

32, 36, 48 and 52 Inch Commercial Walk-Behind Mowers

**John Deere Horicon Works
TM1305 (17APR90)**

LITHO IN U.S.A.
ENGLISH

Introduction

FOREWORD

This manual is written for an experienced technician. Essential tools required in performing certain service work are identified in this manual and are recommended for use.

Live with safety: Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual.



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

Technical manuals are divided in two parts: repair and diagnostics. Repair sections tell how to repair the components. Diagnostic sections help you identify the majority of routine failures quickly.

Information is organized in groups for the various components requiring service instruction. 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.

Binders, binder labels, and tab sets can be ordered by John Deere dealers direct from the John Deere Distribution Service Center.

This manual is part of a total product support program.

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. FOS Manuals are for training new personnel and for reference by experienced technicians.

Technical Manuals are concise guides for specific machines. Technical manuals are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

Component Technical Manuals are concise service guides for specific components. Component technical manuals are written as stand-alone manuals covering multiple machine applications.

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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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Section 10 GENERAL INFORMATION

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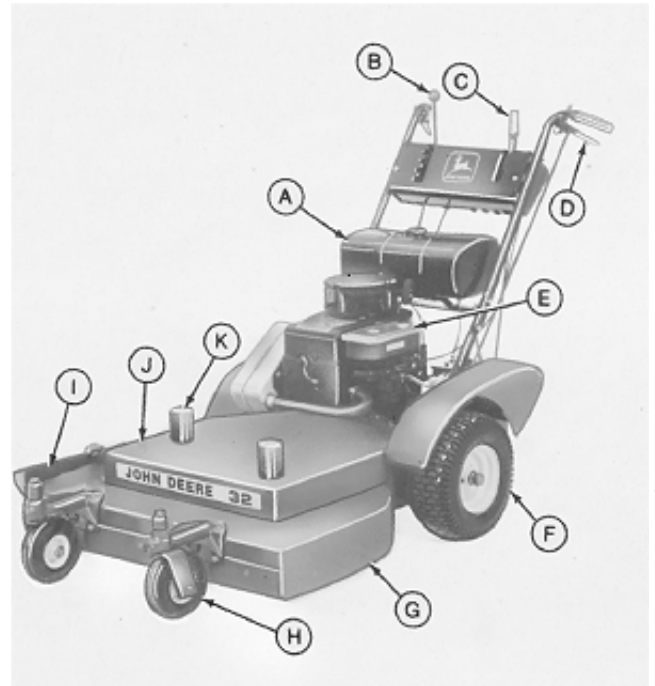
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IDENTIFICATION

- A—Fuel Tank
- B—Ground Speed Lever
- C—Blade Engagement Lever
- D—Traction Control Lever
- E—Air Cleaner
- F—Drive Wheel
- G—Deck
- H—Caster Wheel
- I—Discharge Spout
- J—Belt Cover
- K—Spindle Cover

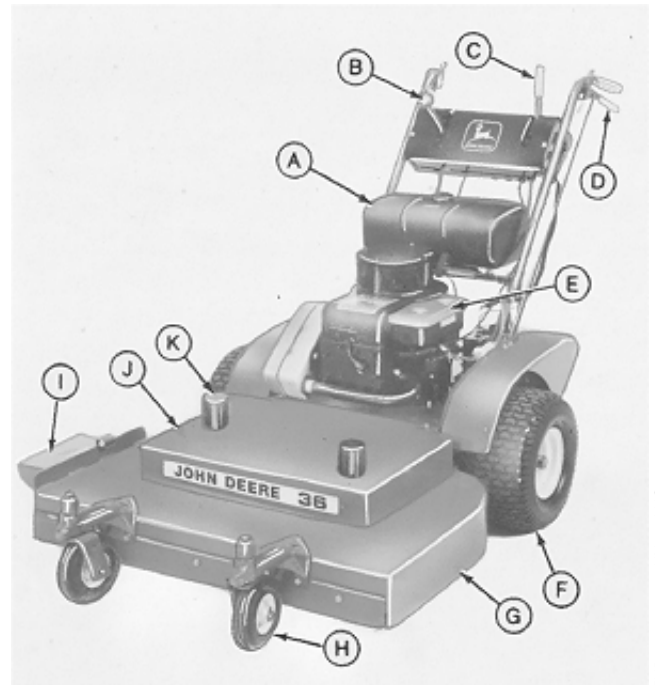


John Deere 32 Inch Commercial Walk

Y05.1005H,A -19-10JUN85

TYP2164 -UN-21AUG89

- A—Fuel Tank
- B—Ground Speed Lever
- C—Blade Engagement Lever
- D—Traction Control Lever
- E—Air Cleaner
- F—Drive Wheel
- G—Deck
- H—Caster Wheel
- I—Discharge Spout
- J—Belt Cover
- K—Spindle Cover

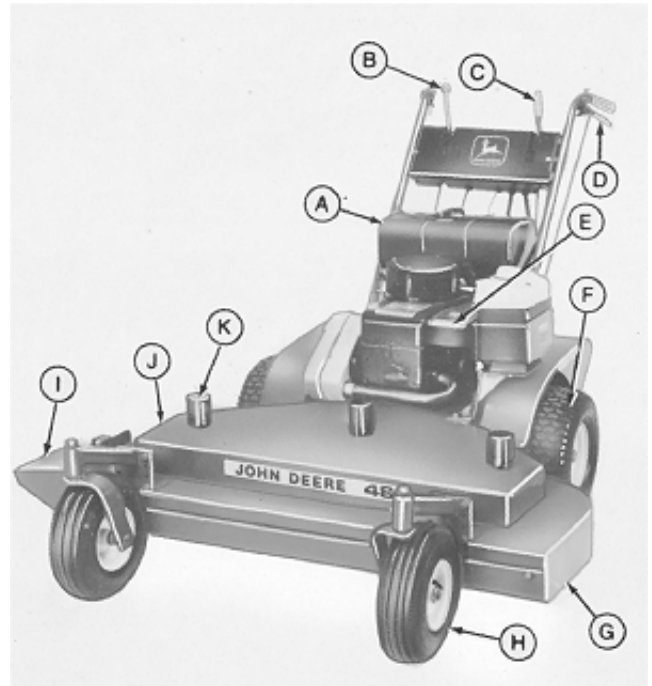


John Deere 36 Inch Commercial Walk

Y05.1005H,B -19-10JUN85

TYP2165 -UN-21AUG89

- A—Fuel Tank
- B—Ground Speed Lever
- C—Blade Engagement Lever
- D—Traction Control Lever
- E—Air Cleaner
- F—Drive Wheel
- G—Deck
- H—Caster Wheel
- I—Discharge Spout
- J—Belt Cover
- K—Spindle Cover

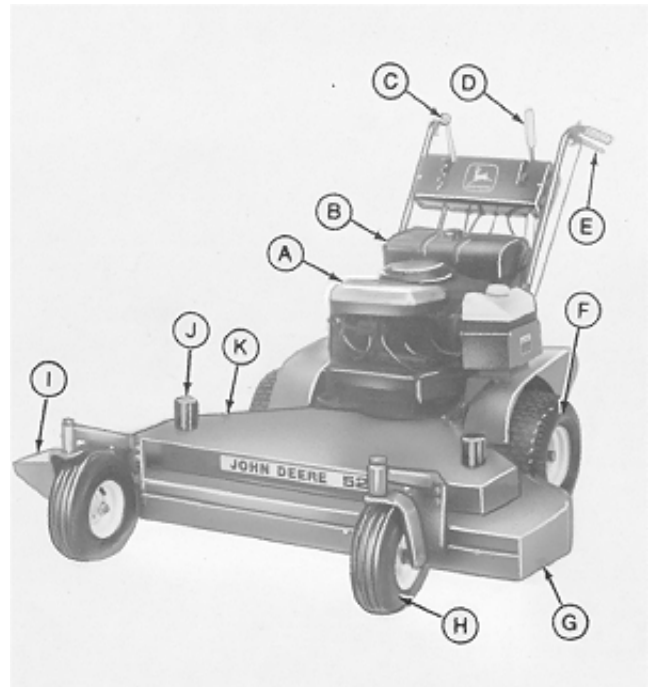


48 Inch Mower (S.N. —116000)

TYP2166 -UN-21AUG89

8M2,1005H,A1 -19-22JUN88

- A—Air Cleaner
- B—Fuel Tank
- C—Ground Speed Lever
- D—Blade Engagement Lever
- E—Traction Control Lever
- F—Drive Wheel
- G—Deck
- H—Caster Wheel
- I—Discharge Spout
- J—Spindle Cover
- K—Belt Cover

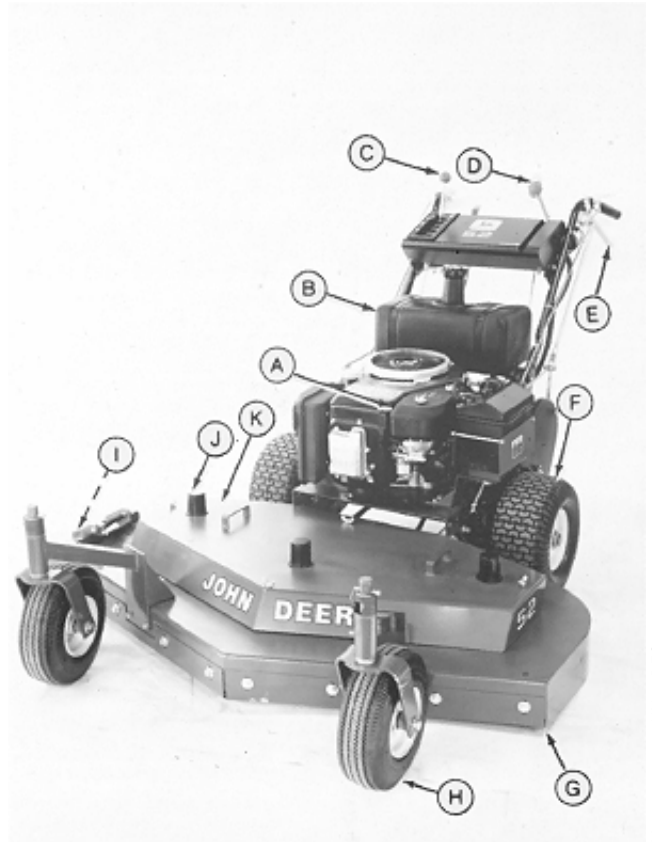


52 Inch Mower (S.N. —116000)

TYP2167 -UN-11DEC89

8M2,1005H,A2 -19-28SEP88

- A—Air Cleaner
- B—Fuel Tank
- C—Ground Speed Lever
- D—Blade Engagement Lever
- E—Traction Control Lever
- F—Drive Wheel
- G—Deck
- H—Caster Wheel
- I—Discharge Spout
- J—Spindle Cover
- K—Belt Cover



48 and 52 Inch Mower (S.N. 116001—

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M51921 -JUN-16DEC89

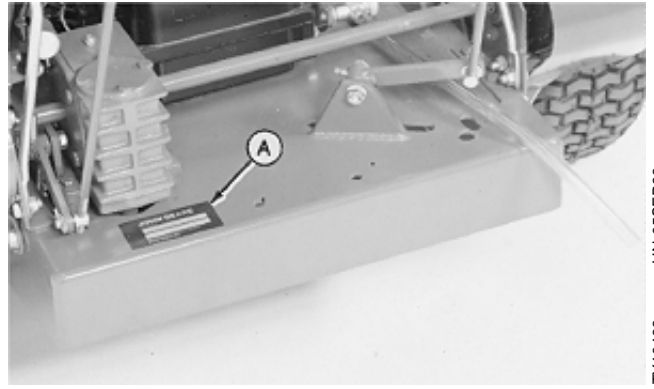
8M2,1005H,A3 -19-22JUN88

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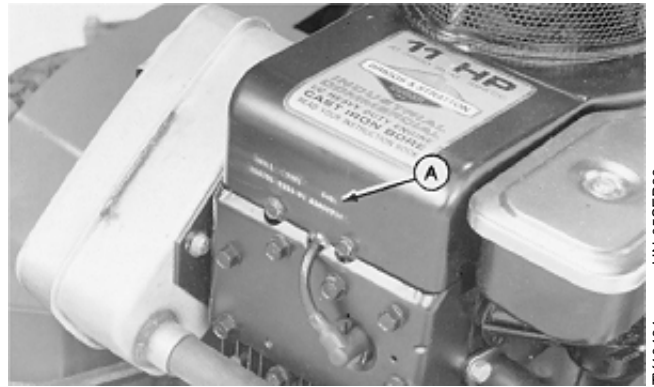
SERIAL NUMBERS (—116000)

The mower serial number (A) is located on the rear of the mower deck. The engine serial number (B) is on the side of the engine shroud.

When writing about or filling out warranty claims, use all numbers and letters on the mower serial number plate.



TY10463 -UN-05SEP89



TY10464 -UN-05SEP89

Briggs & Stratton Engine



TY13509 -UN-11NOV89

Kawasaki Engine

8M2,1005H,A4 -19-22JUN88

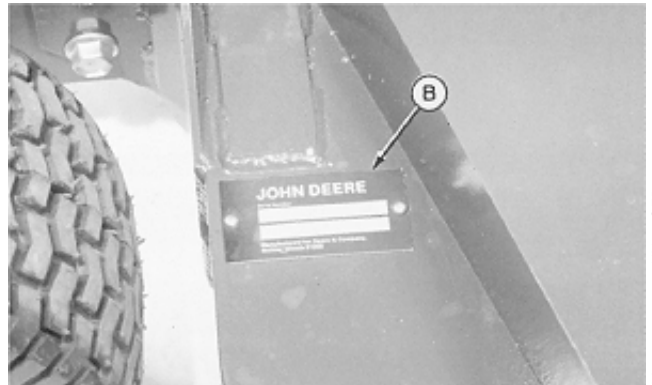
SERIAL NUMBERS—48 AND 52 INCH (S.N. 116001—)

Power deck serial number (A) is located on the rear of power deck. Mower deck serial number (B) is located on the rear of mower deck. Engine serial number (C) is on the side of engine shroud.

When writing about or filling out warranty claims, use all numbers and letters on mower serial number plates.



M41992 -UN-06SEP88




M41993 -UN-08SEP88



M51924 -UN-16DEC89

8M2,1005H,A5 -19-28SEP88

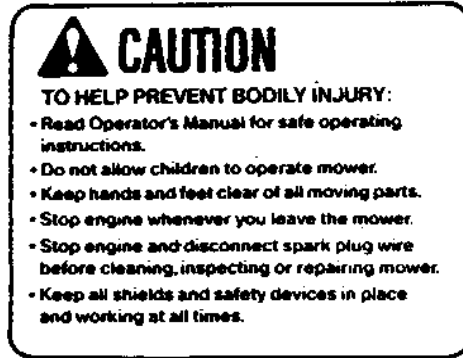
 **CAUTION:** Improper use or maintenance by the operator can result in injury. Follow these safety suggestions.

LEARN MOWER SAFETY

Read the operator's manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment.

Never allow children or inadequately trained persons to operate the mower, or be near the mower during operation.

Carefully read and follow all "DANGER", "WARNING", and "CAUTION" decals.



CAUTION

TO HELP PREVENT BODILY INJURY:

- Read Operator's Manual for safe operating instructions.
- Do not allow children to operate mower.
- Keep hands and feet clear of all moving parts.
- Stop engine whenever you leave the mower.
- Stop engine and disconnect spark plug wire before cleaning, inspecting or repairing mower.
- Keep all shields and safety devices in place and working at all times.

Y05,1010H,A -19-10JUN85

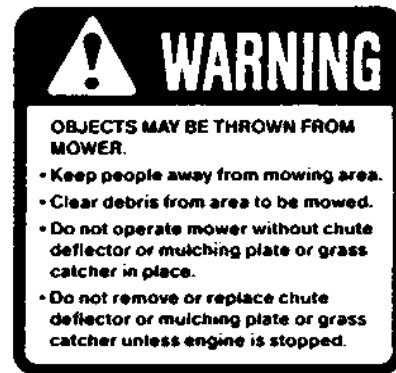
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TY10617 -19-02MAY89

PREPARE FOR STARTING

Thoroughly inspect the area where the mower is to be used. Remove all sticks, stones, bottles, bones, wires and other foreign objects.

Do not operate the mower when barefoot or wearing open sandals. Always wear substantial footwear.

Do not run engine indoors.



WARNING

OBJECTS MAY BE THROWN FROM MOWER.

- Keep people away from mowing area.
- Clear debris from area to be mowed.
- Do not operate mower without chute deflector or mulching plate or grass catcher in place.
- Do not remove or replace chute deflector or mulching plate or grass catcher unless engine is stopped.

Y05,1010H,B -19-11JUN85

TY10618 -19-02MAY89

INSPECT MOWING AREA

Remove all debris (string, wire or cords) which might wrap around blade shafts.

Remove objects (bottles, cans, sticks or stones) that might be thrown by mower.

Y05,1010H,C -19-11JUN85

OPERATE MOWER SAFELY

M25804 -19-28APR89

Mow only in daylight or in good artificial light.

Do not operate mower in wet grass. Always be sure of your footing. Keep a firm hold on the handgrips. Walk—never run.

Do not discharge clippings toward people or objects.

Keep side discharge chute, mulching plate or grass catcher (accessory) in place.

Do not put hands or feet near or under mower deck.

Never lift the mower while the engine is running.

Shut the engine off, and remove spark plug wire(s), and remove ignition key before unclogging the discharge chute, cleaning mower and making repairs or inspections.

Mow across the face of slopes—never up and down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes. Never mow on slopes with Rider Attachment (Accessory), only mow level terrain with Rider Attachment.

Adjust cutting height only when engine is stopped and blades have stopped turning.

Disengage blades before crossing gravel drives, walks, or roads.

After striking a foreign object, stop the engine, disconnect spark plug wire(s) and on electric start models, remove ignition key to prevent accidental starting. Thoroughly inspect mower for any damage. Repair damage before starting and operating the mower.

If mower should start to vibrate abnormally, stop engine check immediately for the cause. Vibration is generally a warning of trouble.

Frequently check grass catcher (accessory) for holes.

Repair or replace damaged parts with John Deere original equipment replacement parts.

Never carry passengers on Rider Attachment (accessory).

Never use Rider Attachment (accessory) on hilly or rough terrain.

To help prevent bodily injury and/or property damage while mower is running, never release both hands from mower handgrips. Hands must be available to operate traction control levers.

Y05.1010H.D -19-11JUN85

HANDLE FUEL SAFELY

Use a properly and approved safety container for storing fuel.

Refuel engine outdoors.

Shut off engine and allow it to cool before refueling.

Do not smoke while refueling engine or operating mower.

Do not overflow gasoline while filling fuel tank.



TY9797 -UN-01DEC89

Y05,1010H,E -19-11JUN85

AVOID FIRES

- Keep engine free of grass, leaves and excess grease and oil.
- Allow engine to cool before moving mower indoors.
- Never leave grass clippings or leaves in the grass catcher. Damp clippings and mulched leaves produce heat as they decay. This could cause clippings to ignite. Never store garbage bags with clippings in or near buildings.
- Avoid spilling gasoline. Wipe up any spilled gasoline before starting engine.
- Move mower away from fueling area before starting engine.

Y05,1010H,F -19-11JUN85

PRACTICE SAFE MAINTENANCE

Before performing maintenance, or transporting mower, disconnect spark plug wire(s) and on electric start models remove ignition key.

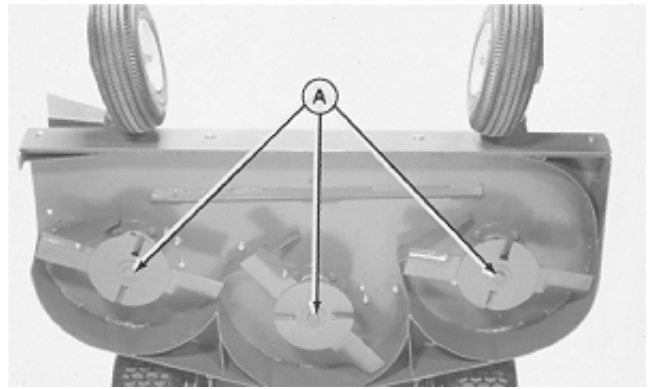
Check blade cap screws (A) and the four engine mounting bolts (B) often for tightness. Do not overtighten blade cap screw.

Keep all nuts, bolts and screws tight.

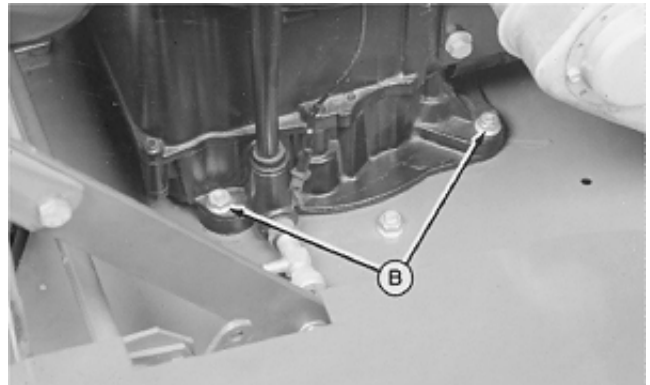
Do not touch muffler or other hot parts.

Always be careful of hazard involved in release of springs under tension.

Wear adequate hand and eye protection when servicing belt tensioning cams and blade belts.



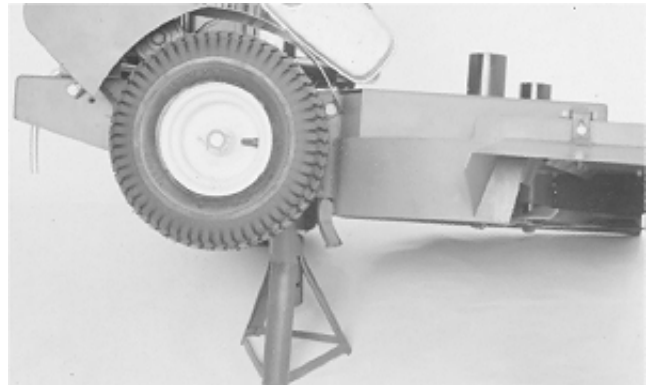
TY10465 -UN-05SEP89



TY10466 -UN-05SEP89

Y05,1010H,G -19-11JUN85

When servicing underside of mower, always make certain mower is safely and securely supported.



TY10467 -UN-05SEP89

Y05,1010H,H -19-11JUN85

USE CAUTION WITH BATTERY

Never tip mower on its side without removing battery first.

Battery electrolyte is poisonous and corrosive. It can injure eyes, skin, and clothing. Handle it carefully. If electrolyte is spilled, flush immediately with a solution of one part baking soda to four parts water.

When battery is removed, do not operate engine without insulating red alternator cable. Charging or sparking from cable may result.

Y05,1010H,I -19-27JUN85

DO NOT MODIFY MOWER

Unauthorized modifications to the mower may impair the function and/or safety and affect mower life.

Do not alter or remove any part of mower safety interlock system.

Y05,1010H,J -19-19JUL85

ENGINE—BRIGGS AND STRATTON (11 HP)

Model and Type	253706-0151
Displacement	400 cc (24.4 in. ³)
Operating Speed	3600 rpm
Idle Speed	1750 rpm
Spark Plug Type	John Deere AP19170 or its equivalent
Spark Plug Gap	0.76 mm (0.030 in.)
Spark Plug Torque	20—27 N·m (15—20 lb-ft)
Ignition	Solid State Electronic
Crankcase Capacity	1.42 L (3 pt)

Y05,1015H,B -19-21JUN85

ENGINE—BRIGGS AND STRATTON (16 HP)

Model and Type	402707-0139
Displacement	656 cc (40 in. ³)
Operating Speed	3600 rpm
Idle Speed	1400 rpm
Spark Plug Type	AM39011
Spark Plug Gap	0.76 mm (0.030 in.)
Spark Plug Torque	20—27 N·m (15—20 lb-ft)
Ignition	Solid State Electronic
Crankcase Capacity	1.42 L (3 pt)

Y05,1015H,C -19-21JUN85

ENGINE—KAWASAKI (12.5 HP)

Model	FB460V
Displacement	460 cc (28.1 in. ³)
Operating Speed	3600 rpm
Idle Speed	1400 rpm
Spark Plug Type	NGK BMR-4A
Spark Plug Gap	0.64 mm (0.025 in.)
Spark Plug Torque	23 N·m (17 lb-ft)
Ignition	Solid State Electronic
Crankcase Capacity	Without Filter—1.42 L (3 U.S. pt) With Filter—1.7 L (3.5 U.S. pt)

8M2,1015H,A1 -19-22JUN88

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document first and then
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10-15-2

ENGINE—KAWASAKI (17 HP)

Model	FC540V
Displacement	535 cc (32.6 in. ³)
Operating Speed	3600 rpm
Idle Speed	1450 rpm
Spark Plug Type	Champion RN 11YC
Spark Plug Gap	0.64 mm (0.025 in.)
Spark Plug Torque	23 N·m (17 lb-ft)
Ignition	Solid State Electronic
Crankcase Capacity	Without Filter—1.60 L (3.4 U.S. pt)
	With Filter—1.9 L (4 U.S. pt)

8M2,1015H,A2 -19-22JUN88

MOWER—ALL 32 AND 36 INCH; 48 AND 52 INCH (S.N. —116000)

Cutting Heights:

With Lawn Casters	54—111 mm (2-1/8—4-3/8 in.)
With Turf Casters	25—162 mm (1—6-3/8 in.)

Blades

32 in.	Two 405 mm (16 in.)
36 in.	Two 460 mm (18 in.)
48 in.	Three 405 mm (16 in.)
52 in.	Three 460 mm (18 in.)

Brakes Heavy-Duty Band-Type

Speed:

Number of Speeds	5 Forward
Range at 3600 rpm	3—6 km/h (2—4 mph)

8M2,1015H,A3 -19-22JUN88

MOWER—48 AND 52 INCH (S.N. 116001—)

Cutting Heights 32—108 mm (1-1/4—4-1/2 in.)

Blades

48 in. Three 405 mm (16 in.)

52 in. Three 460 mm (18 in.)

Brakes Heavy-Duty Band-Type

Speed:

Number of Speeds 5 Forward/1 Reverse

Range at 3600 rpm Forward: 2.5—9.9 km/h (1.6—6.2 mph)
Reverse: 3 km/h (1.9 mph)

8M2,1015H,A4 -19-28SEP88

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