



471 INDUSTRIAL AVE.
RIPON, CALIF. 95366
PHONE (209) 599-6118

JACKRABBIT

OWNER – OPERATOR MANUAL

YARDJACK

SELF-PROPELLED 36/36 ELEVATOR

SERIAL # 33--- Year 2009



TO OUR CUSTOMERS:

Thank you for choosing JackRabbit. We stand behind our products and are very proud of the equipment we design and manufacture. Preventive maintenance is the easiest and least expensive type of maintenance. Please take the time to review this Owner's Operator's Manual it can save you time and expense.

WARRANTY

JACKRABBIT warrants each new piece of equipment and parts manufactured by it to be free from defects in material and workmanship under normal use and service. The obligation of JACKRABBIT shall be limited to replacing any part which shall, within 1 year (1 season) after delivery to the original purchaser, be returned to JACKRABBIT with transportation charges prepaid and which an examination by JACKRABBIT discloses defective. This Warranty does not obligate JACKRABBIT to bear the cost of labor, travel time or hauling in connection with the replacement or repair of the defective parts and in no event will be liable for consequential damages including but not limited to loss of crop, rental or substitute equipment or other commercial loss.

No warranties or representations made by persons other than representatives of JACKRABBIT expressly authorized in writing to do so shall be valid and binding upon JACKRABBIT. No dealer shall be authorized to bind JACKRABBIT in this respect.

JACKRABBIT makes no warranty with respect to component parts not manufactured by JACKRABBIT. This warranty shall not apply to any equipment which has been altered in any way outside of manufacturers factory, or which has been subject to misuse, neglect or accident.

This warranty is expressly in lieu of all other warranties and representations, expressed, implied, or statutory, including warranties of merchantability and fitness for a particular use, and all other liabilities or obligations on the part of JACKRABBIT, foreseeable or not.

USER'S RESPONSIBILITY

It is the responsibility of the user to read the Operator's Manual and understand the safe and correct operating procedures as pertains to the operation of the product and to lubricate and maintain the product according to the maintenance schedule in the Operator's Manual.

WARRANTY SERVICE

Warranty service may be obtained through an authorized dealer or JackRabbit service facility. Write or call: JackRabbit, 471 Industrial Ave, CA 95366, telephone (209) 599-6118

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SECTION A

IMPORTANT SAFETY NOTICE

Improper practices or carelessness can cause bodily injury or death.

Always instruct the operator in proper operating procedures. The operator must read and understand all safety instructions in the Owner's - Operator's Manual and those placed on the elevator.

SAFETY INSTRUCTIONS

-  1. **Danger: Always check and make sure elevator's operational site is a safe distance from power lines.**
-  2. **Danger: Operational site should be level to prevent tipping of the unit.**
-  3. **Warning: All guards must be in place prior to starting the elevator.**
-  4. **Warning: Always check, making sure all personnel are clear of elevator prior to starting engine.**
-  5. **Danger: Keep all personnel clear of belts and moving parts when in operation.**
-  6. **Stop belts and turn off engine prior to clearing material from belts.**
-  7. **Warning: Turn off engine prior to tightening or adjusting belts (see page 17 for belt adjustments).**
-  8. **Warning: Always wear protective eye goggles when checking for hydraulic leaks. Do not check hydraulic lines for leaks with your hands. High pressure oil leaking through a small hole will penetrate the skin. This will cause serious bodily injury or death.**
-  9. **Danger: Always check route to be traveled prior to driving the elevator to a new location for low electric power lines and other obstructions.**
-  10. **Warning: No riders.**
-  11. **Danger: Stay clear of horizontal belt when opening bottom dump trailer doors.**
-  12. **Caution: Always replace safety labels and signs if they become illegible.**













SECCION A
INSTRUCCIONES DE SEGURIDAD

AVISO IMPORTANTE DE SEGURIDA

Uso incorrecto o descuido puede causar lesiones o muerte.

Siempre ensene al operador el procedimiento propio de operacion. El operador debe de leer y entender todas las instrucciones de seguridad en el manual de operacion y las reglas puestas en el YardJack elevador.

INSTRUCCIONES DE SEGURIDAD

-  1. **Peligro: Siempre revise y este seguro que el sitio de operacion del elevador este localizado a una distancia segura de las lineas de conduccion electricas.**
-  2. **Peligro: El sitio de operacion debe de estar plano para prevenir que se incline la unidad.**
-  3. **Advertencia: Todas las guardias de ben de estar puestas antes de comenzar el YardJack.**
-  4. **Advertencia: Siempre revise y este seguro que el personal este alejado antes de comenzar el YardJack.**
-  5. **Peligro: Mantenga el personal alejado de las bandas y partes moviblas cuando este en operacion.**
-  6. **Advertencia: Pare las bandas y apague el motor antes de limpiar materia de las bandas.**
-  7. **Advertencia: Apague el motor antes de apretar y ajustar las bandas (vea en las paginas 17 para el ajuste de las bandas).**
-  8. **Advertencia: Siempre use lentes de proteccion cuando revise goteras de aceite hidraulico. No revise las goteras de lineas hidraulicas con sus manos. Goteras de aceite con presion alta puede penetrar la piel. Esto puede causar heridas al cuerpo o la muerte.**
-  9. **Peligro: Siempre revise la ruta que va a ser racorrida antes de manejar el elevador (YardJack) a un sitio nuevo, para que no haiga lineas de electricidad bajas y otros obstaculos.**
-  10. **Advertencia: No lleve pasajeros.**
-  11. **Peligro: Mantengase alejado de las bandas cuando este abriendo las puertas del remolque de basura.**
-  12. **Advertencia: Siempre reamplaze las etiquetas y letreros de seguridad si estan ilegibles.**

**SECTION B
SPECIFICATIONS
SERIAL #33---**

Product Transfer	Two belts: variable speed horizontal belt in drive over pan feeds material on to incline belt in chute.
Belt Width	Horizontal: 36" Inclined: 36" 30"
Pan Height	5 1/2"
Flaps	Independently Hydraulically operated
Belt Speed	Incline belt 700 FPM Pan belt variable 0 - 650 FPM Belt
Drive	Hydraulic motors
Hopper	Length - 10' 8" Width with flaps up - 4' 9"
Length	46' overall
Height	17'
Spout Clearance	14' 9"
Width	10' 5"
Weight	10,700 Lbs.
Tires	(2) 16.5 – 14Ply (3) 26 x 12.0 - 12 10 Ply, two are drivers
Controls	Swiveling operator seat faces all controls during unloading and sideways travel. Driving control moves with operator to forward position for traveling from stock pile to stock pile.
Power	Deutz diesel TD2011L4i

All specifications subject to change without notice. For further information call JackRabbit at (209) 599-6118.

SECTION B
MAINTENANCE MATERIAL SPECIFICATIONS

1. Engine Oil: 15W - 40 Multi-viscosity motor oil. (See operation Manual for special conditions).
2. Engine Oil Filter: JackRabbit # 27010 Deutz # 117 4417
3. Fuel Filter: JackRabbit # 27011 Deutz # 117 4696
4. Fuel Capacity = 24 US gal. Diesel
5. Hydraulic Oil: ISO - 68
Capacity 42 US gal. with filter change
6. Hydraulic Oil Filter: JackRabbit # 23548A LHA SPE 50 - 10
7. Lubricant (Grease): Lithium Base NGL 1 or NGL 2 (For extreme pressure)
8. Air Filters: Outer - JackRabbit # 28330 # P778989
Inner - JackRabbit # 28331 # P778030
9. Fan Belt: See Deutz "Spare Parts Catalog"
10. Starter: See Deutz "Spare Parts Catalog"
11. Alternator: See Deutz "Spare Parts Catalog"
12. Torque Hubs: 9 Ounces of 90W Gear Oil

SECTION C CONTROLS, GAUGES AND VALVES

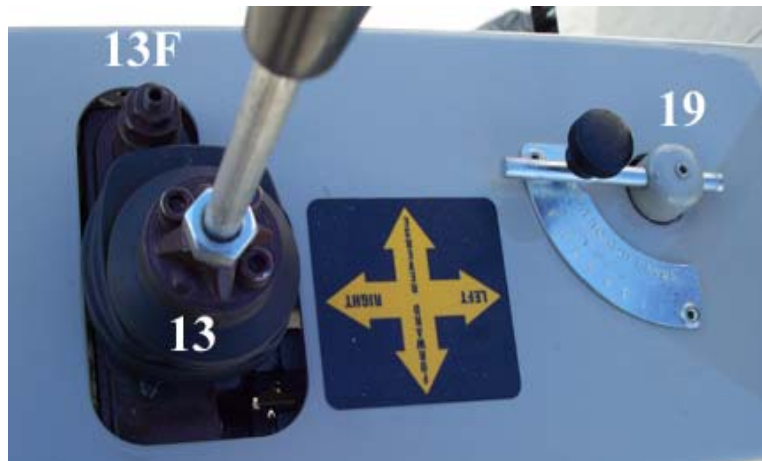
1. KEY SWITCH AND IGNITION: Start engine in idle position.
2. BELTS CONTROL: Rocker Switch Push ON - Push OFF. Push ON after engine is started.
3. THROTTLE SPEED CONTROL - TURTLE = IDLE, RABBIT = FULL
THROTTLE: Rocker Switch Push TURTLE - Push RABBIT. This switch controls both belts.
4. LIGHTS: Push ON – Push OFF
5. DIRECTION CONTROL (FORWARD - SIDEWAYS): Rocker Switch push TOP for forward travel. Push BOTTOM for sideways travel.
6. KEY - IGNITION LIGHT: The light glows green when the key is in the ON position.
7. OIL WARNING LIGHT: The light glows red when oil pressure is low. Engine must be turned OFF when this light is ON or serious damage to the engine will occur.
8. ALTERNATOR WARNING LIGHT: The light glows red when the battery is discharging.
9. OIL TEMPERATURE GAUGE: Gauge displays safe and unsafe operating ranges
The engine must be turned OFF if needle is in unsafe operating range or serious damage to the engine will occur.
10. WOODCHUCK: Push and hold the top of rocker switch to raise the WOODCHUCK to its non operating position. To lower Push and hold the bottom of the of the rocker switch until the WOODCHUCK rests on the incline belt frame.
11. WOODCHUCK CONTROL: Push ON – Push OFF



12. PIVOT SEAT: The seat pivots forward and to the side. This orientates the driver to the direction the joystick control produces.
13. JOYSTICK: the joystick provides directional control and power to the single drive wheel at the front of the elevator. When sitting in the seat the following movements result in the following actions:
 - A. PULL joystick to your left – turns wheel left
 - B. PUSH joystick to your right – turns wheel right
 - C. PUSH joystick forward – provides forward movement
 - D. PULL joystick backward – provides backward movement
 - E. The joystick can also act as a brake
 - F. Relief Valve, set at factory

When driving the elevator forward the joystick provides both the power and the steering function.

When driving sideways along a stock pile the joystick control provides power to the single wheel both forward and backward, and must be used in conjunction with the rear wheel drive control (14) or damage to the tires could occur.



14. REAR WHEEL DRIVE CONTROL: With seat facing sideways, pushing the handle provides movement in the direction the handle is pushed. Pulling the handle provides movement in direction handle is pulled. This control must be used in conjunction with the joystick (13) or damage to tires could occur.
15. REAR WHEELS HEIGHT CONTROL: PUSH handle forward to lower both rear wheels. PULL handle to raise rear wheels.
16. WINKIE CONTROL: PUSH handle forward to move winkie down (build stock pile close to elevator). PULL handle back to move winkie up (build stock pile away from elevator). Winkie can be stopped in any position.
17. HOPPER FLAP CONTROL: PUSH handles to lower flaps. PULL handles to raise flaps.
18. FRONT WHEEL HEIGHT CONTROL: PUSHING handle lowers front wheel PULLING handle raises front wheel.
19. HORIZONTAL BELT SPEED CONTROL: This control provides variable belt speeds (0 – 650 FPM). Turn to “0” to stop belt, turn to “10” for maximum speed.



20. FUEL GAUGE: The gauge is located on top of diesel tank.

21. HYDRAULIC OIL LEVEL GAUGE (Bullet Type): Level must be between gauges. Bottom gauge must be full and the top one empty.



SECTION D OPERATING PROCEDURES

Do not allow anyone to operate the YardJack Elevator who has not been properly trained in its safe operation.

Prior to operation the following items must be checked and/or adjusted to obtain maximum performance and avoid unnecessary wear and stoppages.

1. Check and clean engine air filter. See Engine Air Filter Maintenance instructions Pages 15 & 16.
2. Check the engine oil level and add oil if low. See Maintenance Materials Specifications Page 4.
3. Check engine fan and alternator belt. Tighten if loose. See Engine Maintenance Manual for proper tension.
4. Check engine cooling air intake. Make sure it is clean and unobstructed. Clean with high pressure air if dirty.
5. Check battery connections. Clean terminals if they are corroded.
6. Check the hydraulic oil level. Add oil if level is below bottom sight gauge (Bullet Type).
7. Check fuel level and fill if low.
8. Check tension of both conveyor belts on elevator. All conveyor belts should be tightened if loose. Check the tension of WoodChuck conveyor belts and chain.
9. Start engine (warm up 3 - 4 minutes) at idle.
10. Turn on elevator and woodchuck conveyor belts. Both horizontal and incline conveyor belts must move freely. If they don't move freely STOP engine and free belt or belts that do not move freely.
11. After conveyor belts run smoothly at low speed check each belt. Make sure they track evenly on both head shaft and tail shaft pulley. Adjust belts if they do not track evenly or if they are loose. They must carry a full load without slipping. See Conveyor Belt Adjustments Instructions Page 17.
12. Run belts at fast speed 3 - 4 minutes then recheck tracking. Adjust as necessary.

Now you are ready to start operations.

DAILY OPERATION

The YardJack Elevator is designed to stockpile almonds or other similar crops.

1. The YardJack Elevator engine should be started at idle. Warm up the engine at idle for 1 - 2 minutes.
2. To drive the YardJack Elevator from service or storage area the rear wheels used to drive sideways must be raised to their full UP position.
 - A. PULL rear wheels height control handle (15) and hold until both wheels are In full up position. The wheels may come up one at a time.
3. PUSH the top of FRONT DIRECTION rocker switch (5) on the control panel. This increases the flow of oil to the front drive wheel and allows faster forward travel.
4. Turn pivot seat until facing forward (toward single drive wheel).
5. Use joystick to turn front drive wheel until it faces forward. This should be done with the wheel in the full raised position.
6. Lower the front drive wheel by pushing front wheel height control (18). Hold handle forward until wheel is in down position.
7. To travel forward PUSH the joystick forward. Turning while traveling can be accomplished by:
 - A. Turn to left, PUSH joystick to the left.
 - B. Turn to right, PUSH joystick to the right.
 - C. To slow down or stop, slowly and gently PULL joystick backward.

The steering is non reactive. The front wheel stays where you put it. It does not return to center.





8. With the YardJack located where the stockpile will be built:
 - A. Raise the front wheel to its full up position (18).
 - B. Lower the hopper flaps (17).
 - C. Raise or lower winkie to desired angle (16).

9. Drive a set of bottom dump trailers over the horizontal conveyor pan.
 - A. Center the first trailer door over the conveyor belt.
 - B. Raise the hopper flaps (17).
 - C. Turn on belts with engine at idle (2).
 - D. Increase engine speed to full throttle (3).
 - E. Smoothly open trailer door. The open door width should load the horizontal belt and the horizontal belt speed control (19) adjusts the rate of flow to the incline conveyor belt. The rate of flow on to the incline conveyor should be heavy but allows the engine to run free (do not lug the engine).
 - F. A bottom dump trailer (semi doubles) should be unloaded in 2 - 4 minutes provided it is relatively stick free.
 - G. After the first trailer is empty the YardJack's engine speed is reduced to idle, the belts are stopped, and the hopper flaps lowered and the second trailer door is centered over the conveyor belt. Unload the second trailer as described above.



10. When the stockpile is built to the desired height the YardJack is moved laterally to lengthen the stockpile.
- A. The driver seat is turned with the driver facing the conveyor and looking in the direction the YardJack will travel.
 - B. The rear wheels are lowered until they are in the full down position.
 - C. The front drive steering wheel is rotated 90 degrees to allow sideways travel.
 - D. The front drive wheel is lowered to its full down position.
 - E. The YardJack driver slowly pushes the joystick forward with his right hand and simultaneously pushes forward the rear wheel drive control to move the YardJack sideways.
 - F. The YardJack can be backed up by pulling the controls instead of pushing them.



11. With the YardJack in a new stockpiling location:

G. The front and rear wheels are raised to their full up position.

H. The hopper flaps are lowered and you are ready for another set of doubles.

The joystick and the rear wheel drive control can operate the front and rear wheels at slightly different speeds. This provides the ability to steer the YardJack along the stockpile. Severe speed differences can cause air loss in tires or tire damage.

WOODCHUCK DESTICKER

The YardJack Elevator can be equipped with a WoodChuck desticker. When the WoodChuck is used the WoodChuck ON-OFF switch is left in the ON position. It will automatically start when the belt ON switch is pushed.

The bin belt must be slowed down (control 19) to allow time for the for the WoodChuck to remove the sticks.

The WoodChuck can be turned OFF and raised above the crop when the crop is free of most sticks.

To raise the WoodChuck:

1. Turn the Key to The ON position (1).
2. Push the WoodChuck ON – OFF switch to the OFF position (11).
3. Push and hold in the top of the rocker switch (arrow pointing up 10) until the WoodChuck reaches its maximum height.

To lower the WoodChuck:

1. Turn the Key to The ON position (1)
2. Push the WoodChuck ON – OFF switch to the ON position (11).
3. Push and hold in the bottom of the rocker switch (arrow pointing down 10) until the WoodChuck rests on the incline conveyor frame.



SECTION E

MAINTENANCE PROCEDURES AND SCHEDULE

Before doing any service or maintenance work on the engine take the time to review your Engine Operation Manual. It provides additional technical information you will need to correctly service and maintain the elevator engine.

CAUTION: Do not over grease bearings. Over greasing can damage seals and actually cause an increase in internal friction.

The engine requires a one time maintenance between 50 – 150 hours:

1. Check for engine leaks.
2. Change oil and oil filter.
3. Change fuel filter cartridge.
4. Re-tighten engine mounts.
5. Check V belt tension.

Check Engine Operation Manual for details and special conditions.



ENGINE AIR FILTERS SERVICE INSTRUCTIONS

CAUTION: Check to make sure both inner and outer air filters are seated properly. LOOSE, DAMAGED OR INCORRECTLY INSTALLED FILTERS WILL CAUSE SERIOUS ENGINE DAMAGE.

DAILY MAINTENANCE:

The amount of dust in the air will determine the frequency that the air filter system should be serviced.

In very dusty conditions you may elect to perform items 1-10 daily.

In clean conditions you may elect to perform item 1 daily and items 1-10 weekly.

1. Empty dust discharge valve. Press apart lips of discharge slot. Clean slot from time to time.
2. Remove service cover.
3. Gently pull the outer filter out of the filter housing. Avoid dislodging dust from the filter.
4. Carefully wipe the inside of the outer tube with a clean cloth. Be careful not to damage the inner safety cartridge.
5. With an air hose gently blow dust and dirt from outer filter by blowing air through the filter from the inside (5 Bar or 73 PSI Maximum). Be careful not to damage the filter with high velocity air from a nozzle.
6. Do not use high pressure air to clean the safety cartridge.
7. Check the outer filter for leaks. A streak of dust on the inside of the outer filter is a tell tale sign.
8. Never clean inner safety cartridge (Replace).
9. Install outer filter over safety cartridge. Secure outer filter. Make sure that outer filter is seated properly.
10. Replace service cover.

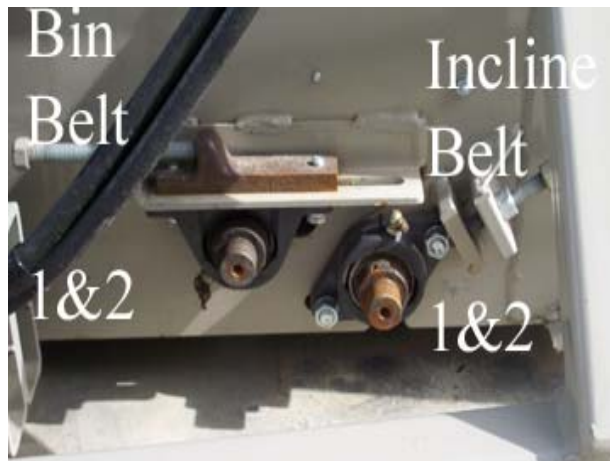
After the five services replace both outer filter and inner safety cartridge. See Maintenance Material Specifications for outer filter and inner safety cartridge specifications.



CONVEYOR BELT ADJUSTMENTS INSTRUCTIONS

The tension of the belts should be tight enough to prevent slipping when under maximum load. Belt alignment and tension are maintained by adjusting bolts that slide the pulley shaft bearings in the forward and reverse directions. All adjustments should be made in small increments with the belt running 1 – 2 minutes between adjustments.

1. Change alignment of the belt: Loosen bearing hold-down bolts. Turn the adjustment bolt to tighten the belt on the side where the belt is too close or rubbing. Re-tighten bearing hold-down bolts.
 - A. Run belt at low speed for 1 - 2 minutes allowing belt to center on pulley. Re-adjust if necessary.
 - B. Run belt at fast speed for 2 – 3 minutes while checking alignment.
2. Increase belt tension: Loosen bearing hold-down bolts on idler pulley shaft. Turn adjustment bolts on each side of belt an equal amount increasing belt tension. Re- tighten bearing hold-down bolts.
 - A. Run belt at low-speed checking for correct tension and alignment. Re-adjust if necessary.
 - B. Run belt at fast speed for 2 – 3 minutes while checking tension and alignment.



Bin Belt idler pulley is not shown in above photo. To increase bin belt tension adjust Idler pulley at front end of bin .

DAILY MAINTENANCE

ENGINE:

1. Check oil level. Add oil if oil level is at or below add mark.
2. Check fan for damage and fan belt for proper tension.
3. Empty dust discharge valve.
4. Check Air Filter (see page 15 &16 for details).
5. Check General condition of engine for leaks or damage parts, worn or damaged Belts and any change of engine appearance.

CHASSIS:

6. Check hydraulic oil level. If hydraulic oil is low add ONLY ISO – 68 hydraulic oil. DO NOT add motor oil to hydraulic oil.
7. Check fuel level.
8. Check conveyor belt tension. The conveyor belts must be tight enough to carry a full load without slipping.
9. Start engine at idle. Idle for 2 – 3 minutes to warm up oil and engine.
10. Start conveyor belts at low speed and check tracking. All conveyor belts should track in center of pulleys. Then run conveyor belts at full speed and check tracking.
11. Check the general condition of the elevator for hydraulic leaks and worn or damaged parts.

MAINTENANCE AT 125 HOURS

Perform the following after each 125 hours of operation.

1. Clean battery and cable connectors.
2. Service cooling system. See Engine Operation Manual for instructions.

MAINTENANCE AT 250 HOURS OR 3 MONTHS

1. Check engine air filter system. See pages 15 – 16. See Maintenance Materials Specifications page 4 for replacement engine air filters.
2. Inspect air intake system. Tighten or replace parts as necessary to make sure air intake system does not leak.
3. Change engine oil and oil filter. See Maintenance Materials Specifications page 4 for filter and oil specifications. After oil and filter change run engine at idle and check for leaks at filter and drain plug.
4. Service battery and cable connectors.
5. Service cooling system See Engine Operation Manual for instructions.
6. Check and adjust conveyor belts and woodchuck chain.

MAINTENANCE AT 500 HOURS OR 6 MONTHS

1. Perform Daily Maintenance
2. Perform 125 Hour Maintenance
3. Perform 250 Hour Maintenance

STORAGE OFF SEASON

1. Wash and clean chassis.
2. Clean all air filters and re-install.
3. Change engine oil and oil filter.
4. Fill diesel tank.
5. Check hydraulic oil level (oil level between bottom and top sight gauge).
6. Air tires to specified air pressure.
7. Release belt tension on all conveyor belts by adjusting the idler pulleys. If stored in unprotected area all conveyor belts should be removed. The belts should be rolled up and stored indoors off the floor to prevent deterioration.
8. The battery should be removed and stored indoors off the floor.

Inspect belts, hoses and general appearance of engine and chassis. Repair or replace items that show wear or damage.

Replace all damaged or missing safety shields, guards and decals.

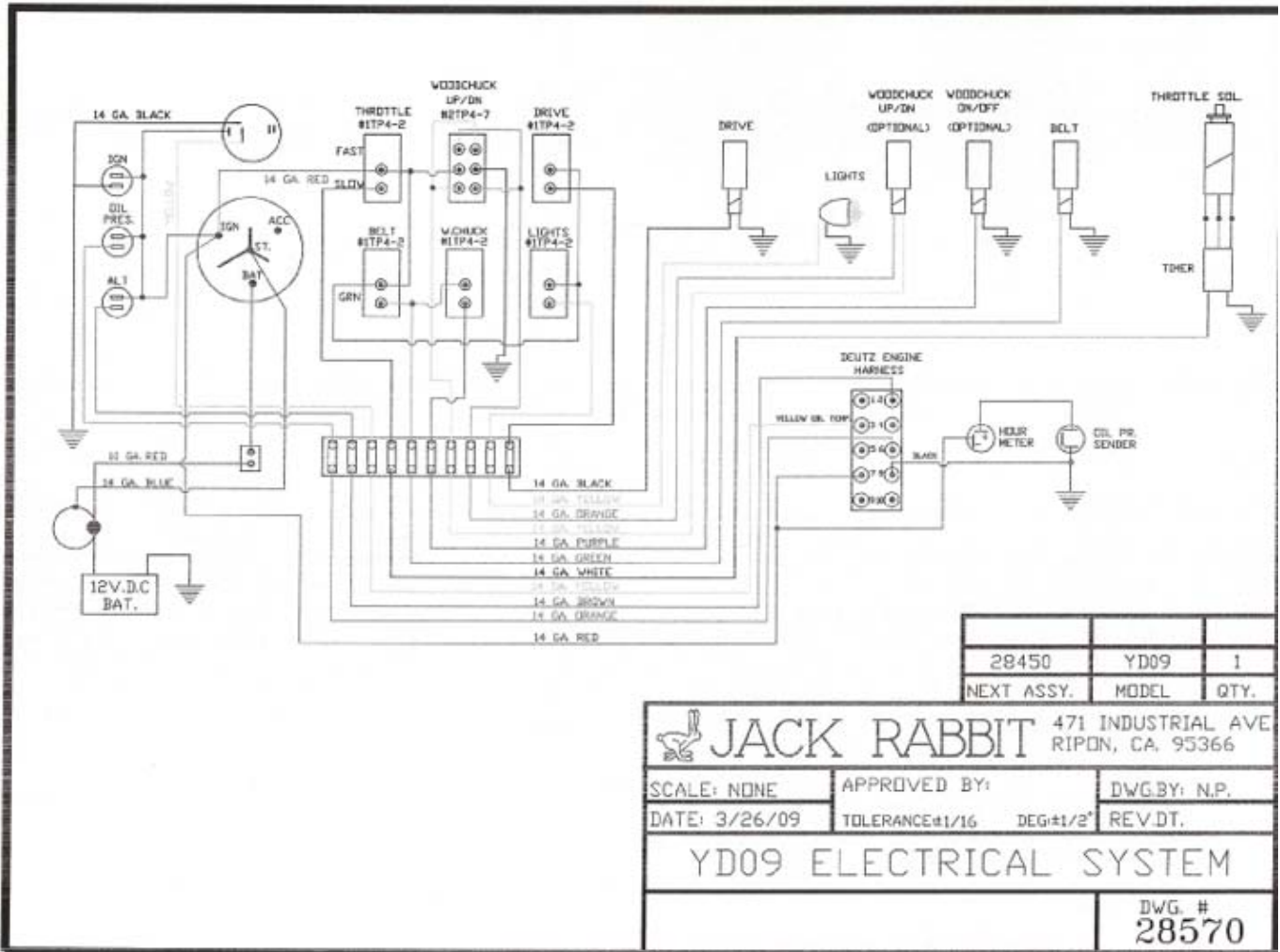
Now your ready for the next season.



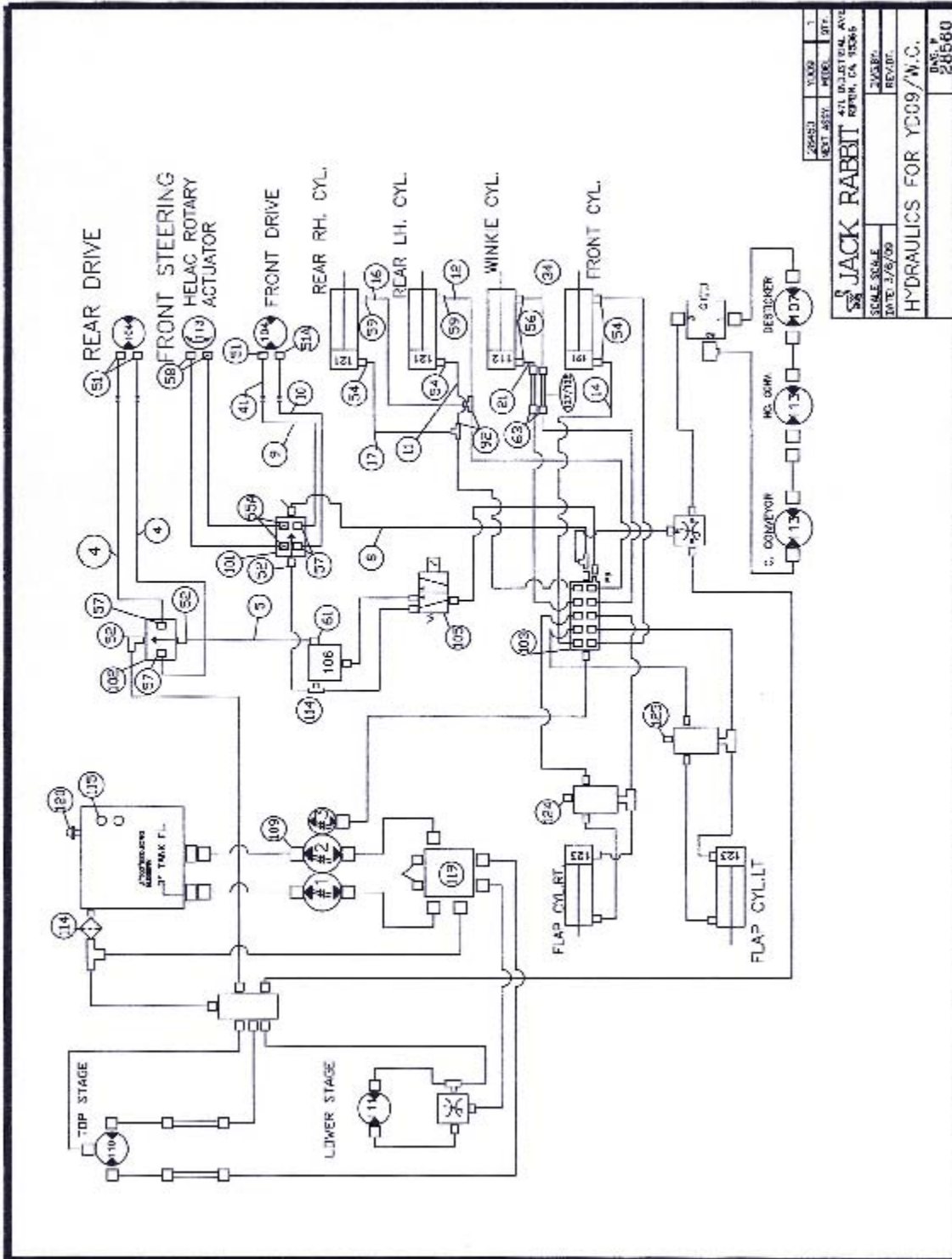
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SYSTEMS DIAGRAMS

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ELECTRICAL WIRING DIAGRAM



HYDRAULIC DIAGRAM



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REV. 057	4008	DT
JACK RABBIT 471 INDUSTRIAL AVE RICHMOND, CA 94806		
SCALE: NONE	DATE: 3/29/59	REV: 07
HYDRAULICS FOR YC09/W.C. DWS: P 28560		

SECTION G TROUBLE SHOOTING

The following is a list of problems that may occur, and some of the possible causes and remedies. If the solution to these problems or any other problem is not readily apparent, contact your JackRabbit dealer or JackRabbit direct. Phone (209) 599-6118 or Fax (209) 599-6119.

Problem-symptom	Cause	Action
Engine won't start	Dead Battery	Jump start engine with a auxiliary battery
Engine stops	Out of Fuel	Fill tank with diesel then bleed air from system
Other engine problems		See Deutz Operation Manual Trouble Shooting Diagnostic Chart.
Belts tracking to one side of pulley	Belt out of alignment	See Conveyor Belt Adjustment Instruction page 17.
WoodChuck chain stops	Stick under chain	Turn engine OFF. Turn chain backwards With a bar. Remove stick and tighten WoodChuck Chain if it is loose.



JackRabbit equipment is shipped with an Owner – Operator’s Manual and a Service Parts Manual enclosed in a water proof canister attached to the equipment. Both manuals should be kept with the equipment for easy accessibility.

