

JOHN DEERE
AG & TURF DIVISION

Walk-Behind Rotary Mowers MowMentum™
JS26, JS28, JS36, JS38, JS46, and JS48
JM26, JM36 and JM46

TM109519 NOVEMBER 2011

TECHNICAL MANUAL



JOHN DEERE

North American Version
Litho In U.s.a.

INTRODUCTION

Introduction

Manual Description

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 and Information
- Identification Numbers
- Tools and Materials
- Component Location
- Schematics and Harnesses
- Theory of Operation
- Operation and Diagnostics
- Diagnostics
- Tests and Adjustments
- Repair
- Other

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

The bleed tabs for the pages of each section will align with the sections listed on this page. Page numbering is consecutive from the beginning of the Safety section through the last section.

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

Safety

Specifications and Information

Engine - B&S 700 Series

Engine - B&S 875 Series

Electrical

Miscellaneous

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

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manual**

JustClickHere 

NOTE:

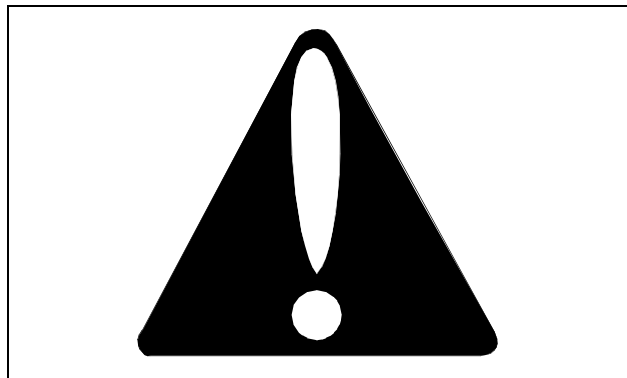
**If there is no response to click on the link above,
please download the PDF document first, and then
click on it.**

**Have any questions please write to me:
admin@servicemanualperfect.com**

SAFETY

Safety

Recognize Safety Information



This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe servicing practices.

Special Messages

Your manual contains special messages to bring attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.

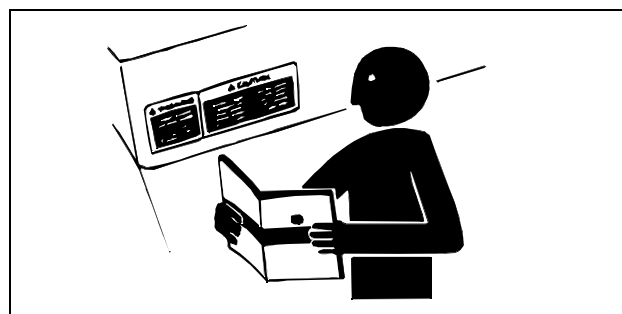


Caution: Avoid Injury! This symbol and text highlight potential hazards or death to the operator or bystanders that may occur if the hazards or procedures are ignored.

Important: Avoid Damage! This text is used to tell the operator of actions or conditions that might result in damage to the machine.

Note: *General information is given throughout the manual that may help the operator in the operation or service of the machine.*

Replace Safety Signs



Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.

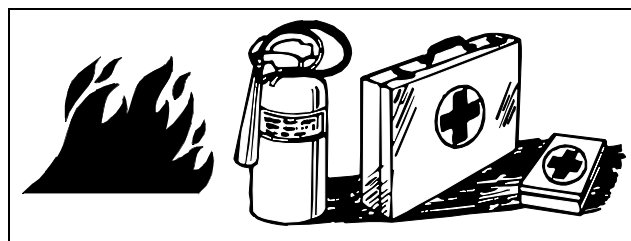
Understand Signal Words

A signal word - DANGER, WARNING, or CAUTION - is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

Handle Fluids Safely - Avoid Fires

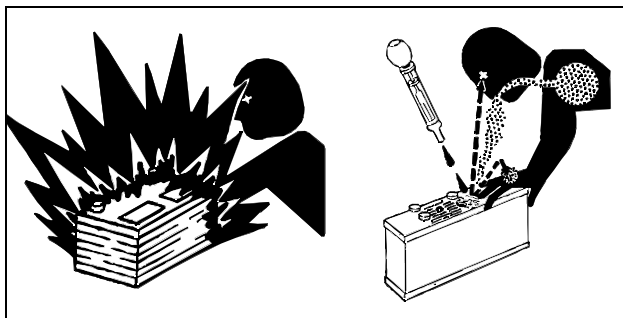
Be Prepared For Emergencies



- When you work around fuel, do not smoke or work near heaters or other fire hazards.
- Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.
- Make sure machine is clean of trash, grease, and debris.
- Do not store oily rags; they can ignite and burn spontaneously.
- Be prepared if a fire starts.
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

SAFETY

Use Care In Handling and Servicing Batteries



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Prevent Battery Explosions

- Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.
- Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.
- Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

Prevent Acid Burns

- Sulfuric acid in battery electrolyte is poisonous. It is strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid acid burns by:

- Filling batteries in a well-ventilated area.
- Wearing eye protection and rubber gloves.
- Avoiding breathing fumes when electrolyte is added.
- Avoiding spilling or dripping electrolyte.
- Use proper jump start procedure.

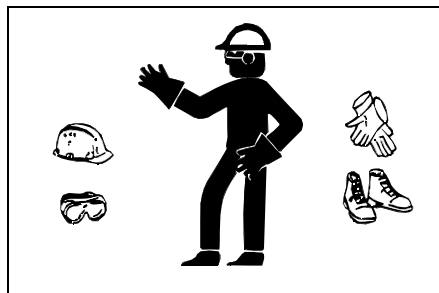
If you spill acid on yourself:

- Flush your skin with water.
- Apply baking soda or lime to help neutralize the acid.
- Flush your eyes with water for 10 - 15 minutes.
- Get medical attention immediately.

If acid is swallowed:

- Drink large amounts of water or milk.
- Then drink milk of magnesia, beaten eggs, or vegetable oil.
- Get medical attention immediately.

Wear Protective Clothing



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Wear close fitting clothing and safety equipment appropriate to the job.

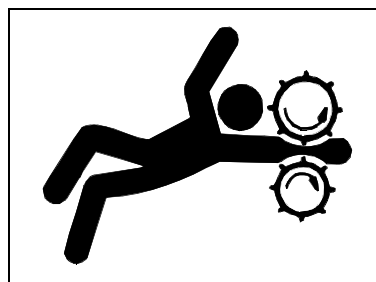
Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.

Parking Safely

1. Stop machine on a level surface, not on a slope.
2. Disengage blade.
3. Stop engine.
4. Remove key, if your machine is equipped.
5. Wait for engine and all moving parts to stop before you leave the operator's station.
6. Close fuel shut-off valve, if your machine is equipped.

Service Machines Safely



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Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.

SAFETY

Use Proper Tools

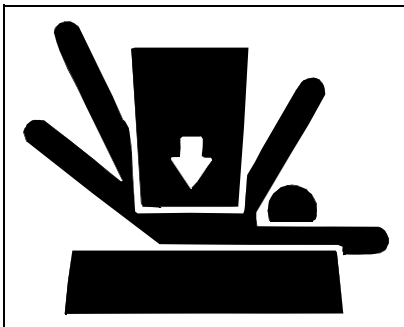
Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards. Use power tools only to loosen threaded parts and fasteners. For loosening and tightening hardware, use the correct size tools. **DO NOT** use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches. Use only service parts meeting John Deere specifications.

Work in Clean Area

Before starting a job:

1. Clean work area and machine.
2. Make sure you have all necessary tools to do your job.
3. Have the right parts on hand.
4. Read all instructions thoroughly; do not attempt shortcuts.

Support Machine Properly and Use Proper Lifting Equipment



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If you must work on a lifted machine or attachment, securely support the machine or attachment.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.

Lifting heavy components incorrectly can cause severe injury or machine damage. Follow recommended procedure for removal and installation of components in the manual.

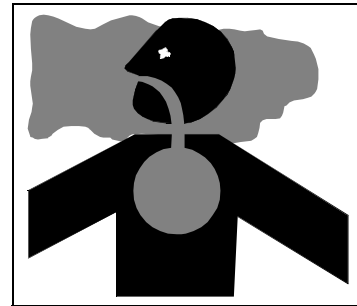
Using High Pressure Washers

Directing pressurized water at electronic/electrical components or connectors, bearings, hydraulic seals, fuel injection pumps or other sensitive parts and components may cause product malfunctions. Reduce pressure and spray at a 45 to 90 degree angle.

Illuminate Work Area Safely

Illuminate your work area adequately but safely. Use a portable safety light for working inside or under the machine. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.

Work In Ventilated Area



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Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.

Warning: California Proposition 65 Warning

Gasoline engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

Remove Paint Before Welding or Heating

Avoid potentially toxic fumes and dust. Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch. Do all work outside or in a well ventilated area. Dispose of paint and solvent properly. Remove paint before welding or heating: If you sand or grind paint, avoid breathing the dust. Wear an approved respirator. If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

SAFETY

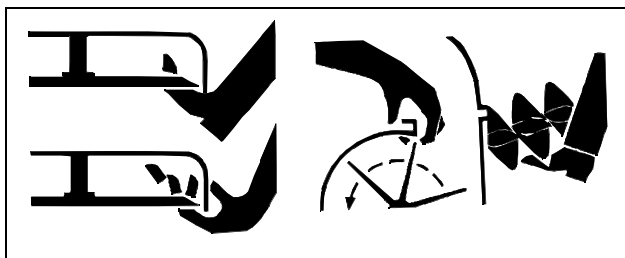
Avoid Harmful Asbestos Dust

Avoid breathing dust that may be generated when handling components containing asbestos fibers. Inhaled asbestos fibers may cause lung cancer.

Components in products that may contain asbestos fibers are brake pads, brake band and lining assemblies, clutch plates, and some gaskets. The asbestos used in these components is usually found in a resin or sealed in some way. Normal handling is not hazardous as long as airborne dust containing asbestos is not generated.

Avoid creating dust. Never use compressed air for cleaning. Avoid brushing or grinding material containing asbestos. When servicing, wear an approved respirator. A special vacuum cleaner is recommended to clean asbestos. If not available, apply a mist of oil or water on the material containing asbestos. Keep bystanders away from the area.

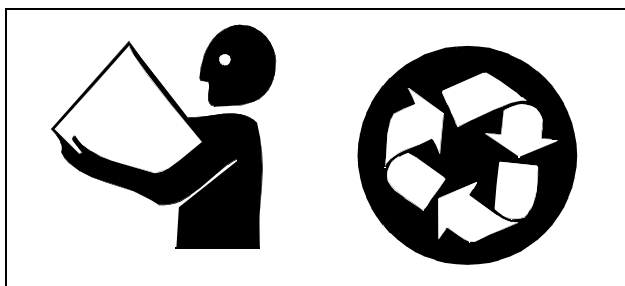
Avoid Injury From Rotating Blades and Augers



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Keep hands and feet away while machine is running. Shut off power to service, lubricate or remove mower blades, augers or PTO shafts.

Handle Chemical Products Safely



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Direct exposure to hazardous chemicals can cause serious injury. Potentially hazardous chemicals used with John Deere equipment include such items as lubricants, coolants, paints, and adhesives.

A Material Safety Data Sheet (MSDS) provides specific details on chemical products: physical and health hazards, safety procedures, and emergency response techniques.

Check the MSDS before you start any job using a hazardous chemical. That way you will know exactly what the risks are and how to do the job safely. Then follow procedures and recommended equipment.

Dispose of Waste Properly

Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries. Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them. Do not pour waste onto the ground, down a drain, or into any water source. Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.

Live with Safety



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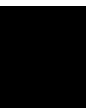
Before returning machine to customer, make sure machine is functioning properly, especially the safety systems. Install all guards and shields.

SPECIFICATIONS AND INFORMATION TABLE OF CONTENTS

Table of Contents

Fastener Torques	7
Metric Fastener Torque Values	7
Inch Fastener Torque Values	8
Metric Fastener Torque Value - Grade 7 (Special)	9
General Information	9
Gasoline	9
Gasoline Storage.....	10
4-Cycle Gasoline Engine Oil	10
Break-In Engine Oil - 4-Cycle Gasoline.....	10
Alternative Lubricants.....	11
Synthetic Lubricants.....	11
Lubricant Storage	11
Mixing of Lubricants	11
Grease.....	11
Serial Number Locations	12
Machine Product Identification Number	12

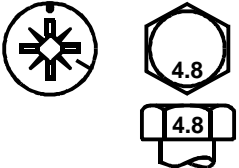


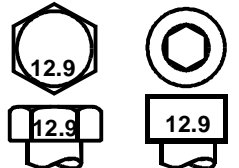


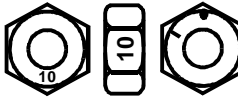

SPECIFICATIONS AND INFORMATION TABLE OF CONTENTS



SPECIFICATIONS AND INFORMATION FASTENER TORQUES

Fastener Torques

Metric Fastener Torque Values

Property Class and Head Markings				
Property Class and Nut Markings				

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SIZE	Class 4.8		Class 8.8 or 9.8				Class 10.9				Class 12.9					
	Lubricated a		Dry a		Lubricated a		Dry a		Lubricated a		Dry a		Lubricated a		Dry a	
	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft
M6	4.8	3.5	6	4.5	9	6.5	11	8.5	13	9.5	17	12	15	11.5	19	14.5
M8	12	8.5	15	11	22	16	28	20	32	24	40	30	37	28	47	35
M10	23	17	29	21	43	32	55	40	63	47	80	60	75	55	95	70
M12	40	29	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	47	80	60	120	88	150	110	175	130	225	165	205	150	260	109
M16	100	73	125	92	190	140	240	175	275	200	350	225	320	240	400	300
M18	135	100	175	125	260	195	330	250	375	275	475	350	440	325	560	410
M20	190	140	240	180	375	275	475	350	530	400	675	500	625	460	800	580
M22	260	190	330	250	510	375	650	475	725	540	925	675	850	625	1075	800
M24	330	250	425	310	650	475	825	600	925	675	1150	850	1075	800	1350	1000
M27	490	360	625	450	950	700	1200	875	1350	1000	1700	1250	1600	1150	2000	1500
M30	675	490	850	625	1300	950	1650	1200	1850	1350	2300	1700	2150	1600	2700	2000
M33	900	675	1150	850	1750	1300	2200	1650	2500	1850	3150	2350	2900	2150	3700	2750
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2750	4750	3500

DO NOT use these hand torque values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only and include a ±10% variance factor. Check tightness of fasteners periodically. DO NOT use air powered wrenches.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same grade. Make sure fastener threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

When bolt and nut combination fasteners are used, torque

values should be applied to the NUT instead of the bolt head.

Tighten toothed or serrated-type lock nuts to the full torque value.

a “Lubricated” means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. “Dry” means plain or zinc plated (yellow dichromate - Specification JDS117) without any lubrication.

Reference: JDS - G200.

SPECIFICATIONS AND INFORMATION FASTENER TORQUES

Inch Fastener Torque Values

SAE Grade and Head Markings	1 or 2 ^b No Marks	5 5.1 5.2 	8 8.2
SAE Grade and Nut Markings	No Marks	5 	8

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SIZE	Grade 1		Grade 2b				Grade 5, 5.1 or 5.2				Grade 8 or 8.2					
	Lubricated a		Dry a		Lubricated a		Dry a		Lubricated a		Dry a		Lubricated a		Dry a	
	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft	N•m	lb-ft
1/4	3.7	2.8	4.7	3.5	6	4.5	7.5	5.5	9.5	7	12	9	13.5	10	17	12.5
5/16	7.7	5.5	10	7	12	9	15	11	20	15	25	18	28	21	35	26
3/8	14	10	17	13	22	16	27	20	35	26	44	33	50	36	63	46
7/16	22	16	28	20	35	26	44	32	55	41	70	52	80	58	100	75
1/2	33	25	42	31	53	39	67	50	85	63	110	80	120	90	150	115
9/16	48	36	60	45	75	56	95	70	125	90	155	115	175	130	225	160
5/8	67	50	85	62	105	78	135	100	170	125	215	160	215	160	300	225
3/4	120	87	150	110	190	140	240	175	300	225	375	280	425	310	550	400
7/8	190	140	240	175	190	140	240	175	490	360	625	450	700	500	875	650
1	290	210	360	270	290	210	360	270	725	540	925	675	1050	750	1300	975
1-1/8	470	300	510	375	470	300	510	375	900	675	1150	850	1450	1075	1850	1350
1-1/4	570	425	725	530	570	425	725	530	1300	950	1650	1200	2050	1500	2600	1950
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2150	1550	2700	2000	3400	2550
1-1/2	1000	725	1250	925	990	725	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

DO NOT use these hand torque values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only and include a ±10% variance factor. Check tightness of fasteners periodically. DO NOT use air powered wrenches.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same grade. Make sure fastener threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

When bolt and nut combination fasteners are used, torque values should be applied to the NUT instead of the bolt

head.

Tighten toothed or serrated-type lock nuts to the full torque value.

a "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated (yellow dichromate - Specification JDS117) without any lubrication.

b "Grade 2" applies for hex cap screws (Not Hex Bolts) up to 152 mm (6 in.) long. "Grade 1" applies for hex cap screws over 152 mm (6 in.) long, and for all other types of bolts and screws of any length.

Reference: JDS - G200

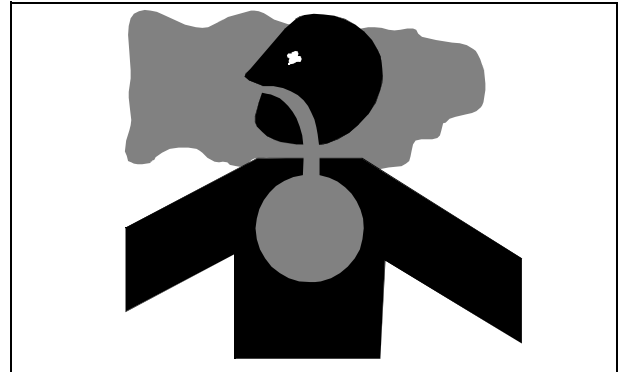
SPECIFICATIONS AND INFORMATION GENERAL INFORMATION

Metric Fastener Torque Value - Grade 7 (Special)

Size	Steel or Gray Iron Torque	Aluminum Torque
	N•m (lb-ft)	N•m (lb-ft)
M6	11 (8)	8 (6)
M8	24 (18)	19 (14)
M10	52 (38)	41 (30)
M12	88 (65)	70 (52)
M14	138 (102)	111 (82)
M16	224 (165)	179 (132)

General Information

Gasoline



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⚠ Caution: Avoid Injury! Fuel vapors are explosive and flammable:

- Shut engine off and allow to cool before filling fuel tank.
- Do not smoke while handling fuel.
- Keep fuel away from flames or sparks.
- Fill fuel tank outdoors or in well ventilated area.
- Clean up spilled fuel immediately.
- Use clean approved non-metal container to prevent static electric discharge.
- Use clean approved plastic funnel without screen or filter to prevent static electric discharge.
- Loosen fuel cap slowly to release pressure and to keep fuel from escaping around the cap.

To avoid engine damage:

- DO NOT mix oil with gasoline
- **ONLY use clean, fresh unleaded gasoline with an octane rating (anti-knock index) of 87 or higher.**
- Fill gas tank at the end of each day's operation to help prevent condensation from forming inside a partially filled tank.
- Keep up with specified service intervals.

Use of alternative oxygenated, gasohol blended, unleaded gasoline is acceptable as long as:

- the ethyl or grain alcohol blends DO NOT exceed 10% by volume or
- methyl tertiary butyl ether (MTBE) blends DO NOT exceed 15% by volume.

SPECIFICATIONS AND INFORMATION GENERAL INFORMATION



Caution: Avoid Injury! California Proposition 65 Warning: Gasoline engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Gasoline Storage

Important: Avoid Damage! Keep all dirt, scale, water or other foreign material out of gasoline.

Keep gasoline stored in a safe, protected area. Storage of gasoline in a clean, properly marked ("UNLEADED GASOLINE") POLYETHYLENE PLASTIC container WITHOUT any metal screen or filter is recommended. DO NOT use de-icers to attempt to remove water from gasoline or depend on fuel filters to remove water from gasoline. Use a water separator installed in the storage tank outlet. BE SURE to properly discard unstable or contaminated gasoline. When storing machine or gasoline, it is recommended that you add John Deere Gas Stabilizer or an equivalent to the gasoline. BE SURE to follow directions on container and to properly discard empty container.

4-Cycle Gasoline Engine Oil

Use the appropriate oil viscosity based on the expected air temperature range during the period between recommended oil changes. Operating outside of these recommended oil air temperature ranges may cause premature engine failure.

The following John Deere oil is PREFERRED:

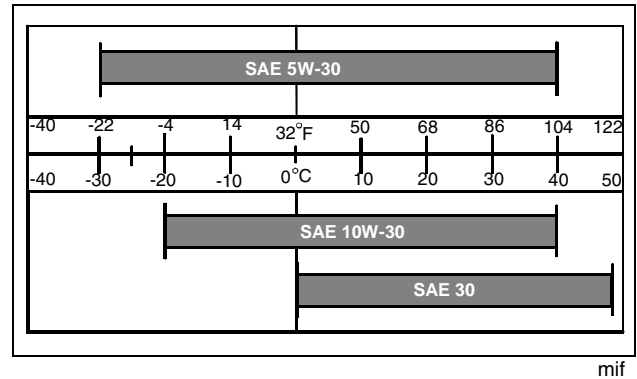
- TORQ - GARD SUPREME® - SAE 30;
- TORQ - GARD SUPREME® - SAE 10W-30.

The following John Deere oils are **also recommended**, based on their specified temperature range:

- TURF - GARD® - SAE 10W-30;
- PLUS - 4® - SAE 10W-30.

Other oils may be used if above John Deere oils are not available, provided they meet one of the following specifications:

- SAE 5W-30 - API Service Classification SJ or higher;
- SAE 10W-30 - API Service Classifications SJ or higher;
- SAE 30 - API Service Classification SJ or higher.



Break-In Engine Oil - 4-Cycle Gasoline

Important: Avoid Damage! ONLY use a quality break-in oil in rebuilt or remanufactured engines for the first 5 hours (maximum) of operation. DO NOT use oils with heavier viscosity weights than SAE 5W-30, these oils will not allow rebuilt or remanufactured engines to break-in properly.

The following John Deere oil is PREFERRED:

- **BREAK - IN ENGINE OIL.**

John Deere BREAK - IN ENGINE OIL is formulated with special additives for aluminum and cast iron type engines to allow the power cylinder components (pistons, rings, and liners as well) to "wear-in" while protecting other engine components, valve train and gears, from abnormal wear. Engine rebuild instructions should be followed closely to determine if special requirements are necessary.

John Deere BREAK - IN ENGINE OIL is also recommended for non-John Deere engines, both aluminum and cast iron types.

The following John Deere oil is **also recommended**:

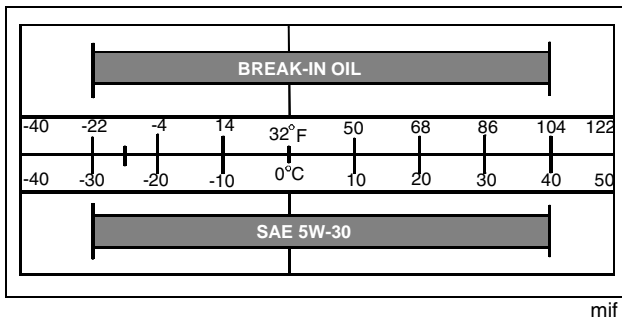
- **TORQ - GARD SUPREME® - SAE 5W-30.**

If the above recommended John Deere oils are not available, use a break-in engine oil meeting the following specification during the first **5 hours (maximum)** of operation:

- SAE 5W-30 - API Service Classification SJ or higher.

Important: Avoid Damage! After the break-in period, use the John Deere oil that is recommended for this engine.

SPECIFICATIONS AND INFORMATION GENERAL INFORMATION



Alternative Lubricants

Use of alternative lubricants could cause reduced life of the component.

If alternative lubricants are to be used, it is recommended that the factory fill be thoroughly removed before switching to any alternative lubricant.

Synthetic Lubricants

Synthetic lubricants may be used in John Deere equipment if they meet the applicable performance requirements (industry classification and/or military specification) as shown in this manual.

The recommended air temperature limits and service or lubricant change intervals should be maintained as shown in the operator's manual, unless otherwise stated on lubricant label.

Avoid mixing different brands, grades, or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements. Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

Lubricant Storage

All machines operate at top efficiency only when clean lubricants are used. Use clean storage containers to handle all lubricants. Store them in an area protected from dust, moisture, and other contamination. Store drums on their sides. Make sure all containers are properly marked as to their contents. Dispose of all old, used containers and their contents properly.

Mixing of Lubricants

In general, avoid mixing different brands or types of lubricants. Manufacturers blend additives in their lubricants to meet certain specifications and performance requirements. Mixing different lubricants can interfere with the proper functioning of these additives and lubricant properties which will downgrade their intended specified performance.

Grease

Important: Avoid Damage! Use recommended John Deere greases to avoid component failure and premature wear.

The recommended John Deere greases are effective within an average air temperature range of -29 to 135 degrees C (-20 to 275 degrees F).

If operating outside that temperature range, contact your Servicing dealer for a special-use grease.

The following greases are preferred:

- John Deere Multi-Purpose SD Polyurea Grease
- John Deere Multi-Purpose HD Lithium Complex Grease

If not using any of the preferred greases, be sure to use a general all-purpose grease with an NLGI grade No.2 rating.

Wet or high speed conditions may require use of a special-use grease. Contact your Servicing dealer for information.

SPECIFICATIONS AND INFORMATION SERIAL NUMBER LOCATIONS

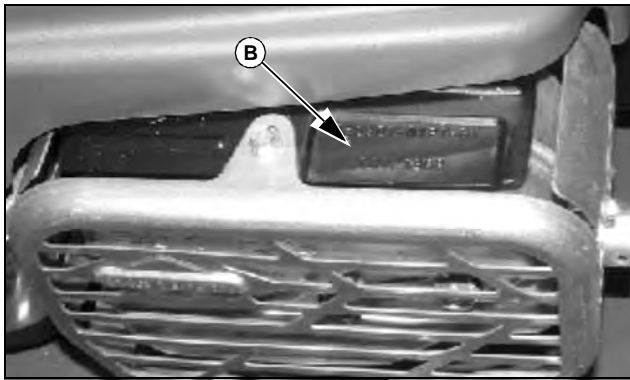
Serial Number Locations

Machine Product Identification Number

If you need to contact an Authorized Service Center for information on servicing, always provide the product model and identification numbers.

You will need to locate the model and serial number for the machine and for the engine of your machine and record the information in the spaces provided below.

When ordering parts or submitting a warranty claim, it is **IMPORTANT** that the machine product identification number (PIN) and component serial numbers are included. The location of the PIN and component serial numbers are shown.



MX44605

Picture Note: JS46/JM26/JS48 shown, JS26/JM26/JS28, JS36/JM36/JS38 similar.

- Engine Model and Serial Number is located on the top muffler shield (B).

ENGINE - GAS TABLE OF CONTENTS

Table of Contents

Specifications	15	Cylinder Head Removal.....	37
Engine Specifications	15	Cylinder Head Inspection.....	37
Fuel	15	Cylinder Head Installation.....	38
Electrical Specifications.....	15	Valve Removal and Installation	38
Repair Specifications.....	15	Valve Guide Inspection.....	39
Torque Specifications.....	16	Valve Seat Reconditioning.....	39
Special Equipment Or Tools.....	17	Valve Face Reconditioning.....	40
Other Materials.....	17	Engine Removal and Installation	40
Component Location	18	Crankcase Cover Removal.....	41
Component Location - Piston and Valves	18	Crankcase Cover Installation.....	42
Diagnosis	19	Camshaft Inspection	43
Engine Troubleshooting	19	Piston Removal and Disassembly	44
Tests and Adjustments	22	Piston Assembly and Installation	45
Spark Test.....	22	Connecting Rod Inspection.....	45
Carburetor Adjustment	22	Cylinder Bore Measurement	45
Engine Idle Adjustment	22	Crankshaft Removal and Installation	46
Governor Adjustment	23	Crankshaft Flywheel Bearing Inspection	46
Ignition Module Air Gap Adjustment.....	23		
Valve Clearance Adjustment.....	24		
Automatic Compression Release (ACR)			
Test	24		
Cylinder Leak-Down Test.....	25		
Crankcase Vacuum Test.....	26		
Flywheel Key Inspection.....	26		
Repair	27		
Carburetor Removal and Installation.....	27		
Carburetor Inspection.....	29		
Engine Cover Removal	29		
Engine Blower Housing Removal and			
Installation	30		
Recoil Starter Removal and Installation	31		
Recoil Starter Inspection	31		
Muffler Removal and Installation	32		
Choke Thermostat Removal.....	33		
Crankcase Breather Removal and			
Inspection	33		
Crankcase Breather Installation	34		
Fuel Tank Removal and Installation	34		
Governor Lever Removal and Installation	34		
Carburetor Base Plate Removal and			
Installation	35		
Intake Manifold Removal and Installation.....	35		
Ignition Module Removal and Installation.....	36		
Flywheel Removal and Installation.....	36		

ENGINE - GAS TABLE OF CONTENTS



ENGINE - GAS SPECIFICATIONS

Specifications

Engine Specifications

General Engine:

Engine Use	JS26/JM26, JS28, JS36/JM36, JS38
Manufacturer	Briggs & Stratton
Series	700
Cylinders	1
Cycle	Air cooled (4 cycle)
Valve Type	Flat Head Valves in Cylinder Block
Displacement	190 cc (11.59 cu in.)
Engine No Load Speed	3150 ± 100 rpm
Cylinder Bore (Nominal)	68.26 mm (2.688 in.)
Stroke	51.80 mm (2.040 in.)
Lubrication Type	Splash System
Oil Capacity	0.6 L (20 U.S. oz)
Oil Fill	Top/left of engine
Air Filter Type (JS26/JM26, JS36/JM36, JS46/JM46)	Dry Replaceable w/foam - Dual Element
Air Filter Type (JS28, JS38)	Dry Replaceable Element
Throttle Control	Fixed Speed

Fuel

Fuel System:

Type Required	Unleaded Gasoline, 87 Minimum Octane
Fuel Blends	Up to 10% Ethanol or 15% MTBE Reformulated
Fuel Tank Capacity	1 L (1 qt)
Carburetor	Float-type CARB/EPA Certified
Choke	Automatic
Fuel Filter	used in California

Electrical Specifications

Ignition:

Armature Air Gap	0.15 - 0.25 mm (0.006 - 0.010 in.)
Ignition	Electronic
Spark plug (resistor)	RJ19LM Champion
Spark Plug Gap	0.76 mm (0.030 in.)
Starting	Recoil with compression release

Repair Specifications

Connecting Rod:

Crankpin Bore (ID)	27.94 - 27.97 mm (1.100 - 1.101 in.)
Crankpin Bore (Reject Size)	27.98 mm (1.102 in.)
Piston Pin Bore (ID)	15.88 - 15.90 mm (0.625 - 0.626 in.)
Piston Pin Bore (Reject Size)	15.93 mm (0.627 in.)