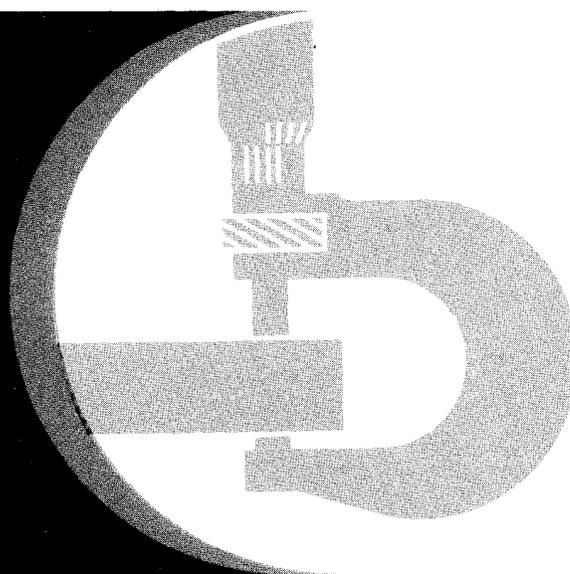


690 and 690-A Excavators



TECHNICAL MANUAL

TM-1017

LITHO IN U.S.A.

JD690 and JD690-A EXCAVATORS

Technical Manual

TM-1017 (Jan-74)

CONTENTS

SECTION 10 - GENERAL	SECTION 50 - POWER TRAIN
Group 5 - Specifications	Group 5 - Track and Swing Drive Assemblies
Group 10 - Predelivery, Delivery, and After-Sales Services	
Group 15 - Tune-Up and Adjustment	SECTION 60 - STEERING AND BRAKES
Group 20 - Lubrication	Group 5 - General Information
Group 25 - Separation	
SECTION 20 - ENGINE	SECTION 70 - HYDRAULIC SYSTEM
Group 5 - Diagnosis	Group 5 - General Information, Testing, and Diagnosis
Group 10 - Basic Engine	Group 10 - Main Hydraulic Pump
Group 15 - Engine Lubrication	Group 15 - Control Valve
Group 20 - Speed Control Linkage	Group 20 - Hydraulic Motors
Group 25 - Engine Cooling System	Group 25 - Rotary Manifold and Brake Valve
Group 30 - Specifications and Special Tools	Group 30 - Cylinders
	Group 35 - Flow Divider Valve
SECTION 30 - FUEL SYSTEM	Group 40 - Reservoir, Cooler and Filters
Group 5 - System Diagnosis	Group 45 - Specifications and Special Tools
Group 10 - Fuel Tank, Transfer Pump and Filters	
Group 15 - Air Intake System	SECTION 80 - MISCELLANEOUS COMPONENTS
Group 20 - Fuel Injection Pumps	Group 5 - Undercarriage
. - Fuel Injection Nozzles (refer to SM-2045)	Group 10 - Boom and Bucket
Group 25 - Specifications and Special Tools	Group 15 - Specifications and Special Tools
SECTION 40 - ELECTRICAL SYSTEM	SECTION - INDEX
Group 5 - Wiring Diagrams	
Group 10 - Charging Circuit	
Group 15 - Starting Circuit	
Group 20 - Gauges and Switches	
Group 25 - Specifications and Special Tools	

The specifications and design information contained in this manual were correct at the time it was printed. It is John Deere's policy to continually improve and update our machines. Therefore, the specifications and design information are subject to change without notice. Wherever applicable, specifications and design information are in accordance with SAE and IEMC standards.

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HYDRAULIC SYSTEM

Type Open center.
Pump Tandem.

Alternator . . . 12-volt, 55-amp (early units),
35-amp (later units); with in-
tegral transistorized regulator.

ELECTRICAL SYSTEM

Type 12-volt, negative grounded.
Batteries Two, 6-volt, 75-plate
360 minute reserve capacity,
3 EH type, connected in series.

MAXIMUM GROUND SPEED 1.2 mph.

WEIGHT 36,105 lbs. (less bucket).

DIMENSIONS

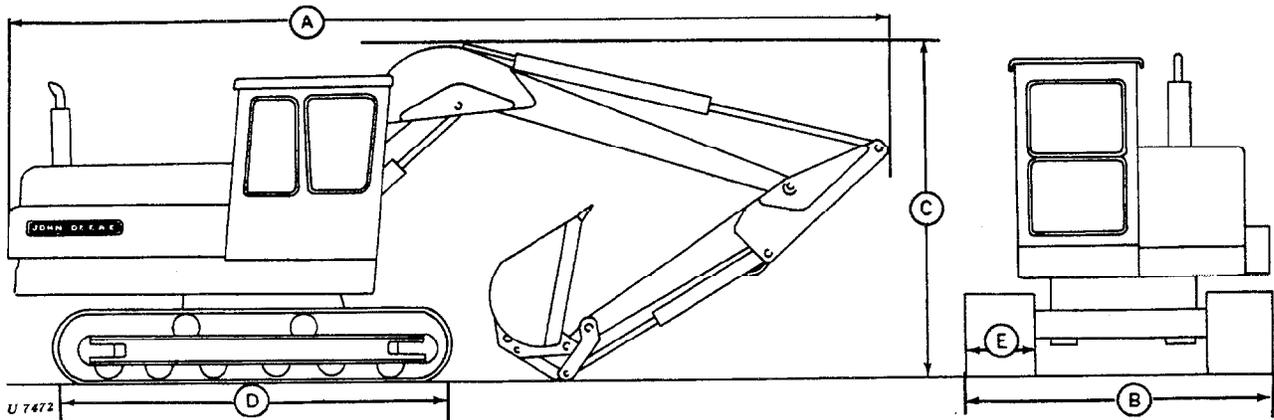
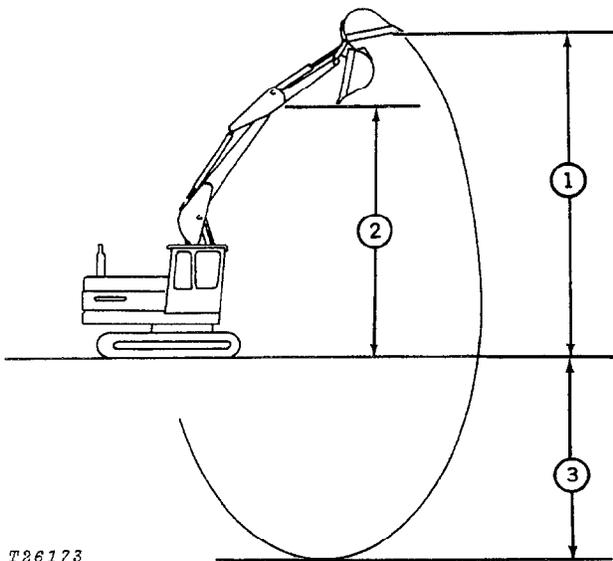


Fig. 1-Excavator Overall Dimensions

A. Length	29 ft. 6 in.
B. Width	7 ft. 11 in.
C. Height (to top of boom)	10 ft. 10 in.
D. Track length	12 ft. 6 in.
E. Track shoe width	24 in.



T26173

Fig. 2-Excavator Operating Dimensions

1. Maximum reach	30 ft.
2. Maximum dumping height	15 ft.
3. Maximum digging depth	21 ft.
Digging force (24 in. bucket)	23,000 lbs.
Swing, 360 degree continuous	7 rpm
Gradability	50 per cent

Specifications and design are subject to change without notice. Wherever applicable, specifications are in accordance with SAE, PCSA and I.E.M.C. Standards.

Group 10 PREDELIVERY, DELIVERY, AND AFTER-SALES SERVICES

PREDELIVERY SERVICE

Every new John Deere machine leaves the factory so that it can be delivered to the customer after a minimum of servicing.

Shipping factors, however, in addition to extra finishing touches needed for customer satisfaction, necessitate proper predelivery service by the dealer.

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

After completing the factory-recommended checks and services listed on the predelivery tag, remove and file the tag with the job shop order. The tag will then certify that the unit has received the proper predelivery service.

NOTE: Remove plug from exhaust outlet and install muffler before unloading machine. Cover exhaust whenever transporting the machine.

TEMPORARY MACHINE STORAGE*

Service	Specification	Reference
Check radiator for coolant loss and anti-freeze protection.	Fill to level with baffle in neck of radiator.	.....
Relieve hydraulic pressure.	Stop engine, lower boom and operate control handles.	Operator's Manual
Check and charge batteries.	Specific gravity is 1.240 to 1.260 (full charge).	Section 40, Group 10
Cover machine for protection and cleanliness.	.....	.....

**See Operator's Manual for extended storage instructions.*

BEFORE DELIVERING MACHINE

ELECTRICAL SYSTEM

Check battery terminals to be sure they are tight. Operator's Manual

Punch date code on battery tag.

Inspect electrolyte and charge batteries, if required. Bottom of filler neck. Operator's Manual

Check alternator and fan belt tension. Operator's Manual

COOLING SYSTEM

Inspect radiator for coolant loss. Fill to level with baffle in neck of radiator.

Check antifreeze protection.

TRACKS

Check track adjustment. 1-in. sag. Operator's Manual

Check chain adjustment. 1/2-in. sag. Operator's Manual

Service	Specification	Reference
LUBRICATION		
Check crankcase oil level.	To upper marks on dipstick.	Operator's Manual
Check hydraulic system oil level.	Operator's Manual
Check swing and track gearbox oil levels.	Operator's Manual
Lubricate grease fittings.	John Deere Multi-Purpose Lubricant or an equivalent.	Operator's Manual
ENGINE		
Check air cleaner.	Operator's Manual
Fill fuel tank and start engine.	Operator's Manual
Check engine idle speeds.	Section 20, Group 15
OPERATION		
Check hydraulic system operation.	Section 70, Group 5
Check flow divider valve operation.	Section 70, Group 35
Check pump disconnect.	Operator's Manual
Check gauge and indicator lamp operation.	Operator's Manual
Check swing and track motor operation.	Operator's Manual
Check swing brake operation.	Operator's Manual
Check seat operation.	Operator's Manual
GENERAL		
Tighten cap screws and nuts.
Clean machine and touch up paint.
Check air cleaner and attaching connections for potential leaks.

DELIVERY SERVICE

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

Complaints may arise if the owner is not shown how to operate and service his new machine correctly. Devote enough time, at your customer's convenience, to introduce him to his new machine. Explain fully how to operate and service it.

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

1. Operation and use of controls and instruments.
2. Operation of the engine.
3. Importance of the break-in period.
4. Operation and functions of the hydraulic system.
5. Importance of safety.
6. Importance of lubrication and periodic services.

AFTER-SALES SERVICE

The purchaser of a new John Deere machine is entitled to a free inspection at some mutually agreeable time within the warranty period after the equipment has been "run in." The terms of this after-sales inspection are outlined on the back of the customer's John Deere Delivery Receipt.

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

If the recommended after-sales service inspection is followed, the dealer may eliminate minor irregularities which could develop into major service problems at a later date. This will promote strong dealer-customer relations and give the dealer an opportunity to answer questions that may have arisen during initial operation.

During the inspection service, the dealer has the opportunity to recommend additional new equipment and accessories.

INSPECTION PROCEDURES

Service	Specification	Reference
Check radiator coolant level.	Fill to level with baffle in neck of radiator.	.....
Clean external surface of radiator core.	.....	.....
Check hoses and connections for leaks.	.....	.....
FUEL SYSTEM		
Remove water and foreign matter from fuel pump and filter sediment bowls. Replace filters, if necessary.	.....	Operator's Manual
Tighten loose connections and check entire fuel system for leaks.	.....	.....
Check air cleaner elements and clean, if necessary.	.....	Operator's Manual
ELECTRICAL SYSTEM		
Check specific gravity and electrolyte level of batteries.	Specific gravity is 1.240 to 1.260 (full charge)	Operator's Manual
Check fan belt tension.	3/4-inch deflection with 20 lbs. force; 100 to 110 lb. strand tension if belt gauge is used.	Operator's Manual
Start engine and check action of starter and indicator lamps.	.....	Operator's Manual
ENGINE		
Check crankcase oil level.	To upper marks on dipstick.	Operator's Manual

Service	Specification	Reference
ENGINE—Continued		
Check valve clearances.	Intake - 0.018 in. Exhaust - 0.022 in.	Section 20, Group 5
Check engine speed under load.	Section 20, Group 15
HYDRAULIC SYSTEM		
Check pump disconnect operation.	Operator's Manual
Check hydraulic cylinder operation, fittings, and hose positions.	Operator's Manual
Check oil level of swing and track motor gearboxes.	Operator's Manual
TRACKS		
Check drive chain adjustment.	Section 80, Group 5
Check track adjustment.	Section 80, Group 5

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