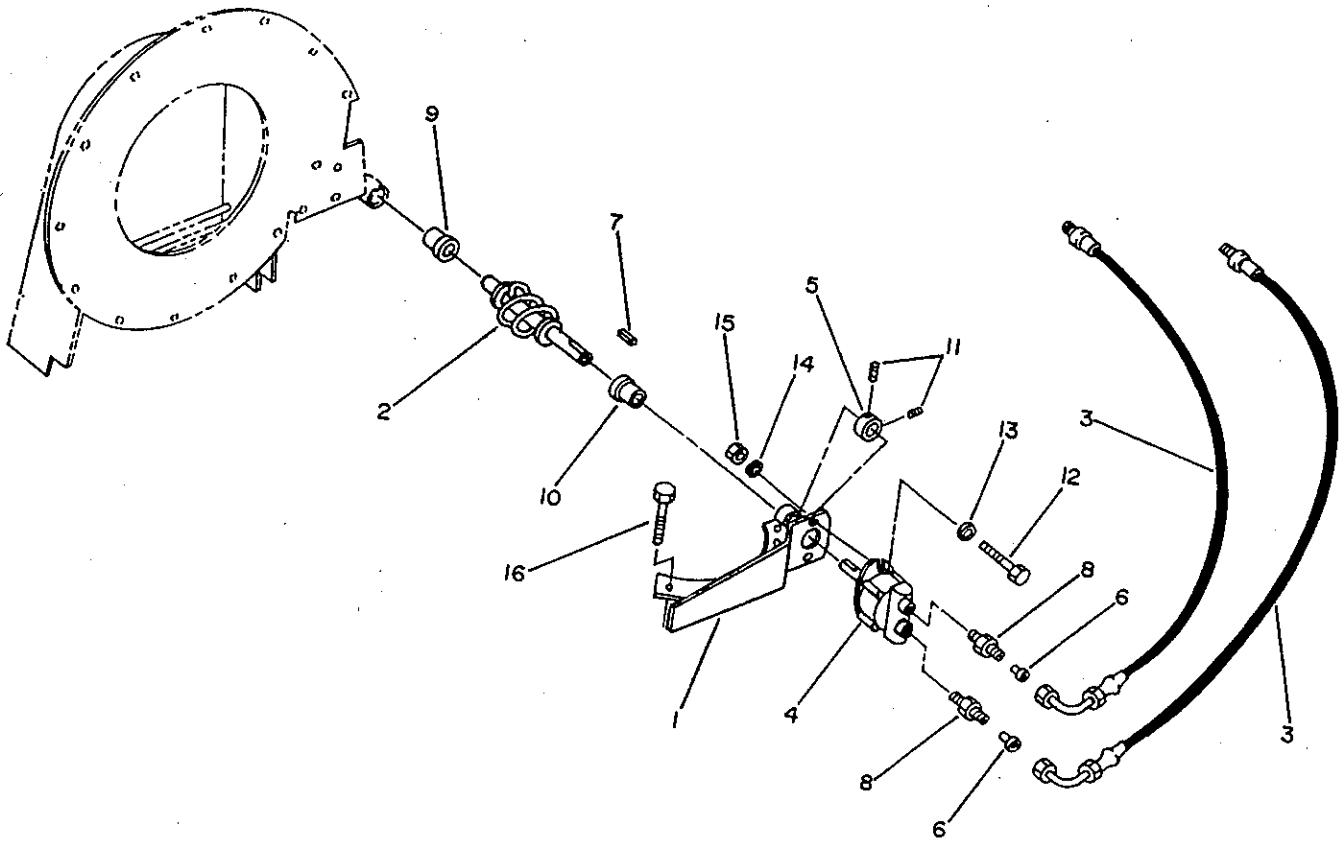
REF	DESCRIPTION	QTY	PART #
1	RAD decal	1	661560
2	Warning decal	1	660988
3	Danger decal	1	661247
4	Danger decal	1	661248
5	Danger decal (driveline shield)	1	660671
6	Danger decal (hidden driveline female tube)	1	660688



SEE PRECEDING PAGE FOR DECAL ILLUSTRATION

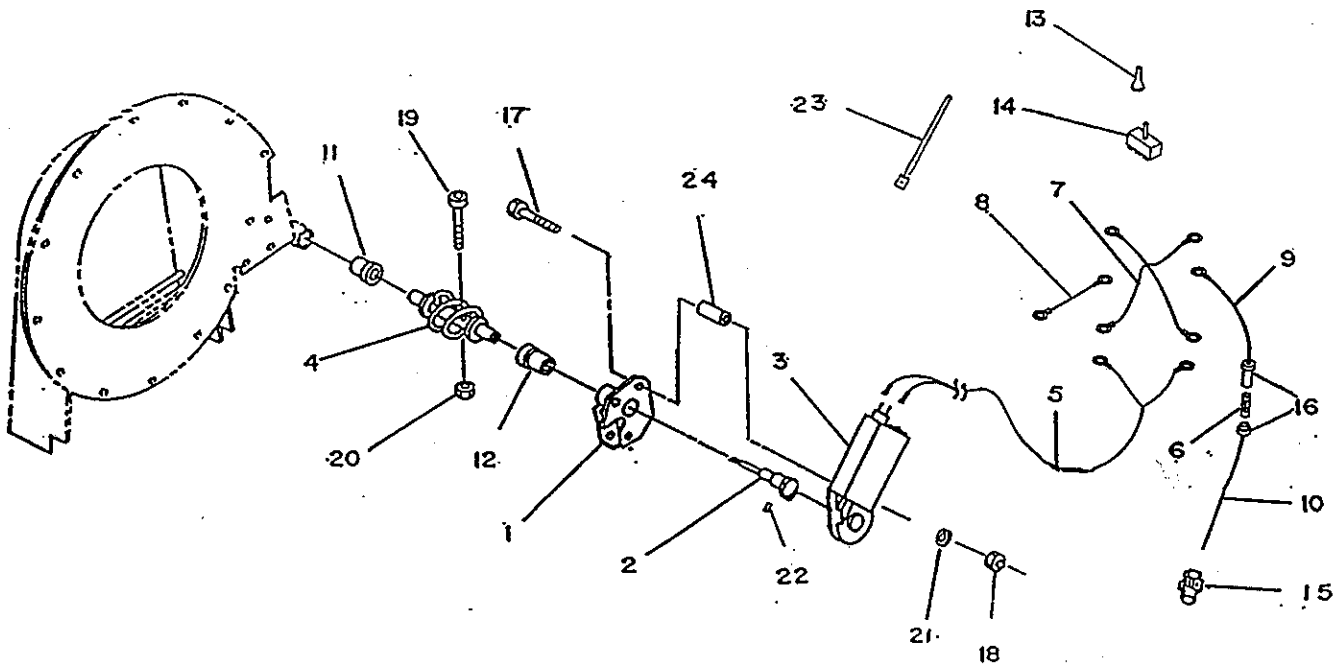
HYDRAULIC NOZZLE ROTATION (OPTIONAL) (9442)

REF	DESCRIPTION	QTY	# PARTS
1	Rotation bracket	1	661499
2	Rotation worm (cw)	1	660733
3	Hose 3/8" x 60"	2	661277
4	Hydraulic motor	1	660287
5	Locking collar	1	660284
6	Flow restrictor	2	655878
7	Key (1/8" x 3/16" x 1")	1	660285
8	Connector	2	660286
9	Plastic bushing 1 5/16"	1	657335
10	Plastic bushing 1 11/16"	1	657336
11	Allen set screw (1/4"NC x 5/16")	2	O/L
12	Hex. bolt (3/8"NC x 1")	2	O/L
13	Flat washer (7/16" dia. hole)	2	O/L
14	Lock washer (3/8")	2	O/L
15	Hex. nut (3/8" NC)	2	O/L
16	Hex. bolt (1/4"NC x 1")	2	O/L



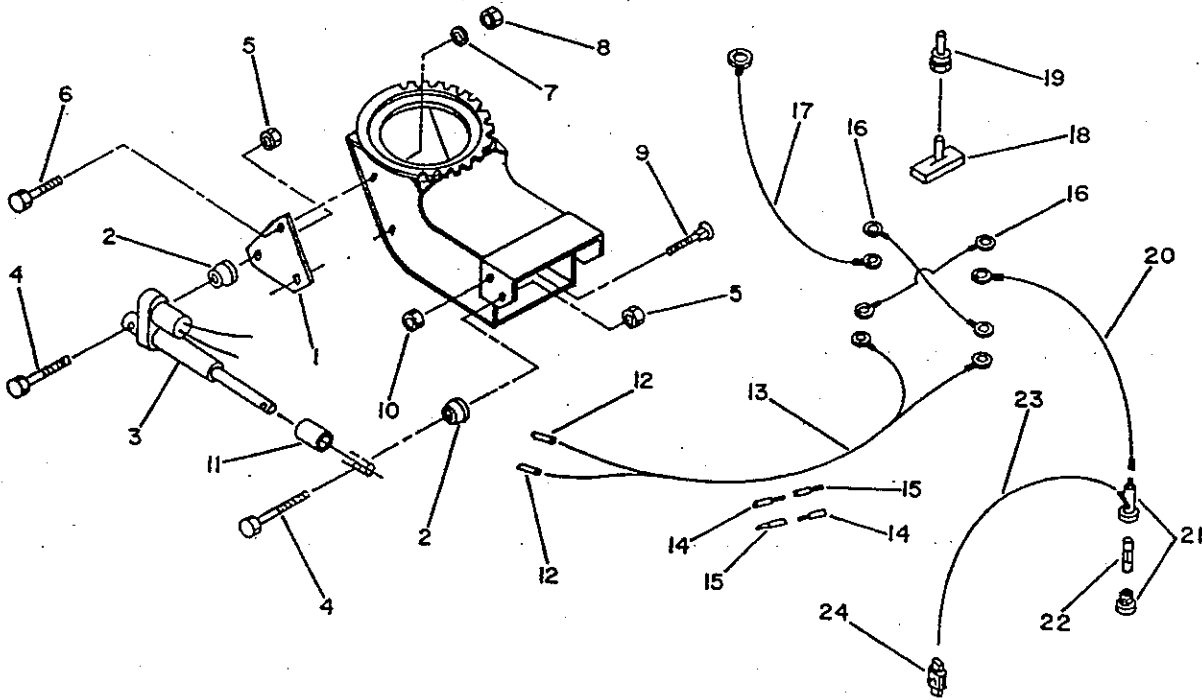
ELECTRIC NOZZLE ROTATION (OPTIONAL) (9480)

Ref.	Description	Qty.	#PARTS
1	Rotation support (cw)	1	662491
2	Adaptor	1	662489
3	Electric motor assembly	1	662455
4	Rotation worm (cw)	1	660246
5	Double wire assembly 102"	1	662468
6	Fuse 15 ampere	1	660687
7	Wire assembly 5"	2	655441
8	Wire assembly 17"	1	655442
9	Wire assembly 18"	1	660692
10	Wire (#16 ga. x 18")	1	660323
11	Plastic bushing 1 5/16"	1	657335
12	Plastic bushing 1 11/16"	1	657336
13	Rubber toggle protector	1	658666
14	Control switch	1	658778
15	Connector tap	1	656665
16	Fuse holder	1	658665
17	Hex. bolt (1/4"NC x 3/4")	3	O/L
18	Hex. nut (1/4"NC)	3	O/L
19	Sosket head capscrew (10-24NC x 1", allen)	1	O/L
20	Lock nut (10-24NC , nylon)	1	O/L
21	Lock washer (1/4")	3	O/L
22	Allen set screw 1/4"NC x 1/4" lg	2	O/L
23	Tie wrap	3	O/L
24	Spacer	3	662458










ELECTRIC DEFLECTOR ROTATION (OPTIONAL) (9370)

REF	DESCRIPTION	QTY	# PARTS
1	Support plate	1	661101
2	Bushing	2	660157
3	Actuator	1	656848
4	Hex. bolt (1/4"NC x 2 1/4")	2	O/L
5	Stover nut (1/4"NC)	2	O/L
6	Hex. bolt (1/4"NC x 5/8")	2	O/L
7	Lock washer (1/4")	2	O/L
8	Hex. nut (1/4" NC)	2	O/L
9	Carriage bolt (5/16"NC x 3/4")	1	O/L
10	Stover nut (5/16" NC)	1	O/L
11	Stopper sleeve	1	661102
12	Connector	2	656664
13	Double wire assembly 102"	1	660695
14	Connector female	2	657853
15	Connector male	2	655217
16	Wire assembly 5"	2	655441
17	Wire assembly 17"	1	655442
18	Switch control	1	658778
19	ubber toggle protector	1	658666
20	Wire assembly 18"	1	660692
21	Fuse holder	1	658665
22	Fuse 6 amp.	1	657285
23	Wire (16ga. x 18")	1	660323
24	Connector tap	1	656665








TORQUE SPECIFICATION TABLE

GENERAL TORQUE SPECIFICATION TABLE (Revised 2-74)													
USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN													
NOTE: These values apply to fasteners as received from supplier, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.													
SEE Grade No.		2				5				8 *			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE: MANUFACTURING MARKS WILL VARY						  				  			
		Torque		Torque		Torque		Torque		Torque		Torque	
Bolt Size		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters		Pounds Feet		Newton Meters	
Inches	Millimeters	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8	9.53	20	23	27.1	31.2	35	42	47.5	57.0	45	54	61.0	73.2
7/16	11.11	30	25	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2	12.70	45	52	61.0	70.5	80	96	108.5	130.2	110	132	149.2	179.0
9/16	14.29	65	75	88.1	101.6	110	132	149.2	179.0	160	192	217.0	260.4
5/8	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358.0
3/4	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8	22.23	160	200	215.8	271.0	400	480	542.4	650.9	600	720	813.6	976.3
1	25.40	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5
1-1/8	25.58	—	—	—	—	800	880	1084.8	1193.3	1280	1440	1735.7	1952.6
1-1/4	31.75	—	—	—	—	1120	1240	1518.7	1681.4	1820	2000	2467.9	2712.0
1-3/8	34.93	—	—	—	—	1460	1680	1979.8	2278.1	2380	2720	3227.3	3688.3
1-1/2	38.10	—	—	—	—	1940	2200	2630.6	2983.2	3160	3560	4285.0	4827.4

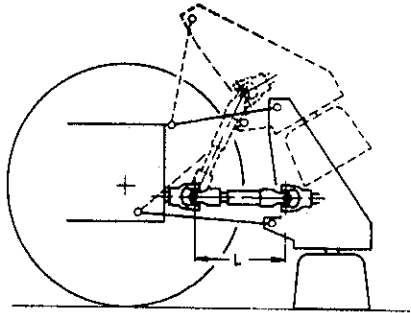
* Thick nuts must be used with Grade 8 bolts.

METRIC BOLT TORQUE SPECIFICATIONS

Size of screw	Grade No.	Coarse thread			Fine thread		
		Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	4T  	1.0	3.6-5.8	4.9-7.9	—	—	—
	7T 		5.8-9.4	7.9-12.7		—	—
	8T  		7.2-10	9.8-13.6		—	—
M8	4T	1.25	7.2-14	9.8-19	1.0	12-17	16.3-23
	7T		17-22	23-29.8		19-27	25.7-36.6
	8T		20-26	27.1-35.2		22-31	29.8-42
M10	4T	1.5	20-25	27.1-33.9	1.25	20-29	27.1-39.3
	7T		34-40	46.1-54.2		35-47	47.4-63.7
	8T		38-46	51.5-62.3		40-52	54.2-70.5
M12	4T	1.75	28-34	37.9-46.1	1.25	31-41	42-55.6
	7T		51-59	69.1-79.9		56-68	75.9-92.1
	8T		57-66	77.2-89.4		62-75	84-101.6
M14	4T	2.0	49-56	66.4-75.9	1.5	52-64	70.5-86.7
	7T		81-93	109.8-126		90-106	122-143.6
	8T		96-109	130.1-147.7		107-124	145-168
M16	4T	2.0	67-77	90.8-104.3	1.5	69-83	93.5-112.5
	7T		116-130	157.2-176.2		120-138	162.6-187
	8T		129-145	174.8-196.5		140-158	189.7-214.1
M18	4T	2.0	88-100	119.2-136	1.5	100-117	136-158.5
	7T		150-168	203.3-227.6		177-199	239.8-269.6
	8T		175-194	237.1-262.9		202-231	273.7-313
M20	4T	2.5	108-130	146.3-176.2	1.5	132-150	178.9-203.3
	7T		186-205	252-277.8		206-242	279.1-327.9
	8T		213-249	288.6-337.4		246-289	333.3-391.6

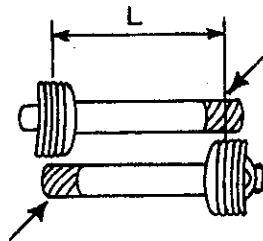
DRIVELINE LENGTH ADJUSTMENT INSTRUCTIONS / INSTRUCTIONS POUR COUPER L'ARBRE A CARDAN

1. Measure distance "L" for your tractor model.



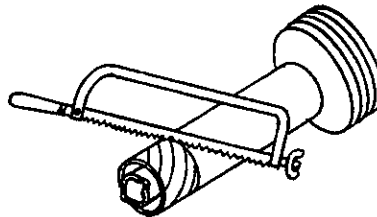
1. Mesurer la longueur "L" pour votre modèle.

2. Hold half-shaft side by side and mark off exact length on both halves.



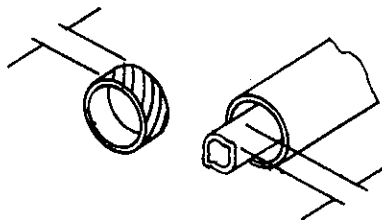
2. Tenir les deux parties d'arbre côte à côte et marquer la zone à couper.

3. Cut off inner and outer guard tubes.



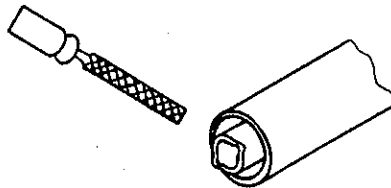
3. Couper l'enveloppe protectrice sur chaque partie.

4. Shorten inner and outer telescopic sections to same extent as guard tubes.



4. Raccourcir les tubes profilés intérieur et extérieur de la même longueur que les enveloppes protectrices.

5. De-burr tubes and remove chips.



5. Ebavurer et nettoyer les deux parties.

6. Apply grease to inside of outer telescopic section.

6. Graisser l'intérieur du plus gros profilé coulissant.

IMPORTANT: Work with fully guarded shafts only !

IMPORTANT: Ne travailler qu'avec un arbre à cardan munie de tous ses protecteurs !



RAD TECHNOLOGIES INC.

WARRANTY

RAD TECHNOLOGIES INC. warrants to the original buyer that the equipment is free from defects in material and workmanship. RAD TECHNOLOGIES INC.'s obligation, under this warranty, will be limited to the repair or to the replacement (F.O.B. factory) of any part or component which RAD TECHNOLOGIES INC. shall disclose to be defective within one year from date of original purchase (unless other wise specified).

In no event shall RAD TECHNOLOGIES INC. be liable for consequential or special damages, direct or indirect, arisen by the buyer/user.

This warranty replaces all other written or implied warranties and RAD TECHNOLOGIES INC. COMPANY neither assumes nor authorizes any other obligation nor responsibility in connection with the sale of the said product or components.

This warranty will not apply to the product (or components) which will have been the object of an accident, alteration, abuse or misuse. Any claim for parts or replacement of equipment must be taken up with the authorized dealer or with the office of the Company.

All components not manufactured by RAD TECHNOLOGIES INC. (such as motors, tires, etc.) are covered by the original manufacturer's warranty.

All claims must be taken up within 30 days from date of mechanical breakage. The Company reserves the right to require the said parts and this F.O.B. our factory or distributor.

***RAD* TECHNOLOGIES INC.**

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