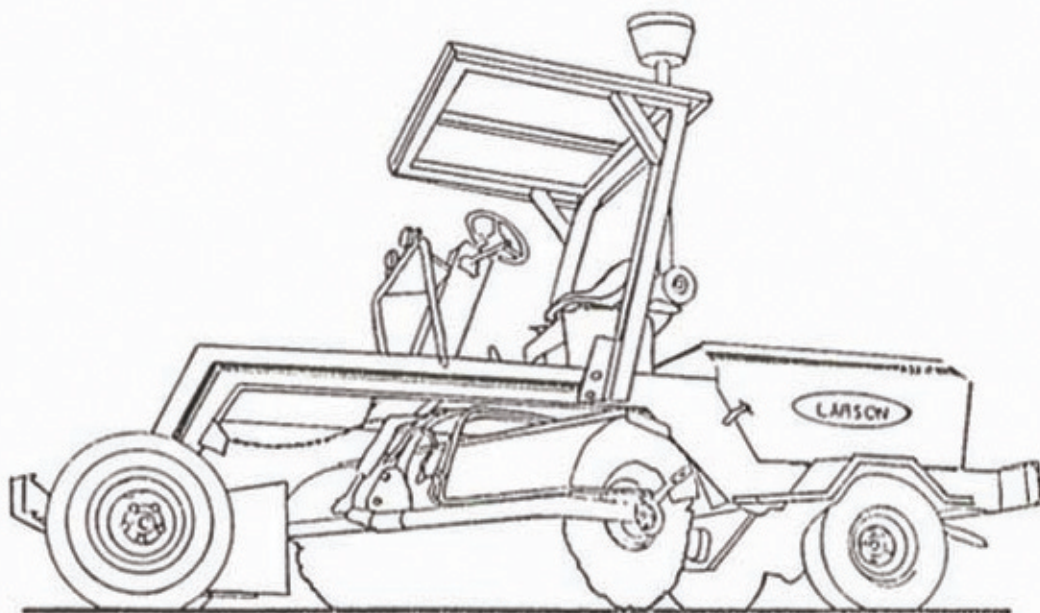


**LARSON**

# 6330 SWEEPER

SETTING THE WAY FOR SELF-PROPELLED SWEEPERS



<http://www.geffs.com>

Geffs Manufacturing, Inc.  
P.O. Box 4885  
Pocatello, Idaho 83205-4885  
208-232-1100

# W. F. LARSON

# Inc.

PHONE 806-293-1353 BOX 1967 PLAINVIEW, TEXAS 79072  
LOCATED HIWAY 194 N.W. (DIMMITT HWY.)

## Dimensions

- \* length, 192 in. (483cm)
- \* width, 92.5 in. (239.9cm)
- \* height with cab/canopy, 105 in. (267cm)
- \* height with ROPS, 84 in. (213cm)
- \* wheelbase, 132 in. (335.2cm)
- \* tread, 62 in. (132cm)
- \* turning radius, 16.5 ft. (502cm) inside

## Weight

- Machine approximately 5120 lbs. (2322kg)
- Machine with ROPS-5600 lbs. (2540kg)
- Machine with cab and sprinkler system - 6382 lbs. (2895kg)

## Chassis

All welded truck type, pressed 7" channels, 1/4" thick gussets at all stress points. Lockable engine cowling hinged to rear for access to engine, battery, radiator, hydraulics, filter, and brake chamber, ROPS canopy.

## Engine

Diesel--268 cu. in. (4440cc) 4 cylinder, standard, 85 H.P.  
Fuel Capacity--32 gal., located forward.  
Gasoline --300 cu. in. (5156cc) 6 cylinder, optional.

## Air Cleaner

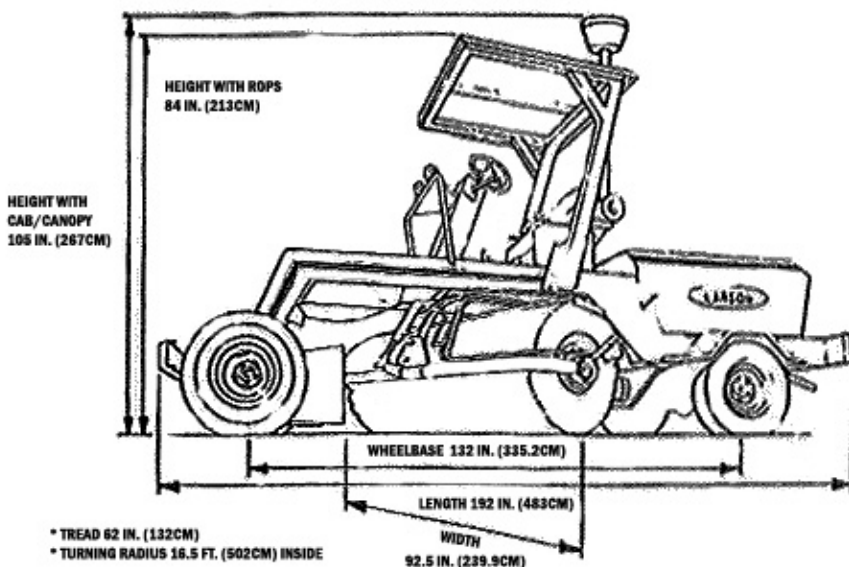
Heavy-duty dry dual element with pre-cleaner.

Heavy-duty hydrostatic, infinitely variable 0 to 32 MPH (0-37KPH), gradability --27%. Driving into heavy-duty axle.

## Hydraulic System

Live engine-driven dual gear pump, 27 gal. (113 liter) hydraulic oil reservoir; 100 mesh filter on suction side with 10 micron replaceable element on return side. Integrated circuit for broom rotation, angle, lift with full hydrostatic float, full heavy duty oil cooler.

## DIMENSIONS



## Steering

Full hydrostatic power steering.

## Brakes

4-wheel hydraulic with double master cylinder and mechanical parking brake.

## Front Axle

Full oscillating. Automotive type, with camber, caster, and toe-in.

## Tires, Wheels

H78-15; tires mounted on 5-bolt wheels.

## Instruments and Controls

Tacometer, hour meter, fuel gauges, oil pressure, ammeter, temperature indicator. Engine Throttle, hydrostatic control with Master Clutch, broom drive, left and right angling, instruments and controls, head and tail lights including Class A turn signal, flashers, and stop lights. EXCLUSIVE HYDRAULIC COUNTER BALANCE ON BROOM.

## Broom

Direct. hydraulic drive enclosed in broom core; full cover over 160 degrees of broom with end plates; full 45 degree power angling left or right; swing frame mounted on large sealed tapered bearings; standard core is water type polypropylene filled (wire or 1/2 wire and 1/2 poly available). Core assembly is steel, 8 feet long (243.8cm) with 7 ft. 6 in. (228.6cm) sweeping surface.

## Optional Equipment

- \* all steel ROPS cab with filtered air pressurizer
- \* refrigerated air conditioner
- \* canopy windshield
- \* windshield wiper
- \* rotating beacon light
- \* sprinkler system
- \* spare wheel kit
- \* all wire brush
- \* 1/2 poly - 1/2 wire brush
- \* horn
- \* heater
- \* back-up alarm
- \* spare tire

## LARSON

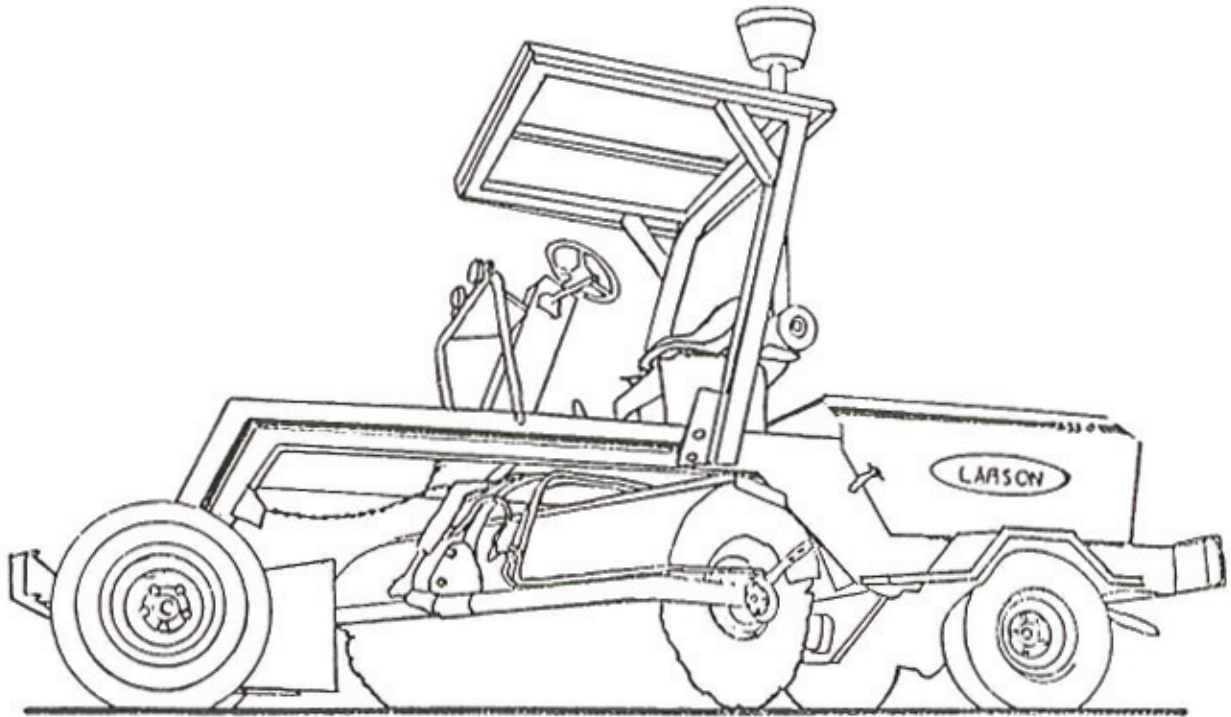
BOX 1967  
PLAINVIEW, TEXAS 79072  
PHONE (806) 293-1353

DEALER:

W. H. MANUFACTURING CO.  
P. O. Box 4845  
Pocatello, Idaho 83201  
(208) 232-3976

# 6330 LARSON SWEEPER

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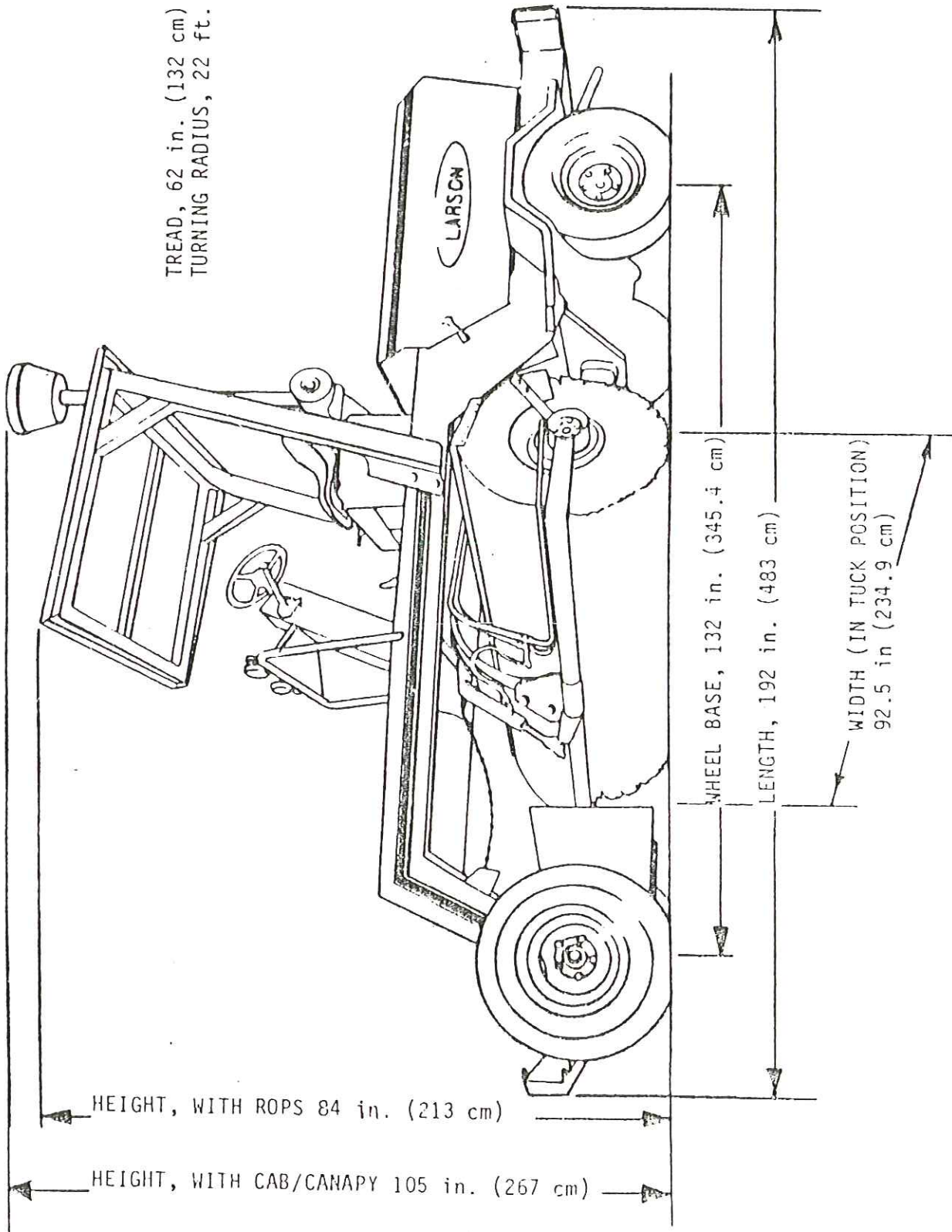


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**L.M.C. INC.**

KRESS , TEXAS

PHONE : 806 - 684 - 2234

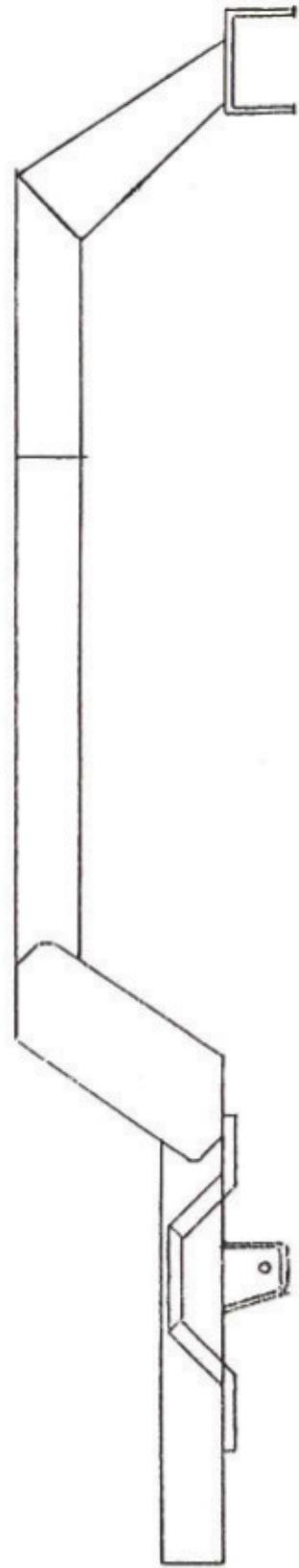
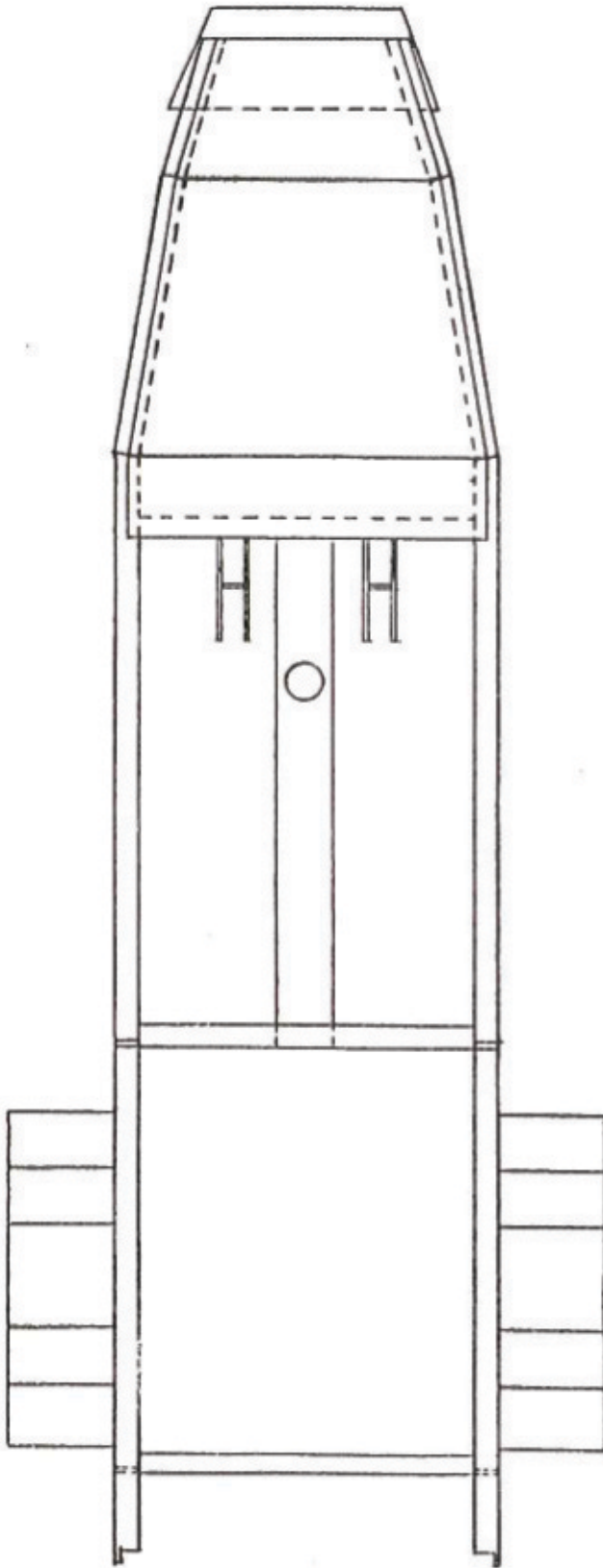


OVER-ALL DIMENSIONS

MODEL 6330 LARSON SWEEPER  
PARTS MANUAL

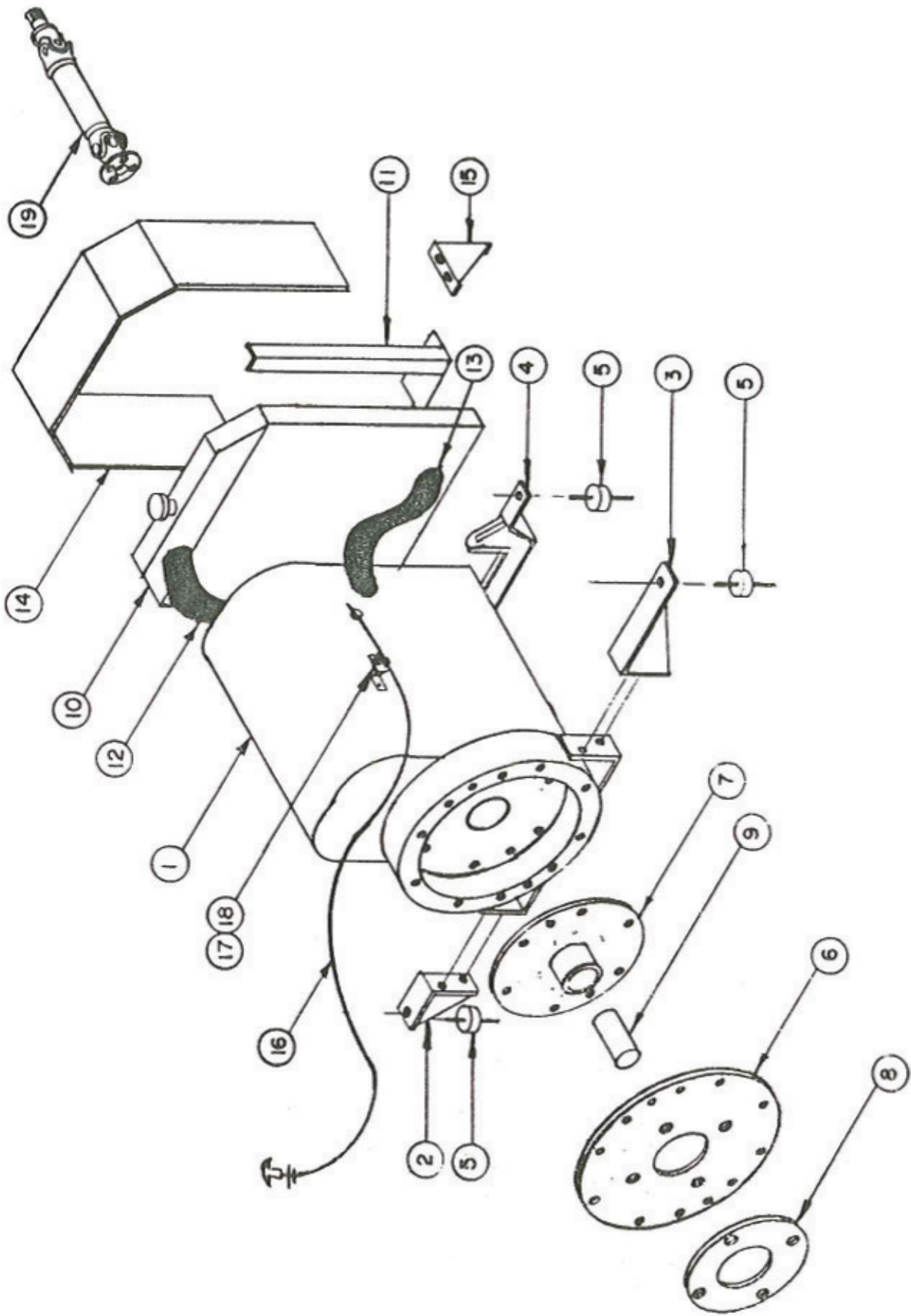
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# MAIN FRAME



## MAIN FRAME

<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1	633054	1	Main Frame

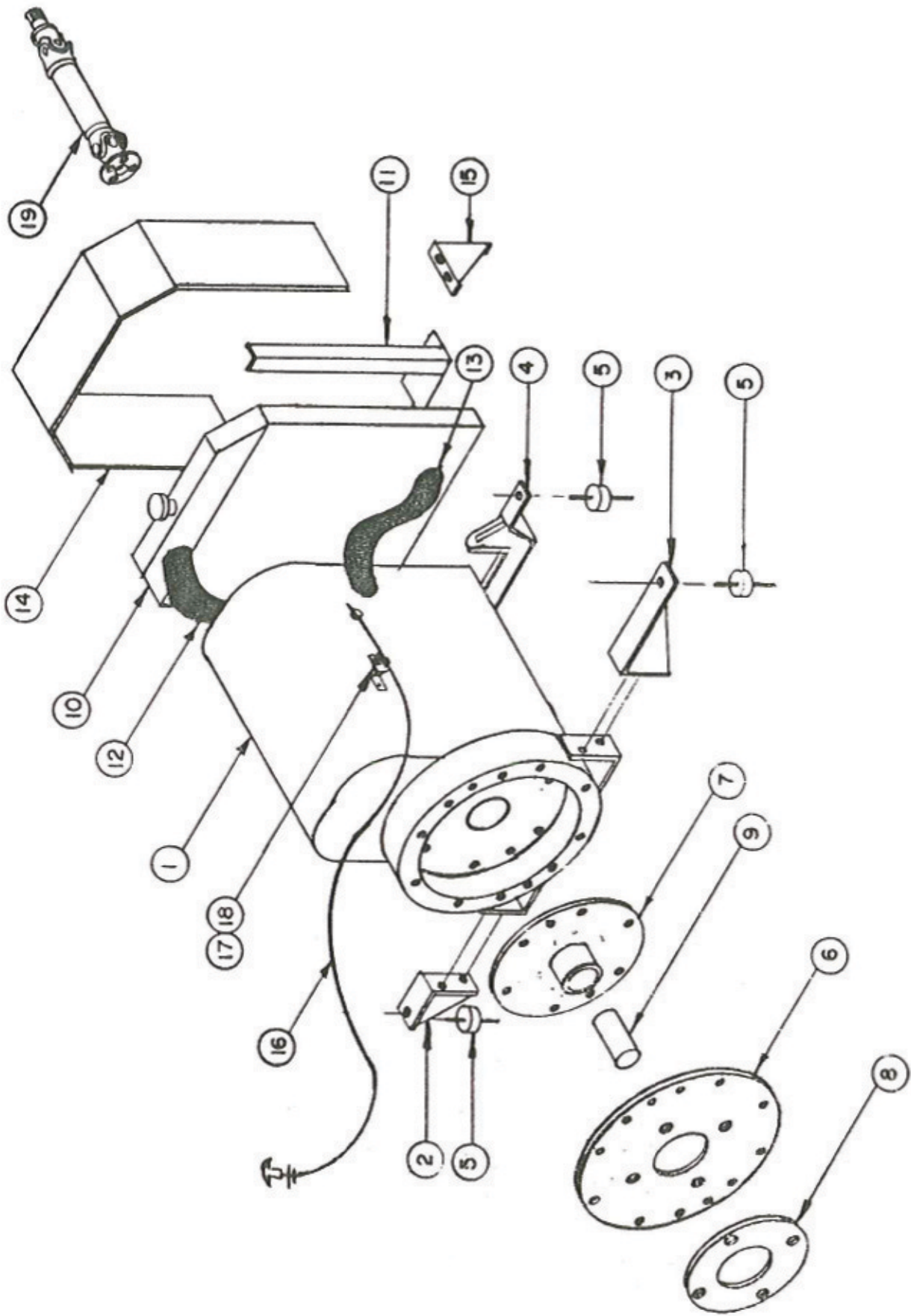


**ENGINE ASSY.**



## ENGINE ASSY.

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633041	1	Engine, Diesel
2	633068	1	Engine Mount, Front (Short)
		2	Capscrew 1/2" NC x 2"
		2	Lockwasher 1/2"
		2	Hex Nut 1/2" NC
3	633069	1	Engine Mount, Front (Long)
		2	Capscrew 1/2" NC x 2"
		2	Lockwasher 1/2"
		2	Hex Nut 1/2" NC
4	633067	1	Engine Mount, Rear
		4	Capscrew 3/4" NC x 2 3/4"
		4	Lockwasher 3/4"
5	633059	4	Engine Mount (Rubber)
6	633486	1	Engine Adapter
		12	Capscrew 3/8" NC x 1"
		12	Lockwasher 3/8"
7	633488	1	Drive Plate
		8	Capscrew 3/8" NC x 1"
		8	Lockwasher 3/8"
8	633487	1	Pump Adapter
9	633489	1	Direct Drive Shaft
10	633490	1	Radiator
11	633517	1	Radiator Mount
12	633275	1	Radiator Hose - Upper
	633277	2	Radiator Hose, Clamp
13	633276	1	Radiator Hose, Lower
	633277	2	Radiator Hose, Clamp
14	633349	1	Radiator Shroud
15	633423	2	Radiator Gusset
		6	Capscrew 5/16" NC x 1"
		6	Lockwasher 5/16"
		6	Hex Nut 5/16" NC

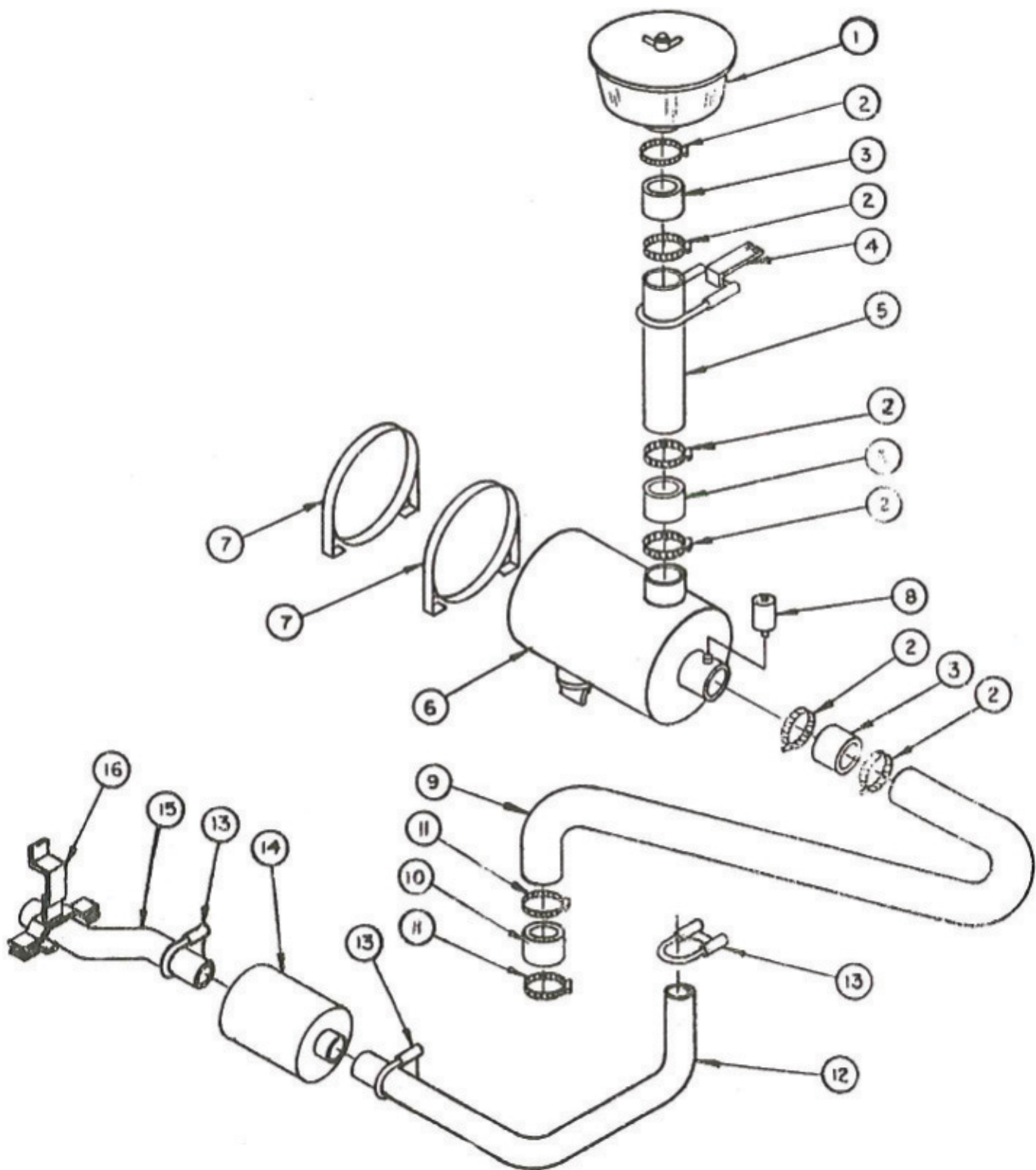


ENGINE ASSY.

## ENGINE ASSY.

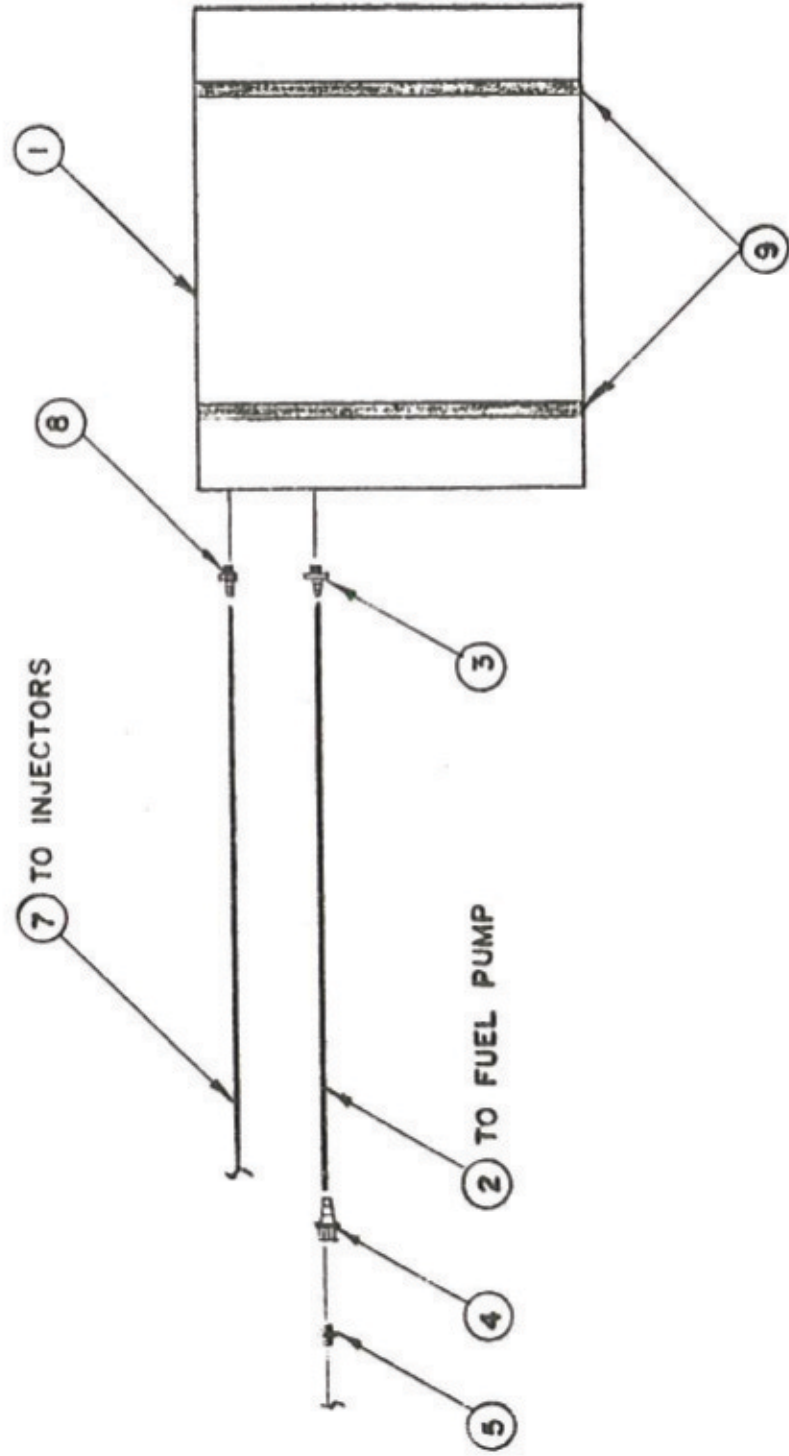
<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
16	633512	1	Kill Cable
17	633415	1	Kill Cable Mount
18	633416	1	Kill Cable Retainer
19	633199	1	Pump Drive Shaft

# AIR CLEANER AND EXHAUST GROUP



## AIR CLEANER AND EXHAUST GROUP

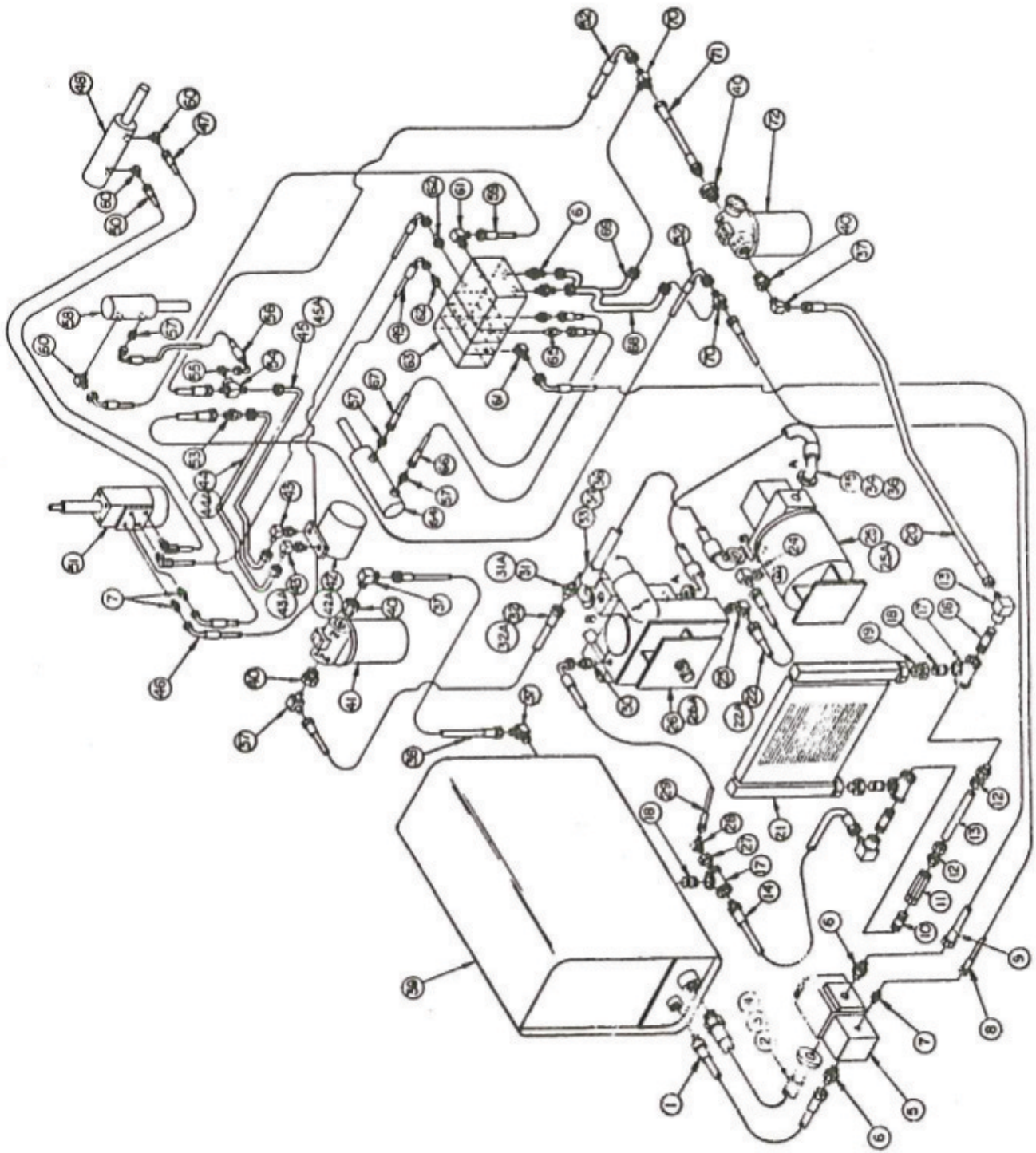
REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633433	1	Pre-Cleaner
2	633408	6	Hose Clamp
3	633501-3	3	Hose 3 1/4" ID x 3" Long
4	633561	1	Brace, Air Cleaner Stack
		2	Capscrew 1/4" NC x 3/4"
		2	Hex Nut 1/4" NC
5	633560	1	Stack, Air Cleaner 3 1/2" OD x 32" Long
6	633279	1	Air Cleaner w/Vacuator Valve
	633481	1	Main Element
	633482	1	Safety Element
	633483	1	Vacuator Valve
7	633281	2	Mounting Bands
		4	Capscrew 1/4" NC x 3/4"
		4	Lockwasher 1/4"
		4	Hex Nut 1/4" NC
8	633500	1	Service Indicator
9	633484	1	Air Intake Tube Assembly
10	633502-2½	1	Hose 2 1/4" ID x 2 1/2" Long
11	633277	2	Hose Clamp
12	633271	1	Exhaust Pipe
13	633504	3	Exhaust Pipe Clamp (2 1/8")
14	633155	1	Muffler
15	633272	1	Tail Pipe
16	633274	1	Tail Pipe Hanger
		1	Capscrew 3/8" NC x 1
		1	Lockwasher 3/8"
		1	Hex Nut 3/8" NC



FUEL TANK ASSY.

## FUEL TANK ASSY .

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633039	1	Fuel Tank
2	633164	1	Hose, Suction 3/8" ID x 8 ft.
3	633162	1	Adapter, 3/8" Male Pipe x 3/8" Hose Barb
4	100758	1	Adapter, 6-6 FJX
5	633268	1	Adapter, 5MB - 6MJ
6	633400	1	Worm Gear Clamp (Not Shown)
7	633384	1	Hose, Return 3/16" ID x 8 ft.
8	633163	1	Adapter, 3/8" Male Pipe x 1/4" Hose Barb
9	633040	2	Straps Fuel Tank
		4	Carriage Bolts 5/16" NC x 1"
		4	Lockwasher 5/16"
		4	Hex Nut 5/16" NC

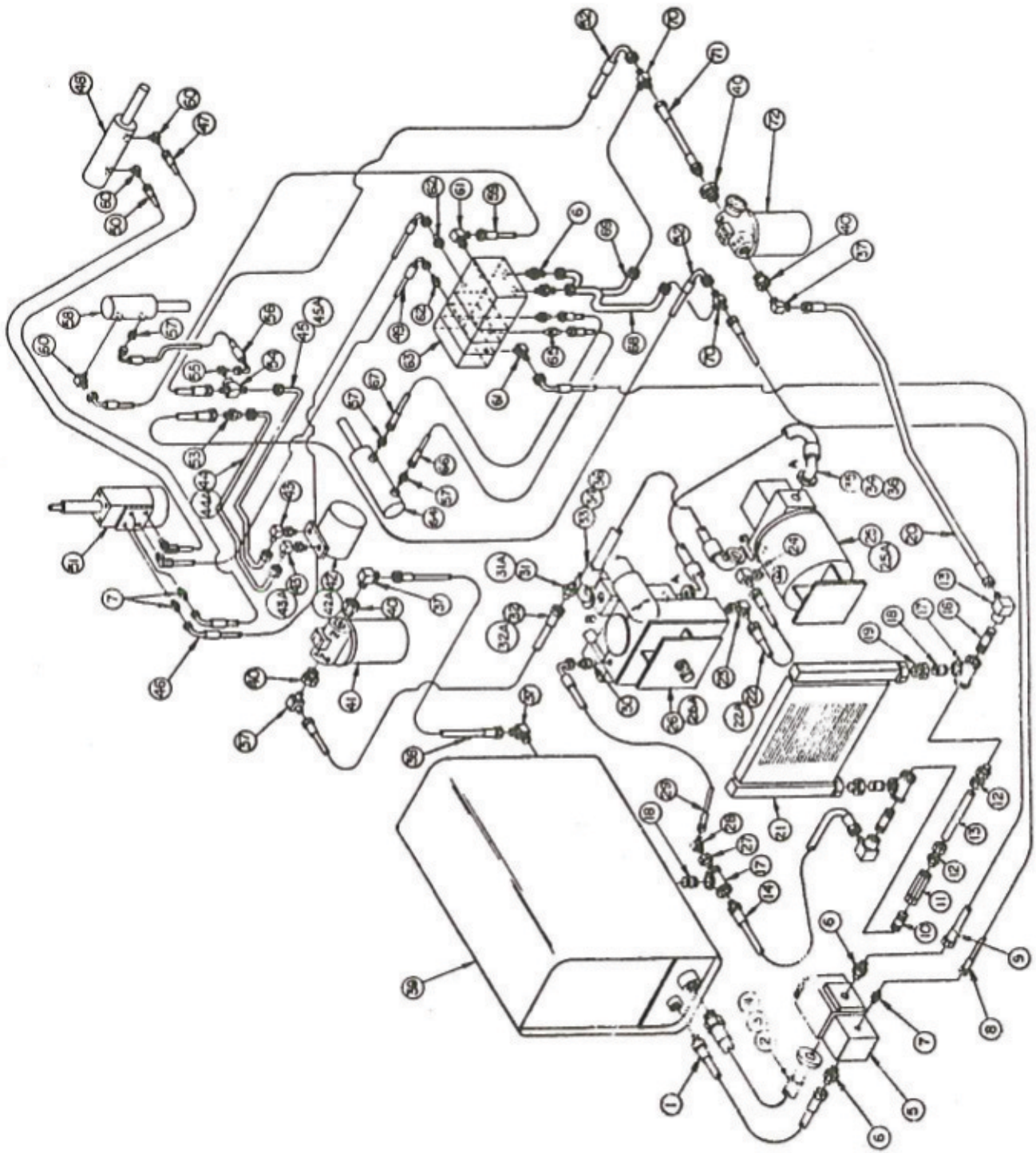


# HYDRAULIC SYSTEM



## HYDRAULIC SYSTEM

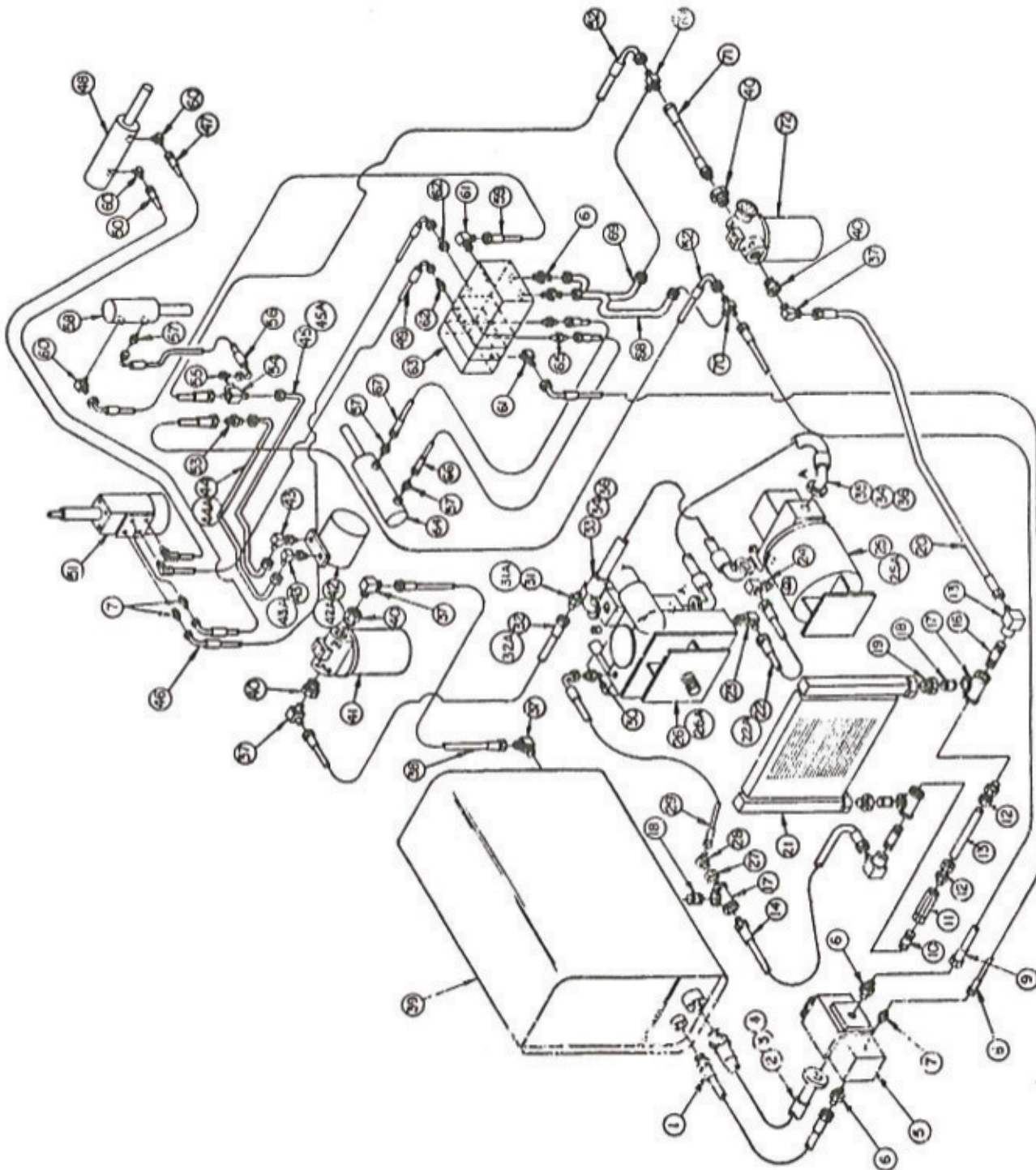
REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633534	1	Hose Assy 3/4" x 38 5/16"
2	633548	1	Hose Assy 1 1/4" x 32 3/4"
3	633567	1	O-Ring 1 7/8" x 1/8"
4	633549	1	Split Flange 24 FH
5	633154	1	Pump
6	633550	4	Adapter 12MB - 12MJ
	633571	4	O-Ring
7	633344	3	Adapter 8MB - 8MJ
	633569	3	O-Ring
8	633537	1	Hose Assy 3/8" x 125 5/8"
9	633529	1	Hose Assy 3/4" x 91 1/2"
10	001504-15	1	Nipple 3/4" x 1" SCH 40 BLK
11	633226	2	Check Valve, Heat Exchanger
12	633262	2	Tube Fitting, Heat Exchanger
13	633465	1	Hydraulic Tube, Heat Exchanger
14	633530	1	Hose Assy 3/4" x 30 3/4"
15	633551	2	Adapter 12FP - 12MJ 90°
16	001504-13	2	Nipple 3/4" x 2" SCH 40 BLK
17	001504-4	3	Tee 3/4" SCH 40 BLK
18	001504-12	3	Nipple 3/4" x 1 1/2" SCH 40 BLK
19	001504-8	2	Bushing 3/4" x 1" SCH 40 BLK
20	633531	1	Hose Assy 3/4" x 51 1/4"
21	633513	1	Heat Exchanger
22	633546	1	Hose Assy 1/2" x 12 3/4" (Sundstrand)
22A	633725	1	Hose Assy 1/2" x 22" - 130° (Eaton)
23	633308	1	Adapter 10MB - 8MJ 90°



# HYDRAULIC SYSTEM

## HYDRAULIC SYSTEM

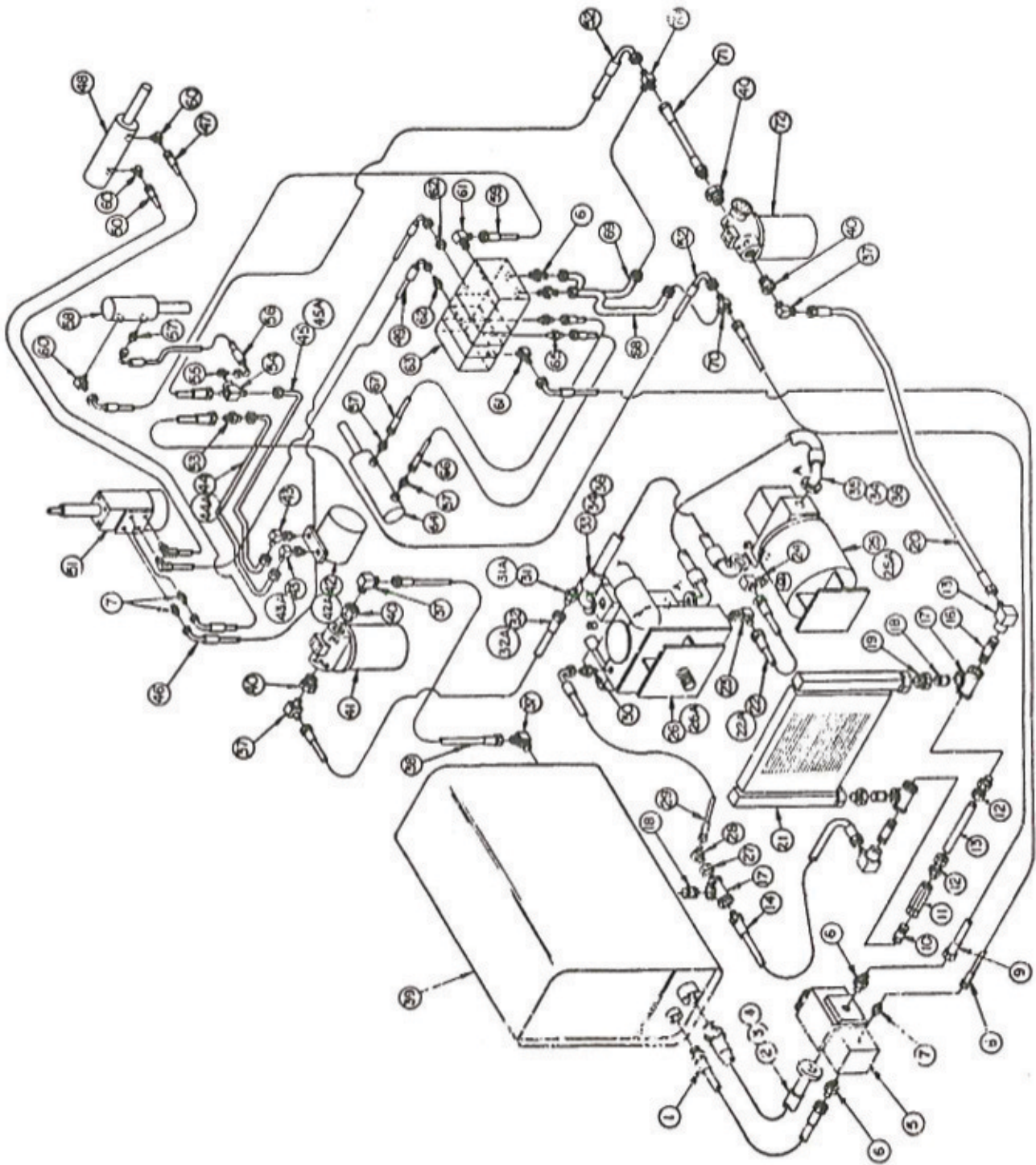
REF. NO.	PART NUMBER	QTY	DESCRIPTION
	633570	1	O-Ring
24	633353	1	Adapter 12MB - 8MJ 90°
	633571	1	O-Ring
25	633115	1	Hydraulic Motor (Eaton)
25A	633724	1	Hydraulic Motor (Sundstrand)
26	633116	1	Variable Pump w/Std. Servo Cntl(Sunstrand)
26A	633377	1	Variable Pump (Sundstrand)
27	001503-8	1	Bushing 1/2" x 3/4" SCH 40 BLK
28	100298	1	Adapter 8MP - 8MJ 45°
29	633547	1	Hose Assy 1/2" x 41"
30	100299	1	Adapter 10MB - 8MJ
	633570	1	O-Ring
31	101063	1	Adapter 10MB - 12MJ (Sundstrand)
31A	101170	1	Adapter 16MB - 12MJ (Eaton)
	633570	1	O-Ring
32	633533	1	Hose Assy 3/4" 32 1/2" (Sundstrand)
32A	633726	1	Hose Assy 3/4" x 50" (Eaton)
33	633182	1	Hose Assy 1" x 52 1/2"
34	630046	4	O-Ring 1 5/16" x 1/8"
35	633183	1	Hose Assy 1" x 66 3/8"
36	633184	4	Split Flange 16 FH
37	633306	5	Adapter 12MP - 12MJ 90°
38	633532	1	Hose Assy 3/4" x 16 1/2"
39	633037	1	Hydraulic Oil Tank
	633038	2	Strap, Hydraulic Tank
40	001504-9	4	Bushing 3/4" x 1 1/4" SCH 40 BLK



HYDRAULIC SYSTEM

## HYDRAULIC SYSTEM

REF. NO.	PART NUMBER	QTY	DESCRIPTION
41	633108	1	Suction Filter
42	633121	1	Motor, Broom (Nichols)
42A	633425	1	Motor, Broom (Char-Lynn)
43	633278	2	Adapter, Special 10MB - 10MJ 90°
43A	100265	2	Adapter, 10MB - 10MJ
	633570	2	O-Ring
44	633460	1	Hydraulic Tube Brm Mtr Press Line/Nichols
44A	633722	1	Hydraulic Tube Brm Mtr Press Line/Charlynn
45	633461	1	Hydraulic Tube Brm Mtr-Return Line/Nichols
45A	633723	1	Hydraulic Tube Brm Mtr-Return Line/Charlyn
46	633540	1	Hose Assy 3/8" x 75 1/8"
47	633539	1	Hose Assy 3/8" x 140"
48	633092	1	Cylinder Power Steering
	633092-1	Ref	Seal Kit
49	633541	1	Hose Assy 3/8" x 73 3/4"
50	633538	1	Hose Assy 3/8" x 134"
51	633117	1	Steering Valve
52	633536	2	Hose Assy
53	100292	1	Adapter 10MJ - 10MJ
54	633413	1	Adapter 10MJ - 10MJ - 8FP
55	633465	1	Adapter 8MP - 6MJ 90°
56	633545	1	Hose Assy 3/8" x 19 7/8"
57	100294	3	Adapter 6MP - 6MJ
58	633090	1	Cylinder, Broom Lift
	633090-1	Ref	Seal Kit
59	633544	1	Hose Assy 3/8" x 86 1/8"

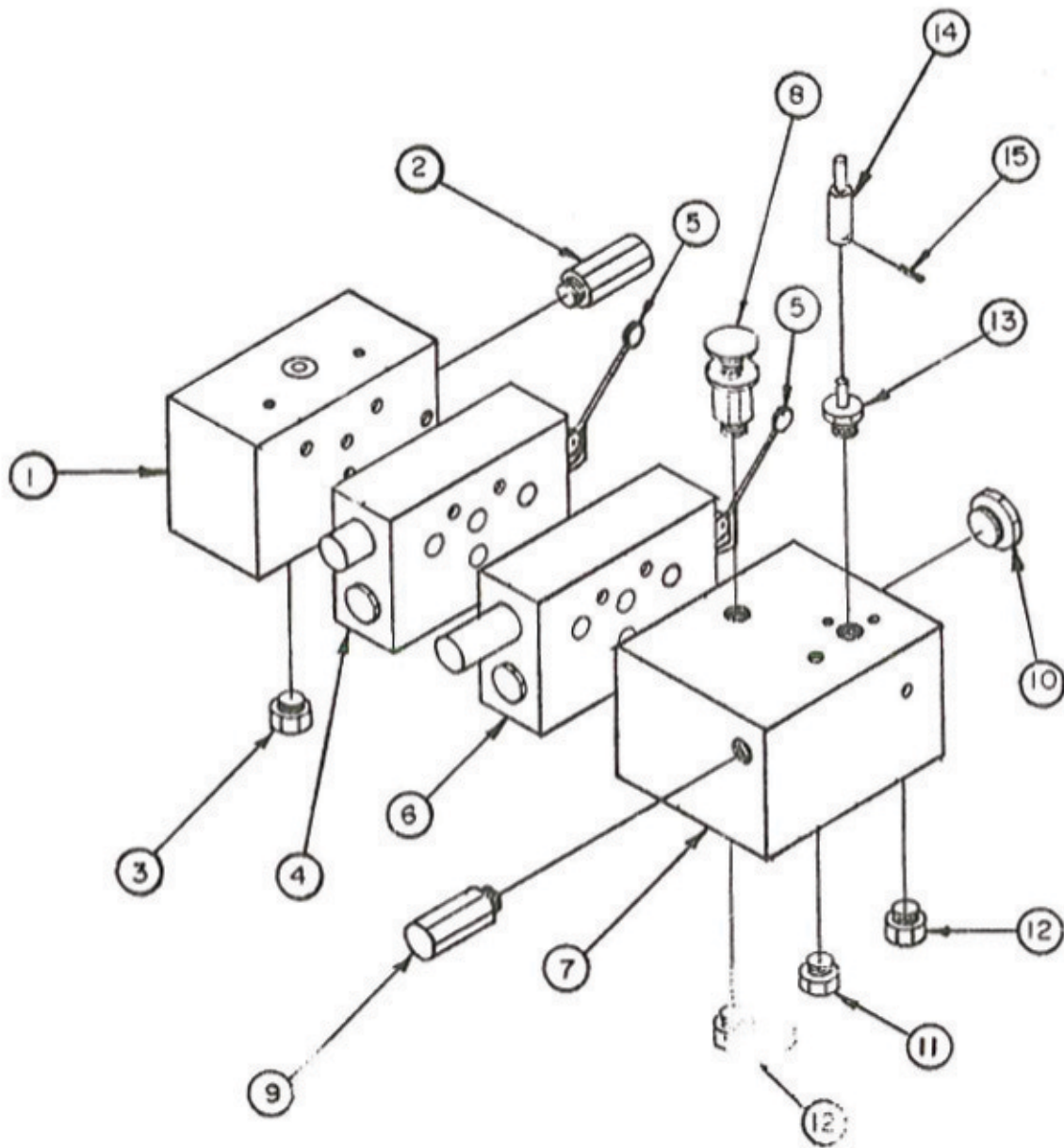


# HYDRAULIC SYSTEM

HYDRAULIC SYSTEM

REF. NO.	PART NUMBER	QTY	DESCRIPTION
60	100250	3	Adapter 6MP - 6MJ 90°
61	633304	2	Adapter 6MB - 6MJ 90°
	633568	2	O-Ring
62	633305	2	Adapter 6MB - 6MJ
	633568	2	O-Ring
63	633134	1	Valve Block Assy
64	633091	1	Cylinder, Broom Swing
	633091-1	Ref	Seal Kit
65	660199	2	Adapter 10MB - 6MJ
	633570	2	O-Ring
66	633542	1	Hose Assy 3/8" x 21 1/2"
67	633543	1	Hose Assy 3/8" x 23 1/2"
68	633462	1	Hydraulic Tube, Valve Block-Press Line
69	633463	1	Hydraulic Tube, Valve Block-Return Line
70	200244	2	Adapter 12MJT
71	633535	1	Hose Assy 3/4" x 22 7/8"
72	633700	1	Return Filter
	633701	1	Replacement Element

# VALVE BLOCK ASSY.

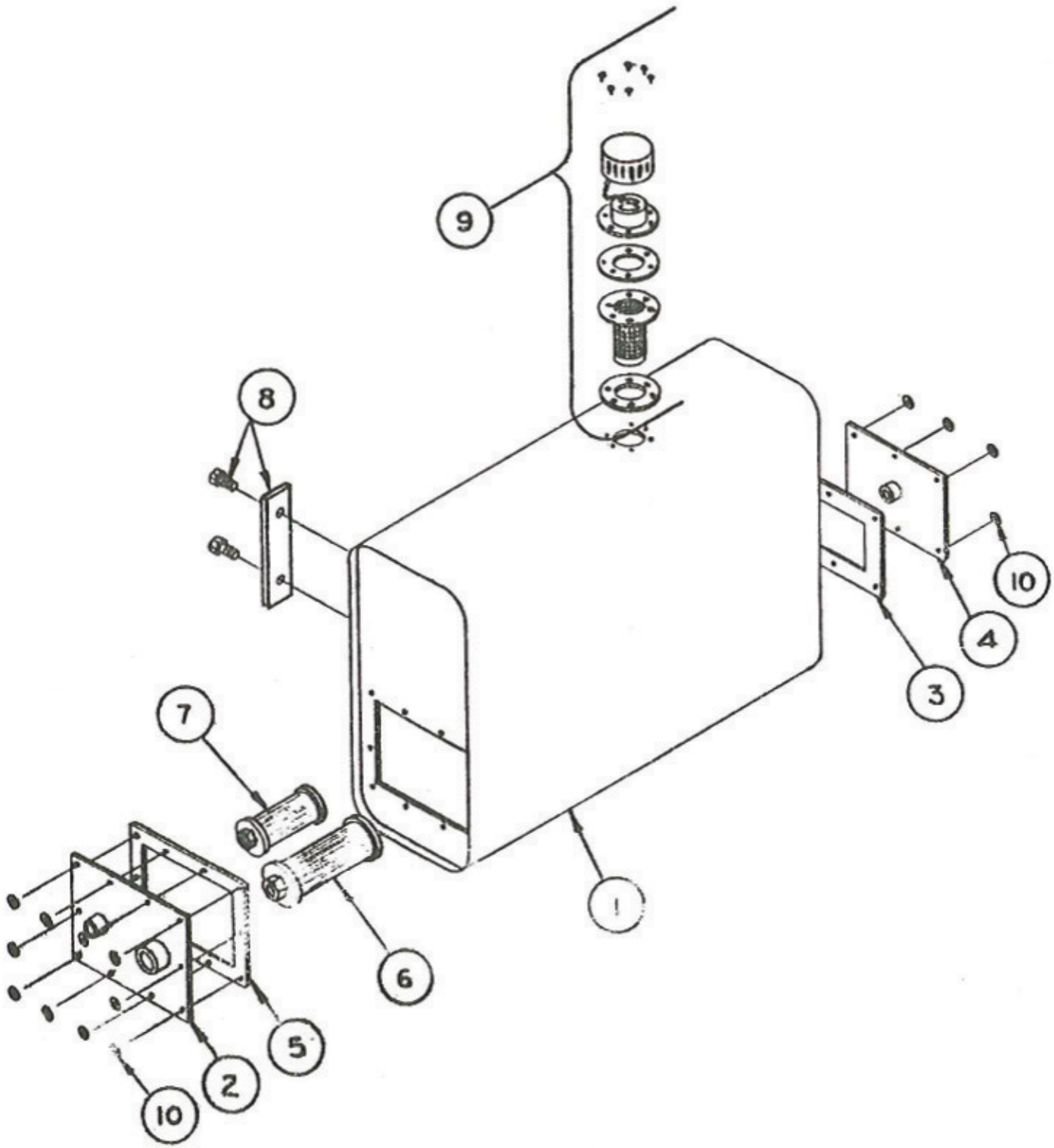




VALVE BLOCK ASSY

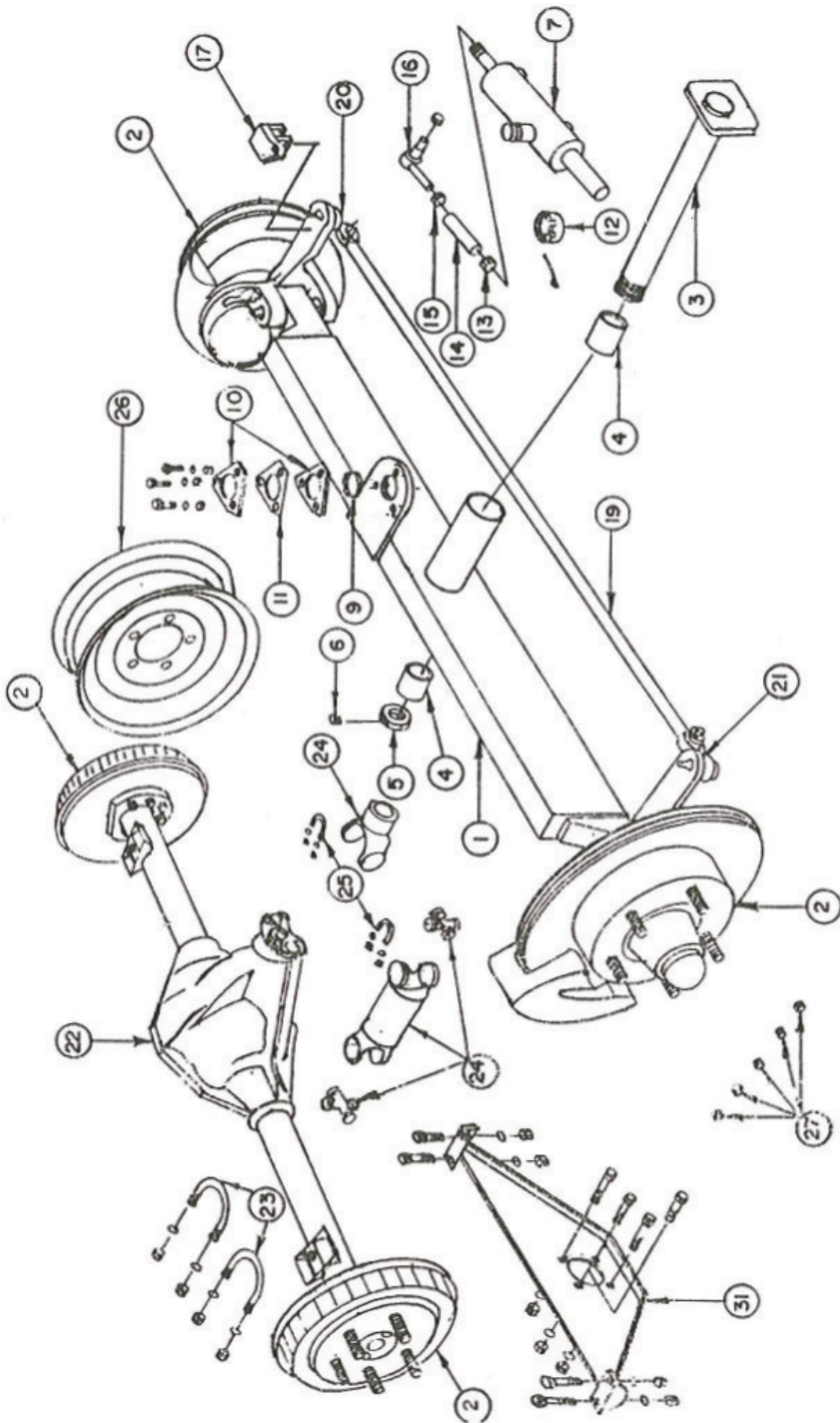
<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1	633705	1	Valve Block, Steering & Lift
2	633705-1	1	Relief Valve Cartridge
3	633705-2	1	Priority Valve Cartridge
4	633135	1	Valve Section, Swing Cylinder
5	633362	2	Control Valve Handle
6	633136	1	Valve Section, Broom Float
7	633706	1	Valve Block Broom Control
8	633706-1	1	Relief Valve Cartridge w/Knob
9	633706-2	1	Relief Valve Cartridge
10	633706-3	1	Differential Pressure Sensing Valve
11	633706-4	1	Check Valve Pilot Operated Cartridge
12	633706-5	2	Check Valve Cartridge
13	633706-6	1	Manual Pull Valve
14	633468	1	Control Valve Lever
15	633333	1	Roll Pin

# HYDRAULIC OIL TANK ASSY.



## HYDRAULIC OIL TANK ASSY

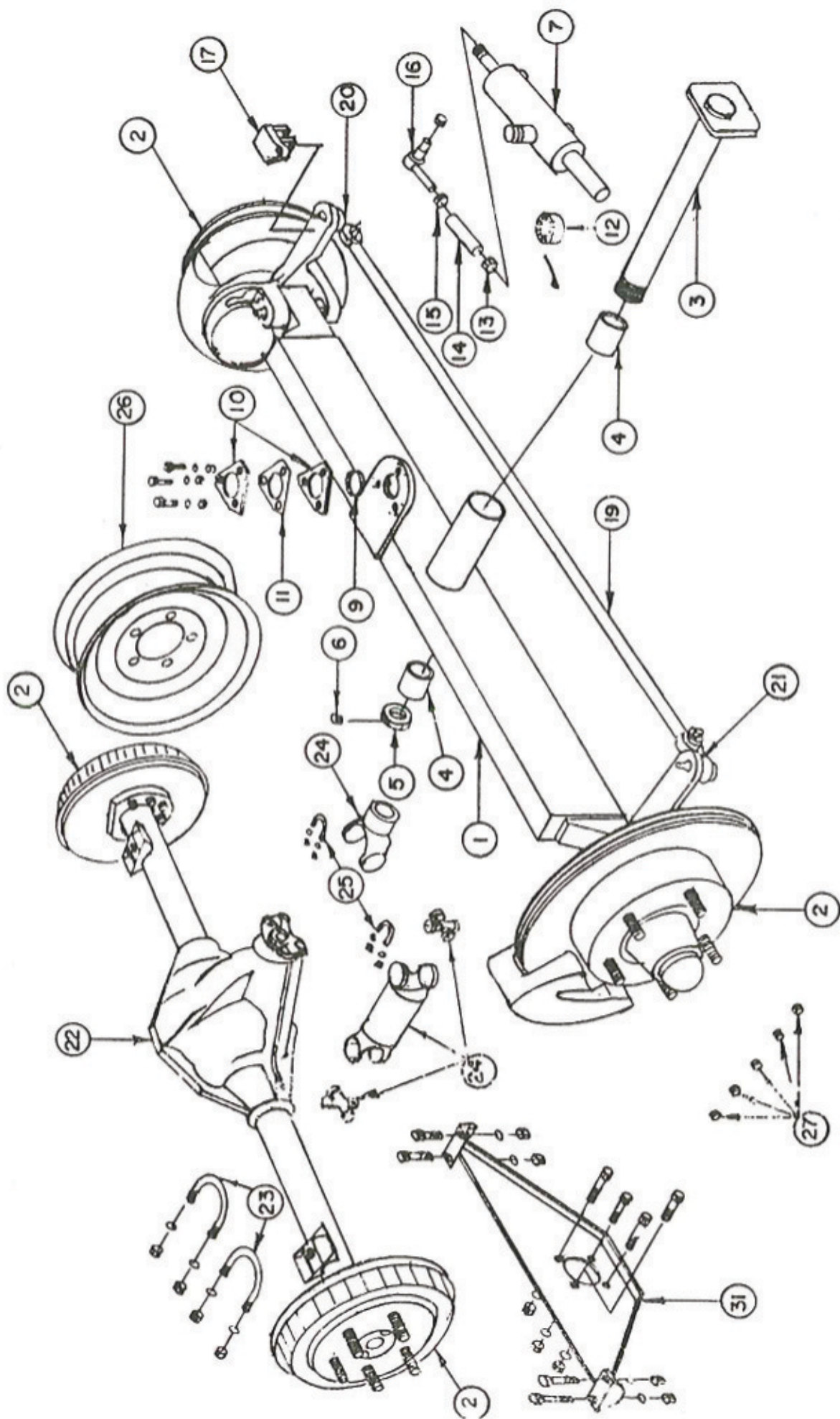
<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1	633037	1	Oil Tank
2	633037-1	1	Cover with (2) Ports
3	633037-2	1	Gasket for (1) Port Cover
4	633037-3	1	Cover with (1) Port
5	633720	1	Gasket for (2) Port Cover
6	633186	1	Strainer (Large)
7	633187	1	Strainer (Small)
8	633515	1	Sight, Level, & Temperature Gauge
9	633037-4	1	Filler Breather Group Gasket for Filler Breather Group
10	633364	16	Sealing Washer 1/4"
11	633772	16	Sealing Washer 5/16"



FRONT & REAR END ASSY.

## FRONT & REAR END ASSY.

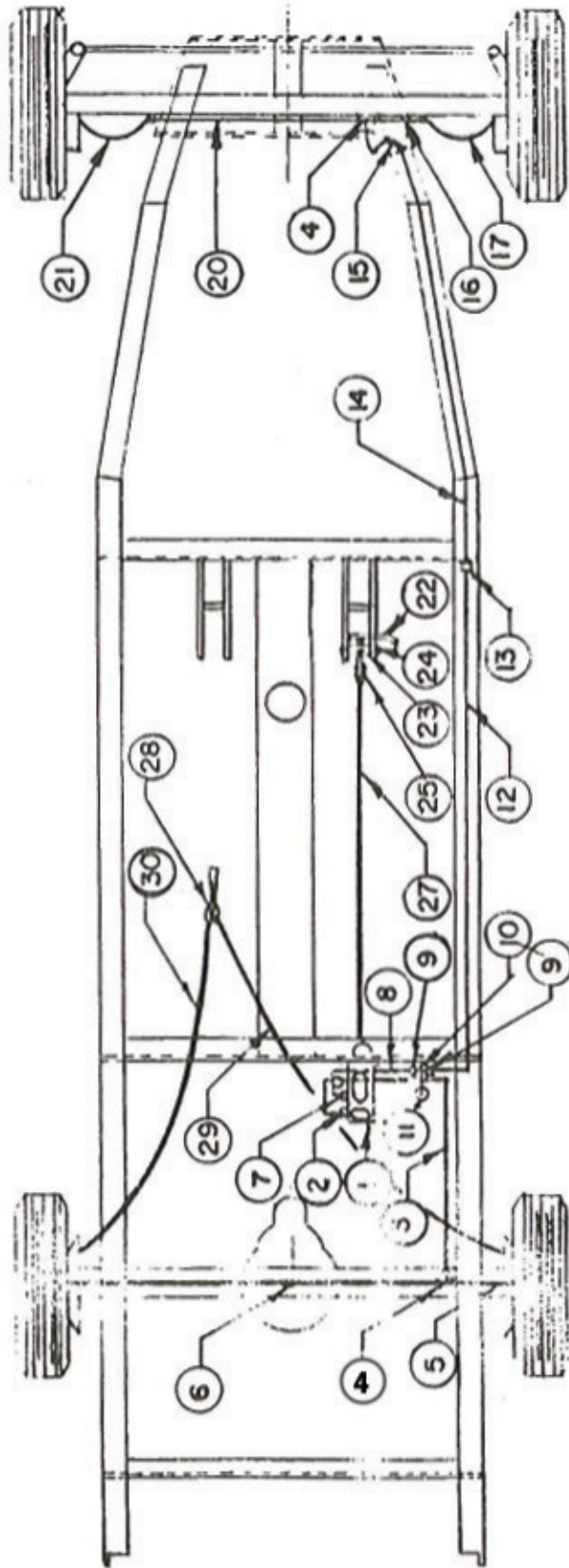
REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633051	1	Front Axle Weldment
2			See Front & Rear Brake Assemblies
3	633106	1	Front Axle Pivot Pin
4	630231	2	Front Axle Pivot Pin, Bushing
5	633399	1	Front Axle Pivot Pin, Nut
6	L001024-1	1	Sq. HD Set Screw 1/4" NC x 1/2"
7	633092	1	Power Steering Cylinder
8	100250	2	Power Steering Cylinder, Adapter (Not Shown)
9	633099	1	Bearing
10	633555	1	Bearing, Flangette
11	633467	1	Bearing, Flangette, Gasket
		3	Capscrew 1/4" NC x 3/4"
		3	Lockwasher 1/4"
		3	Hex Nut 1/4"
12	L100488	1	Slotted Nut 1" - 12 NF
		1	Cotter Pin 1/8" x 2"
13	633169	1	Jam Nut 3/4" - 16"NF (R.H.)
14	633373	1	Power Steering Cylinder, Adjuster Link
15	633170	1	Jam Nut 3/4" - 16"NF (L.H.)
16	633172	1	Tie Rod End
17	633052	1	Power Steering Lug
18	633376	2	Capscrew 5/16" NF x 3" (Not Shown)
			Lockwasher 5/16"
19	633105	1	Tie Rod
20	633088	1	Tie Rod End (R.H.)
21	633089	1	Tie Rod <b>End</b> (L.H.)
22	633042	1	Rear <b>Axle</b> Assembly with Brakes
23	633360	4	U-Bolt 1/2" - 20"NF
		8	Nut 1/2" - 20"NF
		8	Lockwasher 1/2"
24	633198	1	Drive Shaft w/End Yoke
25	633411	1	U-Bolt Kit (For Drive Shaft)
26	633073	4	Wheels



FRONT & REAR END ASSY.

## FRONT & REAR END ASSY.

<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
27	633161	20	Lug Nuts
28	633087	4	Hubcap, Optional (Not Shown)
29	633096	4	Tire, H78 - 15 (Not Shown)
30	633388	4	Tire, Stems (Not Shown)
31	633023	1	Hydraulic Motor Mount Plate
		4	Capscrew 1/2" NC x 1 1/4"
		4	Lockwasher 1/2"
		4	Nut 1/2" NC
		4	Capscrew 3/8" NC x 1 1/2"
		6	Flatwasher 3/8"
		4	Lockwasher 3/8"
		4	Nut 3/8" NC

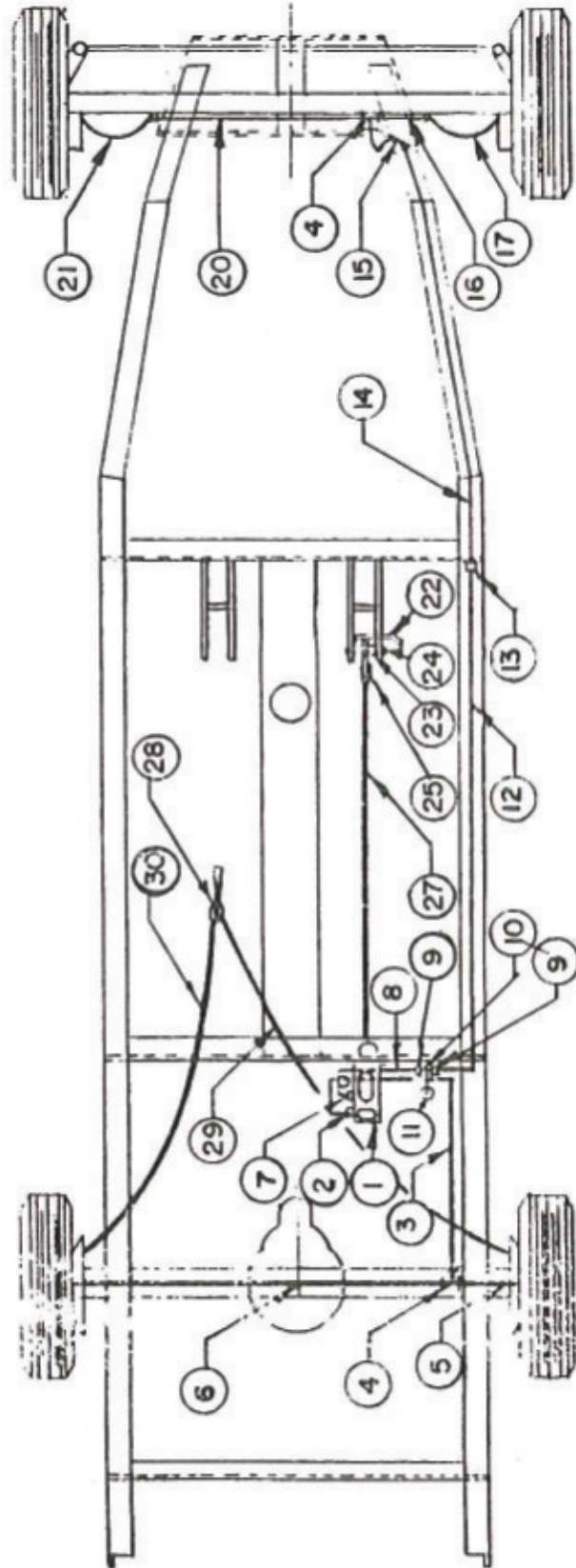


**BRAKE ASSY.**



## BRAKE ASSY.

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633085	1	Master Cylinder
		2	Capscrew 5/16" NC x 1 1/4"
		2	Lockwasher 5/16"
		2	Hex Nut 5/16" NC
2	633235	1	Bushing 1/4" Male Inv. Flare x 3/16" Female Inv. Flare
3	633228	1	Brake Line 3/16" x 60"
4	633237	2	Tee 3/16" Female Inv. Flare
5	633211	1	Brake Line 3/16" x 8"
6	6333227	1	Brake Line 3/16" x 51"
7	633236	1	Bushing 1/4" Female Inv. Flare x 5/16" Male Inv. Flare
8	633229	1	Brake Line 1/4" x 20"
9	633233	2	Bushing 1/8" Male Pipe x 1/4" Female Inv. Flare
10	633234	1	Tee 1/8" NPT (Brass)
11	633402	1	Brake Light Switch
	633285	2	Bullet Connectors (Not Shown)
12	633231	1	Brake Line 1/4" x 60"
13	633232	1	1/4" Inv. Flare Coupling
14	633230	1	Brake Line 1/4" x 51"
15	633171	1	Brake Hose
16	633453	1	Brake Line 3/16" x 4"
17	633218	1	Brake Hose
18	633313	2	Capscrew 3/8" (Not Shown)
19	633314	2	Washer (Not Shown)
20	633213	1	Brake <b>Line</b> 3/16" x 20"
21	633217	1	Brake <b>Hose</b>
22	633032	1	<b>Brake Pedal</b>
23	633032-4	2	<b>Nylon Bushing (Brake Pedal)</b>
24	633133	1	<b>Pin 1/2" Dia x 3 1/2"</b>
		2	<b>Cotter Pin 1/16" x 3/4"</b>
25	633028	1	<b>Clevis 3/8" Pins 3/8" NF (Female)</b>
26	633125	1	Pin <b>3/8" x 1" (Not Shown)</b>
		1	Hex <b>Nut 3/8" NF</b>
27	633029	1	Brake Push Rod

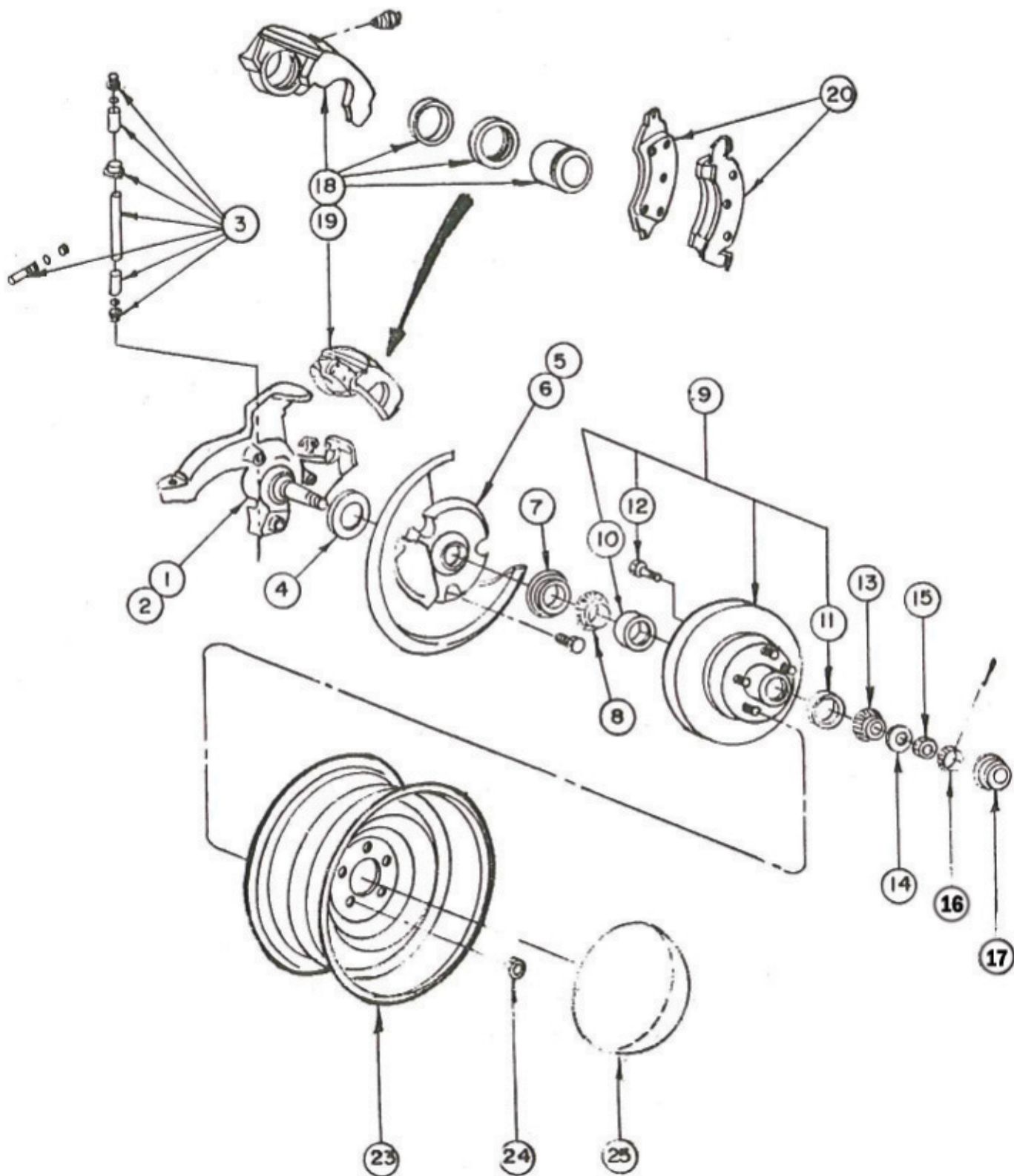


**BRAKE ASSY.**

## BRAKE ASSY.

<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
28	633188	1	Brake Lever Handle
29	633190	1	Brake Cable
30	633189	1	Brake Cable
31	633454	6	Brake Line Clips (Not Shown)
		6	Capscrew 1/4" NC x 1"
		6	Lockwasher 1/4"
		6	Hex Nut 1/4" NC
32	633122	1	Return Spring (Not Shown)

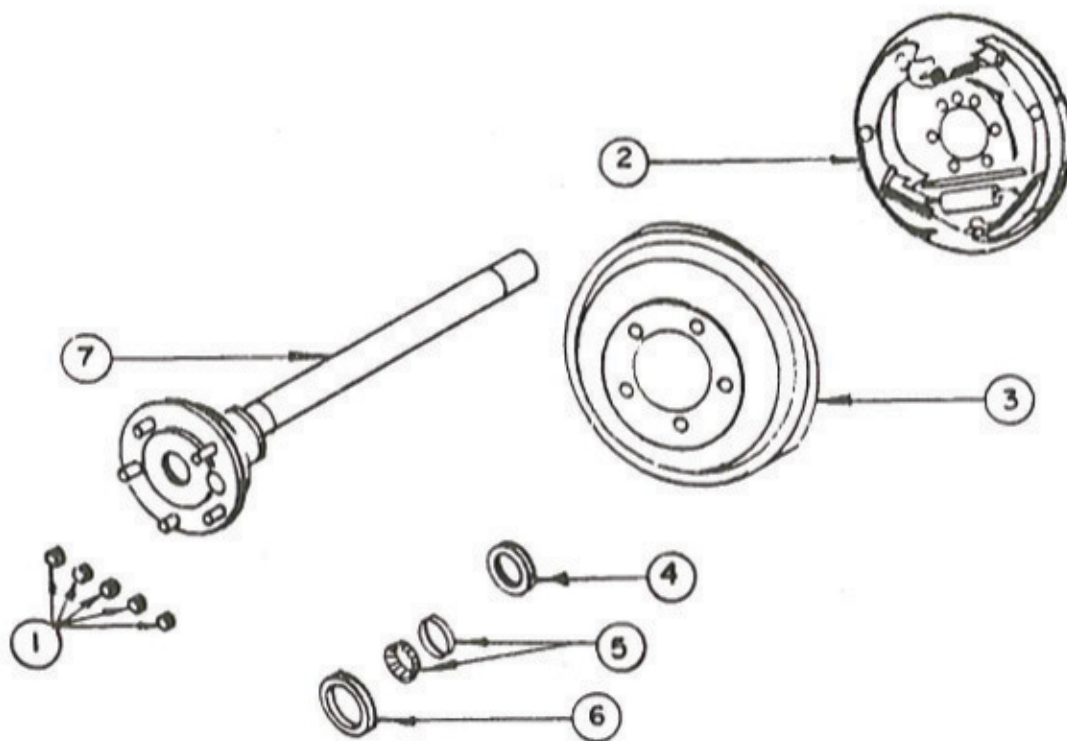
# FRONT BRAKE ASSY.



## FRONT BRAKE ASSY.

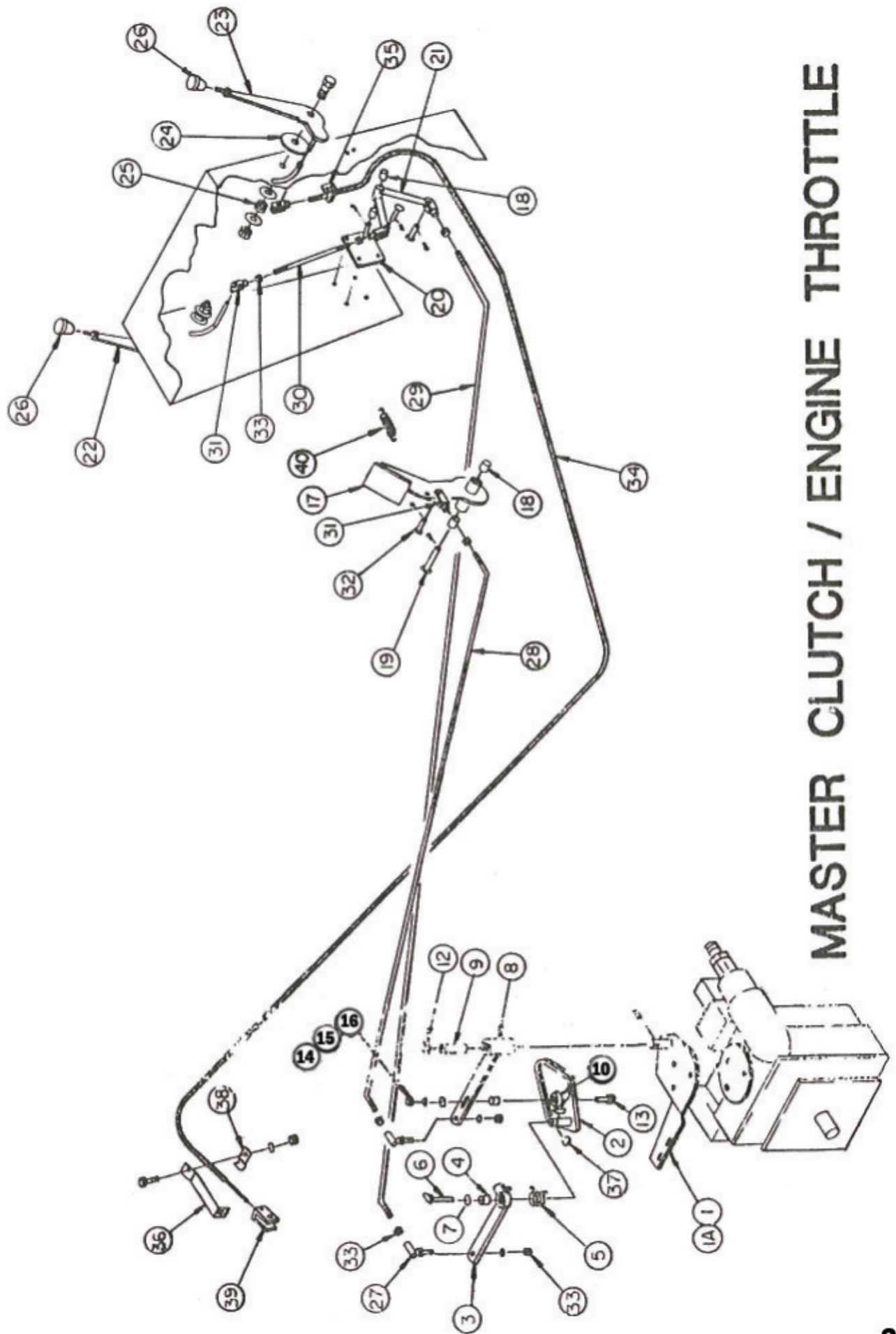
REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633043	1	Spindle R.H.
2	633044	1	Spindle L.H.
3	633080	2	Spindle Pin Kit
4	633045	2	Gasket
5	633046	1	Shield R.H.
6	633047	1	Shield L.H.
		6	Capscrew 1/4" x 1/2" NC
		6	Flatwasher 1/4"
7	633048	2	Retainer Assy
8	633049	2	Cone & Roller Assy (Inner)
9	633079	2	Hub & Rotor
10	633449	2	Rotor Cup (Inner)
11	633450	2	Rotor Cup (Outer)
12	633451	10	Rotor Press-In Stud
13	633050	2	Cone & Roller Assy (Outer)
14	633082	2	Washer
15	633386	2	Nut (Spindle Retainer) 3/4" NF
16	633387	2	Nut Retainer Caps
		2	Cotter Pin 1/8" x 1"
17	633448	2	Grease Cup
18	633083	1	Caliper Assy R.H.
19	633084	1	Caliper Assy L.H.
20	633081	2	Shoe & Lining Kit
21	633086	2	Hardware Kit (Not Shown - To Attach Caliper Assy To Spindle)
22	633452	2	Caliper Repair Kit (Not Shown)
23	633072	4	Wheels
24	633451	20	<b>Lug Nuts 1/2" x 20</b> NF
25	633087	4	Hub Caps (Optional)

# REAR AXLE SHAFT , BRAKE , BEARINGS & SEALS



## REAR AXLE SHAFT , BRAKE , BEARINGS AND SEALS

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633161	20	Lug Nut
2	633469	1	Brake Assembly, R.H. Rear
	633470	1	Brake Assembly, L.H. Rear (Not Shown)
	633471	2	Brake Shoes, Rear (Not Shown)
	633472	2	Wheel Brake Cylinder, Rear (Not Shown)
	633473	2	Wheel Brake Cylinder Kit, Rear (Not Shown)
3	633474	2	Drum, Rear
4	633475	2	Oil Seal, Inner
5	633476	2	Bearing , Rear Axle, Cup & Cone
6	633477	2	Oil Seal, Outer
7	633478	2	Rear Axle Assembly
	633479	10	Lug, Stud, Rear

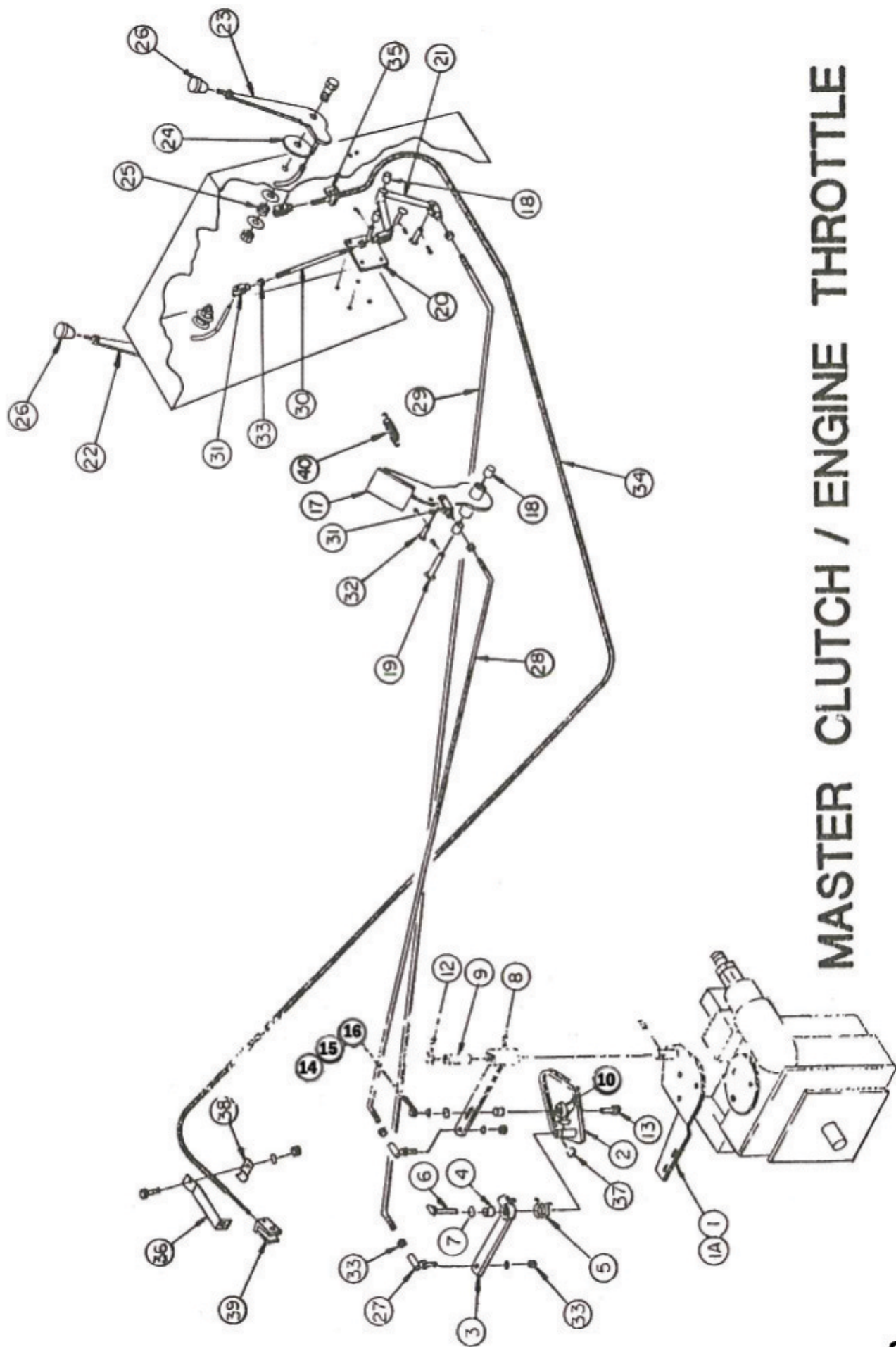


**MASTER CLUTCH / ENGINE THROTTLE**



MASTER CLUTCH / ENGINE THROTTLE

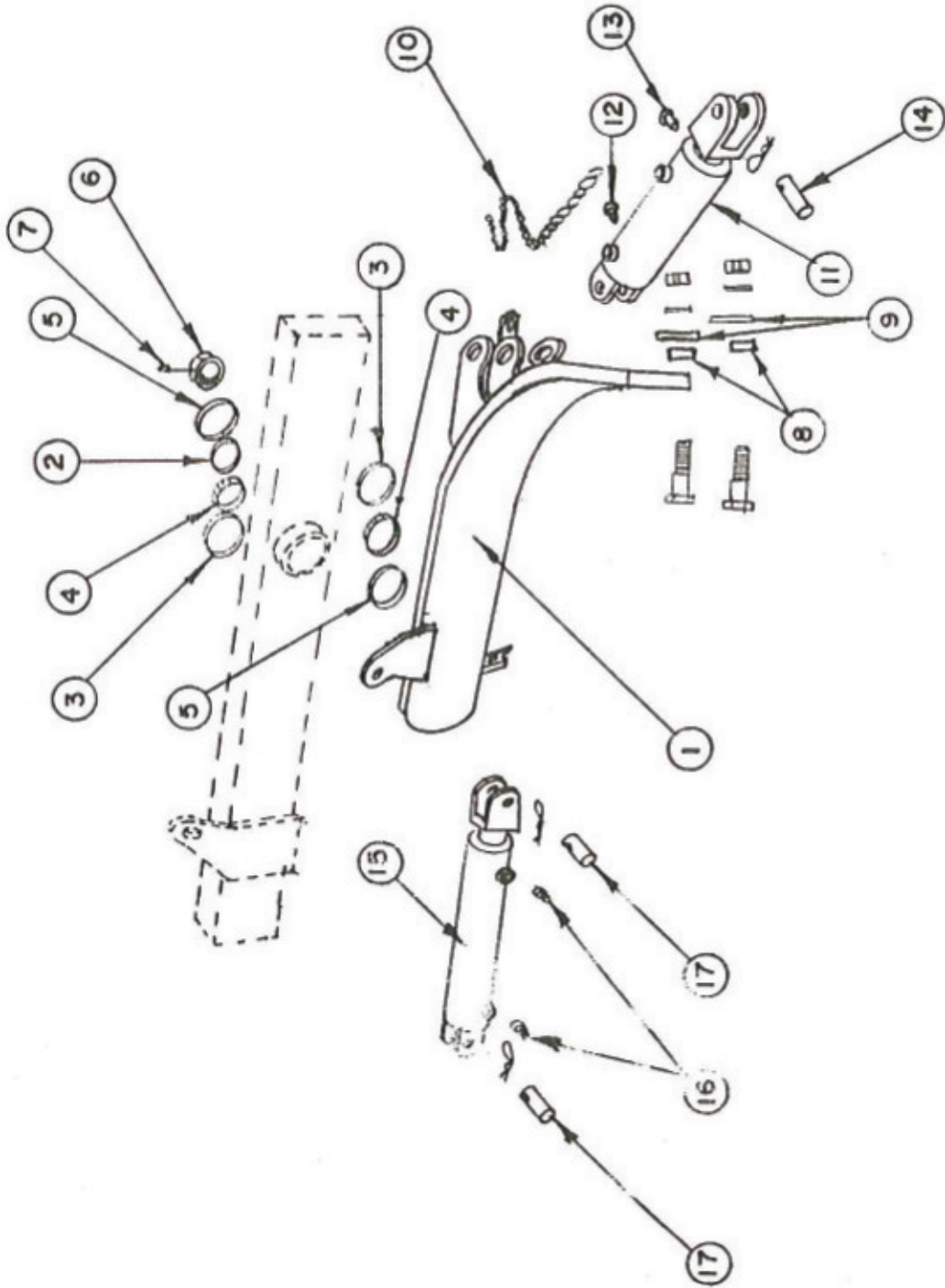
REF. NO	PART NUMBER	QTY	DESCRIPTION
1	633145	1	Mount, Master Clutch (For S.S. Pump)
1A	633715	1	Mount, Master Clutch(For Eaton Pump)
2	633141	1	Master Clutch Weldment
3	633143	1	Arm, Master Clutch
4	633150	1	Bronze Bushing 1" OD x 5/8" ID x 1/2" Lg.
5	633153	1	Spring
6	633556	1	Retaining Pin (Sundstrand)
6A	633742	1	Retaining Pin (Eaton)
7		1	Flatwasher 1/2"
8	633144	1	Lever, Master Clutch
9	633151	1	Bronze Bushing 1" OD x 3/4" ID x 2" Lg.
10	633147	1	Bearing 5200 Series
11	633149	1	Spacer 5/8" OD x 13/32" ID x 5/8" Lg.
12	633152	1	Washer 1" OD x 11/16" ID x .051 thick
13		1	Capscrew 3/8" NC x 2"
14		1	Flatwasher 3/8"
15		1	Lockwasher 3/8"
16		1	Nut 3/8" NC
17	633033	1	<b>Clutch Pedal</b>
18	633032-4	4	<b>Nylon Bushings</b>
19	633133	1	<b>Pin 1/2" Dia x 3 &amp; 3/4" Lg.</b>
20	633024	1	<b>Mount, Transmission Pivot</b>
		4	Capscrews <b>1/4"</b> NC x 3/4" Lg.
		4	Lockwasher <b>1/4"</b>
		4	Hex Nut 1/4" NC
21	633025	1	Transmission Pivot



**MASTER CLUTCH / ENGINE THROTTLE**

MASTER CLUTCH / ENGINE THROTTLE

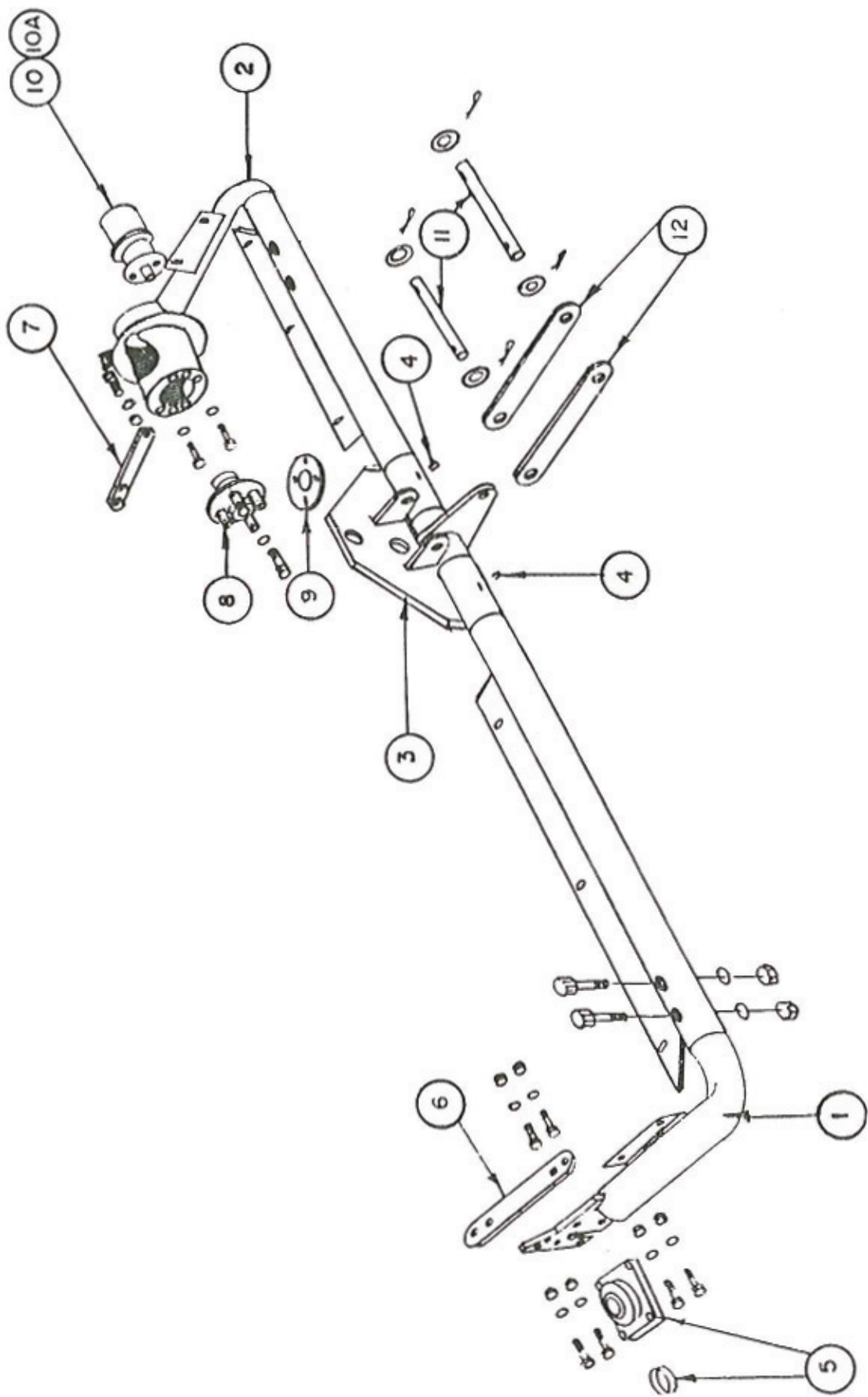
<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
22	633031	1	Transmission Lever
23	633030	1	Throttle Lever
24	633128	2	Friction Disc.
25	633127	2	Spring
26	633129	2	Knob
		2	Capscrew 1/2" NC x 2 1/4"
		4	Flatwasher 1/2"
		2	Hex Nut 1/2" NC
27	633242	2	Swivel Ball Joint 3/8" NF
28	633369	1	Push Rod, Pedal To Clutch
29	633371	1	Push Rod, Pivot To Clutch
30	633370	1	Push Rod, Lever To Pivot
31	633028	5	Clevis 3/8" NF
32	633125	3	Pin 3/8" x 1"
		8	Cotter Pin 1/16" x 3/4"
33		1	Hex Nut 3/8" - 24 NF
34	633131	1	Throttle Cable
35	633026	1	Anchor, Throttle Cable
		2	Capscrew 1/4" NC x 3/4"
		2	Lockwasher 1/4"
		2	Hex Nut 1/4" NC
36	633418	1	Mount, Throttle Cable
37	633146	1	Snap Ring
38	633416	1	Retainer, Throttle Cable
39	633514	1	Clevis, Throttle Cable
40	633122	1	Return Spring



**Broom SWING FRAME ASSY.**

## BROOM SWING FRAME ASSY.

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633113	1	Swing Frame Weldment
2	630022	1	Spacer
3	633100	2	Bearing Cup
4	633101	2	Bearing Cone
5	633102	2	Seal
6	633399	1	Hex Nut (Swing Frame)
7	L001030-1	1	Sq. HD Set Screw 5/16" x 3/4" NC
		2	Capscrew 1" x 3 1/2" NC
8	630057	2	Bushing (Spacer) 1 1/2" OD x 1" ID x 3/4"
9	630054	2	Flatwasher 2 1/2" OD x 1 1/16" ID
		2	Lockwasher
		2	Hex Nut 1" NC
		1	Chain 5/16"
10	633339	1	Chain 5/16"
	633347	1	H-Clevis 3/8" (Not Shown)
11	633090	1	Broom Lift Cylinder
12	L100250	1	Hydraulic Fitting
13	L100294	1	Hydraulic Fitting
14	633372	1	Pin 1" Dia x 3 1/2"
		2	Safety Pin
15	633091	1	Broom Swing Cylinder
16	L100294	2	Hydraulic Fitting
17	633372	2	Pin 1" Dia x 3 1/12"
		4	Safety Pin

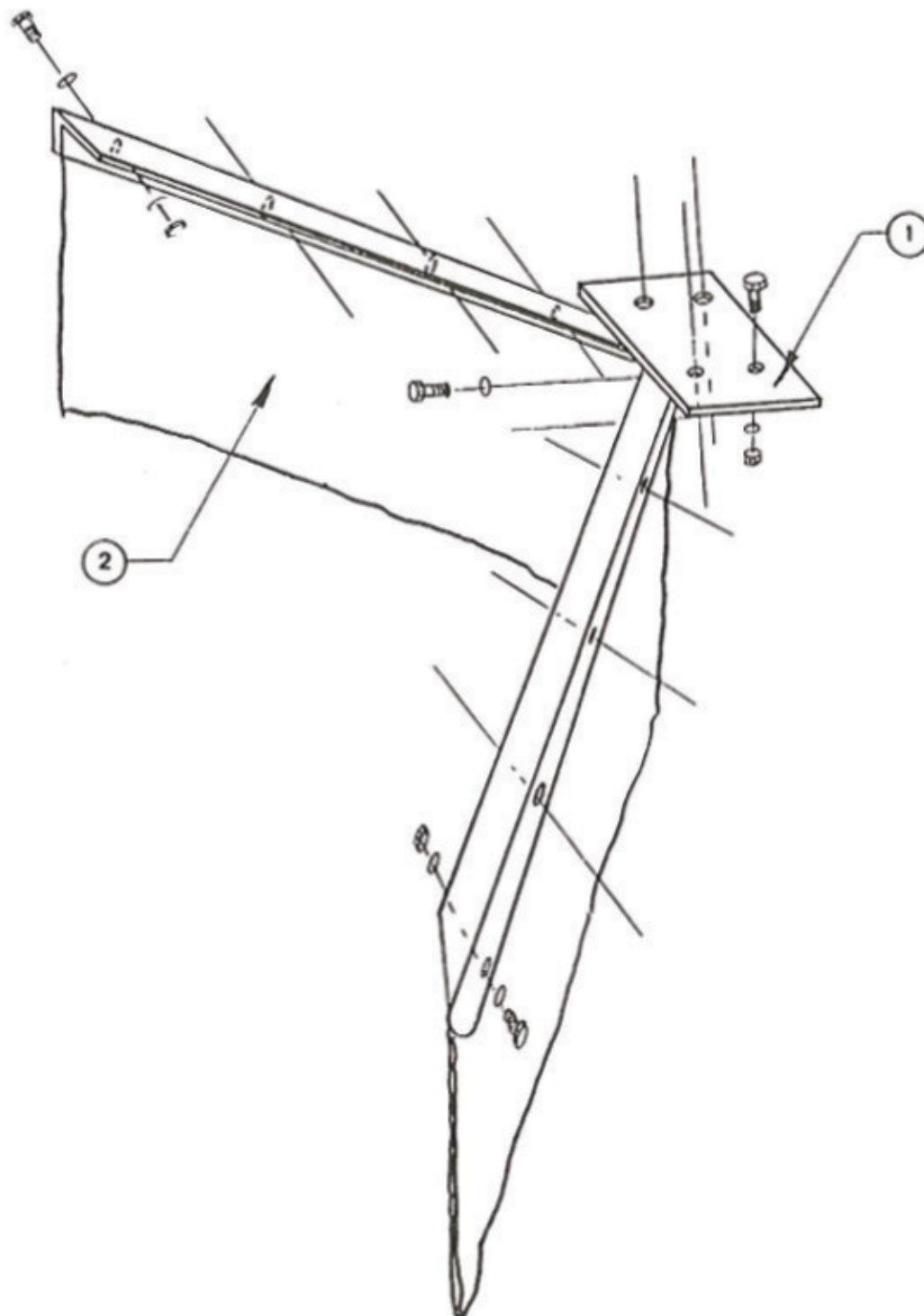


**BROOM ARM ASSY.**

## BRUSH ASSY.

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633094	1	Broom Cover
		6	Capscrew 1/4" NC x 1"
		12	Flatwasher 1/4"
		6	Lockwasher 1/4"
		6	Hex Nut 1/4" NC
		4	Capscrew 3/8" NC x 3/4"
		8	Flatwasher 3/8"
		4	Lockwasher 3/8"
		4	Hex Nut 3/8" NC
		4	Capscrew 3/8" NC x 1 1/2"
		8	Flatwasher 3/8"
		4	Lockwasher 3/8"
		4	Hex Nut 3/8" NC
2	633074	1	Broom Core Weldment
3	633178	1	Broom Core End Cap
		6	Capscrew 3/8" NC x 1"
		6	Lockwasher 3/8"
4	630061	1	Brush Assembly, Wafer & Spacer (All Poly Proplene)
5	630061-A	1	Brush Assembly, Wafer & Spacer (Half Poly & Half Steel)
6	630061-B	1	Brush Assembly, Wafer & Spacer (All Steel)

# BLAST SHIELD ASSY.

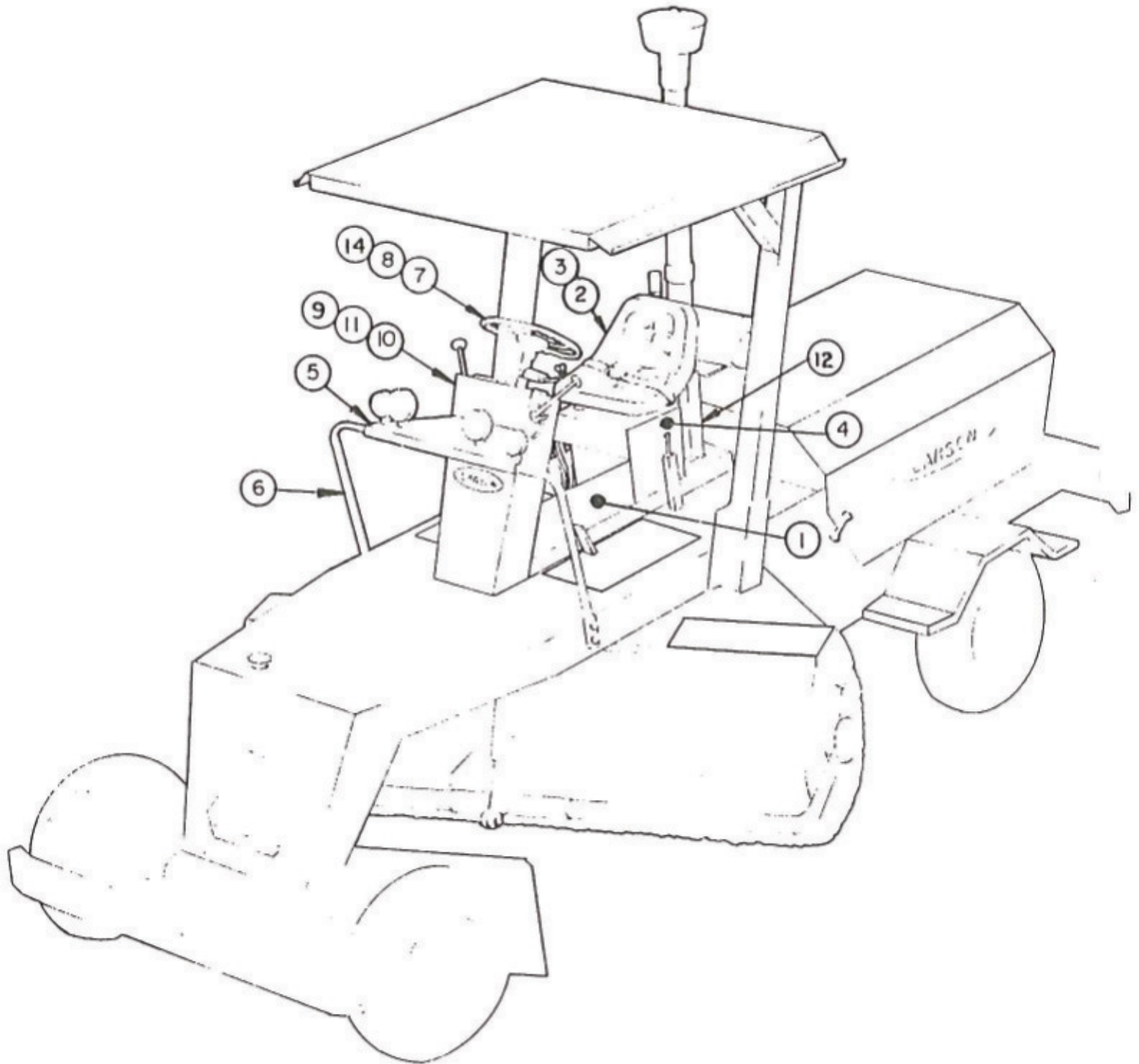




## BLAST SHIELD ASSY.

<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1	633419	1	Blast Shield Weldment
		4	Capscrew 3/8" NC x 1 1/4"
		4	Lockwasher 3/8"
		4	Hex Nut 3/8" NC
2	633112	1	Rubber Belt 17" x 84", Blast Shield
		10	Capscrew 1/4" NC x 1 1/2"
		10	Flatwasher 1/4"
		10	Lockwasher 1/4"
		10	Hex Nut 1/4" NC

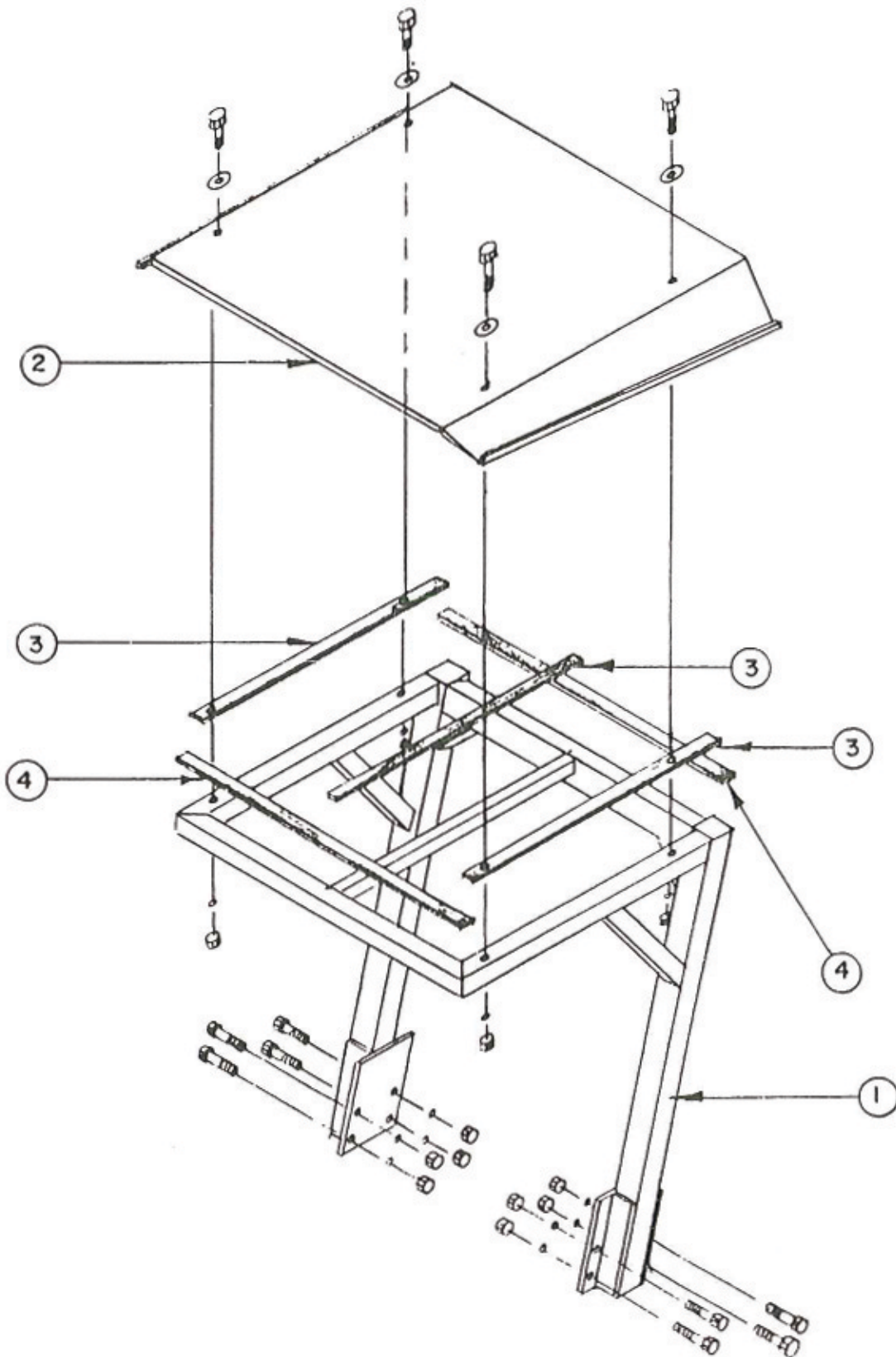
# SEAT / CONSOLE / LIGHT BAR AND MISCELLANEOUS PARTS



## SEAT / CONSOLE / LIGHT BAR AND MISCELLANEOUS PARTS

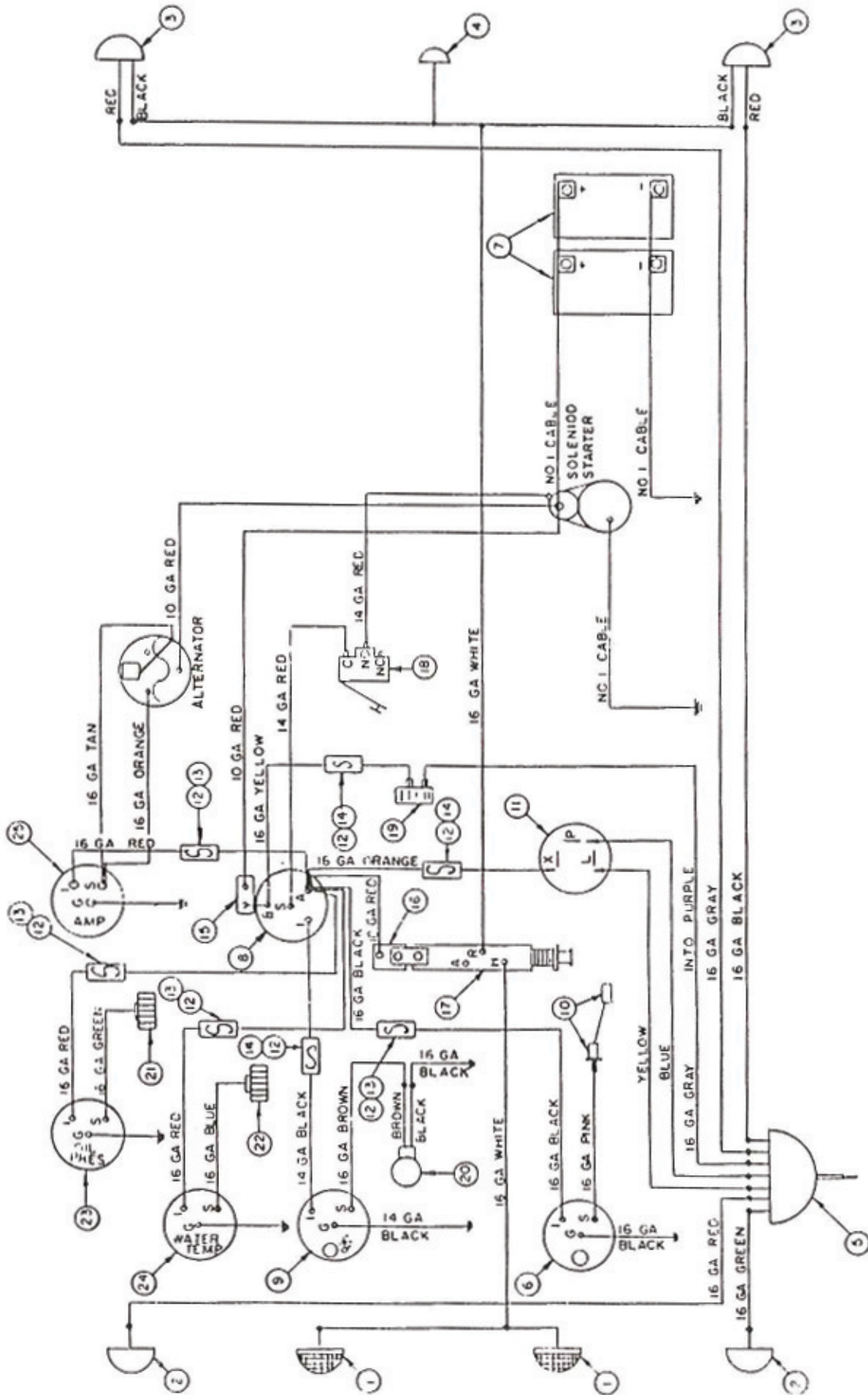
<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1	633020	1	Floor Plate
2	633064	1	Seat With Slide
3	633357	1	Seat Belts
4	633093	1	Seat and Valve Mount
5	633076	1	Light Mount
6	633070	1	Light Bar
7	633120	1	Steering Wheel
8	633356	1	Cap, Steering Wheel
9	633021	1	Console with Cluster Lights
10	633421	1	Console with Indicator Lights
11	633422	1	Console with Gauges
12	633071	1	Mount, Air Cleaner
13	633022	1	Console, Back (Not Shown)
14	633118	1	Steering Column

# ROPS CANOPY ASSY.



ROPS CANOPY ASSY.

<u>REF. NO.</u>	<u>PART NUMBER</u>	<u>QTY</u>	<u>DESCRIPTION</u>
1	633065	1	Canopy Frame
		8	Capscrew 1" NC x 2 1/2"
		8	Lockwasher 1"
		8	Hex Nut 1" NC
2	633466	1	Canopy Top
3	633315-45"	3	Neoprene Strip 1/8" x 2" x 45"
4	633315-51 1/2"	2	Neoprene Strip 1/8" x 2" x 51 1/2"
		4	Capscrew 5/8" NC x 4"
		4	Flatwasher 5/8"
		4	Lockwasher 5/8"
		4	Hex Nut 5/8" NC



# ELECTRICAL DIAGRAM / GAUGES

## ELECTRICAL ASSY. / GAUGES

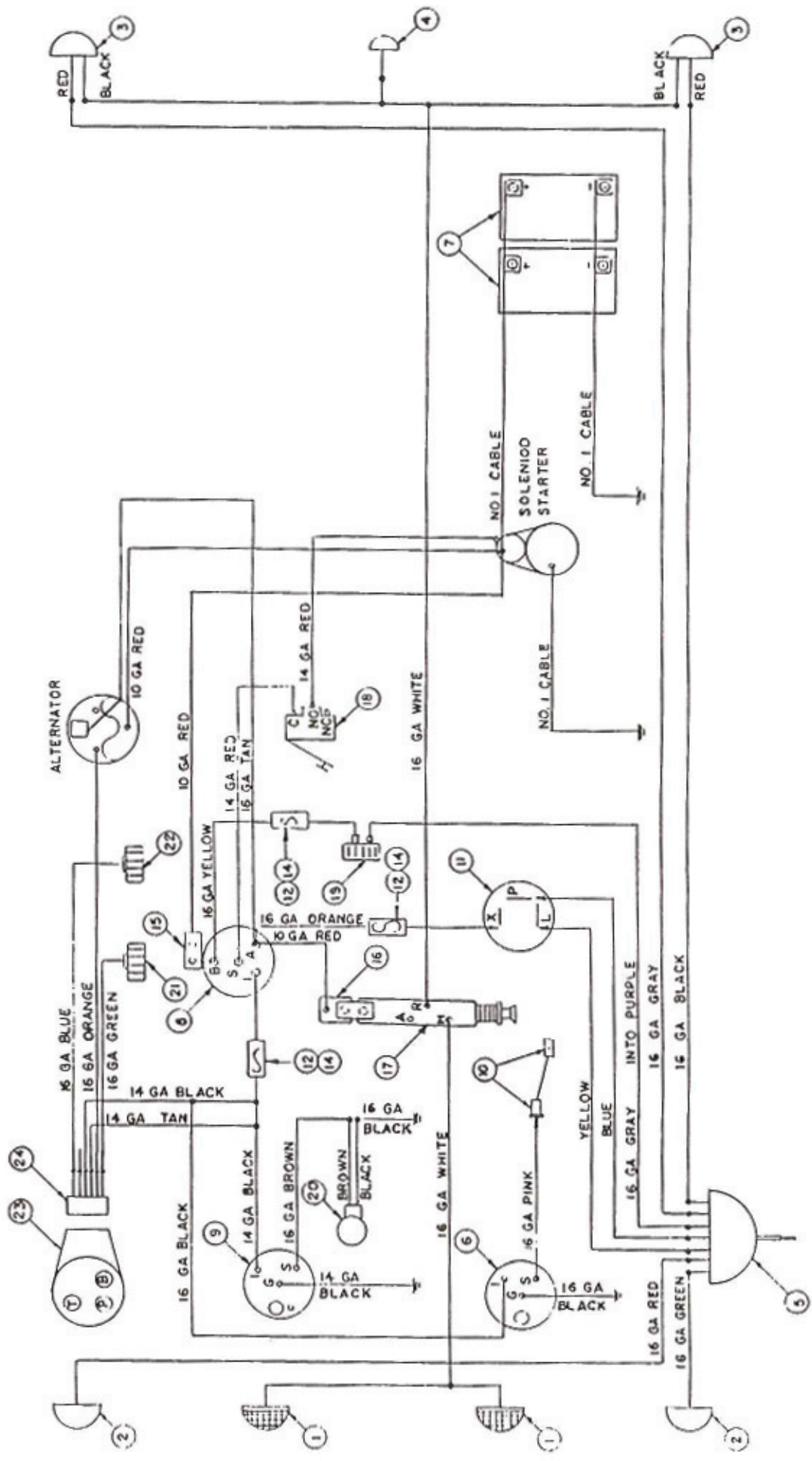
REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633158	2	Head Lamps
2	633157	2	Turn Signal Lamps
3	633156	2	Tail / Turn Lamps
4	633160	1	License Plate Lamp
5	633159	1	Turn Indicator, Switch
6	633061	1	Fuel Gauge
7	633485	2	Battery, 12 Volt
8	633348	1	Ignition Switch
9	633062	1	Tachometer
10	633480	1	Sending Unit, Fuel Gauge
11	633202	1	Turn Indicator, Flasher
12	633508	7	In-Line Fuse Holder
13	633181	4	Fuse, 20 AMP
14	633599	3	Fuse, 15 AMP
15	633598	1	Breaker, 40 AMP In-Line
16	633597	1	Breaker, 30 AMP In-Line
17	633441	1	Light Switch
18	633269	1	Neutral Safety Switch N.O.
19	633402	1	Brake Light Switch
20	633063	1	Pulse Generator, Tachometer
21	633455	1	Oil Pressure Sender Switch
22	633456	1	Water Temperature Sender Switch
23	633429	1	Oil Pressure Gauge 1/8" NPT
24	633430	1	Water Temperature Gauge 3/8" NPT
25	633431	1	Amp Meter
26	633503	2	Battery Bracket (Not Shown)
27	633507	4	J-Bolts (Not Shown)
28	633287	48"	Battery Cable, Positive (Not Shown)
29	633291	30"	Battery Cable, Negative (Not Shown)





## ELECTRICAL ASSY. / INDICATOR LIGHTS

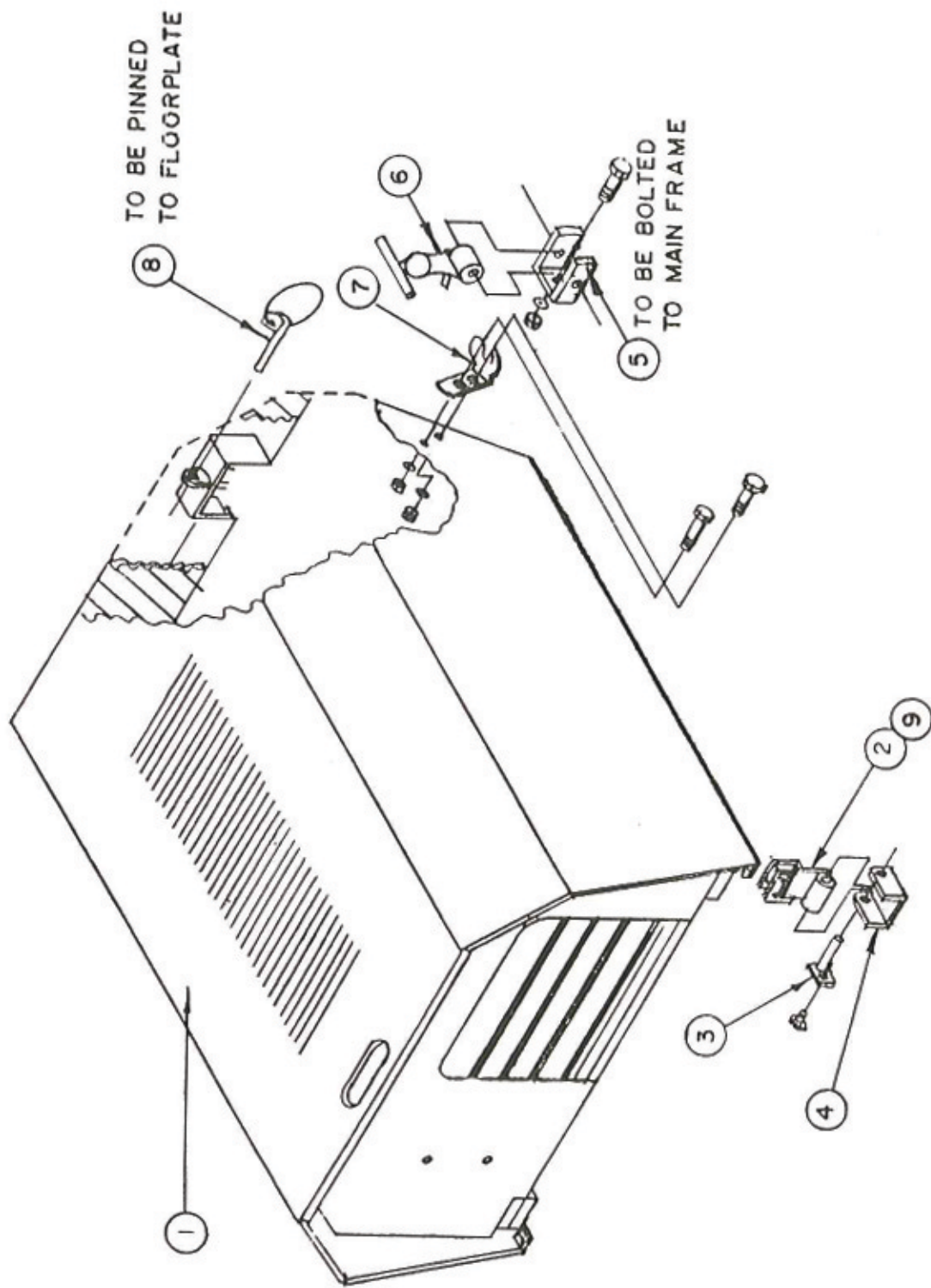
REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633158	2	Head Lamps
2	633157	2	Turn Signal Lamps
3	633156	2	Tail/Turn Lamps
4	633160	1	License Plate Lamp
5	633159	1	Turn Indicator, Switch
6	633061	1	Fuel Gauge
7	633485	2	Battery, 12 Volt
8	633348	1	Ignition Switch
9	633062	1	Tachometer
10	633480	1	Sending Unit, Fuel Gauge
11	633202	1	Turn Indicator, Flasher
12	633508	5	In-Line Fuse Holder
13	633181	2	Fuse, 20 AMP
14	633599	3	Fuse, 15 AMP
15	633598	1	Breaker, 40 AMP In-Line
16	633597	1	Breaker, 30 AMP In-Line
17	633441	1	Light Switch
18	633269	1	Neutral Safety Switch N.O.
19	633402	1	Brake Light Switch
20	633063	1	Pulse Generator, Tachometer
21	633167	1	Oil Pressure Sender Switch
22	633168	1	Water Temperature Sender Switch
23	633432	3	Indicator Lights-Red 12 VOLT
24	633503	2	Battery Bracket (Not Shown)
25	633507	4	J-Bolts (Not Shown)
26	633287	48"	Battery Cable, Positive (Not Shown)
27	633291	30"	Battery Cable, Negative (Not Shown)



ELECTRICAL DIAGRAM / CLUSTER LIGHTS

## ELECTRICAL ASSY. / CLUSTER LIGHTS

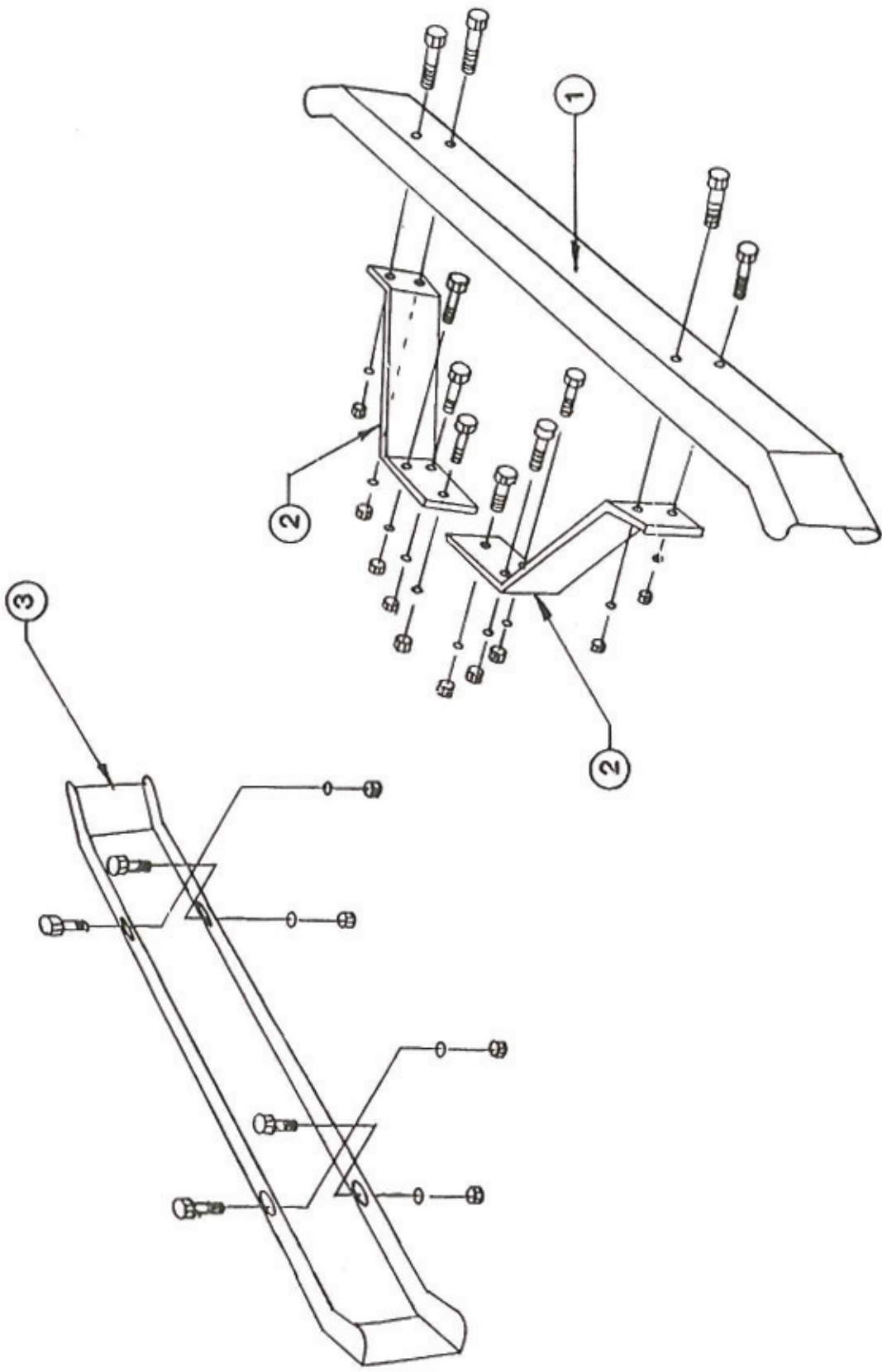
REF. NO.	PART NUMBER	QTY.	DESCRIPTION
1	633158	2	Head Lamps
2	633157	2	Turn Signal Lamps
3	633156	2	Tail/Turn Lamps
4	633160	1	License Plate Lamp
5	633159	1	Turn Indicator, Switch
6	633061	1	Fuel Gauge
7	633485	2	Battery, 12 Volt
8	633348	1	Ignition Switch
9	633062	1	Tachometer
10	633480	1	Sending Unit, Fuel Gauge
11	633202	1	Turn Indicator, Flasher
12	633508	3	In-Line Fuse Holder
13	633181	0	Fuse, 20 AMP
14	633599	3	Fuse, 15 AMP
15	633598	1	Breaker, 40 AMP In-Line
16	633597	1	Breaker, 30 AMP In-Line
17	633441	1	Light Switch
18	633269	1	Neutral Safety Switch N.O.
19	633402	1	Brake Light Switch
20	633063	1	Pulse Generator, Tachometer
21	633167	1	Oil Pressure Sender Switch
22	633168	1	Water Temperature Sender Switch
23	633072	1	Indicator Lights, Cluster
24	633438	1	Indicator Lights, Plug-In
25	633503	2	Battery Bracket (Not Shown)
26	633507	4	J-Bolts (Not Shown)
27	633287	48"	Battery Cable, Positive (Not Shown)
28	633291	80"	Battery Cable, Negative (Not Shown)



**COWLING ASSY.**

## COWLING ASSY.

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633109	1	Cowling Weldment
2	633434	1	Cowling Hinge Mount Weldment (L.H.)
		2	Capscrew 5/16" NC x 2"
		2	Lockwasher 5/16"
		2	Hex Nut 5/16" NC
3	633557	2	Hinge Pin (Cowling)
		2	Capscrew 5/16" NC x 1/2"
		2	Lockwasher 5/16"
4	633111	2	Cowling Mount
		4	Capscrew 3/8" NC x 1 3/4"
		4	Lockwasher 3/8"
		4	Hex Nut 5/16" NC
5	633374	2	Bolt Anchor Bracket
		2	Capscrew 5/16" NC x 1 1/2"
		2	Lockwasher 5/16"
		2	Hex Nut 5/16" NC
6	633358	2	Rubber Hook
7	633405	2	Hood Bracket
		4	Capscrew 3/16" NC x 1 1/2"
		4	Lockwasher 3/16"
		4	Hex Nut 3/16" NC
8		1	Ring Pin
9	633707	1	Cowling Hinge Mount Weldment (R.H.)
		2	Capscrew 5/16" NC x 2"
		2	Lockwasher 5/16"
		2	Hex Nut 5/16" NC



# BUMPERS / FRONT & REAR

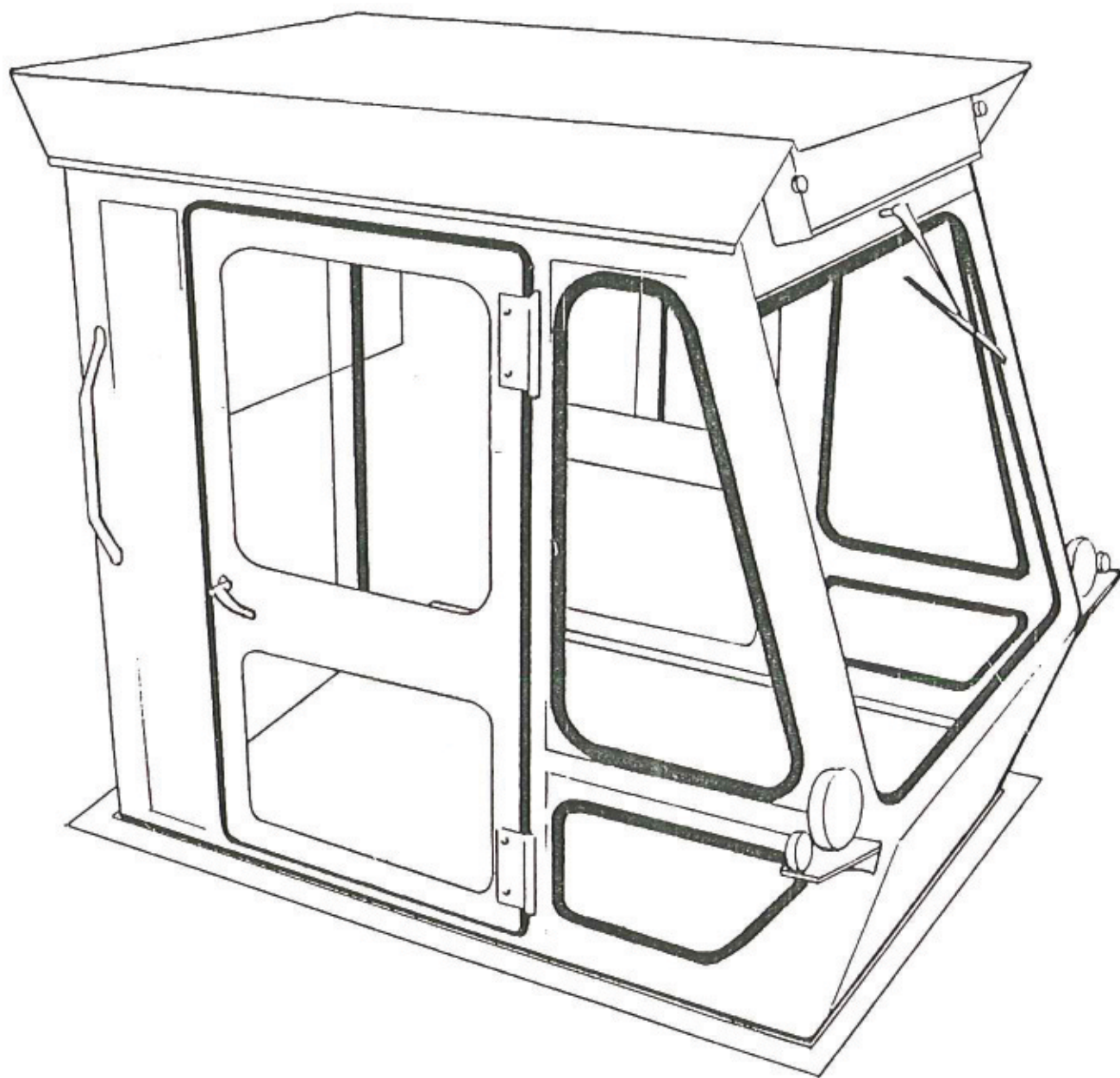
## BUMPERS / FRONT & REAR

REF. NO	PART NUMBER	QTY.	DESCRIPTION
1	633078	1	Bumper, Front
		4	Capscrew 1/2" NC x 1 1/4"
		4	Flatwasher 1/2" ID 1 3/8" OD
		4	Lockwasher 1/2"
		4	Hex Nut 1/2" NC
2	633066	2	Mount, Front Bumper
		6	Capscrew 1/2" NC x 1 1/2"
		6	Lockwasher 1/2"
3	633077	6	Hex Nut 1/2" NC
		1	Bumper, Rear
		4	Capscrew 1/2" NC x 1 1/2"
		4	Lockwasher 1/2"
		4	Hex Nut 1/2" NC

## DECALS

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	630269	1	Decal: Diesel
2	633708	1	Decal: Broom Pressure Control
3	630307	1	Decal: Parking Brake
4	630310	1	Decal: Transmission Control Lever
5	633572	1	Decal: Operating Instructions
6	633573	1	Decal: Sweeping Instructions
7	633574	1	Decal: Hydraulic Oil
8	633575	2	Decal: Larson (Large Oval)
9	633577	1	Decals: 6330 Stripe Set
10	633578	2	Grip Tape, Broom Cover 10 1/2" x 24"
11	633579	2	Grip Tape, Floor Plate 13" x 24"
12	633580	2	Grip Tape, Fender 5" x 10"
13	633581	1	Grip Tape, Brake Pedal 2" x 6"
14	633582	1	Grip Tape, Clutch Pedal 3" x 6 1/4"
15	633201	2	Slow Moving Sign
16	633325	1	Serial Number Plate





## CAB ASSY.

REF. NO.	PART NUMBER	QTY	DESCRIPTION
1	633600	1	Weldment, Cab Complete W/Skins
2	633601	1	Inside Side, Top Cover L.H.
3	633602	1	Inside Side, Top Cover R.H.
4	633603	1	Weldment Door, L.H.
5	633604	1	Weldment Door, R.H.
6	633605	1	Weldment Arm, Door Post, L.H.
7	633606	1	Weldment Arm, Door Post, R.H.
8	633607	2	Clip, Door Stop
9	633608	2	Weldment Door Catch
10	633609	2	Arm Lift
11	633610	1	Plate, Step Cab R.H.
12	633611	1	Plate, Step Cab L.H.
13	633612	2	Hanger, Pressurizer Filter
14	633626	1	Cab Top Skin, No Air Conditioner
15	633627	1	Bracket, Filter
16	633628	2	Handle, Outside W/Lock
17	633629	1	Outside Filter Pressurizer
18	633630	1	Pressurizer 12 Volt
19	633631	2	Hinge, Pressurizer Mounting
20	633632	1	Glass-Back 39 1/2" x 19"
21	633633	2	Glass-Door Top W/Pull Bar 12 x 24"
22	633634	2	Glass-Door Top 12 x 24"
23	633635	2	Glass-Door Bottom 15 3/8" x 21 1/2"
24	633536	1	Glass-Front 39 1/8" x 32 3/8"
25	633637	2	Glass-Corner Bottom 10" x 18"
26	633638	2	Glass-Corner Top 17" x 32"
27	633639	1	Cab Lock L.H.
28	633640	1	Cab Lock R.H.
29	633649	2	Handle, Inside Door

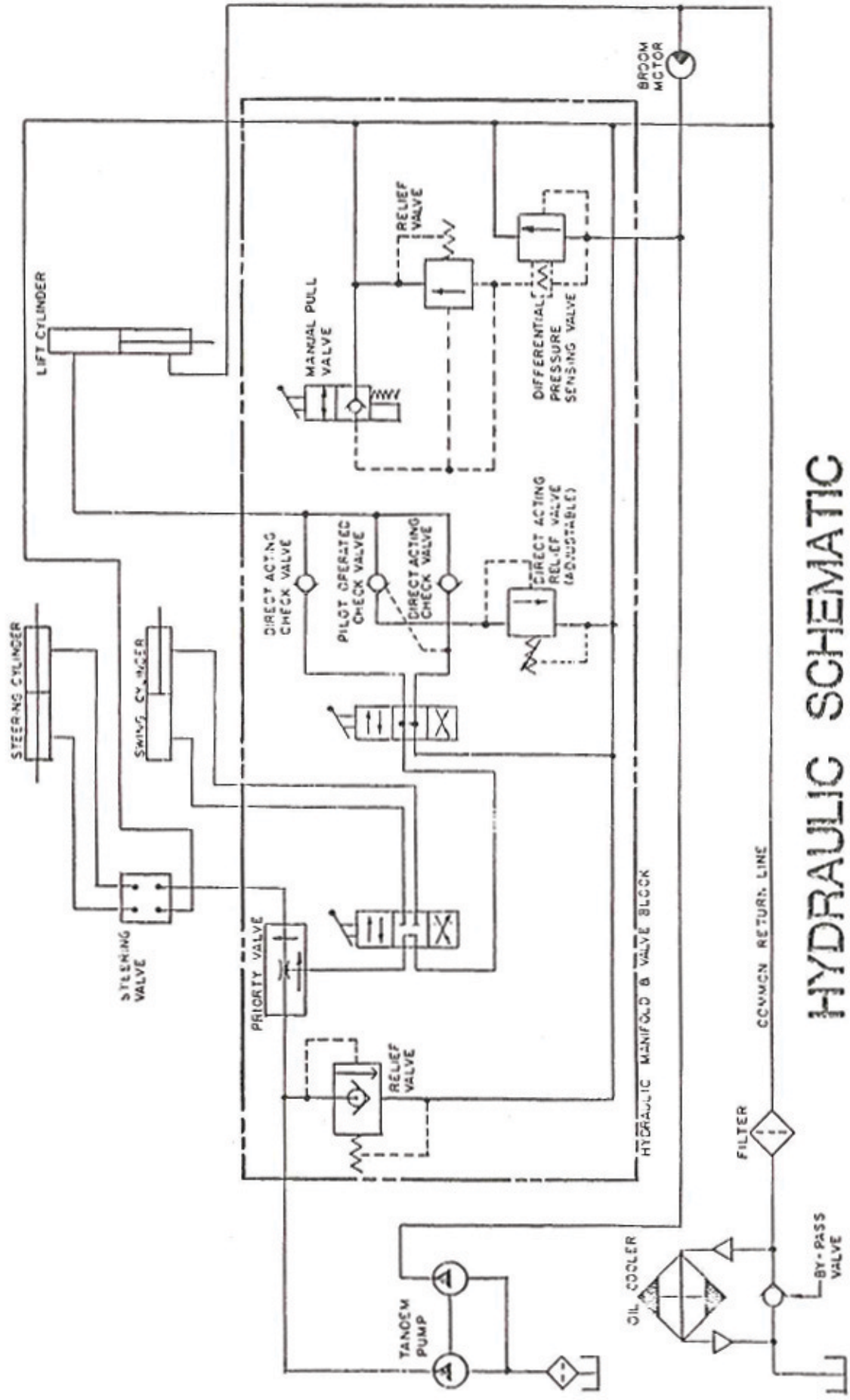
# BROOM COUNTERBALANCE

YOUR NEW LARSON MODEL 6330 SWEEPER IS EQUIPPED WITH AN EXCLUSIVE HYDRAULIC COUNTER BALANCE SYSTEM FOR THE BRUSH.

ALL OTHER SWEEPERS USE SPRINGS, OR NO COUNTERBALANCE. THE BRUSH SHOULD PRODUCE A "PATTERN" OF 6" TO 8" WHEN LOWERED TO "FLOAT" POSITION (OPERATING POSITION). CONTRARY TO SOME OPINION MORE PRESSURE ON THE BRUSH ONLY PRODUCES - MUCH GREATER BRUSH WEAR- LESS EFFECTIVE SWEEPING -GREATER POWER REQUIREMENTS.

THE ROUND KNOB TO THE RIGHT OF THE RAISE-LOWER LEVER IS THE COUNTER BALANCE CONTROL.

1. TO OPERATE ANY OF THE BROOM CONTROLS THE ENGINE RPM MUST BE ABOVE 1500 RPM.
2. TURNING THE COUNTER BALANCE KNOB TO THE RIGHT (CLOCKWISE) INCREASES THE COUNTERBALANCE EFFECT THE SAME AS TIGHTENING A SPRING (LESSENS THE BROOM PRESSURE ON THE GROUND) IT IS POSSIBLE TO INCREASE THE COUNTERBALANCE TO THE POINT THE BROOM WILL NOT LOWER.
3. WITH THE ENGINE RPM AT 2000 , THE BROOM DRIVE ENGAGED, THE SWEEPER STATIONARY, LOWER THE BRUSH INTO FLOAT POSITION. OBSERVE PATTERN ON GROUND, ADJUST COUNTERBALANCE UNTIL 6" TO 8" PATTERN IS OBTAINED. LESS PATTERN IS BEST AS BRUSH WILL 'LOAD' WITH TRAVEL.



# HYDRAULIC SCHEMATIC

( VEHICLE DRIVE NOT SHOWN )

OPERATOR'S MANUAL  
6330 LARSON SWEEPER

HYDRAULIC SYSTEM:

A brief description of the Hydraulic system is as follows: Hydraulic oil is contained in a 25 gallon reservoir located in the left side of the engine compartment. Oil leaves the hydraulic reservoir through internal 100 mesh filters. From there it flows through two (2) suction lines and into a tandem gear pump which is driven from the engine. Oil from the small section of the tandem pump is forced into a pressure line and flows to the hydraulic manifold valve block assembly. The valve block has a factory set relief valve to protect the system. The oil flows on to a priority valve which directs three (3) gallons per minute to the power steering system. From the power steering system, oil flows back to a common return line.

The excess oil from the small pump (after the priority is satisfied) flows on to the dual valve sections that are bolted between the valve blocks. An engine speed of approximately 1500-1600 rpm is required to satisfy the priority demand. The valve section nearest the operator controls the angle of the broom. This valve section is spring returned to the center position. The valve section furthest from the operator raises and lowers the broom. Moving the handle toward the rear of the machine raises the broom. Moving the handle forward to the detent position lowers the broom and allows it to "float" during the sweeping operation. The round knob nearby controls the pressure on a direct acting relief valve, which along with two (2) direct acting and one (1) pilot operated check valve adjusts and maintains the broom pressure on the surface being swept. Instructions for adjusting the broom counterbalance system are included elsewhere in this manual. Oil leaves the dual valve sections and the lower end of the broom lift cylinder and joins the common return line passing through a medium pressure return filter, and oil cooler or oil cooler by-pass valve and on to the oil reservoir.

Oil from the large section of the tandem pump is forced into a pressure line and flows to the hydraulic manifold/valve block assembly. The hydraulic manifold/valve block assembly contains a pilot operated differential pressure sensing valve which is used to divert oil to the common return line when the broom motor is off. Closing the differential pressure sensing valve blocks the oil's path to the common return line forcing the oil to go through the broom motor to the common return line and on through the return filter and oil cooler back to the oil reservoir. The broom is turned on and off with the toggle operated manual pull valve on the operator's right, toggle up is broom off, down is broom on. The broom circuit is protected by a factory set relief valve.

The hydraulic transmission offers infinitely variable control of speed and direction. The operator has complete control of the Larson Sweeper with the control lever or the Master Clutch foot pedal for starting, stopping, in forward or reverse motion.

Control of the variable piston displacement pump is the key to controlling the Larson Sweeper. Prime mover horse power is transmitted by the pump when the operator moves the control lever. When the variable piston pump swash plate is tilted, a positive stroke to the pistons is created. This flow is transferred through high pressure lines to the motor. The ratio of the volume of flow from the pump to the displacement of the motor will determine the speed of the motor output shaft. Moving the control lever to the opposite side of neutral, reverses oil flow from the pump and results in opposite rotation of the output shaft on the hydraulic motor. Speed of the output shaft is controlled by adjusting the displacement flow of the transmission. Load (working pressure) is determined by the external conditions (grade, ground conditions, etc.) and this establishes the demand on the system.

Pump and motor are contained in separate housings. All valves required for a closed loop circuit are included in either the pump or motor assemblies. Oil is drawn from the 25 gallon reservoir through a suction filter by the charge pump and is circulated in a closed loop through the pump and motor. A certain amount of internal leakage naturally occurs in the pump and motor. This leakage is used to lubricate and cool the pump and motor prior

to retraining the oil reservoir through the case drain hoses.

As in all hydraulic systems, reliability depends upon clean and cool oil. The two (2) inlet screens to the pumps should be removed with the cover plate on the rear end of the reservoir and cleaned the first 100 hours of operation and once annually thereafter. The return and suction filters should be replaced the first 50 hours of operation and then every 250 hours thereafter.