

# OWNERS MANUAL

STEERING SULKY MODEL: 15590E1

FORM NO: 20938L2 EFFECTIVE DATE: 1-1-74

NOT FOR USE ON SLOPES OR ROUGH TERRAIN

DUAL WHEELS REQUIRED ON TRACTOR



#### STEERING SULKY WITH CONVERTIBLE GRAVELY, DUAL WHEELS AND MOWER

#### **GENERAL**

- 1. The Steering Sulky has been designed and built to the traditionally high standards for which Gravely is famous. The sulky is a single passenger, drawn-behind riding device enabling the operator to ride and steer The Gravely. The primary use is for smooth, level lawn mowing operations to reduce fatigue and add to the comfort and attentiveness of the operator. When working slopes or in-therough, the Steering Sulky must be disconnected from The Gravely so the operator can walk behind and guide the equipment. The unit is recommended for homeowner and commercial use; has rugged steel tube frame, pneumatic tires and seat suspension.
- The Owners Manual includes parts list, set up, safety, operator and maintenance instructions.
   Item numbers used in this manual are in reference to fig 1, Illustrated Parts List. All

- references to right-side, left-side are made from the operator's position on the seat of the sulky facing the steering wheel. Contact The Gravely Dealer for further information.
- To continue its program of quality and design improvement, the manufacturer reserves the right to change specifications, design or prices without notice and without incurring obligation.
- 4. SPECIFICATIONS

Tire pressure: 10 psi

Maintenance intervals: 8 use hours Purpose: level ground, riding device

Recommended Tractors

All Convertible Gravelys equipped with

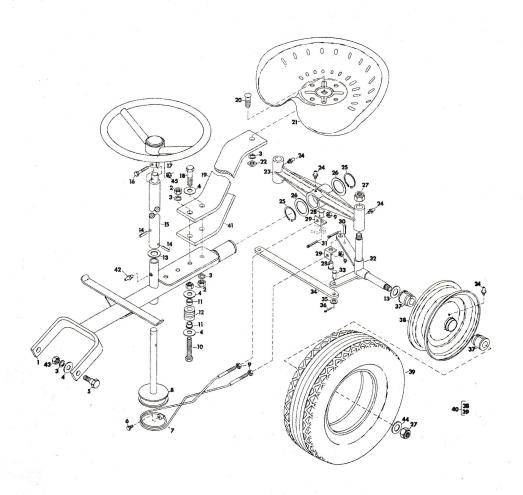
rear hitch

Required Accessories

Dual wheels and spacers for tractor

Recommended Accessory

Seat cushion



ITEM NO.	PART NO.	DESCRIPTION	LTEM NO	DADE VO	
		223 CHILI I I CHI	ITEM NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8	1 10360A1 Chassis, Sulky Weldment 1 120238 Nut, 1/2-13 Hex Jam 2 120384 Lockwasher, 1/2 Spring 3 120390 Flat Washer, 9/16 x 1-3/8 5 12887P1 Bolt, Hitch 6 181561 Bolt, 1/4-28 x 1/2 Hex Ho 7 10365A1 Cable, Steering 8 10361A1 Reel Assembly 9 120376 Nut, Hex 5/16-18 14181P1 Bolt, 1/2-13 x 5 12889P1 Bushing 12888P1 Pulley, Cable Guide 131017 Flat Washer, 13/16 x 1-18	Chassis, Sulky Weldment Nut, 1/2-13 Hex Jam Lockwasher, 1/2 Spring Flat Washer, 9/16 x 1-3/8 x .109 Bolt, Hitch Bolt, 1/4-28 x 1/2 Hex Hd Cable, Steering Reel Assembly	24 25 26 27 28 29 30 31	9411027 14085P1 13470P1 13412P1 12886P1 12885P1 273757 120123 10362A1	Fitting, Lube 1/4-28 Ring, Retaining Washer Nut, Lock Esna 5/8-18 Light Thin Pin, Swivel Bracket Swivel Pin, Spring 1/4 x 1-7/8 Pin, Cotter 1/8 x 1-1/4 Axle, Left Assembly Axle, Right Assembly Pin, Clevis 3/8 x 7/8 Bar, Tie
10 11 12 13		Bolt, 1/2-13 x 5 Bushing	NS 33 34 35	10362A1 10363A1 431780 12883P1 120394	
14 15 16 17 18	453670 20430P1 180082 19488P1	Pin, 1/4 x 1-1/8 Spring Column, Steering Bolt, Hex 5/16-18 x 1-3/8 Wheel, Steering	36 37 38 39	121222 12345P1 10450A1 12356P1	Washer, Flat 13/32 x 13/16 x .065 Pin, Cotter 3/32 x 3/4 Bushing Wheel Wheel Assembly Less Tire & Tube Tire
19 20 21 22	180192 12520P1 120917 12521P1 125536	Bolt, 1/2-13 x 3-1/2 Hex Hd Spring, Seat Bolt, 1/2-13 x 1-1/2 Carriage Seat	NS NS 40	13573P1 11191P1 10140A1	Tube, Tractor Tire Valve, Stem Assembly Sulky Wheel Assembly Complete (Includes Items No. 38 § 39)
23	12878P1	Nut, 1/2-13 Square Bar, Cross	41 42 43 44 45	17839P1 14406P1 120378 131016 9419455	Plate, Reinforcement Fitting, Grease Nut, 1/2-13 Hex Washer, 21/32 x 15/16 x .095 Nut, Lock 5/16-18 Washer Insert Hex

fig 1 ILLUSTRATED PARTS LIST

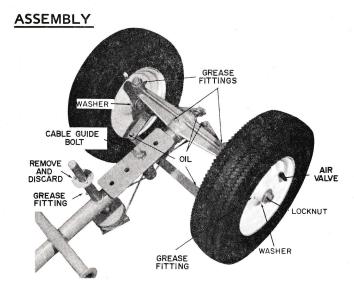


fig2

# Wheels, fig 2

- 1. Unscrew locknuts from axles, Item 27.
- Slide on (in this order) a washer Item 13, wheel (air valve out) and washer Item 44, on each axle. Tighten nut until wheel will not turn, then back off nut until wheel turns freely.

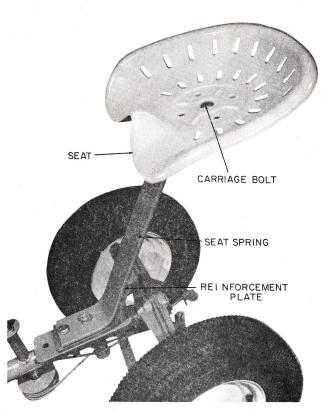


fig 3

# Seat, fig 3

- 3. Remove nut and lockwasher from cable guide pully bolt, Items 2, 3, and 10. Place reinforcement plate first and then seat spring over bolt. Fasten the plate and spring to the chassis with hardware Items 2, 3, 4 and 18.
- 4. Place seat on spring and fasten with hardware Items 3, 20 and 22.

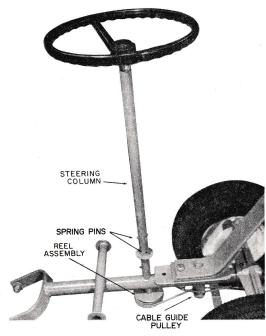


fig 4

#### Steering, fig 4

- 5. Remove and discard cotter pin from reel assembly shaft, Item 8. Slide steering column over shaft and secure with 2 spring pins, Items 14 and 15.
- 6. Position steering wheel on column and fasten with bolt and nut, Items 16, 17 and 45.

#### Lubrication, fig 2

- 7. Raise and support sulky to allow crossbar to hang free, Item 23.
- 8. Lubricate the following through grease fittings with general purpose grease. Relubricate after each 8 use hours.

wheel axle bearings - 2 crossbar pivot - 1 axle king pins - 2 steering column reel shaft - 1

#### SAFETY PRECAUTIONS

- Read The Gravely Owners Manual.
   Be familiar with all controls and follow the safety precautions outlined in the manual.
   Know how to STOP quickly in an emergency.
- Do not wear loose fitting clothing or accessories that might get caught in moving parts or on the controls. Keep hands, feet, hair, clothing, etc., away from moving parts.
- Do not allow children to operate the equipment; nor allow adults to operate it without their having knowledge of safe operating practices.
- 4. Remain in the seat and keep feet on foot rests at all times when operating tractor with sulky. Do not let feet drag or rest them on the crossbar. Keep feet away from the wheels.
- 5. Do not carry passengers. There are no provisions for passengers and any attempt for more than one person to ride during operation is extremely dangerous.
- 6. Slow down for turns. Turns at high speed and turns on slopes tend to upset the tractor. Be alert for hazards when turning.
- 7. Disengage PTO and STOP engine before leaving the seat of the sulky.
- 8. When in motion, always keep a hand on the steering wheel to maintain steering control.
- 9. Do not use sulky on slopes or rough terrain. For most satisfactory operation and to avoid the hazards of upsets, unhook the sulky and use the tractor as a walk behind unit when these conditions are encountered.
- 10. Do not lean to the outside when making turns to avoid tipping or loss of control.
- Be alert and exercise care when operating in reverse. Be sure that the path is clear of people, pets, and obstructions or other hazards.
- 12. Do not use the steering sulky on tractors that are not equipped with dual wheels. Tractors without duals are relatively less stable and are, therefore, unsatisfactory, both functionally and safetywise, for operation with the steering sulky.

- 13. Do not tow loads behind the sulky. This can produce an uncontrollable and, therefore, hazardous situation especially when it is necessary to make a turn.
- 14. Use hookup between tractor and sulky as recommended in this manual. Do not modify or use makeshift hookups. Inspect regularly for excess wear, looseness, or any signs of failure. Replace, adjust, or repair if any of these are indicated.

# **OPERATING TIPS**

- The use of dual wheels (which increases overall tire width) on The Gravely tractor increases the stability of the tractor/sulky combination; especially noticeable when making sharp turns. Dual wheels help prevent tipping or loss of control.
- 2. With the PTO in the OUT position, practice (in an open area) turning, reversing direction when steering, and general handling of The Gravely tractor/sulky combination. Because this system steers with the rear wheels, it may take a few moments for the operator to become accustomed to the operation and action of this steering system.
- 3. Always disconnect the sulky and walk behind The Gravely when working slopes or in-the-rough. When mowing slopes, walk behind and go across the face.

#### **ADJUSTMENTS**

- The seat position adjustment is made at the chassis plate where the seat brace and spring are bolted to the chassis. There are four mounting bolt-holes in the chassis plate. The seat position can be adjusted to one of three as follows:
  - A. Middle position: Fasten brace and spring as in fig 3.
  - B. Front position: Move cable guide pully bolt to second hole from steering column. Fasten brace and spring using the front holes.
  - C. Rear position: Fasten brace and spring as in fig 1 using rearmost holes.

# CONNECTING AND REMOVAL

1. The sulky is connected to the rear hitch of the Convertible Gravely as in fig 5 and 6. The special hitch bolts go through the sulky and hitch, and are secured with a flatwasher, lockwasher and nut (in that order for each bolt).

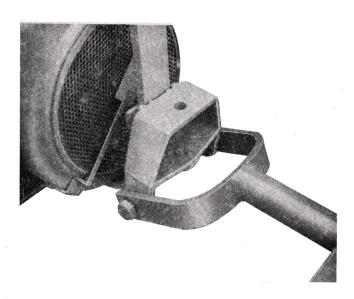


fig 5

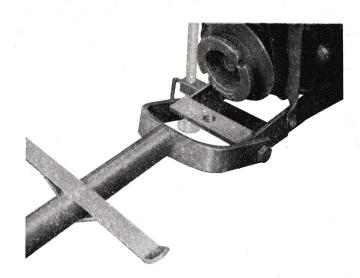


fig 6

2. After disconnecting the sulky from The Gravely, reinstall the connecting hardware to the sulky for storage.

# **ROUTINE MAINTENANCE**

- 1. Periodic light oiling of tie bar pivot points may aid operation.
- 2. After every 8 HOURS of use, relubricate the 6 bearing points with general purpose grease as described in ASSEMBLY.

### WARRANTY

Products manufactured by Gravely are warranted to be free from defective material and workmanship for a period of one year from date of purchase, under normal use by a homeowner, and for a period of ninety (90) days from date of purchase, when used for commercial purposes.

Any defective part manufactured by Gravely will be replaced without charge provided such part is certified as defective by the manufacturer's expressly authorized representative.

#### IMPORTANT PROVISIONS

The foregoing warranty is in lieu of all others and GRAVELY MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER.

This warranty is not subject to change or modification by field representatives or Gravely dealers.

Certain components carry separate warranties by the manufacturer of such components. Defective components are subject to their manufacturer's warranties, and any claims, work, or return of parts must be through an authorized Gravely dealer. Service costs for the transporting of a unit to and from the dealer are the responsibilities of the customer, and when such service is performed by the dealer, the dealer will charge the customer the usual rate for such service.

It is the dealer's responsibility to mail the "Warranty Card" to the manufacturer within fourteen (14) days after date of purchase to ensure prompt handling of any warranty claim by the dealer or the manufacturer.



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