

[www.sno-cat.com/sno-wire-c.html](http://www.sno-cat.com/sno-wire-c.html)  
**INSTRUCTIONS**

Special thanks to Tucker Sno-Cat Corp  
for providing this to the Forums

**and**  
**PARTS**  
**BREAKDOWN**

**for**  
**TUCKER**  
**SNO-KITTEN**  
**MODEL 222**

MFG. BY

**TUCKER**

**SNO-CAT**  
TRADE  
MARK

**CORPORATION**

MEDFORD, OREGON

[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

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MODEL 222 TUCKER SNO-KITTEN  
IN CASCADE MOUNTAIN ACTION

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# SPECIFICATIONS

[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

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Make . . . . . Tucker Sno-Kitten  
Model . . . . . 222

Body . . . . . 2-Passenger

Load Capacity . . . . . 650 Lbs.

Towing Capacity . . . . . 500 Lbs. (or more depending on  
snow) on Trailer

Engine . . . . . English Ford (Anglia, SAE  
rating 10 H.P. approximately  
30 brake)

Transmission . . . . . English - Ford (Anglia)

Speeds . . . . . 3 Forward; 1 Reverse

Gas Tank Capacity . . . . 15 gallons

Recommended Speed . . . 5-8 MPH Cruising  
12 MPH Maximum

Miles Per Gallon . . . . . Average - 8 MPG

Turning Radius . . . . . Own Length

Pontoon and Track . . . . 18" Wide x 85" long

Overall Width . . . . . 56"

Overall Length . . . . . 92"

Overall Height . . . . . 70"

Weight . . . . . 1435 Lbs.

# ILLUSTRATIONS

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[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

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for providing this to the Forums Forums

Model 222 Tucker Sno-Kitten in action  
in Cascade Mountains of Oregon . . . Inside Front Cover

Detailed Parts Clutch & Brake

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# FOREWORD

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[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

Special thanks to Tucker Sno-Cat Corp for providing this to the forums forums

This Instruction Book and Parts Break-down is published as a guide and reference to assist the driver and maintenance technician to obtain the many miles of satisfactory over-the-snow transportation that is to be expected when the SNO-KITTEN is properly driven and maintained.

The SNO-KITTEN IS A unique vehicle in performance and design. Although it appears to be in the tractor class, it must be built as light as possible in order to travel over deep, soft snow.

The SNO-KITTEN should be thought of and cared for more as an aircraft and handled accordingly. Competent and reliable men should be given the privilege and responsibility of operating and maintaining the SNO-KITTEN.

## IDENTIFICATION FOR ORDERING PARTS

A name plate is secured to the dash showing serial number and model number of vehicle. Please furnish this information with your parts orders.

# SECTION I

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## [www.forums.com](http://www.forums.com) USE AND MAINTENANCE

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The Model 222 SNO-KITTENS are light-weight vehicles employing unique "Pontoon and open track Drive" which support the vehicles in deep snow and provide traction in soft snow that is not available in any other known tracked vehicle.

A combination of this novel form of snow traction, and the light aircraft type of construction, gives the SNO-KITTEN the ability to travel, and take you "sitting down" where you must go over deep, soft snow during patrols, emergencies and sport.

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[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

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**PREPARING FOR SERVICE** the SNO-KITTEN

is very similar to an automobile or light truck in respect to preparing for service. Special personnel heaters, engine pre-heaters, radio equipment and "extra" accessories should be installed in accordance with the requirements dictated for your particular operations.

Check battery, engine oil, engine coolant in radiator, gasoline, lubricant in transmission and rear end drive, all to be same specifications as being customarily used in automobiles and light trucks at that particular geographical point with consideration as to the season of the year affecting temperatures. Track rollers and chassis have been lubricated at factory for first 200 miles with lubricants suitable for operation at air temperatures of 90<sup>o</sup> to -20<sup>o</sup> Fahrenheit.



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**OPERATION** The operator should be a skilled driver and take a personal interest in the care of the SNO-KITTEN, for it requires slightly more care than does an automobile and closer attention to lubrication, especially of the track rollers. Maintenance of pontoons and adjustment of the track are discussed later in this section.

After the SNO-KITTEN has been driven its first 25 miles, all nuts that hold the flanged rollers to the grouser castings should be checked and tightened with a torque wrench (45 foot pounds). When they are once properly seated they seldom loosen.

After approximately ten hours of operation, the engine and transmission adjustments that may be needed should be made by a specialist in accordance with Ford recommendations. The Ford Manual supplement to this Manual covers the engine and transmission.

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When steering do not pull harder on levers than necessary to complete turn.

The SNO-KITTEN is primarily designed for travel over snow and it is also very successful on ice. Travel should always be at moderate speeds through areas where obstacles hidden by the snow might be encountered. Reduce speed when crossing rocks, logs, ditches, creek banks and other rough country. A cruising speed of 5 to 8 MPH is proper for most other conditions.

It is recommended to "break-in" the tracks and other major parts of this SNO-KITTEN on the following schedule as nearly as possible.

1. Drive at speeds under 5 MPH for the first 50 miles.
2. 7-8 MPH is the recommended cruising speed on smooth terrain after 50-mile period.
3. Always take up any excess slack evenly as it may develop in the tracks.

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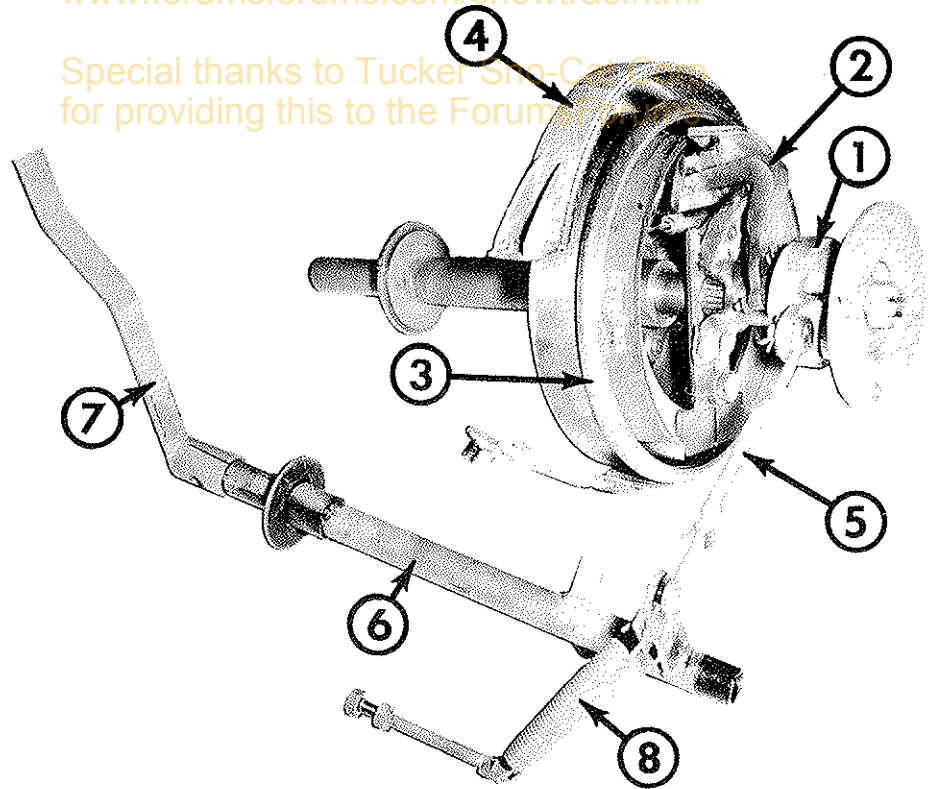
Keep in a sufficiently low gear when descending steep hills and always keep tracks revolving. Never disengage clutch or coast in neutral. Use the same gears going down hill that you would use in going up.

Never overload the SNO-KITTEN with more passengers, or equivalent weight than its rated capacity. SNO-KITTEN TRAILERS are available to carry additional loads.

When in unusually difficult terrain where traction is limited, "rock" the SNO-KITTEN back and forth slowly with an idling throttle to pack the snow and break a trail. Never spin the tracks for they will cut deeper into the snow.

[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

Special thanks to Tucker Siro-Cam  
for providing this to the Forum



1. Cam Assembly & Outside Pontoon  
Bearing Holder . . . . . K-220-A
2. Fork, Actuating . . . . . K-214
3. Brake and Clutch Assembly, Combination . . K-201
4. Brake Assembly, External . . . . . K-235
5. Control Link, Turnbuckle . . . . . K-232
6. Clutch and Brake Control Shaft . . . . . K-236
7. Clutch Lever . . . . . K-231
8. Clutch Drive Pressure Spring. . . . . K-234

# MAINTENANCE INSTRUCTIONS

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## LUBRICATION AND SERVICE

### 1. Engine, Transmission and Differential

Refer to supplementary engine Manual.

Use grease and oil customarily used in engines of automobiles and light trucks in your immediate geographical areas with consideration as to the season of the year which affects temperatures.

2. All ball bearings are grease sealed and require no oil or grease.

3. After running 500 miles or a winter season there are a few places that need grease.

4. Use a light water-proof grease on the following surfaces.

- a. Chassis springs parts No. K 215
- b. Spring hangers sliding surface to frame.
- c. Aluminum cam surfaces.
- d. Clutch throwout bearing sleeve.
- e. Actuating fork (3 places).
- f. Pins and connecting links.
- g. All control linkage.
- h. Chain.

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#### 5. Track Roller Bearings.

Grease flanged rollers on track every 200 miles with a light water proof grease, or as specified by your maintenance technician.

By removing flathead screws in center of each roller pin or use special Alemite fittings.

Use low pressure gun equipped with special fitting provided. Do not "Over Grease" or use high pressure. Replace screws and make sure they are tight. It is important that these screws are in place when the Sno-Kitten is in use for they keep these vitally important bearings clean.

Proper and Frequent Lubrication of All Flanged Track Rollers is Vitally Important.

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6. Before summer storage or after 500 miles operation, run the Sno-Kitten several blocks to force the water out of bearings.

7. Grease rollers and paint tracks and all other steel parts with rust resistant paint and follow lubrication specifications.

8. Cooling System. A permanent type Anti-Freeze is recommended or Anti-Freeze specified by a maintenance technician. (system holds 1.8 U. S. gallons without heater).

9. Battery. Conventional automotive storage battery servicing and procedure.

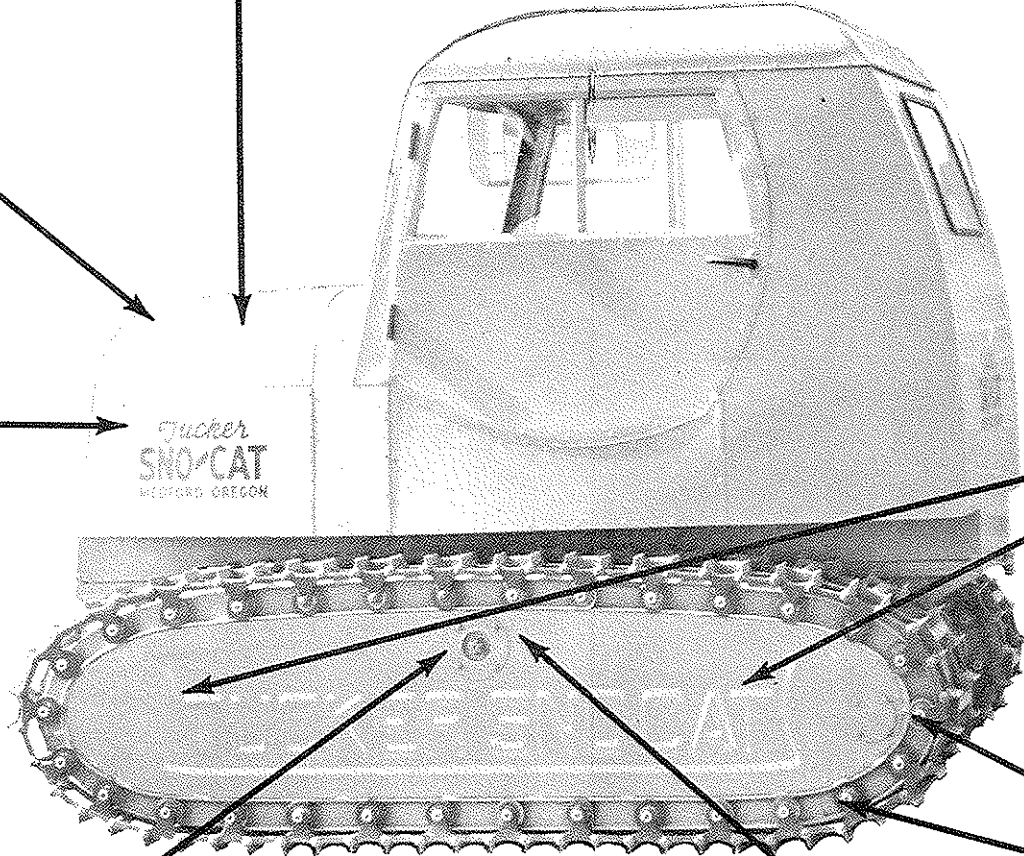
# LUBRICATION GUIDE

Special thanks to Tucker Sno-Cat Corp for providing this to the Forums

ENGINE & TRANSMISSION  
SEE ANGLIA FORD SUPPLEMENT  
page II

BATTERY UNDER  
HOOD RIGHT SIDE  
See page 13 of MANUAL

COOLING  
SYSTEM  
INSTRUCTIONS  
See page 13  
of MANUAL



CHASSIS SPRINGS  
BETWEEN PONTOON  
AND FRAME  
See page II of MANUAL

STEERING CLUTCH  
AND BRAKE ASSEMBLY  
See page 11 of MANUAL

DRIVE CHAIN  
INSIDE PONTOON  
See INSTRUCTIONS  
page 11 of MANUAL

TRACK ROLLERS  
WATERPROOF LOW  
TEMPERATURE GREAS  
See INSTRUCTIONS o  
page 12 & 13 of MANU



# MAINTENANCE and ADJUSTMENTS

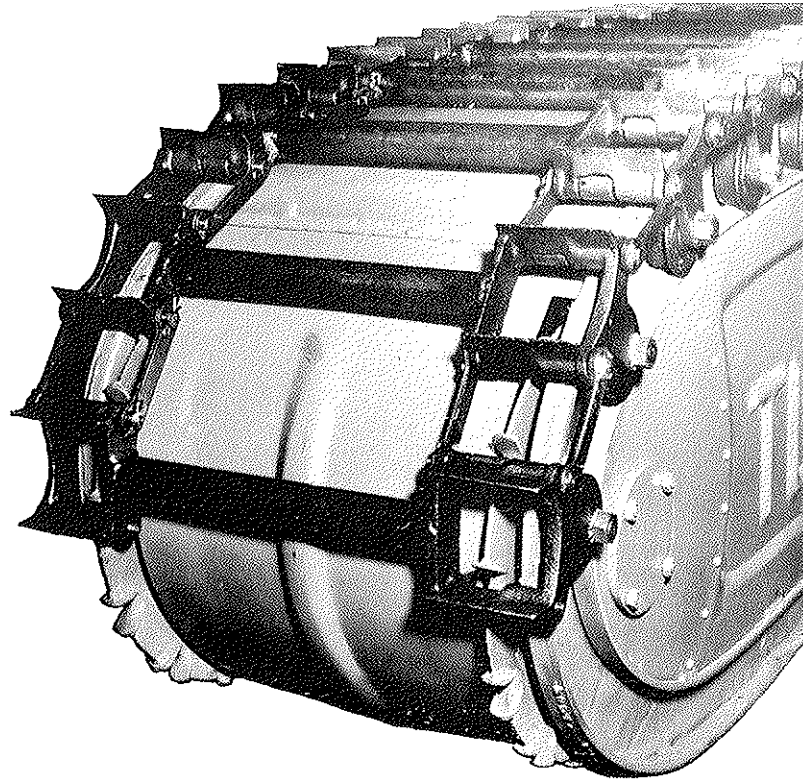
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[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

Special thanks to Tucker Sno-Cat Corp  
for **INSTALLING TRACK** ForumsForums

Pull track from the front of the Kitten over  
the top of the pontoon.

Engage track section in Sprocket as shown  
in picture below.



INSTALLING TRACK

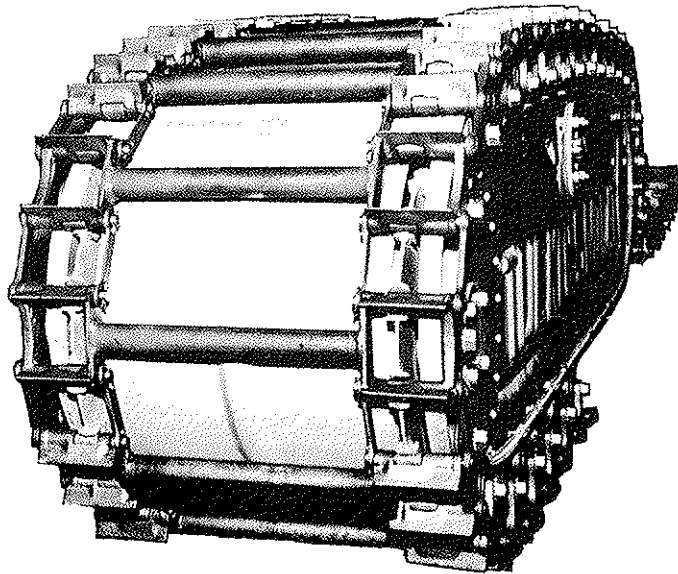
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[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

Now use engine in reverse to pull track over the sprocket as shown in illustration below until ends meet in front of pontoon.

Use track clamp provided to pull ends of track together sufficiently to install connecting links as illustrated on Page 20.

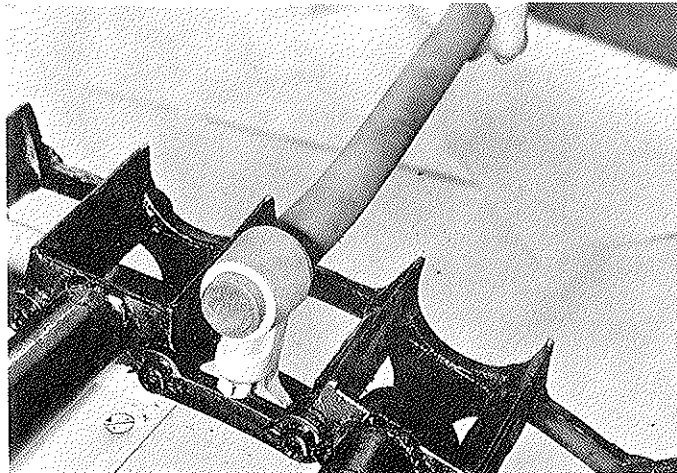


INSTALLING TRACK

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for providing links to the Forums Forums

**TIGHTENING TRACK** Periodic checking of tracks for looseness is advisable. When it is evident that there is slack in the tracks, they should be tightened to increase efficiency. The number of miles the SNO-KITTEN may be driven before it is necessary to tighten the tracks, depends upon the amount of care given the SNO-KITTEN and the type of terrain traveled. The slack can be eliminated by slightly "bowing" approximately 1/16" the four (two sets) connecting links between track sections. They should be bent the same amount evenly around the entire track. This procedure shortens and tightens the entire track.



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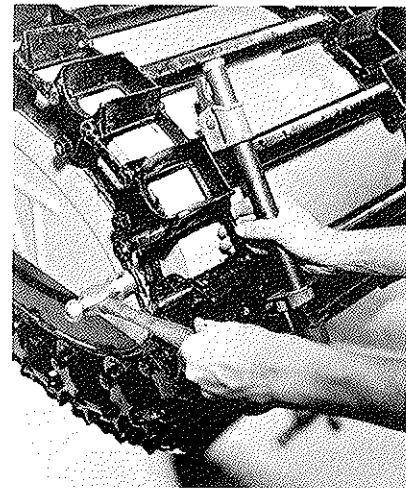
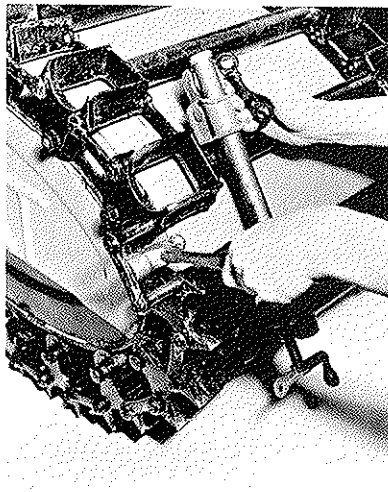
This "bowing" or bending of the connecting links is best accomplished with the "track tightener" tool, which is provided with the SNO-KITTEN. This tool is composed of two pieces; a loose handle and a head with fingers and adjustment screw which provides sufficient leverage to "bow" the connecting link. This tool and the "track clamp" should be kept in the SNO-KITTEN. Evenly and properly adjusted tracks are vitally necessary for obtaining full life expectancy from them. A track is properly adjusted when all connecting links are bent evenly and when all slack is removed without the track being under great tension.

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## REPLACING A TRACK SECTION

Revolve the track until the track section to be replaced is located at front of the extreme end of the pontoon. The following procedure should be followed.

1. Relieve the track tension by placing the Track Clamp or a similar clamp across the two Track Sections on right or left side of the track and remove the connecting links that secure the section on that side. Next, place the clamp across the opposite side and remove the remaining connecting links.
2. Replace the damaged track section with a new track section.
3. To reassemble the track, replace connecting link assemblies and couple track with help of "track clamp".



UNCOUPLE OR COUPLE TRACK WITH CLAMP

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[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

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## REMOVING PONTOONS AND REPLACING PARTS

1. Uncouple track at rear of pontoon just above rear sprocket drum.
2. Slide track over top and to the front of pontoon.
3. Put transmission in reverse and back track off of sprocket.
4. Pull track from front until completely off of pontoon.
5. Remove cover.
6. Take floor board off and remove steering handles.
7. Remove Axle Nut.
8. Slide pontoon off.
9. After repairs have been made reverse procedure.

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[www.forumsforums.com/snowtrac.html](http://www.forumsforums.com/snowtrac.html)

## **CLUTCH & BRAKE ADJUSTMENT**

Special thanks to Tucker Sno-Cat Corp  
for providing this (K220 KITTENS)ms

1. Uncouple both tracks at rear of pontoons just above rear sprocket drum.
2. Slide tracks over top and to the front of pontoon.
3. Put transmission in reverse and back track off of sprockets until sprocket teeth are in the clear.
4. Remove covers from the top of pontoons by removing 3 sheet metal screws from front of cover, pull cover off from front of pontoons.
5. Back out adjustment screws on yoke until clutch starts to drag in high gear at an idling speed.
6. Tighten lock nuts.
7. If adjustment screws are more than half way out, tighten up on turnbuckle until clutch starts to drag in high gear, at an idling speed.
8. Adjust external brake until you have as short a stroke as possible, and still have clearance all around band to drum while clutch is in drive.

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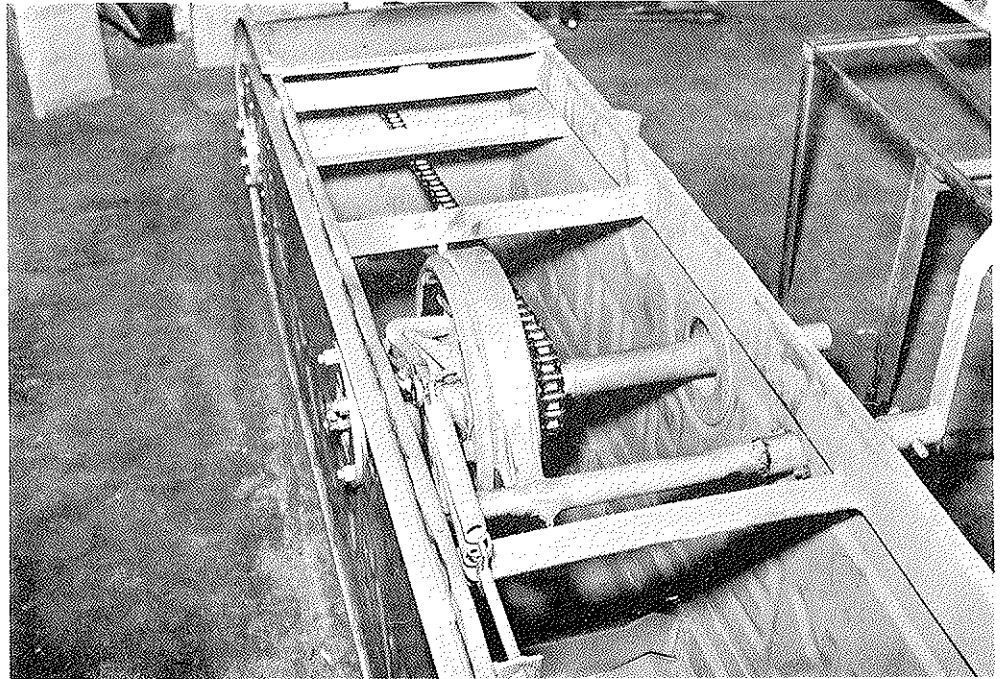
9. Safety wire external brake adjusting screw.

10. Tighten all lock nuts.  
11. Replace cover.

12. Start track in rear sprockets, put transmission in low gear. Run track over sprockets.

13. Pull track over pontoon from front to rear.

14. Couple tracks in rear using track clamp. (Furnished with Kitten).



COVER OFF PONTOON ILLUSTRATING  
CLUTCH & BRAKE ASSEMBLED



# SECTION II

# PARTS LIST

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Item No.	PART NAME	Manufacturer, including address	Part Number
1 . . . .	Anglia Ford Engine . . . . .	Ford Motor Co. Dagenham, England	100E-6010-A
2 . . . .	Anglia Ford Radiator . . . . .	" " " " "	100E-8005
3 . . . .	Transmission . . . . .	" " " " "	100E-7006-A
4 . . . .	Bearing Outer Pontoon . . . . .	SKF, Philadelphia, Pennsylvania	6305-2RS
5 . . . .	Pontoon (Left) (Right) . . . . .	Tucker Sno-Cat Corp. Medford, Ore.	2001
6 . . . .	Pontoon, Cover (Left) (Right) . . . . .	" " " " "	2001-C
7 . . . .	Track Section Assembly with Bearings and Rollers . . . . .	" " " " "	2002
8 . . . .	Track Section Only . . . . .	" " " " "	2200
9 . . . .	Connecting Link Track . . . . .	" " " " "	2300
10 . . . .	Rollers, for Connecting Links, Sleeves . . . . .	" " " " "	2303
11 . . . .	Track Rollers, Flanged . . . . .	" " " " "	2400
12 . . . .	Connecting Link, Removable . . . . .	" " " " "	2302
13 . . . .	Connecting Link, Without Rollers ( 2 Pins Welded to Link) . . . . .	" " " " "	2301
14 . . . .	Track Assembly (Complete Roll) . . . . .	" " " " "	2150
15 . . . .	Pontoon Complete With Track (Left) (Right) . . . . .	" " " " "	2100
16 . . . .	Sprocket Drum Drive Assembly . . . . .	" " " " "	2005
17 . . . .	Sprocket Teeth . . . . .	" " " " "	2006-A
18 . . . .	Sprocket Tooth Assembly Ring . . . . .	" " " " "	2006-B
19 . . . .	Cab Assembly, Including Doors & Seats . . . . .	" " " " "	2010
20 . . . .	Head Light . . . . .	" " " " "	2071
21 . . . .	Windshield Wiper . . . . .	American Bosch, Springfield, Mass.	WWA-6C-127
22 . . . .	Wiper Arm . . . . .	" " " " "	LE-721
23 . . . .	Wiper Blade . . . . .	" " " " "	BD-724

# PARTS LIST

Special thanks to Tucker Sno-Cat Corp  
for providing this to the Forums

Item No.	PART NAME	Manufacturer, including address	Part Number
24 . . . .	Clutch and Brake Assembly (10") (11") . . . . .	Tucker Sno-Cat Corp., Medford, Ore.	K-201
25 . . . .	Axle . . . . .	" " " " " "	K-219
26 . . . .	Chain Drive Assembly . . . . .	" " " " " "	K-217
27 . . . .	Sprocket, Idler Chain . . . . .	" " " " " "	K-216
28 . . . .	Sprocket Drum, Bearing Mounts . . . . .	" " " " " "	K-220-D
29 . . . .	Differential Assembly . . . . .	" " " " " "	K-220-H
30 . . . .	Differential Extension . . . . .	" " " " " "	K-220-E
31 . . . .	Cam Assembly and Outside Pontoon Bearing Holder . . . . .	" " " " " "	K-220-A
32 . . . .	Fork, Actuating . . . . .	" " " " " "	K-214
33 . . . .	Clutch Lever . . . . .	" " " " " "	K-231
34 . . . .	Clutch Control Link (Turn Buckle) . . . . .	" " " " " "	K-232
35 . . . .	Clutch Drive Pressure Springs (2 Required) . . . . .	" " " " " "	K-234
36 . . . .	Brake Assembly, External . . . . .	" " " " " "	K-235
37 . . . .	Clutch and Brake Control Shaft . . . . .	" " " " " "	K-236
38 . . . .	Clutch, Shoe & Lining . . . . .	" " " " " "	K-237
39 . . . .	Gas Tank . . . . .	" " " " " "	K-233
40 . . . .	Spring, Chassis . . . . .	" " " " " "	K-215
41 . . . .	Track Tightening Tool . . . . .	" " " " " "	10004
42 . . . .	Track Clamp . . . . .	" " " " " "	10005
43 . . . .	Bearing, Chain Idler . . . . .	SKF Philadelphia, Pennsylvania	SKF6205-2RS
44 . . . .	Bearing, Axle . . . . .	" " " "	SKF6207-2RS
45 . . . .	Bearing, Sprocket Drum . . . . .	" " " "	SKF6207-2RS
46 . . . .	Bearing, Outer Cam Assembly (Pontoon) . . . . .	" " " "	SKF6305-2RS
47 . . . .	Bearing, Inside Cam Assembly (Pontoon) . . . . .	" " " "	SKF6208-2RS

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*Dependable  
Over-Snow  
Transportation*

NO SNOW  
TOO DEEP

**TUCKER**

**SNO-CAT**  
TRADE MARK

**CORPORATION**

NO ROAD  
TOO STEEP

MEDFORD, OREGON