

OPERATOR'S MANUAL

FOR

**SCRAPER, TRACTOR: ELEVATING
SELF-PROPELLED, 11 CUBIC YARD,
SECTIONALIZED AND NONSECTIONALIZED**

**MODEL 613BSS
(NSN 3805-01-144-8837)**

**MODEL 613BSS1
(NSN 3805-01-267-4177)**

**MODEL 613BSNS
(NSN 3805-01-267-2992)**

**MODEL 613BSNS1
(NSN 3805-01-267-4178)**

**OPERATOR
INSTRUCTIONS**

**LUBRICATION
INSTRUCTIONS**

**SECTIONALIZED
UNIQUE
MAINTENANCE
INFORMATION**

**SUPPLEMENTAL
MAINTENANCE
INSTRUCTIONS**

Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

DECEMBER 1990

TECHNICAL MANUAL
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HEADQUARTERS
DEPARTMENT OF THE ARMY
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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, located in the back of this manual, direct to: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

This technical manual is an authentication of the manufacturer's commercial literature and does not conform with the format and content specified in AR 25-30, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

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HOW TO USE THE TECHNICAL MANUAL

Introduction

The 613B Series Tractor-Scraper machines are available in four configurations:

- 613BSNS and 613BSNS1 Type I - Nonsectionalized
- 613BSS and 613BSS1 Type II - Sectionalized

The Type I configurations are air transportable by three methods:

- Drive On/Drive Off*
- Low Altitude Parachute Extraction (LAPES)
- Low Velocity Air Drop (LVAD)

* Requires load transfer (weight distribution).

The Type II configurations, in addition to the three methods listed above, may be sectionalized (divided into two sections) and transported by helicopter.

Manual Identification

The Operator's Manual is divided into four parts. Each Chapter/Appendix is preceded with a table of contents, identifying specific items contained within that Chapter/Appendix.

- Chapter 1: Operation information common to both the 613BSNS and 613BSNS1 Type I (Nonsectionalized) vehicle and 613BSS and 613BSS1 Type II (Sectionalized) vehicle.
- Chapter 2: Lubrication information common to both the 613BSNS Type I (Nonsectionalized) vehicle and 613BSS and 613BSS1 Type II (Sectionalized) vehicle.
- Chapter 3: Maintenance information unique to the 613BSS and 613BSS1 Type II (Sectionalized) vehicles.
- Appendix A: Supplemental Operating Information common to all vehicles.

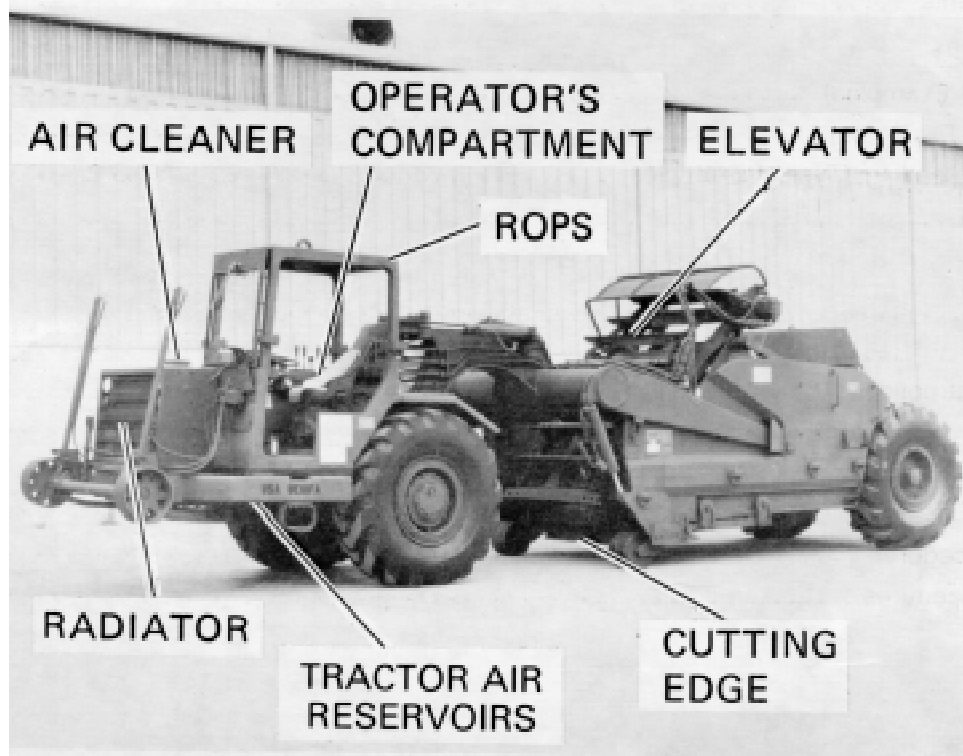
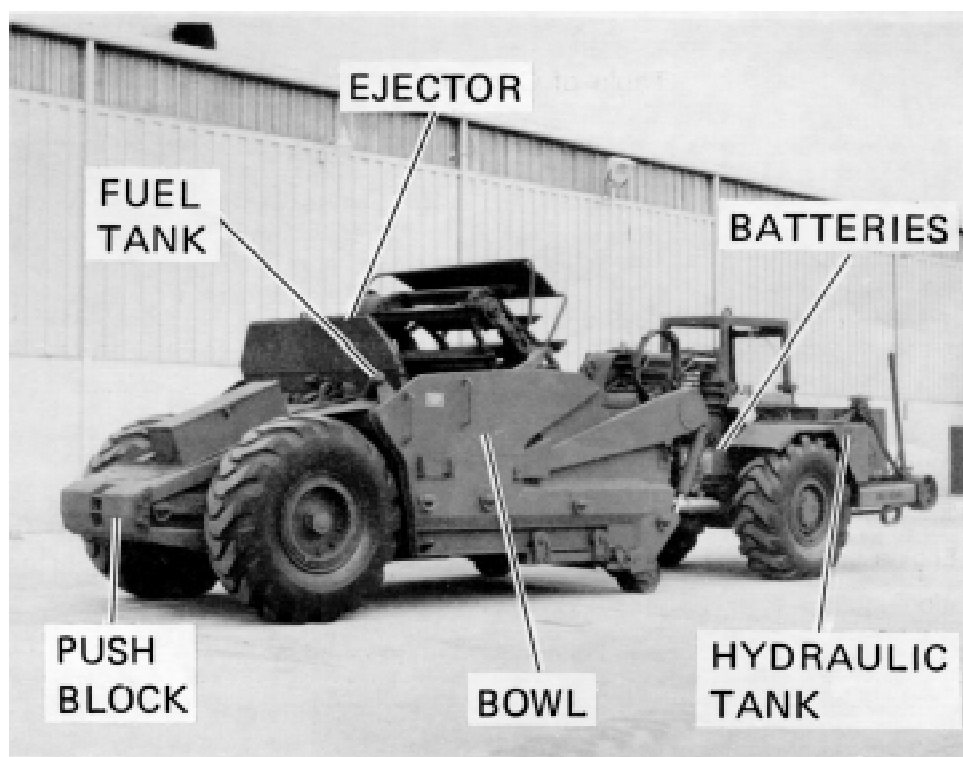
CHAPTER 1

OPERATOR INSTRUCTIONS

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CHAPTER 1 OPERATION
613BSNS AND 613BSNS1 TRACTOR-SCRAPER



- NOTE A: DIMENSION WILL DEPEND ON THE POSITION OF THE BOWL
- NOTE B: REMOVE FOR AIR DROP
- NOTE C: FOLD DOWN INTO BOWL
- NOTE D: USE IN DRIVE ON-DRIVE OFF MODE ONLY
- NOTE E: TIEDOWN EYES
- NOTE F: PARACHUTE SUSPENSION EYES
- NOTE G: PARACHUTE EXTRACTION EYE
- NOTE H: REMOVE PIN DURING DRIVE ON-DRIVE OFF
- NOTE J: ATTACH DURING AIR DROP

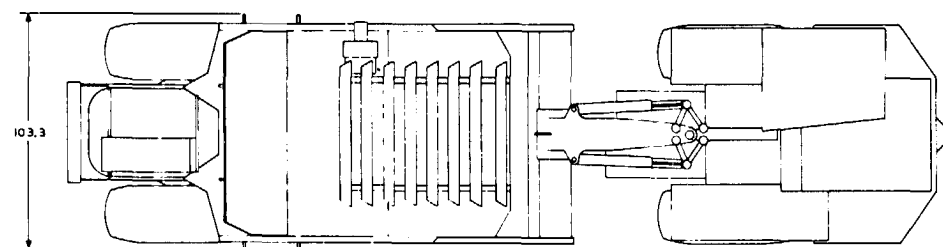
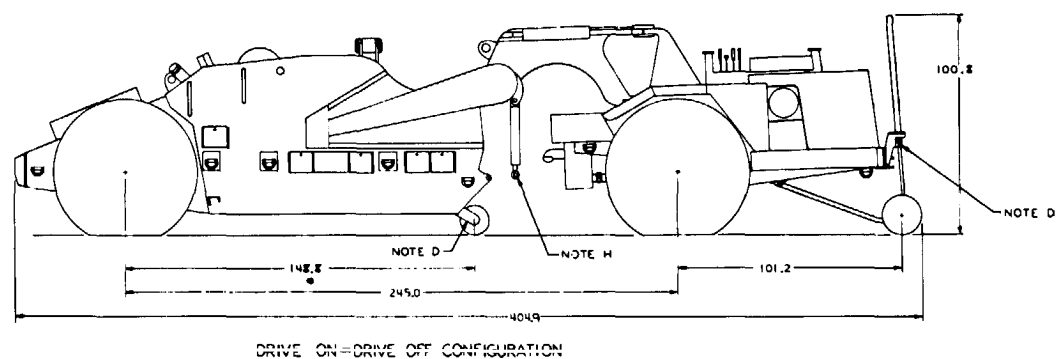
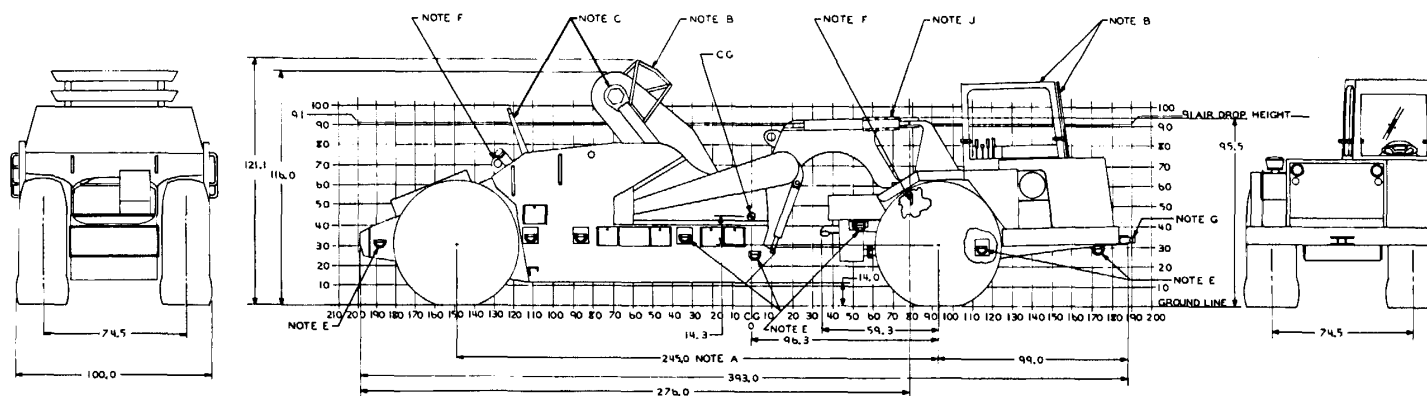


Figure 1. Tractor-Scraper Air Transport, (Models 613BSNS and 613BSNS1).

See Chapter 3 for Model 613BSS and 613BSS1 Air Transport

Information.

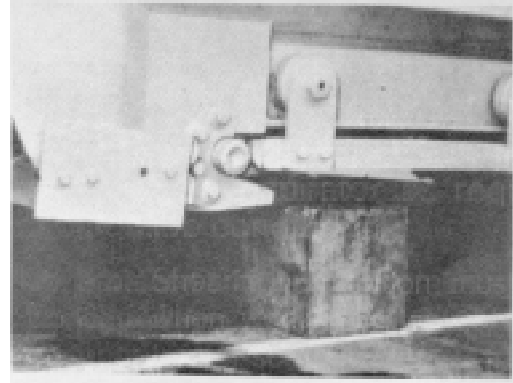


SAFETY

THIS SYMBOL, USED IN CONJUNCTION WITH THE WORD WARNING, WARNS OF POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE

Wear a hard hat, safety glasses and respirator as required by job conditions.

Shearing protection must be worn when working within 33 feet of the tractor-scraper.



Block raised bowl and floor if working in this area.

General

Do not wear loose clothing or jewelry that could catch on controls.

Lower scraper bowl and stop engine before servicing.

Do not smoke while fueling.

Know the hand signals and who gives them.

Preparing to Operate

Report needed repairs.

Clear obstacles from path of machine - note hazards such as wires and ditches.

Be sure machine is equipped with clearance lights if required by law.

Start engine only in well ventilated area.

Make certain all safety guards and covers are secured in place.

Be particularly careful on machines you do not usually operate.

Clear personnel from machine and area.

Fasten seat belt.

Checking Controls

Have improperly operating vehicle system repaired before operating vehicle.

Listen for unusual noises.

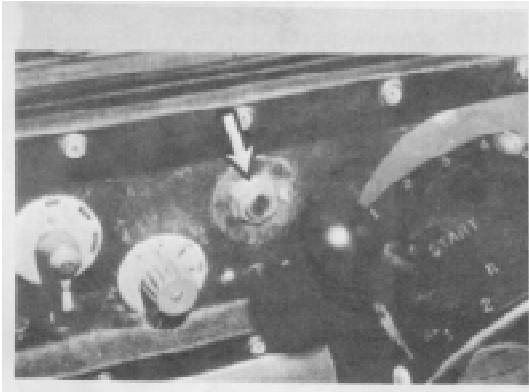
Check all controls for proper operation.

Test brakes.

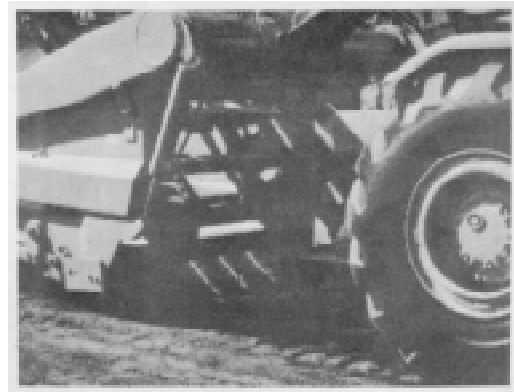
Test right and left steering while moving slowly.

Test engine accelerator.

Check function of safety devices, such as lights, back-up alarms, etc.



Turn disconnect switch OFF. Remove key if leaving machine.



Always lower scraper bowl and close floor before dismounting.

Operating

No riders.

Look behind machine before backing.

Observe all gauges frequently - investigate improper readings.

Stay clear of overhangs, electric wires, slide areas or other danger areas.

Use extra caution in crossing side hills, ridges, ditches and other obstructions.

Use extreme care to avoid tipping when working on hills, banks or slopes.

Stay safe distance from edge of cliff or overhang.

Match speed with job conditions - do not coast.

Know your stopping distance at any given speed. Regulate travel speed accordingly.

Keep machine under control - do not try to work machine over capacity.

Stop machine frequently at night - walk around and inspect machine - stay alert.

Report needed repairs noted during operation.

Know traffic pattern of the job and obey flagmen, road signs and signals.

Mounting and Dismounting

Do not jump off of machine. Use steps and grab irons.

Shut off engine before leaving machine.

Move all controls to HOLD or NEUTRAL before starting engine.

Use steps and grab irons when mounting machine.

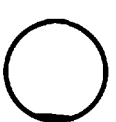
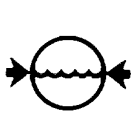
SYMBOL IDENTIFICATION

THESE PAGES EXPLAIN THE MEANING OF SYMBOLS THAT APPEAR ON YOUR MACHINE.

**WARNING**

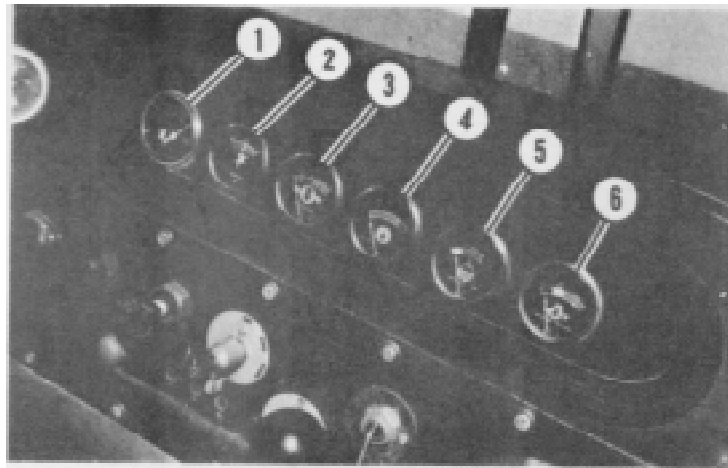
THIS SYMBOL WILL BE USED IN CONJUNCTION WITH THE WORD WARNING WHERE PERSONAL INJURY OR PROPERTY DAMAGE MAY BE INVOLVED.

LIGHT — ALL 	WINDSHIELD DEFROSTER CONTROL 	BRAKE 	DISENGAGE
LIGHT — BRIGHT 	WINDSHIELD WASHER CONTROL 	BRAKE — EMERGENCY 	ENGAGE
LIGHT — DIM 	WINDSHIELD WIPER CONTROL 	BRAKE — PARK 	MAXIMUM
LIGHT — FLOOD 	STEERING 	BRAKE — OIL PRESSURE 	MINIMUM
LIGHT — INSTRUMENT 	TURN — LEFT 	BRAKE — OIL TEMPERATURE 	WHEEL TORQUE CONTROL
LIGHT — PARK 	TURN — RIGHT 	CONTINUOUSLY VARIABLE 	HOURS
LOCK 	HORN CONTROL 	COOLER CONTROL 	LIFT POINT
UNLOCK 	PRESSURIZED COMPARTMENT 	HEATER CONTROL 	LEVER — MOVEMENT

TRANSMISSION OR CONVERTER 	ENGINE HEAT 	FUEL TANK 	INSIDE AIR CIRCULATION 
TRANSMISSION OR CONVERTER OIL 	ENGINE OIL 	FUEL FILTER 	OUTSIDE AIR CIRCULATION 
TRANSMISSION CONTROL OIL PRESSURE 	ENGINE OIL FILTER 	FUEL LEVEL 	AIR FILTER 
TRANSMISSION OR CONVERTER OIL FILTER 	ENGINE OIL LEVEL 	FUEL PRESSURE 	AIR PRESSURE 
TRANSMISSION OR CONVERTER OIL LEVEL 	ENGINE OIL PRESSURE 	FUEL SHUTOFF 	AMMETER OR ALTERNATOR 
RETARDER OIL TEMPERATURE 	ENGINE – START OR RUNNING 	VOLUME – FULL 	OIL PRESSURE 
TRANSMISSION OR CONVERTER OIL PRESSURE 	ENGINE – STOP OR NOT RUNNING 	VOLUME – ONE HALF FULL 	COOLANT FLOW 
TRANSMISSION OR CONVERTER OIL TEMPERATURE 	HYDRAULIC OIL FILTER 	VOLUME – EMPTY 	COOLANT LEVEL 
TRANSMISSION DRIVE OIL LEVEL 	HYDRAULIC OIL LEVEL 	OFF 	COOLANT PRESSURE 
TRANSMISSION DRIVE OIL TEMPERATURE 	HYDRAULIC OIL TEMPERATURE 	ON 	COOLANT TEMPERATURE 

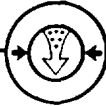
Operator's Compartment

Indicators



① **Fuel Level Gauge** —  Indicates the amount of fuel in the fuel tank.

② **Ammeter** —  Indicates the condition of the battery charging circuit. In normal operation the needle should be at ZERO. Immediately after starting the engine, the needle should read on the (+) side of zero. This indicates the battery is being recharged.

③ **Air Pressure Gauge** —  Indicates the air pressure in the reservoirs. The normal pressure is in the GREEN range.

④ **Converter Oil Temperature Gauge** —  Indicates the temperature of the converter oil. The normal temperature is in the GREEN range.