

JOHN DEERE 7020 TRACTOR



TECHNICAL MANUAL JOHN DEERE 7020 TRACTOR

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7020 TRACTOR

TECHNICAL MANUAL

TM-1031 (Jan-76)

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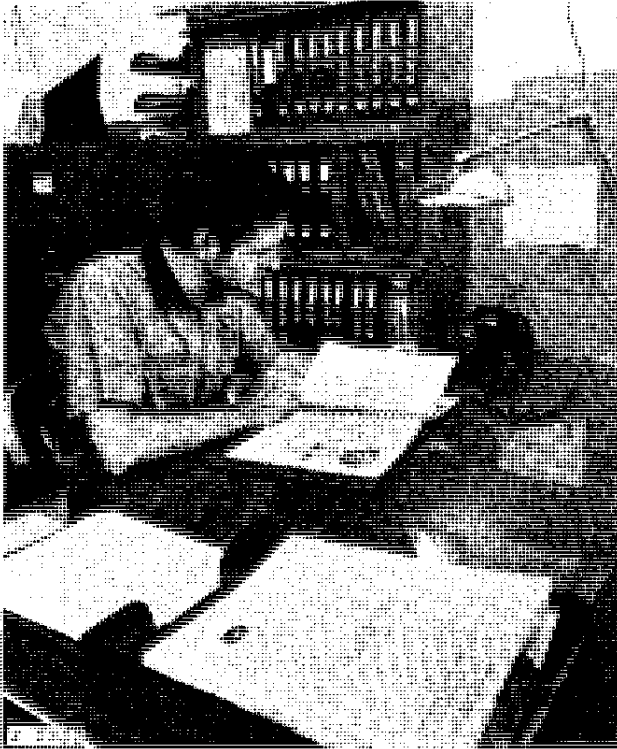
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All information, illustrations, and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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 men and for reference by experienced men.

Technical Manuals are concise service guides for a specific machine. Technical Manuals are on-the-job guides containing only the vital information needed by a journeyman mechanic.



When a serviceman 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—a journeyman mechanic. 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.

**Thanks very much for your reading,
Want to get more information,
Please click here, Then get the complete
manual**

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

Section 10 GENERAL

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Group 5

GENERAL TRACTOR SPECIFICATIONS

HORSEPOWER:

Maximum observed at PTO (2200
Engine rpm)* 146.17

ENGINE:

Type 6-cylinder, in-line, valve-in-head,
diesel, turbocharged, and intercooled

Engine Speeds:

Slow idle 800 rpm
Working range 1500 to 2200 rpm

Compression ratio

Tractors (-2699) 16.8:1
Tractors (2700-) 15.5:1

* *In official test.*

ENGINE (Continued)

Bore and stroke 4-1/4 in. x 4-3/4 in.
Displacement 404 cu. in.
Firing order 1-5-3-6-2-4
Valve clearance In.-0.018 in.
Ex.-0.028 in.

Injection pump timing TDC
Lubrication System Force-feed pres-
surized with full-flow oil filter

Fuel System:

Type Direct injection
Air cleaner Dry type
with safety element

Cooling System:

Type Pressurized with centrifugal pump
Temperature control Heavy-duty thermostats

Capacities:

Fuel tank 78 U.S. gals.
each tank
Crankcase (with filter change) 17 U.S. qts.
Transmission-hydraulic system 22 U.S. gals.
Cooling system 32 U.S. qts.
Front differential 20 U.S. qts.

Transmission:

Type Syncro-Range, constant mesh
Clutch Heavy-duty, 14-3/4 in. plate,
foot operated
Gear selections 8 forward and 2 reverse
Shifting ... Two lever shifting, synchronized shift-
ing within stations, except reverse
gears; Optional "Hi-Lo" speed selec-
tor provides two speeds in each gear
for 16 forward and 4 reverse.

Ground Speeds (in miles per hour, 2200 engine rpm) *

Gear	"Lo"	"Hi"
1st	1.99	2.29
2nd	3.18	3.66
3rd	4.20	4.83
4th	5.39	6.21
5th	6.71	7.73
6th	8.80	10.13
7th	11.39	13.11
8th	18.59	21.40
1st reverse	4.09	4.70
2nd	6.54	7.53

Electrical System:

Type 12-volt, negative grounded
Batteries Two, 6-volt, 75-plate, 172-ampere-
hour, 5D type, connected in series
Alternator 12-volt, 55-amp, with integral
transistorized regulator; with air
conditioner, 12-volt, 72-amp with
integral transistorized regulator

Power Take-Off:

Type Transmission-driven
Speed
1900 engine rpm in "Hi" 1000 rpm
2200 engine rpm in "Lo" or with
standard 8-speed transmission 1000 rpm
PTO ahead of drawbar hitch point 16 in.

Hydraulic System:

Type Closed center, constant pressure. In-
cludes power steering, power brakes,
implement control, and transmission and
differential lubrication
Standby pressure 2250 psi

Brakes Hydraulically power-actuated
disk-type operating in oil

Tires* * 18.4-34, 6-ply

Wheel Tread: See operator's
manual

Dimensions:

Wheel base 120 in.
Over-all length 217 in.
Over-all height (cab) 118-1/2 in.
-With air conditioner 126 in.
Height to steering wheel 92-1/4 in.
Over-all width 95-1/2 in.
-long-axle-114 in.
Turning radius 210 in.

Shipping Weight (With equipment for average
field service, less fuel and ballast) 14,960 lbs.

* Ground speeds for tractors with standard 8-speed
transmission are the same as "Lo."

* * Additional tire sizes available

(Specifications and design subject to change without notice.)

Group 10

PREDELIVERY, DELIVERY, AND AFTER-SALE SERVICES

PREDELIVERY SERVICE

Because of the shipping factors involved, plus extra finishing touches that are necessary to promote customer satisfaction, proper predelivery service is of prime importance to the dealer.

A tag pointing out the factory-recommended procedure for predelivery service is attached to each new tractor before it leaves the factory.

NOTE: A Caplug is placed in the muffler outlet to prevent turbocharger rotation during transit. Remove Caplug before unloading tractor. Reinstall Caplug before transporting the tractor to the customer.

After completing the factory-recommended dealer checks and services listed on the predelivery tag, remove the tag from the tractor and file it with the shop order for the job. The tag will certify that the tractor has received the proper predelivery service when the portion of the customer's John Deere Delivery Receipt is completed.

TEMPORARY TRACTOR STORAGE

Service	Specifications	Reference
Check radiator for coolant loss and antifreeze protection	2 inches above baffle.	.....
Reduce shipping pressure of tires .....	.....	Operator's manual
Cover tractor and tires for protection and cleanliness .....	.....	.....

BEFORE DELIVERING TRACTOR

ELECTRICAL SYSTEM		
Install electrolyte and charge batteries .....	.....	FOS - 20 Manual
Stamp date code on battery .....	.....	FOS - 20 Manual
Connect alternator. Do not attempt to polarize .....	.....	Section 40, Group 10
Install light switch knob .....	.....	.....
Clean terminals and connect battery cables .....	.....	Section 40, Group 5
Check alternator belt adjustment Tractors Ser. No. (-2699)	1-inch deflection, 25 lb. force (20 lb. force on air conditioned)	Operator's manual
Tractors Ser. No. (2700-)	1-inch deflection, 25 lb. force.	
COOLING SYSTEM		
Inspect radiator for coolant loss	2 inches above baffle.	.....
Check antifreeze protection .....	.....	.....

BEFORE DELIVERING TRACTOR—Continued

Service	Specifications	Reference
TIRES AND WHEELS		
Adjust pressure of tires . . . . .	. . . . .	Operator's manual
Check wheel rim clamp nuts, and wheel retainer cap screws for tightness.	Retainer cap screws - 300 ft-lbs Rim clamp nuts - 170 ft-lbs. . . . .	. . . . .
Set front and rear wheel tread to a minimum of 80 in., and add at least 1000 lb. ballast to each wheel for single wheel operation . . . . .	. . . . .	Operator's manual
Hillside operation—use double wheels only . . . . .	. . . . .	Operator's manual
LUBRICATION		
Check crankcase oil level	To upper marks on dipstick.	Operator's manual
Check transmission-hydraulic system oil level	To top of "SAFE" range on dipstick. Type 303 Special-Purpose Oil.	Operator's manual
Check front differential oil level	To level of filler plug opening. Type 303 Special-Purpose Oil.	Operator's manual
Lubricate grease fittings	SAE multipurpose-type grease.	Operator's manual
ENGINE		
Check air cleaner; inspect air intake system connections; check hose clamps for tightness. . . . .	. . . . .	Operator's manual
Fill fuel tank and start engine	Capacity - 78 U.S. gallons each tank	Operator's manual
Check operation of starter, alternator, flasher, gauges, and indicator lights . . . . .	. . . . .	Operator's manual
Check engine timing	TDC	Section 30, Group 15
Check engine speeds	Slow idle - 800 rpm Fast idle - 2400 rpm	Section 30, Group 20

BEFORE DELIVERING TRACTOR—Continued

Service	Specifications	Reference
OPERATION		
Check transmission clutch free travel	Approximately 1-1/2-inch free travel (at least 3/4 in.)	Operator's manual
Shift transmission through all speeds	Operator's manual
Check throttle linkage for free operation	Section 30, Group 20
Adjust headlights and check operation	Operator's manual
Check power takeoff operation	Operator's manual
Check brakes and accumulator	3 in. maximum travel when brakes have been bled, and accumulator is working properly	Operator's manual
Check air conditioning, heater, and pressurizer operation	Operator's manual
Check hydraulic system operation: Steering, and remote cylinder	Operator's manual
Check seat operation	Operator's manual
GENERAL		
Tighten accessible nuts and cap screws
Clean tractor and touch up paint

DELIVERY SERVICE

A thorough discussion of the operation and service of a new tractor at the time of delivery helps to assure complete customer satisfaction. Proper delivery should be an important phase of a dealer's program. A portion of the John Deere Delivery Receipt emphasizes the importance of proper delivery service.

Many complaints have arisen simply because the owner was not shown how to operate and service his new tractor properly. Spend enough time, at the customer's convenience, to introduce the owner to his new tractor and explain to him how to operate and service it properly.

IMPORTANT: Install Caplug in muffler outlet if transporting tractor to customer. This will prevent damage to the turbocharger caused by air passing through the turbocharger and rotating it without lubrication when the engine is stopped.

The following procedure is recommended before the serviceman and owner complete the delivery acknowledgments portion of the delivery receipt.

Using the tractor operator's manual as a guide, be sure that the owner understands these points thoroughly:

1. Controls and Instruments.
2. How to start and stop the engine.
3. The importance of the break-in period.
4. How to use liquid or cast-iron ballast.
5. All functions of the hydraulic system.
6. Using the power takeoff.
7. The importance of safety.
8. The importance of lubrication and periodic services.

After explaining and demonstrating the above features, have the owner sign the delivery receipt and give him the operator's manual.

AFTER-SALE INSPECTION

The purchaser of a new John Deere tractor is entitled to a free inspection within the warranty period after the equipment has been "run in." The terms of this after-sale inspection are outlined on the back of the John Deere Delivery Receipt.

The purpose of this inspection is to make sure that the customer is receiving satisfactory performance from his tractor. At the same time, the inspection should reveal whether or not the tractor is being operated, lubricated, and serviced properly.

If the recommended after-sale service inspection is followed, the dealer can eliminate a needless volume of service work by preventing minor irregularities from developing into serious problems later on. This will promote strong dealer-customer relations and present the dealer an opportunity to answer questions that may have arisen during the first few days of operation. During the inspection service, the dealer has the further opportunity of promoting the possible sale of other new equipment.

The following inspection program is recommended within the first 100 hours of tractor operation.

INSPECTION PROCEDURE

Service	Specifications	Reference
COOLING SYSTEM		
Check radiator coolant level	2 inches above baffle. . . . .	. . . . .
Clean external surface of radiator core . . . . .	. . . . .	. . . . .
Check hoses and connections for leaks . . . . .	. . . . .	. . . . .
FUEL SYSTEM		
Remove water and foreign matter from filter sediment bowl . . . . .	. . . . .	Operator's manual
Bleed fuel system . . . . .	. . . . .	Operator's manual
Check air intake system and fuel system for leaks, correcting as required. Tighten all loose connections . . . . .	. . . . .	. . . . .
Check air cleaner element, and unloading valve. Clean element if necessary . . . . .	. . . . .	Operator's manual
ELECTRICAL SYSTEM		
Check specific gravity of battery(s)	Full charge - 1.260 at 80° F.	Operator's manual
Check level of battery electrolyte	To bottom of filler neck in each cell	Operator's manual
Check belt tension . . . . .	. . . . .	. . . . .
Tractors Ser. No. (-2699)	1-inch deflection, 25 lb. force (20 lb. force on air conditioned). . . . .	. . . . .
Tractors Ser. No. (2700-)	1-inch deflection, 25 lb. force	Operator's manual




INSPECTION PROCEDURES—Continued

Service	Specifications	Reference
Start engine and check operation of starter, lights, and indicator lamps .....	.....	Operator's manual
LUBRICATION		
Check crankcase oil level	To upper marks on dipstick	Operator's manual
Check transmission-hydraulic system oil level	In "SAFE" range on dipstick. Use John Deere Type 303 Special-Purpose Oil.	Operator's manual
Check front differential oil level	To level with filler plug opening Use John Deere Type 303 Special-Purpose Oil.	Operator's manual
ENGINE		
Check valve clearance	Intake - 0.018 inch	
	Exhaust - 0.028 inch	Operator's manual
Check engine speed under load, fuel consumption, and horsepower	Specification	Group 15 of this Section.
CHECK TRACTOR AND POWER TRAIN OPERATION		
Check transmission clutch free travel	Approximately 1-1/2 inch free travel	Operator's manual
Shift transmission through all speeds .....	.....	Operator's manual
Check power steering	Smooth, easy operation	Section 70, Group 20
Check brakes and accumulator	3 inches maximum brake travel when brakes have been bled and accumulator is working properly	Operator's manual

Inspection Procedures—Continued

Service	Specification	Reference
Hydraulic System		
Check rockshaft and remote cylinder operation	Section 70, Group 30
Reverse signal lock out Ser. No. (-2699)	Section 70, Group 30
Negative signal stop Ser. No. (2700-)	Section 70, Group 30
Check entire tractor for leaks. Inspect drive shafts, hydraulic system pipes and hoses, and check tractor cab controls for proper operation	Operator's manual
NUTS AND CAP SCREWS		
Tighten accessible nuts and cap screws that seem to require adjustment

TORQUE CHART (ft-lbs)

			
Bolt Diameter	Plain Head*	Three Radial Dashes*	Six Radial Dashes*
1/4	6	10	14
5/16	13	20	30
3/8	23	35	50
7/16	35	55	80
1/2	55	85	120
9/16	75	130	175
5/8	105	170	240
3/4	185	300	425
7/8	160* *	445	685
1	250* *	670	1030

* The types of bolts and cap screws are identified by head markings as follows:

Plain Head: regular machine bolts and cap screws.

3-Dash Head: tempered steel high-strength bolts and cap screws.

6-Dash Head: tempered steel extra high-strength bolts and cap screws.

* * Machine bolts and cap screws 7/8-inch and larger are sometimes formed hot rather than cold, which accounts for the lower torque.

Group 15 TUNE-UP

Before tuning up a tractor, determine whether a tune-up will restore operating efficiency. When there is doubt, the following preliminary tests will help to determine if the engine can be tuned up. If the condi-

tion is satisfactory, proceed with the tune-up. Choose from the following procedures only those necessary to restore the unit.

PRELIMINARY ENGINE TESTING

Operation	Specification	Section-Group Reference
Dynamometer Test (at 2200 engine rpm full load)	Compare with previous recorded output; compare with output after tune-up	FOS - 30 Manual, Chapter 12
Compression Test Tractors Ser. No. (-2699)	385-410 at 215-245 rpm	FOS - 30 Manual, Chapter 12
Tractors Ser. No. (2700-)	380 at 130 rpm	FOS - 30 Manual, Chapter 12
Engine Coolant Check Test	No air bubbles or oil film in radiator	FOS - 30 Manual, Chapter 12

ENGINE TUNE-UP

Operation	Specification	Section-Group Reference
Air Intake System Service air cleaner and check system for leaks . . . . .	. . . . .	FOS - 30 Manual, Chapter 12
Check system for restrictions using water manometer . . . . .	. . . . .	FOS - 30 Manual, Chapter 12
Normal reading, inches of water (with clean filter elements)	10-11 in. at 2200 rpm (Full load)	
Maximum permitted reading	25 in. at 2200 rpm (Full load)	
Check restriction indicator light operation	24-26 in. at 2200 rpm	
Check manifold pressure	16-20 psi at full load	30-10

ENGINE TUNE-UP—Continued

Operation	Specification	Section-Group Reference
Exhaust System		
Check system for leaks .....	.....	FOS - 30 Manual, Chapter 12
Check muffler and exhaust pipe for restrictions .....	.....	FOS - 30 Manual, Chapter 12
Crankcase Ventilating System		
Check system for restrictions .....	.....	FOS - 30 Manual, Chapter 12
Cooling System		
Clean grill screen, radiator core, and oil cooler core .....	.....	20-30
Clean and flush system; check thermostat	Starts to open-177°F. to 182°F.	20-30
Check pressure cap	6.25 to 7.50 psi release pressure	20-30
Cylinder Head and Valves		
Torque cylinder head cap screws ...	130 ft-lbs in sequence	20-10
Set valve clearance	Intake - 0.018 in. Exhaust - 0.028 in.	20-10
Diesel Fuel System		
Check fuel tank for water .....	.....	30-15
Check fuel pump pressure	3-1/2 - 4-1/2 psi (Roosa Master) or 20-25 psi (Bosch)	30-15
Change filter .....	.....	30-15
Injection Pump:		
Service and check timing	TDC	30-15
Adjust throttle linkage	5° advance at 1900 rpm (full load) on Roosa Master pump	30-15
	Slow idle - 800 rpm Fast idle - 2400 rpm	30-20
	Foot throttle - 2650 rpm; Ser. No. (-2699)	30-20
Lubrication system		
Check engine oil pressure	40 - 50 psi (1900 rpm)	20-25
Charging System		
Check battery specific gravity	1.240 - 1.260	40-10 & 12
Check battery water consump- tion and electrolyte level .....	.....	40-10 & 12
Clean battery, cables, and box .....	.....	40-10 & 12
Clean alternator belt tension		
Tractors Ser. No. (-2699)	1-inch deflection, 25 lb. force (20 lb. force on air conditioned)	
Tractors Ser. No. (2700-)	1-inch deflection, 25 lb. force	Operator's Manual

ENGINE TUNE-UP—Continued

Operation	Specification	Section-Group Reference
Check alternator output Motorola	45 amps at 13 to 15 volts (1440 engine rpm). On air conditioned tractors, 65 amps at 13 to 15 volts (1400 engine rpm)	40-10
Delcotron, Ser. No. (-2699)	50 amps at 13 to 15 volts (2400 engine rpm). On air conditioned tractors, 65 amps at 13 to 15 volts (1750 engine rpm)	40-12
Delcotron, Ser. No. (2700-)	50 amps at 13 to 15 volts (1880 engine rpm). On air conditioned tractors, 65 amps at 13-15 volts (1880 engine rpm)	40-12
Check alternator regulated voltage	14.2 - 14.6 volts (operating)	40-10
Starting System		
Check start-safety switch operation .....	.....	40-15
Check battery voltage when starting	Min. 9 volts (cranking)	40-15
Check starter current draw	Approx. 400 amps	40-15
Check operation of alternator and oil pressure indicator lights .....	.....	40-25

FINAL ENGINE TEST

Operation	Specification	Section-Group Reference
Dynamometer Test (at 2200 engine rpm full load)	Compare with previous recorded output; record for future use	FOS - 30 Manual - ENGINES, Chapter 12

TRACTOR TUNE-UP

Operation	Specification	Section-Group Reference
Adjust transmission clutch free travel	1-1/2 in.	50-5
Transmission		
Check shifting		50-10 & 15
Check for proper operation without excessive noise		50-15
Check brake pedal travel and even position	3-inch maximum travel with brakes bled and with accumulator working properly	70-25
Check tire inflation	See Operator's manual	
Transmission pump	6-1/2 gpm at 1900 rpm (in "Lo or with 8-speed transmission)	70-5
	7.5 gpm at 1900 rpm ("Hi")	
Main hydraulic pump	Standby - 2200 - 2300 psi Capacity - 26 gpm (2000 psi and 2200 rpm)	70-5
Pressure control valve	1650 - 1700 psi at 800 rpm (approximately 5 gpm flow)	70-5
Selective control valve	2 to 12-1/2 gpm at 1500 psi and 1900 rpm	70-5
Rockshaft: Ser. No. (-2699)		
Lift cycle time (75 degrees rotation)	2.4 - 2.7 seconds at 1900 rpm	70-5
Maximum oil flow	11.5 gpm at 2000 psi and 1900 rpm	70-5
Lever position (depth control)	Complete raise at 1/32-inch from end of slot	70-30
Lever position (load control)	0 of quadrant to raise (rear lever edge)	
Reverse signal lockout		70-30
Rockshaft: Ser. No. (2700-)		
Lift cycle time (75 degrees rotation)	2.5-2.7 seconds at 1900 rpm	70-30
Maximum oil flow	12 to 13 gpm at 2000 psi and 1900 rpm	70-30
Lever position (depth control)	Complete raise when control lever is moved rearward and stopped with front edge of lever 1/4 inch ahead of 0 mark	70-30
Lever position (load control)	At 0 mark ± 1/8 inch on quadrant to raise (rear lever edge)	70-30
Negative signal adjustment		70-5

Hydraulic system pressures, flow rates, or cycle times are for conditions specified in Section 70 (tractor at operating temperature, transmission-hydraulic oil at 140°F. to 160°F., proper test equipment, correct test sequence, etc.).

Group 20 LUBRICATION

GENERAL INFORMATION

Carefully written and illustrated instructions are included in the tractor operator's manual. Remind your customer to follow the recommendations in these instructions.

For your convenience when servicing the tractor, the following chart showing capacities and type of lubricant for the various components has been included. Additional lubrication information is on page 20-2.

Component	Capacity	Type of Lubricant	Interval of Service
Engine Crankcase	17 U.S. quarts (includes filter)	See "Engine Lubricating Oils" on page 20-2	10 Hours - Check level 100 Hours - Change oil 200 Hours - Replace Filter
Transmission and Hydraulic system	22 U.S. gallons (dry system) 19 U.S. gallons at service intervals	John Deere Hy-Gard Transmission and Hydraulic Oil	200 Hours - Check level 600 Hours - Replace filter 1200 Hours - Change oil
Front differential	20 U.S. qts.	John Deere Hy-Gard Transmission and Hydraulic Oil	1200 Hours - Change oil
Grease Fittings	.....	John Deere Multi-purpose Lubricant	See Operator's Manual

LUBRICANTS

Engine Lubricating Oils



We recommend John Deere Torq-Gard Supreme Engine Oil for use in the engine crankcase. These oils are compounded specifically for use in John Deere engines and provide superior lubrication under all conditions. NEVER PUT ADDITIVES IN THE CRANKCASE. Torq-Gard oils are formulated to provide all the protection this engine needs. Additives could reduce this protection rather than help it.

If Torq-Gard Supreme is not used, use an engine oil that conforms to one of the following specifications:

SINGLE VISCOSITY OILS

API Service CD/SD
MIL-L-2104C
Series 3*

MULTI-VISCOSITY OILS

API Service CC/SE, CC/SD, or SD
MIL-L-46152

* As further assurance of quality, the oil should also be identified as suitable for API service designation SD.

Depending on the expected prevailing temperature for the fill period, use oil of viscosity as shown in the following chart.

Some increase in oil consumption may be expected when SAE 5W-20 or SAE 5W oils are used. Check oil level more frequently.

Air Temperature	John Deere Torq-Gard Oil	Other Oils	
		Single Viscosity Oil	Multi-Viscosity Oil
Above 32°F.	SAE 30	SAE 30	Not recommended
-10°F. to 32°F.* *	SAE 10W-20	SAE 10W	SAE 10W-30
Below -10°F.	SAE 5W-20	SAE 5W	SAE 5W-20

* * SAE 5W-20 oil may be used where required to insure optimum lubrication at starting, particularly for an engine subjected to -10°F. or lower for several hours.

Transmission Hydraulic Oils

Use only John Deere Hy-GARD Transmission and Hydraulic Oil or its equivalent in the transmission hydraulic system. Other types of oil will not give satisfactory service and may result in eventual damage. This special oil, available from your John Deere dealer, may be used in all weather conditions.

NOTE: John Deere Hy-GARD Transmission and Hydraulic Oil may be added to or mixed with John Deere Type 303 Special-Purpose Oil.

Greases

John Deere Multi-Purpose Lubricant or an equivalent SAE Multipurpose-Type grease is recommended for grease fittings. Application of grease as instructed in the lubrication section of the operator's manual will provide proper lubrication and will keep contamination out of bearings.

Storing Lubricants

A tractor can operate at top efficiency only if clean lubricants are used. Use clean containers to handle all lubricants. Store them in an area protected from dust, moisture, and other contamination.

Group 25 SEPARATION

CAUTION: Before separating tractor, be sure that the brake accumulator is discharged. The accumulator can be discharged by opening the right-hand brake bleed screw, and holding the brake pedal down for a few minutes. Do not work around hinge with the engine running.

REMOVING ROLL-GARD CAB

All Tractors

CAUTION: To prevent possible injury, do not work around the hinge with the engine running. Always be sure that the engine is stopped, and that no one is in cab before proceeding with the removal.

Use the following method to remove the cab:

To facilitate the removal of the Roll-Gard cab, turn the tractor to either the extreme left or right turn position, loosen the Roll-Gard attaching bolts, and then turn to the other extreme position, and loosen the bolts.

Drain the cooling system. Remove the muffler, vertical air stack, side grille screens, cowl, cowl panel, and hood.

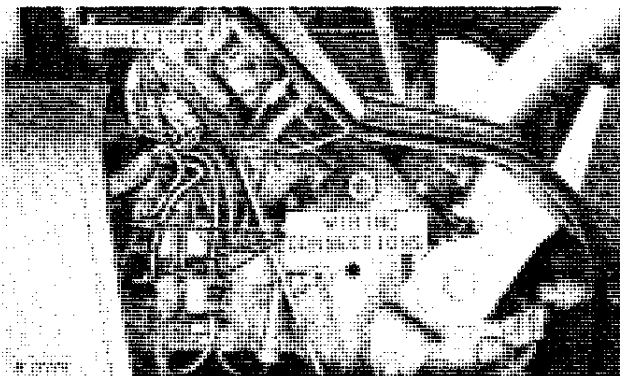


Fig. 1-Cab Wiring Connections

Disconnect cab wiring from connectors and circuit breakers (Fig. 1). Remove wiring harness from clamps and lay wiring inside cab. Disconnect wiring from dimmer switch.

Disconnect heater pressure hose (Fig. 2), and return hose (Fig. 13).

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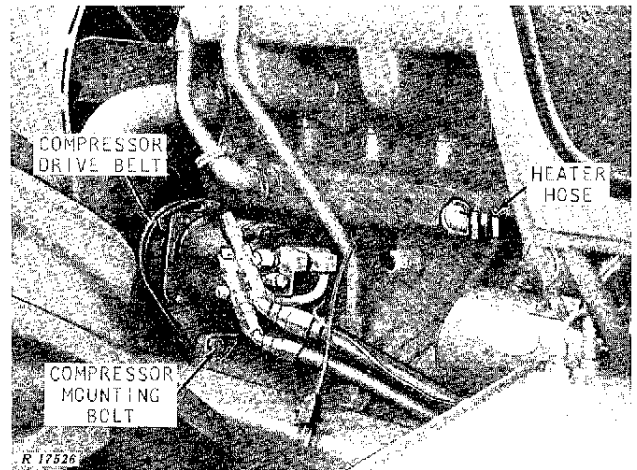


Fig. 2-Compressor and Heater Hose

Loosen the compressor drive belt and remove the compressor mounting bolt (Fig. 2). Remove compressor (with refrigerant hoses connected to compressor), and place unit inside cab or fasten to cab. Remove remote cylinder outlets (with hoses attached) and place inside cab.

Remove the cab floor mat, and the necessary cab panels to allow cab to clear the control support housing and seat.

Fasten lift bracket chains (Fig. 1, Group 30) to the lifting straps on cab roof and attach lift bracket to an overhead hoist.

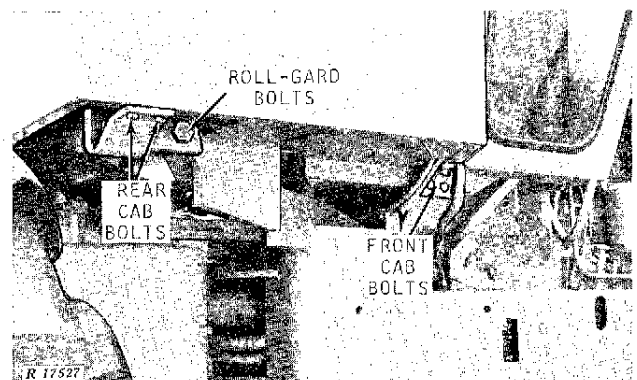


Fig. 3-Roll-Gard and Cab Mounting Bolts
(Fuel Tank Removed)