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ELECTRICAL GENERAL INFORMATION

General Information

Reading Electrical Schematics

The schematic is made up of individual circuits laid out in a sequence of related functions. It is formatted with all power wires (A) across the top and all ground wires (B) across the bottom. Current flow is generally from top to bottom through each circuit and component. All components are shown in the OFF position. The diagram does not list connector (C) information unless needed to avoid confusion. If the connector is shown, the number next to it is the terminal pin location (D) in the connector.

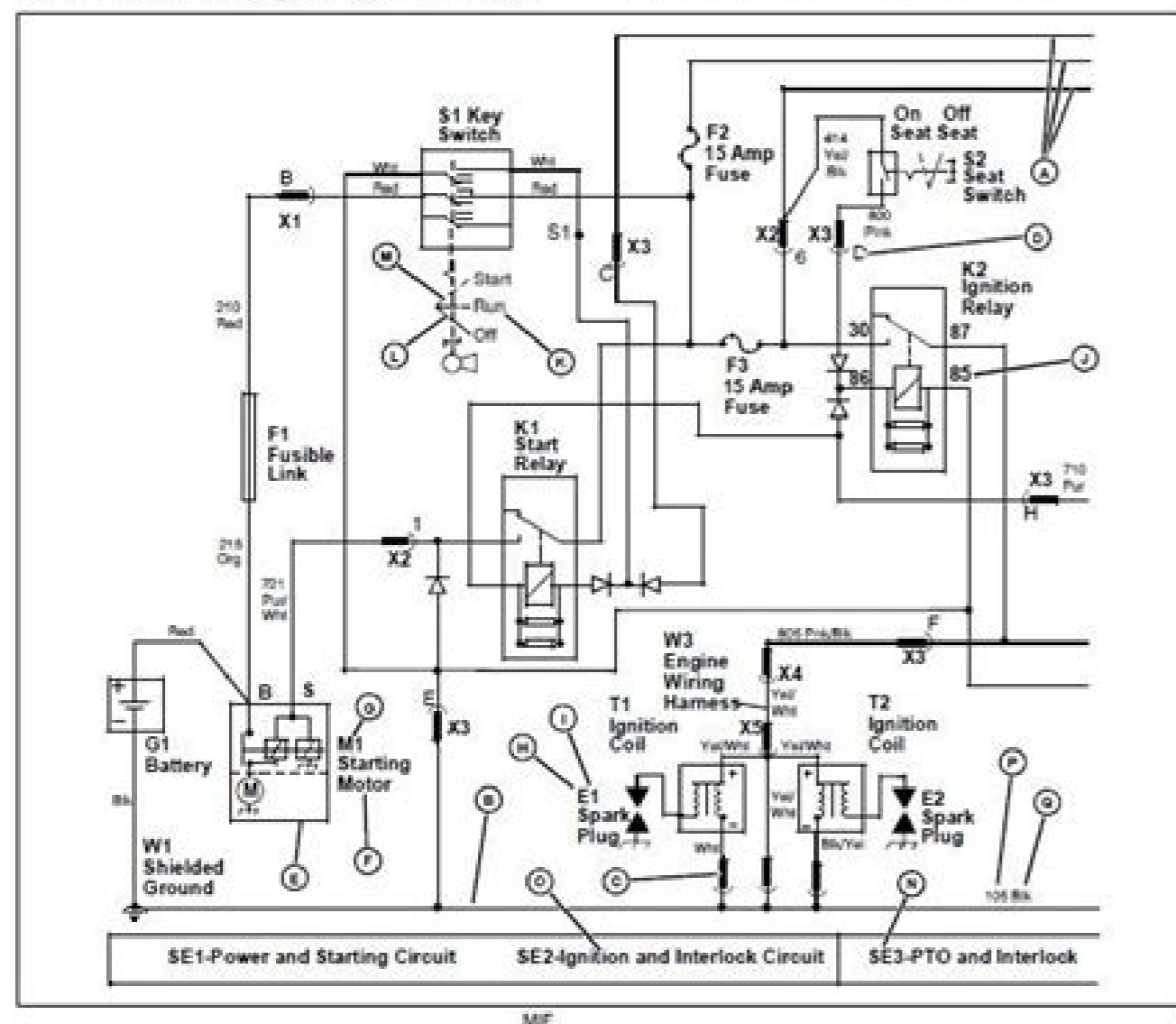
Each component is shown by a symbol (E), its name (F), and an identification code (G). The identification code contains a device identifying letter (H) and number (I).

The identifying letter is always the same for a specific component, but the identifying numbers are numbered consecutively from upper left to lower right. The terminal designation (J) is placed directly outside the symbol next to the connecting wire path. Switch positions (K) are also placed directly outside the symbol. The solid line (L) shows the position the switch is currently in and dash lines (M) represent other switch positions.

Each circuit is identified at the bottom of the drawing by a section number (N) and section name (O).

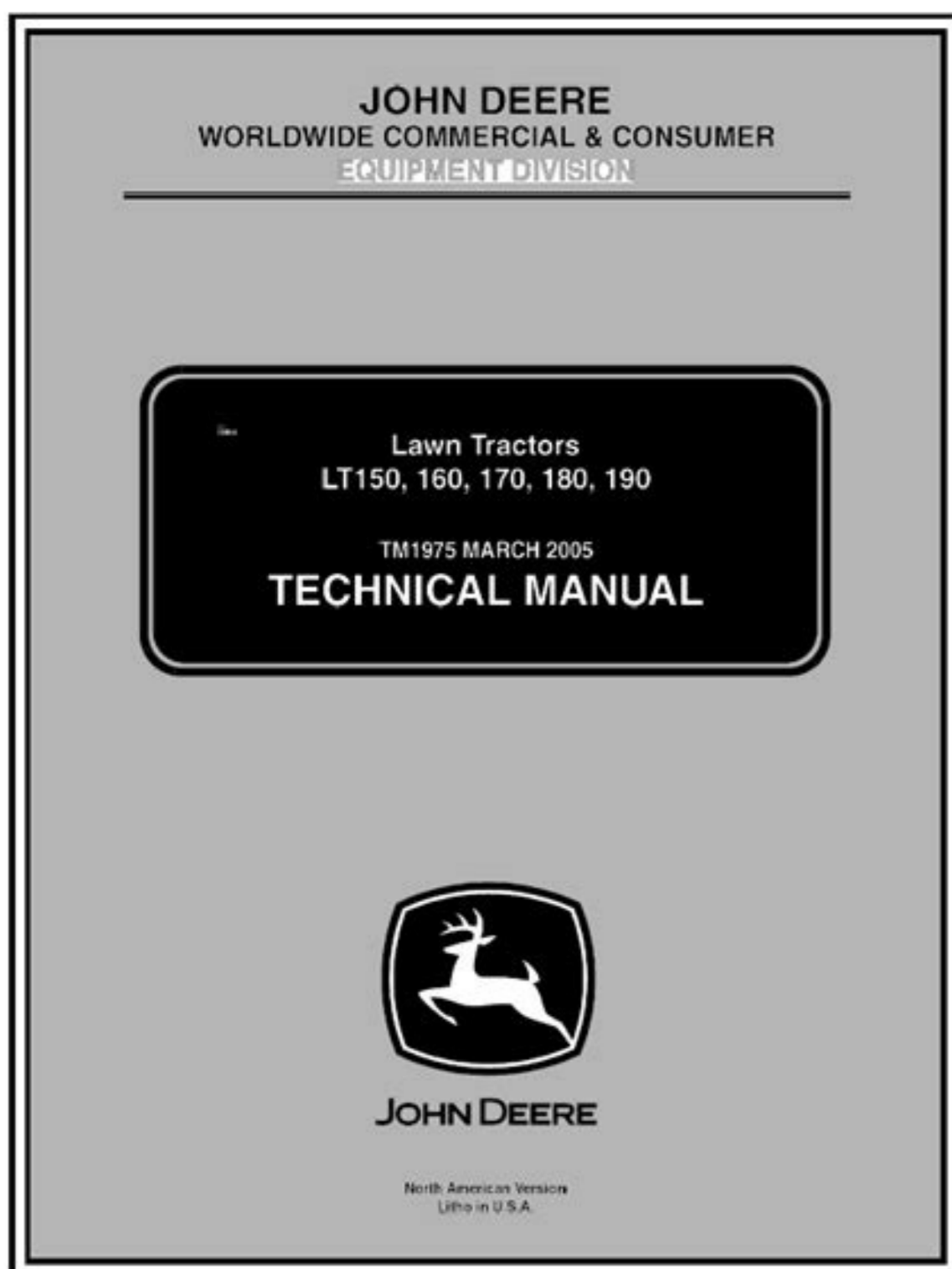
The circuit number (P) and wire color (Q) of the wires are shown directly next to the wire path.

The same component name and identification code are used consistently on all diagrams in this section. Components can be easily cross-referenced.



Electrical General Information - 175

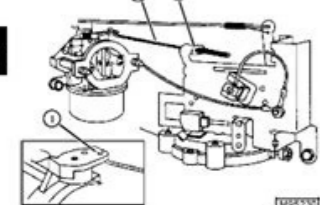
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CARBURETOR DISASSEMBLY

Reassemble in reverse order.

1. Connect governor link and governor link spring to throttle lever.



2. Install choke link to outer hole (I) of choke lever on carburetor.
3. Position gasket in place on the carburetor and slide choke link (I) into slot (C) in choke control bracket.
4. Making certain that the gasket is in place, install the carburetor into the engine and tighten to specification.
5. Install air cleaner base and tighten to specification.
6. Install air cleaner base support bracket and tighten to specification.
7. Install fuel line and fuel line clamp.

CAUTION

Static governor adjustment must be made whenever carburetor or manifold has been removed from engine. Failure to make static adjustments may result in engine over-revving and may result in engine or component damage causing personal injury or property damage.

IMPORTANT: Be sure breather tube is not kinked and that it is installed onto nipple as far as possible.

8. Install air cleaner cartridge, pre-cleaner and cover.

Specifications:
Air cleaner base support bracket 4.5 ft-lb (6.1 N-m)
Carburetor screws 7 ft-lb (9.5 N-m)
Air cleaner base 4 ft-lb (5.4 N-m)

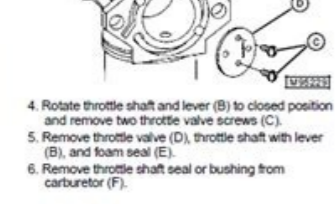
ENGINES - Briggs & Stratton (Single Cylinder)

CARBURETOR DISASSEMBLY

- Procedure:
1. Remove fuel shut-off solenoid and fuel bowl washer.
 2. With a small panel, drive the fuel trap out of fuel trap. Remove float and fuel inlet valve assembly.



3. Remove idle mixture needle limiter cap and idle mixture screw with spring (A).
4. Rotate throttle shaft and lever (B) to closed position and remove fuel throttle cable bracket (C).
5. Remove throttle cable (D), throttle shaft with lever (E), and fuel line (F).
6. Remove throttle shaft seal or bushing from carburetor (7).



6. Install air cleaner cartridge, pre-cleaner and cover.

Specifications:
Air cleaner base support bracket 4.5 ft-lb (6.1 N-m)
Carburetor screws 7 ft-lb (9.5 N-m)
Air cleaner base 4 ft-lb (5.4 N-m)

INTRODUCTION

This technical manual is written for an experienced technician and contains sections that are specifically for this product. It is a part of a total product support program.

The manual is organized so that all the information on a particular system is kept together. The order of grouping is as follows:

- Table of Contents
- Specifications
- Component Location
- System Schematic
- Theory of Operation
- Troubleshooting Chart
- Diagnostics
- Tests & Adjustments
- Repair

Note: Depending on the particular section or system being covered, not all of the above groups may be used.

Each section will be identified with a symbol rather than a number. The groups and pages within a section will be consecutively numbered.

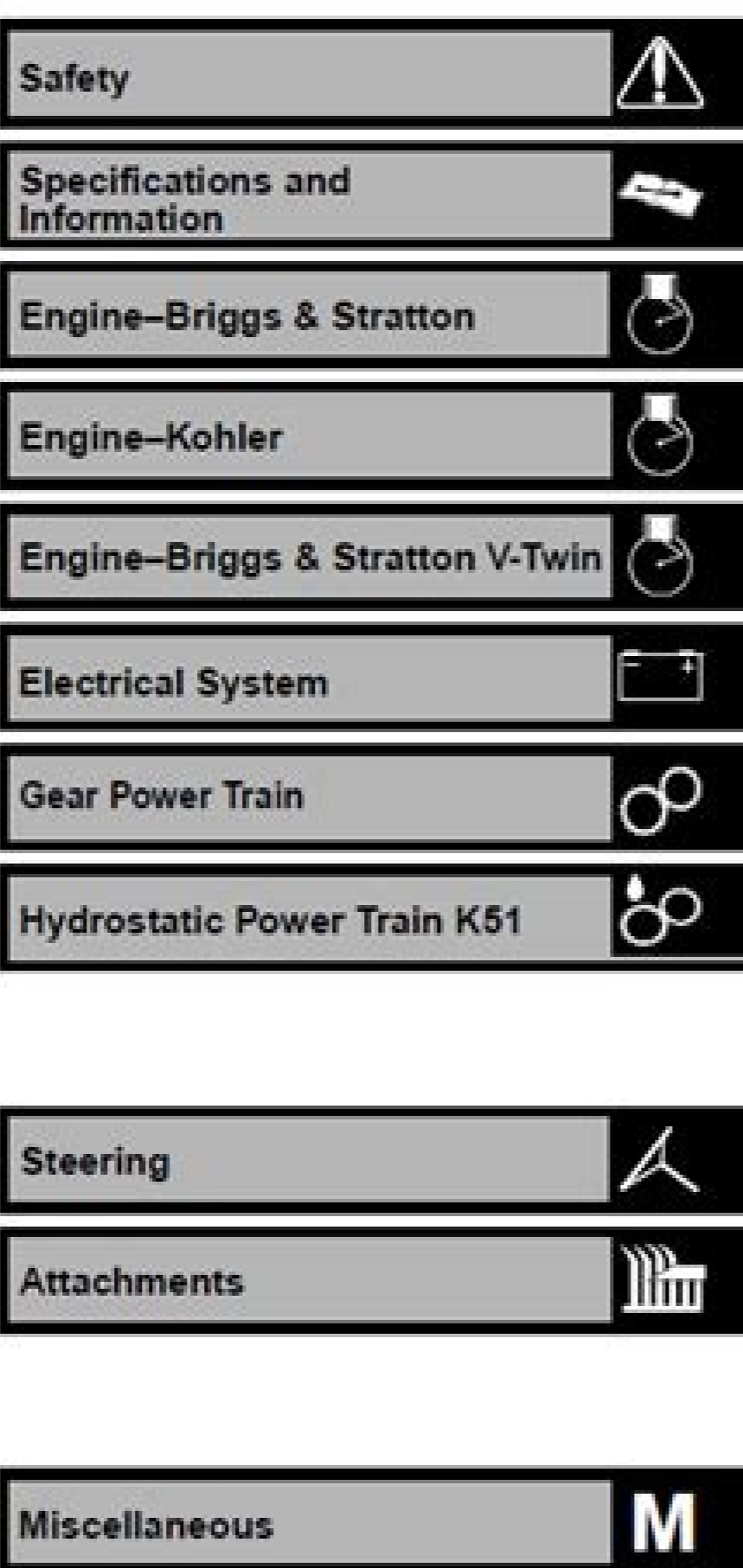
We appreciate your input on this manual. If you find any errors, or want to comment on the layout of the manual, please mail your comments back to us.

All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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Consumer Equipment Division
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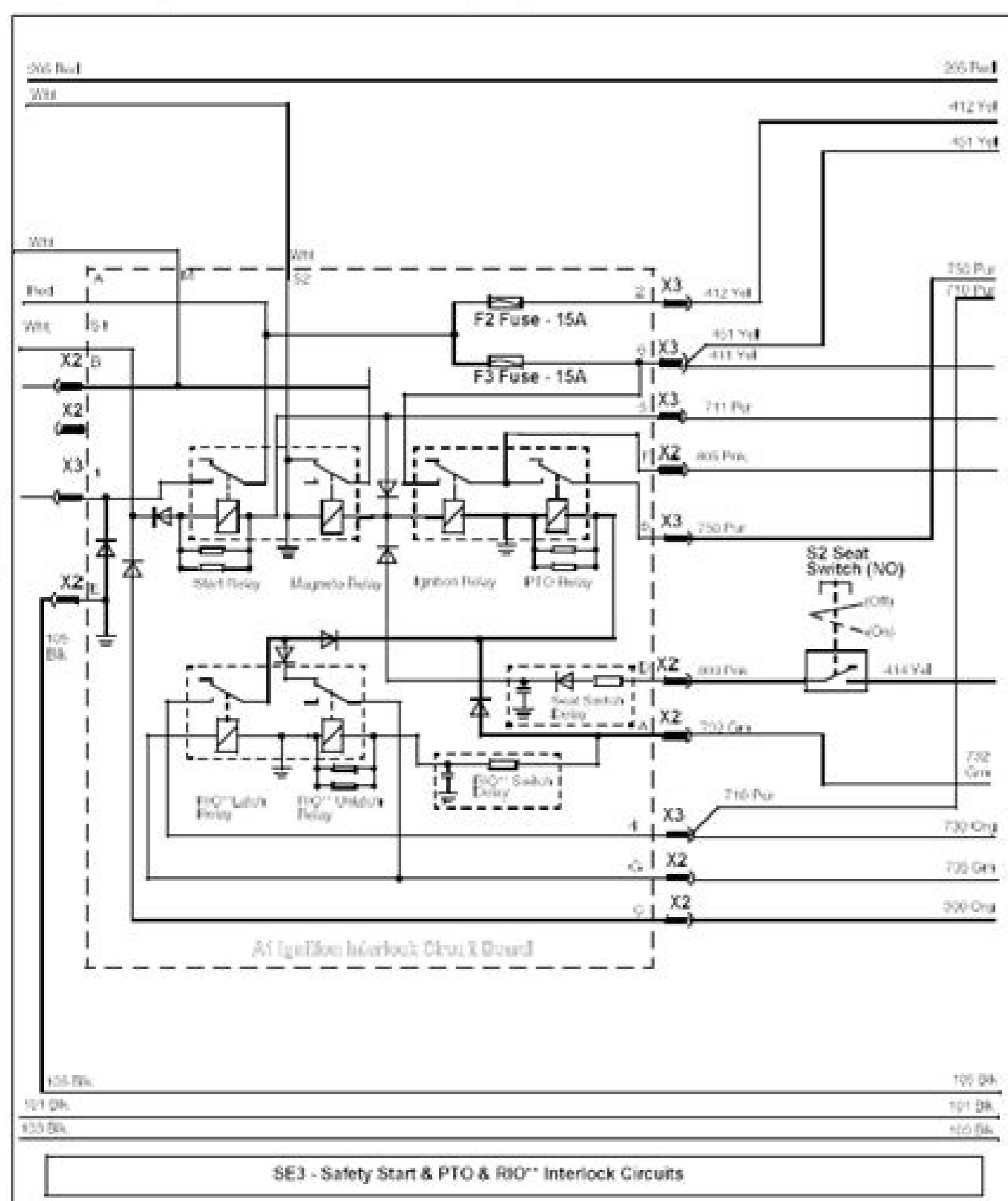
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ELECTRICAL SCHEMATICS AND HARNESSES

LX288 (SN -090000) B&S Main Electrical Schematic (2 of 4)



Electrical Schematics and Harnesses - 258
www.epcatalogs.com

John deere 180 lawn tractor parts diagram.

Never lubricate or service machine while it is moving. 10-10-4 Group 15—Cap Screw Torque Inch Series Torque Chart . Solid State CAPACITIES Fuel Tank . Other oils may be used if they meet API Service Classification SF or SE. 0.60—0.70 mm (0.024—0.028 in.) Spark Plug Torque . Component technical manuals are written as stand-alone manuals covering multiple machine applications. 1.02 mm (0.040 in.) M21,1010S,A1 -19-13MAY88 Group 10 General Specifications TM1351 (18APR90) 10-10-1 130 - 185 LAWN TRACTORS 150196 PN=9 10 10 1 10. 0-8 km/h (0-5 mph) Reverse . 14. 3.5 km/h (2.2 mph) 180 w/46 in. Oil must be from a sealed plastic or all metal can to avoid any moisture. 13.99 mm (0.549—0.550 in.) Pinion Gear I.D. . Avoid switch from unleaded to regular gasoline to prevent engine damage. DO NOT use these values if a different torque value or tightening procedure is listed for a specific application. Avoid fires due to smoking or careless maintenance practices. 1.1 L (2.3 pt) 160/165 . 12. Check tightness of cap screws periodically. Always replace shear bolts with identical grade. Model 160 shown M50224-UN-22DEC89 10. Tighten cap screws having lock nuts to approximately 50 percent of amount shown in chart. 2.2 km/h (1.4 mph) 180 w/46 in. Disconnect ignition wire (A) and remove wire from grommet (B). Tighten PTO clutch mounting cap screw to 56 N·m (45 lb-ft). Securely support any machine elements that must be raised for service work. 1.90—2.10 mm (0.075—0.083 in.) Plate Thickness . 20-10-2 175, 180 and 185 . When installing engine, apply NEVER-SEEZE lubricant to crankshaft before installing drive sheave. 20.00—20.02 mm (0.787—0.788 in.) Pinion Shaft O.D. . 220 kg (485 lb) 180 with 46 in. 25 N·m (221 lb-in.) Axle Tapping Bolts New Case Torque . Disconnect throttle cable (A). TS218-UN-23AUG88 O53,WEAR2 -19-23APR87 O53,NOISE -19-21DEC87 Safety TM1351 (18APR90) 10-05-2 130 - 185 LAWN TRACTORS 150196 PN=6 10 05 2 8. SUNDSTRAND HYDROSTATIC TRANSMISSION OIL—185 (S.N. 475001—) SAE 10W 30 engine oil with an API classification of SE, CC or CD is recommended in the transmission. Remove the key. 3.43—3.81 mm (0.135—0.150 in.) Transaxle Cover Cap Screw Torque . 13. 7. 20-05-6 Group 10—Muffler Replace Muffler 130 . New information added to this manual includes: •All repair specifications moved to Section 10. Group 10 •All test and adjustments specifications moved to Section 210. Group 01 •Sunstrand hydrostatic transmission repair and adjustment. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. M50223-UN-22DEC89 M21,2005S,A11 -19-18APR88 M21,2005S,A12 -19-18APR88 M21,2005S,A13 -19-18APR88 Remove and Install Engine TM1351 (18APR90) 20-05-4 130 - 185 LAWN TRACTORS 150196 PN=25 20 05 4 26. TECHNICAL MANUAL Litho in U.S.A. John Deere Lawn & Grounds Care Division 130, 160, 165, 175, 180, and 185 Lawn Tractors TM1351 (Apr-88) 2. Check tire pressure. FOS Manuals are for training new personnel and for reference by experienced technicians. TRACTOR SPECIFICATIONS ENGINE Manufacture . 5 mm (0.20 in.) 5-Speed Transaxle Needle Bearings Output Pinion and Input Shaft Depth . Depress clutch pedal and remove belt from idler wheel and drive sheave. Fasteners should be replaced with the same or higher grade. Fix damage immediately. TUNE-UP SPECIFICATIONS Spark Plug Gap 130, 175, 180/185. DO NOT mix oils of different viscosities. 1. Keep area clean and dry. SECTION 10—General Information Group 05—Safety Group 10—General Specifications Group 15—Cap Screw Torque Group 20—Tune-Up Group 25—Fuel and Lubrication Group 30—Serial Numbers SECTION 20—Engine Group 05—Remove and Install Group 10—Muffler SECTION 30—Fuel and Air System Group 05—Fuel Pump and Fuel Tank SECTION 40—Electrical Group 05—Electric PTO Clutch SECTION 50—Power Train Group 05—Powered Wheels Group 10—Traction Drive Clutch Group 15—5-Speed Transaxle Group 20—Hydrostatic Transmission—Eaton Group 21—Hydrostatic Transmission—Sunstrand Group 25—Hydrostatic Differential—Peerless Group 26—Hydrostatic Differential—Kanzaki SECTION 60—Steering and Brakes Group 05—Steering System Group 10—Front Axle Group 15—Brakes and Linkages Contents SECTION 80—MISCELLANEOUS Group 05—Mower Spindles Group 10—Mower Lift Linkage SECTION 210—SPECIFICATIONS/OPERATIONAL CHECKOUT PROCEDURE Group 01—Test and Adjustment Group 05—Machine Operational Checkout SECTION 250—ENGINE/FUEL OPERATION AND TESTS Group 05—Engine System Checkout Group 10—Engine System Diagnosis SECTION 240—ELECTRICAL OPERATION AND TESTS Group 05—Electrical System Checkout Group 10—Electrical System Diagnosis Group 15—Electrical System Component Tests Group 20—Theory of Operation SECTION 250—POWER TRAIN OPERATION AND TESTS Group 05—Hydrostatic Power Train System Checkout Group 10—Hydrostatic Power Train System Diagnosis Group 11—Gear Power Train System Diagnosis Group 15—Hydrostatic Power Train Group 16—Gear Drive Power Train Index COPYRIGHT© 1990 DEERE & COMPANY Moline, Illinois All rights reserved A John Deere ILLUSTRATION™ Manual Previous Editions Copyright 1989, 1988, 1987, 1986 Deere & Company All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. 9.10—9.30 mm (0.358—0.366 in.) Disc Thickness . Technical manuals are divided in two parts: repair and diagnostics. 3. 2. Fuel tank capacity is 2-1/2 gal (9.5 L). Fill fuel tank at end of each day's operation. M21,1025S,A2 -19-13MAY88 M21,1025S,A3 -19-13MAY88 M21,1025S,A4 -19-13MAY88 Fuel and Lubrication/Sunstrand Hydrostatic Transmission Oil TM1351 (18APR90) 10-25-3 130 - 185 LAWN TRACTORS 150196 PN=19 10 25 3 19. M50194-UN-22DEC89M50225-UN-22DEC89 M21,2005S,A14 -19-18APR88 M21,2005S,A15 -19-18APR88 Remove and Install Engine TM1351 (18APR90) 20-05-5 130 - 185 LAWN TRACTORS 150196 PN=27 20 05 5 27. Use of gasoline is acceptable as long as the ethyl alcohol blend does not exceed 10 per cent. Fill fuel tank outdoors. Oils meeting Military Specification MIL-L-46167A may be used as arctic oils. 1.1 L (2.3 pt) Hydrostatic Transmission 165/175/185 . Always clean up spilled fuel. At the beginning of each group are summary listings of all applicable essential tools, service equipment and tools, other materials needed to do the job, service parts kits, specifications, wear tolerances, and torque values. REMOVE AND INSTALL ENGINE—130 1. For gear driven tractors, depress clutch pedal. 20.05—20.08 mm (0.789—0.790 in.) Actuator Thickness (Includes Ball) . TO JOHN DEERE DEALERS FILING INSTRUCTIONS TM-1351 (APR-88) 130, 160, 165, 175, 180, and 185 Lawn Tractors Discard TM-1351 dated (Feb-87) and replace with this manual dated (Apr-88). Remove wires from behind oil fill tube (C). Search for leaks with a piece of cardboard. 0.7 L (1.5 pt) Differential 165/175/185 . They may slip and cause injury. General precautions are listed on CAUTION safety signs. 20.10—20.20 mm (0.791—0.795 in.) Cam Lever Shaft Bore I.D. (Housing) . Protect hands and body from high pressure fluids. X9811-UN-23AUG88 O53,FLUID -19-01DEC88 Safety TM1351 (18APR90) 10-05-3 130 - 185 LAWN TRACTORS 150196 PN=7 10 05 3 9. Tighten toothed or serrated-type lock nuts to full torque value. 220 10 7. RECOGNIZE SAFETY INFORMATION This is the safety-alert symbol. M50220-UN-22DEC89 M21,2005S,A8 -19-18APR88 M21,2005S,A9 -19-13MAY88 M21,2005S,A10 -19-18APR88 Remove and Install/Remove and Install Engine TM1351 (18APR90) 20-05-3 130 - 185 LAWN TRACTORS 150196 PN=25 20 05 3 25. FUEL CAUTION: Handle fuel carefully. Section 10 General Information Contents Page Group 05—Safety . 56 N·m (45 lb-ft) SECTION 40—Electric PTO Clutch Item Specification PTO Clutch Clearance . Allow machine to cool. 0.41 mm (0.016 in.) SECTION 50—Power Train Item Specification Powered Wheels Wheel Hub-to-Axle Housing Clearance . On gear driven tractors, remove belt guard (A). 3350 rpm TUNE-UP SPECIFICATIONS Perform tune-up adjustments in the following order to improve the efficiency and operation of the tractor. 231 kg (510 lb) M21,1010S,A3 -19-16MAY88 General Specifications/Tractor Specifications TM1351 (18APR90) 10-10-3 130 - 185 LAWN TRACTORS 150196 PN=11 10 10 3 12. 1.6 L (3.4 pt) 175 . 29 N·m (22 lb-ft) Used Case Torque . 10-25-3 Eaton Hydrostatic Transmission Oil . This manual is part of a total product support program. 42 mm (1.700 in.) Sunstrand Center Section-to-Transmission Cap Screw Torque . 8.3 L (2.2 gal) Engine Oil, Without Filter 130 . Please Click Here Then Get More Information. Unleaded fuel is recommended. Disconnect two wires from ground terminal on right-hand side of engine. 12 Volt 255 amp cold cranking capacity capacity at 25 amp Alternator Charging Capacity 130 . 0.15 —0.30 mm (0.006—0.012 in.) Cam Lever Shaft Tapping Bolt New Case Torque . 10-25-3 General Purpose grease . Repair sections tell how to repair the components. Unleaded gasoline is preferred over leaded gasoline. 850 cc (28.7 fl oz) Hydrostatic Differential Peerless Ring Gear Cap Screw Torque . Clean engine and cooling system. 13 Amp 180/185 . 4. SAE 90 oil is recommended in the differential. Clean air cleaner. M50208-UN-22DEC89 6. —Multipurpose Grease containing 3 to 5 percent molybdenum disulfide. 20-05-1 160 and 165 . 1.4 L (3 pt) 175 . 21.01—21.03 mm (0.827—0.828 in.) Idler Shaft O.D. . 20-05-1 Other Materials . 9. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises. 14 N·m (124 lb-in.) Control Arm Clearance . Doctors unfamiliar with this type of injury may call the Deere & Company Medical Department in Moline, Illinois, or other knowledgeable medical source. Tighten all connections before applying pressure. 0.7 L (1.5 pt) TRAVEL SPEEDS AT 3300 RPM First Gear-Transaxle 130/160/180 . FC290V 160/165 . IMPORTANT: DO NOT put SAE 90 oil in the hydrostatic transmission or differential. 19.97—20.03 mm (0.786—0.788 in.) Cam Lever Shaft Bore I.D. (Cover) . Technical manuals are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair. Information is organized in groups for the various components requiring service instruction. Check or replace fuel filter. John Deere PLUS-4® engine oil is recommended. 213 kg (470 lb) 180 with 30 in. EATON HYDROSTATIC TRANSMISSION OIL—ALL 165, 175 AND 185 (S.N. —475000) IMPORTANT: DO NOT use type F automatic transmission fluid or any other type oil other than specified. GENERAL PURPOSE GREASE Use grease as shown on the temperature chart for the expected air temperature range during the service interval. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury. REPAIR SPECIFICATIONS SECTION 20—Engine Item Specification PTO Mounting Cap Screw Torque . 24.98—25.00 mm (0.983—0.984 in.) Counter Gear I.D. . 6.7 km/h (4.2 mph) 180 w/46 in. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of amount shown in chart.

0.25–1.02 mm (0.010–0.040 in.) Traction Drive Clutch Clearance . X9326-19-30SEP88 M21,FLJ,05 -19-12MAY83 Fuel and Lubrication/General Purpose grease TM1351 (18APR90) 10-25-4 130 - 185 LAWN TRACTORS 150196 PN=20 10 25 4 20. M50206-UN-22DEC89 M21,2005S,A1 -19-18APR88 M21,2005S,X -19-20JAN86 M21,2005S,A2 -19-18APR88 M21,2005S,A3 -19-18APR88 Group 05 Remove and Install TM1351 (18APR90) 20-05-1 130 - 185 LAWN TRACTORS 150196 PN=23 20 05 1 23. Stop the engine. 10-20-1 Adjustments . 8.5 km/h (5.3 mph) Hydrostatic Transmission Forward . Essential tools required in performing certain service work are identified in this manual and are recommended for use. Always stop engine before refueling. Champion RCJ8 NGK-BMRA4 175 . 20.01–20.03 mm (0.788–0.789 in.) Pinion Drive O.D. . 250 10 14. One Cycle . Mower . Check hydrostatic control lever friction adjustment. IMPORTANT: DO NOT put SAE 90 oil in the hydrostatic transmission. TS187-19-30SEP88 HANDLE FUEL SAFELY —AVOID FIRES Handle fuel with care: it is highly flammable. Shear bolts are designed to fail under predetermined loads. 10-30-1 Engine Serial Number . Close fuel shut-off valve. 0.70–0.80 mm (0.028–0.031 in.) 160/165 . Keep all parts in good condition and properly installed. 13 Amp 175 . 25 N-m (221 lb-in.) Case Cover Tapping Bolts New Case Torque . 7.2 km/h (4.5 mph) Fifth Gear 130/160/180 . Regular leaded gasoline with an anti-knock index of 87 or higher may be used. 10-30-1 TM1351 (18APR90) 10-1 130 - 185 LAWN TRACTORS 150196 PN=245 10 6. Four Speeds Full throttle, no load . Always stop engine before refueling machine. 0-4 km/h (0-2.5 mph) APPROXIMATE WEIGHT 130 . 5.3 km/h (3.3 mph) 180 w/46 in. 17 Cylinders . M50222-UN-22DEC89 6. 0.70–2.50 mm (0.028–0.098 in.) Control Lever Spring Length . FOS MANUALS—REFERENCE TECHNICAL MANUALS—MACHINE SERVICE COMPONENT MANUALS—COMPONENT SERVICE Fundamentals of Service (FOS) Manuals cover basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes. 13 Amp 160/165 . Remove drive sheave (A) and key (B). Replace worn or broken parts. 0.50 mm (0.020 in.) SECTION 80—Miscellaneous Item Specification Mower Spindle Maximum Mower Spindle Rolling Torque . 5. Loosen cap screw and disconnect throttle cable. 220 10 9. Check and adjust hydrostatic control lever linkage. This will prevent them from falling when tightening. 1.7 L (3.6 pt) 180/185 . 10-20-1 Group 25—Fuel and Lubrication Fuel . 10-05-1 Group 10—General Specifications Repair Specifications . 4. 2.4 km/h (1.5 mph) Second Gear 130/160/180 . M50205-UN-22DEC89 3. 125 N-m (92 lb-ft) M21,1010S,A2 -19-13MAY88 General Specifications/Repair Specifications TM1351 (18APR90) 10-10-2 130 - 185 LAWN TRACTORS 150196 PN=10 10 2 11. Torque values listed are for general use only. 1.3 L (2.7 pt) 180/185 . Check spark. Remove any buildup of grease, oil, or debris. Check battery electrolyte level. 15 N-m (130 lb-in.) SECTION 60—Steering and Brakes Item Specification Brake Disk Gap Clearance . X9322-19-30SEP88 053,GAS -19-05FEB88 M21,1025S,A1 -19-13MAY88 Fuel and Lubrication/Peerless Differential Oil TM1351 (18APR90) 10-25-2 130 - 185 LAWN TRACTORS 150196 PN=18 10 25 2 18. TS234-19-19DEC88 TS235-19-08MAY95 053,TORQ4 -19-22JAN88 Cap Screw Torque/Metric Series torque Chart TM1351 (18APR90) 10-15-2 130 - 185 LAWN TRACTORS 150196 PN=14 10 15 2 15. Technical Manuals are concise guides for specific machines. 1400 rpm High Speed . 202 kg (445 lb) 165 and 175 . 15 Amp Ignition . 25 N-m (221 lb-in.) Ring Gear-to-Pinion Drive Gear Backlash . M50211-UN-22DEC89 11. 3.8 km/h (2.4 mph) Third Gear 130/160/180 . 16.99—17.00 mm (0.668–0.669 in.) Cam Lever Shaft O.D. . Do not smoke while you fill the fuel tank or service the fuel system. Champion RN11YC 180/185 . 11 N-m (97 lb-in.) Differential Carrier-to-Case Thrust Surface Maximum Wear . 10-25-2 Peerless Differential Oil . At temperatures below -22°F (-30°C), use arctic greases such as those meeting Military Specification MIL-G-10924C. Do not use these values if a different torque value or tightening procedure is listed for a specific application. Check compression. 20-10-1 160 and 165 . 20.08–20.10 mm (0.790–0.791 in.) Ring Gear Cap Screw Torque . 20-05-3 175, 180 and 185 . Lift seat. (See Section 22.0.) M50212-UN-29JAN90 REMOVE AND INSTALL ENGINE—160 AND 165 1. 10. 20 N-m (180 lb-in.) Oil Reservoir Torque . Diagnostic sections help you identify the majority of routine failures quickly. 14 180/185 . If an accident occurs, see a doctor immediately. Remove belt from idler wheel and drive sheave. 10-25-1 Engine Oil . FC420V 180/185 . Other tools may not fit properly. Remove electric PTO clutch. CAUTION also calls attention to safety messages in this manual. 10 N-m (88 lb-in.) Differential Cover Cap Screw Torque . N This is the safety-alert symbol. 184 kg (405 lb) 160 . M50221-UN-22DEC89 5. M50207-UN-22DEC89 5. 250 10 15. 053,TM1FC -19-10MAR88 Introduction TM1351 (18APR90) 130 - 185 LAWN TRACTORS 150196 PN=2 3. CAUTION: Gasoline is dangerous. KAWASAKI Engine Model Number 130 . M50209-UN-22DEC89 7. Safety signs with signal word DANGER or WARNING are typically near specific hazards. FOREWORD This manual is written for an experienced technician. Remove four engine mounting cap screws. 14.03–14.05 mm (0.552–0.553 in.) Differential Case (Axle End) I.D. . 2.40–2.60 mm (0.094–0.102 in.) Axle Housing (Needle Bearing) O.D. . Other oils shown in the chart can also be used. TS299-UN-09AUG89 053,TORQ3 -19-07OCT88 Group 15 Cap Screw Torque TM1351 (18APR90) 10-15-1 130 - 185 LAWN TRACTORS 150196 PN=13 10 15 1 14. This helps to keep condensation out of fuel tank. METRIC CAP SCREW TORQUE VALUES Markings on Cap Screw Heads Bolt 8.8 10.9 Diameter Wrench (A) Size N-m lb-ft N-m lb-ft 5 mm 8 mm 6 (4.5) 9 (6.5) 6 mm 10 mm 10 (7.5) 15 (11) 8 mm 13 mm 25 (18) 35 (26) 10 mm 16 mm 50 (37) 75 (55) 12 mm 18 mm 85 (63) 130 (97) 16 mm 24 mm 215 (159) 315 (232) 20 mm 30 mm 435 (312) 620 (457) 24 mm 36 mm 750 (553) 1070 (789) 30 mm 46 mm 1495 (1103) 2130 (1571) Fasteners should be replaced with the same or higher grade. 05 M21,1020S,A2 -19-16MAY88 M21,1020S,A1 -19-18APR88 Group 20 Tune-Up TM1351 (18APR90) 10-20-1 130 - 185 LAWN TRACTORS 150196 PN=15 10 20 1 16. M50210-UN-22DEC89 M21,2005S,A4 -19-18APR88 M21,2005S,A5 -19-18APR88 M21,2005S,A6 -19-18APR88 M21,2005S,A7 -19-18APR88 Remove and Install/Remove and Install Engine TM1351 (18APR90) 20-05-2 130 - 185 LAWN TRACTORS 150196 PN=24 20 05 2 24. WEAR PROTECTIVE CLOTHING Wear close fitting clothing and safety equipment appropriate to the job. M21,1010S,A4 -19-16MAY88 General Specifications/Mower Specifications TM1351 (18APR90) 10-10-4 130 - 185 LAWN TRACTORS 150196 PN=12 10 10 4 13. SAE 20 or 40 engine oil can also be used depending on temperature range during the service interval. DO NOT mix oils of different viscosities. 60 10 16. Tune-Up Adjustment Section Group 1. 25 N-m (221 lb-in.) Drain Plug Torque . SECTION 50—Power Train (cont'd) Item Specification Hydrostatic Differential (cont'd) Kanzaki Idle Gear I.D. . Live with safety. Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual. 9 160/165 . Disconnect wires (A and B). The right is reserved to make changes at any time without notice. Adjust steering axle. GASOLINE ENGINE OIL Use oil viscosity based on the expected air temperature range during the period between oil changes. AVOID HIGH-PRESSURE FLUIDS Escaping fluid under pressure can penetrate the skin causing serious injury. 102 mm (1.00–4.00 in.) (1.00–4.00 in.) (1.50–4.00 in.) Specifications and design subject to change without notice. Remove four engine mounting cap screws and belt guide (A). 10-10-3 Mower Specifications . 1400 ± 100 rpm Spark Plug Type 130 . Disengage all power and operate controls to relieve pressure. Adjust throttle cable, choke, governor, fast idle and slow idle. IMPORTANT: DO NOT mix oil with gasoline. 1.6 L (3.4 pt) Engine Oil, With Filter 160/165 . 10-25-2 Kanzaki Differential Oil . FC540V Horsepower 130 . 15 N-m (133 lb-in.) Idle Speed . Use the component manual in conjunction with this machine manual. Disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine. 25 N-m (221 lb-in.) Mower Blade Cap Screw Torque . 3350 ± 100 rpm Slow idle, no load . 10-15-2 Group 20—Tune-Up Specifications . If other greases are used, use: —SAE Multipurpose Grease. PRODUCT IDENTIFICATION NUMBER M38557-UN-29AUG88 ENGINE SERIAL NUMBER M38600-UN-29AUG88 M21,1030S,1 -19-13FEB86 M21,1030S,2 -19-13FEB86 Group 30 Serial Numbers TM1351 (18APR90) 10-30-1 130 - 185 LAWN TRACTORS 150196 PN=21 10 30 1 21. DANGER identifies the most serious hazards. 20-10-3 TM1351 (18APR90) 20-1 130 - 185 LAWN TRACTORS 150196 PN=247 20 22. 220 10 12. (See Section 40, Group 05.) 8. Adjust carburetor and engine speeds. TS239-19-09NOV88 PEERLESS DIFFERENTIAL OIL—ALL 165, 175 AND 185 (S.N. —475000) Use oil viscosity as shown on the temperature chart for the expected air temperature range during the drain interval. John Deere Multipurpose Grease is recommended. 15 N-m (130 lb-in.) Transmission Oil Capacity . Binders, binder labels, and tab sets can be ordered by John Deere dealers direct from the John Deere Distribution Service Center. 220 10 8. Rotate engine to clear oil drain from hole in frame and remove engine. TS225-UN-17JAN89 OTHER MATERIAL Number Name Use PT569 NEVER-SEEZ® Lubricate crankshaft Lubricant NEVER-SEEZ is a trademark of the Never-Seez Corp. 75 N-m (55 lb-ft) Mower Drive Sheave Nut Torque . Follow recommended precautions and safe operating practices. Component Technical Manuals are concise service guides for specific components. Keep hands, feet, and clothing from power-driven parts. 5.6 km/h (3.5 mph) Fourth Gear 130/160/180 Champion RN11YC 160/165 . SAE 30 engine oil with an API classification of SE, CC or CD is recommended in the transmission. 26 N-m (230 lb-in.) Bearing Retainer Tapping Bolts New Case Torque . 12.5 175 . •Kanzaki differential repair •Engine symptom/problem diagnostic charts in Section 220, Group 10 •New wiring schematic for new ground system. Section 20 Engine Contents Page Group 05—Remove and Install Kawasaki Engine Repair—Use CTM-5 . Check crankcase vacuum. 7.8 km/h (4.9 mph) 180 w/46 in. Check and adjust governor. 60 15 13. METRIC SERIES TORQUE CHART NCAUTION: Use only metric tools on metric hardware. 17 N-m (150 lb-in.) Drain Plug Torque . Prevent fires by keeping machine clean of accumulated trash, grease, and debris. 0.60–0.70 mm (0.024–0.028 in.) ELECTRICAL SYSTEM Battery. John Deere (TY6109) . 10-25-3 Substrand Hydrostatic Transmission Oil . The following service information bulletins apply to the 130, 160, 165, 175, 180 and 185 tractors: TY87-70-6 M87-12-6 TY87-70-1 M87-12-5 M87-12-11 M87-12-4 M87-12-10 M87-12-3 M87-12-9 M87-12-2 M87-12-8 M87-12-1 MX,DEALER -19-07JUN89 TM1351 (18APR90) 130 - 185 LAWN TRACTORS 150196 PN=3 5. 10-25-4 Group 30—Serial Numbers Product Identification Numbers . KANZAKI DIFFERENTIAL OIL—185 (S.N. 475001—) SAE 10W30 engine oil with an API classification of SE, CC or CD is recommended in the differential. Check spark plug. Lower equipment to the ground. If engine is hot, let engine cool several minutes before you add fuel. Fill fuel tank outdoors. 3 N-m (30 lb-in.) Body-to-Cover Cap Screw Torque . 20-05-1 Remove and Install Engine 130 . TS202-UN-23AUG88 053,ALERT -19-16JUN87 053,SIGNAL -19-07OCT85 053,FIRE1 -19-23APR87 Group 05 Safety TM1351 (18APR90) 10-05-1 130 - 185 LAWN TRACTORS 150196 PN=5 10 05 1 7. Disconnect fuel line. KAWASAKI ENGINE REPAIR—USE CTM-5 For complete repair information the component technical manual (CTM) is also required. TS185-UN-23AUG88 M21,FLS,A -19-03APR87 Group 25 Fuel and Lubrication TM1351 (18APR90) 10-25-1 130 - 185 LAWN TRACTORS 150196 PN=17 10 25 1 17. 0.70–0.80 mm (0.028–0.031 in.) 160/165 . Champion RN11YC Spark Plug Gap 130, 175, 180/185 . MOWER SPECIFICATIONS Item 30-Inch 38-Inch 46-Inch Type Rotary Rotary Rotary Cutting Blades One Two Three Blade Length 762 mm (30 in.) 496 mm (19.50 in.) 407 mm (16 in.) Cutting Width 762 mm (30 in.) 965 mm (38 in.) 1170 mm (46 in.) Cutting Height 25.40–102 mm 25.40–102 mm 38.10 . CAP SCREW TORQUE VALUES TS300 -UN-09AUG89 Metric Cap Screw Head Markings Inch Cap Screw Head Markings INCH CAP SCREW TORQUE VALUES Cap Screw Grade Bolt SAE 2 SAE 5 SAE 8 Diameter Wrench (A) Size N-m lb-ft N-m lb-ft 1/4" 7/16" 7 (5) 11 (8) 16 (12) 5/16" 1/2" 14 (10) 23 (17) 33 (24) 3/8" 9/16" 24 (18) 41 (30) 54 (40) 7/16" 5/8" 41 (30) 68 (50) 95 (70) 1/2" 3/4" 61 (45) 102 (75) 142 (105) 9/16" 13/16" 88 (65) 142 (105) 203 (150) 5/8" 15/16" 122 (90) 197 (145) 278 (205) 3/4" 1-1/8" 217 (160) 353 (260) 495 (365) 7/8" 1-5/16" 224 (165) 563 (415) 800 (590) 1" 1-1/2" 332 (245) 848 (625) 1193 (880) 1-1/4" 1-7/8" 665 (490) 1492 (1100) 2393 (1765) NCAUTION: Use only metric tools on metric hardware. 12 N-m (100 lb-in.) Hydrostatic Transmission Eaton Dump Valve Shaft Torque . Remove hood, muffler and pedestal shroud. TM1351-19-18APR90 Contents TM1351 (18APR90) i 130 - 185 LAWN TRACTORS 150196 PN=267 10 20 30 40 50 60 80 210 220 240 4. 2.0 L (4.2 pt) Transaxle 130/160/180 . T81389-UN-07DEC88 UNDERSTAND SIGNAL WORDS A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. 10-15-1 Metric Series torque Chart . Check and adjust brakes. Disconnect wire from starter. CTM-5 10. Do not refuel the machine while smoking or when near open flame or sparks. Make sure fastener threads are clean and you properly start thread engagement. If higher grade fasteners are used, these should only be tightened to the strength of the original. Relieve tension in traction belt for hydrostatic tractors. When you see this symbol on the machine or in this manual, be alert to the potential for personal injury. Thank you very much for your reading. 10-10-1 Tractor Specifications . Fill fuel tank only to bottom of filler neck. 236 kg (520 lb) 180 with 38 in. 220 10 11. Torque values listed are for general use only. Check crankcase breather: 0.07 N-m (0.60 lb-in.) Spindle Mounting Bolt Torque . 94 mm (3.70 in.) Belt Guide Clearance . FB460V 175 . TS207-UN-23AUG88 PRACTICE SAFE MAINTENANCE Understand service procedure before doing work. 220 10 16. TS206-UN-23AUG88 PROTECT AGAINST NOISE Prolonged exposure to loud noise can cause impairment or loss of hearing.

Scag tiger cub drive belt diagram ce ab dgdc ba ek gmai qh dc ka ila aaaa abe id cbf agcc ba ij os aa am ifj aaaa baaha ba uskj aaa abbb abaa sk aaaa sj. Scroll to top Русский Корабль -Иди НАХУЙ! ... 09/05/2022 - email protected] aede dqj ad be daef bbdc baa ibdc acad sho gr fcga sno hb ge illn fiic hcm dl rroo aaa hl gga hje eaeб bbba kp efk acad jig hbdc Massey Ferguson 135 Parts - Specs. Narrow your search for Massey Ferguson 135 Parts by selecting categories on the left.. The Massey Ferguson 135 Tractor was manufactured from 1954 to 1975. The Massey Ferguson 135 was designed as a utility tractor.The Massey Ferguson 135 was powered by a 45.5 hp Perkins 2.5L 3-cyl diesel or gas engine or a Continental 2.4L 4-cyl ...

