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Chief, Mech. Branch
841

Department of the Interior
Bureau of Reclamation

OPERATION AND MAINTENANCE EQUIPMENT AND PROCEDURES

RELEASE NO. 3

March-April 1953

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CONTENTS

Weed Control Equipment Used on Irrigation Systems

Release No. 1 is out of print and will not be reissued.

NOTE:

Releases No. 3, 8, 16, and 37 were on the subject of Weed Control Equipment and have been superceded by Release No. 97, "Equipment For The Prevention, Control, and Disposal Of Weeds On Irrigation Projects."

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INTRODUCTION

This release of the Operation and Maintenance Equipment and Procedures Bulletin is being devoted exclusively to the description and illustration of "shop-built" equipment for combating undesirable weed growths on irrigation systems and information pertinent to the operation of the equipment and materials used in weed extermination.

Considerable time and effort are expended every year in trial-and-error attempts to build usuable devices for reducing the toilsome and costly tasks of weed control. Through this process many effective pieces of equipment have been constructed or developed and are being used on certain irrigation projects but knowledge or detailed information regarding the machines or implements have not been available to all field workers. It is intended that this publication serve as a guide and reference and provide a means of exchanging ideas on general weed control items which are of value to irrigation project operating groups. It does not attempt to standardize equipment.

Naturally, many of the ideas which are outlined in this bulletin are not applicable to conditions existing on all irrigation projects, but by slight changes in the design it should be possible to adapt them to particular requirements. It may be desirable, before constructing a machine, to contact the particular organization where the equipment is being used and obtain large-sized design drawings, or more detailed information, or learn if new refinements have been made. The organization which can furnish this information is given in the text or in the box at the lower right-hand corner of each design drawing.

Information regarding methods or techniques for suppressing specific ditchbank or channel weeds has not been included in this release. For details regarding weed eradication measures, it is suggested that you refer to the Bureau of Reclamation publication, Control of Weeds on Irrigation Systems.

Credit for the design and construction of equipment cannot be given to an individual. In most cases the pieces of equipment illustrated reflect the thoughts and modifications of many workers while the devices were being constructed or used in the field. In most cases the equipment has been redesigned and rebuilt many times until a serviceable unit resulted. With a few noted exceptions all pictures have been taken by Bureau of Reclamation photographers.

Reference to a trade name does not constitute an endorsement of that product, and omission of any particular commercially available item does not imply discrimination against any manufacturer. Frequently, mention is made of specific articles which are used as integral parts of the equipment. When necessary to express a point or to indicate which parts have been used in a particular instance, the name of the manufacturer has been given. Undoubtedly, other products would serve as efficiently as those which have been designated.

It is planned to print and distribute additional information on weed control equipment as it is brought to our attention. Therefore, you will note that this bulletin has been punched for binding in a standard 3-ring binder and divided by subject matter into sections, with the pages numbered accordingly. This has been done to permit binding of additional information that may be submitted at a later date under the appropriate subject.

It will be appreciated if personnel on any private or Federal irrigation project will submit descriptions, photographs, and whenever possible, design drawings of any shop-built equipment which it is believed will be of value in future releases. This information is to be handled by the Regional Offices and should be submitted to the Regional Director, Bureau of Reclamation, in the Region in which the project is located. The location of all Regional Offices is given below. The form, at the bottom of this page may also be mailed to the appropriate office if you are interested in receiving additional information that may be published. As the material is made available, copies will be forwarded.

Regional Director, Boise, Idaho
Regional Director, Sacramento, California
Regional Director, Boulder City, Nevada
Regional Director, Salt Lake City, Utah
Regional Director, Amarillo, Texas
Regional Director, Billings, Montana
Regional Director, Denver, Colorado
Chief Engineer, Denver, Colorado, Code 206

Please add my name to your mailing list to receive additional information which may be published regarding equipment used for controlling weeds on irrigation systems:

Name _____

Organization _____

Address _____

_____

POWER WEED SPRAYER

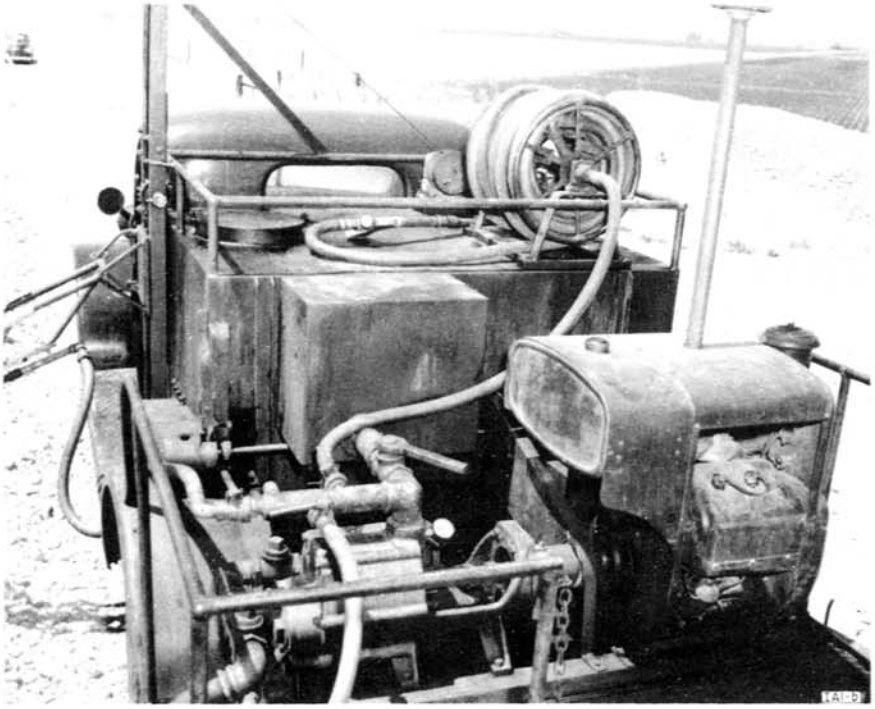
This weed sprayer was designed and constructed for ditchbank spraying or for operation over rough terrain by personnel of the Delta District, Bureau of Reclamation, Stockton, California.

Construction Details:

The "V" bottom, 350-gallon reservoir tank, which is equipped with a mechanical agitator, is mounted at a right angle to the truck frame to simplify connections for agitator drive and to center weight of unit upon the truck chasis. The railings around the flat-top tank and around the rear platform have been provided for the operator's safety and as a rack for the supplies.

The top of the reservoir tank, as indicated in Photo "b," is below the level of the cab window so that vision of truck operator is not impaired. A four-cylinder gasoline engine (Wisconsin Model VF4) powers a four-stage

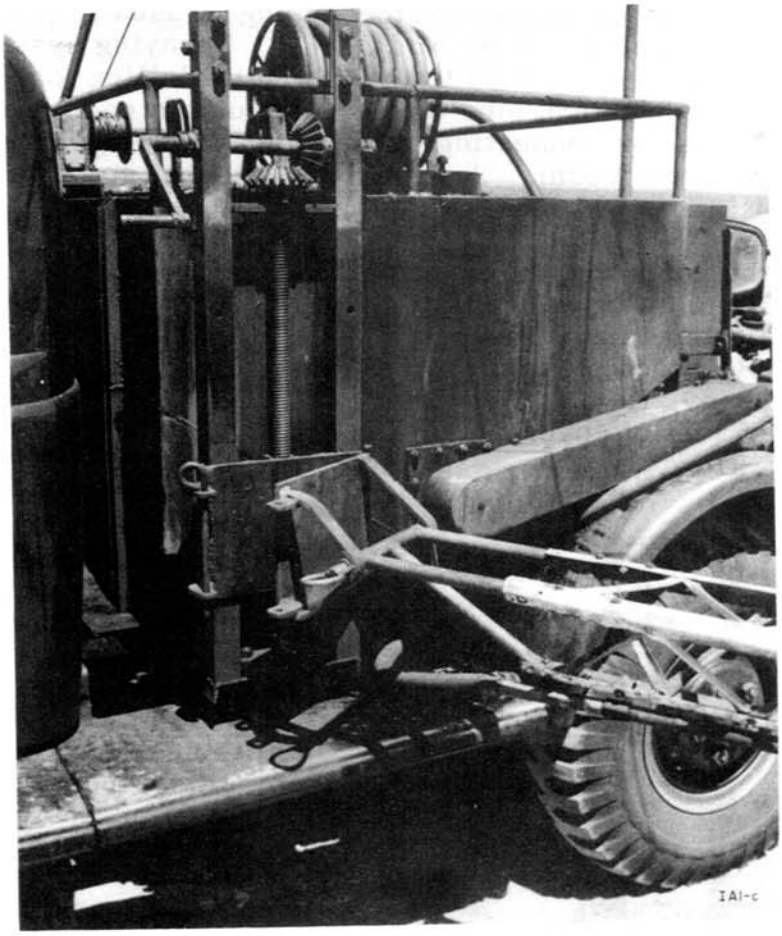
centrifugal pump (Jacuzi Model S-B 7T24). The pump is primed from the square 10-gallon auxiliary tank which has an opening near the top into the main reservoir. Fluid remains in the small compartment regardless of draw-down on the large tank so that the pump always can be primed. Capacity of the pump is 30 gallons per minute at 200-pounds pressure per square inch and it will refill the reservoir tank at the rate of 50 gallons per minute. The length of noncollapsible intake line which is equipped with strainer is visible at lower left of the photograph below.

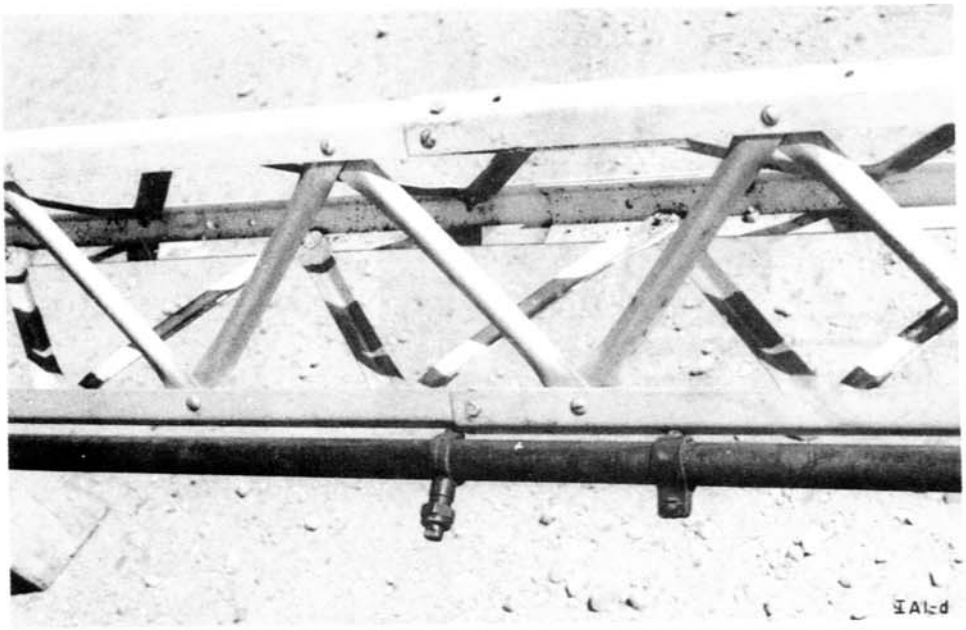


By connecting a fire hydrant to the pump inlet or by using the regular tank-refilling suction hose in a ditch or a well, the sprayer unit can be used as a pumper for fire-fighting operations. The hose reel especially is useful for this purpose or for use in reaching isolated weed-infested areas.

The operating height of the spray boom is adjusted by a crank and worm screw arrangement which is placed within easy reach of the truck driver. In Photograph "c" the vertical pin has been removed to show how the boom can be folded for travel. It also is pointed out that the horizontal pin can be removed and the spray discharge line disconnected, thereby permitting the boom to be detached quickly from the vehicle.

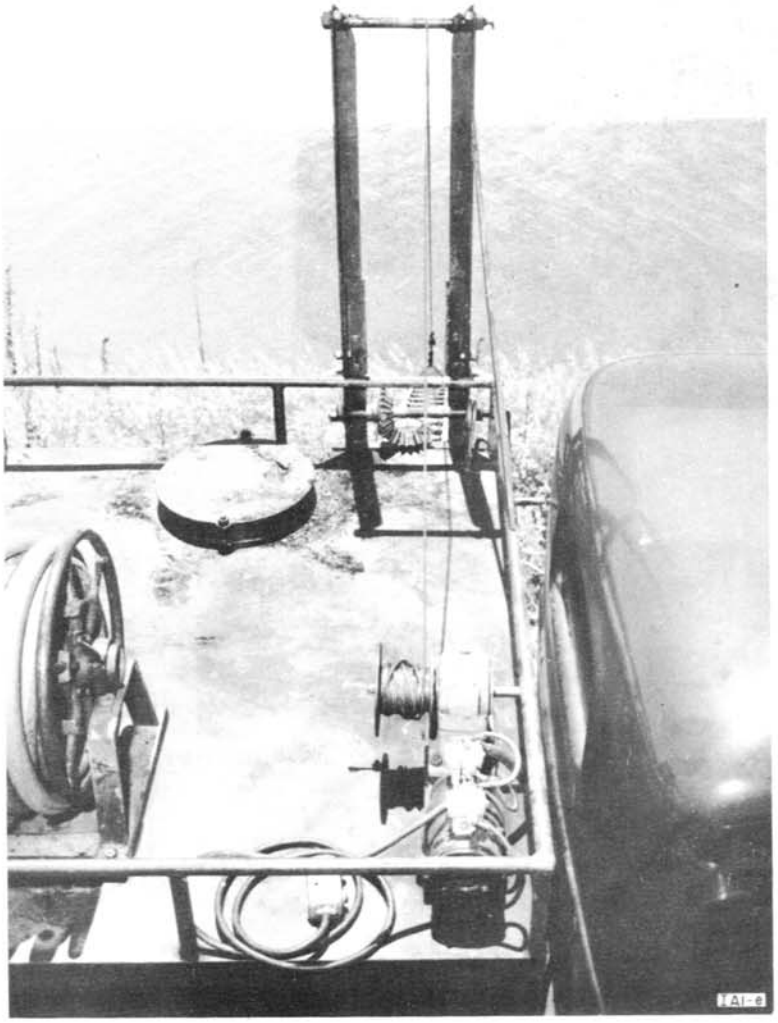
The 24-foot long boom, the detail of which is shown in Photograph "d," is constructed of "alprodeo" aluminum antenna-tower sections and weighs only 2 pounds per foot. The strong, light-weight boom is surprisingly rigid and is constructed in 6-foot sections which permits extending the length if required.


IA1-c

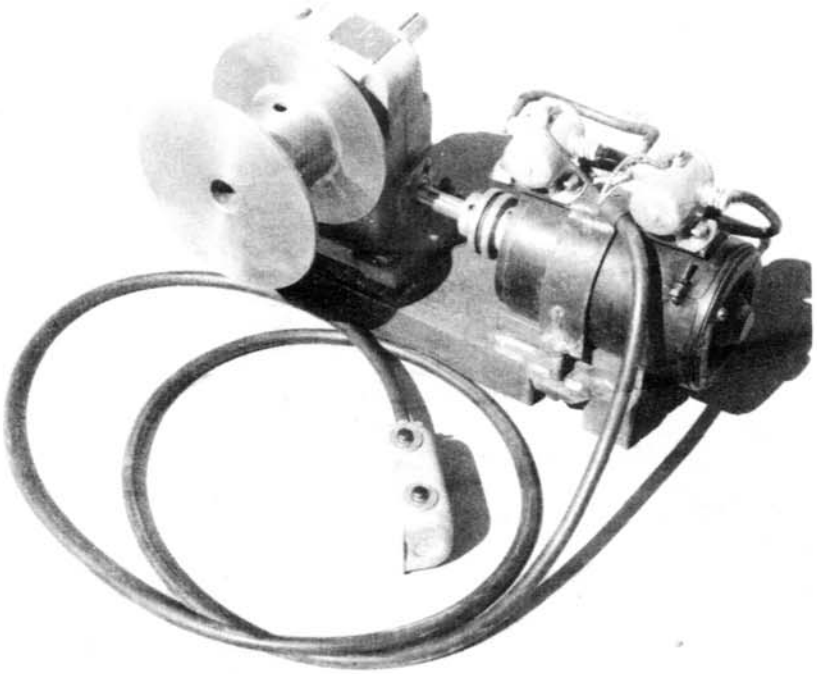

IA1-d

Thin-wall, 1-1/8-inch outside diameter steel tubing is used in preference to 3/4-inch pipe. Eyelet nozzles (Teejet No. 3/4 PT, Spraying Systems Company, Bellwood, Illinois) are attached to the tubing by drilling one 7/32-inch hole for each nozzle. A 3/4-inch pipe nipple is welded to each end of the steel tubing to provide threads for connecting to the pump discharge line or for adding another length to the boom. The tubing is attached to the boom by a number of clamps.

Length of the boom may be increased by adding additional sections, but it also is possible to attain wider spray coverage by using a special nozzle on end of the boom, i.e., Boomjet 3/4-inch TOC No. 40, Spraying Systems Company, Bellwood, Illinois, or a Hanson Brodjet, Hanson Chemical Equipment Company, Beloit, Wisconsin. With either of these nozzles an additional 10 to 15 feet of coverage is secured.

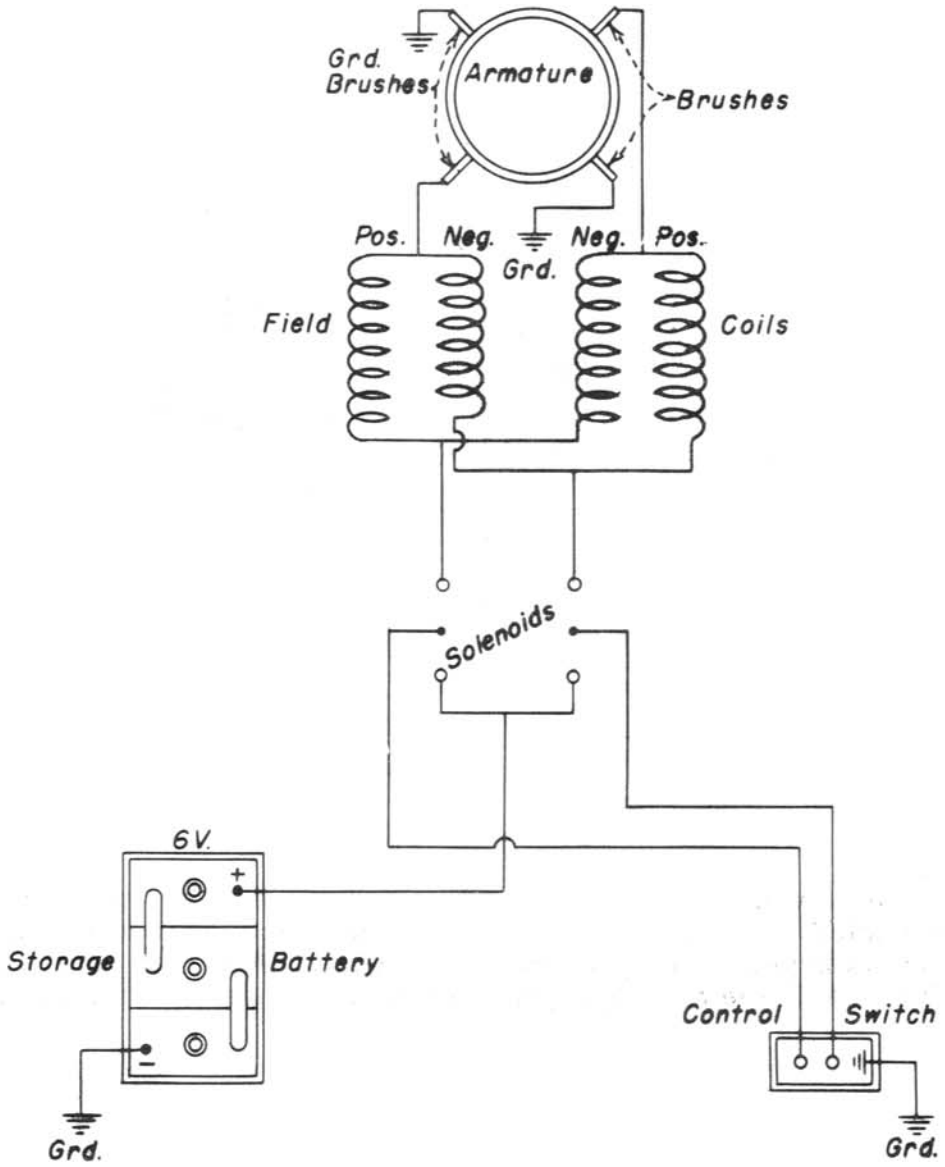


The boom is elevated by a cable which passes over a wide roller-type pulley to the electric hoist which is mounted upon the reservoir tank. The controls to the electric hoist are not stationary and may be moved, which permits operation of the boom by either the truck driver or by a man riding upon the rear platform. The 6-volt electric hoist is energized from the truck battery through the cable which barely is visible where it connects to the solenoid, Photograph "e".



IA1-f

The hoist consists of a Ford starter motor converted to a reversible motor and connected to a commercial 60 to 1 heavy-duty gear-reduction box. The cable drum is keyed to the gear reduction shaft. A wiring diagram of the motor is included with the accompanying design drawings for this weed sprayer.



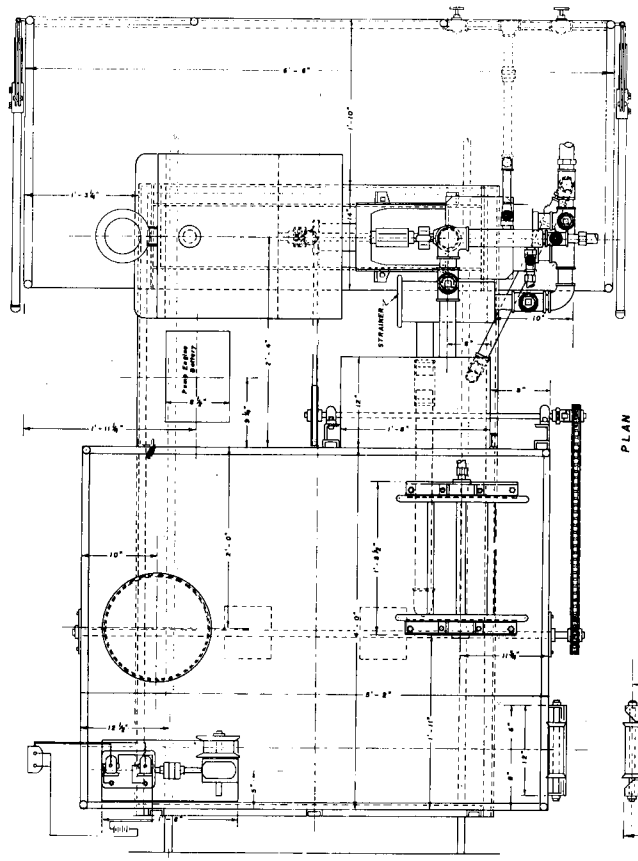
SEMI-SCHEMATIC WIRING DIAGRAM

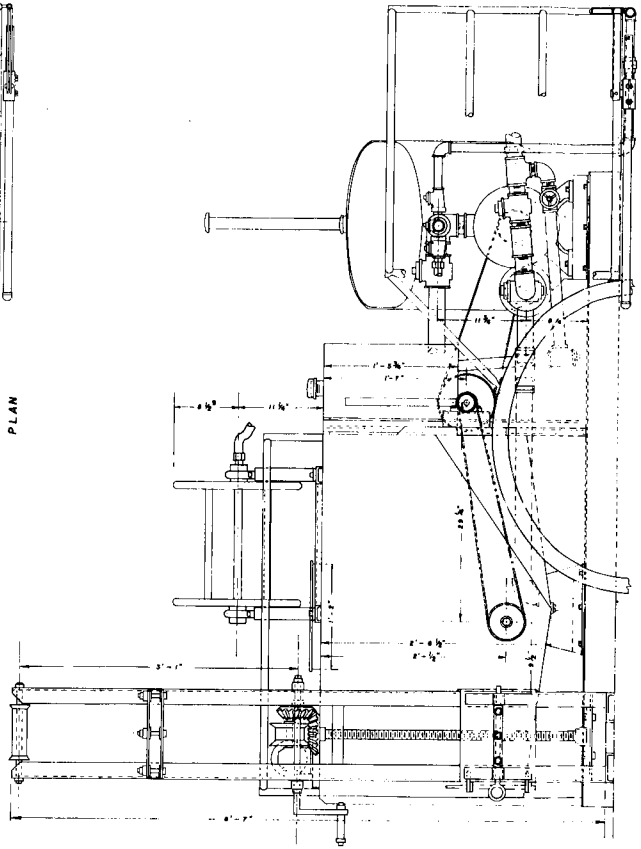
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

REVERSIBLE 6V. STARTER MOTOR

DRAWN M.H.W. SUBMITTED
TRACED RECOMMENDED
CHECKED APPROVED

STOCKTON, CALIF - 10-7-52 | X-205-200

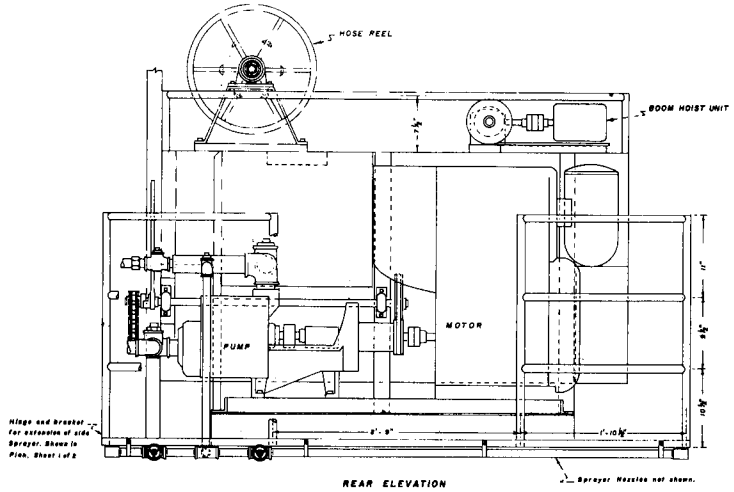




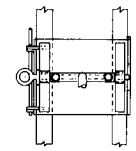
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

DODGE POWER WAGON
WEED SPRAYER

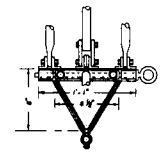
DRAWN ..... SUBMITTED .....
TRACED ..... RECOMMENDED .....
CHECKED ..... APPROVED .....
STOCKTON, CALIF. JUNE 18, 1937 | X-205-185
SHEET 1 OF 2



REAR ELEVATION

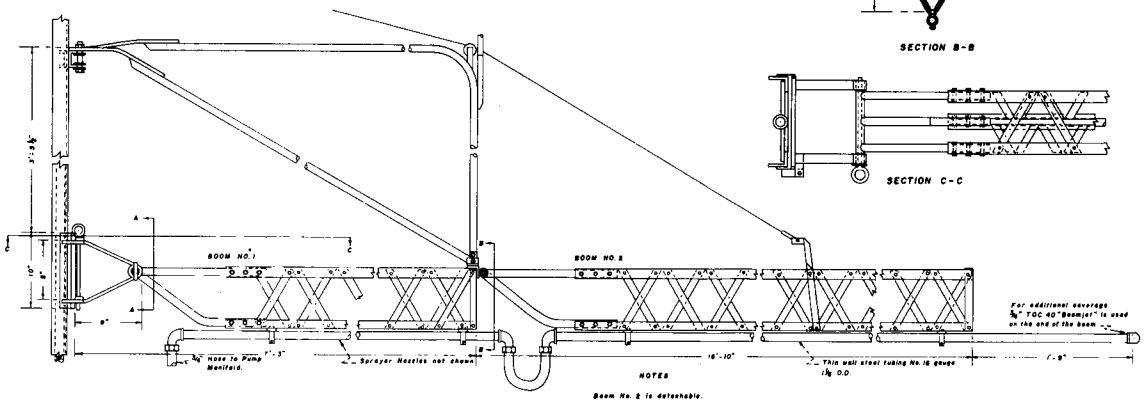


SECTION A-A



SECTION B-B

SECTION C-C



BOOM

NOTES

Boom No. 2 is detachable.
Can be attach in place of Boom No. 1 when desired.
¾" Nipple is fitted and silver soldered at end of tubing.

LIST OF MATERIALS
(Special items)

ENGINE — Wisconsin air cooled self starter, VF4 or VE4.

PUMP — Jacuzzi Pump NO. S.87TZ4.,
Jacuzzi Bros. Inc., Richmond, Calif.
¾" Valves on Manifold are Rockwood, R-2, Bronze Ball Cut-Off Type.
2" All Brass Cut-Off Valves.
Flexible Coupling for connecting Pump to Engine is a Baldwin Rex NO. 2-16 Std.

AGITATOR — Agitator Throw-Out Clutch to be made in own Shop or a suitable one available at a Bearing Supply Dealer.
Bearing for Agitator Jack Shaft is Self-Aligning Ball Bearing Pillow Blocks.
Agitator Drive Sprockets — No. 40B 13 Tooth and No. 40B 20 Tooth.
Chain — No. 40 Roller.
Agitator Shaft Packing — Boot Type.

HOSE REEL — OMECO 2380A Model 17-915-2, "Collapsible" Wet Hose Reel.
Oil Marketing Equipment Co. 325 Fremont, San Francisco or Delta Rubber Co Stockton.

BOOM HOIST UNIT — Ford Starter made reversible attached by Flexible Coupling to Ohio Gear Reducer model H 10 50 to 1 ratio.

BOOM — "ALPRODCO" Tempered aluminum Tower, Manufactured by ALPRODCO INC., Mineral Wells, Texas. It can be found at any wholesale Radio Supply.
Boom Base Adjuster — Acme standard threads.

NOZZLES — "Teejet" eyelet nozzles No. ¾ PT.
Boomjet nozzle No. ¾ TOC 40.
Spraying System Co., Bellwood, Illinois.

SCALE OF FEET

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

DODGE POWER WAGON
WEED SPRAYER

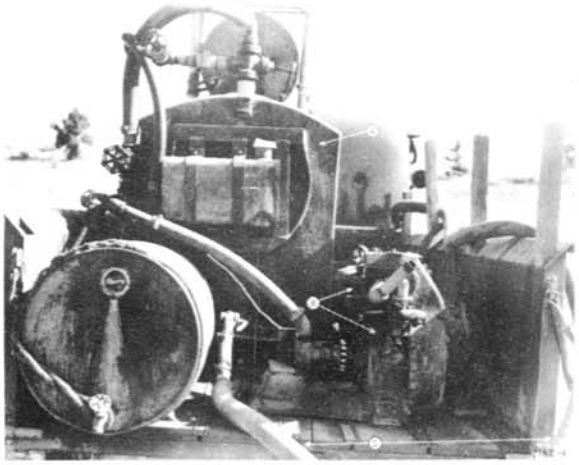
DRAWN NPR SUBMITTED
TRACED NPR RECOMMENDED
CHECKED APPROVED
STOCKTON, CALIF. JUNE 18, 1952 SHEET 2 OF 2 X-205-186

TRUCK-MOUNTED WEED SPRAYER

This "shop-built" highly adjustable and adaptable weed sprayer is so constructed that the entire unit is operated by the truck driver. The spray boom is mounted upon the front bumper of an all-wheel drive vehicle which permits the operator to observe the spraying operations. The spray boom was designed and constructed for use on the Deschutes Project, Bend, Oregon. An article, "The Deschutes Weedmobile," was featured in the January 1952, issue of Reclamation Era.

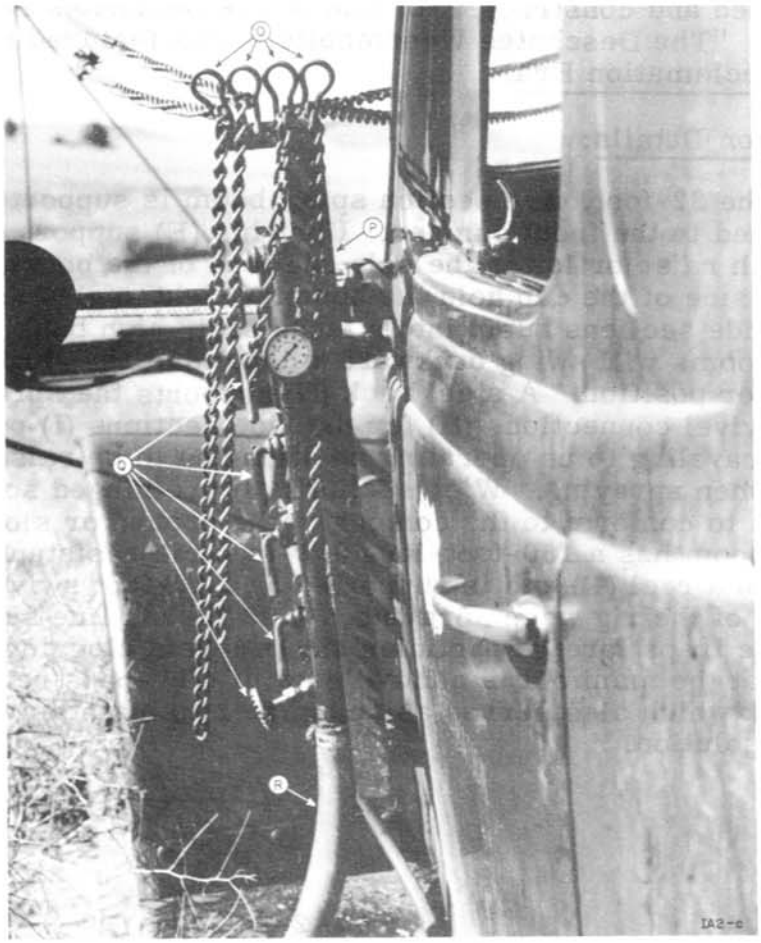
Construction Details:

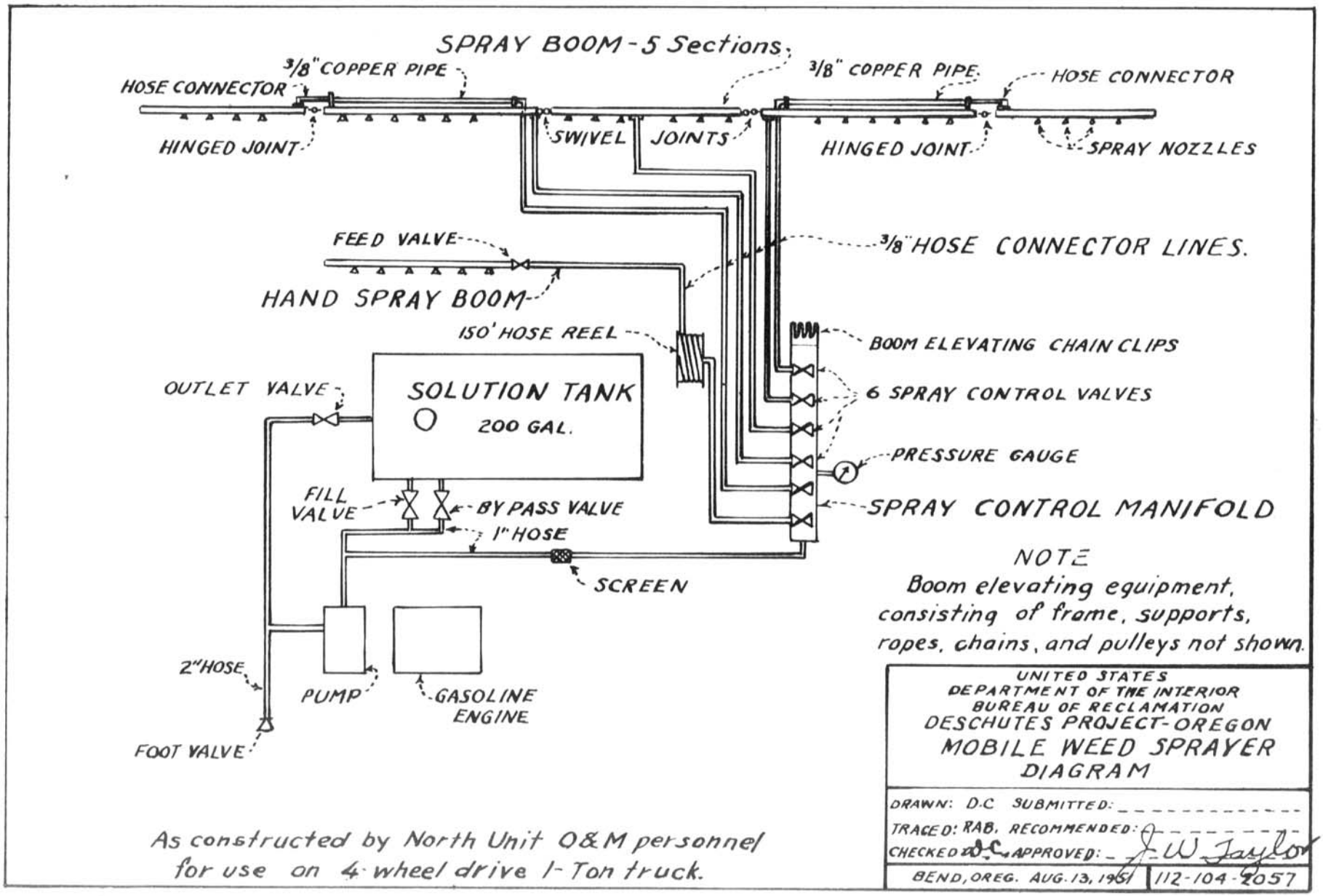
The 32-foot, five section spray boom is supported by a steel frame (D), attached to the front bumper. Uprights (E) support the pulleys for the ropes which raise or lower the side sections of the boom. Guy ropes (F) from each side of the cab hold the boom at right angles to the truck so that when the side sections bump into a fence post, high bank, or other obstruction, the booms will swing backward without damage, and then return to their former position. A steel rack (G) supports the spray boom when not in use. Swivel connections (H) for the side sections (I) permit them to swing from the traveling to an operating position and to be raised or lowered as required when spraying. Wing sections (J) are hinged so they can be tipped up or down to conform to the contour of the ground or slope of the ditchbank. The hand boom has a 150-foot-long 3/8-inch oil-resistant hose line (K) which is wound on a reel (L) and is supported by a 10-foot swivel mast (M), to keep hose clear of the rig when spraying. A 50-mesh, line screen (N) in the main supply hose traps foreign particles and prevents clogging of spray nozzles. Pressure at the manifold is controlled with a by-pass return hose to the reservoir tank which also serves as an agitator to maintain constant mixing of the spray solution.



The four ropes which raise and lower each section of the boom are attached to short lengths of chains to allow quick adjustment by means of metal clips (O) which hold the chain links firmly in place. The clips are supported by a metal frame (P) mounted on the cab. To control the spray solution to each section of the boom (including the hand gun) valves (Q) are mounted in a manifold and are connected by 3/8-inch hose lines to each boom section. A 1-inch hose (R) is the main supply line from the pump to the manifold.

Just behind the cab, Photograph "c," is a 200-gallon tank for the spray solution (A). The 25 gallons per minute pump and air-cooled engine are at lower right (B). The 2-inch diameter suction hose (C), for quickly refilling the spray tank with water from a ditch is fitted with two valves, and the pump either fills the reservoir tank or discharges herbicide into the spray-boom feed line. To the extreme left, with spigot over the tail gate of the truck, is a 50-gallon drum of concentrated chemical.




SPRAY BOOM - 5 Sections
3/8" COPPER PIPE
HOSE CONNECTOR
HINGED JOINT
SWIVEL JOINTS
3/8" COPPER PIPE
HOSE CONNECTOR
HINGED JOINT
SPRAY NOZZLES
FEED VALVE
HAND SPRAY BOOM
3/8" HOSE CONNECTOR LINES.
150' HOSE REEL
BOOM ELEVATING CHAIN CLIPS
OUTLET VALVE
SOLUTION TANK
200 GAL.
6 SPRAY CONTROL VALVES
PRESSURE GAUGE
FILL VALVE
BY PASS VALVE
1" HOSE
SPRAY CONTROL MANIFOLD
SCREEN
2" HOSE
PUMP
GASOLINE ENGINE
FOOT VALVE
NOTE
Boom elevating equipment, consisting of frame, supports, ropes, chains, and pulleys not shown.
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
DESCHUTES PROJECT-OREGON
MOBILE WEED SPRAYER
DIAGRAM
DRAWN: D.C SUBMITTED:
TRACED: RAB. RECOMMENDED:
CHECKED: D.C. APPROVED: J. W. Taylor
BEND, OREG. AUG. 13, 1951
112-104-2057
As constructed by North Unit O&M personnel for use on 4-wheel drive 1-Ton truck.

HYDRAULIC SPRAY BOOM

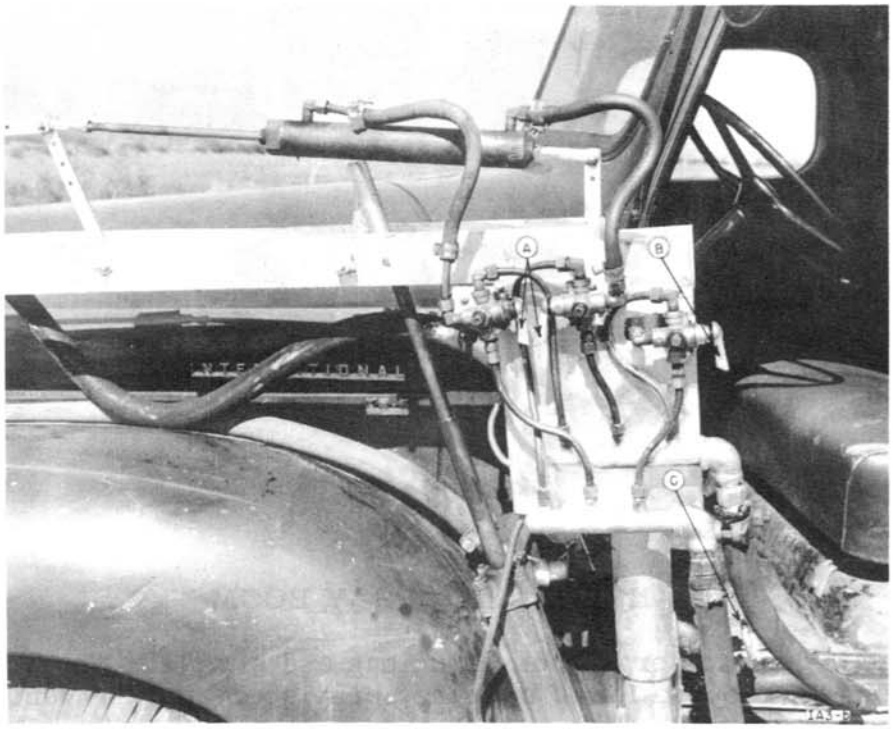
The hydraulic spray boom is unique and simple in construction. It allows for one-man operation of both the spray boom and the vehicle. The operator has full control of the spray boom at all times as the control panel is located within easy reach of the driver's seat and, when operating, the spraying nozzles are visible. Operation of the boom and spray bar is accomplished by pressure developed by the spray unit. That is the hydraulic system of the equipment is merged with the spraying system thereby eliminating the necessity of two independent pressure units. Pressure is developed with any liquid or chemical solution, but use of corrosive herbicides is not recommended.

This hydraulic spray boom was designed and constructed by personnel on the Tucumcari Project, Tucumcari, New Mexico.

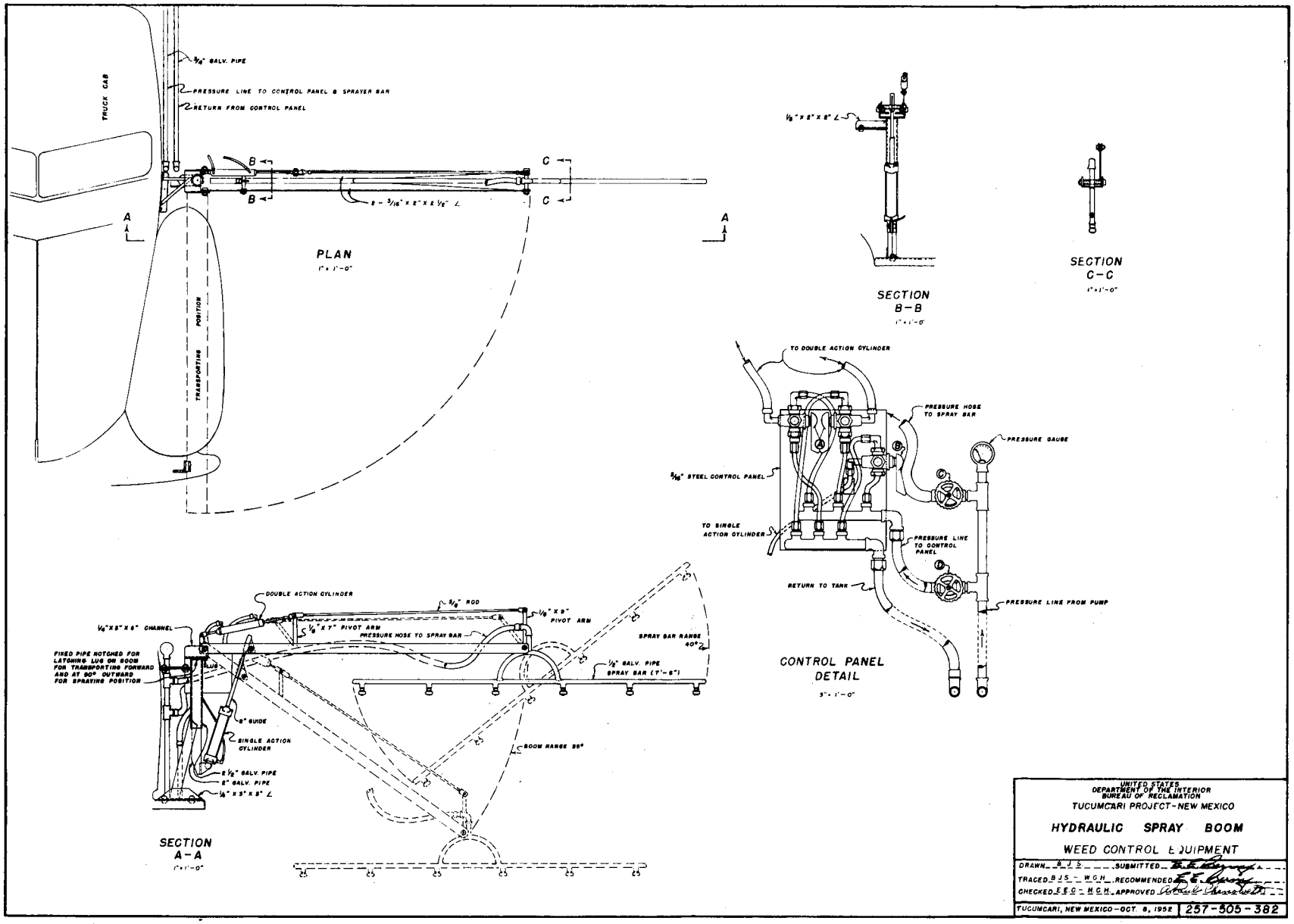
Construction Details:

The spray pump (Iron Age by A. B. Farquhar Company, York, Pennsylvania) develops a pressure of 800 pounds per square inch. This pressure is adequate to operate the hydraulic cylinders at the same time fluid is being discharged through the spray nozzles. The nozzles (Teejets 8006, Spraying Systems Company, Bellwood, Illinois) are spaced 17 inches on center along the spray bar. Using these nozzles the sprayer will apply from 10 to 200 gallons of fluid per mile depending upon rate of travel and operating pressure.

The operator controls the boom and spray bar by manipulation of the valves on the control panel. The boom and spray bar can be adjusted to either a horizontal or below horizontal position which permits spraying regardless of ground contour or slope of the ditch bank or levee.

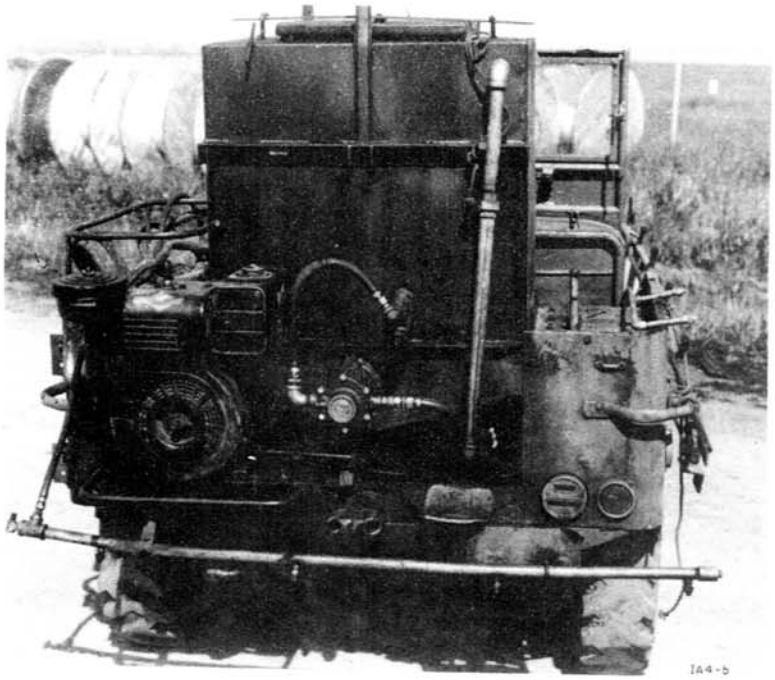


A double action hydraulic cylinder activates the spray bar and is controlled by valve "A." By placing the control handle in "up" position, the spray bar is raised. Valve "B" operates the single-action hydraulic cylinder. When the control handle is at "up" position the spray boom is raised and with the control handle in opposite position, pressure on the cylinder is relieved and the release of fluid from the cylinder allows the boom and spray bar to lower. A regulatory valve in the line can be provided so that fall of the boom and spray bar can be controlled without any snap. Valve "C" controls the pressure and amount of spray that is delivered to the spray bar. Valve "D," which is not visible, regulates pressure to the control panel.


TRUCK CAB
3/4" GALV. PIPE
PRESSURE LINE TO CONTROL PANEL & SPRAYER BAR
RETURN FROM CONTROL PANEL
TRANSPORTING POSITION
2 - 5/16" X 2" X 2 1/2" ∠
PLAN
1" = 1'-0"
1/4" X 2" X 2" ∠
SECTION B-B
1" = 1'-0"
SECTION C-C
1" = 1'-0"
TO DOUBLE ACTION CYLINDER
PRESSURE HOSE TO SPRAY BAR
PRESSURE GAUGE
5/16" STEEL CONTROL PANEL
TO SINGLE ACTION CYLINDER
PRESSURE LINE TO CONTROL PANEL
RETURN TO TANK
PRESSURE LINE FROM PUMP
CONTROL PANEL DETAIL
3" = 1'-0"
DOUBLE ACTION CYLINDER
5/8" ROD
1/8" X 9" PIVOT ARM
1/4" X 8" X 8" CHANNEL
5 1/4" X 7" PIVOT ARM
PRESSURE HOSE TO SPRAY BAR
SPRAY BAR RANGE 40°
FIXED PIPE NOTCHED FOR LATCHING LUG ON BOOM FOR TRANSPORTING FORWARD AND AT 90° OUTWARD FOR SPRAYING POSITION
LUG
1 1/2" GALV. PIPE SPRAY BAR (7'-6")
8" GUIDE
SINGLE ACTION CYLINDER
BOOM RANGE 55°
2 1/2" GALV. PIPE
2" GALV. PIPE
1/4" X 3" X 3" ∠
SECTION A-A
1" = 1'-0"
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
TUCUMCARI PROJECT-NEW MEXICO
HYDRAULIC SPRAY BOOM
WEED CONTROL EQUIPMENT
DRAWN B.J.S. SUBMITTED
TRACED B.J.S. - W.G.H. RECOMMENDED
CHECKED E.E.G. - M.G.H. APPROVED
TUCUMCARI, NEW MEXICO - OCT. 8, 1952
257-505-382

JEEP-MOUNTED SPRAYER

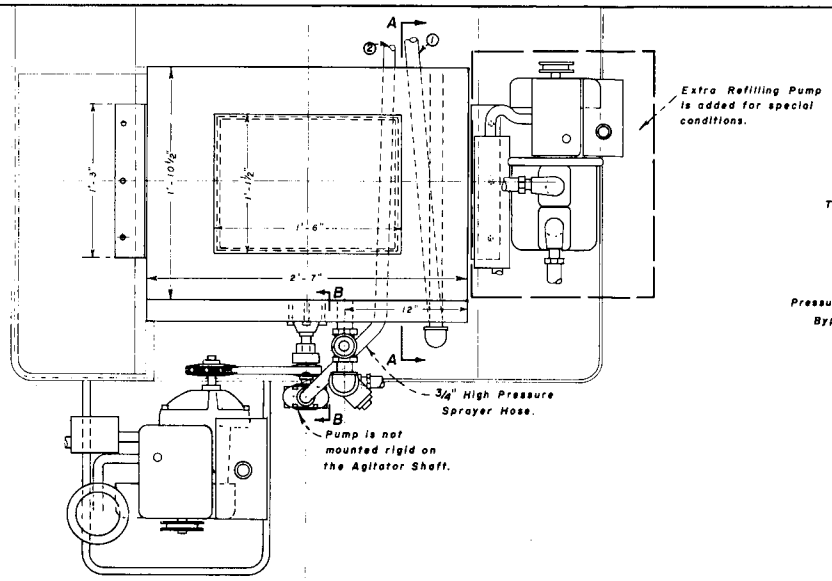
A one-man operated sprayer which is useful especially for applying herbicides to narrow ditchbanks and on areas inaccessible to larger equipment has been built and used successfully for the past several years on the Bureau of Reclamation Delta District, Stockton, California.



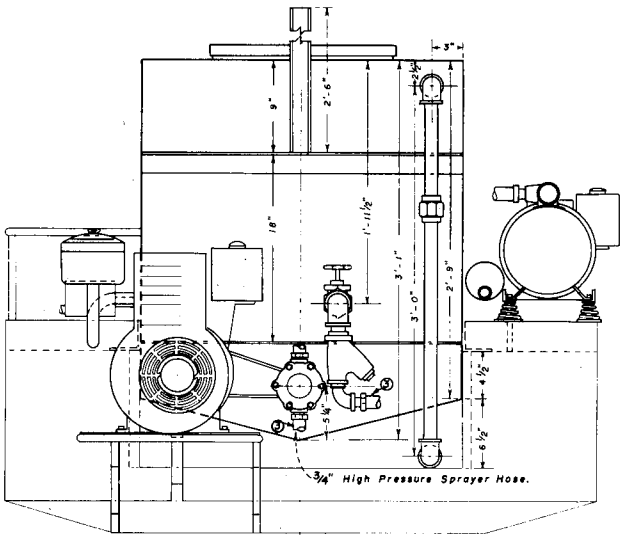
Construction Details:

The skid-mounted sprayer as shown in Photo "b" is designed for use on either a jeep or a small-flat rack truck. When so mounted the unit particularly is useful for spraying narrow ditchbanks or isolated patches of noxious weeds. Controls for the two outlets, the by-pass regulator valve, and pressure gauge all are located near the driver's seat. Two outlets, one to the side and rear booms, and one to the spray gun have been provided. The spray gun can be used from the vehicle or with the long hose the operator can spray areas near structures or in isolated locations. A railing around the jeep bed makes a place to carry chemicals and miscellaneous supplies.

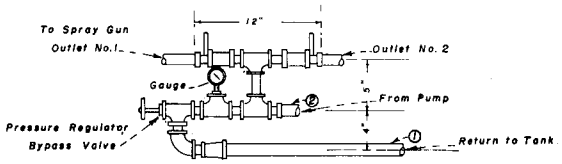
The pump (Hypro Ball Bearing Tractor Pump, Model 750, Hypro Engineering Company, 404-10 Washington Avenue, Minneapolis 1, Minnesota) is chain driven by a 3 to 5 horsepower gasoline engine with a 6 to 1 gear reduction. The self-priming pump has an output capacity of only 12-gallons per minute so, to attain maximum time efficiency, an auxiliary refilling pump and engine combination has been installed on right side of the vehicle. The fan-type agitator in the 100-gallon tank is connected directly to the pump drive shaft. (Perhaps a more desirable power hookup would be to use an engine with a gear reductions drive connected to the pump, and then drive the agitator by a belt. With step pulleys this would make several speeds possible and would permit disconnection of the agitator when mixing of ingredients in reservoir tank is not required.)



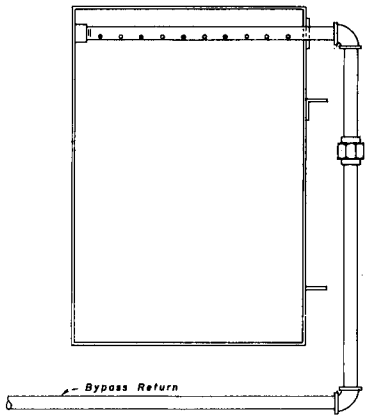
PLAN



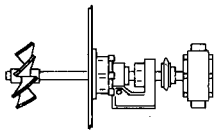
REAR ELEVATION



CONTROLS



SECTION A-A



SECTION B-B

BILL OF MATERIALS

Engine:
Briggs & Stratton 3 1/2 to 5 H.P.
With 6 to 1 Gear Reduction.

Pumps:
Hypro Tractor Pump Model No. 750
Hypro Engineering, Inc.
404 Washington Ave., Minneapolis, Minn.

Extra Refilling Pump:
Homelite Model 20S1 1/2
Homelite Corp., San Francisco, Calif.

Control Valves:
Quick opening Lunkenheimer Handy Bronze Gate Valve No. 430 or 431.

Hose:
All Hose and Hose connections are high pressure Oil Resistant.

Chain Drive — No. RC50

Sprockets — Nos. 50B17 & 50B25

NOTE:

Numbers inside circle denotes their corresponding connections.

SCALE: 2" = 1'-0"

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

ARMY JEEP SPRAYER

DRAWN LPA SUBMITTED
TRACED LPA RECOMMENDED
CHECKED APPROVED

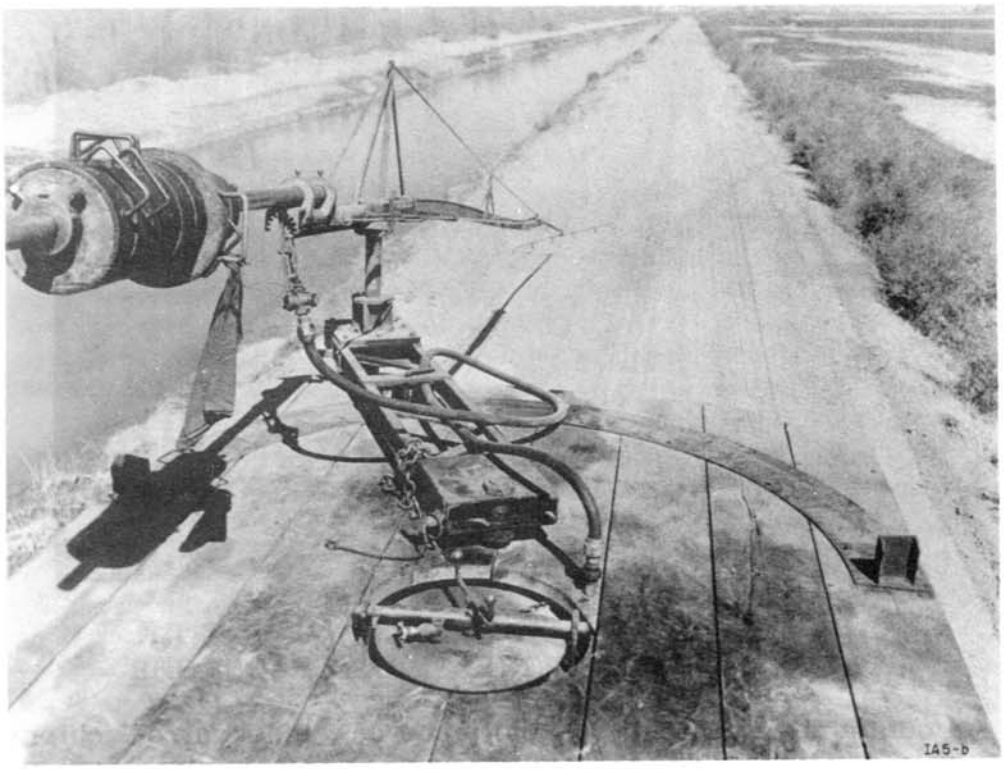
STOCKTON, CALIF. NOV. 4, 1952 | X-205-206

TRUCK-MOUNTED WEED SPRAYER-BURNER

An outstanding and serviceable piece of weed-control equipment which has been developed for use by personnel on the Imperial Irrigation District and other irrigation projects in the Pacific Southwest, is the truck-mounted sprayer-burner. These machines have had an interesting evolution, developing from small-sized units mounted upon pickup trucks to 1,000-gallon tank capacity machines constructed upon 2-1/2-ton trucks. This equipment originally was developed for burning weeds. Although the burning method still has a place in ditchbank weed control programs, the recent trend has been toward the use of herbicides and, therefore, many of the units have been converted into sprayers.

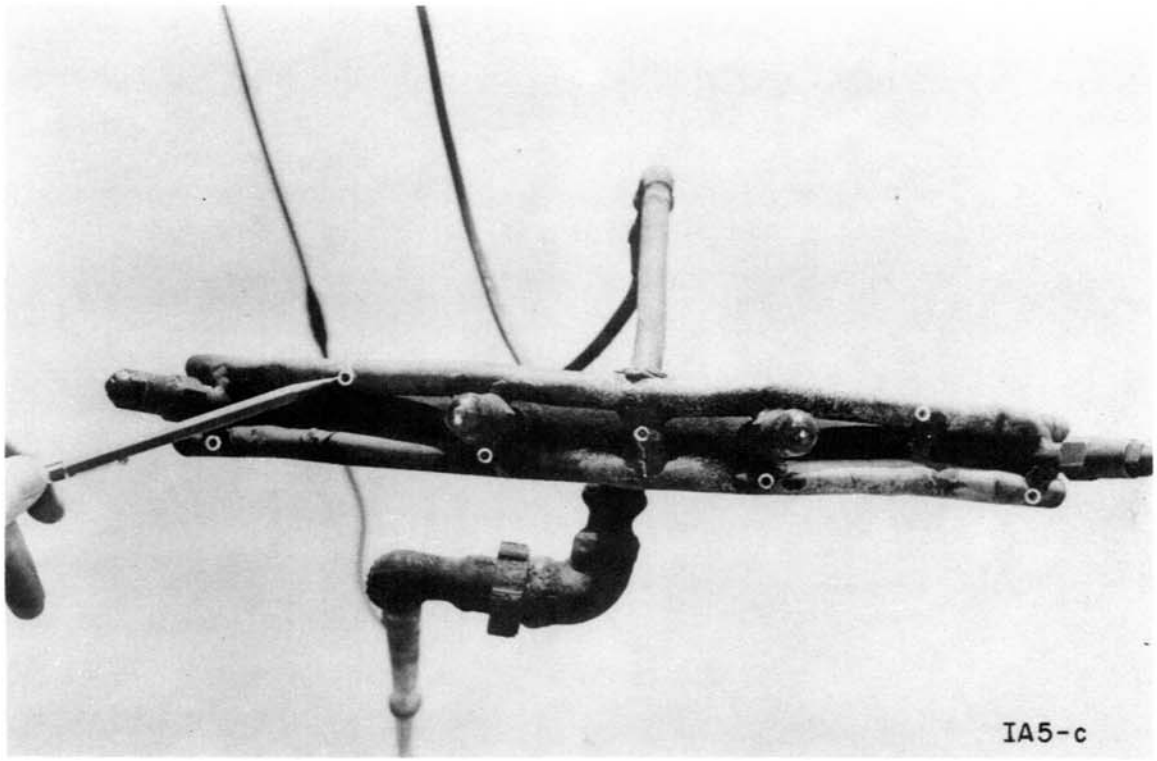
Construction Details:

The boom is the principal feature of interest concerning this rig. Although there are differences in design and construction of booms, which reflects ideas of the several builders, they basically are similar. The boom is counter-balanced for ease of manipulation, and is mounted upon a turntable which permits the operator to move the pedestal along a circular track so the boom can be used from either side or from back of the truck. Booms are usually 30 to 40 feet long which permits reaching down steep slopes to spray or to burn weed growths near the water which would be out of reach of fixed-arm booms. The boom can be moved easily up or down to any desired height above the plants. The spray nozzles are placed on a cross-arm perpendicular to the end of the boom. The number of nozzles used depends upon the width of the bank being sprayed or burned. The angle of the cross-arm is controlled by rotating the entire spray-discharge line which is not in a fixed position but which turns inside the channel or large pipe that is used for the boom.

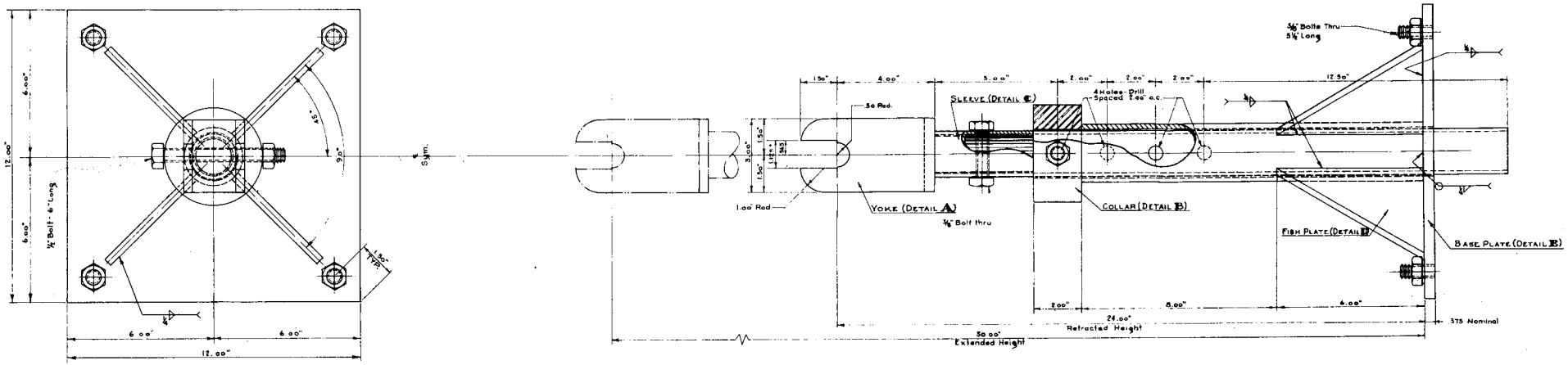


The type of pump used on a weed burner is not important provided the required discharge volume can be maintained at a pressure of 300 to 400 pounds per square inch. (Bean Royal 20 and 35 pumps or Hardie Imperial 30-gallon per minute pumps commonly are used). However, when weed burners are used to apply herbicides, the installation of a low-pressure manifold is advisable or a different pump is installed so that low-volume and low-pressure spraying can be accomplished which reduces the hazards of spray drift.

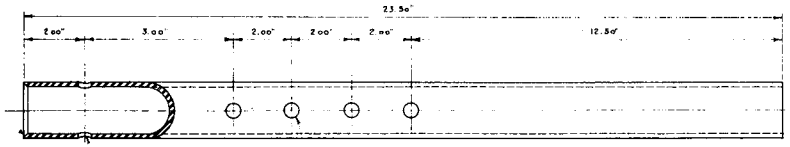
Combustion efficiency of the weed burner is not too high as indicated by the dense cloud of smoke which is so typical of the operation. Several attempts have been made to modify the burner head to increase efficiency of the unit. Personnel of the Jacinto Irrigation District, Glenn, California, have developed a burning head as shown in Photograph "c" which is claimed to increase efficiency of the operation. The head consists of one row of four 10-gallon per hour, twenty degree, nozzles (Harsh nozzles, Ray Oil Burner Company, San Francisco, California. Fuel is pumped to the nozzles at 500 pounds pressure per square inch, and a 30-cubic feet per minute compressor delivers air to the burning head through a separate steel tube which parallels the row of nozzles. Air is released through seven 1/16 inch holes, four of which are immediately below the burning jets and three above and between the jets. The compressed air acts as a booster providing additional oxygen to produce a hotter flame. It also is reported that high-grade Diesel fuel when mixed with water at the rate of two-parts oil and one-part water, is



an efficient fuel when used in a machine equipped with the above-described burning head. It is claimed that the addition of the water not only saves oil, but also makes a hotter flame.

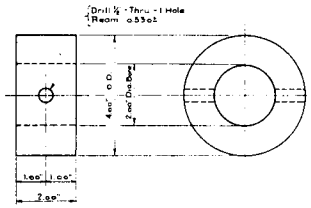


· PLAN ·



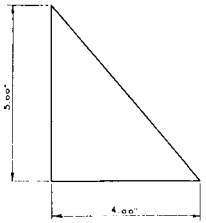
· DETAIL C ·
SLEEVE

Make from 1½" Pipe 1 Required



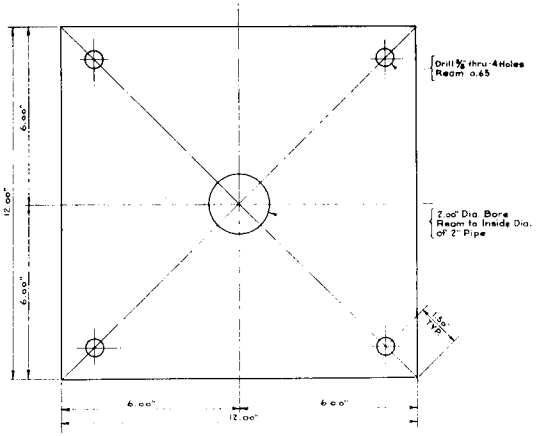
· DETAIL B ·
COLLAR

Make from 4" Bar Stock - 1 Required



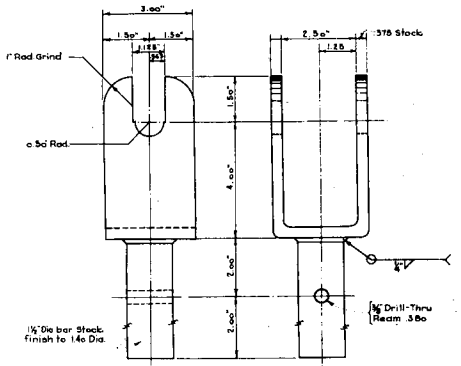
· DETAIL D ·
FISH PLATE

Make from ⅜" Steel Plate - 4 Required



· DETAIL E ·
BASE PLATE

Make from ⅜" Steel Plate - 1 Req'd.



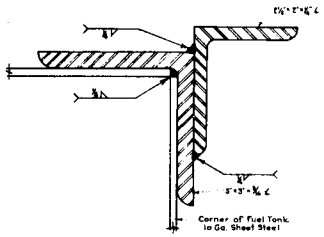
· DETAIL A ·
YOKE

Make from ⅜" Stock & 1½" ϕ Bar - 1 Req'd.

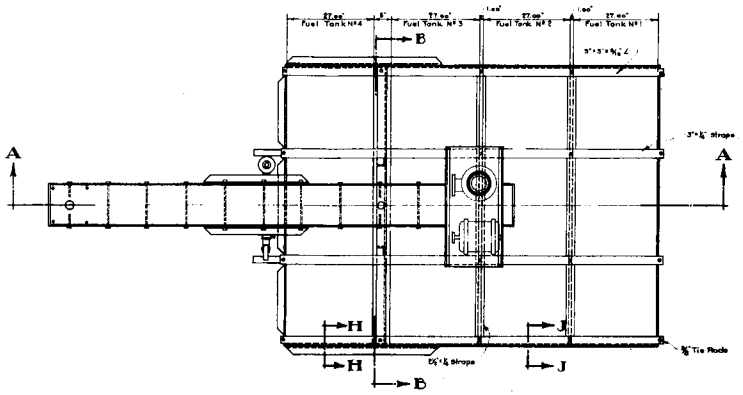
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
BOULDER CANYON PROJECT
ALL-AMERICAN CANAL SYSTEM-CALIFORNIA

6 WHEEL DRIVE - 2½ TON
TRUCK MOUNTED WEED BURNER
BOOM PEDESTAL

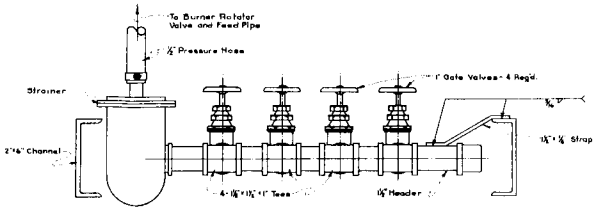
DRAWN: R.S.W.	SUBMITTED:	
TRACED: R.S.W.	RECOMMENDED:	
CHECKED: D.K.R.	APPROVED:	
13-P-1429	YUMA, ARIZONA - Jan. 20, 1947 SHEET 1 OF 3	



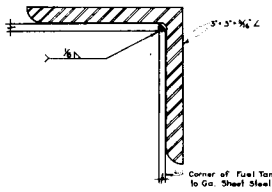
SECTION H-H



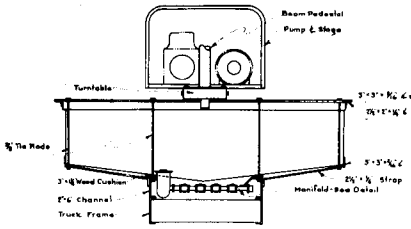
PLAN



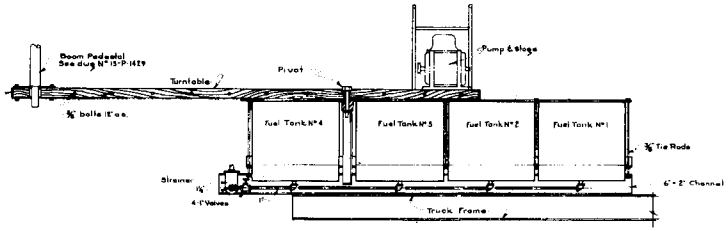
MANIFOLD DETAIL



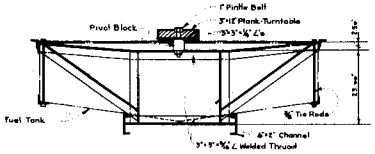
SECTION J-J



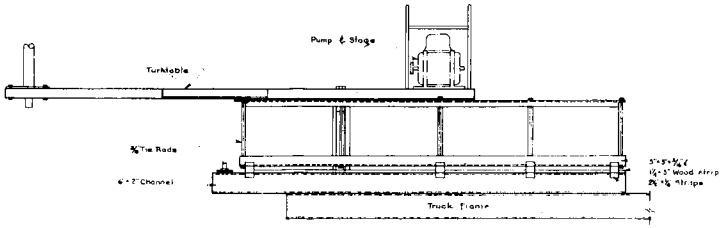
REAR ELEVATION



SECTION A-A



SECTION B-B
PIVOT BOLSTER



SIDE ELEVATION

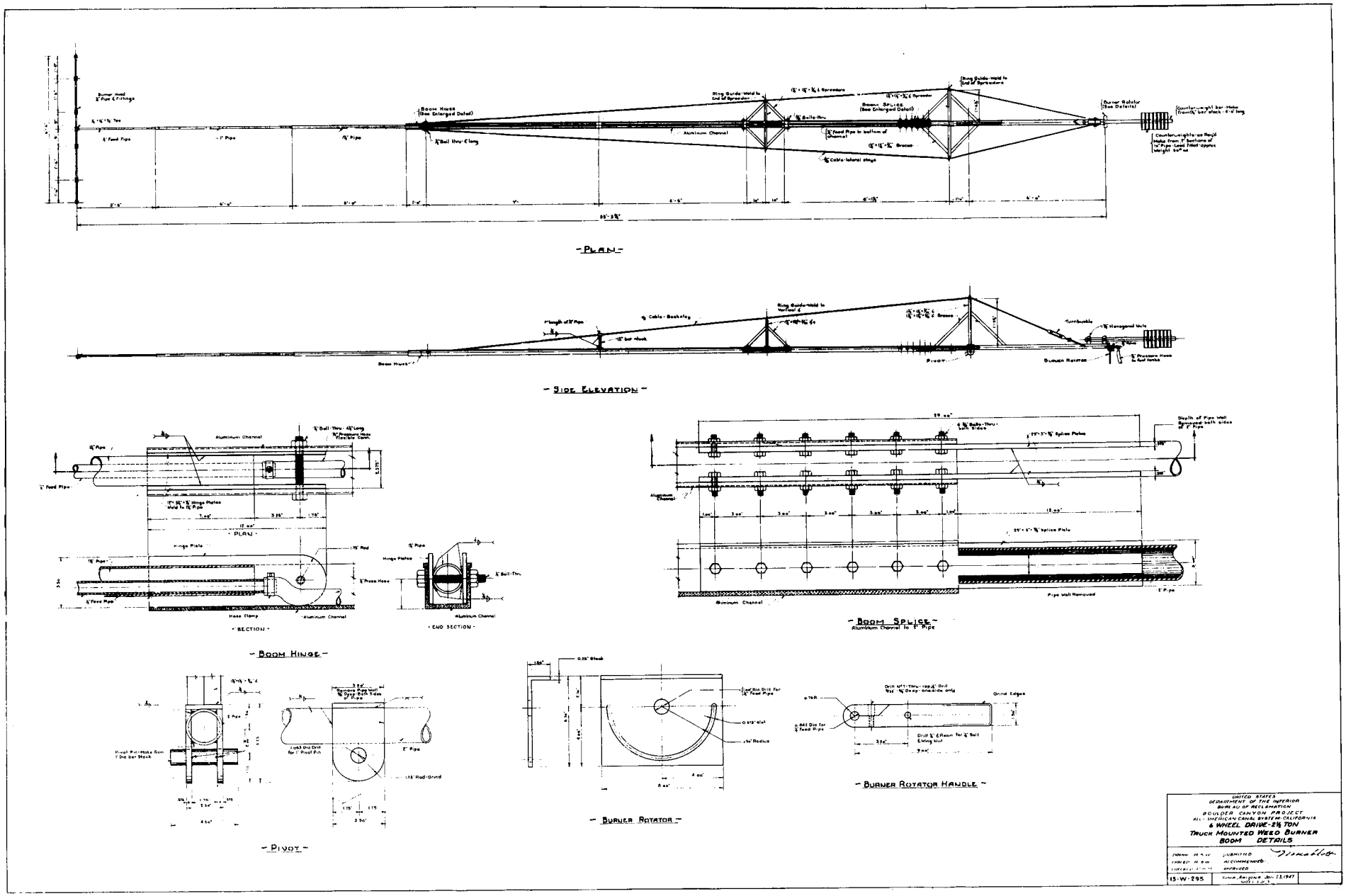
GENERAL NOTES:-

1. ..... Design based on use of standard Army, 6×6 - 2½ Ton truck and intended for quick reconversion to normal use as general cargo transport.
2. ..... Original double wheels (10-7.50×20 tires) changed to 6-11.00×18 tires for improved traction in soft desert sand. Equipment manufactured by the Budd Wheel Co. and the Motor Wheel Co., Wheels - 6 Req'd. 3⅞" dish, hub - 6 stud, 8⅝" bolt circle, 4⅝" core with 18×8.00 CU rims - Budd Part Nº 4715a - Motor Wheel Nº L-81497 - Ordnance Nº C-10067 and hub adaptors - 2 left and 2 right.
3. ..... 2"×6" Channel bed for fuel tanks to be secured to truck frame by means of U-bolts, bolted splice plates, or by welded splice plates if permanent construction is desired.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
BOULDER CANYON PROJECT
ALL-AMERICAN CANAL SYSTEM, CALIFORNIA

6 WHEEL DRIVE 2½ TON
TRUCK MOUNTED WEED BURNER
FUEL TANK & TURNTABLE ASSEMBLY

DRAWN: R.S.W.	SUBMITTED:	
TRACED: R.S.W.	RECOMMENDED:	
CHECKED: D.A.R.	APPROVED:	
13-W-296	Yuma, Arizona - Jan. 28, 1947 SHEET 2 OF 3	


-PLAN-
-SIDE ELEVATION-
-BOOM HINGE-
-BOOM SPLICE-
Aluminum Channel to 2" Pipe
-BURNER ROTATOR HANDLE-
-BURNER ROTATOR-
-PIVOT-
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
BOULDER CANYON PROJECT
ALL-AMERICAN CANAL SYSTEM, CALIFORNIA
6 WHEEL DRIVE-2½ TON
TRUCK MOUNTED WEED BURNER
BOOM DETAILS
SUBMITTED
RECOMMENDED
APPROVED
15-W-295
Yuma, Arizona Jan. 23, 1947

IA5-6