

Section Seven

Blender

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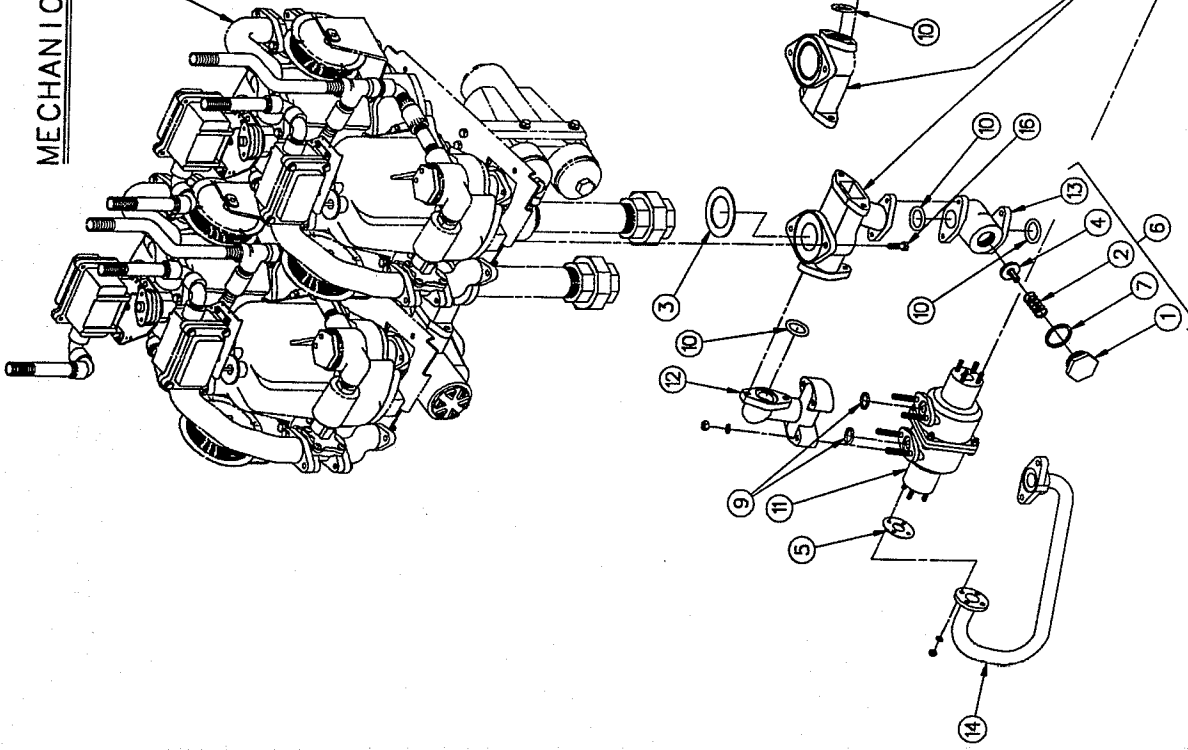
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MECHANICAL BLENDER SYSTEM

FOR TCS 30" *A*

For parts callout of TCS BLENDER HYDRAULICS ASSY. See dwg. no. 741376



Item No.	Part No.	Name Of Part
1	1-120731	Check Valve Cap
2	1-120733	Poppet Spring
3	1-124296	Inlet Gasket
4	213168-1	Poppet Disc & Relief Valve Assembly
5	1-228621	Inlet Tube Assy. Gasket
6	229228-1	Check Valve Assembly (includes items # 1, 2, 4, 7 & 13)
7	6-313235	Check Valve Cap Gasket
8	318251-1	Inlet Tube Assembly
9	15-318940	"O" Ring (1.046 I.D.)
10	17-318940	"O" Ring (1.234 I.D.)
11	1-418156	Blender (50:50) (includes mtg. hardware)
	2-418156	Blender (60:40) (includes mtg. hardware)
	3-418156	Blender (70:30) (includes mtg. hardware)
	1-418716	Blender Adapter (Outlet)
	1-418686	Check Valve
	419271-1	Inlet Tube Assembly
	35-50361	5/16-18 X 1" Lg. Hex Hd. Cap Screw
	296-50361	5/16-18 X 1-1/8 Lg. Hex Hd. Cap Screw

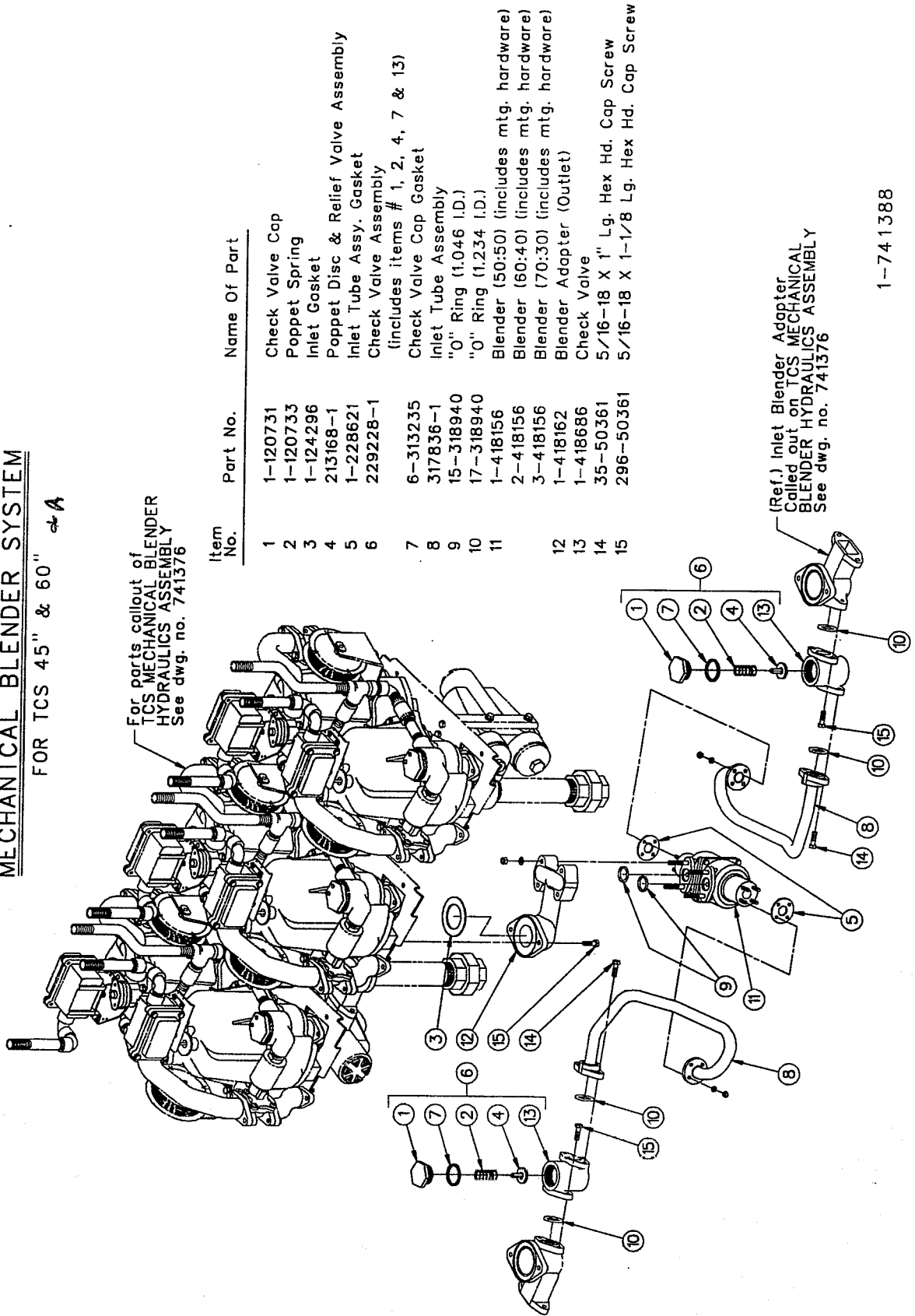
(Ref.) Inlet Blender Adapter
Called out on TCS BLENDER
HYDRAULICS ASSEMBLY
See dwg. no. 741376

1-741389

MECHANICAL BLENDER SYSTEM

FOR TCS 45" & 60" *A*

For parts callout of
TCS MECHANICAL BLENDER
HYDRAULICS ASSEMBLY
See dwg. no. 741376



Item No.	Part No.	Name Of Part
1	1-120731	Check Valve Cap
2	1-120733	Poppet Spring
3	1-124296	Inlet Gasket
4	213168-1	Poppet Disc & Relief Valve Assembly
5	1-228621	Inlet Tube Assy. Gasket
6	229228-1	Check Valve Assembly (includes items # 1, 2, 4, 7 & 13)
7	6-313235	Check Valve Cap Gasket
8	317836-1	Inlet Tube Assembly
9	15-318940	"O" Ring (1.046 I.D.)
10	17-318940	"O" Ring (1.234 I.D.)
11	1-418156	Blender (50:50) (includes mtg. hardware)
12	2-418156	Blender (60:40) (includes mtg. hardware)
13	3-418156	Blender (70:30) (includes mtg. hardware)
14	1-418162	Blender Adapter (Outlet)
15	1-418686	Check Valve
14	35-50361	5/16-18 X 1" Lg. Hex Hd. Cap Screw
15	296-50361	5/16-18 X 1-1/8 Lg. Hex Hd. Cap Screw

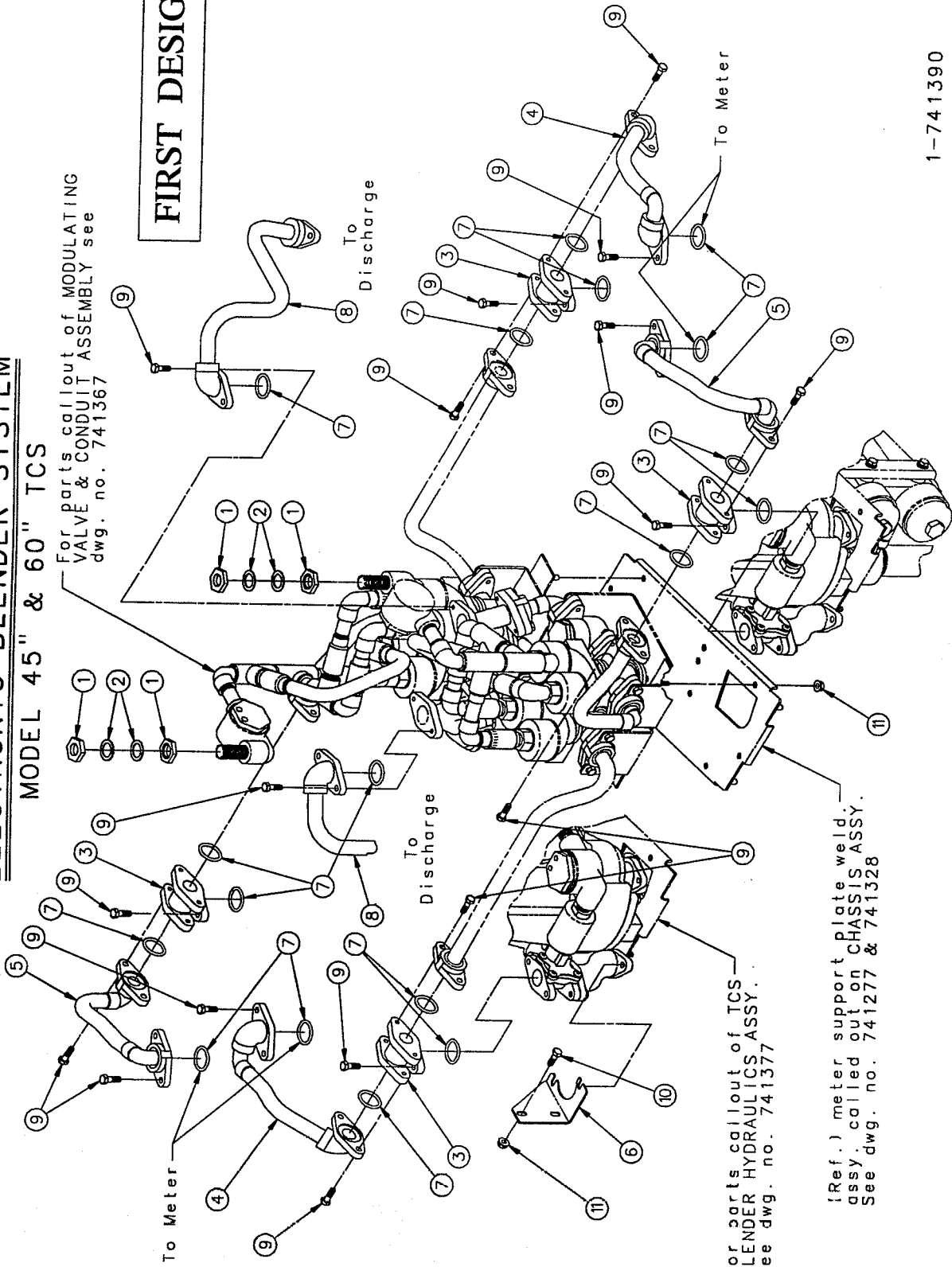
(Ref.) Inlet Blender Adapter
Called out on TCS MECHANICAL
BLENDER HYDRAULICS ASSEMBLY
See dwg. no. 741376

1-741388

ELECTRONIC BLENDER SYSTEM
MODEL 45" & 60" TCS

For parts callout of MODULATING VALVE & CONDUIT ASSEMBLY see dwg. no. 741367

FIRST DESIGN



For parts callout of TCS BLENDER HYDRAULICS ASSY. See dwg. no. 741377

(Ref.) meter support plate weld. assy. called out on CHASSIS ASSY. See dwg. no. 741277 & 741328

1-741390

1-741390

1 of 1

ELECTRONIC BLENDER SYSTEM - Model 45" & 60" TCS

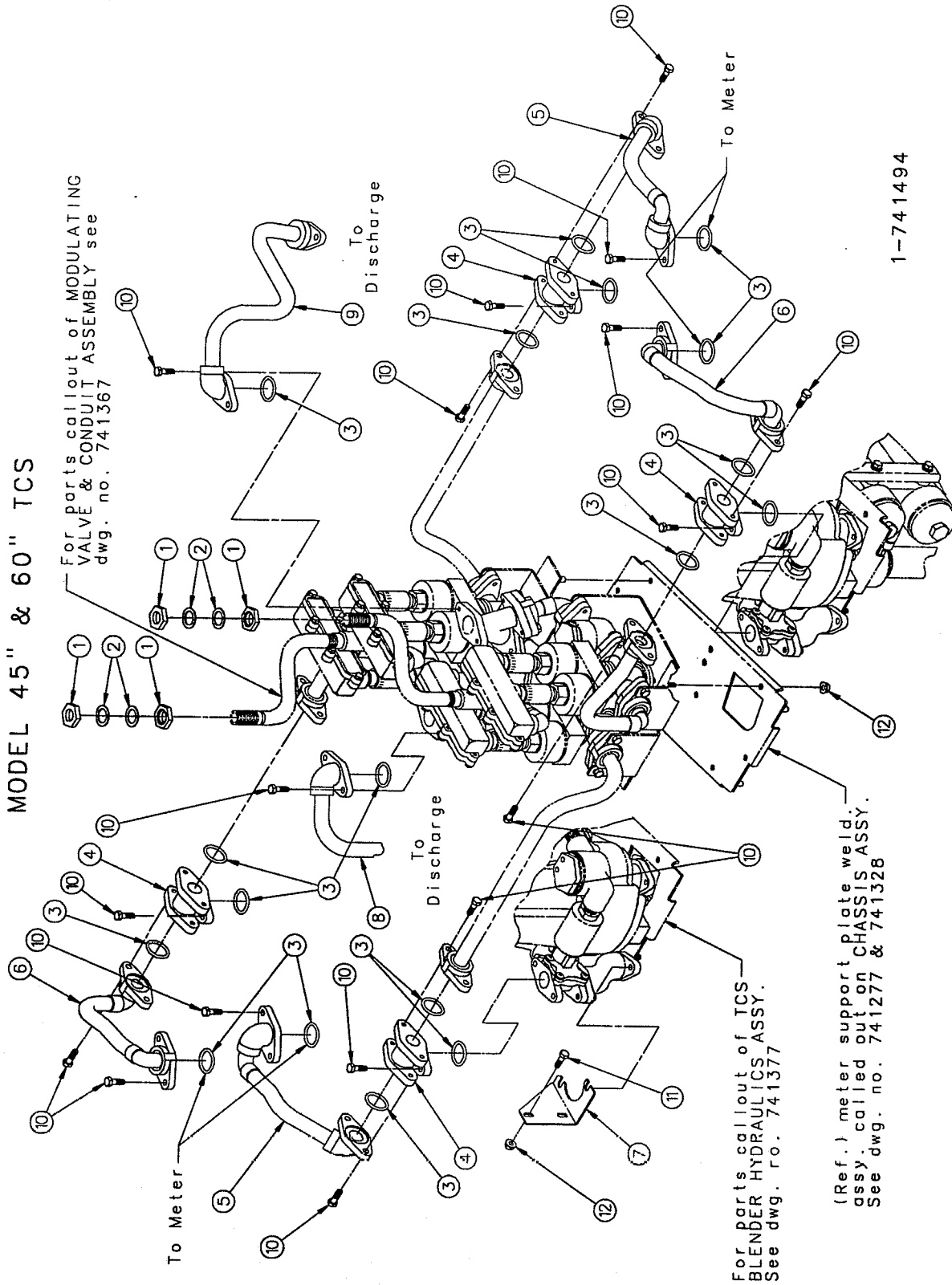
ITEM NO.	PART NO.	DESCRIPTION
1	1-130590	Nut
2	1-130613	Washer
3	1-318807	Tee
4	318876-1	Tube Assembly (Right)
5	318875-1	Tube Assembly (Left)
6	1-318886	Slip Joint Bracket
7	17-318940	"O" Ring
8	Tube Assembly	
	420291-1	Low Profile (use 420595-1)
	420302-1	High Hose
	420595-1	Low Profile
9	35-50361	5/16-18 X 1" Large Hex Head Cap Screw
10	35-54742	5/16-18 X 5/8" Large M-F Flange Whiz-Lock Screw
11	02-94792	5/16-18 M-F Flange Whiz-Lock Nut

1-741390

FIRST DESIGN

ELECTRONIC BLENDER SYSTEM

MODEL 45" & 60" TCS



1-741494

1-741494

1 of 1

ELECTRONIC BLENDER SYSTEM

Model 45" & 60" TCS

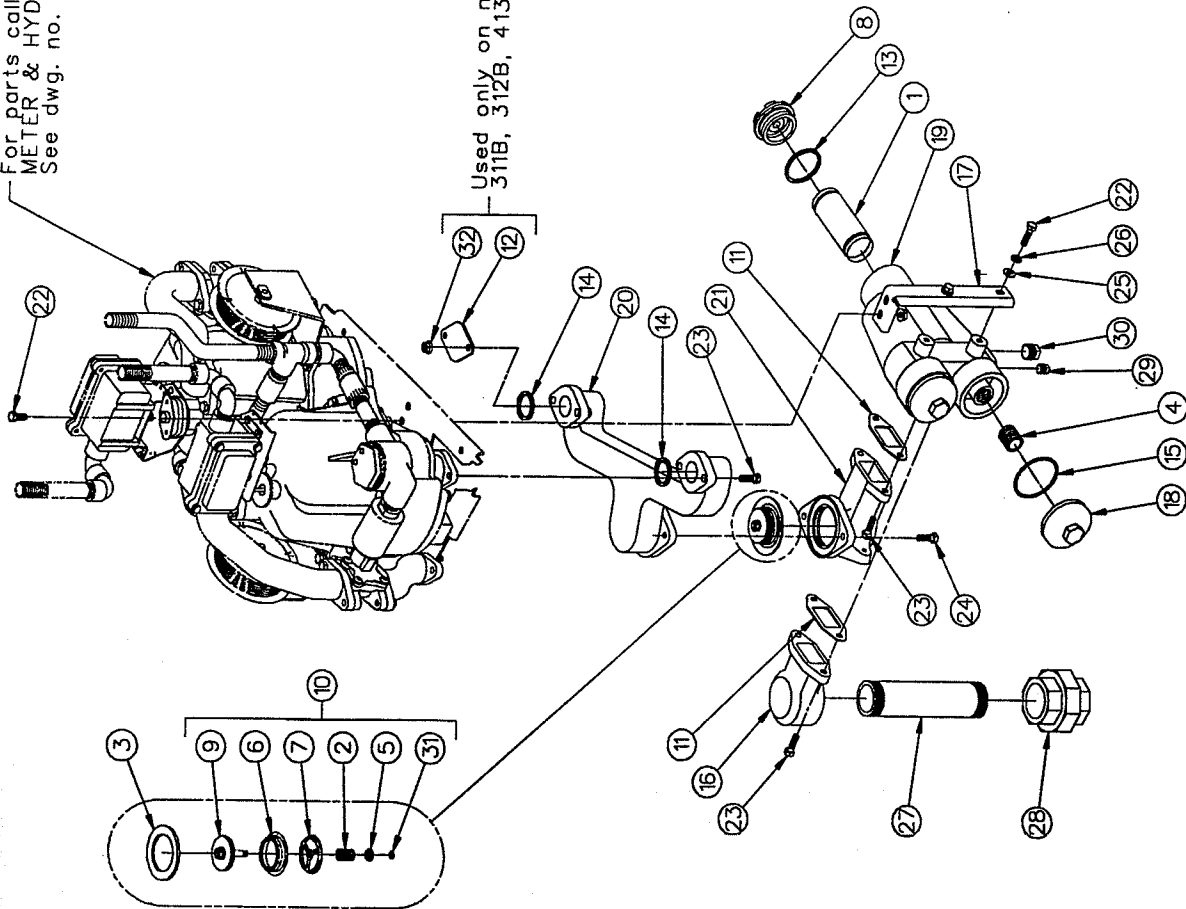
ITEM NO.	PART NO.	DESCRIPTION
1	1-130590	Nut
2	1-130613	Washer
3	13-313235	Gasket
4	1-318807	Tee
5	318876-1	Tube Assembly (Left)
6	318875-1	Tube Assembly (Right)
7	1-318886	Slip Joint Bracket
8	Tube Assembly 420302-1 420595-1 420595-2	H426A-R-EB, H628A-R-EB 426A-R-EB 426A-R-EB-V
9	Tube Assembly 420302-1 420556-1 420595-1 420595-2	H426A-R-EB, H413A-R-EB, H614A-R-EB H628A-R-EB 426A-R-EB, 413A-R-EB, 614A-R-EB 426A-R-EB-V, 413A-R-EB-V, 614A-R-EB-V
10	35-50361	5/16-18 X 1" Long Hex Head Cap Screw
11	35-54742	5/16-18 X 5/8" Long M-F Flange Whiz-Lock Screw
12	02-54752	5/16-18 M-F Flange Whiz-Lock Nut

1-741494

TCS BLENDER HYDRAULICS ASSEMBLY

For parts callout of
METER & HYDRAULICS ASSY.
See dwg. no. 741377

Used only on models
311B, 312B, 413B & 614B



2-741376

2-741376

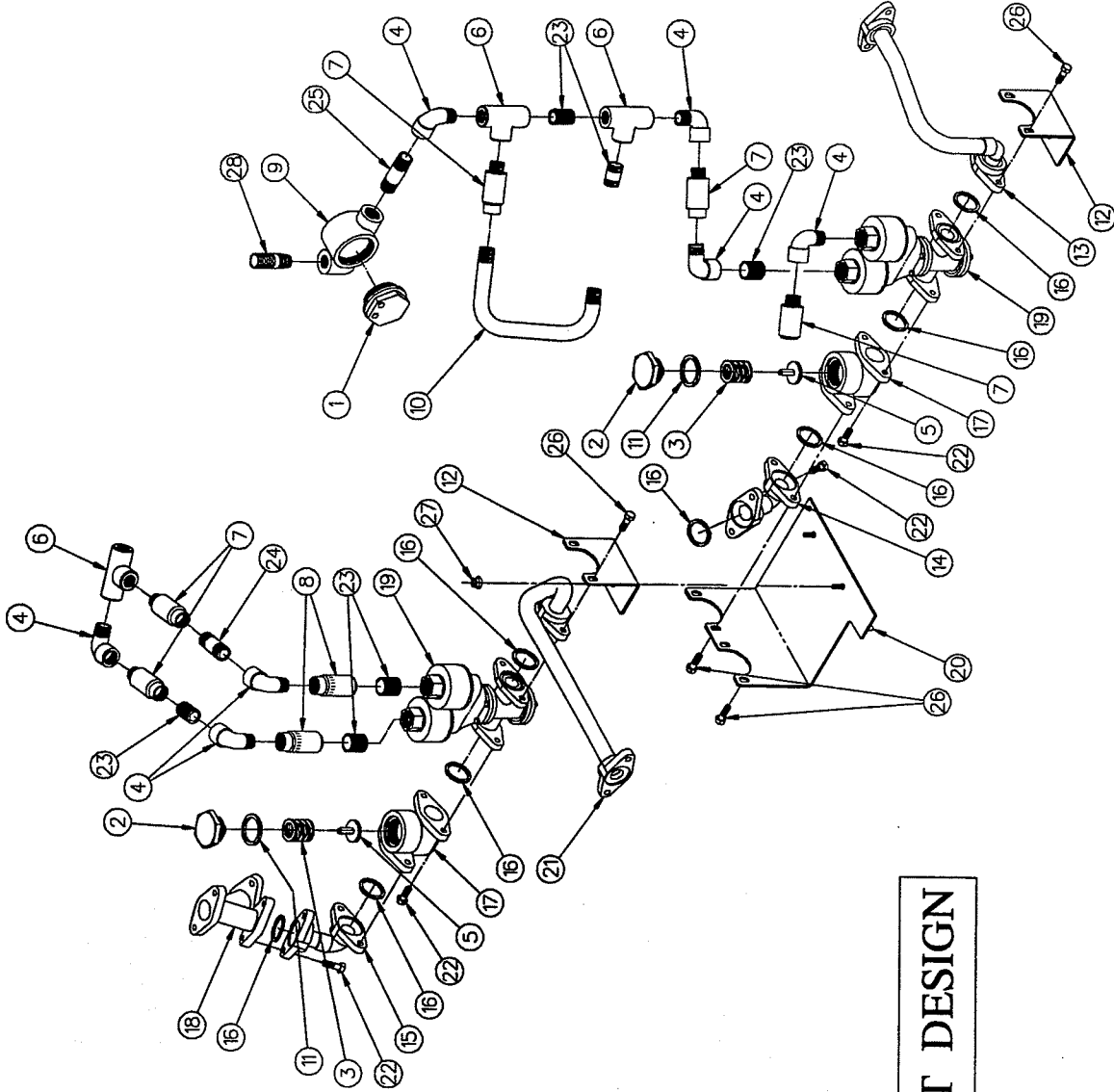
1 of 1

TCS BLENDER HYDRAULICS ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1		Strainer Screen Complete	19	1-417286	Filter - Strainer Body
	1-115075	Gas	20	1-418022	Manifold
	2-115075	Diesel	21		Inlet Blender Adapter
2	1-121564	Poppet Spring		1-418161	All Models Except 30" Fuel Point #2
3	1-124296	Gasket		1-419267	30" Fuel Point #2 Only
4	1-125865	1" x 1-1/8" Long Nipple	22	32-50361	5/16-18 x 5/8" Long Hex Head Cap
5	1-126871	Poppet Spring Washer			Screw
6	2-212443	Valve Seat	23	35-50361	5/16-18 x 1" Long Hex Head Cap
7	1-212444	Poppet Guide			Screw
8	1-215030	Suction Strainer Cap	24	296-50361	5/16-18 x 1-1/8" Long Hex Head
9	216132-1	Valve Poppet Assembly			Cap Screw
10	216133-1	Check Valve Assembly (Includes Items #2, 5, 6, 7, 9 & 31)	25	08-50621	5/16" Plain Washer
11	1-227765	Gasket	26	14-50641	5/16" Lockwasher
12	1-228345	Manifold Cap	27	128-50560	1-1/2" x 8" Long Pipe Nipple
13	2-313235	Gasket	28	27-51780	1-1/2" Female Union
14	13-313235	Gasket	29	02-51891	1/4-18 Pipe Plug
15	16-313235	Gasket (Used Only With Cap)	30	04-51891	1/2-14 Pipe Plug
16	1-317410	Inlet Adapter	31	08-53270	Reliance Square Snap Ring (Closed)
17	1-317456	Filter Body Bracket	32	02-54752	5/16-18 M-F Flange Whiz Lock
18	1-318183	Cap			
	1-218950	Wix Filter			
	1-226999	Water Alert Filter (Gas)			
	2-226999	Water Alert Filter (Diesel)			
	3-226999	Water Alert Filter (Alcohols)			

2-741376

MODULATING VALVE & CONDUIT ASSEMBLY
45" & 60" ELECTRONIC BLENDER



FIRST DESIGN

1-741367

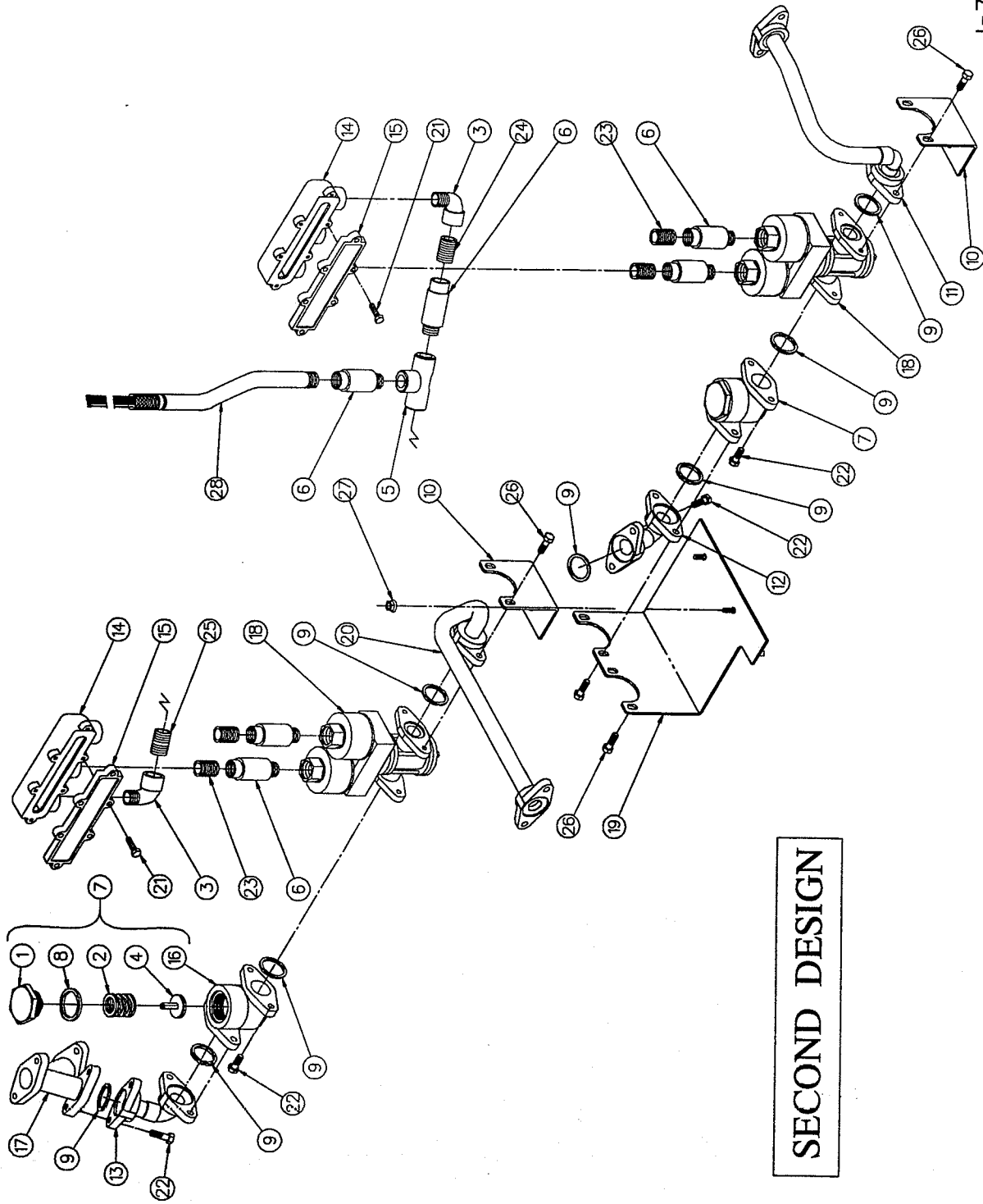
1-741367
1 of 1

MODULATING VALVE & CONDUIT ASSEMBLY

45' & 60" ELECTRONIC BLENDER

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-19167	Connection Box Cover	24	15-50710	1/2" x 2" Long Conduit Nipple
2	1-120731	Check Valve Cap	25	20-50710	1/2" x 2-1/2" Long Conduit Nipple
3	1-120733	Poppet Spring	26	40-54742	5/16-18 x 1-1/4" Long M-F Flange Whiz-Lock Nut
4	1-128035	1/2" x 90° Conduit Street Elbow	27	02-54752	5/16-18 M-F Flange Whiz-Lock Nut
5	213168-1	Poppet Disc & Relief Valve Assembly	28	420306-3	Wire Harness Assembly
6	1-217337	Conduit Tee	Order: 229228-1 for Check Valve Assembly (Includes items #2, 3, 5, 11 & 17)		
7	1-218941	Expansion Union Male/Female			
8	1-219892	Expansion Union Female/Female			
9	1-229409	Splice Box			
10	1-230651	Conduit			
11	6-313235	Gasket			
12	1-318861	Bracket			
13	318873-1	Tube Assembly			
14	318874-1	Tube Assembly (Right)			
15	318874-2	Tube Assembly (Left)			
16	13-313235	"O" Ring	1-741367		
17	1-418686	Check Valve	<div style="border: 1px solid black; padding: 5px; display: inline-block;">FIRST DESIGN</div>		
18	1-420183	Blender Adapter			
19	1-420241	Modulating Valve			
	3-420241	Coil Replacement (Normally Closed)			
	4-420241	Coil Replacement (Normally Open)			
20	420262-1	Mounting Plate			
21	420278-1	Tube Assembly			
22	35-50361	5/16-18 x 1" Long Hex Head Cap Screw			
23	01-50710	1/2" Close Nipple			

MODULATING VALVE & CONDUIT ASSEMBLY



1-741493

SECOND DESIGN

1-741493
1 of 1

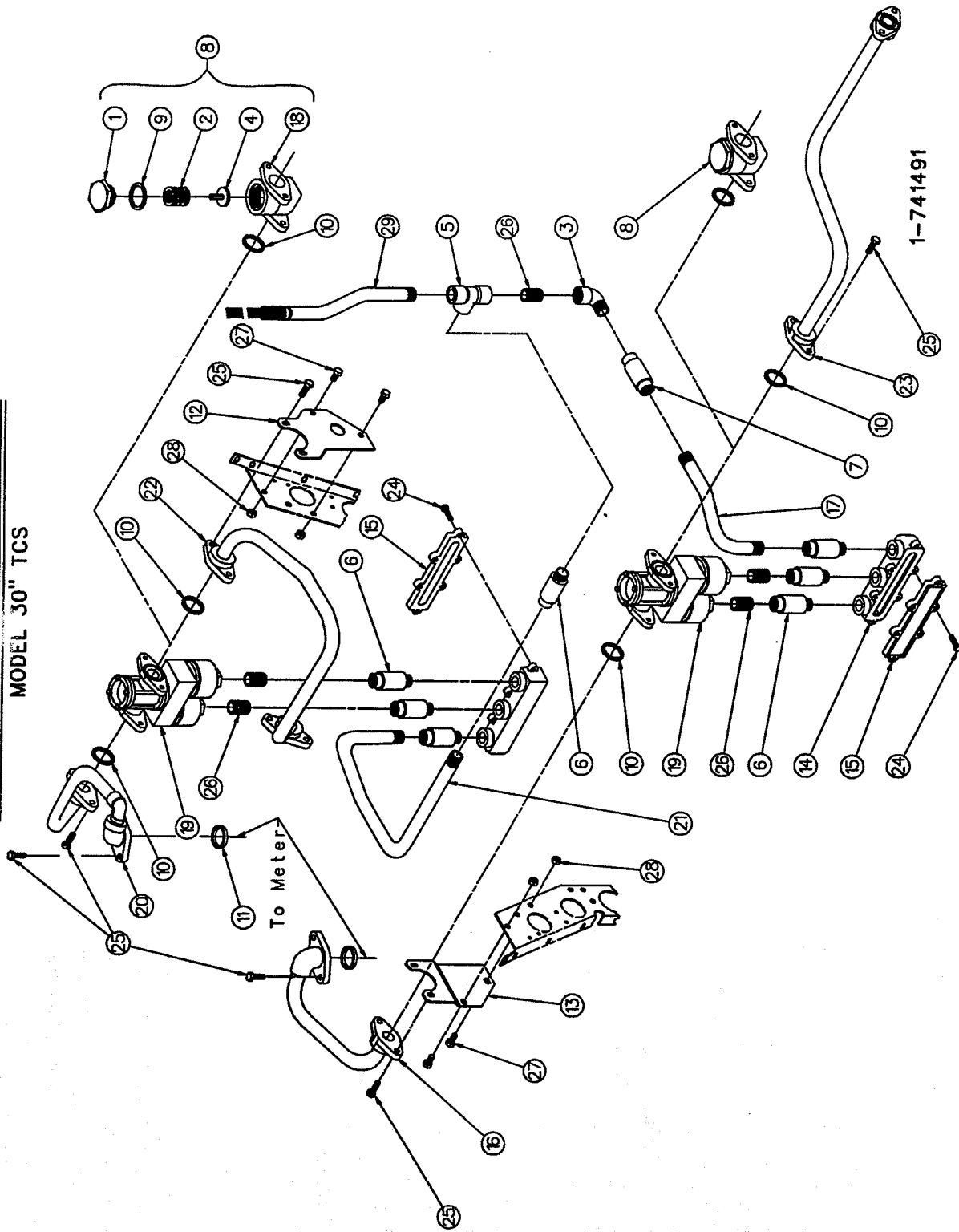
MODULATING VALVE & CONDUIT ASSEMBLY
45' & 60" ELECTRONIC BLENDER

ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-120731	Check Valve Cap	27	02-54752	5/16-18 M-F Whiz-Lock Nut
2	1-120733	Poppet Spring	28	421111-4	Conduit & Wire Harness Assembly
3	1-128035	1/2 x 90° Conduit Street Elbow			
4	213168-1	Poppet Disc & Relief Valve Assembly			
5	1-217337	Conduit Tee			
6	1-218941	Expansion Union (Male Female)			
7	229228-1	Check Valve Assembly			
8	6-313235	Gasket			
9	13-313235	Gasket			
10	1-318861	Bracket			
11	318873-1	Tube Assembly			
12	318874-1	Tube Assembly (Right)			
13	318874-2	Tube Assembly (Left)			
14	1-318995	Valve Box			
15	1-319004	Valve Box Cover			
16	1-418686	Check Valve			
17	1-420183	Blend Adapter			
18	1-420241	Modulating Valve			
19	420262-1	Mounting Plate Welding Assembly			
20	420278-1	Tube Assembly			
21	03-50361	1/4-20 x 3/4" Long Hex Head Cap Screw			
22	35-50361	5/16-18 x 1" Long Hex Head Cap Screw			
23	15-50700	1/2" x 1-1/8" Long Conduit Nipple			
24	16-50700	1/2" x 1-1/4" Long Conduit Nipple			
25	18-50700	1/2" x 1-9/16" Long Conduit Nipple			
26	40-54742	5/16-18 x 1-1/4" Long M-F Whiz Lock Screw			

1-741493

SECOND DESIGN

5 PRODUCT BLENDER SYSTEM
MODEL 30" TCS



1-741491
1 of 1

MODULATING VALVE & CONDUIT ASSEMBLY

30" TCS

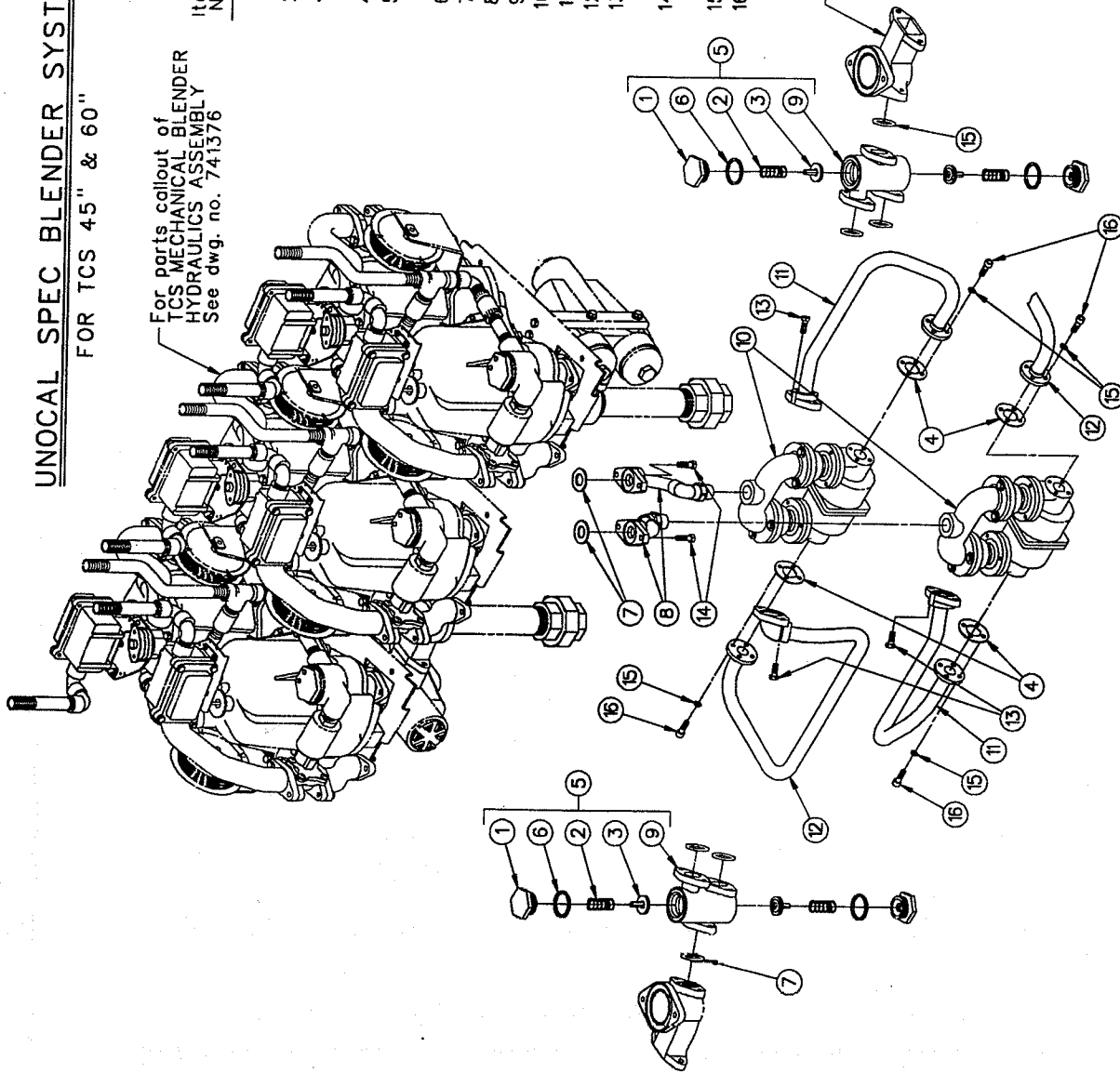
ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	1-120731	Check Valve Cap	23	Tube Assembly	
2	1-120733	Poppet Spring	420667-1	H322A-R-B5 With Out Check Valve	
3	1-128035	1/2" x 90° Conduit Street Elbow	420768-1	VH322A-R-B5	
4	213168-1	Poppet Disc & Relief Valve Assembly	420682-1	322A-R-B5	
5	1-217337	Conduit Tee	05-50361	1/4-20 x 1" Long Hex Head Cap	
6	1-218941	Expansion Union (Male-Female)		Screw	
7	1-219892	Expansion Union (Female-Female)	35-50361	5/16-18 x 1" Long Hex Head Cap	
8	229228-1	Check Valve Assembly		Screw	
9	6-313235	Gasket	01-50710	Close Nipple	
10	13-313235	Gasket	35-54742	5/16-18 x 5/8 Long M-F Hex Head	
11	17-313235	Gasket		Whiz-Lock Screw	
12	1-318985	Right Hand Support Bracket	02-54752	5/16-18 M-F Flange Whiz-Lock Nut	
13	1-318990	Left Hand Support Bracket	231168-1	Conduit & Wire Harness Assembly	
14	1-318995	Valve Box			
15	1-319004	Valve Box Cover			
16	319012-1	Tube Assembly			
17	1-319021	Conduit			
18	1-418686	Check Valve			
19	1-420241	Modulating Valve			
20	420466-1	Tube Assembly			
21	1-420537	Conduit			
22	Tube Assembly				
	420638-1	H322A-R-B5 With Out Check Valve			
	420684-1	322A-R-B5			
	420743-1	VH322A-R-B5			

1-741491

UNOCAL SPEC BLENDER SYSTEM

FOR TCS 45" & 60"

For parts callout of
TCS MECHANICAL BLENDER
HYDRAULICS ASSEMBLY
See dwg. no. 741376



Item No.	Part No.	Name Of Part
1	1-120731	Check Valve Cap
2	1-120733	Poppet Spring
3	213168-1	Poppet Disc & Relief Valve Assembly
4	1-228621	Inlet Tube Assy. Gasket
5	230616-1	Check Valve Assy. (Includes Items # 1, 2, 3, 6 & 9)
6	6-313235	Check Valve Cap Gasket
7	13-313235	Gasket
8	318857-1	Blend Valve Outlet Assembly
9	1-420081	Check Valve Body
10	1-420249	Gilbarco Blend Valve
11	420294-1	Inlet Tube Assembly
12	420296-1	Inlet Tube Assembly
13	35-50361	5/16-18 X 1" Lg. Hex Hd. Cap Screw
14	296-50361	5/16-18 X 1-1/8 Lg. Hex Hd. Cap Screw
15	13-50641	1/4 Split Lockwasher
16	34-52751	1/4-20 X 5/8 Lg. Socket Hd. Cap Screw

(Ref.) Inlet Blender Adapter
Called out on TCS MECHANICAL
BLENDER HYDRAULICS ASSEMBLY
See dwg. no. 741376

1-741413