

TB 5-9720-6

WAR DEPARTMENT TECHNICAL BULLETIN

TECHNICAL DATA FOR

SNOW REMOVAL EQUIPMENT

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WAR DEPARTMENT
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TB 5-9720-6, Technical Data for Snow Removal
Equipment, is published for the information and
guidance of all concerned.

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By order of the Secretary of War:

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Chief of Staff.

OFFICIAL:
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Adjutant General.

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<p>TECHNICAL DATA</p> <p>SNOW REMOVAL EQUIPMENT</p>

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PLOW, SNOW, STRAIGHT-BLADE, ONE-WAY TYPE,
 1½-TON 4 X 4, OR 2½-TON 6 X 6, TRUCK-MOUNTING, WITHOUT WING,
 STANDARD ORDNANCE TRUCK, BURCH, MODEL R2-21A

MFR: The Burch Corporation,
 Crestline, Ohio

STOCK NO: 78-6505.55-0

MODEL: R2-21A (Standard)

1. GENERAL:
 - a. Designed for mounting on a U. S. Army standard 1½-ton 4 x 4, or 2½-ton 6 x 6 truck the R2-21A straight blade, one-way type, snow plow is capable of clearing a path of snow 8-feet wide in depths up to 2-feet.
 - b. The plow unit is composed of a 12-foot, 7-inch moldboard with deflector mounted the entire length. When in operation the plow slides on renewable chilled cast-iron plow shoes.
 - c. The entire unit is supported by a push frame assembly so designed and assembled that the plow thrust is transmitted directly to the truck frame through braces which extend from the front end of the truck to a point back of the front spring hanger. The plow is easily attachable or detachable from the truck.
 - d. Plow and plow assembly movements are operated by a hydraulic ram controlled from truck cab.
2. REFERENCES: For further information regarding equipment, its maintenance and care, refer to War Department publications:

Preliminary Specifications, SR-4202
 Engineer Field Service Bulletin, EFSB L-1000 D
 Engineer Maintenance Circular, EMC-2012

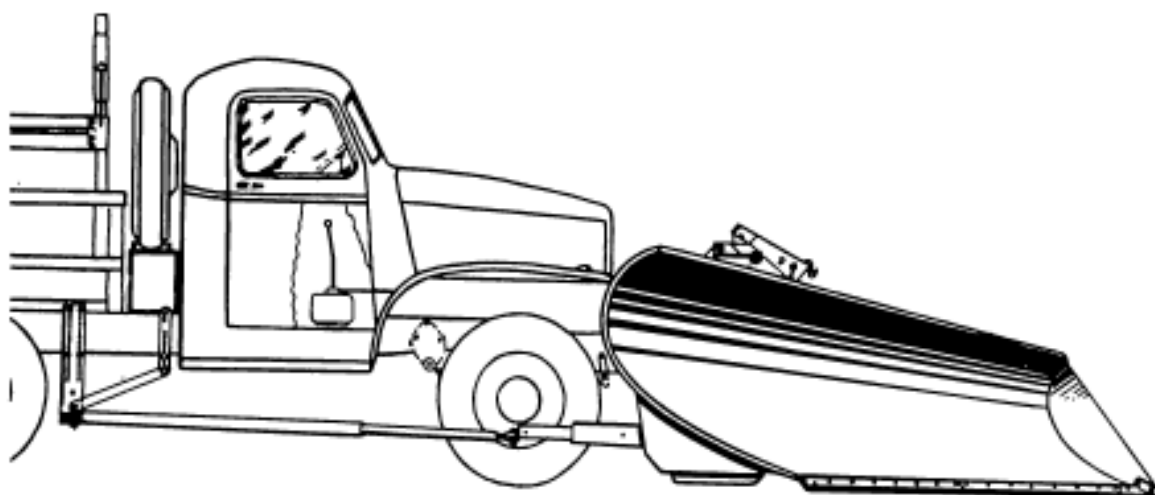


Fig. 1. Straight-Blade, One-Way Type Snow Plow, Burch Model R 2-21A

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3. LUBRICATION REQUIREMENTS:
- | <u>Where Used</u> | <u>Description</u> | <u>Grade</u> | | <u>Capacity</u> | <u>Consumption per 100 hr Operation</u> |
|-------------------|--------------------|-------------------|-------------------|-----------------|---|
| | | <u>Above 32 F</u> | <u>Below 32 F</u> | | |
| Hydraulic System | Oil, engine | - - | OE-10 | 2 qt | $\frac{1}{2}$ pt |
4. CONTROLS: Hydraulic pump in truck cab with built-in control valve is manually operated for raising and lowering plow lift.
5. MOLDBOARD: Moldboard is made of U. S. Army standard 10-gage mild steel with renewable and reversible cutting edge. Pitch is adjustable and hydraulically controlled.
- Length of moldboard (overall).. 12 ft 7 in.
 Length of cutting edge..... 10 ft
 Height at front end..... 26 in.
 Height at rear end..... 46 in.
- Deflector..... 14 gage steel
 Width of deflector at front end 8 in.
 Width of deflector at rear end. 12 in.
6. PUMP: Type..... Manually operated
 Capacity..... 5000 lb per sq in.
7. RAM: Type..... Cylinder
 Length (collapsed)..... 17 $\frac{1}{2}$ in.
 Length (extended)..... 27 $\frac{3}{4}$ in.
 Inside diameter..... 2 in.
8. SNOW SHOES: Type..... Rocker, skid, with renewable bottom wearing section. Two are used.
 Size..... 3 x 20 in.
9. OPERATING SPEED: 15 to 25 mph
10. WORKING DIMENSIONS: (overall, with plow mounted)
 Length..... 29 ft
 Width..... 9 ft
 Height..... 8 ft 6 in.
 Minimum ground clearance..... 10 in.
 (under plow shoes with plow raised)
11. WORKING WEIGHT: Plow..... 1545 lb
12. SHIPPING DATA: Unboxed, partly assembled:
 Length..... 12 ft 7 in.
 Width..... 5 ft
 Height..... 4 ft 2 in.
 Weight..... 1545 lb
- Boxed for Export: (plow without truck)
 No. of boxes..... 1
 Length..... 13 ft 5 in.
 Width..... 4 ft 6 in.
 Height..... 5 ft 5 in.
 Cubage..... 335 cu in.
 Weight..... 4100 lb

PLOW, SNOW, STRAIGHT-BLADE, ONE-WAY TYPE, 4-TON 6 X 6
OR 6-TON 6 X 6, TRUCK-MOUNTING, WITH WING,
STANDARD ORDNANCE TRUCK, BURCH, MODEL 23

MFR: Burch Corporation,
Crestline, Ohio.

STOCK NO: 78-6505.6-0

MODEL: 23 (Standard)

1. GENERAL:
- a. The general purpose of this one-way type, straight blade snow plow is to clear a path of snow 8-foot 6-inches wide in depths up to 3½-feet. The plow is capable of operation in temperatures of 40-degrees below zero, Farenheit, with snow removal capacity depending upon weather and snow conditions.
 - b. Consisting of a 14-foot 4-inch moldboard, with one leveling wing, and power operated hydraulic system, the plow has been expressly designed for quickly mounting on or dismounting from the front of a 4-ton 6 x 6 or 6-ton 6 x 6 standard Ordnance truck.
 - c. The plow, with right-hand wing equipment, is designed for installation on any of the 4 truck models as follows: Brockway 6-ton 6 x 6, model B-666 bridge truck; Diamond T, models 968 A and B and models 970 and 970A, 4-ton 6 x 6; Corbitt 6-ton 6 x 6 cargo and White 6-ton 6 x 6 model 666.

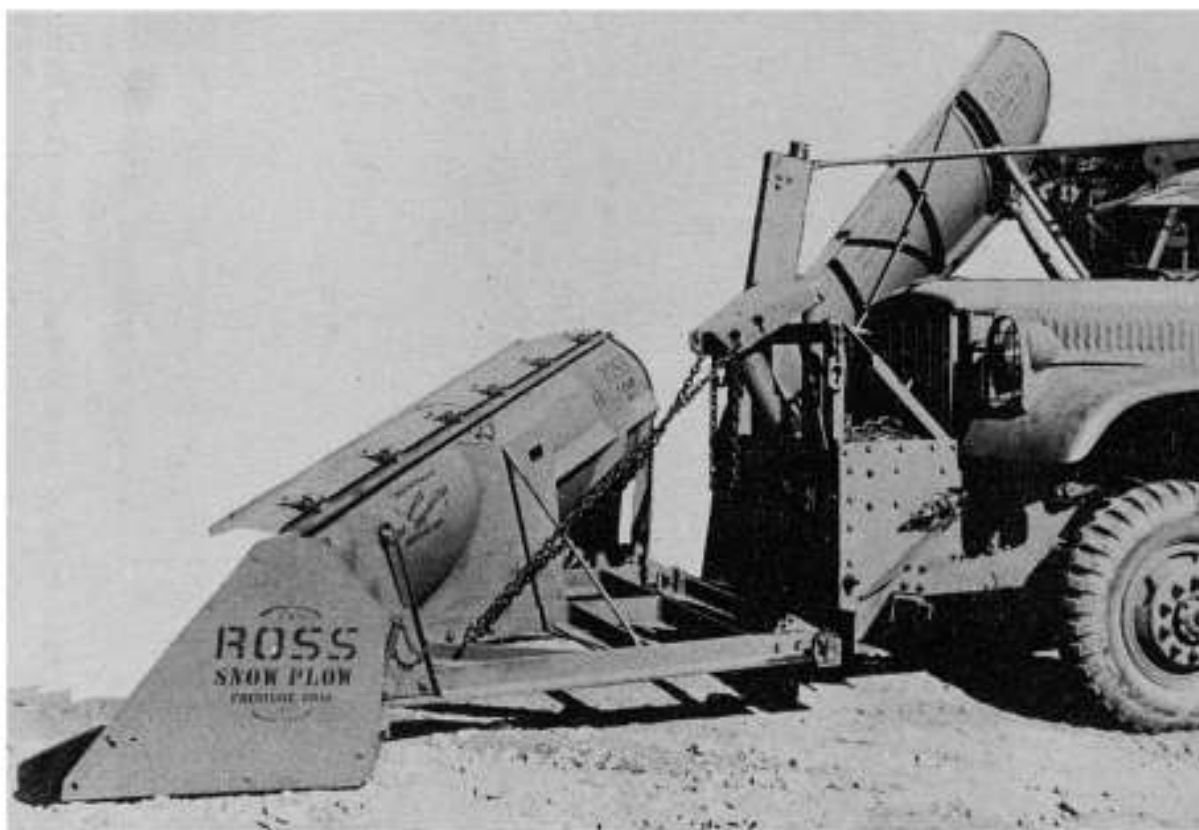


Fig. 2. Model 23 Burch Straight-Blade Snow Plow, mounted on Standard Army Truck. Plow is in working position and wing in folded position.

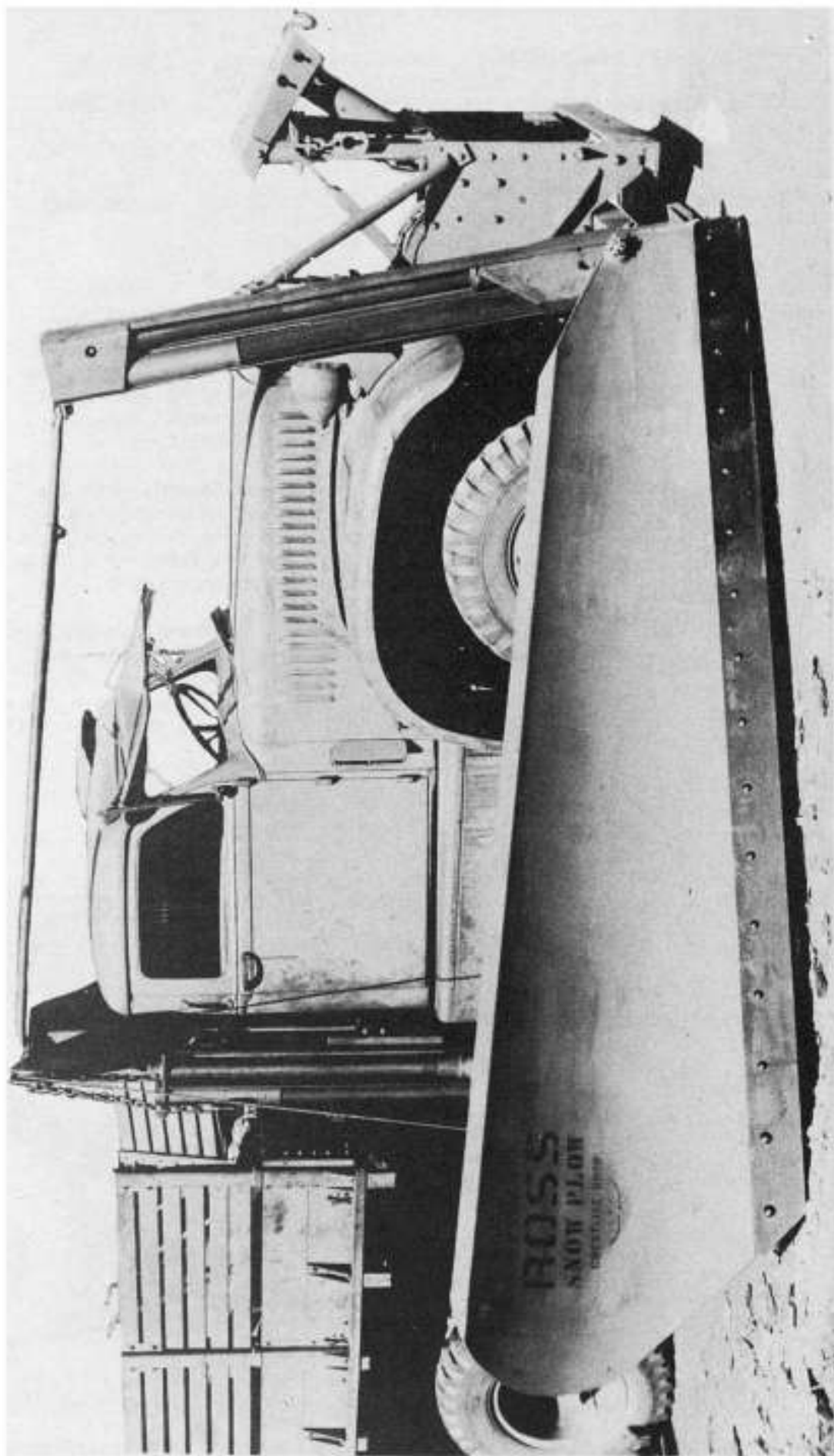


Fig. 3. Right side view of Burch Model 23 Snow Plow with wing in down position. Push frame assembly, at right of photograph is shown with plow removed.

- d. The snow plow unit is supported by a push frame assembly so designed and assembled that the plow thrust is transmitted directly to the truck frame through plates which extend from the front end of the truck frame to a point back of the front spring hanger. Wing and plow adjustments - raising and lowering - are operated by hydraulic rams controlled from truck cab.
- e. When in operating position, the plow slides on renewable cast steel plow shoes.

2. REFERENCES: For further information regarding the equipment, its maintenance and care, refer to War Department Publications:

Preliminary Specifications, SR-4209
 Engineer Field Service Bulletin, EFSB L-1000D
 Engineer Maintenance Circular, EMC-2012

3. LUBRICATION REQUIREMENTS:

<u>Where Used</u>	<u>Description</u>	<u>Grade</u>		<u>Capacity</u>	<u>Consumption per 100 hr Operation</u>
		<u>Above 32 F</u>	<u>Below 32 F</u>		
Plow Components	Grease	CG-1	CG-0	—	1 lb
Hydraulic System	Oil	—	OE-10*	8 gal	1 gal

*For 32° below add 30% kerosene to OE-No. 10.

4. CONTROLS: Control bracket and levers are mounted in cab between seats. Rods attached to levers extend through back of cab to Control Valve assembly. Gear shift is controlled through floor boards of cab.

5. MOLDBOARD: Moldboard is made of U. S. Army standard 10 gage mild steel with renewable and reversible cutting edge. Pitch is adjustable and hydraulically controlled for raising and lowering.

Length of moldboard (Overall)... 14 ft 4 in.
 Length of cutting edge..... 10 ft 9 in.
 Height at front end31 in.
 Height at rear edge 54 in.

6. WING: U. S. Army ten-gage steel is used in construction of wing. It is reinforced with angle-steel ribbing. Adjustments of wing are controlled by hydraulic rams.

Length (overall)..... 12 ft
 Height at front end..... 24 in.
 Height at rear end..... 36 in.
 Wing deflector 14 gage steel
 Height of deflector 12 in.

7. SHOCK ABSORBER: Two tubular braces extend from outer end of wing to chassis; bottom brace is equipped with shock spring.

8. PUMP: Type: Hydraulic, continuous duty.
 Pump is powered by truck engine through transmission take-off.

