John Deere 6602 Combine

JOHN DEERE

TECHNICAL MANUAL

John Deere 6602
Combine

TM1080 (01FEB79) English

TM1080 (01FEB79)

LITHO IN U.S.A. (REVISED)
ENGLISH

6602 COMBINE

TECHNICAL MANUAL
TM-1080 (Mar-78)

CONTENTS

All information, illustrations, and specifications contained in this technical 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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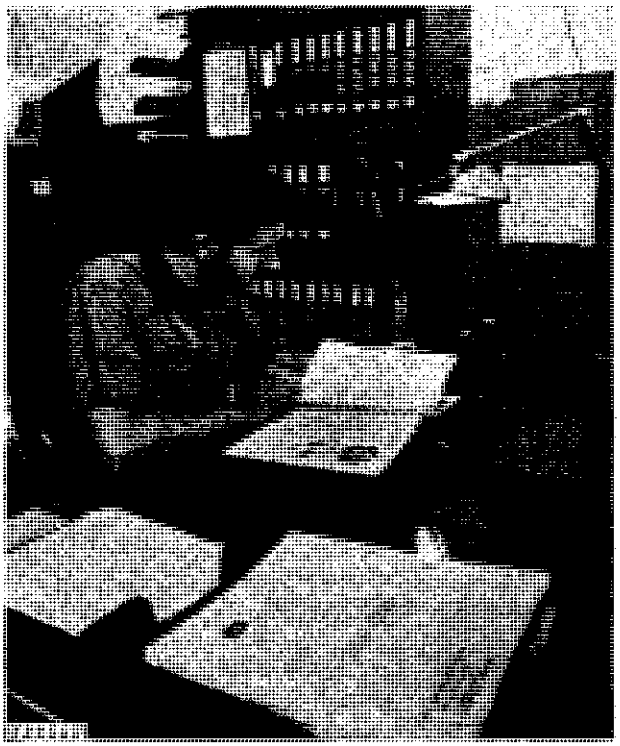
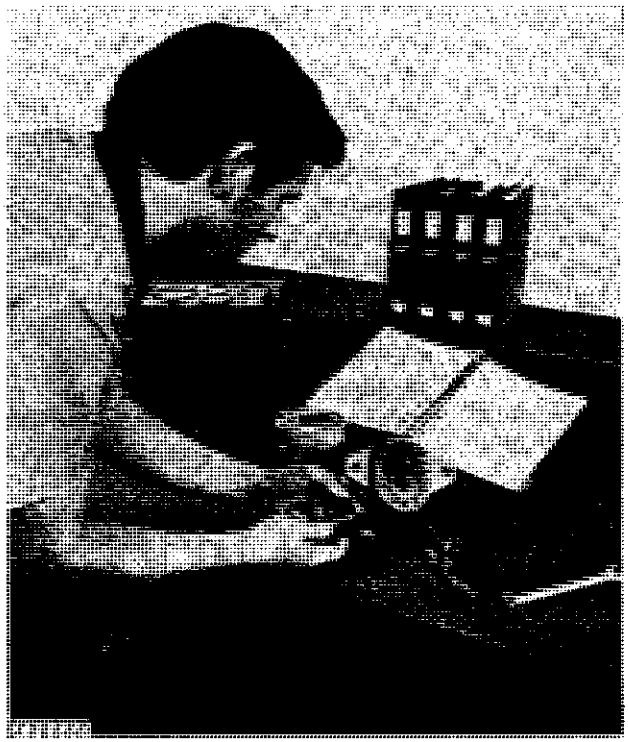
INTRODUCTION



Use FOS Manuals for Reference



Use Technical Manuals for Actual Service

This technical manual is part of a twin concept of service:

- **FOS Manuals—for reference**
- **Technical Manuals—for actual service**

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

Fundamentals of Service (FOS) Manuals cover *basic* theory of operation, *fundamentals* of trouble shooting, *general* maintenance, and *basic* types of failures and their causes. FOS Manuals are for training new service people and for reference by experienced technicians.

Technical Manuals are concise service guides for a *specific* machine. Technical Manuals are on-the-job guides containing only the vital information needed by an experienced technician.

When a technician should refer to a FOS Manual for more information, a FOS symbol like the one at the left is used in the TM to identify the reference.

Some features of this technical manual:

- *Table of contents at front of manual*
- *Exploded views showing parts relationship*
- *Photos showing service techniques*
- *Specifications grouped for easy reference*

This technical manual was planned and written for you—an experienced technician. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

Using the technical manual as a guide will reduce error and costly delay. It will also assure you the best in finished service work.

This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

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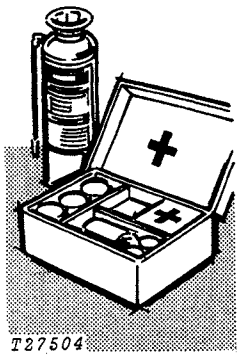
SAFETY AND YOU

T27999

INTRODUCTION

This safety alert symbol identifies important safety messages in this manual and on the combine. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



T27504

Be prepared if an accident or fire should occur. Know where the first aid kit and the fire extinguishers are located—know how to use them.

BLOCKING THE COMBINE

CAUTION

Whenever any components of the Automatic Leveling System are to be disconnected or removed for service or replacement, it is very important that the combine be securely blocked so it will not tilt and cause serious personal injury or damage to the combine.

Place blocks on each end of the axle beam inside the front axle support frame. Also, place wedges between each of the rear axle spindles and rear axle.

Always service the 6602 Combine on level ground unless otherwise specified in this manual.

Before checking, adjusting, or servicing the automatic leveling system, be certain the separator is absolutely perpendicular with the front axle balance beam. This may be checked with the carpenter's level, with the combine setting on a level surface and the tires equally inflated.

After leveling the separator and before checking, adjusting or servicing the remainder of the combine, be certain to: (1) block the front and rear wheels, (2) lower the cutting platform all the way to the ground and, (3) shut off the engine.

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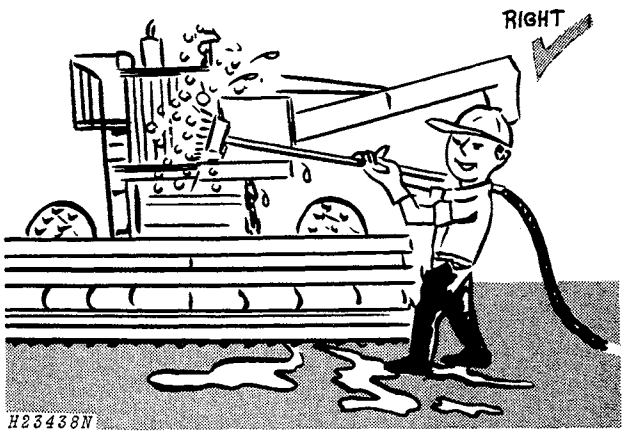
CLEANING THE COMBINE



Always stop the engine before cleaning the combine.

Keep the operator's platform clean. Do not use it as a storage area.

Keep the radiator and engine closure screens free of foreign matter. Avoid a possible fire hazard.

Keep all equipment free of dirt and oil. In freezing weather, beware of snow and ice on ladder steps and operator's platform.

SERVICE AREA

Keep the service area clean and dry. Wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment.

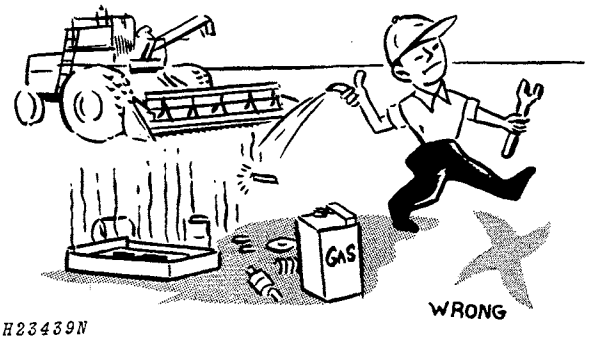
Make sure the service area is adequately vented.

Periodically check the shop exhaust system for leakage. Engine exhaust gas is dangerous.

Be sure all electrical outlets and tools are properly grounded.

Use adequate light for the job at hand.

AVOID FIRE HAZARDS



Don't smoke while refueling or handling highly flammable material.

Engine should be shut off when refueling.

Use care in refueling if the engine is hot.

Don't use open pans of gasoline or diesel fuel for cleaning parts. Good commercial, nonflammable solvents are preferred.

Provide adequate ventilation when charging batteries.

Don't check battery charge by placing metal objects across the posts.

Don't allow sparks or open flame near batteries.

Don't smoke near battery.

Never check fuel, battery electrolyte or coolant levels with an open flame.

Never use an open flame to look for leaks anywhere on the equipment.

Never use a open flame as a light anywhere on or around the equipment.

When preparing engine for storage, remember that inhibitor is volatile and therefore dangerous. Seal and tape openings after adding the inhibitor. Keep container tightly closed when not in use.

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FLUIDS UNDER PRESSURE

Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes and hoses are not damaged. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

Don't forget the hydraulic system or diesel fuel injection system may be pressurized! To relieve pressure, follow the technical manual.

When checking hydraulic pressure, be sure to use the correct test gauge for the pressure in the particular system.

PERSONAL SAFETY

H23440N

Always avoid loose clothing or any accessory—flopping cuffs, dangling neckties and scarves—that can catch in moving parts and put you out of work.

Always wear your safety glasses while on the job.

Keep transmission and brake control units properly adjusted at all times. Before making adjustments, stop engine.

Before removing any housing covers, stop engine. Take all objects from your pockets which could fall into the opened housings. Don't let adjusting wrenches fall into opened housings.

Don't attempt to check belt tension while the engine is running.

Don't adjust the fuel system while the machine is in motion.

Before repairing the electrical system, or performing a major overhaul, make sure the batteries are disconnected.

Avoid working on equipment with the engine running. If it is necessary to make checks with the engine running, ALWAYS USE TWO MEN—one, the operator, at the controls, the other checking where the operator can see him. Also, put the transmission in neutral, set the brake, and apply any safety locks provided. KEEP HANDS AWAY FROM MOVING PARTS.

Use extreme caution in removing radiator caps, drain plugs, grease fittings, or hydraulic pressure caps.

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Thank you very much for your reading. Please Click Here Then Get More Information.

NOTE:

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

Section 10
GENERAL

CONTENTS OF THIS SECTION

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Group 5
GENERAL SPECIFICATIONS

DESCRIPTION

The 6602 Self-Propelled Combine has a 44-inch (1 118 mm) wide separator. It is powered by either a 362 gasoline engine, a 404 diesel or turbocharged diesel engine, or a 466 turbocharged diesel engine.

It is equipped with hydraulic disk brakes and a 4-speed, collar shaft, constant-mesh transmission.

"Right-hand" and "left-hand" sides are determined by facing in the direction the combine will travel when in use.

SERIAL NUMBERS

Serial Number Unit	Location
Combine	Rear left-hand upright
Engine	Right-hand side of cylinder block or above starter on later engines.
Feeder House (early combines)	Right-hand side sheet
Cutting Platform	Right-hand side sheet

SPECIFICATIONS

ENGINES

Gasoline

362 GH-02 (-111600)

Diesel

404 DH-02 (-1500)
404 DH-03 (1501 -163500)
404 TH-02 (163501-311300)
466 TH-01 (353601-)

Type ..... 4-stroke cycle, 6-cyclinder-in-line, valve-in-head

Cubic inch displacement and brake horsepower

Gasoline	362 (5932 cm³)	121 (90 kw)
Diesel	404 (6620 cm³)	121 (90 kw)
	404 (Turbocharged (6620 cm³)	135 (100 kw)
	466 (7640 cm³)	145 (108 kw)

Bore and stroke, inches (mm)

	Bore	Stroke
362	4.25 (108 mm)	4.25 (108 mm)
404	4.25 (108 mm)	4.75 (121 mm)
466	4.56 (116 mm)	4.75 (121 mm)

Compression ratio

Gasoline ..... 7.5 to 1
Diesel ..... 16.8 to 1 (404 D)
15.5 to 1 (404 T)
14.9 to 1 (466)

Firing Order 1-5-3-6-2-4

Valve clearance

	intake	exhaust
Gasoline (hot or cold)	0.015 in. (0.381 mm)	0.028 in. (0.711 mm)

Diesel (hot or cold)
0.018 in. (0.457 mm) 0.028 in. (0.711 mm)

Engine speeds (Normal slow idle) (Fast idle with separator engaged)

Gasoline	800 rpm	2650 rpm
Diesel	1200 rpm	2650 rpm
Diesel (Turbo)	1200 rpm	2350 rpm

Injection pump timing ..... TDC
Distributor timing ..... 2000 rpm 20° mark
Distributor point gap ..... 0.016 in. (0.406 mm)
Distributor cam dwell ..... 31° to 34°
Spark plug gap ..... 0.025 in. (0.635 mm)

ELECTRICAL SYSTEM:

Battery voltage ..... 12 volts
Battery specific gravity at full charge (corrected to 80°F (27°C) ..... 1.260 (±0.010)
Battery terminal grounded ..... negative
Alternator regulation ..... Voltage regulator

TRANSMISSION: (Hydrostatic):

Type: Automotive spur gear with four forward speeds. Transmission is equipped with a safety start switch.

FINAL DRIVE: (Pinion and ring gear.)

STEERING: (Full power hydrostatic steering.)

BRAKES:

Type: Drive wheel brakes are 6-1/2 inch (165 mm), hydraulically actuated, double disk type, located on rear portion of final drive. They are individually controlled by separate pedals.

Parking brakes are 6-1/2 inch (165 mm), mechanically actuated, double disk type, located on either side of transmission. They are controled by a lever on the operator's platform.

HYDRAULIC SYSTEM:

Type: Open-center, constant-flow system. Includes power steering, platform lift, reel drive, reel lift, and unloading auger swing.

Pump ..... Cessna gear-type

Relief pressure (± 100 psi [6.8 bar])
(-163500) .....2000 psi (136 bar)
(163501-) .....2250 psi (153 bar)

Flow rates (fast idle)
Main system
(-163500) .... 9.60 gpm at 2300 rpm
(163501-) .... 9.25 gpm at 2300 rpm

Steering System
(-1500) .....2.95 gpm (19 m³s)
(1501-163500) .....4.60 gpm (29 m³s)
(163501-) .....4.40 gpm (28 m³s)

CAPACITIES:
Cooling System .....32 U.S. Qts. (30 l)
(Add 1-1/2 qts. (1.4 l) for heater)

Engine Crankcase
Gasoline .....15 U.S. Qts. (14 l)
Diesel (-1500) ...15 U.S. Qts. (14 l)
Diesel (1501-163500) ...17 U.S. Qts. (16 l)
Diesel (Turbo)
(163501-) .....17 U.S. Qts. (16 l)

Fuel Tank .....79 U.S. Gals. (299 l)

Transmission ..... 11 U.S. Qts. (10.5 l)

Final Drives ..... 11 U.S. Pts. each (5.2 l)

Hydraulic System (including lines and components) .....17-1/2 Qts. (17 l)

Hydraulic Brake Master Cylinder .. 1 U.S. Pt. (0.47 l)

Hydrostatic Drive and Leveling System (including lines and components). 38 U.S. Qts. (36 l)

DIMENSIONS (with 24.5-32 tires):

Length (including cutting platform) ..... 26 ft. 3 in. (8001 mm)
Height (over grain tank) .. 9 ft. 11-1/2 in. (3035 mm)
Width (R.H. tire to L.H. tire) ..... 13 ft. 11 in. (4242 mm)
Wheel base ..... 13 ft. 1-1/2 in. (4001 mm)

GROUND SPEED IN MPH (km/h)

Tire			1st Gear		2nd Gear		3rd Gear		4th Gear	
Size	**Type**	**Ply Rating**	**Forward**	**Reverse**	**Forward**	**Reverse**	**Forward**	**Reverse**	**Forward**	**Reverse**
24.5-32	Low Profile	12	1.5 (2.4)	1.0 (1.6)	3.5 (5.6)	2.3 (3.7)	6.4 (10.2)	4.2 (6.8)	14.8 (23.8)	9.8 (15.8)
30.5-32	Low Profile	12	1.6 (2.6)	1.0 (1.6)	3.6 (5.8)	2.4 (3.7)	6.6 (10.6)	4.3 (6.9)	15.1 (24.3)	9.9 (15.9)

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