

THE
BARRETO
MODEL 918
HYDRAULIC TILLER

CONGRATULATIONS!

You are now the proud owner of the BARRETO Model 918 tiller. Please take a moment of your time to look over the following information. Familiarize yourself with the tiller, its characteristics, and method of operation. Pay particular attention to the safety and operating instructions.

If you have any questions or need any replacement parts in the future, please contact us at your convenience. Our toll-free phone number, fax and email are listed below.

THANK YOU for your patronage and confidence in BARRETO equipment.

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918 TILLER ASSEMBLY INSTRUCTIONS

1. Remove tiller from shipping crate
2. Fill engine with fuel and check oil level per engine manufacturer's instructions.
3. Free wheel hubs: Pull one free wheeling pin slightly, using the split ring. Rotate the pin until the 1/8" diameter roll pin aligns with the slot in the mounting plate. Allow the pin to slide through the slot. Repeat for the other wheel. Roll the tiller until each pin drops into a hole in the hub. The hubs are now locked.
4. Uncoil the wire for the remote engine on/off switch. Route the wire along the clutch cable to the engine and secure with the cable ties provided. Splice this wire to the shut off switch wire on the engine with the electrical splice provided.

SERVICE INFORMATION

Check reservoir level using sight glass on the left side of the tank. If required, add to reservoir with tractor transmission hydraulic oil (Shell DONAX TD FLUID or comparable). Recheck oil level after the tiller has been run and oil has been circulated through the wheel and tine motors. Routinely check level thereafter. **DO NOT OVERFILL THE TANK.**

Change the hydraulic oil filter after the first 50 hours of use. Change it after every 200 hours thereafter.

Add 1 quart of hydraulic oil to the reservoir with each oil filter change.

Check the tine bolts after each use and tighten as needed. Check all hydraulic fittings for leaks and tighten if necessary.

Tines should be changed as often as needed for the machine to do a satisfactory and efficient tilling job. Use Loctite 271 (red) on tine bolt threads to prevent loosening.

The grease zerk on **both** ends of the tine shaft should be greased after every 4 to 8 hours of use.

Grease zerks on the wheel hubs should be greased once a week or so, depending upon free wheel use.

IMPORTANT: The engine is normally serviced prior to shipping. However, shipping regulations may prohibit this. Check levels and add oil and fuel as required before starting. Service according to the engine manual before starting.

WARNING: Running the tiller without hydraulic oil will cause serious damage to the hydraulic pump. **CHECK RESERVOIR LEVEL BEFORE STARTING THE MACHINE.**

918 TILLER SAFETY INSTRUCTIONS

1. **READ SAFETY AND OPERATING INSTRUCTIONS BEFORE OPERATING!**
2. **DO NOT LEAVE TILLER UNATTENDED WITH THE ENGINE RUNNING.**
3. The **SAFETY CLUTCH LEVER** on the left handlebar is for operator protection.
4. **DO NOT TAPE LEVER DOWN OR OTHERWISE BY-PASS THIS SAFETY DEVICE!**
5. Objects may become airborne while operating tiller. Wear safety goggles and hard hat while operating or observing.
6. Rotating tines can cause serious injury. **KEEP HANDS AND FEET CLEAR!**
7. **KEEP TINE COVER CLOSED** and **MACHINE LEVEL** while tines are operating.
8. Buried cables or gas lines can cause serious injury or death if struck by the tines. Contact local agencies for location before tilling.
9. Fuel exhaust and fuel fumes can cause illness or death. Operate outdoors and avoid breathing exhaust and fumes.
10. Fuel fumes can catch fire or explode. Do not smoke or operate near flames or sparks.
11. Hydraulic oil is under extreme pressure and can get under skin and burn or poison. Check for leaks with cardboard.
12. Muffler and engine get hot enough to cause serious burns. Do not touch until cool.

918 TILLER OPERATING INSTRUCTIONS

1. READ SAFETY INSTRUCTIONS BEFORE OPERATING!
2. Be sure that engine oil and hydraulic oil are at proper levels before starting tiller.
3. STUDY AND UNDERSTAND CONTROLS BEFORE BEGINNING OPERATION.
4. The TINE DRIVE CONTROL should be in Neutral when transporting the tiller while not tilling or when wheels are in reverse.
5. CLUTCH LEVER: Squeeze to activate the Wheel Drive Control and the Tine Drive Control. All motion stops when the lever is released. It is located near the left handlebar grip.
6. WHEEL DRIVE CONTROL: Select **Forward** or **Reverse** to control the direction (not the speed) of the wheels. When the control is in **Neutral** the wheels are locked. For your safety, the reverse lockout feature prevents the tines from rotating when the Wheel Drive is in **Reverse**.
7. SPEED CONTROL: The wheel speed is variable when the Wheel Drive Control is in either **Forward** or **Reverse**. The farther forward the Speed Control is moved, the faster the tiller will travel. The fastest speed is designed only for transport. Use a slow speed for tilling and adjust for soil or sod conditions.
8. OPERATE TILLER ON LEVEL GROUND ONLY!
9. TILLING OPERATION: In most soil and sod conditions, the depth bar can be set with the pin in the third hole from the top. Under most conditions, at least two passes must be made. For deeper tillage, move the depth bar up one hole at a time.

TILLING PROCEDURE

- Set engine throttle at full speed
- Begin with the Wheel Speed Control all the way back (toward you)
- Wheel Drive Control in **Forward**
- Tine drive control in either **Forward** or **Reverse**
- Squeeze the Clutch Lever
- Adjust the Speed Control forward until a suitable speed is obtained based upon soil conditions
- The tines operate at a constant speed and can be used either forward or reverse to till. If an object becomes lodged in the tines, put the Wheel Control in **Neutral** and change the rotation direction of the tines to dislodge it.

BARRETO MANUFACTURING, INC. EQUIPMENT WARRANTY

Barreto Manufacturing, Inc. warrants all BARRETO equipment to be free of defects in material and workmanship for a period of one (1) year, dating from delivery to the original user.

This Warranty is in lieu of all other warranties, whether written or implied, and is limited to:

1. Replacement of parts returned to the dealer and/or factory and determined defective upon inspection. (Replacement for parts to dealers shall be at dealer cost plus shipping charges.)
2. Time for pick-up and/or delivery, transportation or service calls by dealers is excluded. Manufacturer reserves the right to determine reasonable time required for repair.

Warranty does not apply to damage caused by abuse or neglect. Time and materials required for normal maintenance and service are also excluded from warranty coverage.

Engines, engine accessories and tires are warranted by the original manufacturers and are not covered by the Barreto Equipment Warranty.

918 TILLER TROUBLE SHOOTING GUIDE

CAUTION: ALWAYS USE EXTREME CARE WHEN TROUBLE SHOOTING OR MAKING ADJUSTMENTS ON THE TILLER. STAY CLEAR OF TINES WHEN ENGINE IS RUNNING. ALWAYS SHUT THE ENGINE OFF BEFORE DISASSEMBLING ANY COMPONENT.

A. ENTIRE HYDRAULIC SYSTEM DOES NOT OPERATE AND THE ENGINE IS NOT UNDER LOAD

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|---|--|
| 1. Broken or improperly adjusted clutch (actuator) cable. | If broken, replace. Remove slack then adjust for 7/16" to 1/2" movement at actuator lever pin. |
| 2. Low hydraulic oil in tank. | Fill to center of sight glass. |
| 3. Hydraulic pump-to-engine coupler has slipped. | Check for wear and replace both coupler halves and rubber spider as needed. |
| 4. Hydraulic pump worn or tine motor relief valve not functioning properly. | Follow the series of tests described below: |

Remove the tank end of hose that goes from the pump to the tank. Start the engine and with the tines and wheels in neutral, pump off about four gallons of hydraulic oil into a clean bucket. (The .52 CID pump, @ 1000 PSI & 3000 RPM, should pump at the rate of 6.5 GPM.) Replace the hose and remove the tank lid. Remove the end of the intake hose from the fitting on the tank lid. Submerge the end of the hose in the hydraulic oil in the tank. (A non-collapsible hose extension may be required.) Block the tines with a short 4 X 4 and stand to the side.

With tines selected to forward rotation, activate the actuator valve and check to see where the oil enters the tank. If the pump is good, the oil will enter through the relief valve or the return line from the filter. If the oil returns only through the filter return, the tine-drive motor is bad.

If the oil returns through the relief valve but does not kill the engine, check the out-put pressure of the pump. To do this, "T" a 4000 pound gauge into the line at the tank. **DO NOT BLOCK THE LINE OR DEAD-HEAD THE GAUGE INTO THE LINE.** With the tines in forward and blocked, activate the hydraulic valve as before. The relief valve is set at 2750 pounds. If the gauge reaches this pressure, the valve is OK. If not, the relief valve is bad and needs to be replaced.

If the pressure reaches 2750 pounds but there is only a small amount of oil returning, the pump is worn and should be replaced.

918 TILLER TROUBLE SHOOTING GUIDE (CONTINUED)

B. TINES FAIL TO ROTATE BUT WHEELS DRIVE.

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|---|--|
| 1. Clutch cable stretched so needs adjustment | Remove cable slack then adjust for 7/16" to 1/2" movement at actuator lever pin. |
| 2. Tine motor worn. | Rebuild or replace motor. Exchange motors are available from Barreto Mfg. |

C. WHEELS FAIL TO TURN BUT TINES ROTATE

- | | |
|--|-----------------------|
| 1. Wheel axle keys have been sheared or removed. | Replace keys. |
| 2. Wheel relief valve bad | Replace relief valve. |

D. ENGINE LUGS DOWN OR DIES AND WHEELS AND TINES DO NOT TURN.

- | | |
|---|--|
| 1. Rocks or other obstruction blocking tines. | Shut OFF engine and remove obstruction. |
| 2. Tine shaft bound with wire, vines, or grass. | Shut OFF engine and remove debris, especially at the ends. |
| 3. Tilling depth too great for soil conditions. | Shut OFF engine and lower depth bar to raise the tines, decreasing tilling depth. |
| 4. Outboard tine shaft bearings binding. | Lubricate or replace bearings as needed. |
| 5. Engine improperly tuned or maintained. | See engine manual and correct as needed. |
| 6. Low oil alert causes engine to shut down. | This may occur if tilling on hills, (not advised). Level the tiller and check engine oil level. Fill if required. Oil alert should reset. See engine manual. |
| 7. Engine losing power due to wear. | See engine manual. |

918 TILLER TROUBLE SHOOTING GUIDE (CONTINUED)

E. OIL LEAKS IN HYDRAULIC SYSTEM.

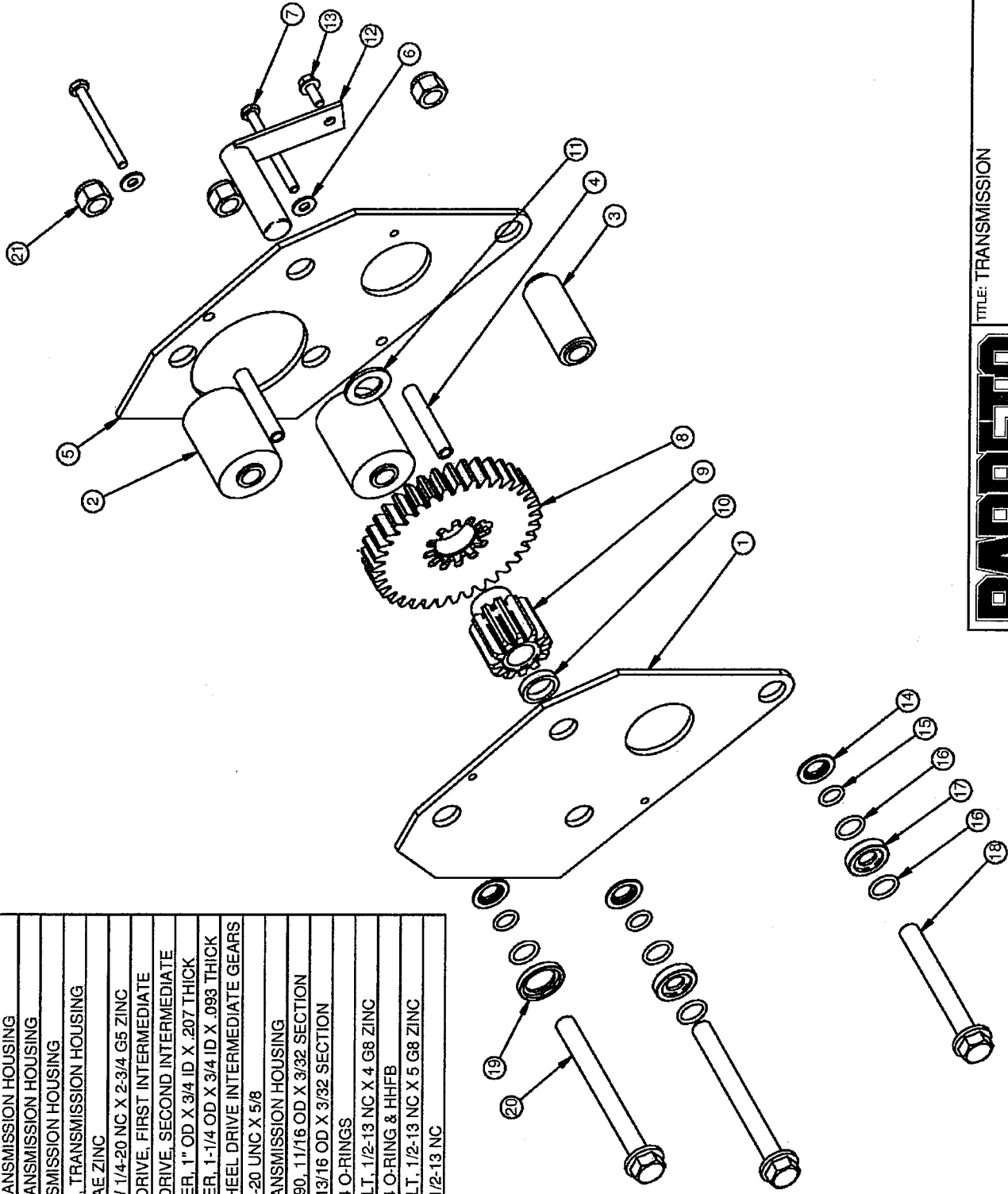
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|--------------------------------|--|
| 1. Fittings are loose. | Tighten as required |
| 2. Worn or broken hoses. | Replace as necessary |
| 3. Oil around tine motor shaft | Inspect tine motor for leaking shaft seal.
Rebuild per instructions in Hydraulic Motor manual or replace with EXCHANGE motor. |

F. EXCESSIVE FOAMING OF HYDRAULIC OIL FROM VENT HOSE.

- | | |
|-----------------------------|--|
| 1. Improper oil used. | Verify that hydraulic oil used has anti-foaming additives. * |
| 2. Pump sucking air. | Inspect and tighten fittings on intake side of pump |
| 3. Hydraulic pump is faulty | Test using procedure in section A4 above |

* Recommended oil is Shell DONAX TD FLUID or equivalent hydraulic oil with anti-foaming and anti-wear additives

REF QTY.	PART NO.	DESCRIPTION
1	02053	LH SIDE PLATE, TRANSMISSION HOUSING
2	02051	PIN, LARGE, TRANSMISSION HOUSING
3	02050	PIN, SMALL, TRANSMISSION HOUSING
4	02057	SPACER, TRANSMISSION HOUSING
5	02052	RH SIDE PLATE, TRANSMISSION HOUSING
6	05081	WASHER, 1/4 SAE ZINC
7	05562	HH CAP SCREW 1/4-20 NC X 2-3/4 G5 ZINC
8	02076	GEAR, WHEEL DRIVE, FIRST INTERMEDIATE
9	02077	GEAR, WHEEL DRIVE, SECOND INTERMEDIATE
10	02074	THRUST WASHER, 1" OD X 3/4 ID X .207 THICK
11	03199	THRUST WASHER, 1-1/4 OD X 3/4 ID X .093 THICK
12	01063	SHAFT ASM, WHEEL DRIVE INTERMEDIATE GEARS
13	05069	WHIZ LOCK, 1/4-20 UNC X 5/8
14	02056	STANDOFF, TRANSMISSION HOUSING
15	03926	O-RING, 2-11/16 OD X 3/32 SECTION
16	03003	O-RING, 2-1/4, 13/16 OD X 3/32 SECTION
17	02520	HOUSING, 2-114 O-RINGS
18	05338	HH FLANGE BOLT, 1/2-13 NC X 4 G8 ZINC
19	10825	HOUSING, 2-114 O-RING & HHFB
20	05337	HH FLANGE BOLT, 1/2-13 NC X 5 G8 ZINC
21	05098	NUT, NYLOCK, 1/2-13 NC



TITLE: TRANSMISSION

PRODUCT LINE: 918 DATE: 8/17/05

SCALE: 13.7

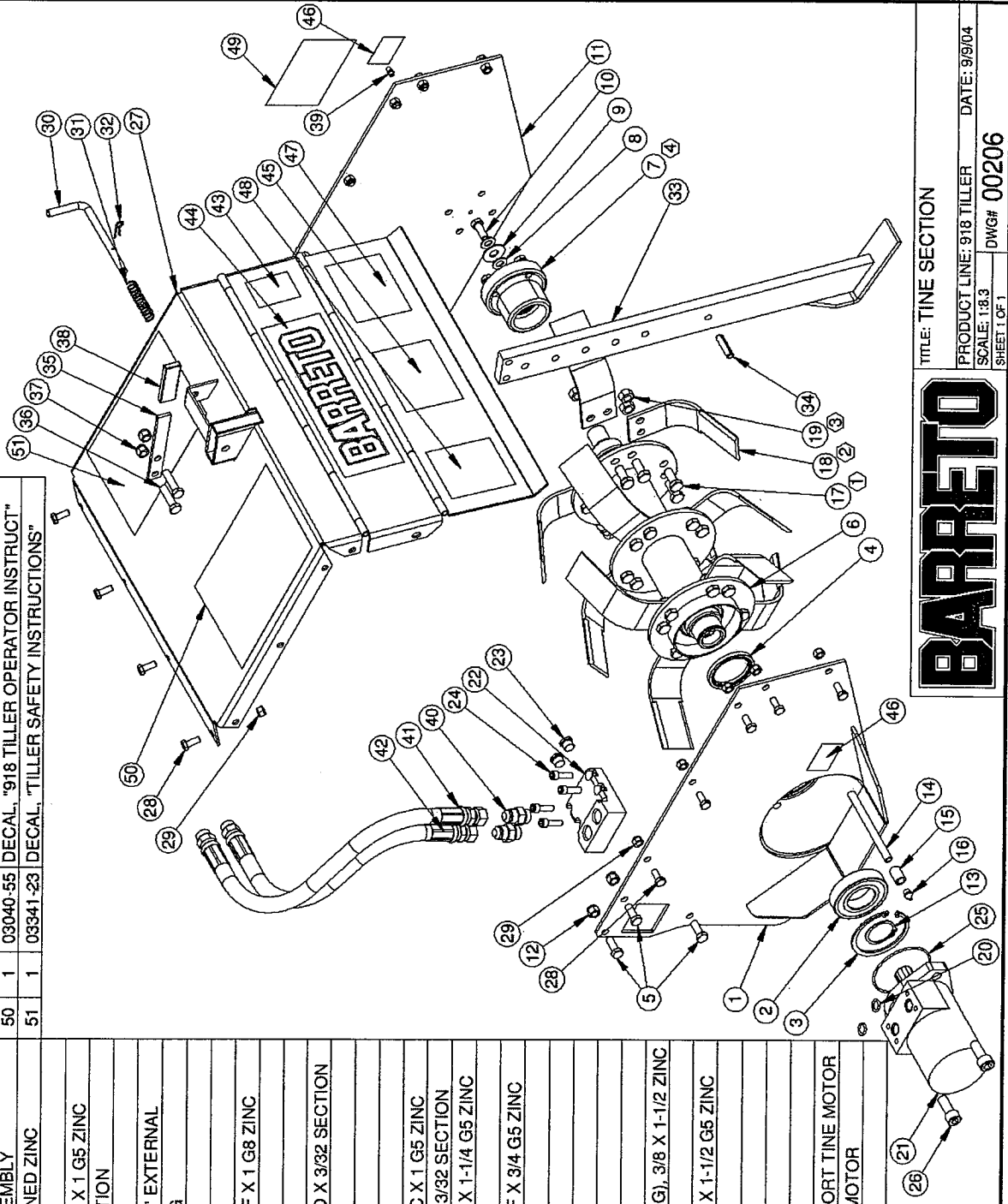
SHEET 1 OF 1 DWG# 00205 R2

BARRETO

NOTE: If built before 3/2/04, could have 3 hole O/B bearing assy, part# 01028+. Please verify what you have before ordering.

REF. QTY.	PART NO.	DESCRIPTION	REF. QTY.	PART NO.	DESCRIPTION
1	01067	TINE MOTOR MOUNT & LH SIDE PLATE	44	03040-02	DECAL, "BARRETO"
2	03943	BALL BEARING, SKF 6208	45	03040-03	DECAL, "CAUTION" (BLACK & WHITE)
3	05603	SNAP RING, HO-315, 3-5/32 INTERNAL	46	03040-04	DECAL, "GREASE DAILY"
4	03930	SEAL, CR 19763	47	03040-07	DECAL, "CAUTION" (YELLOW)
5	05056	HH CAP SCREW, 3/8-24 NF X 1 G5 ZINC	48	03040-08	DECAL, "WARNING" (YELLOW)
6	02071	TINE SHAFT	49	03040-51	DECAL, "918"
7	10144	OUTBOARD BEARING ASSEMBLY	50	03040-55	DECAL, "918 TILLER OPERATOR INSTRUCT"
8	05103	WASHER, 3/8 A325 HARDENED ZINC	51	03341-23	DECAL, "TILLER SAFETY INSTRUCTIONS"
9	05083	WASHER, 7/16 USS ZINC			
10	05059	HH CAP SCREW, 3/8-16 NC X 1 G5 ZINC			
11	10146	SIDE PLATE, RH TINE SECTION			
12	05072	NUT, NYLOCK, 3/8-24 NF			
13	05607	SNAP RING, SH-156, 1-9/16" EXTERNAL			
14	05282	PIPE NIPPLE, 1/8" X 5 LONG			
15	05204	PIPE COUPLER, 1/8"			
16	05256	GREASE ZERK, 1/8 NPT			
17	24	HH CAP SCREW, 7/16-20 NF X 1 G8 ZINC			
18	03196	TINE, REVERSIBLE			
19	05074	NUT, 7/16-20 NF G8 ZINC			
20	03926	O-RING, 2-112N90, 11/16 OD X 3/32 SECTION			
21	04605	TINE MOTOR			
22	02065	MANIFOLD, TINE MOTOR			
23	03302	FITTING, 6409-6 PLUG			
24	05572	SH CAP SCREW, 5/16-18 NC X 1 G5 ZINC			
25	03001	O-RING, 2-152, 3-7/16 OD X 3/32 SECTION			
26	05585	SH CAP SCREW, 1/2-13 NC X 1-1/4 G5 ZINC			
27	01066	TINE COVER			
28	05052	HH CAP SCREW, 5/16-24 NF X 3/4 G5 ZINC			
29	05071	NUT, NYLOCK, 5/16-24 NF			
30	01018	PIN, DEPTH BAR			
31	03080	SPRING			
32	03065	HAIR SPRING COTTER #4			
33	01012	DEPTH BAR			
34	05006	ROLL PIN (SLOTTED SPRING), 3/8 X 1-1/2 ZINC			
35	01099	HANDLE, DEPTH BAR			
36	05092	HH CAP SCREW, 3/8-16 NC X 1-1/2 G5 ZINC			
37	05073	NUT, NYLOCK, 3/8-16 NC			
38	03018	GRIP, 1/8 X 3/4 X 2-3/4			
39	05044	GREASE ZERK, 1/4-28 UNF			
40	04520	FITTING, 6400-8-8			
41	04582	HYDRAULIC HOSE, REAR PORT TINE MOTOR			
42	04580	HOSE, FRONT PORT TINE MOTOR			
43	03040-01	DECAL, "MADE IN USA"			

- ① PART NO. 05061-24 IS A SET OF 24 PIECES.
- ② PART NO. 03196-12 IS A SET OF 12 PIECES.
- ③ PART NO. 05074-24 IS A SET OF 24 PIECES.
- ④ REFERENCE DWG. 10144 FOR INDIVIDUAL PARTS



TITLE: TINE SECTION

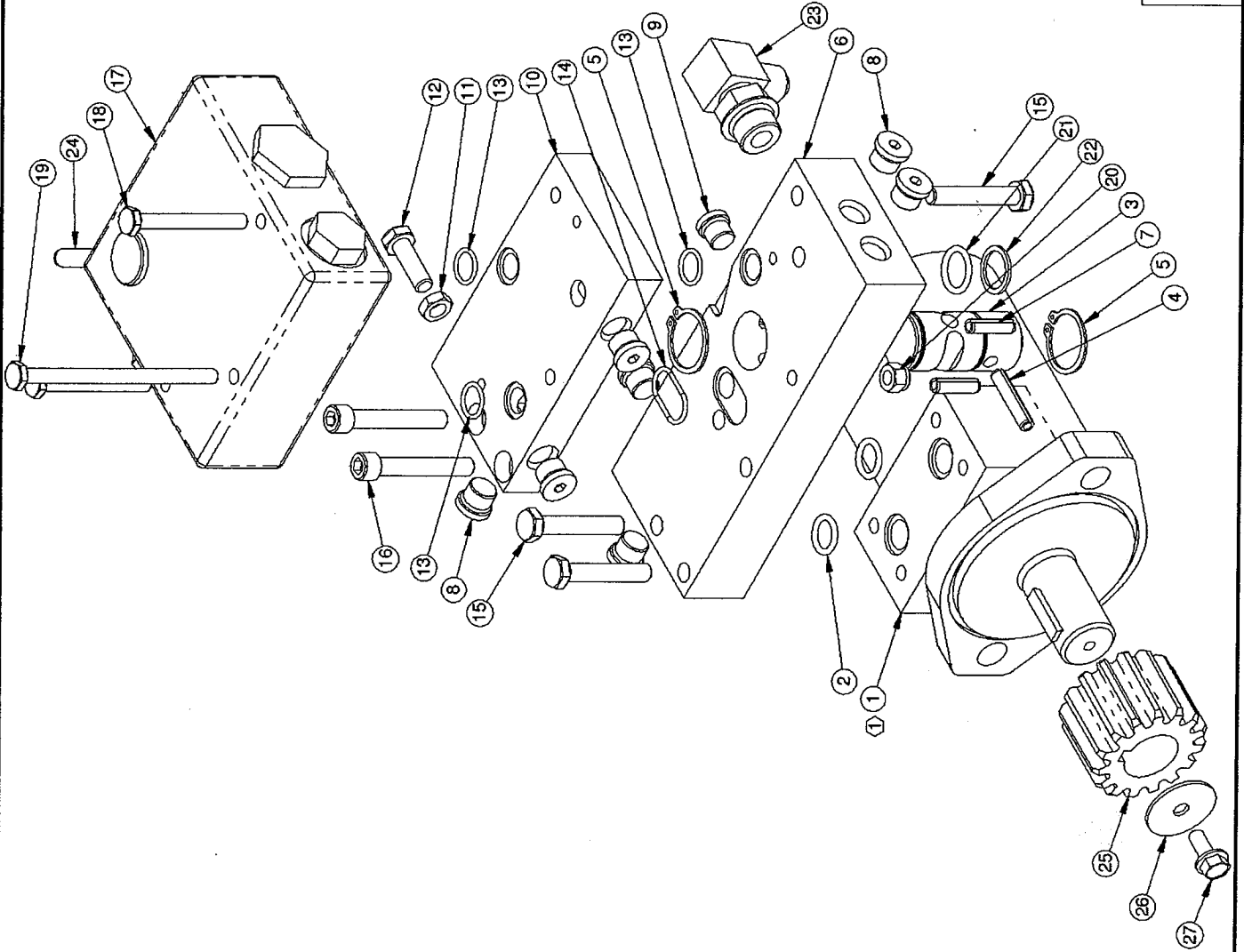
PRODUCT LINE: 918 TILLER DATE: 9/9/04

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DWG# 00206

BARRETO

① MOTOR COMES WITH KEY. REPLACEMENT KEY IS 1" DIA X 1/4 WOODRUFF, PART NO. 05013.



REF. QTY.	PART NO.	DESCRIPTION
1	04603	WHEEL DRIVE MOTOR WITH KEY
2	03926	O-RING, 2-112N90, 1/16 OD X 3/32 SECTION
3	02081	VALVE SPOOL, WHEEL WORK
4	05200	ROLL PIN (SLOTTED SPRING), 1/4 X 1-1/4 ZINC
5	05010	SNAP RING, 1" EXTERNAL
6	02271	MANIFOLD, FLOW CONTROL TO WHEEL MOTOR
7	05552	ROLL PIN (SLOTTED SPRING), 1/4 X 7/8 ZINC
8	03301	FITTING, 6409-5 PLUG
9	03300	FITTING, 6409-4 PLUG
10	02048	MANIFOLD, FLOW CONTROL
11	05268	NUT, JAM, 5/16-18 NC ZINC
12	05315	HH CAP SCREW, 5/16-18 NC X 1 G5 ZINC
13	09232	O-RING, 2-014, 5/8 OD X 1/16 SECTION
14	10261	O-RING, 2-019N70
15	05054	HH CAP SCREW, 5/16-18 NC X 1-3/4 G5 ZINC
16	05570	SH CAP SCREW, 5/16-18 NC X 2 G5 PLAIN
17	04601	FLOW CONTROL VALVE
18	05560	HH CAP SCREW 1/4-20 NC X 2-1/4 G5 ZINC
19	05564	HH CAP SCREW 1/4-20 NC X 4 G5 ZINC
20	05096	NUT, NYLOCK, 1/4-20 NC
21	03003	O-RING, 2-114, 13/16 OD X 3/32 SECTION
22	03914	BACK-UP RING, 8-114N90 PARBAK
23	04554	FITTING, 6801-8-8
24	05551	ROLL PIN (SLOTTED SPRING), 5/16 X 2-1/2 PLAIN
25	02075	GEAR, WHEEL DRIVE MOTOR
26	05542	FLAT WASHER, 1/4 FENDER PLAIN
27	05069	WHIZ LOCK, 1/4 X 1/2

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TITLE: WHEEL DRIVE
SUB-ASSEMBLY

PRODUCT LINE: 918 TILLER

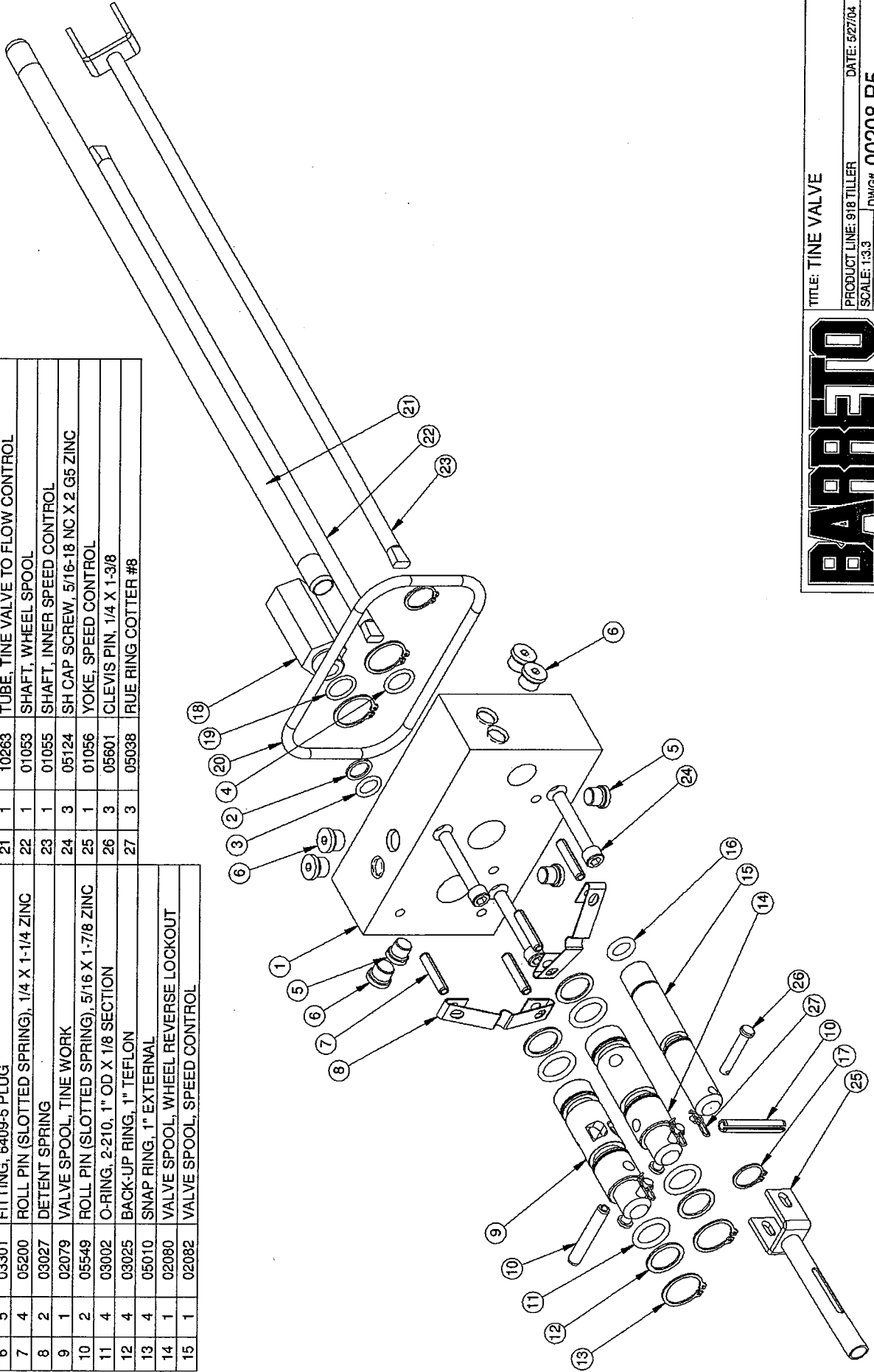
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SHEET 1 OF 1

DATE: 10/21/03

DWG# 00207 R5

REF.	QTY.	PART NO.	DESCRIPTION	REF.	QTY.	PART NO.	DESCRIPTION
1	1	10149	VALVE BODY, TINE CONTROL	16	1	03913	O-RING, 2-206, 3/4 OD X 1/8 SECTION
2	1	03922	BACK-UP RING, 8-112N90 PARBAK	17	2	05216	SNAP RING, 3/4 EXTERNAL
3	1	03926	O-RING, 2-112N90, 11/16 OD X 3/32 SECTION	18	1	04009-BO	RELIEF VALVE, 750 POUND, O-RING
4	1	03003	O-RING, 2-114, 13/16 OD X 3/32 SECTION	19	1	03077	O-RING, -8 FITTING
5	3	03300	FITTING, 6409-4 PLUG	20	1	03920	O-RING, 2-432N70, 5-7/8 OD X 1/4 SECTION
6	5	03301	FITTING, 6409-5 PLUG	21	1	10263	TUBE, TINE VALVE TO FLOW CONTROL
7	4	05200	ROLL PIN (SLOTTED SPRING), 1/4 X 1-1/4 ZINC	22	1	01053	SHAFT, WHEEL SPOOL
8	2	03027	DETENT SPRING	23	1	01055	SHAFT, INNER SPEED CONTROL
9	1	02079	VALVE SPOOL, TINE WORK	24	3	05124	SH CAP SCREW, 5/16-18 NC X 2 G5 ZINC
10	2	05549	ROLL PIN (SLOTTED SPRING), 5/16 X 1-7/8 ZINC	25	1	01056	YOKE, SPEED CONTROL
11	4	03002	O-RING, 2-210, 1" OD X 1/8 SECTION	26	3	05601	CLEVIS PIN, 1/4 X 1-3/8
12	4	03025	BACK-UP RING, 1" TEFLON	27	3	05038	RUE RING COTTER #8
13	4	05010	SNAP RING, 1" EXTERNAL				
14	1	02080	VALVE SPOOL, WHEEL REVERSE LOCKOUT				
15	1	02082	VALVE SPOOL, SPEED CONTROL				



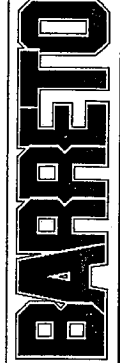
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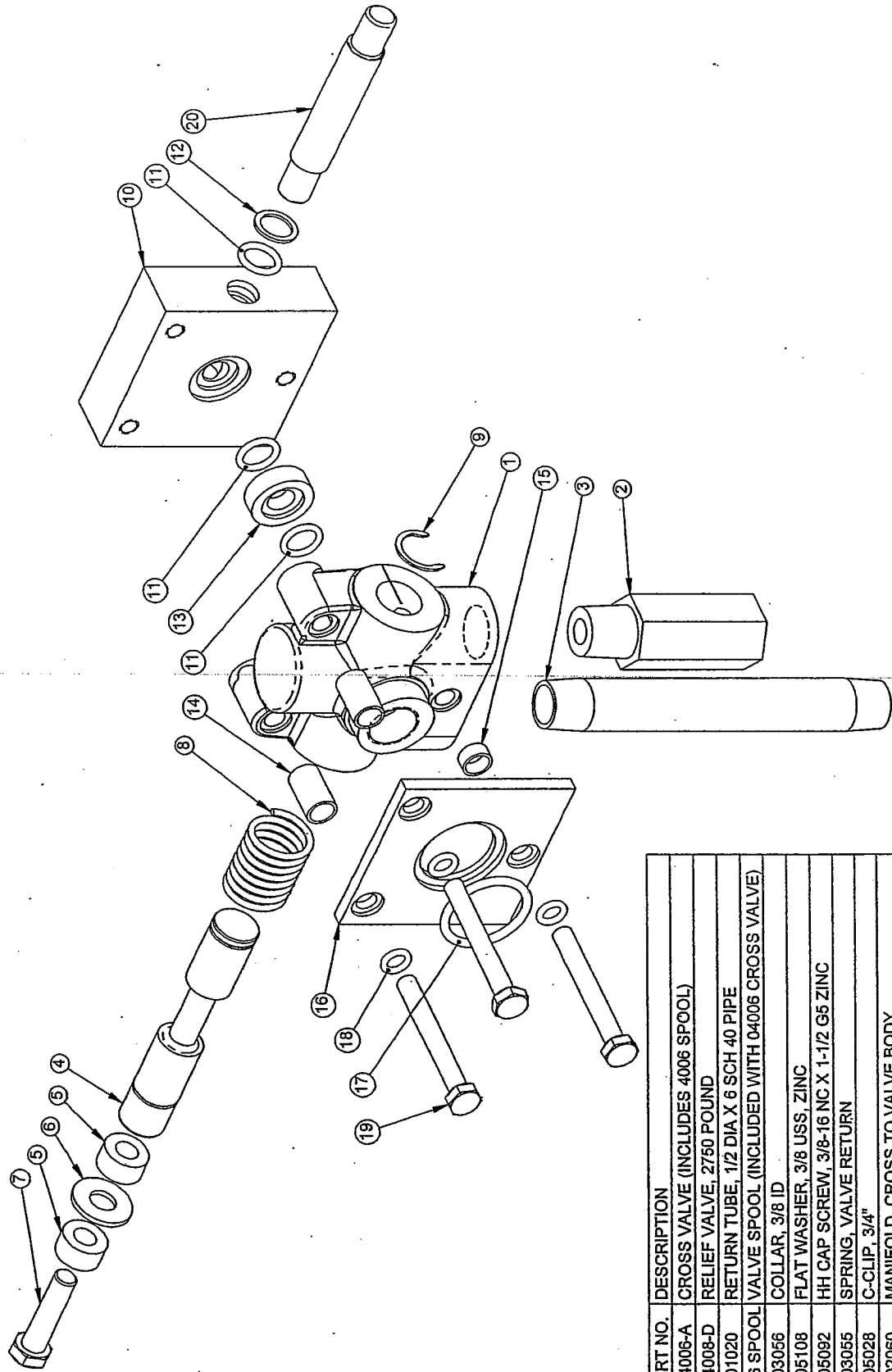
PRODUCT LINE: 918 TILLER

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DATE: 5/27/04

DWG# 00208 R5





NOTES:

1. CAP SCREWS (05568), INSTALLED THRU TILLER BODY.

PIECE QTY.	PART NO.	DESCRIPTION
1	04006-A	CROSS VALVE (INCLUDES 4006 SPOOL)
2	04008-D	RELIEF VALVE, 2750 POUND
3	01020	RETURN TUBE, 1/2 DIA X 6 SCH 40 PIPE
4	4006 SPOOL	VALVE SPOOL, (INCLUDED WITH 04006 CROSS VALVE)
5	03056	COLLAR, 3/8 ID
6	05108	FLAT WASHER, 3/8 USS, ZINC
7	05092	HH CAP SCREW, 3/8-16 NC X 1-1/2 G5 ZINC
8	03055	SPRING, VALVE RETURN
9	05028	C-CLIP, 3/4"
10	02060	MANIFOLD, CROSS TO VALVE BODY
11	03926	O-RING, 2-112N90, 11/16 OD X 3/32 SECTION
12	03922	BACK-UP RING, 8-112N90 PARBAK
13	02061	SPACER, FLUID TRANSFER
14	02062	SPACER, CROSS VALVE
15	02063	SPACER, CROSS VALVE, SHORT
16	02059	MOUNTING ADAPTER, CROSS VALVE
17	03918	O-RING, 2-218, 1-1/2 OD X 1/8 SECTION
18	03905	O-RING, 2-109, 1/2 OD X 3/32 SECTION
19	05568	HH CAP SCREW, 5/16-18 NC X 2-1/2 G5 ZINC
20	02084	HYDRAULIC TUBE, SUPPLY TO VALVE BODY



TITLE: CROSS VALVE SUB-ASSEMBLY

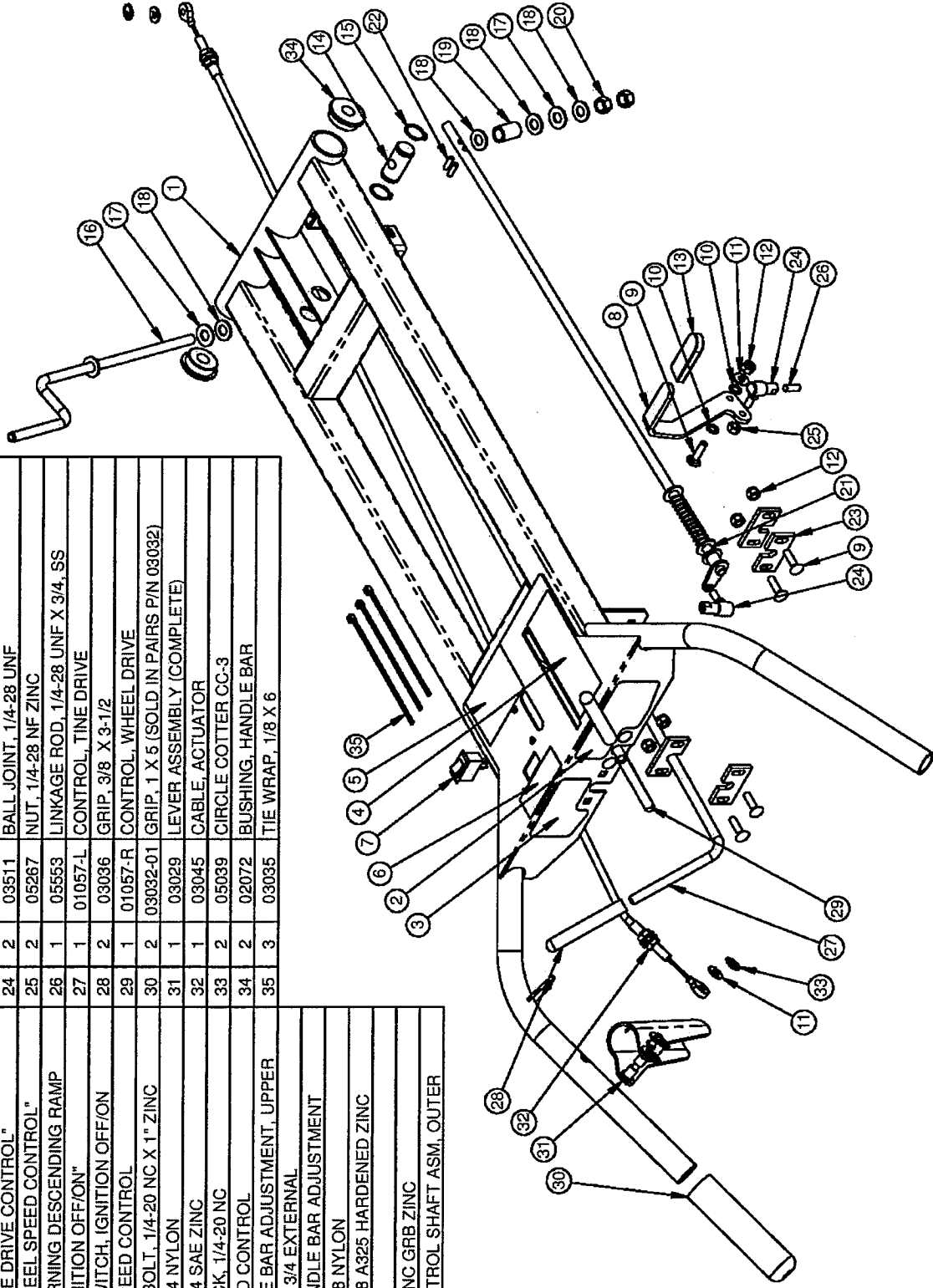
PRODUCT LINE: 918 TILLER

SCALE: 1:2.3

SHEET 1 OF 1

DWG# 00210

REF. QTY.	PART NO.	DESCRIPTION	REF. QTY.	PART NO.	DESCRIPTION
1	01050	FRAME, HANDLE BARS & CONTROLS	22	05328	ROLL PIN (SLOTTED SPRING), 3/16 X 5/8 ZINC
2	03040-52	DECAL, "WHEEL DRIVE CONTROL"	23	01061	GUIDE, CONTROL SHAFT
3	03040-53	DECAL, "TINE DRIVE CONTROL"	24	03511	BALL JOINT, 1/4-28 UNF
4	03040-54	DECAL, "WHEEL SPEED CONTROL"	25	05267	NUT, 1/4-28 NF ZINC
5	03040-56	DECAL, WARNING DESCENDING RAMP	26	05553	LINKAGE ROD, 1/4-28 UNF X 3/4, SS
6	03341-07	DECAL, "IGNITION OFF/ON"	27	01057-L	CONTROL, TINE DRIVE
7	06420	ROCKER SWITCH, IGNITION OFF/ON	28	03036	GRIP, 3/8 X 3-1/2
8	01059	HANDLE, SPEED CONTROL	29	01057-R	CONTROL, WHEEL DRIVE
9	05575	CARRIAGE BOLT, 1/4-20 NC X 1" ZINC	30	03032-01	GRIP, 1 X 5 (SOLD IN PAIRS P/N 03032)
10	03029-03	WASHER, 1/4 NYLON	31	03029	LEVER ASSEMBLY (COMPLETE)
11	05081	WASHER, 1/4 SAE ZINC	32	03045	CABLE, ACTUATOR
12	05096	NUT, NYLOCK, 1/4-20 NC	33	05039	CIRCLE COTTER CC-3
13	03037	GRIP, SPEED CONTROL	34	02072	BUSHING, HANDLE BAR
14	02027	PIN, HANDLE BAR ADJUSTMENT, UPPER	35	03035	TIE WRAP, 1/8 X 6
15	05216	SNAP RING, 3/4 EXTERNAL			
16	01049	CRANK, HANDLE BAR ADJUSTMENT			
17	05058	WASHER, 3/8 NYLON			
18	05103	WASHER, 3/8 A325 HARDENED ZINC			
19	01060	SPACER			
20	05269	NUT, 3/8-16 NC GRB ZINC			
21	01058	SPEED CONTROL SHAFT ASM., OUTER			



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TITLE: HANDLE BAR ASSEMBLY

PRODUCT LINE: 918 TILLER DATE: 8/7/05

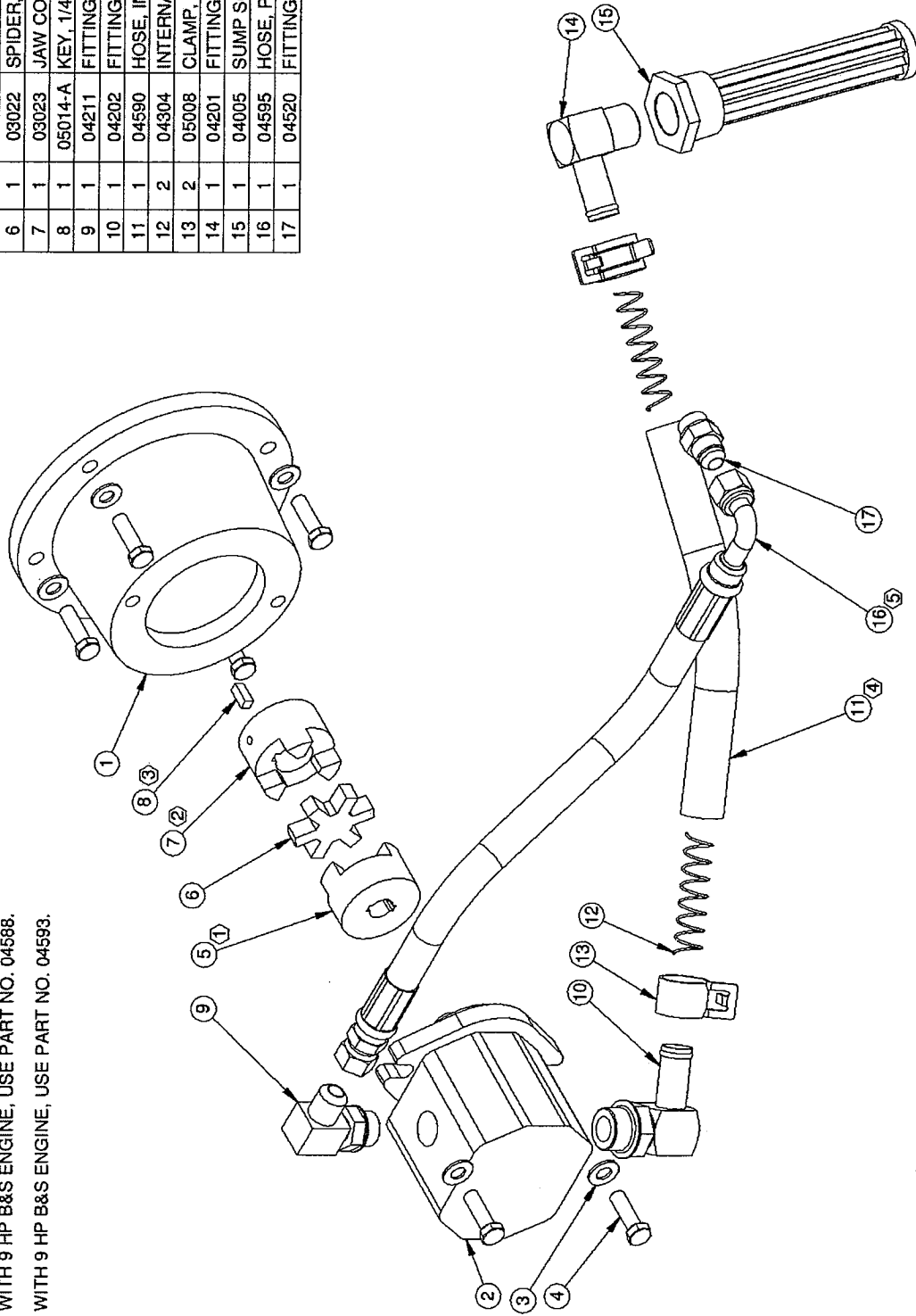
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SHEET 1 OF 1

NOTES:

- ① COMES WITH SET SCREW. REPLACEMENT SET SCREW IS 1/4 X 1/4, PART NO. 05022.
- ② COMES WITH SET SCREW. REPLACEMENT SET SCREW IS 5/16 X 5/16, PART NO. 05127.
- ③ WITH 9 HP B&S ENGINE, USE 1/4 X 1/4 X 3/4 KEY, PART NO. 05014
- ④ WITH 9 HP B&S ENGINE, USE PART NO. 04588.
- ⑤ WITH 9 HP B&S ENGINE, USE PART NO. 04593.

REF.	QTY.	PART NO.	DESCRIPTION
1	1	02016	PUMP ADAPTER
2	1	04004-A	PUMP, HYDRAULIC
3	6	05101	WASHER, 3/8 SAE ZINC
4	6	05091	HH CAP SCREW, 3/8-16 NC X 1-1/4 G5 ZINC
5	1	03021	JAW COUPLER, PUMP, 5/8" BORE
6	1	03022	SPIDER, RUBBER
7	1	03023	JAW COUPLER, 1" BORE
8	1	05014-A	KEY, 1/4 X 1/4 X 5/8
9	1	04211	FITTING, 6801-8-10
10	1	04202	FITTING, 4601-12-12
11	1	04590	HOSE, INTAKE, 9 HP HONDA
12	2	04304	INTERNAL WIRE COIL
13	2	05008	CLAMP, 1" INTAKE HOSE, CTB-29
14	1	04201	FITTING, 4501-12-12
15	1	04005	SUMP SCREEN
16	1	04595	HOSE, PUMP TO ACTUATOR, HONDA
17	1	04520	FITTING, 6400-8-8



TITLE: PUMP

BARRETO

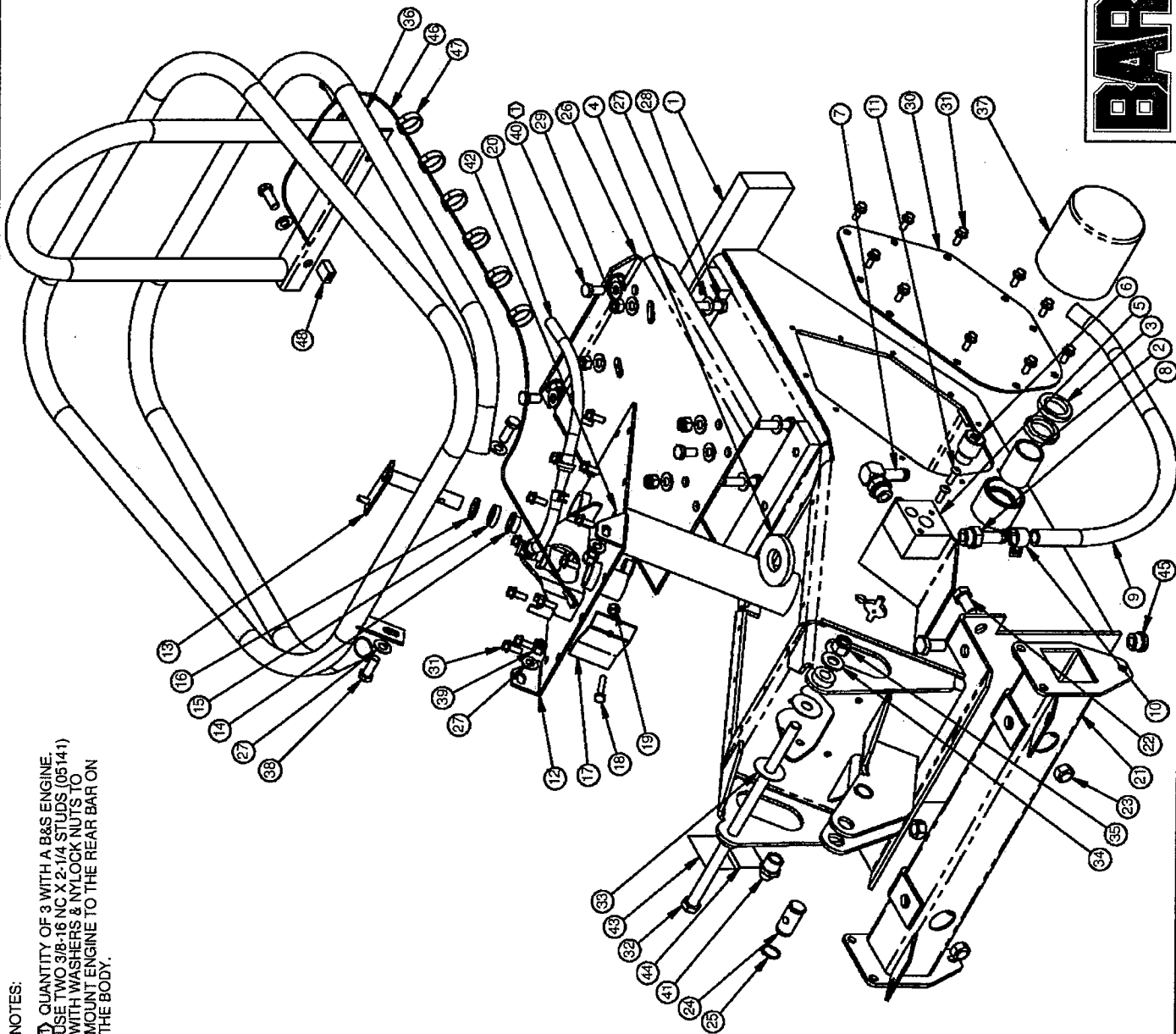
PRODUCT LINE: 918 TILLER DATE: 5/27/04

SCALE: 1:4 DWG# 00212

SHEET 1 OF 1

NOTES:

⊕ QUANTITY OF 3 WITH A B&S ENGINE.
 USE TWO 3/8-16 NC X 2-1/4 STUDS (05141)
 WITH WASHERS & NYLOCK NUTS TO
 MOUNT ENGINE TO THE REAR BAR ON
 THE BODY.



REF. QTY.	PART NO.	DESCRIPTION
1	01052	TILLER BODY
2	03007	BUSHING, AXLE
3	03012	SEAL, AXLE
4	03520	MAGNET
5	02105	MANIFOLD, FILTER
6	02070	FITTING, OIL FILTER
7	04572	FITTING, 4601-8-8
8	04574	FITTING, 4604-8-8
9	04584	HOSE, FILTER TO TANK
10	05609	CLAMP, 1/2" HOSE, CTB-20
11	05565	BUTTON HEAD CAP SCREW, 1/4-20 NC X 3/4
12	01051	TANK LID
13	01038	ACTUATOR ARM
14	03060	BUSHING, NYLON, IGUS MFF-1012-06
15	03020	SEAL
16	03061	FELT WASHER, 5/8 X 1 X 1/8
17	01054	ACTUATOR PLATE
18	05125	HH CAP SCREW 1/4-20 NC X 1-1/4 G5 ZINC
19	05096	NUT, NYLOCK, 1/4-20 NC
20	04517	VENT HOSE ASSEMBLY
21	01064	TORQUE TUBE
22	05067	HH CAP SCREW, 1/2-13 NC X 1 G5 ZINC
23	05046	NUT, GRIPCO, 1/2-13 NC
24	02027-L	HANDLE BAR ADJUSTER PIN, LOWER
25	05216	SNAP RING, 3/4 EXTERNAL
26	01068	MOUNTING PLATE, 9 HP ENGINES
27	05101	WASHER, 3/8 SAE ZINC
28	05121	HH CAP SCREW, 3/8-16 NC X 1-3/4 G5 ZINC
29	05073	NUT, NYLOCK, 3/8-16 NC
30	01062	ACCESS PLATE
31	05069	WHIZ LOCK, 1/4 X 5/8
32	05325	BOLT, CUSTOM 1/2-13 NC X 1-7/16 ZINC
33	03028	WASHER, .515 X 1.468 X .050 NYLON
34	05102	WASHER, 1/2 SAE ZINC HARDENED
35	05098	NUT, NYLOCK, 1/2-13 NC
36	01069	GUARD, ENGINE
37	03951	FILTER, HYDRAULIC OIL, WITH BY-PASS
38	05056	HH CAP SCREW, 3/8-24 NF X 1 G5 ZINC
39	05072	NUT, NYLOCK, 3/8-24 NF
40	05057	HH CAP SCREW, 3/8-16 NC X 3/4 G5 ZINC
41	03503	SIGHT GAUGE
42	03040-06	DECAL, "HYDRAULIC OIL ONLY"
43	03040-50	DECAL, "SERIAL NO."
44	03040-57	DECAL, "HYDRAULIC OIL LEVEL"
45	10361	FITTING, 6409-8 PLUG
46	05422	IGNITION WIRE, 78"
47	03035	TIE WRAP, 1/8 X 6
48	03806	QUICK-SPLICE

BARRETO

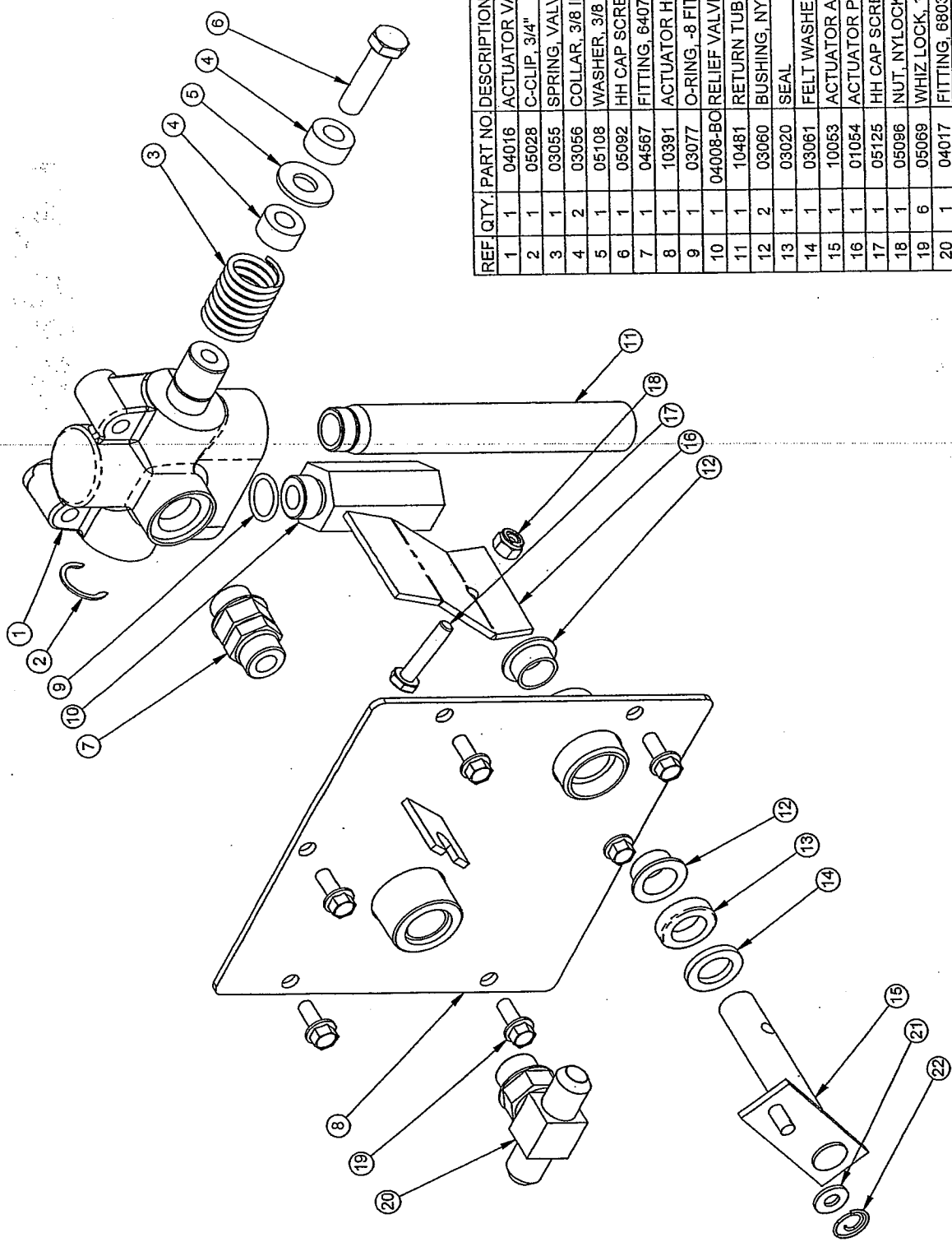
TITLE: BODY, LID, AND ENGINE GUARD

PRODUCT LINE: 918 TILLER DATE: 8/17/05

SCALE: 1:7

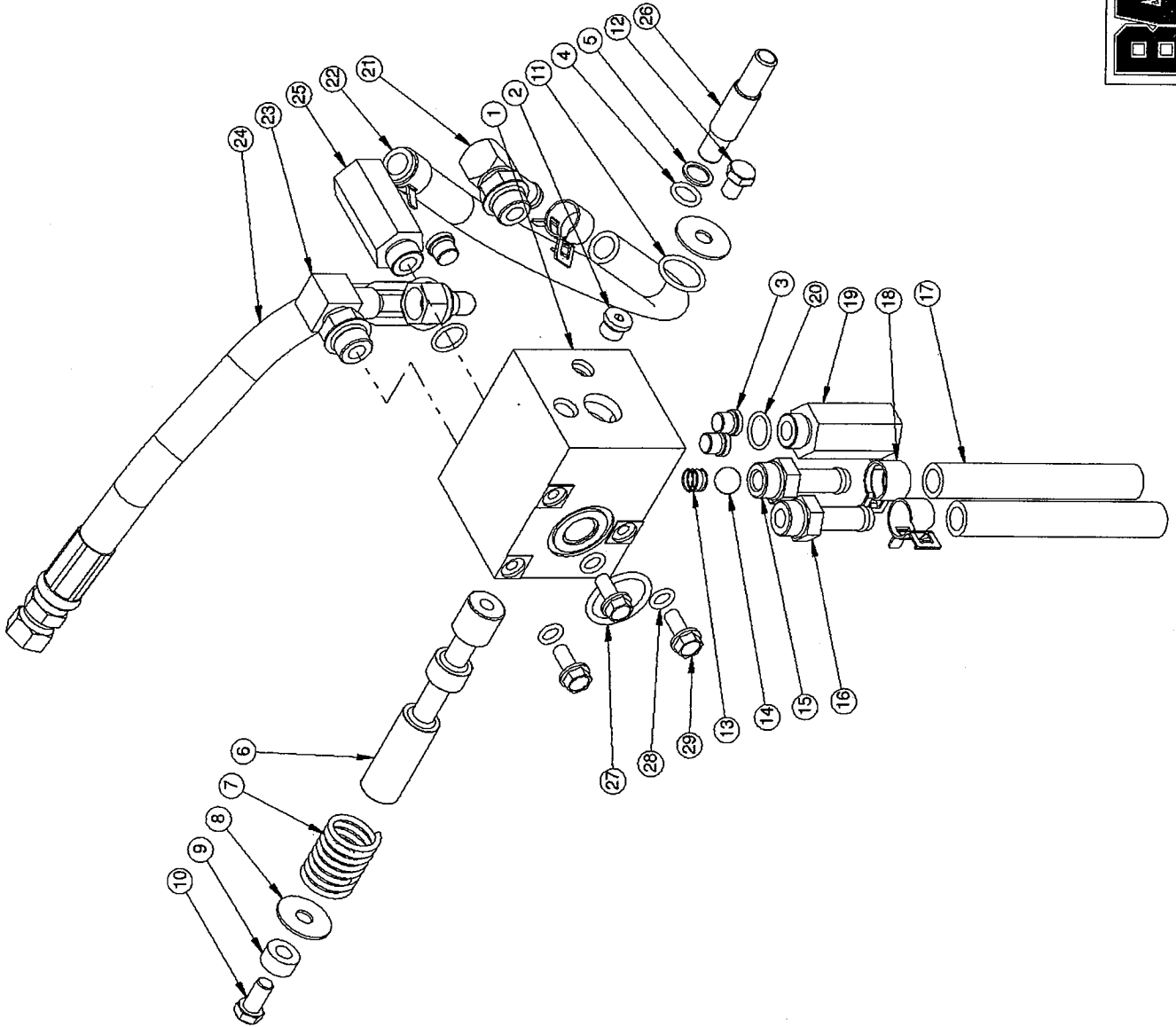
DWG# 00228 R2

SHEET 1 OF 1



REF. QTY.	PART NO.	DESCRIPTION
1	04016	ACTUATOR VALVE, O-RING PORTS
2	05028	C-CLIP, 3/4"
3	03055	SPRING, VALVE SPOOL RETURN
4	03056	COLLAR, 3/8 ID
5	05108	WASHER, 3/8 USS, ZINC
6	05092	HH CAP SCREW, 3/8-16 NC X 1-1/2 G5 ZINC
7	04567	FITTING, 6407-8-8
8	10391	ACTUATOR HOUSING PLATE
9	03077	O-RING, -8 FITTING
10	04008-BO	RELIEF VALVE, 3000 POUND, O-RING
11	10481	RETURN TUBE, #8 O-RING
12	03060	BUSHING, NYLON, IGUS MFI-1012-06
13	03020	SEAL
14	03061	FELT WASHER, 5/8 X 1 X 1/8
15	10053	ACTUATOR ARM
16	01054	ACTUATOR PLATE
17	05125	HH CAP SCREW 1/4-20 NC X 1-1/4 G5 ZINC
18	05096	NUT, NYLON, 1/4-20 NC
19	05069	WHIZ LOCK, 1/4 X 5/8
20	04017	FITTING, 6803-8-8
21	05081	WASHER, 1/4 SAE ZINC
22	05039	CIRCLE COTTER CC-3

BARRETO
 TITLE: ACTUATOR VALVE
 PRODUCT LINE: 916 TILLER DATE: 8/18/04
 SCALE: 1:2.5 DWG# 00239 R3
 SHEET 1 OF 1



REF. QTY.	PART NO.	DESCRIPTION
1	02101	VALVE BODY, ACTUATOR
2	03301	FITTING, 6409-5 PLUG
3	03300	FITTING, 6409-4 PLUG
4	03926	O-RING, 2-11/2N90, 11/16 OD X 3/32 SECTION
5	03922	BACK-UP RING, 8-11/2N90 PARBAK
6	02102	VALVE SPOOL, ACTUATOR
7	03354	SPRING, ACTUATOR VALVE RETURN
8	05137	WASHER, 3/8 X 1-1/4 OD FENDER ZINC
9	03056	COLLAR, 3/8 ID
10	05057	HH CAP SCREW, 3/8-16 NC X 3/4 G5 ZINC
11	03911	O-RING, 2-1/8, 1-1/16 OD X 3/32 SECTION
12	05055	HH CAP SCREW, 3/8-16 NC X 1/2 G5 ZINC
13	03356	SPRING, CHECK VALVE
14	04608	BALL, CHECK VALVE
15	04574-M	FITTING, 4604-8-8 WITH CHECK VALVE BALL SEAT
16	04574	FITTING, 4604-8-8
17	04587	HOSE, PUSH ON
18	05609	CLAMP, 1/2" HOSE, CTB-20
19	04008-DC	RELIEF VALVE, 2750 POUND, O-RING
20	03077	O-RING, -8 FITTING
21	04572	FITTING, 4601-8-8
22	04585	HOSE, ACTUATOR BODY TO FILTER
23	04554	FITTING, 6801-8-8
24	04589	HOSE, MANIFOLD TO ACTUATOR
25	04009-BO	RELIEF VALVE, 750 POUND, O-RING
26	02089	HYDRAULIC TUBE, ACTUATOR TO VALVE BODY
27	03918	O-RING, 2-218, 1-1/2 OD X 1/8 SECTION
28	10437	O-RING, 2-110, 9/16 OD X 3/32 SECTION
29	05140	WHIZ LOCK, 5/16 X 3/4

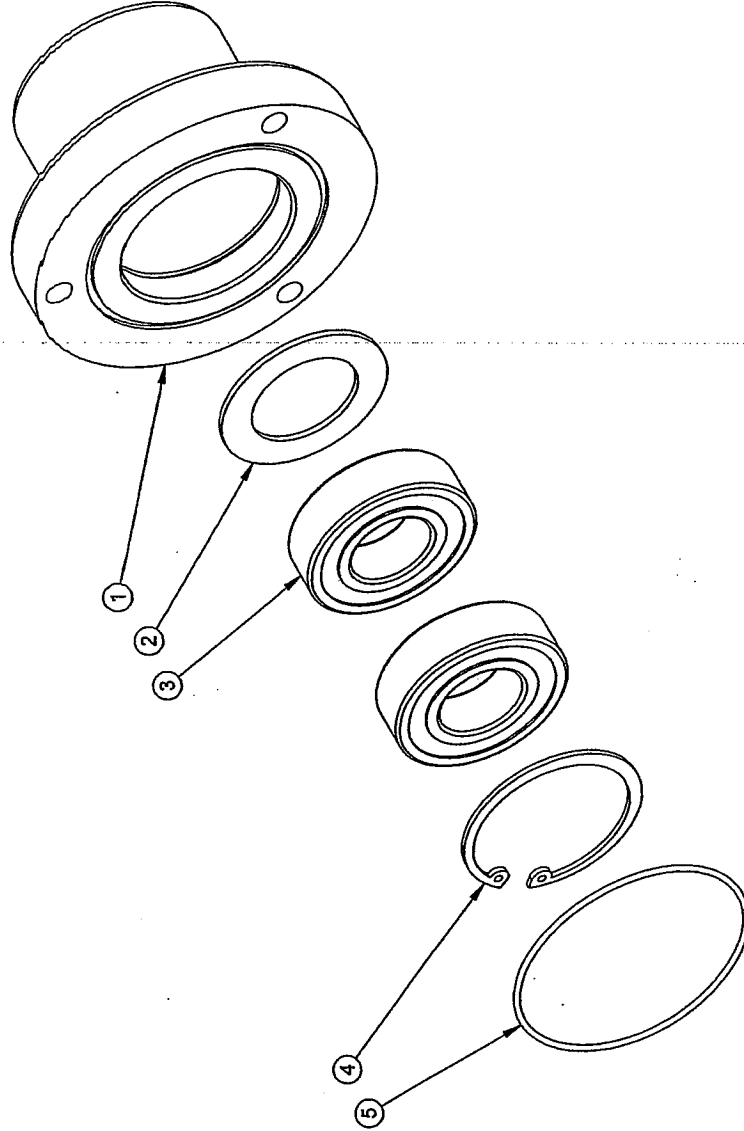
TITLE: ACTUATOR VALVE



PRODUCT LINE: 918
 SCALE: 1:3.4
 SHEET 1 OF 1

DATE: 6/7/04
 DWG# 00252 R1

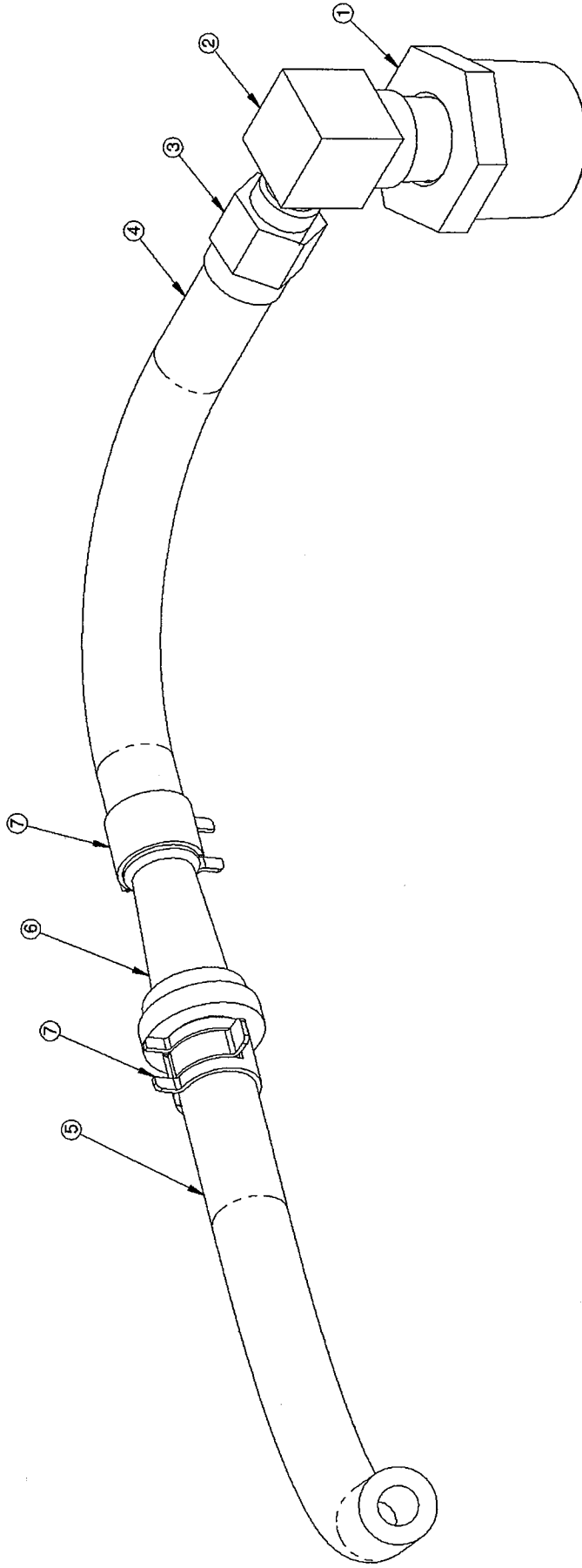
REF.	QTY.	PART NO.	DESCRIPTION
1	1	01027+	OUTBOARD BEARING HOUSING, 3 BOLT
2	1	01026	SHIELD, OUTBOARD BEARING
3	2	03043	BALL BEARING, 6205
4	1	05024	SNAP RING, HO-200, 2" INTERNAL
5	1	03233	O-RING, 2-039, 2-7/8 OD X 1/16 SECTION



**TITLE: OUTBOARD BEARING ASSEMBLY,
 3 BOLT**
 PRODUCT LINE: COMMON DATE: 9/11/03
 SCALE: 1:2 DWG# 01028+
 SHEET 1 OF 1

BARRETO

PIECE QTY.	PART NO.	DESCRIPTION
1	04315	FITTING, 5406-12-4 BUSHING
2	04528-01	FITTING, 2501-4-4
3	04214	FITTING, JS-4-4, HOSE BARB 1/4 X 1/4 SWIVEL
4	04295	HOSE, 1/4 INCH GASOLINE, 4L5, 5" LONG
5	04295	HOSE, 1/4 INCH GASOLINE, 4L5, 8" LONG
6	04516	BREATHER, FILTER SNAPPER 1435
7	03062-06	CLAMP, 1/4" FUEL LINE



TITLE: VENT HOSE ASSEMBLY

PRODUCT LINE: 918

SCALE: 1:1

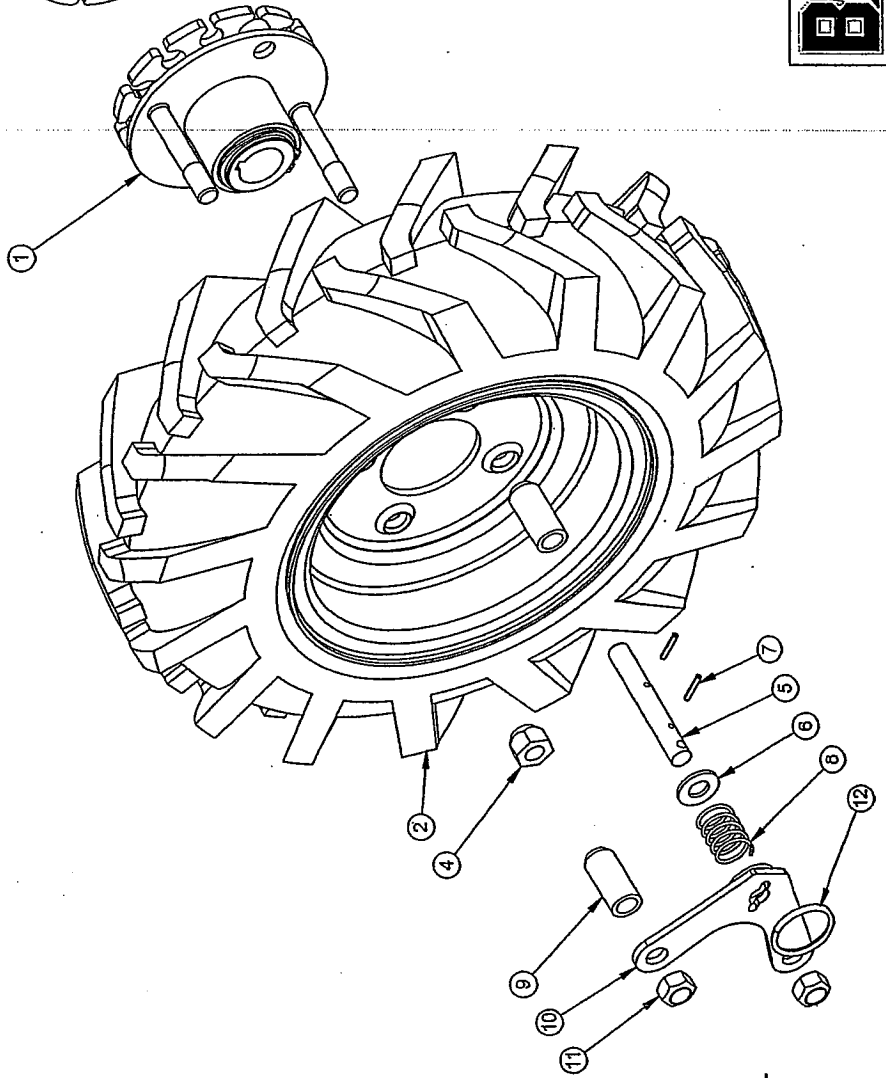
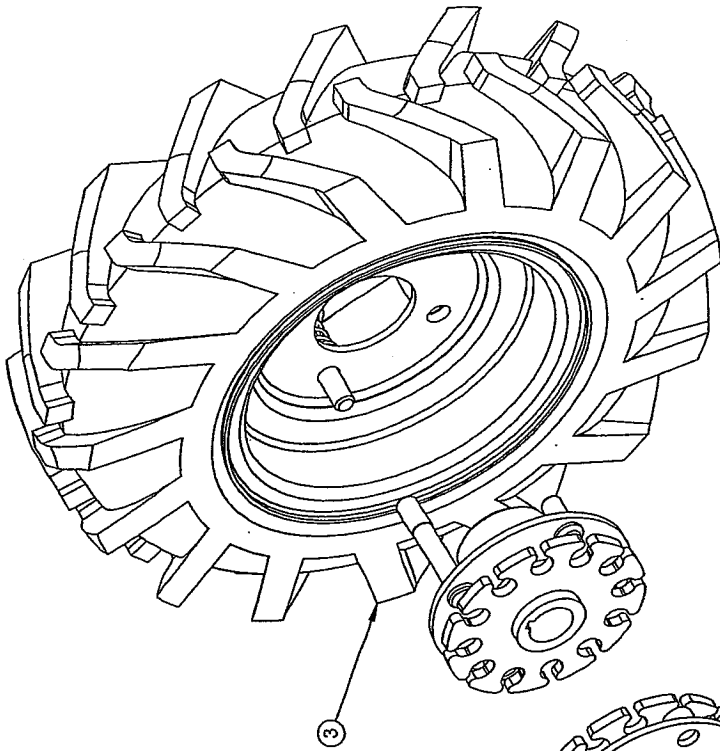
SHEET 1 OF 1

DATE: 1/6/05

DWG# 04517

BARRETO

REF. QTY.	PART NO.	DESCRIPTION
1	02269-HUB	WHEEL HUB ASSY, 1-1/8" BORE
2	03190-FW	TIRE & RIM, FREE WHEELING, LEFT HAND
3	03191-FW	TIRE & RIM, FREE WHEELING, RIGHT HAND
4	05042	NUT, LUG, 1/2-20 NF
5	02068	PIN, FREE WHEELING
6	05102	WASHER, 1/2 SAE ZINC HARDENED
7	05548	ROLL PIN (SLOTTED SPRING), 1/8 X 3/4 ZINC
8	03352	SPRING, CENTURY 3385
9	02083	SPACER, WHEEL
10	01077	MOUNTING PLATE, PIN, FREE WHEELING
11	05076	NUT, GRIPCO, 1/2-20 NF
12	03550	SPLIT RING-25



NOTES:

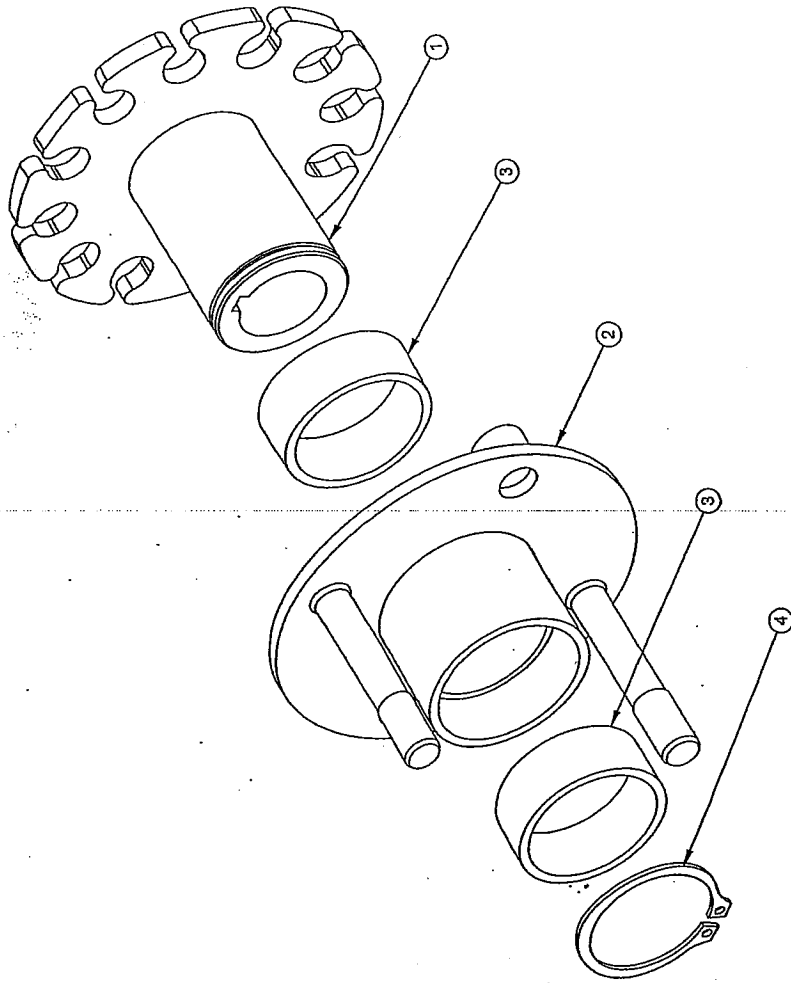
1. RIM ALONE IS PART NO. 03712.
TIRE ALONE IS PART NO. 03193.
2. USAGE: 1 OF 00256 R1 PER 912, 916 & 918.

TITLE: FREE WHEELING HUBS
AND WHEELS
PRODUCT LINE: COMMON
SCALE: 1:4
SHEET 1 OF 1

BARRETO
DWG# 00256 R1

DATE: 8/24/05

REF. QTY.	PART NO.	DESCRIPTION
1	02269	WHEEL HUB
2	01252	FREE WHEEL HUB
3	03168	BUSHING, SLEEVE, NYLON, IGUS MSI-2832-12
4	06610	SNAP RING, SH-175, 1-3/4" EXTERNAL



NOTES:

- 1. USAGE: 2 PER 00231 R3, 00256 R1, & 10188.
- 1 OF 00231 R3 PER 1318.
- 1 OF 00256 R1 PER 918 & 918.
- 1 OF 10188 PER 1320 & 1620.

TITLE: WHEEL HUB ASSY, 1-7/8" BORE



PRODUCT LINE: COMMON
 SCALE: 1:2
 SHEET OF 1

DWG# 02269-HUB

DATE: 8/15/05

TITLE: VENT HOSE ASSEMBLY

PRODUCT LINE: 918 DATE: 1/6/05

SCALE: 1:1 DWG# 04517



PIECE QTY.	PART NO.	DESCRIPTION
1	04315	FITTING, 5406-12-4 BUSHING
2	04528-01	FITTING, 2501-4-4
3	04214	FITTING, JS-4-4, HOSE BARB 1/4 X 1/4 SWIVEL
4	04295	HOSE, 1/4 INCH GASOLINE, 4L5, 5" LONG
5	04295	HOSE, 1/4 INCH GASOLINE, 4L5, 8" LONG
6	04516	BREATHER, FILTER SNAPPER 1435
7	03062-06	CLAMP, 1/4" FUEL LINE

