

Straddle Type Implement Carryall

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Materials Used:

3" x 4" x .250" rectangular tubing	200 feet
3" x 5" x .250" rectangular tubing	5 feet
2" x 3" x .250" rectangular tubing	12 feet
2" x 2" x .250" square tubing	18 feet
3" x ⁵ / ₈ " flat	2 feet
3" x ¹ / ₂ " flat	1 foot
3" channel	3 feet
2 ¹ / ₄ " upset oil well pipe	45 feet
2' x 4' x ¹ / ₂ " plate	60 lbs.
W round	5 feet
⁵ / ₁₆ " chain	3 feet
Boston Gear Boxes 15:1	2
12" Diameter steering wheels	2
74 tooth #60 sprocket	2
12 tooth #60 sprocket	2
#60 chain	12 feet
grease zerts	15
Bud Hub and Spindles	4
20" wheels	4
7.50x20" tires	4

Specifications

Width Overall	8'10"
Length Overall	34'
Height Overall	7'8"
Height of useable space	6'
Length of useable space	19'

Wheel size	20"
Tire size	7.50x20"
Turntable size	20" x ^h / _h " circle
Wheel base	25'7"
Frame width	6'6"
Spindles	5200 pound capacity
Gear boxes	15:1 gearratio

For the axle use a 5' piece of 3" x 5" x .250 rectangular tubing. Weld the spindles on and get them at the proper toe-in, cut a W hole through the center of the axle. Insert a 3" piece of A black pipe to be used as a bushing. Weld and grind the bushing smooth. For the turntable cut two pieces of $V2$ " flat to a diameter of 20".

Next cut a $1V2$ " hole in the center of each of the flat circles. Insert a Vh " x 5" piece of cold roll shaft into the hole and weld two passes. On the top plate, drill holes for the two grease zerts and tape them with an W pipe tape. Set the top plate over the bottom plate. Cut a 4" piece of $1Vi$ " black pipe, slip over the shaft and weld to keep the two plates together. The turn table must be allowed to rock 1" to each side to compensate for any rough fields or roads which one may travel with the carryall. Cut two triangular pieces of $V2$ " plate the base being 12" long. Drill a $1V4$ " hole in the center of them and set on the under side of the bottom turn table plate so the axle can be placed between them and still be centered on the plate, then weld. Cut a 1'A" shaft 4" long, slip through

the axle and weld on both sides of the plates. To construct a hitch assembly use 2" x 2" x .250" square tubing. Cut two lengths 60" and notched 4" from one end at a 20° angle. Then cut top end at a 25° angle. Heat and bend the bottom of the hitch sides. Construct the tongue out of a 8" piece of 4" x 1/2" flat. Drill a Hole PA" from the end and round the tip for safety. Notch the front of the hitch 1/2" in the center at a depth of 4" so the tongue will slide inside. Cut two lengths of 2" x 2" x .250" tubing 40" long for braces. Cut a 60° angle at the top end and a 15° angle at the bottom end. Then place inside the hitch and weld them.

To mount the hitch to the front axle, use four pieces of 4" x 1/2" flat rounded on one end. Drill 2" from the end to a bit diameter of 1/8", Place these in the center of the axle at the proper points so the hitch can be mounted between them. Drill the hitch on both points where it is to be mounted 2" from the ends to insure strength.

Construct the frame of the carryall out of 3" x 4" x .250" rectangular tubing. Cut two lengths of the tubing 22' long and six lengths 6' long. Divide the 22' lengths into 41" spacings, place the 6' pieces in the spacings and weld them.

Carryall Frame Bridge Truss

Construct a bridge type truss from two lengths of 3" x 4" x .250" square tubing. Cut these pieces 22' long with a 20° angle at each end. Notch a 37° angle 38" from each end, bend and tack. Cut six pieces of tubing 1' long to brace the bridge, then square it and weld.

Lifting Pipes and Bearings

Cut twelve pieces 3" long of 3" standard pipe. Drill "A 2" holes in the center for grease zerts. Cut 12 pieces of 3" channel 3" long. Place 3" pipes inside the channel and weld so the grease zerts are straight up. Place each of the bearings in the correct location.

Attaching Front Running Gear to Frame

Lift the frame 6' off the floor. Center the turntable with the frame. Make 4 braces coming down from the frame to the turntable. Cut the back braces 83" long at a compound angle of 47° downward and 38° inward where it is mounted to the frame. Cut a 38° compound angle at the bottom where it is mounted to the turntable. Then tack the rear braces to the frame and the turntable. For the front two braces cut two pieces of tubing 6' long at a compound angle of 58° and 30° inward.

Cut a 47° compound angle at the bottom where it is mounted to the turntable, tack and weld.

Kear Straddle

Cut 2 lengths of 3" x 4" x .250" rectangular tubing 4' 11" long at a compound angle of 75° downward and 5° outward where it mounts to the frame. Tack these. Cut the

forward braces for the rear axle mounts at a compound angle of 55° downward and 5° outward where it is mounted to the frame. They are 70" long with the bottom end at a 20° angle to meet the rear brace.

To mount the rear spindles use a 3" piece of 3" x 5" x .250" rectangular tubing and mount by welding them.

Then mount the tubing and spindle to the axle mounts by squaring and leveling them with the frame. Then brace these using a wedge of the 3" x 5" x .250" tubing. To cap off the bottom of the axle mounts and also brace the tubing used in the spindle assembly use a piece of 1/4" flat. This flat is cut to fit the under side of the mounts and then welded. The final brace used in the rear axle mounts should be cut 4' long at a compound angle of 30° downward and 5° outward on the top side and 50° downward and 5° outward on the bottom side. Place them from the center of the rear frame cross beam down 30" on the rear axle mounts.

Gussetts and Braces

Fit and mold eight 'A' flat gussetts on the front end. Cut and fit to form a boxed type brace. Gusset the rear of the carryall in the same fashion, using 'A' flat cut to fit the 14" gussetts. To discourage any twisting action, brace from one top corner of the bridge to the other with 2" x 3" x .250" rectangular tubing thus tying in the top of the carryall. Additional bracing should be put between each of the spaces between the bridge pillars. Cut these from 3" x 4" x .250" rectangular tubing 2' long at a 45° angle on each end.

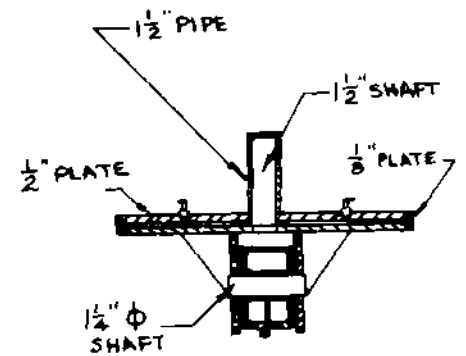
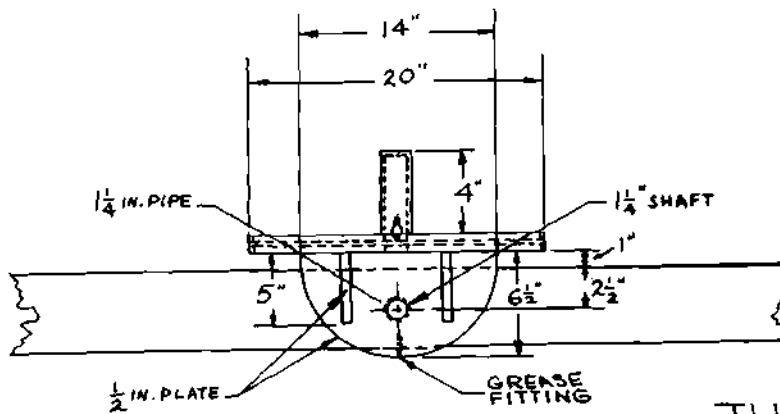
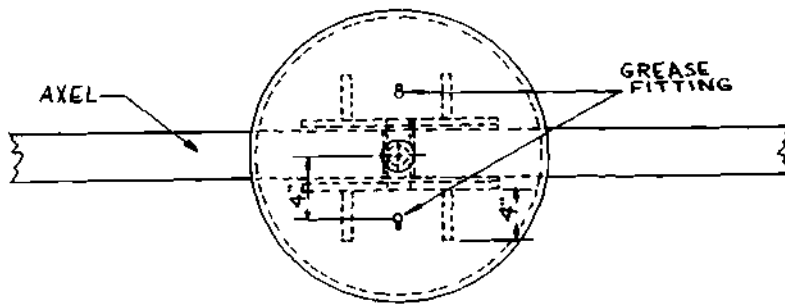
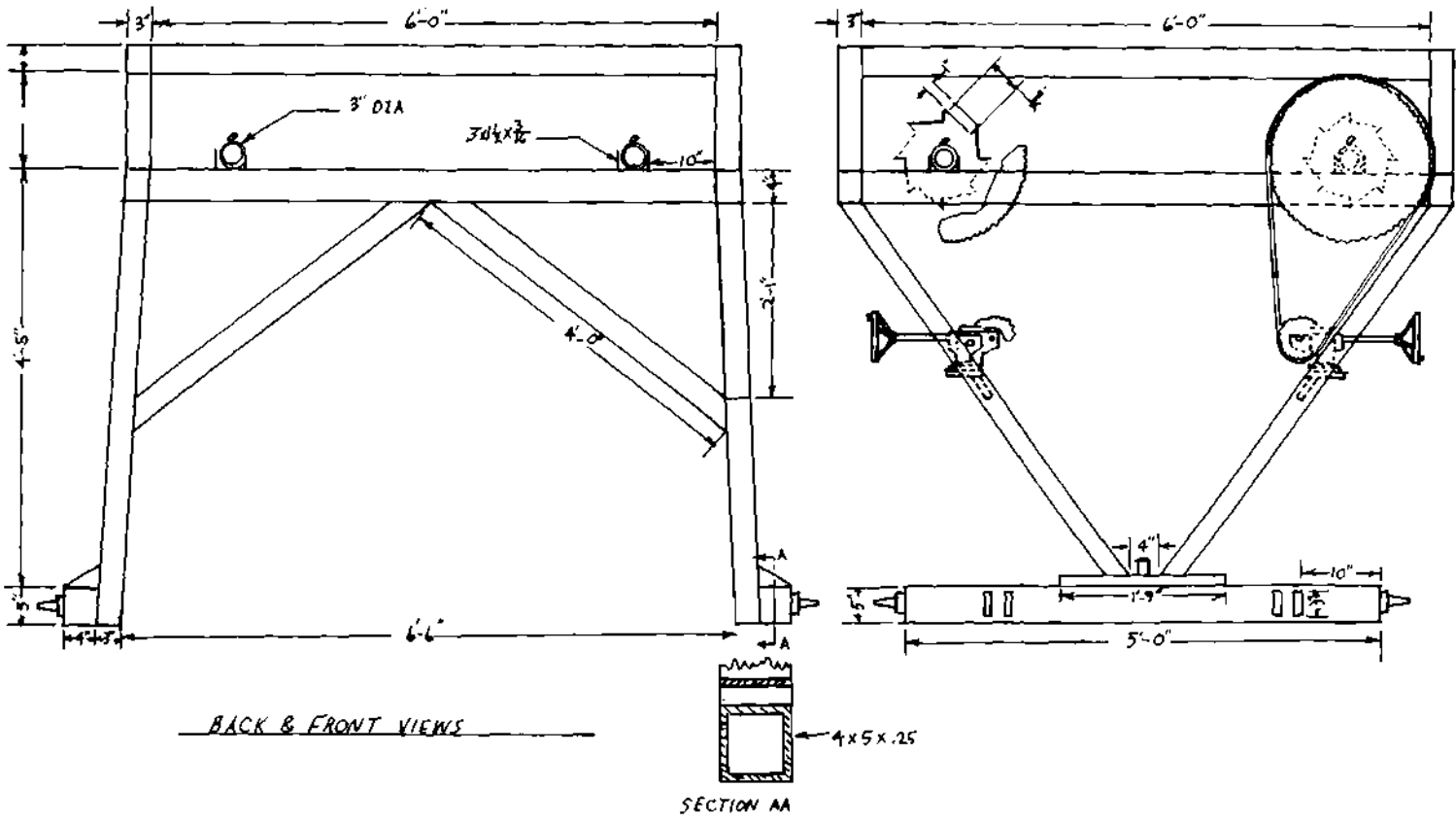
Safety Locking Device

Cut out a 10" circle from 1/4" flat in a skip tooth ratchet arrangement for a locking device,

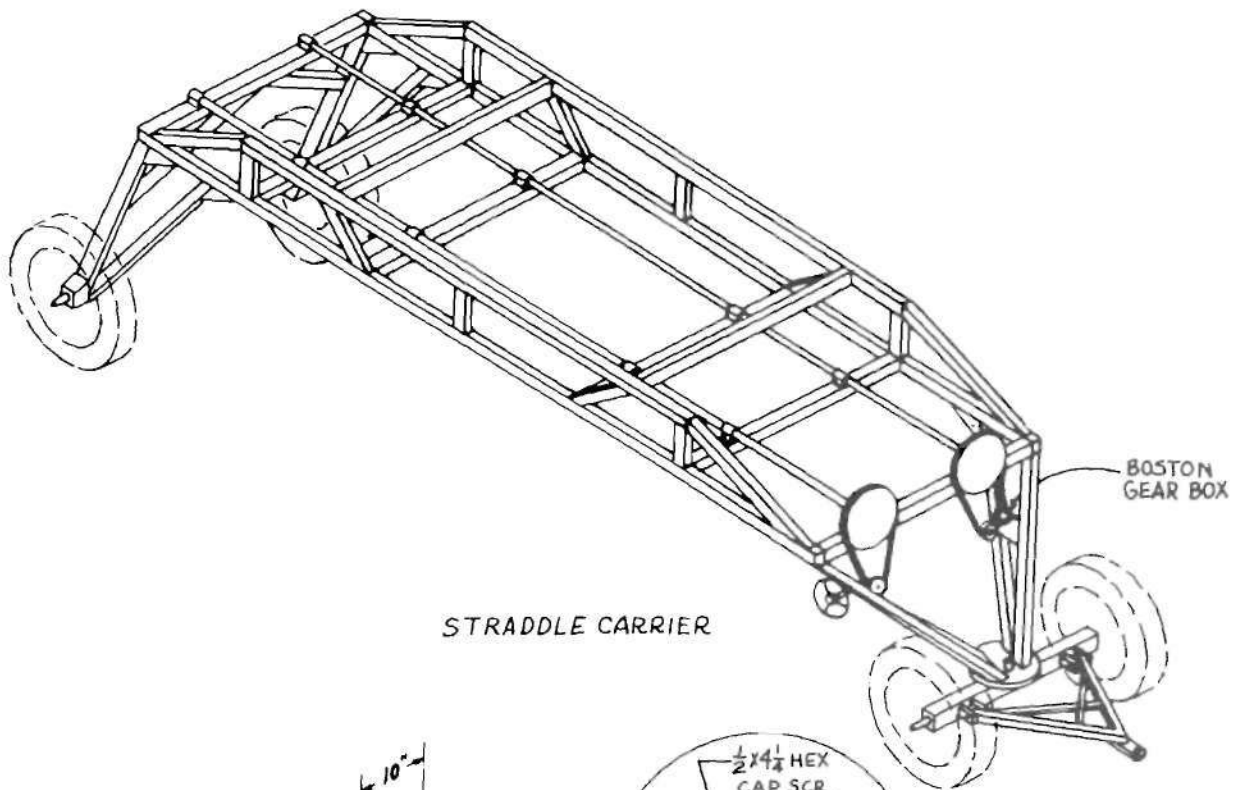
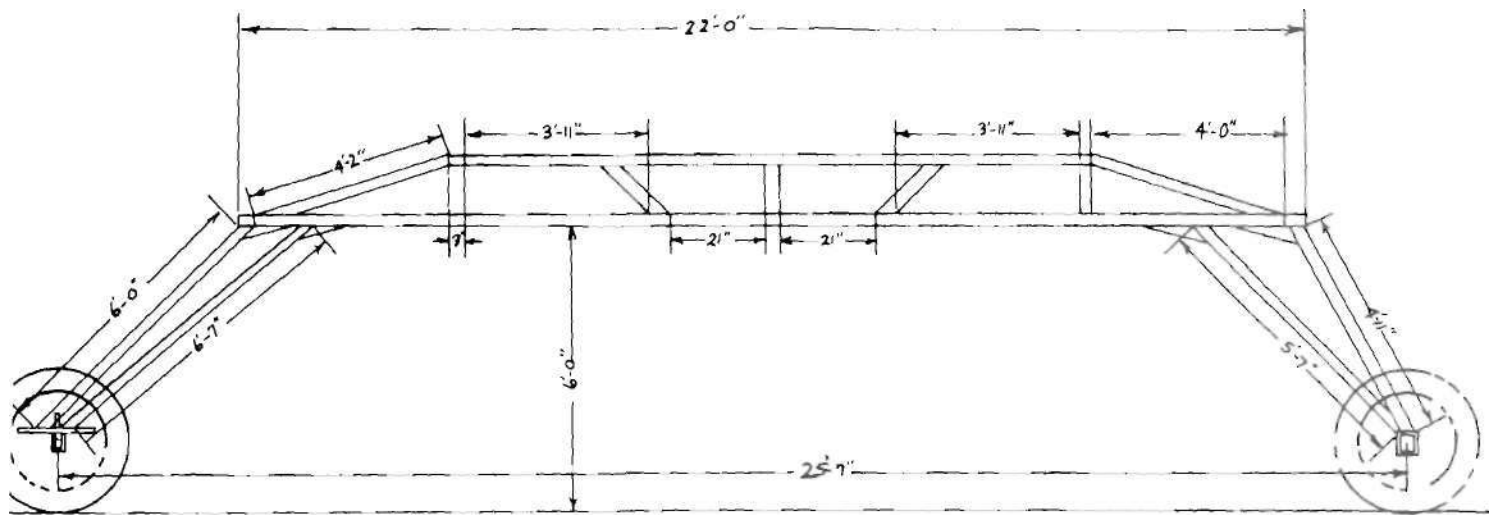
Lifting Mechanism

Slide the locking device over the 2 1/2" pipe which was to be used for the lifting pipe. Cap the pipe so it can not slide back and also weld a sleeve on the inside of the rear bearing so it will not slide forward. Cut holes in the pipe for the chain pegs 16" from each bearing so there will be 2 pegs per spacing. Use 1/2" rod for the pegs at a length of 3/2". Slip inside the pipe and weld. Use two 74 tooth size No. 60 chain sprockets. Next mount the gear boxes. Mount a No. 12 sprocket on the gear box going to a No. 74 sprocket on the lifting pipes. To mount the gear boxes use a 14" piece of 1/4" flat. Fit this plate to be welded between the two downward turntable braces. After welding these mounts 17" from the top frame, gusset the plates to insure strength. Then mount the gear boxes in the proper positions. Drill four W holes for each box, bolt the boxes down and chain the sprockets with heavy duty size 60 chain. Mount a 12" diameter steering wheel on each gear box.

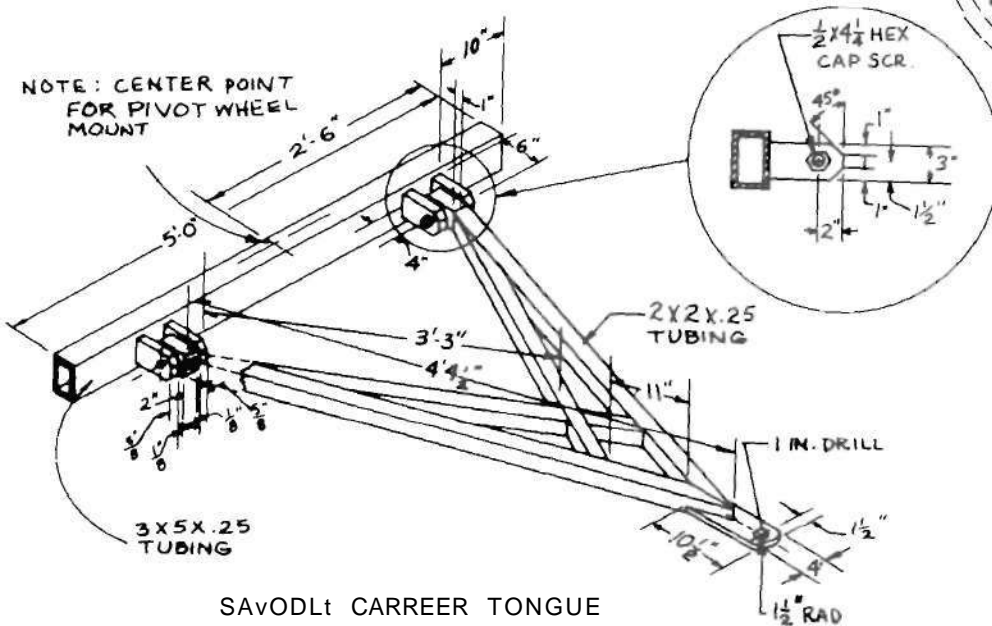
All that is needed now is to paint and the project is done.



TURNTABLE



STRADDLE CARRIER



SAVODLT CARRIER TONGUE