

*THE FLYING MUSKEG*

**MOVE  
AHEAD  
WITH  
BOMBARDIER**



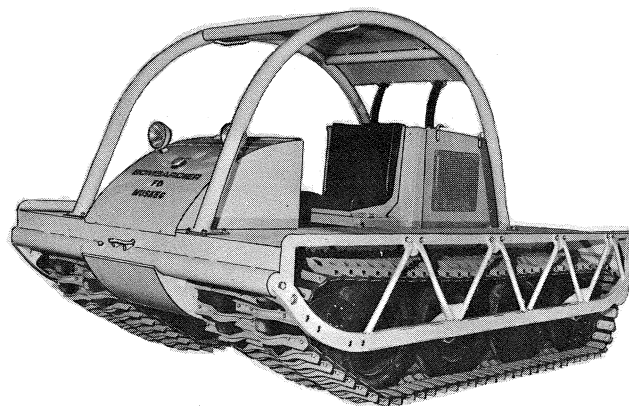
## CONTENTS

Legal text  
Acknowledgments  
Foreword  
Introduction

	PAGE
Apparatus . . . . .	3
Bombardier vehicles . . . . .	1
Conclusions . . . . .	7
Dimensions of cargo . . . . .	7
Final Drive (description) . . . . .	9
Final Drive (parts) . . . . .	9
Final Drive (photo) . . . . .	8
Frame bumper flange (diagram) . . . . .	4
Frame sectioning (diagram) . . . . .	4
Measurements of sections . . . . .	7
Method . . . . .	5 & 6
Sectioning the "Flying Muskeg" . . . . .	3
Tools . . . . .	10
Weight (of parts) . . . . .	7
Weight of sections . . . . .	7

## SECTION II

Literature describing Bombardier vehicles  
SW  
J-5  
Muskeg  
"S" Carrier  
Snowmobile  
T.M.  
SV-250



THE FOLLOWING INSTRUCTIONS ARE SUPPLIED TO YOU AS SUGGESTIONS AND INFORMATION ONLY AND BOMBARDIER LIMITED SHALL IN NO WAY BE RESPONSIBLE FOR ANY DAMAGES WHICH THE FLYING MUSKEG OWNER AND/OR USER MIGHT SUSTAIN FOLLOWING AND/OR BECAUSE OF THE SECTIONING AND/OR THE REASSEMBLING OF SAID MUSKEG VEHICLE.

### ACKNOWLEDGMENTS

We should like to express our indebtedness to Lepack Automobile, Val D'or, P. Q. & Denis Ferland of Inspiration Co., Diamond Drillers, Val D'or, for their patient and helpful suggestions and counsel.

### FOREWORD

What is the Flying Muskeg ?

We shall begin by stating that the machine has no wings, but you can put it in the air as others have done by looking over the following pages and possibly adapting the suggestions to your own particular requirements.

This book tries to give an answer to some of the questions on the technical aspects and practical problems which could develop. The printed word is given help and support by pictures.



## INTRODUCTION

Many are no doubt familiar with the periodic publication, "Tracked Vehicle Digest".

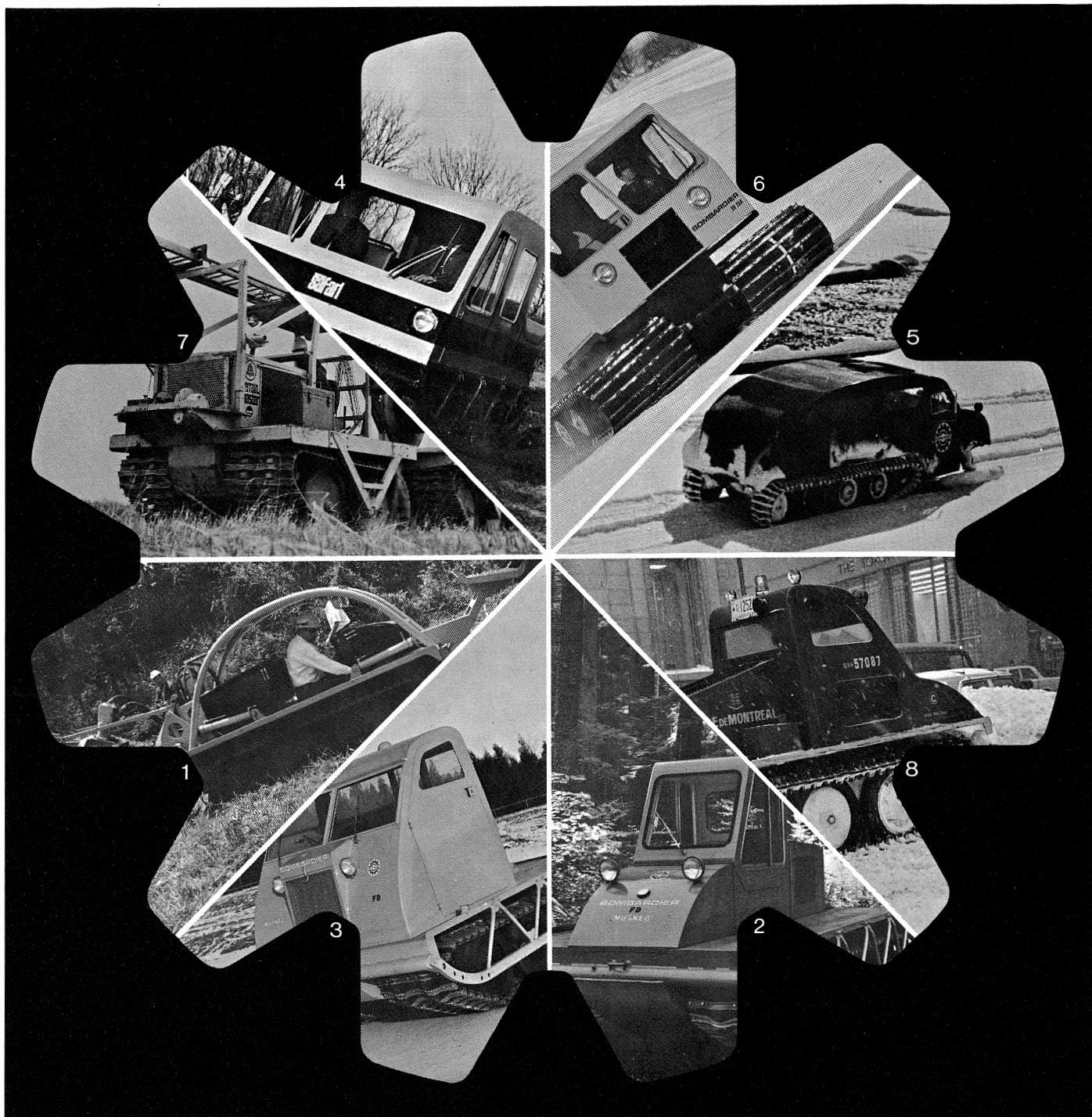
In it we have shown many different ways in which the Muskeg has been modified to suit a particular situation. Necessity being the mother of invention, a way was found to put the Muskeg on a small aircraft by sectioning it, thereby opening new horizons. No longer limited by poor northern roads, rivers or lakes, washed out roads, spring thaw, shifting road beds, and complete lack of access to remote areas, the Flying Muskeg can be located where you need it, when you need it.

The versatility of this machine is limited only by the imagination, and now with the possibility of unlimited location comes the opportunity for argonauts and argus-eyed cognoscenti to capture the cornucopia.

The authors, men of long experience in this field, have selected and gathered together in this volume a number of short cuts or aids. These are offered to the intellectually curious and the practically minded, who recognize the dollars-and-cents value of the wider range of uses for their Muskegs, and to most; the proper application should prove highly rewarding. We can show you how to do it; the rest is up to you.







# There is a Bombardier vehicle for your every need...

1. J-5 TRACTOR: The versatile all-purpose tractor.

2. MUSKEG TRACTOR: The dependable go-anywhere vehicle.

3. MUSKEG CARRIER: The all-purpose cross country carrier.

4. MUSKEG SAFARI: The sure-footed personnel carrier.

5. SNOWMOBILE: The reliable winter bus for snow-blocked roads.

6. SV-250: The light-footed, high floatation snow vehicle.

7. TERRAIN MASTER: Built for the big jobs in tough terrain.

8. S.W.: The sidewalk snow removal specialist.

Write for detailed literature and name of closest distributor.



# FRAME SECTIONING

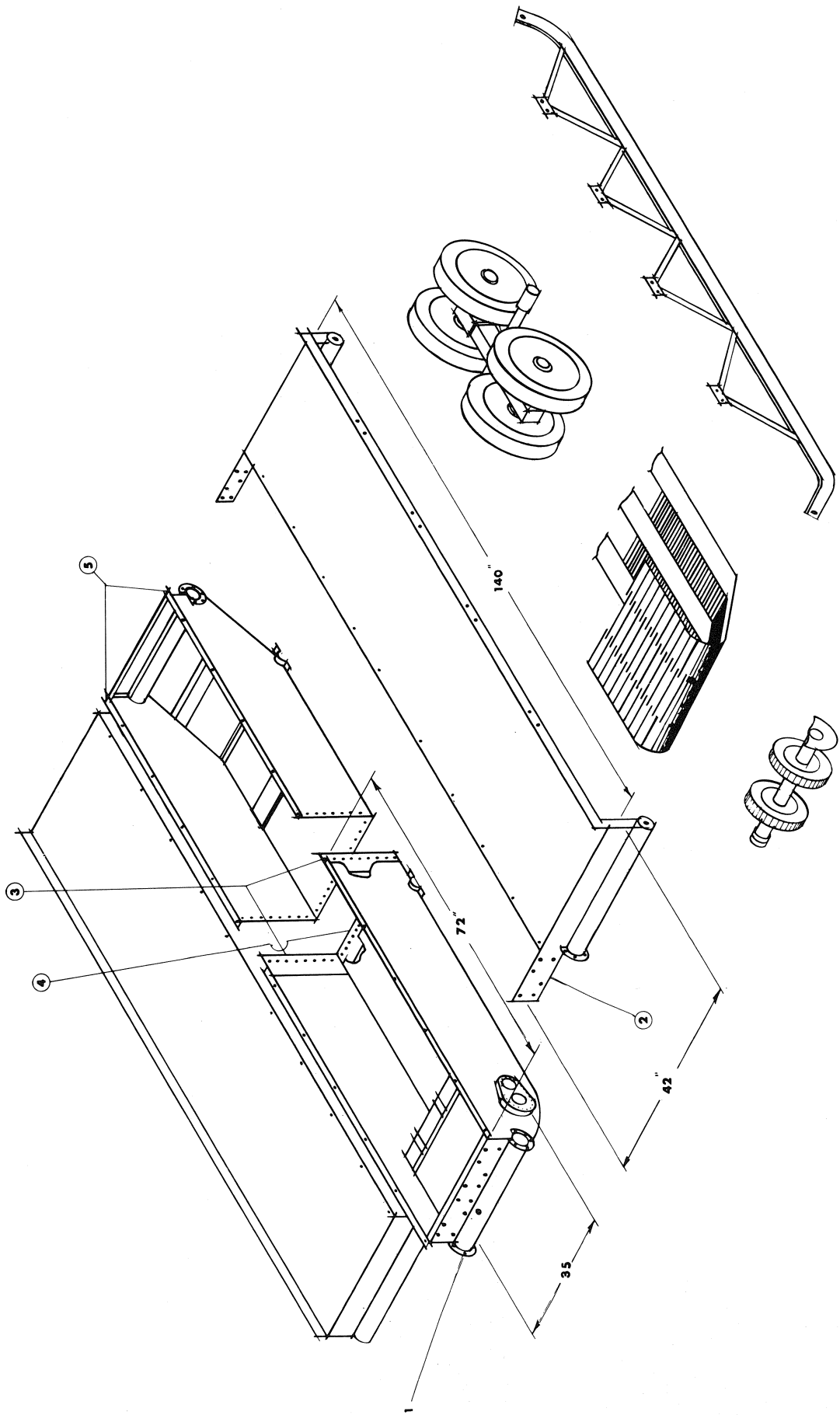


PHOTO #1

# SECTIONING THE FLYING MUSKEG

## AIM :

The object of this operation will be the passing of a large tractor through a small door.

(The dimensions of various aircraft, doorsize and capacity will be given in the following section).

## APPARATUS :

- 1 — Steel cutting torch
- 2 — Welding outfit
- 3 —  $\frac{1}{2}$ " x  $1\frac{1}{2}$ " bolts & nuts — required 44
- 4 —  $\frac{5}{16}$ " x 1" bolts & nuts — required 56
- 5 — Electric drill
- 6 — Jack or hoist and wood blocks
- 7 — Sledge hammer
- 8 — Screw driver
- 9 — Pliers
- 10 — Set of socket wrenches
- 11 — Plastic utility sheets\*
- 12 — Hammer nails and wood\*

Different parts to be cut and welded to the frame assembly  
(Refer to Photo #1 Frame Sectioning).

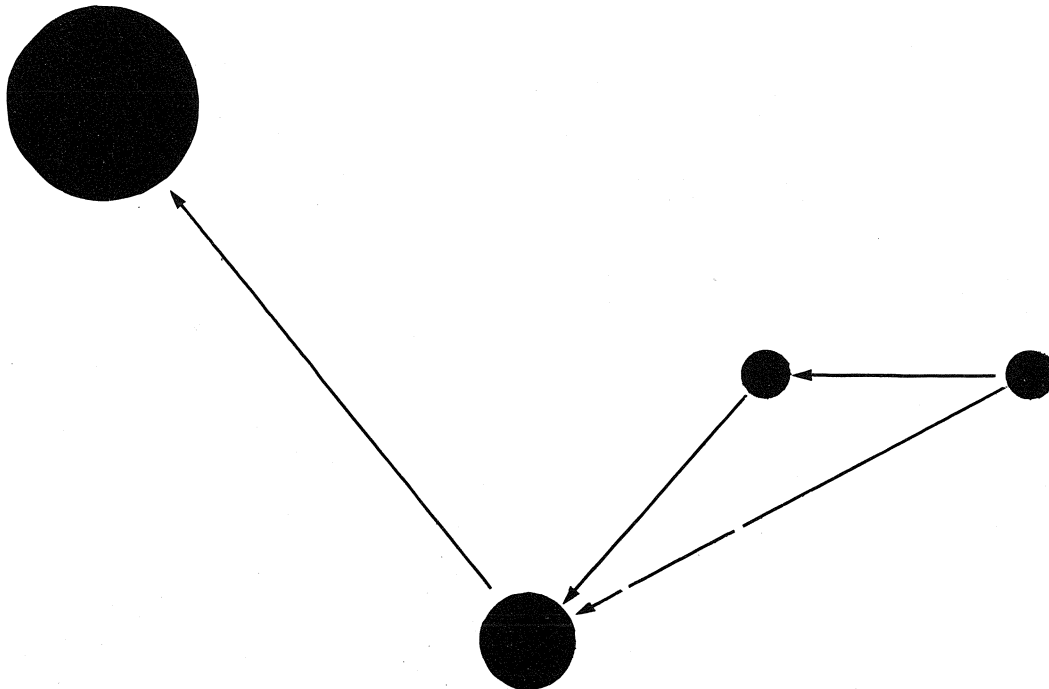
## CENTER SECTION

- A — Plates  $\frac{5}{16}$ " x 5" x  $17\frac{1}{2}$ " long — #3 — Required 2
- B — Plate  $\frac{5}{16}$ " x 5" x  $23\frac{1}{2}$ " long — #4 — Required 1
- C — Angle strips  $\frac{3}{16}$ " x  $1\frac{1}{2}$ " x  $1\frac{1}{2}$ " x 138" long — #5 — Required 2
- D — Flanges (see diagram on following page) — #1 — Required 8

## SIDE SECTION

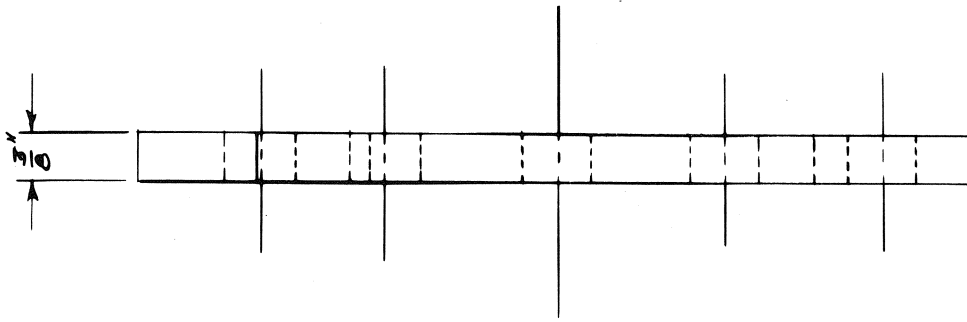
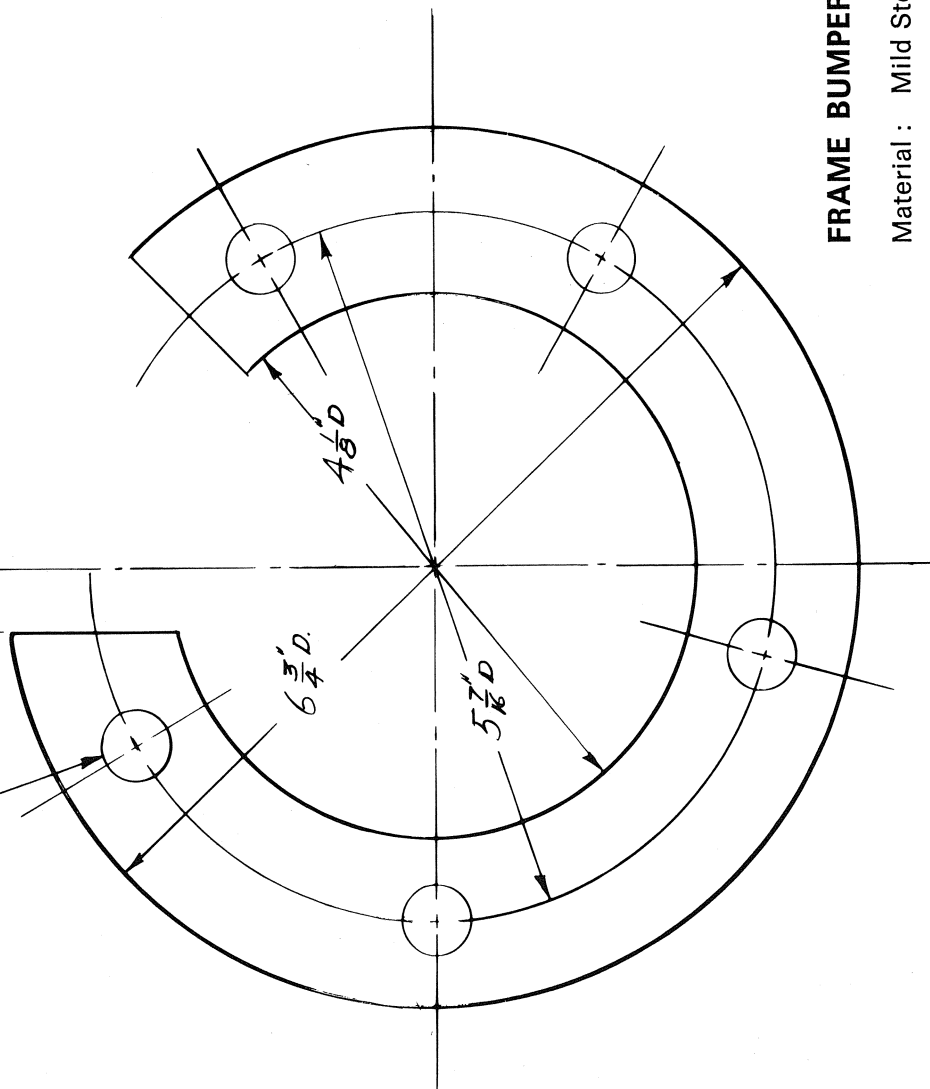
- E — Front bumper plates  $\frac{5}{8}$ " x 4" x 42" long — #2 — Required 2
- F — Rear bumper plates  $\frac{1}{2}$ " x 5" x 42" long — Required 2

\* Only if pieces need be wrapped and crated.



$\frac{17}{32}$ " DIA. 5-HOLES.  
EQUALLY SPACED

$\frac{11}{16}$ "



### FRAME BUMPER FLANGE

Material : Mild Steel

The space necessary to allow for the plate in the circumference of the flange would be  $1\frac{1}{16}$ " of an inch to the left of center axis, and  $45^\circ$  to the right of center axis.

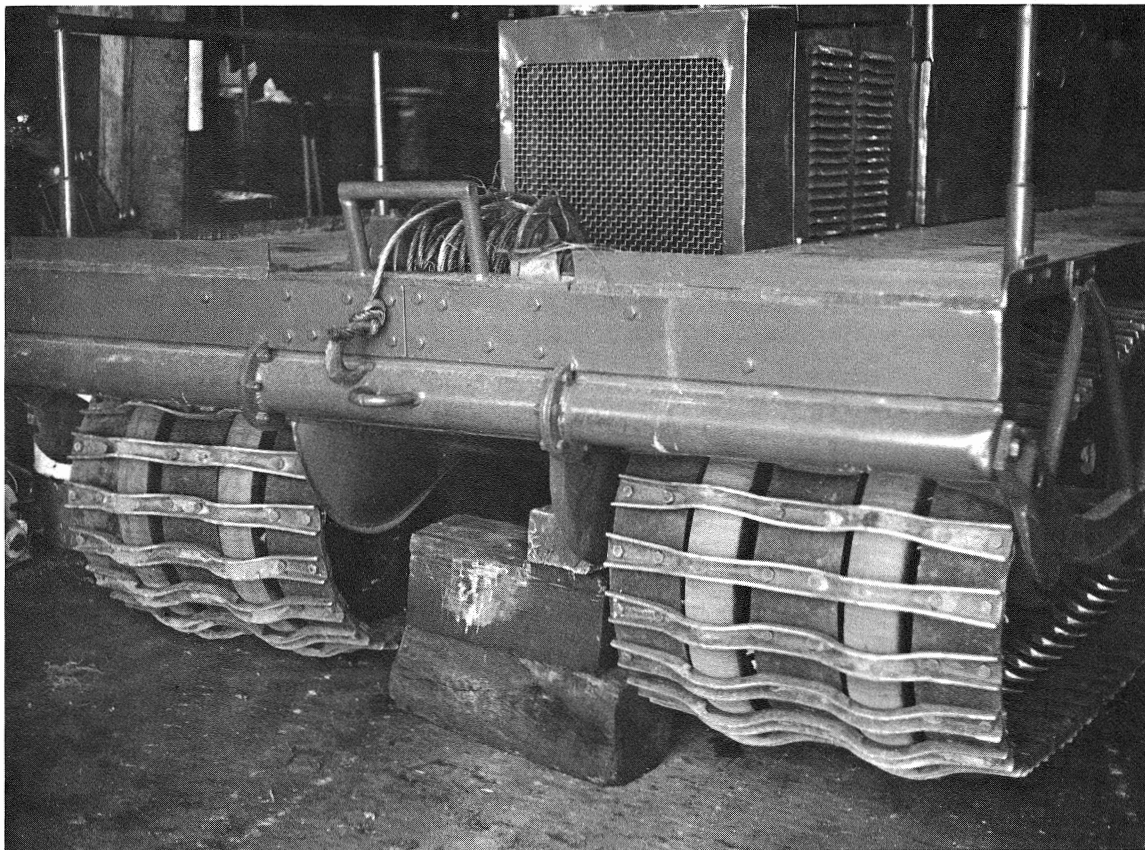


PHOTO #2

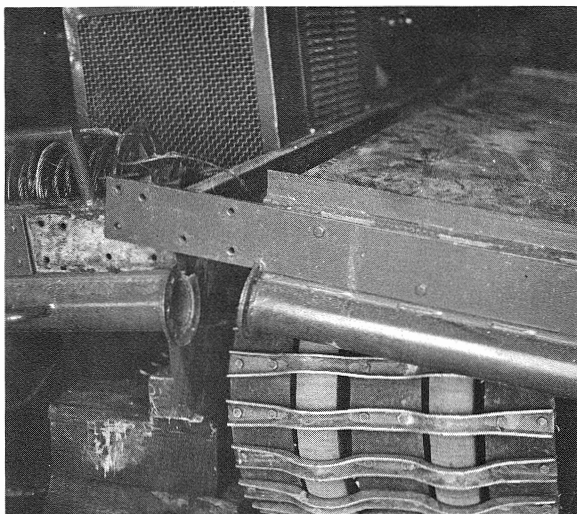


PHOTO #3

#### METHOD A :

- 1 — Hoist or jack up the machine and rest it on blocks or horses. (photo #2).
- 2 — Drain the differential oil.
- 3 — Remove the cab, side beams, tracks, tandems and drive sprockets.

NOTE : *The weight factor will determine if the motor is to be removed or not, but for the first sectioning it will be advisable to remove the motor to cut down a possible fire hazard with the cutting torch.*

- 4 — Brace the mudguards with blocks and start by cutting the bumpers on each side of the frame. Complete the cut the length of each mudguard. (photos #3 & #4A).
- 5 — Make a center transversal cut in the frame approximately in line with the bell housing. (photo #4).

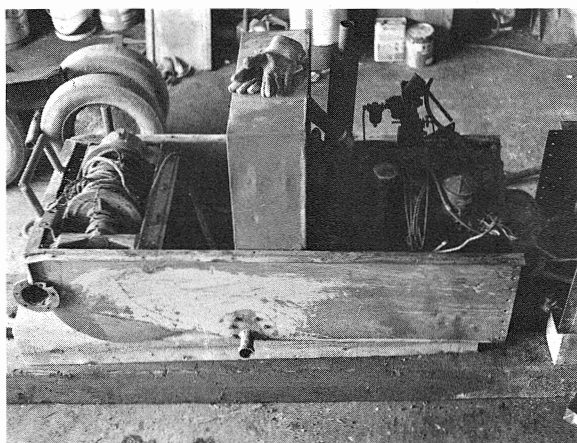


PHOTO #4



PHOTO #4A



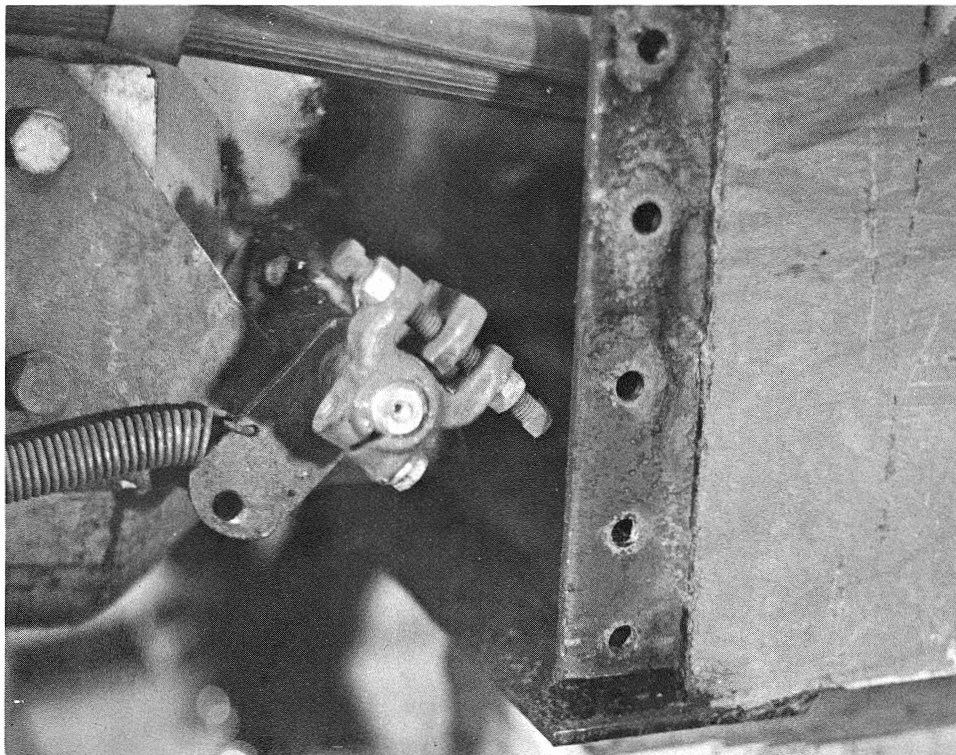


PHOTO #5

**B :**

- 1 — Weld the two plates to the front center section, inside the frame #3 (photo 1). Leave space to accommodate rear part of frame (photo #5).
- 2 — Weld plate #4 (photo 1) under the frame.
- 3 — Place sections together and drill  $1\frac{1}{32}$ " holes for nuts and bolts.
- 4 — Weld on angle strips after measuring and cutting to appropriate length.
- 5 — Bolt front bumper plate to mudguards and weld into position (photo #3).

- 6 — Bolt rear bumper guard into position and weld.
- 7 — Weld on 4 flanges to the center section of the frame (photo #6). Bolt the remaining flanges to those welded on center section.
- 8 — Advance the mudguard to center section of frame, and support. (photo #3).
- 9 — Drill holes  $1\frac{7}{32}$ " through front plates and secure.
- 10 — Drill  $1\frac{1}{32}$ " holes in angle strips and secure.
- 11 — Weld the outer flanges to the mudguard bumper.

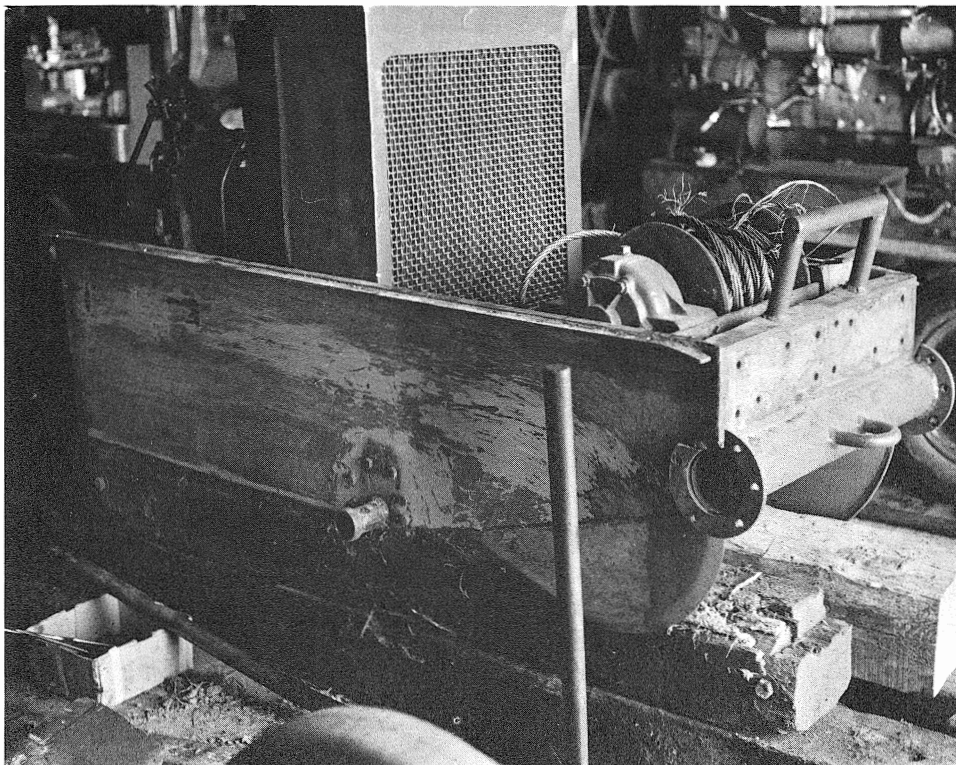


PHOTO #6

## CONCLUSIONS :

The machine is now divided up into approximately 15 parts. (The choice being the drive sprockets and the engine which could remain with the center frame. (photo #7).

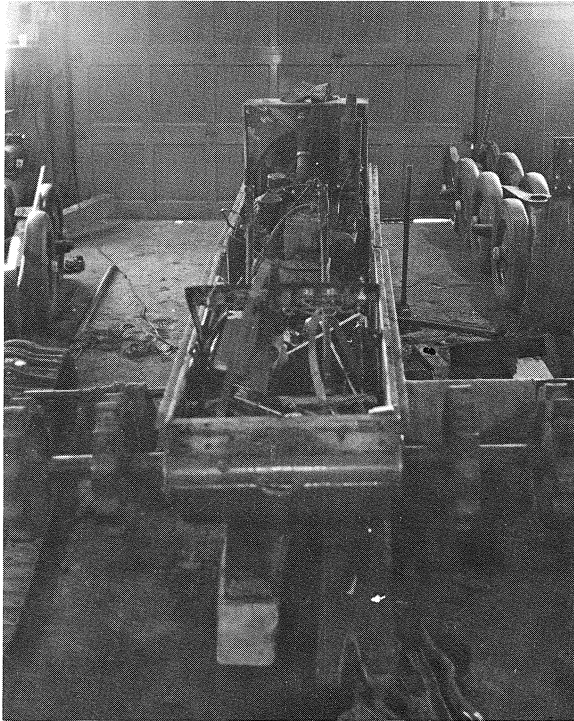


PHOTO #7

## APPROX. MEASUREMENTS OF SECTIONS :

2 — Center section of frame	72"	30"	19"
2 — Mudguard	140"	42"	10"
2 — Side Beam	140"	4"	15"
4 — Tandem	54"	30"	25"
2 — Track	38"	28"	38"
1 — Cab (one man cab)	41"	31"	37"
2 — Drive sprockets			

The weight should be between 300 and 900 lbs. for each section. Reassembly should take approx. 5 hrs. with 2 men.

This résumé has been quite general in scope, leaving you latitude to improvise and perhaps concoct a still better method of attaining a similar result.

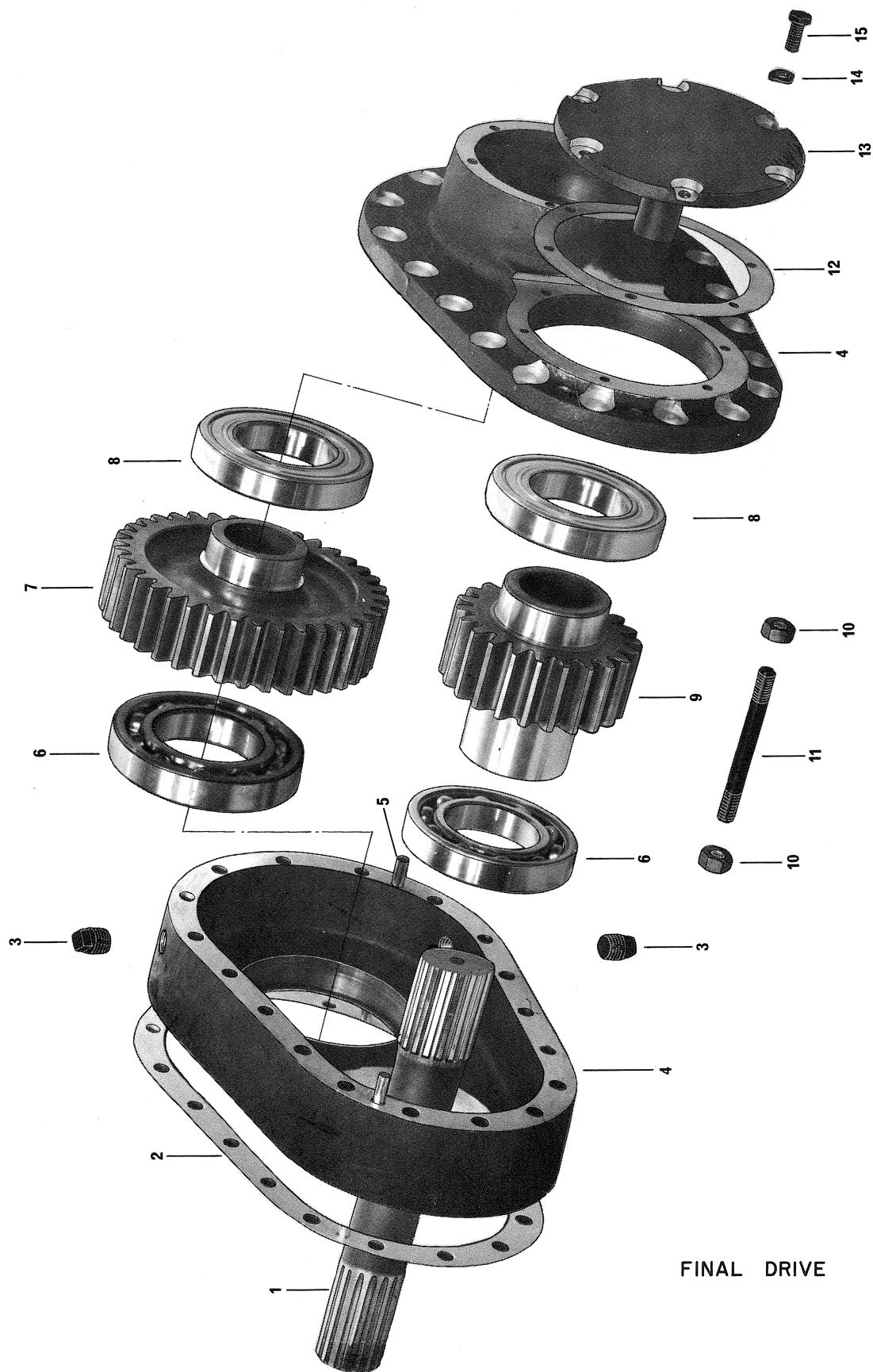
## DIMENSIONS

Sizes of cargo entrances for aircraft presently in operation in the North.

	HEIGHT	WIDTH	LENGTH
1 — Boeing 737-242C	86"	134"	30-35 ft.*
2 — Skyvan SC-7	60"	72"	18 ft.
3 — Douglas DC-4	67"	95"	40-50 ft.*
4 — Curtiss C46	78-66"	96"	30.6 ft.*
5 — PBV-5A	38"	48"	15-20 ft.*
5a — Douglas DC-3	4'8"-5'8"	6'10"	30.2 ft.*
6 — DHC-6	49.5"	62"	16" - 145"*
7 — DHC-3	25"	30"	Limited in length*
8 — Norseman	30"	25"	Limited in length*

\* NOTE : May be limited by width and height of cargo.

There are other small aircraft such as the DHC-2 Beaver, and Found Bros FB2 which would handle cargo loads below the 12' length and where cargo entrance is limited to approximately 24" to 30" in width and height respectively.



FINAL DRIVE



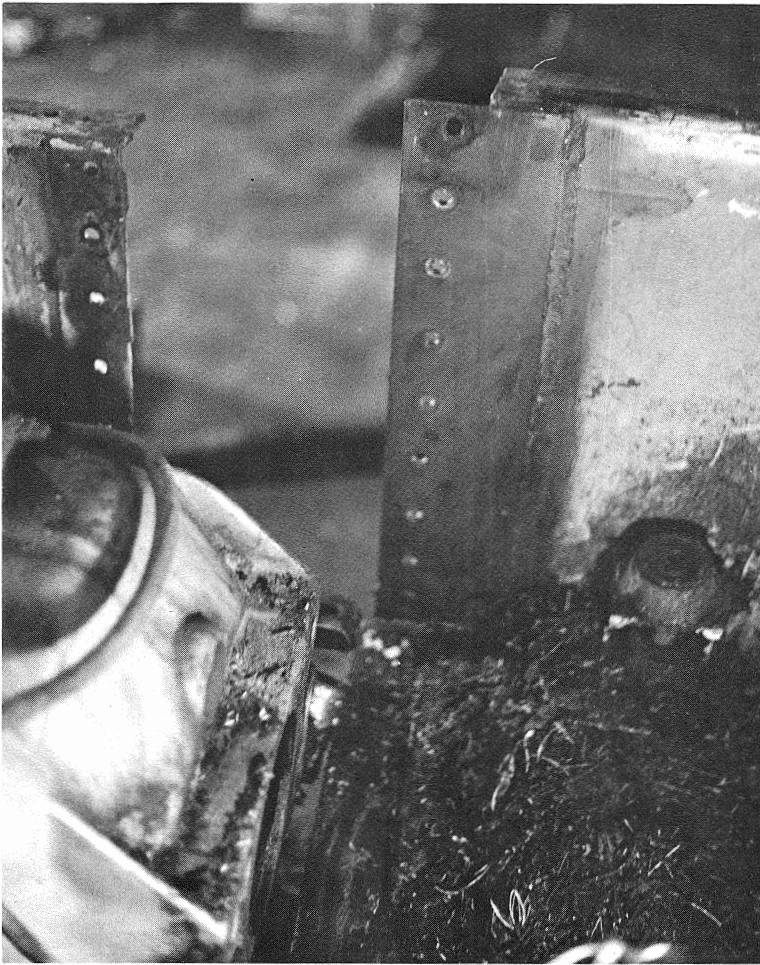
## FINAL DRIVE

On the previous model of MUSKEG Tractors, the drive sprockets and the differential were lined up with each other. Now, in adding final drives, the drive sprocket axles and the differential are not on a linear axis.

These "final drives" consist of two flat gear boxes mounted on each side of the exterior tractor's frame. In using these final drives, the torque on the differential is reduced to a minimum.

### MUSKEG M.T.F.D.

REF. NO.	PART NO.	DESCRIPTION	QUANTITY PER VEHICLE
	680 0278	Ass'y — final drive _____ Consist of : 1 — 627 0001 2 — 114 0255 2 — 108 7008 2 — 105 4026 1 — 627 0004 1 — 627 0003 3 — 105 4002 4 — 370 9004 8 — 389 8039	2
1	627 0006	Axle — drive _____	2
2	627 0011	Gasket _____	2
3	108 7008	Plug _____	4
4	627 0001	Ass'y — final drive case _____	2
5	114 0255	Pin — dowel _____	4
6	105 4026	Bearing — final drive _____	4
7	627 0003	Gear — driven _____	2
8	105 4002	Bearing — final drive _____	4
9	627 0004	Gear — drive _____	2
10	389 8039	Nut — cone lock _____	72
11	370 9004	Stud _____	36
12	670 2701	Gasket — cap _____	2
13	627 0009	Cover _____	2
14	392 0019	Lockwasher _____	12
15	300 0001	Bolt _____	12
	113 9004	Gasket goo _____	As req'd.
	371 9011	Ring — snap (not shown) _____	1



The photo at the left is a close-up of the plate weldment inside the frame.

PHOTO #8

The photo at the right shows the minimum of tools required to set up or dismantle after the initial operation.

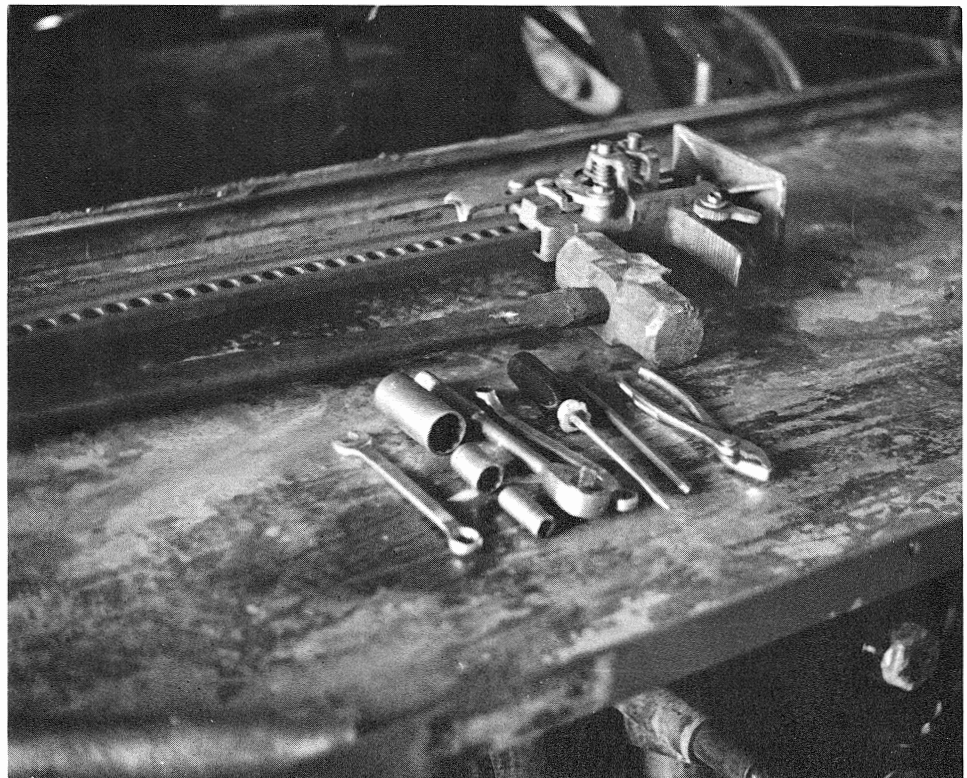


PHOTO #9

## SECTION II

Included in this section are photographs and information on some of the different models manufactured by Bombardier Ltd.

Among them you will find a model to meet most needs where a tracked vehicle is required.

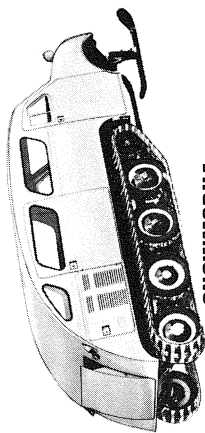
Our experts at Bombardier Ltd., are still motivated by the old commercial axiom; "Find the need, Fulfill the need", or in its other form, "Create a need, Fulfill the need".

Our service representatives or your local dealer are at your disposal to answer any questions you may have regarding the variety of applications possible, to which these versatile machines may be adapted.

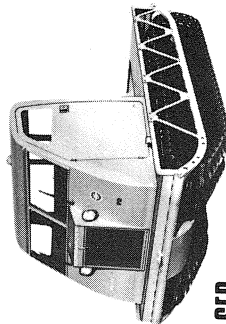
Don't believe all you hear and only half of what you see. Experience these machines for yourself, put yourself in the operators seat, and then join with the many satisfied users of the world's foremost maker of tracked vehicles.

Bombardier Ltd.

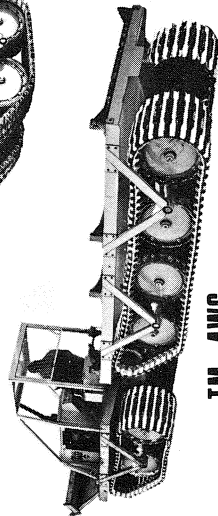
# BOMBARDIER



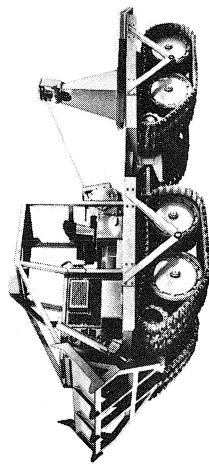
SNOWMOBILE



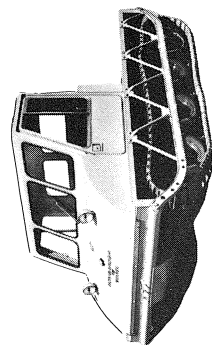
SFD



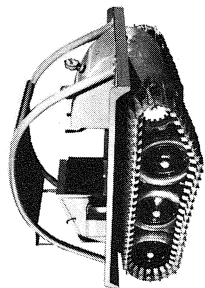
TM-4WC



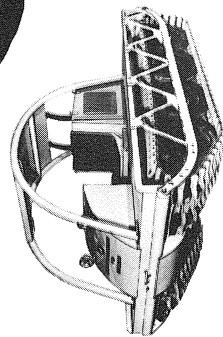
TMP



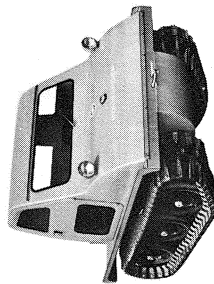
MT-FD-3MC



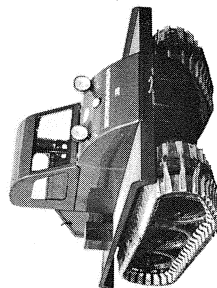
J5-HP



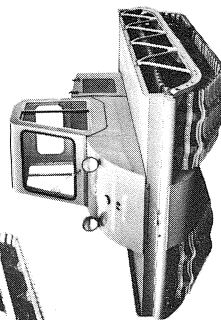
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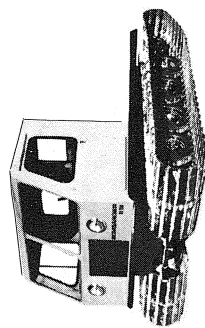
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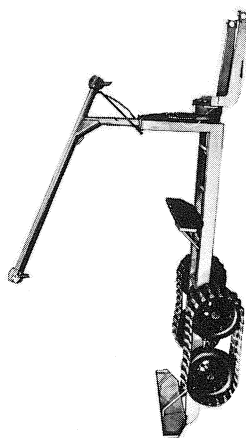
J5-1MC



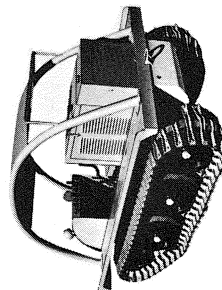
MT-FD-1MC



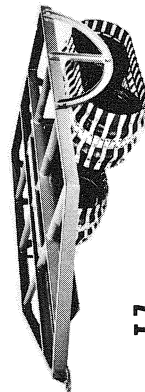
SV 250



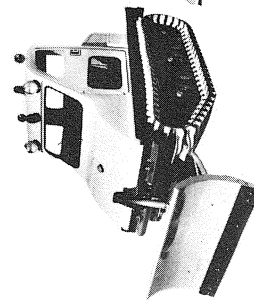
T6



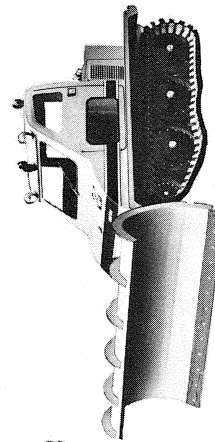
J5 T



T7



SW-48



SW-64