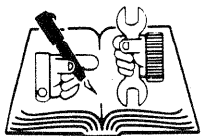


PARTS MANUAL

TOWING WINCH D7J



Hyster Easy Language Program

CUSTOMER EDITION

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INDEX

SECTION A	Introduction	
SECTION B	Frames, Covers and Mounting Studs	A04
SECTION D	Gear Train and Shafts	B02
SECTION E	Brake and Shifter Mechanism—Direct Drive	C02
SECTION F	Brake and Hydraulic System—Power Control	D02
SECTION G	Optional Equipment	E02
SECTION Q	Numerical Index	G02

USE HYSTER APPROVED PARTS... *it pays*

UNIT IDENTIFICATION

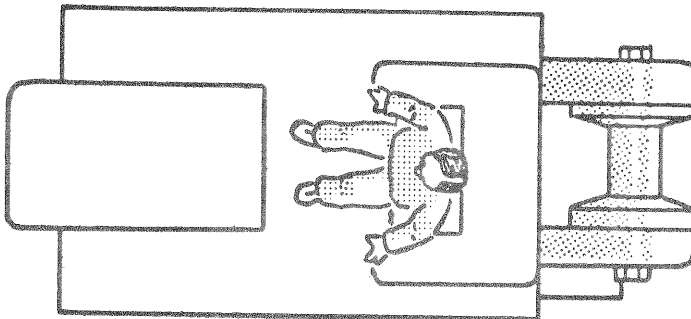
UNIT SERIAL NO.

X	O	X	0000	X
I	I	I	I	I
(1)	(2)	(3)	(4)	(5)

- (1) & (2) The first letter and number denote the design series and model of the unit.
- (3) The second letter denotes the plant at which the unit was manufactured.
- (4) The number series denotes the serial number of the unit.
- (5) The final letter denotes the year of manufacture starting with "A" in 1957. The letters "I", "O", and "Q" will not be used.

**Parts Referred To In This Book As Right Or Left Hand Parts
Are In Accordance With The Sketch Below**

R. H. Side



L. H. Side

CAUTION!

**Never Attempt To Clean, Oil Or Adjust A Machine
While It Is In Motion**

**NOTE: All Studs and Capscrews used in this Winch
are Heat-treated.**

USE HYSTER APPROVED PARTS... it pays

Section A

INTRODUCTION

USE HYSTER APPROVED PARTS... *it pays*

How To Use The Illustrated Parts Manual

This Parts Book describes and illustrates assemblies, sub-assemblies and detail parts needed for service replacement.

D89B
Form 853
REVISION NO. 2
2/68

INDEX

Service, Operation and Installation Instructions

Frames, Covers and Mounting

Gear Train and Shaft Gear

Hydraulic System and

Optional Equipment

Numerical Index

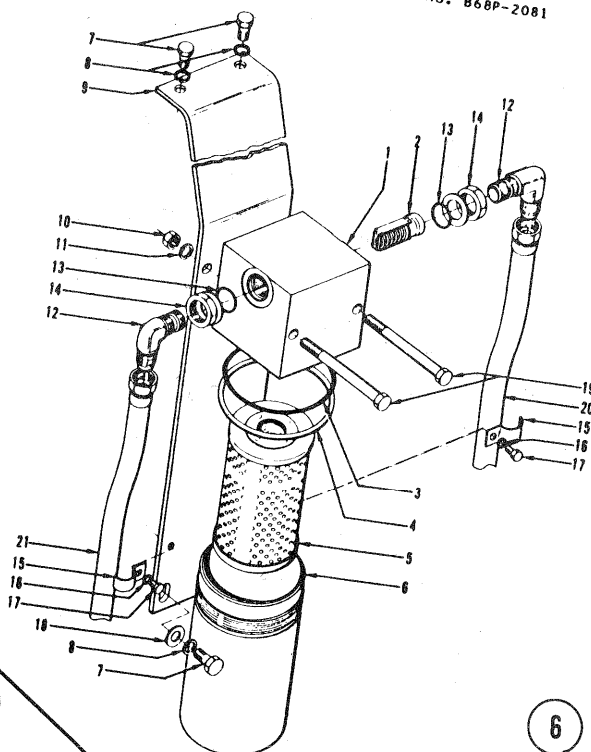
SECTION Q

Section Q NUMERICAL INDEX

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
142	F3	16165	F2	18889	F2	89	
206	F12	16200	F8	18903	F11	89	
6327	D1	16220	F3	18994	F8	891	
9413	F12	16352	D1	19871	F3	897	
9455	D1	16386	D3	19987	D5	902C	
10389	D4	16397	D2	21420	B2	92212	
12479	D3	16448	F2	27187	F8	92606	
12480	D6	16466	F2	29582	F4	92671	
12823	D5	16482	F4	30059	D2	92720	
12898	F3	16484	F4	30080	D2	967	
199	F6	16485	F10				
7	D2	16487					
	D1						

FILTER

FIRST USED ON WINCH SERIAL NO. B68P-2081



KEY
A-FOR D8 TRACTORS.
B-FOR D9 TRACTORS.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	147461	FILTER	1
2	149295	HEAD ASSEMBLY	1
3	149297	RELIEF VALVE ASSEMBLY	1
4	149298	O-RING	1
5	147463	RING-BACK UP	1
6	149296	ELEMENT	1
7	16829	CASE	1
8	15158	CAPSCREW-1/2 UNC X 1	1
9	154760	LOCKWASHER-1/2	1
10	151713	PLATE	4
11	15057	NUT-7/16 UNC	4
	15157	LOCKWASHER	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
12	16562	ELBOW	2
13	16487	O-RING	1
14	16589	LOCKNUT	1
15	151714	CLAMP	2
16	15156	LOCKWASHER-3/8	1
17	16870	CAPSCREW-3/8 UNC X 1/2	1
18	38760	WASHER	2
19	18578	CAPSCREW-7/16 UNC	2
20	147455	HOSE	2

When The Part Number Is Not Known

1. **USE:** Determine the function and application of the part required. Turn to the index page immediately behind the front cover and select the most appropriate section.
2. Line up the black arrow with the black tab on

the index page of the selected section. Use the section index to determine the assembly which would normally contain the part required. Proceed then to locate the part on the assembly breakdown page.

When The Part Number Is Known

3. Use the numerical index (section Q) to find the part number. Turn to the page listed and locate the required part in the assembly breakdown.

GENERAL: The assembly breakdowns include part numbers, description, quantities required, keys and footnotes to help in selecting the correct parts.

4. Keys are used to show effective serial numbers, two or more similar assemblies. Select the appropriate key, "A," "B," "C" or "D" and find the required part in the corresponding column.
5. Indent numbers are used to indicate assemblies and sub-parts of assemblies. Number 1 is the major assembly. Part descriptions which are indented under 2, 3 or 4 are sub-parts of that major assembly shown above.
6. Quantities shown are for one assembly. Note that two assemblies are shown, but the quan-

ties of the sub-parts are indicated as one. This means one per assembly.

7. The revision number and date on the index page, indicates the latest printing of the manual.

DEALERS NOTE: When supplements are issued to up-date the manuals, the index page with the latest revision number and date are included with the supplement. Be sure the index pages are added to the manuals in your possession.

ORDERING PARTS:

When ordering replacement parts, give the winch serial number, manual form number (and revision number, if any), part number, name of part and quantity required.

For any further information on parts, service, or ordering, consult your Hyster dealer.

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Section B

FRAMES, COVERS AND

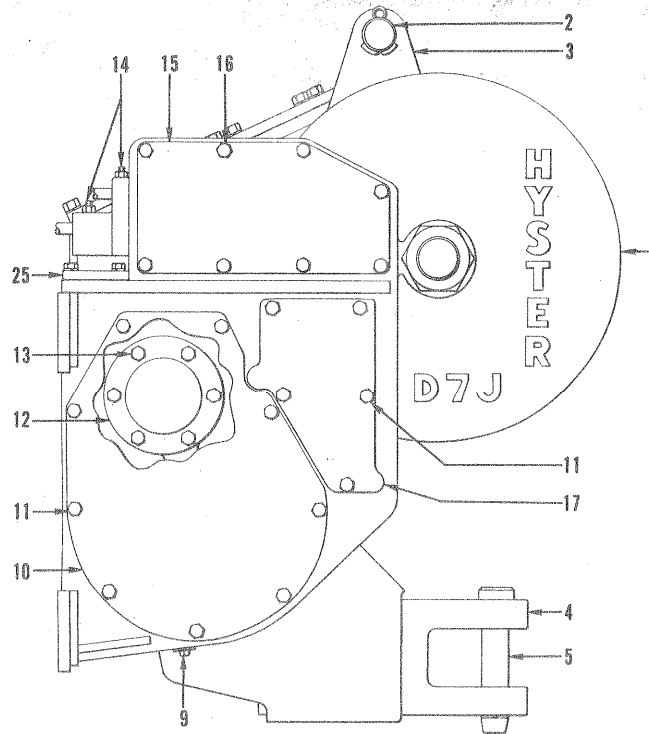
MOUNTING STUDS

INDEX

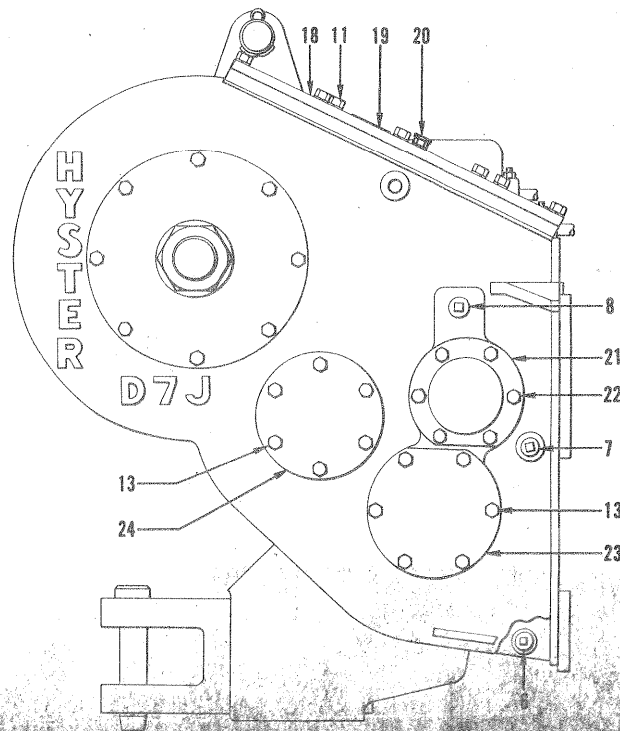
ATTACHING PARTS (977 Traxcavator)	B4
FRAMES AND COVERS	B1
MOUNTING STUDS	B3
SWIVELING DRAWBAR	B2
TRACTOR ALTERATIONS (D7 Tractor and 572E Pipelayer)	B5

USE HYSTER APPROVED PARTS... *it pays*

FRAMES AND COVERS



LEFT HAND SIDE



HYSTER COMPANY
PORTLAND, OREGON

FRAMES AND COVERS

KEY

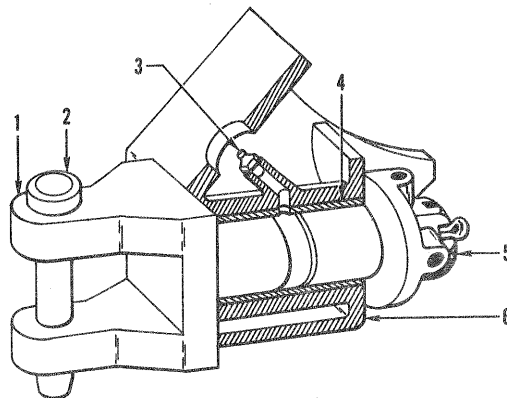
A-FOR DIRECT DRIVE WINCHES.
B-FOR POWER CONTROL WINCHES.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B				A	B
1	164685	FRAME-WINCH } RIGID DRAWBAR	1	..	14	16212	SETSCREW-3/8 UNC X 1 1/4	2	..
	164682	FRAME-WINCH }	..	1		15086	NUT-JAM, 3/8 UNC	2	..
	164687	FRAME-WINCH } SWIVEL. DRAWBAR	1	..	15	164691	COVER	1	1
	164684	FRAME-WINCH }	..	1		*164708	GASKET	1	1
	164686	FRAME-WINCH } SWING. DRAWBAR	1	..	16	15507	CAPSCREW-3/8 UNC X 7/8	8	8
2	164683	FRAME-WINCH }	..	1		15156	LOCKWASHER-3/8	8	8
	92606	ROD-TIE	1	1	17	96425	COVER	1	1
3	15272	COTTER-3/8 X 3	2	2		* 96426	GASKET	1	1
	93771	BRACKET-TIE ROD	2	2	18	142760	COVER-TOP R.H.	1	1
4	142872	BRACKET-RIGID DRAWBAR	1	1		*142761	GASKET	1	1
	142879	BRACKET-SWIVELING DRAWBAR	1	1	19	15319	PLUG-PIPE, 1 1/2	1	1
	142736	BRACKET-R.H. } SWINGING	1	1	20	21420	PLUG-VENT	1	1
	142735	BRACKET-L.H. } DRAWBAR	1	1		95948	RETAINER-BEARING	1	..
	95959	PIN-DRAWBAR } RIGID	1	1		96472	RETAINER-BEARING	..	1
5	15273	COTTER-3/8 X 2 1/2 } DRAW.	1	1		110934	SHIM-.005	AR	..
	.....	PIN-DRAWBAR } SWIVEL. DRAW..	1	1	21	110935	SHIM-.007	AR	..
	.....	COTTER } SEE PAGE B3	1	1		110936	SHIM-.020	AR	..
	35503	PLUG-MAGNETIC, 3/4	1	1		134107	SHIM-.005	..	AR
	15304	PLUG-PIPE, 3/4	1	1		134108	SHIM-.007	..	AR
6	15305	PLUG-PIPE, 1	1	..		134109	SHIM-.020	..	AR
	15304	PLUG-PIPE, 3/4	1	..		18588	CAPSCREW-HT, 1/2 UNC X 1 1/2	6	..
10	35503	PLUG-MAGNETIC, 3/4	..	1	22	16830	CAPSCREW-HT, 1/2 UNC X 1 1/4	..	7
	96423	COVER-BRAKE	1	1		15158	LOCKWASHER-1/2	6	7
11	* 96424	GASKET	1	1		96433	RETAINER-BEARING	1	1
	16829	CAPSCREW-HT, 1/2 UNC X 1	25	25	23	134081	SHIM-.005	AR	AR
12	15158	LOCKWASHER-1/2	25	25		134082	SHIM-.007	AR	AR
	95961	CARRIER-BEARING	1	..		134083	SHIM-.020	AR	AR
	133911	CARRIER-BEARING	..	1		92623	COVER	1	1
	110934	SHIM-.005	AR	..	24	134074	SHIM-.005	AR	AR
	110935	SHIM-.007	AR	..		134075	SHIM-.007	AR	AR
	110936	SHIM-.020	AR	..		134076	SHIM-.020	AR	AR
	133913	SHIM-.005	..	AR	25	.....	COVER-TRANS, SEE PG.E1 OR F1	1	1
	133914	SHIM-.007	..	AR		168728	GASKET KIT	1	..
	133915	SHIM-.020	..	AR		168729	GASKET KIT	..	1
	16830	CAPSCREW-HT, 1/2 UNC X 1 1/4	18	17					
13	15158	LOCKWASHER-1/2	18	17					

*INCLUDED IN GASKET KIT.

SWIVELING DRAWBAR

INCLUDED WITH APPROPRIATE WINCH FRAME

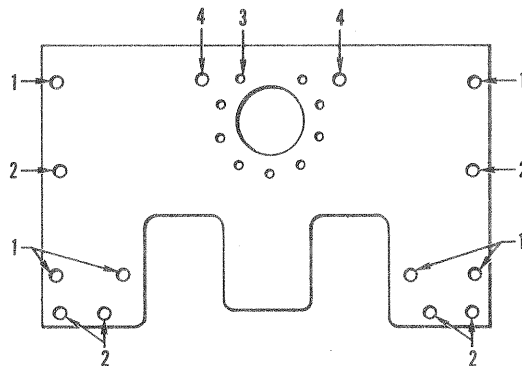


REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B				A	B
1	33787	DRAWBAR	1		4	92671	BUSHING	2	
2	94369	PIN-DRAWBAR	1		5	33618	NUT-SPECIAL	1	
	15273	COTTER-3/8 X 2 1/2	1			15295	COTTER-1/2 X 5	1	
3	16002	FITTING-GREASE	1		6	.....	BRACKET-DRAWBAR, SEE PAGE B1	1	

HYSTER COMPANY
PORTLAND, OREGON

MOUNTING STUDS

FOR D7 TRACTOR SERIAL NO. 47A1 & UP, 48A1 & UP AND 572E PIPELAYER SERIAL NO. 65A1 & UP
AND D7E TRACTORS WITH OPTIONAL RIP DOZER R2

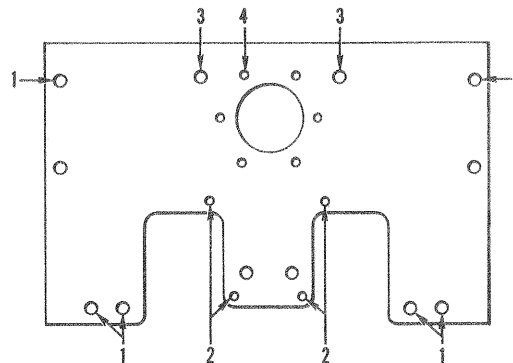


REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
1 {	95837	STUD-1 1/4 UNF X 4 11/16	6
	15168	LOCKWASHER-1 1/4	6
	15018	NUT-1 1/4 UNF	6
2	18001	PLUG-CORK, #17	6
3	18000	PLUG-CORK, #5	9

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
4 {	95835	STUD-1 1/4 UNF X 3 13/16	2
	55434	O-RING	2
	134821	NUT-SLOTTED, 1 1/4 UNF	2
	15240	COTTER-5/32 X 2 1/2	2

MOUNTING STUDS

FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP



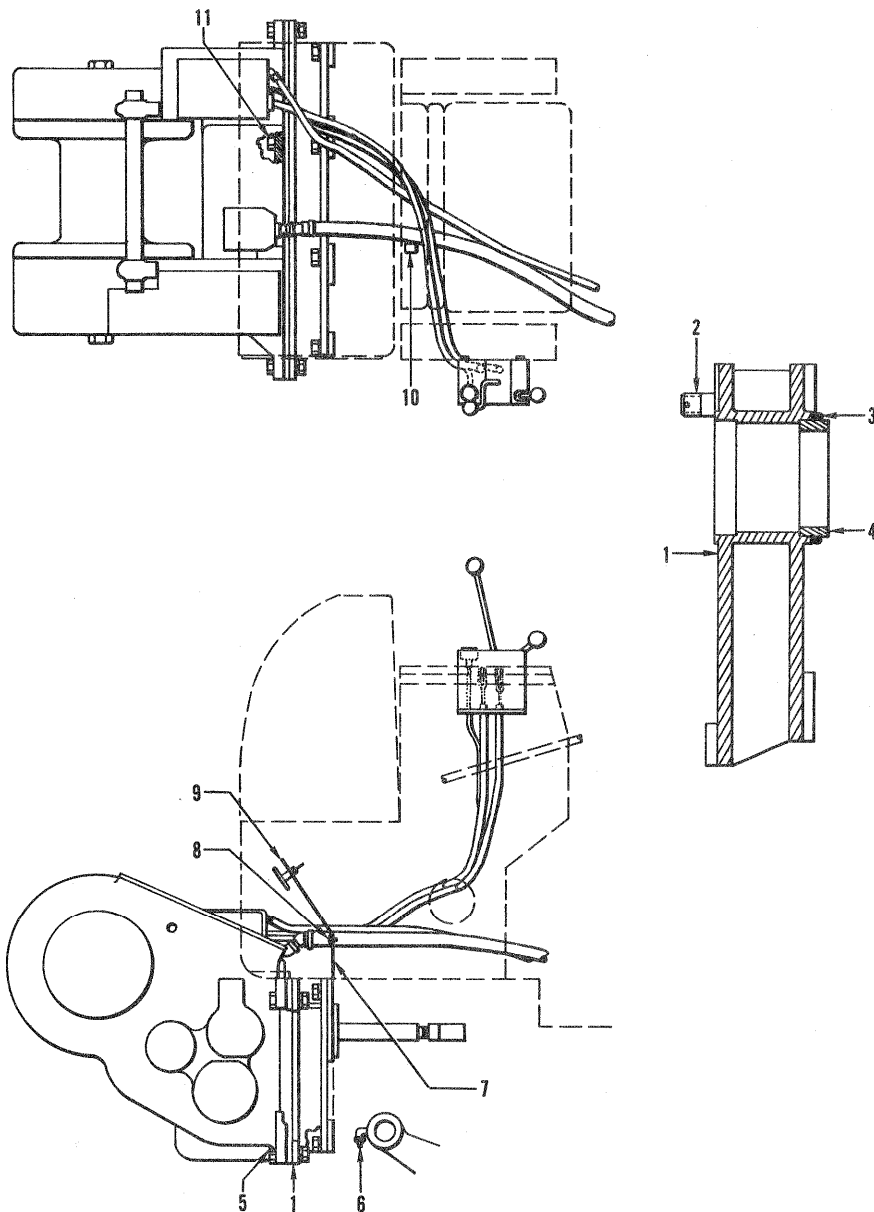
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
1 {	133179	STUD-1 UNS X 4	6
	15166	LOCKWASHER-1	6
	15016	NUT-1 UNS	6
2	18005	PLUG-CORK, #11	4

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
3 {	36240	STUD-1 1/4 UNF X 4 3/4	2
	15168	LOCKWASHER-1 1/4	2
	15018	NUT-1 1/4 UNF	2
4	18004	PLUG-CORK, #7	6

HYSTER COMPANY
PORTLAND, OREGON

ATTACHING PARTS

FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP



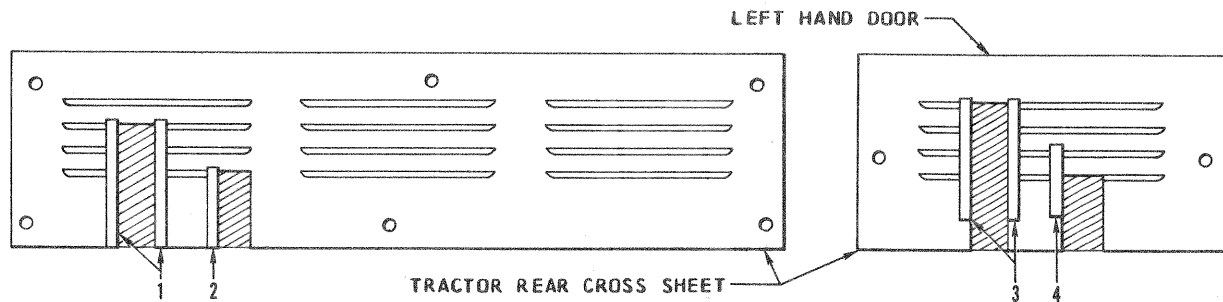
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
1	143056	ADAPTER-WINCH MOUNTING	1
2	132922	STUD-1 1/4 UNF X 3 1/4	2
3	134118	O-RING	2
4	132921	RING	1
5 {	133529	CAPSCREW-HT, 1 1/4 UNF X 4 1/2	6
	15168	LOCKWASHER-1 1/4	6
	15018	NUT-1 1/4 UNF	6
6	15451	ELBOW-STREET, 1/4	2
7	132927	COVER-LOWER REAR	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
8 {	18202	CAPSCREW-3/8 UNF X 1 1/4	2
	15156	LOCKWASHER-3/8	2
	15006	NUT-3/8 UNF	2
9	132924	COVER ASSEMBLY-REAR	1
10	132931	BRACKET	1
	55434	O-RING	2
11 {	134821	NUT-SLOTTED, 1 1/4 UNF	2
	15240	COTTER-5/32 X 2 1/2	2

HYSTER COMPANY
PORTLAND, OREGON

TRACTOR ALTERATIONS

FOR D7 TRACTOR WITH DIRECT DRIVE WINCH



KEY

A-FOR SERIAL NO. 47A2081-47A3395.

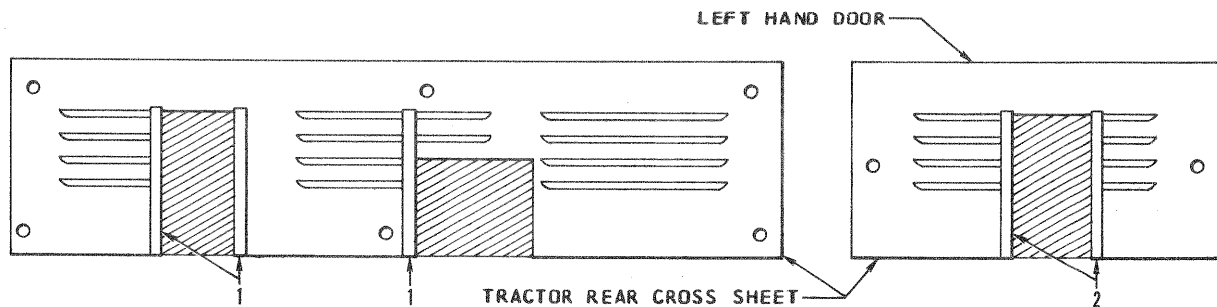
B-FOR SERIAL NO. 47A3396 & UP, AND 48A6393 & UP. R2

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
1	135737	STRIP	2	..
2	135738	STRIP	1	..

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
3	135737	STRIP	..	2
4	135738	STRIP	..	1

TRACTOR ALTERATIONS

FOR D7 TRACTOR & 572E PIPELAYER WITH POWER CONTROL WINCH



KEY

A-FOR D7 SERIAL NO. 47A2081-47A3395 AND 48A3471-48A6392.

B-FOR D7 SERIAL NO. 47A3396 & UP, 48A6393 & UP, 572E PIPELAYER SERIAL NO. 65A1 & UP, AND D7E TRACTORS WITH OPTIONAL RIP DOZER. R2

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
1	165493	STRIP	3	..

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
2	165493	STRIP	..	2

HYSTER COMPANY
PORTLAND, OREGON

Section D

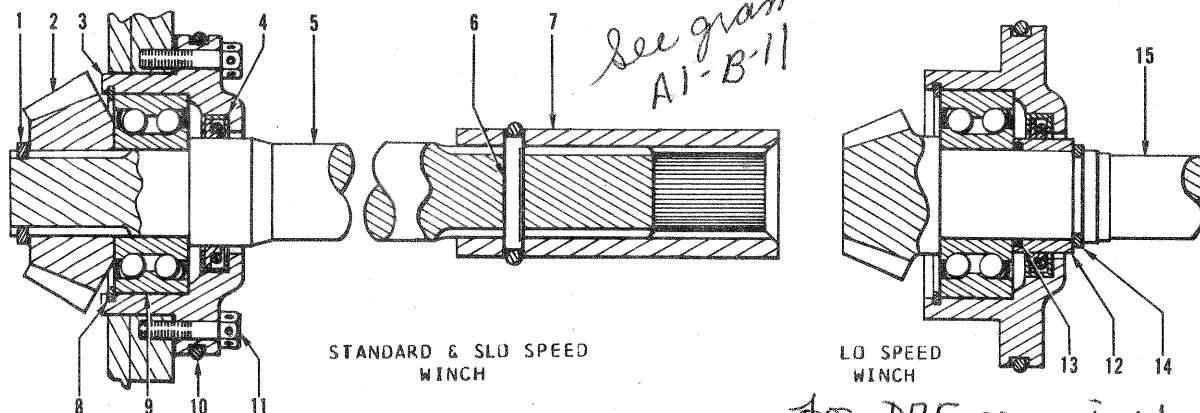
GEAR TRAIN AND SHAFTS

INDEX

AUTOMATIC BRAKE (Direct Drive)	D4
BEVEL GEAR SHAFT	D2
BRAKE SHAFT	D3
CABLE LOCK	D5
CLUTCH (Power Control)	D3
DRUM SHAFT	D5
INTERMEDIATE GEAR SHAFT	D1
OIL BRAKE (Power Control)	D4
POWER TAKE-OFF	D1

USE HYSTER APPROVED PARTS... *it pays*

POWER TAKE-OFF



KEY

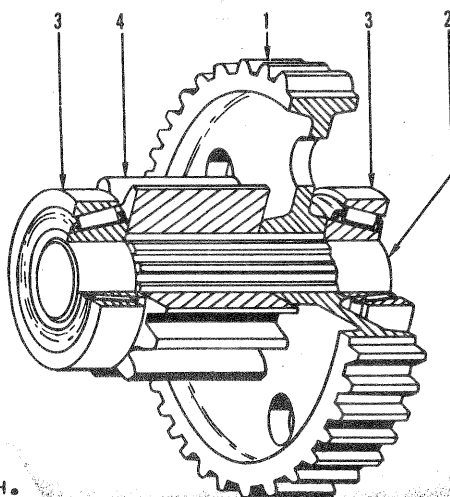
A-FOR D7 TRACTOR SERIAL NO. 47A1 & UP. 93N1+up
 B-FOR D7 TRACTOR SERIAL NO. 48A1 & UP, 572E PIPELAYER SERIAL NO. 65A1 & UP AND D7E WITH OPTIONAL RIP DOZER. R2
 C-FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP.

*for D7F powershift tractors s/n 94N5660+up, 92E 1752+up + 572 Pipe layers 96N204+up, Use column C**

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
1	12916	SNAP RING	1	1	1
2	96020	GEAR-BEVEL, 23 TEETH	1	1	1
3	98362	CARRIER-BEARING	1	1	1
	134078	SHIM-.005	AR	AR	AR
4	134079	SHIM-.007	AR	AR	AR
	79389	SEAL-OIL	1	1	1
5	96367	SHAFT-P.T.O.	1	..	..
	96451	SHAFT-P.T.O.	..	1	..
6	132908	SHAFT-P.T.O.	..	..	1
	33786	PIN	1	1	..
7	9563	PIN	..	..	1
	9528	RING-LOCK	1	1	..
	9554	RING-LOCK	..	..	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
7	33785	COUPLING	1	1	..
	97553	COUPLING	..	..	1
8	35573	SNAP RING	1	1	1
9	125399	BEARING-BALL	1	1	1
10	109453	O-RING	1	1	1
11	169671	CAPSCREW-DRILLED HEAD	6	6	6
	.....	LOCKWIRE	1	1	1
12	96524	SPACER	1	1	1
13	133898	O-RING	1	1	1
14	12944	SNAP RING	1	1	1
15	96368	SHAFT-P.T.O.	1	..	..
	96452	SHAFT-P.T.O.	..	1	..
	132909	SHAFT-P.T.O.	..	..	1

INTERMEDIATE GEAR SHAFT



KEY

A-FOR STANDARD SPEED WINCH.
 B-FOR SLO & LO SPEED WINCH.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
1	96415	GEAR-51 TEETH	1	..
	96418	GEAR-54 TEETH	..	1
2	92620	SHAFT	1	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
3	30091	CUP-BEARING	2	2
	230309	CONE-BEARING	2	2
4	92621	GEAR-DRUM PINION, 15 TEETH	1	1

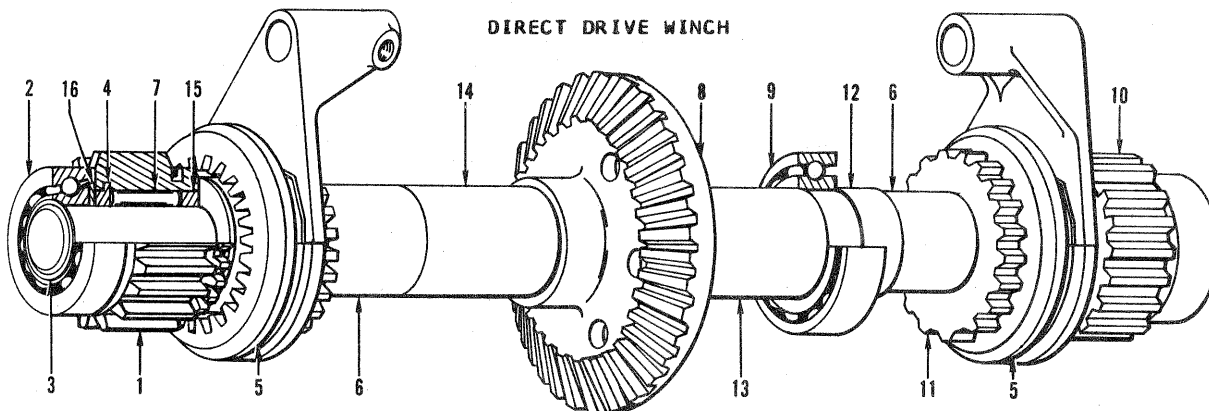
HYSTER COMPANY
 PORTLAND, OREGON

See Gram A99-Z-20

D2

BEVEL GEAR SHAFT

DIRECT DRIVE WINCH



KEY

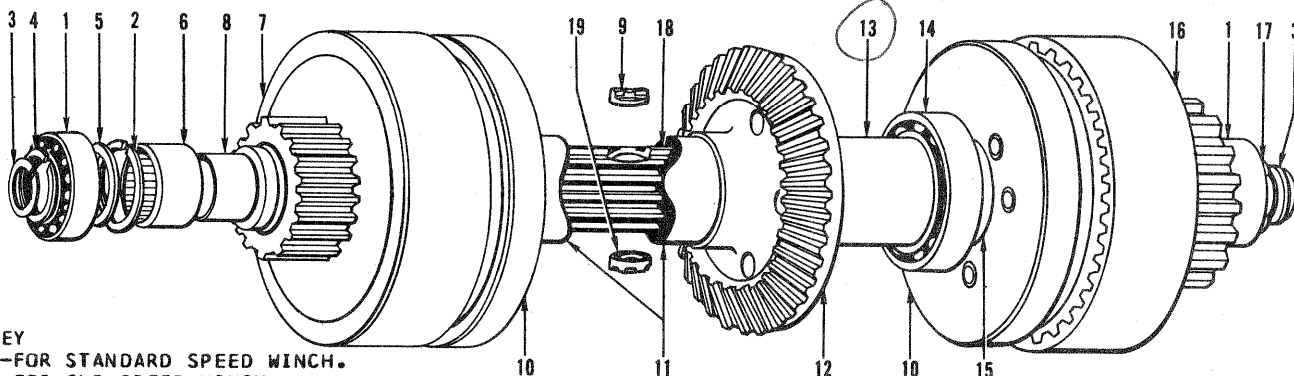
A-FOR STANDARD SPEED WINCH.
B-FOR SLO SPEED WINCH.
C-FOR LO SPEED WINCH.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
1	95944	GEAR-2ND RED., 22 TEETH	1	1	1
2	230351	CUP-BEARING	2	2	2
3	230405	CONE-BEARING	2	2	2
4	96371	SHAFT-BEVEL GEAR	1	1	1
5	58938	SNAP RING	2	2	2
6	95946	CLUTCH-DENTAL	2	2	2
7	96372	SPACER	2	2	2
8	230407	BEARING-ROLLER	2	2	2
9	96021	GEAR-BEVEL, 45 TEETH	1	1	..
10	96028	GEAR-BEVEL, 45 TEETH	..	..	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
9	44316	BEARING-BALL	1	1	1
10	96413	GEAR-22 TEETH } REVERSE	1	..	..
	96416	GEAR-19 TEETH } PINION	..	1	1
11	95945	HUB-DENTAL CLUTCH	2	2	2
12	96430	CARRIER-BEARING	1	1	1
13	95964	SPACER	1	1	1
14	95963	SPACER	1	1	1
15	95961	CARRIER-R.H. BEARING	1	1	1
16	96431	CARRIER-L.H. BEARING	1	1	1
	95962	WASHER	2	2	2

BEVEL GEAR SHAFT

POWER CONTROL WINCH



KEY

A-FOR STANDARD SPEED WINCH.
B-FOR SLO SPEED WINCH.
C-FOR LO SPEED WINCH.

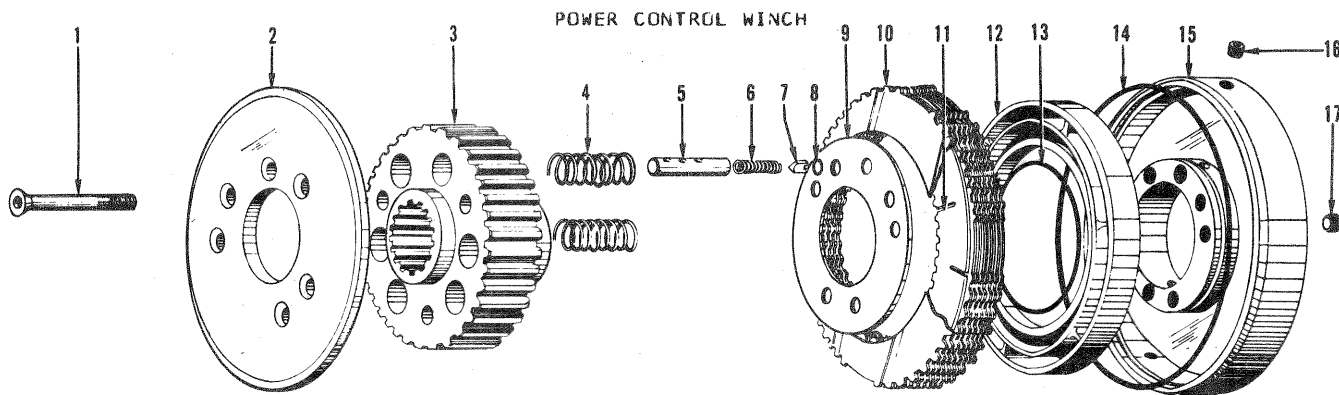
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
1	230351	CUP-BEARING	2	2	2
2	230405	CONE-BEARING	2	2	2
3	58938	SNAP RING	2	2	2
4	95581	RING-SEAL	2	2	2
5	12916	SNAP RING	1	1	1
6	95962	WASHER	2	2	2
7	230407	BEARING-ROLLER	2	2	2
8	96469	GEAR-22 & 88 TEETH, 2ND REDUCTION SPIDER	1	1	1
9	95961	CARRIER-R.H. BEARING	1	1	1
10	96431	CARRIER-L.H. BEARING	1	1	1
	96783	SEAL-THREE TEETH	2	2	2
	.....	CLUTCH-SEE PAGE D3	2	2	2

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
11	95963	SPACER	1	1	1
12	96021	GEAR-BEVEL, 45 TEETH	1	1	..
	96028	GEAR-BEVEL, 45 TEETH	..	..	1
13	95964	SPACER	1	1	1
14	44316	BEARING-BALL	1	1	1
15	96430	CARRIER-BEARING	1	1	1
16	96495	GEAR-22 & 88 TEETH } REV.	1	..	..
	96497	GEAR-19 & 88 TEETH } SPIDER	..	1	1
17	21014	LOCKNUT-BEARING	1	1	1
	21013	LOCKWASHER-BEARING	1	1	1
18	96458	SHAFT-BEVEL GEAR	1	1	1
19	96784	SEAL-TWO TEETH	2	2	2

* Gram A1-A-12R1

HYSTER COMPANY
PORTLAND, OREGON

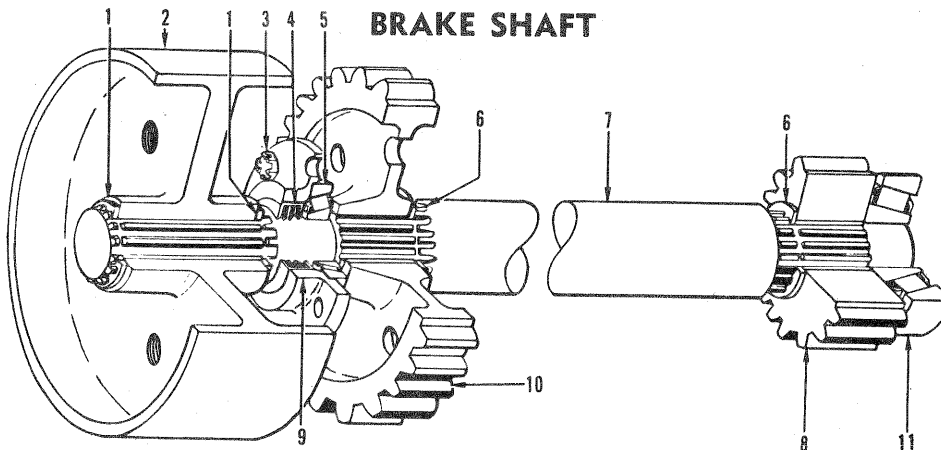
CLUTCH



REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	89773 A	CLUTCH ASSEMBLY	2
1	96468	CAPSCREW-SPECIAL	6
2	96467	PLATE-COVER	1
	96785	SHIM-.032	AR
3	96460	HUB	1
4	96466	SPRING	6
5	89772	BODY-VALVE	1
6	95833	SPRING-VALVE	1
7	89771	PLUNGER-VALVE	1
8	89770	SNAP RING	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
9	96461	RETAINER-SPRING	1
10	133917	DISC-FRICTION	8
11	96464	PLATE-SEPARATOR	8
12	96462	PISTON-CLUTCH	1
13	89777	O-RING	1
14	79972	O-RING	1
15	96463	PLATE-RETAINER	1
16	141348	PLUG-PIPE	1
17	17118	SETSCREW-1/2 UNF X 1/2	6

BRAKE SHAFT



KEY

A-FOR STANDARD SPEED DIRECT DRIVE WINCH.
 B-FOR SLO & LO SPEED DIRECT DRIVE WINCH.
 C-FOR STANDARD SPEED POWER CONTROL WINCH.
 D-FOR SLO & LO SPEED POWER CONTROL WINCH.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
			A B C D
1	12940	SNAP RING	1 1
	92652	WHEEL-BRAKE	1 1
2	.....	BRAKE-AUTO. } SEE PG.D4	1 1
	.....	BRAKE-OIL	 1 1
3	16830	CAPSCREW-H.T., 1/2 UNC	6 6
	X 1 1/4		6 6
4	15158	LOCKWASHER-1/2	1 1
5	87656	SEAL-OIL	1 1
	230311	CUP-BEARING	1 1 1 1
	230310	CONE-BEARING	1 1 1 1
6	12915	SNAP RING	2 2 2 2
7	96432	SHAFT-BRAKE	1 1
	133918	SHAFT-BRAKE	 1 1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
			A B C D
8	96414	GEAR-22 TEETH } INTERM.	1 .. 1 ..
	96417	GEAR-19 TEETH } PINION	.. 1 .. 1
9	89727	RETAINER-OIL SEAL	1 1
	92649	GASKET	1 1
10	95969	GEAR-2ND RED..51 TEETH	1 1 1 1
11	30059	CUP-BEARING	1 1 1 1
	30080	CONE-BEARING	1 1 1 1

*USED ONLY WITHOUT AUTOMATIC BRAKE.

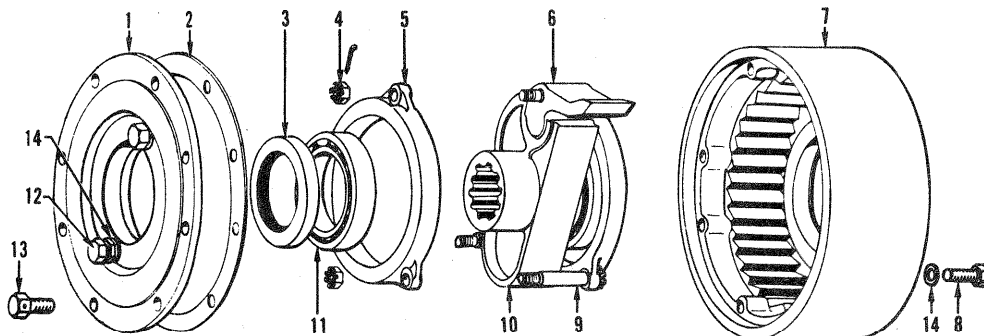
■INCLUDED IN GASKET KIT 168728.

NOTE-DIRECT DRIVE WINCH BRAKE ILLUSTRATED.

HYSTER COMPANY
 PORTLAND, OREGON

AUTOMATIC BRAKE

DIRECT DRIVE WINCH



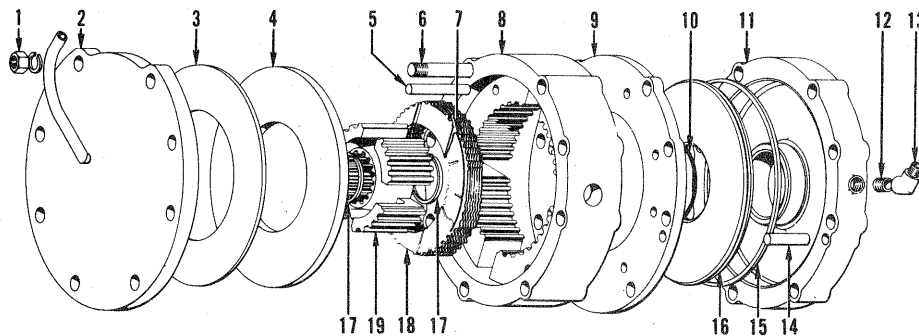
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	92716	A BRAKE ASSEMBLY-AUTOMATIC	1
2	* 59397	COVER	1
3	* 59432	GASKET	1
4	33783	SEAL-OIL	1
5	15079	NUT-SLOTTED, 3/8 UNF	6
6	15212	COTTER-3/32 X 3/4	6
7	36006	RING-DRAG	2
8	36007	PAWL	1
9	59425 A	WHEEL-BRAKE	1
10	15515	CAPSCREW-1/2 UNF X 3/4	3

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
11	94601	LINK-SHOULDER	3
12	92684	HUB	1
13	36000	BEARING-BALL	2
14	59370	PLUG-VENT, SPECIAL	1
15	59927	CPSCR-DRILL HD, 7/16 UNF X 1	8
16	.....	LOCKWIRE	1
17	* 35159	GASKET-COPPER	4

*INCLUDED IN GASKET KIT 168728.

OIL BRAKE

POWER CONTROL WINCH

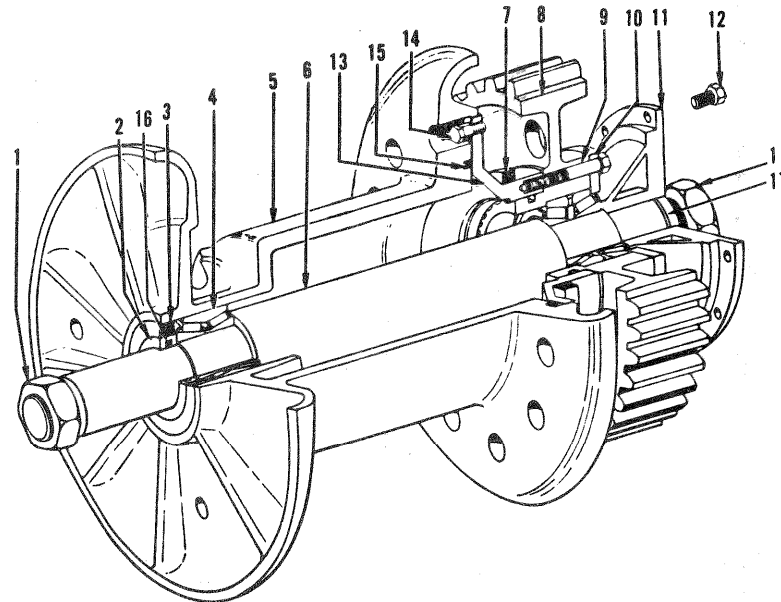


REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	134220	BRAKE ASSEMBLY-OIL	1
2	17161	NUT-HT, 5/8 UNF	8
3	15160	LOCKWASHER-5/8	8
4	138959	COVER	1
5	133937	SPRING	1
6	133936	RING	1
7	133931	PIN	8
8	140184	STUD-HT, 5/8 UNF X 7 3/4	8
9	133917	DISC-FRICTION	11
10	133930	CAGE	1
11	133928	PLATE-PRESSURE	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
12	79979	O-RING	1
13	133925	HOUSING-PISTON	1
14	170751	ELBOW-STREET, 45DEG.	1
15	92867	PIN-DOWEL	2
16	133927	RING-PISTON SEAL	1
17	133926	PISTON	1
18	12940	SNAP RING	2
19	96464	PLATE-SEPARATOR	10
20	133929	HUB	1

HYSTER COMPANY
PORTLAND, OREGON

DRUM SHAFT

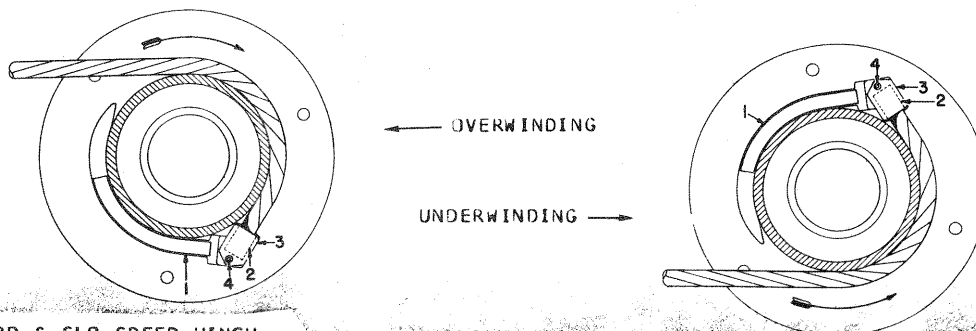


REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	6607	NUT-2 1/2 SPECIAL	2
2	92608	SPACER	1
3	*173604	SPACER	1
4	44484	SEAL-OIL	1
5	96437 A	BEARING ASSEMBLY-DRUM L.H.	1
6	78022	BEARING ASSEMBLY-DRUM R.H.	1
7	141357	DRUM-12 IN., STD. & SLO SPEED	1
8	142854	DRUM-8 IN., LO SPEED	1
9	96435	SHAFT-DRUM	1
10	*173605	SHAFT-DRUM	1
11	141149	SEAL-OIL	1
12	96436	GEAR-DRUM, 45 & 58 TEETH	1
13	18863	BOLT-PLACE, 5/8 UNF X 4	8
14	96438	PLATE-GEAR RETAINER	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	96439	RETAINER-DRUM	1
2	*173606	RETAINER-DRUM	1
3	134070	SHIM-.005	AR
4	134071	SHIM-.007	AR
5	134072	SHIM-.020	AR
6	16830	CAPSCREW-HT, 1/2 UNC X 1 1/4	8
7	15158	LOCKWASHER-1/2	8
8	141325	ADAPTER	1
9	141675	CAPSCREW-5/8 UNF SPECIAL	12
10	53559	DOWEL	12
11	131982	RING-SEAL	1
12	* 46629	O-RING	1
13	* 15881	O-RING	1

*FIRST USED ON SERIAL NO. D77P-2030.

CABLE LOCK



KEY
A-FOR STANDARD & SLO SPEED WINCH.
B-FOR LO SPEED WINCH.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	92712	FILLER-CABLE	1 ..
2	96420	FILLER-CABLE	.. 1
3	6697	FERRULE-CABLE	1 1
4	92713	LOCK-FERRULE, OVERWINDING	1 ..
5	92714	LOCK-FERRULE, UNDERWINDING	1 ..
6	95499	LOCK-FERRULE	.. 1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	15500	CAPSCREW-5/8 UNF X 1 1/2	1 ..
2	18850	CAPSCREW-1/2 UNF X 3	.. 1
3	15160	LOCKWASHER-5/8	1 ..
4	177949 B	LOCKWASHER-H.C., 1/2	.. 1

HYSTER COMPANY
PORTLAND, OREGON

Section E

BRAKE AND SHIFTER MECHANISM

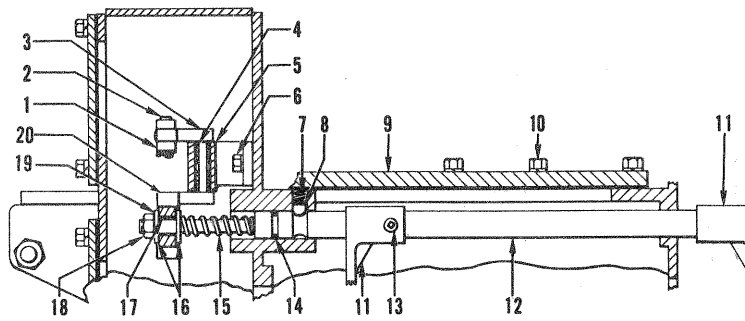
FOR DIRECT DRIVE WINCH

INDEX

BRAKE MECHANISM	E1
HANDLING GEAR	E2
SHIFTER MECHANISM	E1

USE HYSTER APPROVED PARTS... *it pays*

SHIFTER MECHANISM

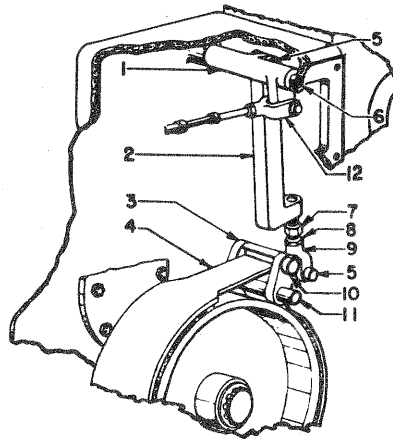


REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	.....	ROD END-CLUTCH CABLE	2
2	.....	PIN-ROD END	2
	.....	COTTER-1/8 X 1	2
3	97843 A	CRANK-SHIFTER, UPPER	1
	15527	CAPSCREW-3/8 UNF X 1 3/4	1
	15156	LOCKWASHER-3/8	1
	15006	NUT-3/8 UNF	1
4	95615	BUSHING-BRACKET	2
5	164713	BRACKET	1
6	18586	CAPSCREW-HT, 1/2 UNC X 7/8	2
	15158	LOCKWASHER-1/2	2
7	96375	SPRING	1
8	6348	BALL-1/2	1
9	161848	COVER-TRANSMISSION	1
	*142759	GASKET	1
	164680	CAPSCREW-HT, 1/2 UNC X 2 1/2	4
10	169268	CAPSCREW-HT, 1/2 UNC X 1 1/4	6
	15135	WASHER-1/2	10

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
11	95951	FORK-SHIFTER	2
12	96373	SHAFT-SHIFTER	1
13	27936	LOCKSCREW	2
	.....	LOCKWIRE	2
14	131998	O-RING	1
15	94655	SPRING	1
16	33682	WASHER	2
17	96374	SPACER	1
18	63085	LOCKNUT-5/8 UNF	1
19	33717	SHOE-SHIFTER CRANK	2
20	95636 W	CRANK-SHIFTER, LOWER	1
	95638	PIN	1

*INCLUDED IN GASKET KIT 168728.

BRAKE MECHANISM



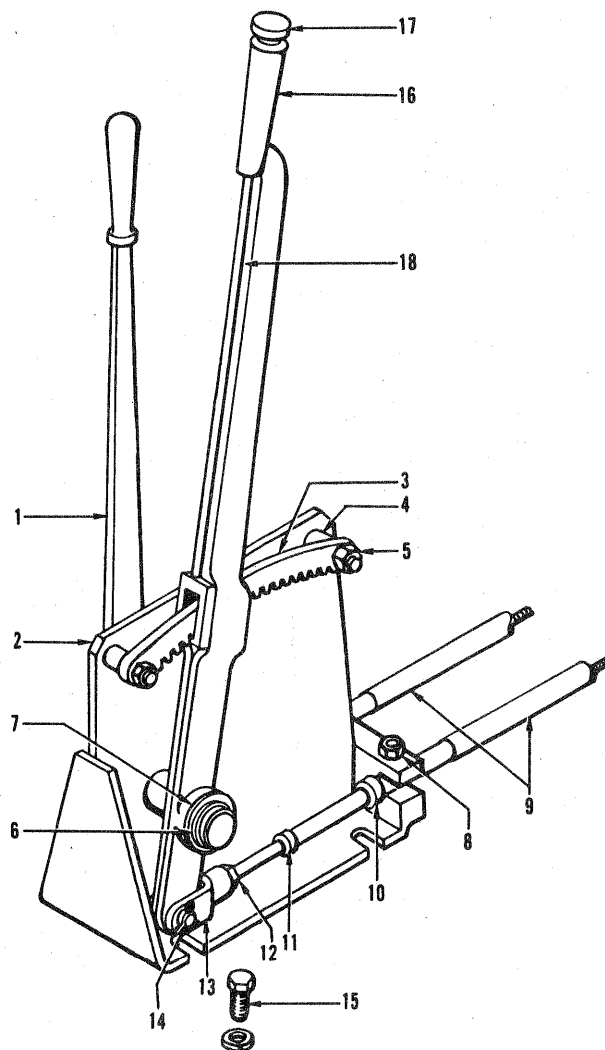
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	76699 A	CRANK ASSEMBLY-BRAKE	1
	92705	BUSHING	2
2	76697	LINK-BRAKE	1
3	76695 A	LEVER ASSEMBLY-BRAKE	1
	104607	BUSHING	4
4	128391	BAND ASSEMBLY-BRAKE	1
	59802AB	LINING SET-WITH RIVETS	1
5	159	PIN-ROD END	2
	15223	COTTER-1/8 X 1	2
6	165638	PIN-BRAKE CRANK	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
7	76696	LINK-ADJUSTING	1
8	15030	NUT-JAM, 5/8 UNF	1
9	91629	ROD END	1
10	96725	PIN-BRAKE LEVER	1
	15226	COTTER-1/8 X 1 3/4	1
11	140741	PIN-BRAKE LEVER	1
	.....	ROD END-BRAKE CABLE	2
12	.....	PIN-ROD END	2
	.....	COTTER-1/8 X 1	2

SEE PG. E2

HYSTER COMPANY
PORTLAND, OREGON

HANDLING GEAR



REF. NO.	HYSTER PART NO.	NAME OF PART 1 2 3 4	QTY.
1	95750	HANDLEVER-CLUTCH	1
2	76706 W	BRACKET	1
3	77188	BAR-QUADRANT	1
4	94891	SPACER	2
5	18451	CAPSCREW-HT, 3/8 UNF X 2	2
	15156	LOCKWASHER-3/8	2
	15006	NUT-3/8 UNF	2
6	58907	SNAP RING	2
7	90267	WASHER	2
8	16212	SETSCREW-3/8 UNC X 1 1/4	2
	15086	NUT-JAM, 3/8 UNC	2
9	95751	CABLE-CONTROL, 69 INCH	2
10	94381	GROMMET-LARGE	2

REF. NO.	HYSTER PART NO.	NAME OF PART 1 2 3 4	QTY.
11	95905	GROMMET-SMALL	2
12	15026	NUT-JAM, 3/8 UNF	4
13	92683	ROD END	4
14	159	PIN-ROD END	4
	15223	COTTER-1/8 X 1	4
	16807	CAPSCREW-HT, 1/2 UNF X 1 1/2	4
15	15158	LOCKWASHER-1/2	4
	15008	NUT-1/2 UNF	4
16	77187 A	HANDLEVER ASSEMBLY-BRAKE	1
17	79418	BUTTON	1
	79417	SPRING	1
18	79416	PAWL & ROD	1

HYSTER COMPANY
PORTLAND, OREGON

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Section F

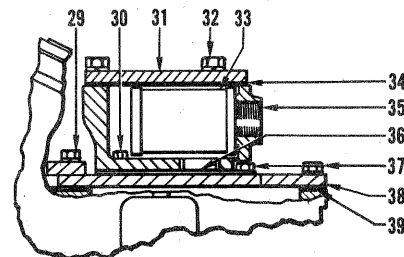
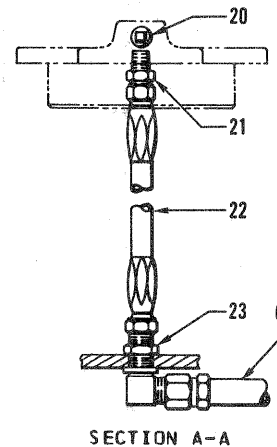
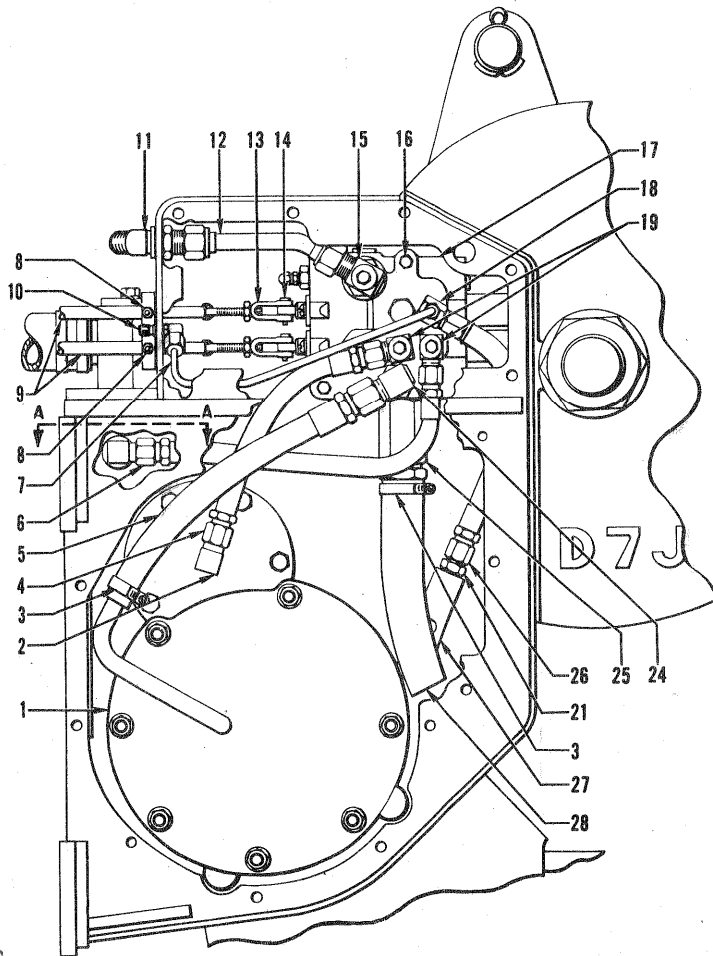
BRAKE AND HYDRAULIC SYSTEM FOR POWER CONTROL WINCH

INDEX

BRAKE AND HYDRAULIC SYSTEM	F1
CHECK VALVE	F2
CONTROL VALVE	F3-F4
DUMP VALVE	F2
FILTER AND HOSES (D7 Tractor)	F8
HANDLING GEAR	F5-F6
HYDRAULIC HOSES (977 Traxcavator)	F10
HYDRAULIC PUMP	F7
PUMP DRIVE (D7 Tractor)	F9
PUMP DRIVE (977 Traxcavator)	F10
PUMP DRIVE AND HOSES (572E Pipelayer)	F9

USE HYSTER APPROVED PARTS... *it pays*

BRAKE AND HYDRAULIC SYSTEM



Suction line foot valve - see AO-2-17

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	.....	BRAKE ASSEMBLY-OIL, SEE PAGE D4	1
2	17309	ELBOW	1
3	127045	CLAMP-HOSE	2
4	133943	HOSE ASSEMBLY-L.H. CLUTCH	1
5	164704	HOSE ASSEMBLY-BRAKE	1
6	132009	HOSE ASSEMBLY-R.H. CLUTCH	1
7	165497	TUBE ASSEMBLY	1
8	{ 18853	SETSCREW-5/16 UNC X 1 1/4	2
	{ 15001	NUT-JAM, 5/16 UNC	2
9	.....	CABLE-CONTROL, SEE PAGE F4	2
10	{ 16455	ELBOW-BULKHEAD	1
	{ 14758	LOCKNUT	1
11	{ 16468	ELBOW-BULKHEAD, 45 DEG.	1
	{ 14763	LOCKNUT	1
12	164702	TUBE ASSEMBLY	1
13	168737	ROD END	2
14	{ 133683	PIN-ROD END	2
	{ 15211	COTTER-3/32 X 1/2	2
	{ 164703	ELBOW-SPECIAL	1
15	{ 16486	O-RING	1
	{ 16588	LOCKNUT	1
	{ 14349	PLUG-PIPE, 1/8	1
16	{ 18542	CAPSCREW-HT, 3/8 UNC X 3 1/2	3
	{ 15156	LOCKWASHER-3/8	3
17	.....	VALVE-CONTROL, SEE PAGE F3	1
18	14668	CONNECTOR-MALE	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
19	{ 165662	ELBOW-SPECIAL	2
	{ 14349	PLUG-PIPE, 1/8	2
	{ 16909	CONNECTOR	2
	{ 16485	O-RING	1
20	15302	PLUG-PIPE, 3/8	1
21	17315	CONNECTOR-MALE	2
22	96480	HOSE ASSEMBLY	1
23	{ 16458	ELBOW-BULKHEAD	1
	{ 14761	LOCKNUT	1
	{ 111331	ELBOW	1
24	{ 16485	O-RING	1
	{ 16587	LOCKNUT	1
25	{	VALVE-CHECK, SEE PAGE F2	1
	{ 16487	O-RING	1
26	168736	HOSE ASSEMBLY	1
27	.....	VALVE-DUMP, SEE PAGE F2	1
28	104942	HOSE	1
	{ *164680	CAPSCREW-HT, 1/2 UNC X 2 1/2	4
29	{ 18588	CAPSCREW-HT, 1/2 UNC X 1 1/2	4
	{ 15135	WASHER-1/2	4
30	{ 37562	CAPSCREW-HT, 1/2 UNC X 1 1/4	3
	{ 86229	WASHER-SEAL	3
31	89025	COVER	1
32	{ 37562	CAPSCREW-HT, 1/2 UNC X 1 1/4	5
	{ 15158	LOCKWASHER-1/2	5
33	95893	FILTER ELEMENT	1

HYSTER COMPANY
PORTLAND, OREGON

U 160387

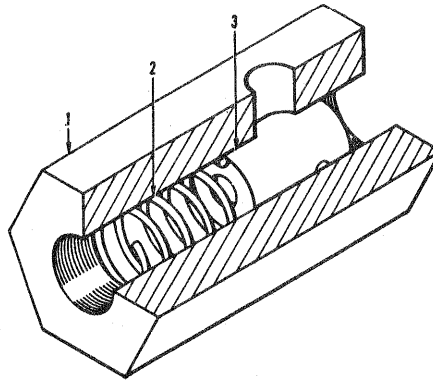
washable magnetic filter

BRAKE AND HYDRAULIC SYSTEM

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
34	# 89023	GASKET	1
35	*133968	MANIFOLD-INTAKE	1
	□132936	MANIFOLD-INTAKE	1
36	*134116	GASKET	1
	□132939	GASKET	1
	*169268	CAPSCREW-HT, 1/2 UNC X 1 1/4	6
37	□ 18588	CAPSCREW-HT, 1/2 UNF X 1 1/2	6
	15135	WASHER-1/2	6
38	*161850	COVER-TRANSMISSION	1
	□142758	COVER-TRANSMISSION	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
39	#142759	GASKET	1
	*FOR D7 TRACTOR SERIAL NO. 47A1 & UP, 48A1 & UP AND 572E PIPELAYER SERIAL NO. 65A1 & UP.		
	□FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP.		
	#INCLUDED IN GASKET KIT 168729.		

DUMP VALVE

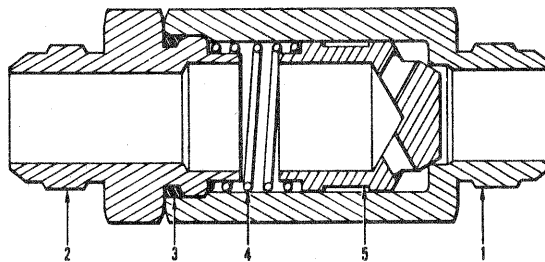


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REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	140208	VALVE ASSEMBLY-DUMP	1
1	138542	BODY	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
2	161857	SPRING	1
3	140207	SPOOL	1
	181032		

CHECK VALVE



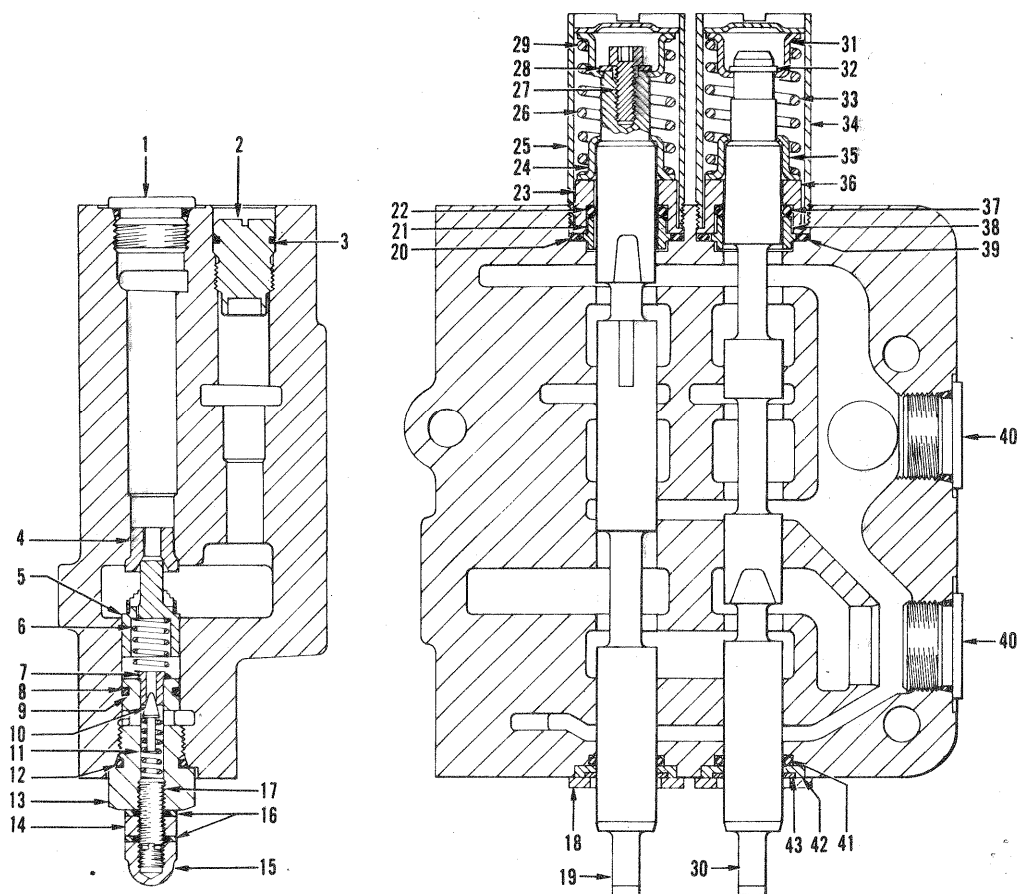
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	168730	VALVE ASSEMBLY-CHECK	1
1	.....	BODY	1
2	170545	CAP	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
3	16487	O-RING	1
4	170543	SPRING	1
5	170542	POPPET	1

HYSTER COMPANY
PORTLAND, OREGON

CONTROL VALVE

LAST USED ON SERIAL NO. D77P-1597



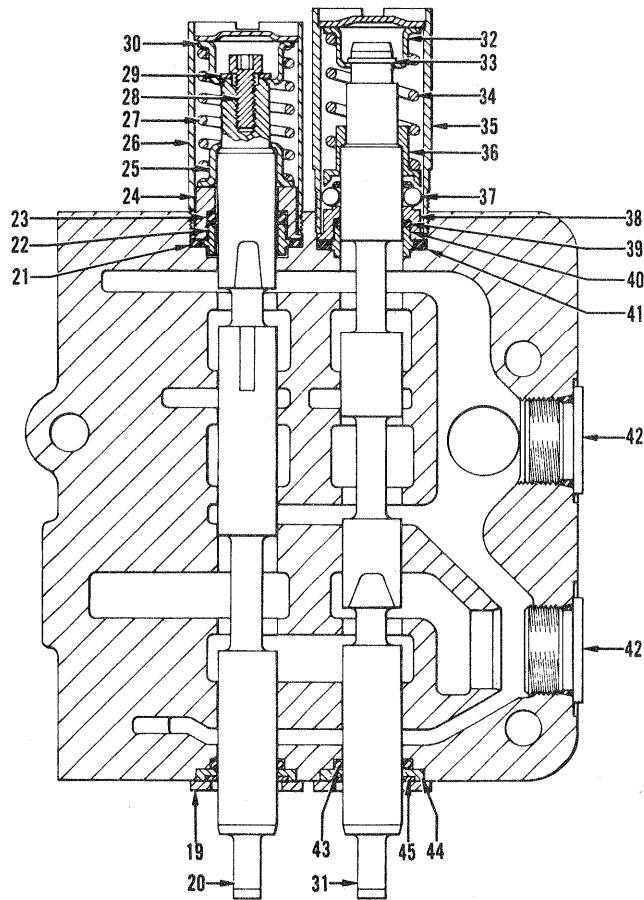
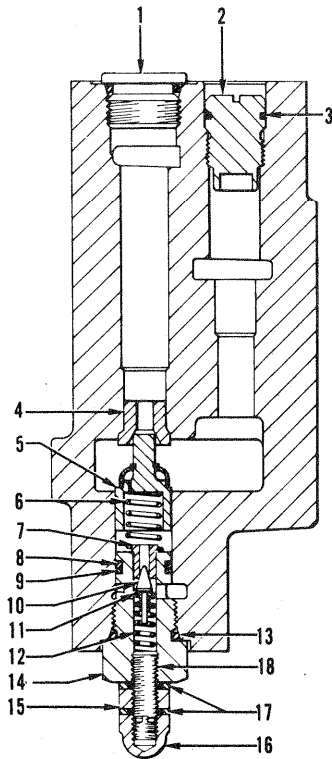
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
	164679	VALVE ASSEMBLY-CONTROL	1
1 {	233693	PLUG	4
	16485	O-RING	1
2	233492	CAP	2
3	118389	O-RING	2
4 {	166917	VALVE-RELIEF	1
	170988	SEAT	1
5	170989	POPPET	1
6	170993	SPRING	1
7	166919	SEAT-PILOT	1
8	159859	O-RING	1
9	159858	RING-BACK-UP	1
10 {	170995	PLUNGER-PILOT	1
	170996	SLEEVE	1
11	166920	SPRING-PILOT	1
12	16484	O-RING	1
13	170994	CAP	1
14	233502	NUT-JAM	1
15	233503	NUT-ACORN	1
16	234823	WASHER-SEAL	2
17	170997	SETSCREW	1
	233508	PLATE-RETAINER	2
18 {	232460	LOCKWASHER	4
	166916	SCREW	4
19	166913	SPOOL ASSEMBLY-MODULATING	1
20	166912	O-RING	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
21	166909	RETAINER-SEAL	1
22	60836	O-RING	1
23	166910	RETAINER-SEAL	1
24	166905	RETAINER-SPRING	1
25	166906	CAP ASSEMBLY	1
26	166911	SPRING-SPOOL	1
27	166914	SCREW	1
28	166922	WASHER	1
29	166904	RETAINER-SPRING	1
30	166903	SPOOL ASSEMBLY-SELECTOR	1
31	166904	RETAINER-SPRING	1
32	233495	SNAP RING	1
33	166911	SPRING-SPOOL	1
34	166906	CAP ASSEMBLY	1
35	166905	RETAINER-SPRING	1
36	166910	RETAINER-SEAL	1
37	60836	O-RING	1
38	166909	RETAINER-SEAL	1
39	166912	O-RING	1
40 {	163660	PLUG	2
	16486	O-RING	1
41	60836	O-RING	2
42	233506	RETAINER-SEAL	2
43	233505	WIPER	2
	166912	O-RING-VALVE TO SUPPORT	1

HYSTER COMPANY
PORTLAND, OREGON

CONTROL VALVE

FIRST USED ON SERIAL NO. D77P-1598



REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
	168741	VALVE-CONTROL	1
1	233693	PLUG	4
	16485	O-RING	1
2	233492	CAP	2
3	118389	O-RING	2
4	166917	VALVE-RELIEF	1
	170988	SEAT	1
5	170989	POPPET	1
6	170993	SPRING	1
7	166919	SEAT-PILOT	1
8	159859	O-RING	1
9	159858	RING-BACK-UP	1
10	170995	PLUNGER-PILOT	1
11	170996	SLEEVE	1
12	166920	SPRING-PILOT	1
13	16484	O-RING	1
14	170994	CAP	1
15	233502	NUT-JAM	1
16	233503	NUT-ACORN	1
17	234823	WASHER-SEAL	2
18	170997	SETSCREW	1
19	233508	PLATE-RETAINER	2
	233969	SCREW	4
20	166913	SPOOL-MODULATING	1
21	166912	O-RING	1

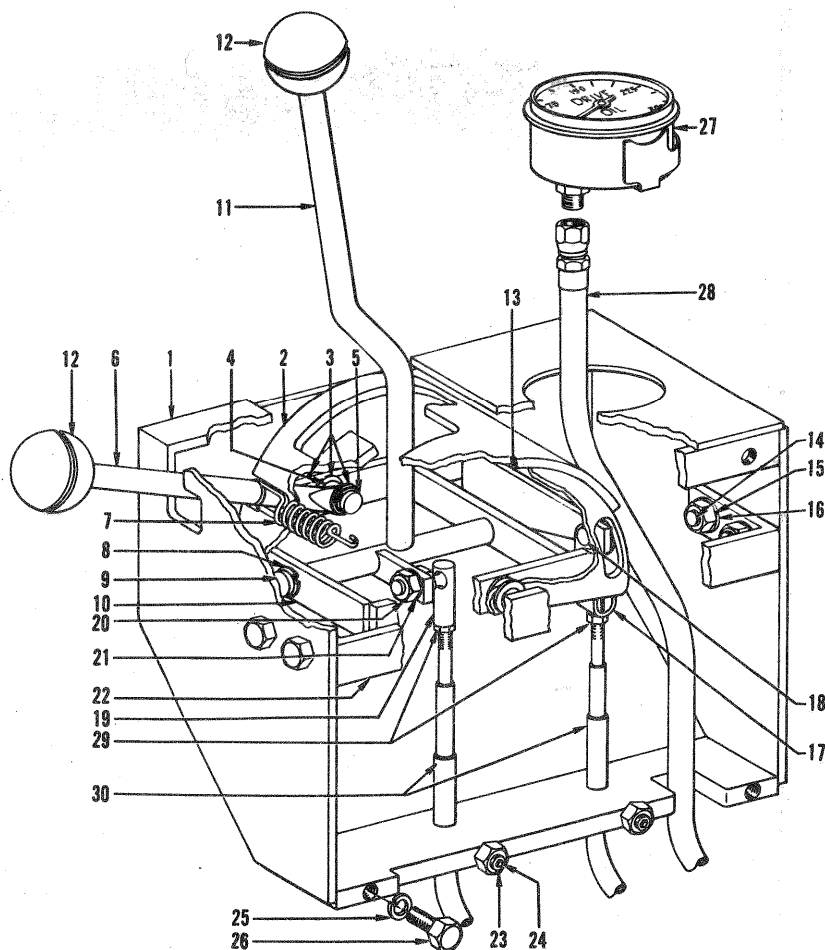
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
22	166909	RETAINER-SEAL	1
23	60836	O-RING	1
24	166910	RETAINER-SEAL	1
25	166905	RETAINER-SPRING	1
26	166906	CAP	1
27	166911	SPRING-SPOOL	1
28	166914	SCREW	1
29	166922	WASHER	1
30	166904	RETAINER-SPRING	1
31	170981	SPOOL SELECTOR	1
32	166904	RETAINER-SPRING	1
33	233495	SNAP RING	1
34	166911	SPRING-SPOOL	1
35	170985	CAP	1
36	170983	SPACER-SELECTOR	1
37	170987	BALL STEEL	8
38	170984	RETAINER-BALLS	1
39	60836	O-RING	1
40	170986	RETAINER-SEAL	1
41	166912	O-RING	1
42	163660	PLUG	2
	16486	O-RING	1
43	60836	O-RING	2
44	233506	RETAINER-SEAL	2
45	233505	WIPER	2
	166912	O-RING-VALVE TO SUPPORT	1

HYSTER COMPANY
PORTLAND, OREGON

See page F4 in D89C manual - same assembly
 Ham A3Z3
 item 19

HANDLING GEAR

LAST USED ON SERIAL NO. D77P-2018 R1



86 A3C4

KEY

A-FOR D7 TRACTOR SERIAL NO. 47A1 & UP, 48A1 & UP AND 572E PIPELAYER SERIAL NO. 65A1 & UP.
 B-FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
	165641	HANDLING GEAR ASSEMBLY	1	1
1	165634	HOUSING-HANDLEVER	1	1
2	165637	GATE-HANDLEVER	1	1
3	15134	WASHER-3/8	5	5
4	165517	BUSHING	1	1
5	175180	ROD	1	1
	15028	NUT-JAM, 1/2 UNF	1	1
6	165643	LEVER	1	1
7	165639	SPRING	1	1
8	12897	SNAP RING	3	3
9	165510	ROD	1	1
10	165640	BASE	1	1
11	165645	LEVER	1	1
12	131976	KNOB-CONTROL	2	2
13	164701	PLATE	1	1
14	15675	CAPSCREW-1/4 UNC X 7/8	4	4
15	15054	NUT-1/4 UNC	4	4
16	15154	LOCKWASHER-1/4	4	4
17	165659	ROD END	1	1
18	133683	PIN-ROD END	1	1
	15211	COTTER-1/8 X 1/2	1	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
19	157593	BALL JOINT	1	1
20	15005	NUT-5/16 UNF	1	1
21	15155	LOCKWASHER-5/16	1	1
22	165644	BRACKET-GATE PIVOT	1	1
23	15001	NUT-JAM, 5/16 UNC	2	2
24	16220	SETSCREW-5/16 UNC X 3/4	2	2
25	15155	LOCKWASHER-5/16	4	4
26	15553	CAPSCREW-5/16 UNC X 3/4	4	4
27	169782	GAUGE-BRAKE OIL PRESSURE	1	1
	14712	CONNECTOR-FEMALE	1	1
28	165504	HOSE ASSEMBLY	1	..
	165505	HOSE ASSEMBLY	..	1
29	15025	NUT-JAM, 5/16 UNF	4	4
	164655	CABLE-CONTROL	2	..
	165492	CABLE-CONTROL	..	2
30	132933	CLAMP-CABLE LOCATING	..	1
	15552	CAPSCREW-1/4 UNC X 3/4	..	1
	15154	LOCKWASHER-1/4	..	1
	15054	NUT-1/4 UNC	..	1
	165648	PLATE-MOUNTING, NOT ILLUSTR.	..	1

HYSTER COMPANY
 PORTLAND, OREGON

A3C4 for

conversion
form old

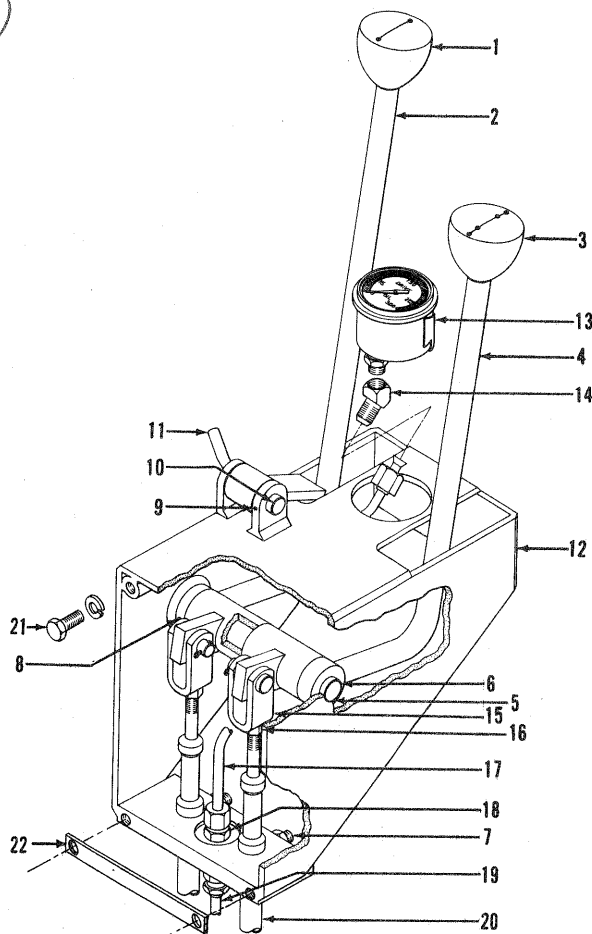
to new

F6

See page F5 in D89 C

HANDLING GEAR

FIRST USED ON SERIAL NO. D77P-2019

manual - same
assembly**KEY**A-FOR D7 TRACTOR SERIAL NO. 47A1 & UP, 48A1 & UP, 572E PIPELAYER
SERIAL NO. 65A1 & UP AND D7E WITH OPTIONAL RIP DOZER.

B-FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
	172730	HANDLEVER	1	1
	*172755	HANDLEVER	1	1
1	172744	KNOB	1	1
2	172739	LEVER-INCHING, CURVED	1	1
	*172757	LEVER-INCHING, STRAIGHT	1	1
3	172747	KNOB	1	1
4	172745	LEVER-SELECTOR, CURVED	1	1
	*172759	LEVER-SELECTOR, STRAIGHT	1	1
5	174421	BUSHING	2	2
6	172748	PIN	1	1
7	173310	SETSCREW-5/16 UNC X 1	2	2
	15001	NUT-JAM, 5/16 UNC	2	2
8	19981	ROLL PIN-1/8 X 1 1/4	1	1
9	172751	ROD	1	1
10	174564	ROLL PIN-3/32 X 1	1	1
11	172752	LEVER	1	1
12	172732	HOUSING	1	1
13	169782	GAUGE-OIL PRESSURE	1	1
14	172762	FITTING-ELBOW	1	1
	95709	ROD END-3/8	2	2
15	142	PIN-ROD END 3/8	2	2
	15212	COTTER PIN-3/32 X 3/4	2	2

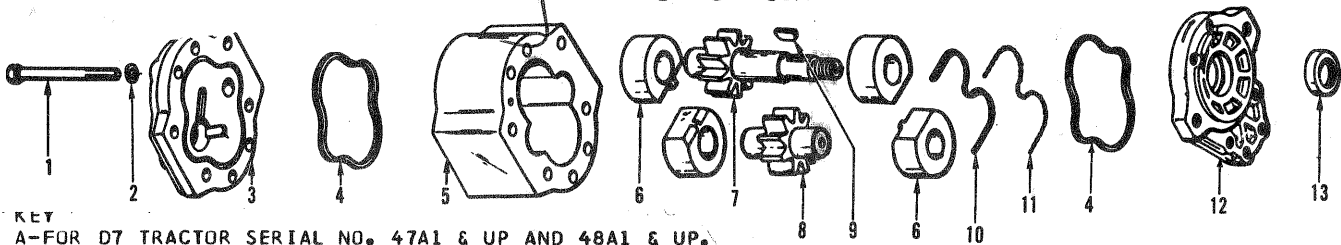
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.	
			A	B
16	15025	NUT-JAM-5/16 UNF	4	4
17	174422	TUBE	1	1
18	16445	FITTING 2/nw 16583	1	1
19	165504	HOSE-HYDRAULIC	1	..
	165505	HOSE-HYDRAULIC	..	1
	164655	CABLE-CONTROL	2	..
	165492	CABLE-CONTROL	..	2
20	132933	CLAMP	..	1
	19952	CAPSCREW-1/4 UNC X 3/4	..	1
	15054	NUT-HEX-1/4 UNC	..	1
	15154	LOCKWASHER-1/4	..	1
21	15155	LOCKWASHER-5/16	4	4
	15553	CAPSCREW-5/16 UNC X 3/4	4	4
22	175171	SPACER	1	..
	172761	DECAL-OPERATING INSTRUCT.	1	1

*FOR LEFT HAND INSTALLATION ON THE 572E
PIPELAYER, ILLUSTRATED.

□FOR RIGHT HAND INSTALLATION.

HYSTER COMPANY
PORTLAND, OREGON

HYDRAULIC PUMP



KEY
 A-FOR D7 TRACTOR SERIAL NO. 47A1 & UP AND 48A1 & UP.
 B-FOR 572E PIPELAYER SERIAL NO. 65A1 & UP.
 C-FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			1	2	3
181892	145344	PUMP-HYDRAULIC KIT	1	..	..
	145479	PUMP-HYDRAULIC	..	1	..
	97951 A	PUMP-HYDRAULIC	..	..	1
1	123704	CAPSCREW	6	..	..
	127661	CAPSCREW	..	6	..
	124247	CAPSCREW	..	..	4
2	129447	WASHER	6	6	..
3	126445	COVER-REAR	1	..	..
	127658	COVER-REAR	..	1	..
	124241	COVER-REAR	..	..	1
4	□*	SEAL	2	2	2
5	.....	BODY	1	1	1
6	*	BEARING	4	4	4
7	#	GEAR-DRIVE	1	1	1
8	#	GEAR-DRIVEN	1	1	1
9	* 9413	KEY	1	..	..
	* 206	KEY	..	1	..
	* 124248	KEY	..	..	1
10	□*	GASKET	1	1	1
11	□*	SPACER	1	1	..

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			1	2	3
12	126444	COVER-FRONT	1	..	..
	127657	COVER-FRONT	..	1	..
	124240	COVER-FRONT	..	..	1
13	□* 235933	SEAL-SHAFT	1	1	..
	145381	REPAIR KIT-MAJOR	1	..	..
	147401	REPAIR KIT-MAJOR	..	1	..
	124245	REPAIR KIT-MAJOR	..	..	1
	145382	REPAIR KIT-MINOR	1	..	..
	158913	REPAIR KIT-MINOR	..	1	..
	124249	REPAIR KIT-MINOR	..	..	1
	146896	GEAR KIT	1	..	..
	127659	GEAR KIT	..	1	..
	124242	GEAR KIT	..	..	1

*INCLUDED IN MAJOR REPAIR KIT.

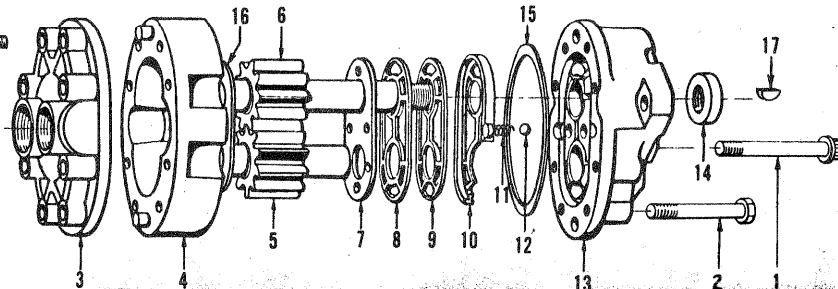
□INCLUDED IN MINOR REPAIR KIT.

#INCLUDED IN GEAR KIT.

HYDRAULIC PUMP

FOR D7 TRACTOR WITH OPTIONAL RIP DOZER

* Gram AOE-6
 Note 181892 consists of
 1-239510 pump (see below)
 2-15156-25 lockwasher
 2-18547 cap screw
 1-#95710-10 gasket
 1-181895 connector
 + installation print



REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
181894		PUMP Use 1-239510 & 2 18547 #	1
1	184130	CAPSCREW-5/16 UNC X 3	2
2	184131	CAPSCREW-5/16 UNC X 2 1/2	4
3	184125	BACK PLATE	1
4	184126	BODY	1
	184129	PIN-DOWEL	2
5	184127	GEAR-IDLER	1
6	184128	GEAR-DRIVE	1
7	* 184134	DIAPHRAGM	1
8	* 184133	GASKET-BACKUP	1
9	* 184139	GASKET-PROTECTOR	1
10	* 184136	SEAL-DIAPHRAGM	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
11	* 160759	SPRING	1
12	* 68964	BALL	1
13	184124	PLATE-FRONT	1
14	* 184135	SEAL-SHAFT	1
15	* 184138	O-RING	2
16	* 184137	PLATE-THRUST	1
17	184123	KEY	1

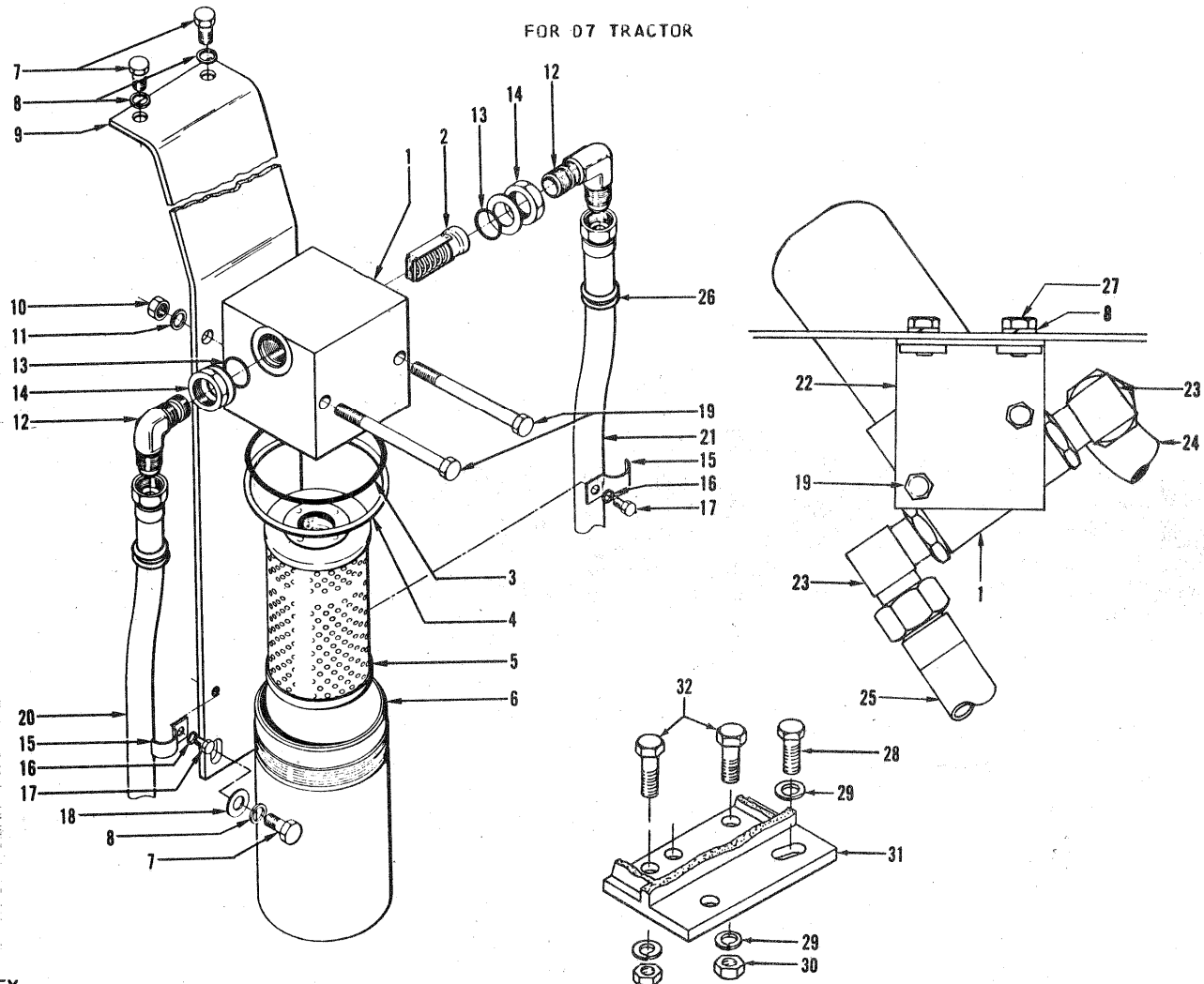
*INCLUDED IN SEAL REPAIR KIT 184132.

* Gram AOE 7

HYSTER COMPANY
 PORTLAND, OREGON

FILTER AND HOSES

FOR D7 TRACTOR



KEY

A-FOR SERIAL NO. 47A1-47A3395 AND 48A1-48A6392.
 B-FOR SERIAL NO. 47A3396 & UP AND 48A6393 & UP.
 C-FOR D7E TRACTOR WITH OPTIONAL RIP DOZER.

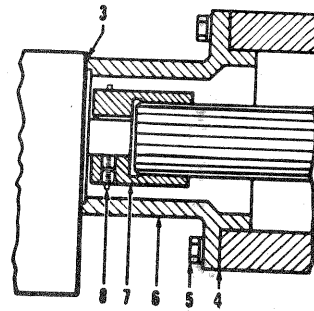
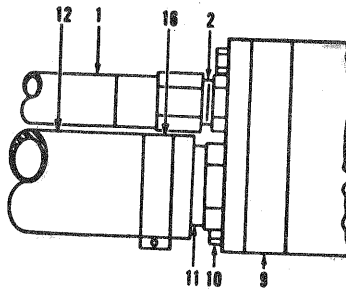
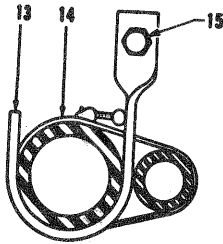
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
1	147461	FILTER-HYDRAULIC	1	1	1
2	149295	HEAD	1	1	1
3	.....	VALVE-RELIEF	1	1	1
4	149297	O-RING	1	1	1
5	149298	RING-BACK-UP	1	1	1
6	147463	ELEMENT 160387	1	1	1
7	149296	CASE	1	1	1
8	16829	CAPSCREW-HT 1/2 UNC X1	..	4	..
9	15158	LOCKWASHER-1/2	4	4	..
10	155112	BRACKET-FILTER MOUNTING	..	1	..
11	15057	NUT-7/16 UNC	2	2	2
12	15157	LOCKWASHER-7/16	2	2	2
13	201776	ELBOW	..	2	2
14	16487	O-RING	..	1	1
15	16589	LOCKNUT	..	1	1
16	151714	CLAMP	..	2	..
17	15156	LOCKWASHER-3/8	..	2	..
18	16870	CAPSCREW-HT, 3/8 UNC X 1/2	..	2	..
19	38760	WASHER	..	2	..
20	18578	CAPSCREW-HT, 7/16 UNC X 5	2	2	2
21	139725	HOSE-PUMP TO FILTER	..	..	1
22	76817	HOSE	..	1	..

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
21	76817	HOSE-PUMP TO FILTER	..	1	..
22	165489	HOSE-FILTER TO WINCH	..	..	1
23	148978	BRACKET-R.H. } FILTER	1	..	..
24	148980	BRACKET-L.H. } MOUNTING	1	..	..
25	201776	ELBOW	2	..	..
26	16487	O-RING	1	..	..
27	16589	LOCKNUT	1	..	..
28	76227	HOSE-PUMP TO FILTER	1	..	..
29	165489	HOSE-FILTER TO WINCH	1	..	..
30	178921	GROMMET	2	2	2
31	16830	CAPSCREW-HT, 1/2 UNC X 1 1/4	4	..	..
32	16805	CAPSCREW-HT, 3/8 UNC X 1	..	..	1
33	67432	NUT-WELD	..	..	1
34	15156	LOCKWASHER-3/8	..	..	4
35	15006	NUT-HEX 3/8 UNF	..	..	2
36	175167	BRACKET-FILTER MOUNTING	..	..	1
37	16634	CAPSCREW-HT, 3/8 UNF X1	..	..	3

HYSTER COMPANY
 PORTLAND, OREGON

PUMP DRIVE

FOR D7 TRACTOR



KEY

A-FOR SERIAL NO. 47A1-47A3395 AND 48A1-48A6392.
 B-FOR SERIAL NO. 47A3396 & UP AND 48A6393 & UP.
 C-FOR D7E TRACTOR WITH OPTIONAL RIP DOZER.

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			1	2	3
1	.....	HOSE-PUMP TO FILTER SEE PAGE F8	1	1	1
2	16543	CONNECTOR-MALE	1	1	1
	16486	O-RING	1	1	1
3	95710	GASKET	1	1	1
4	95486	GASKET	1	1	1
5	16805	CAPSCREW-HT, 3/8 UNC X 1	6	6	6
	15156	LOCKWASHER-3/8	6	6	6
6	145351	ADAPTER	1	..	..
	147965	ADAPTER	..	1	1
7	145347	COUPLING	1	1	..
	181895	COUPLING 1 1/16" ID on pump shaft end	..	..	1

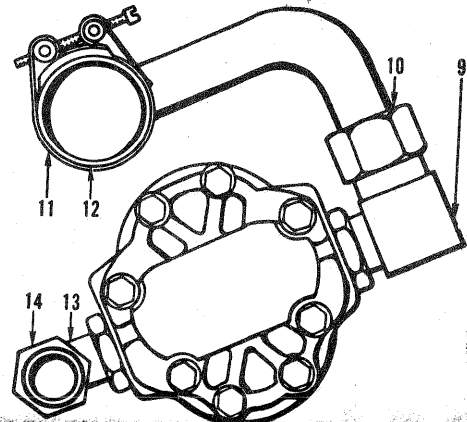
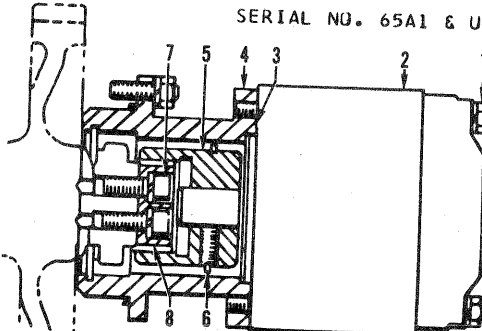
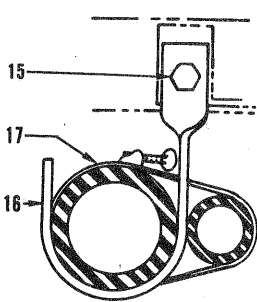
④ Item AO-E-6

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.		
			A	B	C
8	54112	SNAP RING	1	1	1
	16200	SETSCREW-3/8 UNC X 3/8	1	1	1
	136391	SETSCREW-3/8 UNC X 1/4	1	1	1
9	.....	PUMP-HYDRAULIC, SEE PAGE F7	1	1	1
	18551	CAPSCREW-3/8 UNC X 5 1/2	..	..	2
10	133681	CAPSCREW-3/8 UNC X 5 1/8	2	2	..
	15156	LOCKWASHER-3/8	2	2	2
11	145350	NIPPLE-HOSE, SPECIAL	1	1	1
	16983	O-RING	1	1	1
12	170719	HOSE-MANIFOLD TO PUMP	1	1	1
13	143362	CLAMP-HOSE LOCATING	1	1	1
14	18994	CLAMP-HOSE	1	1	1
15	18588	CAPSCREW-1/2 UNC X 1 1/2	1	1	1
16	142781	CLAMP-HOSE	2	2	2

PUMP DRIVE

FOR 572E PIPELAYER

SERIAL NO. 65A1 & UP



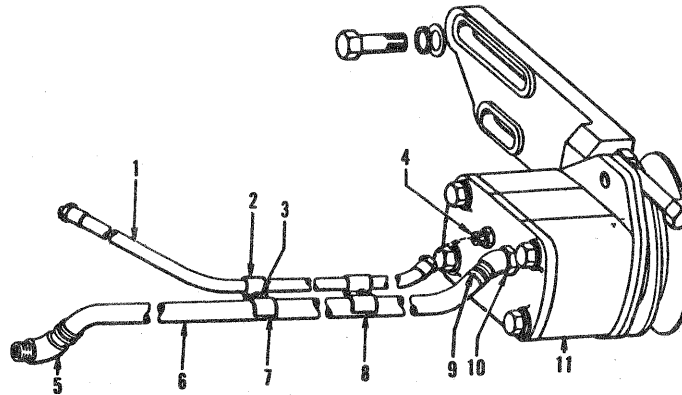
REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	18551	CAPSCREW-HT, 3/8 UNC X 5 1/8	2
	15156	LOCKWASHER-3/8	2
2	.....	PUMP ASSY.-HYD., SEE PAGE F7	1
3	132044	GASKET	1
4	145478	HOUSING-PUMP DRIVE	1
5	145477	COUPLING-PUMP	1
6	88837	SNAP RING	1
	16200	SETSCREW-3/8 UNC X 3/8	2
7	27187	CAPSCREW-3/8 UNC X 1	2
	15156	LOCKWASHER-3/8	2
8	145476	SHAFT	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
9	16949	ELBOW	1
	16983	O-RING	1
	16980	LOCKNUT	1
10	146385	TUBE ASSEMBLY	1
11	142781	CLAMP-HOSE	1
12	165490	HOSE	2
	201776	ELBOW	1
13	16487	O-RING	1
	16589	LOCKNUT	1
14	123043	HOSE ASSEMBLY	1
15	18588	CAPSCREW-HT, 1/2 UNC X 1 1/2	1
16	143362	CLAMP-HOSE LOCATING	1
17	18994	CLAMP-HOSE	1

HYSTER COMPANY
 PORTLAND, OREGON

HYDRAULIC HOSES

FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP

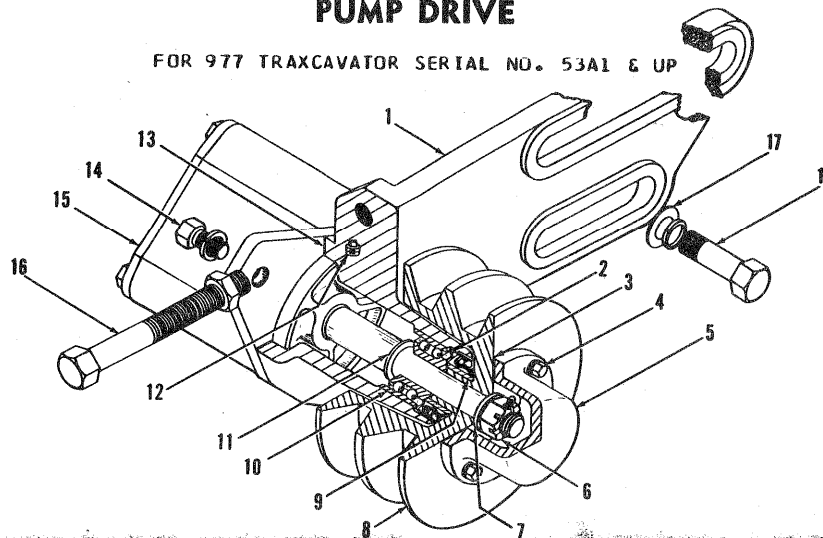


REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	155298	HOSE ASSEMBLY	1
2	60016	CLAMP-HOSE LOCATING	2
3	18467	CAPSCREW-HT, 1/4 UNF X 1 1/4	2
	15154	LOCKWASHER-1/4	2
	15004	NUT-1/4 UNF	2
	164661	CONNECTOR-MALE	1
4	16484	O-RING	1
	17040	ELBOW-45 DEG. SWIVEL	1
5	15476	ELBOW-STREET, 45 DEG.	1
	111330	NIPPLE-HOSE, 45 DEG.	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
6	97963	HOSE	1
7	15978	CLAMP-HOSE LOCATING	2
	132930	SUPPORT-CLAMP	1
8	132929	SUPPORT-CLAMP	1
9	89781	CLAMP-HOSE	2
	97961	NIPPLE-HOSE, SPECIAL	1
10	16486	O-RING	1
	16588	LOCKNUT	1
11	.....	PUMP & PULLEY ASSY.-SEE PAGE F10	1

PUMP DRIVE

FOR 977 TRAXCAVATOR SERIAL NO. 53A1 & UP



REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
1	97950 A	PUMP & PULLEY ASSEMBLY	1
2	97953	BRACKET-PUMP DRIVE	1
3	97955	SEAL-OIL	1
4	97959	GASKET	1
	18460	CAPSCREW-HT, 1/4 UNC X 3/4	4
	15154	LOCKWASHER-1/4	4
5	97960	COVER-PULLEY	1
6	15078	NUT-SLOTTED, 1/2 UNF	1
	15213	COTTER-3/32 X 1	1
7	15135	WASHER-1/2	1
8	97956 A	PULLY ASSEMBLY	1
9	97958	SLEEVE-WEAR	1

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
10	45303	BEARING-BALL	1
11	97954	WASHER-SPECIAL	1
12	15306	PLUG-PIPE 1/8	1
13	97952	GASKET	1
14	16634	CAPSCREW-HT, 3/8 UNF X 1	2
	15156	LOCKWASHER-3/8	2
15	.....	PUMP-HYDRAULIC, SEE PAGE F7	1
16	97964	BOLT-ADJUSTING	1
	15015	NUT-JAM, 5/8 UNC	1
17	15135	WASHER-1/2	3
18	18588	CAPSCREW-HT, 1/2 UNC X 1 1/2	3
	15158	LOCKWASHER-1/2	3

HYSTER COMPANY
PORTLAND, OREGON

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Section G

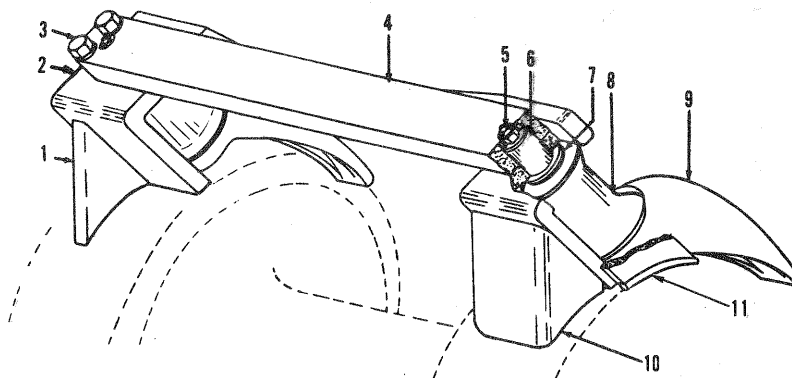
OPTIONAL EQUIPMENT

INDEX

CABLE GUIDE ROLLERS	G1
FAIRLEAD	G1

USE HYSTER APPROVED PARTS... *it pays*

CABLE GUIDE ROLLERS

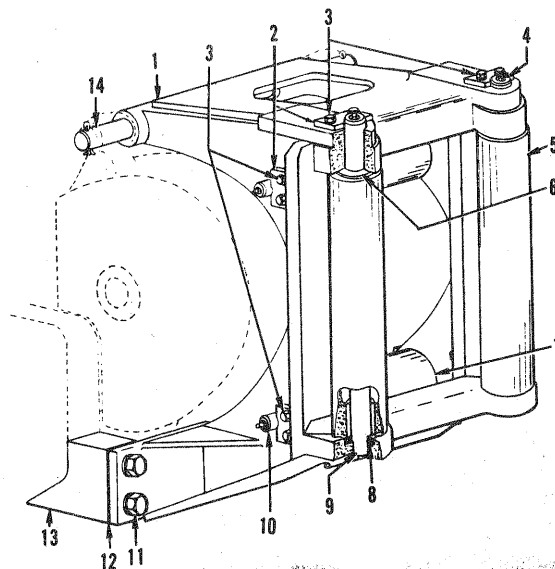


REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
	95877 A	ROLLER ASSEMBLY-CABLE GUIDE	1
1	95892	GUSSET-R.H. BRACKET	1
2	95883 W	BRACKET-R.H. ROLLER	1
	95891	GUSSET	1
3	16645	CAPSCREW-5/8 UNF X 2 1/4	4
	15160	LOCKWASHER-5/8	4
4	95888 W	GUARD-CABLE	1
5	16006	FITTING-GREASE	2

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
6	95669	PIN-ROLLER	2
7	95668	WASHER	6
8	95666 A	ROLLER ASSEMBLY	2
	35135	BUSHING	2
9	95879 W	BRACKET-L.H. ROLLER	1
10	95890	BRACKET-L.H.	1
11	95889	BAR-FILLER	1

FAIRLEAD

780 lbs



REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
	143184	FAIRLEAD ASSEMBLY	1
1	95785 W	FRAME	1
2	93166	KEEPER	4
3	15514	CAPSCREW-1/2 UNF X 1 1/4	8
	15158	LOCKWASHER-1/2	8
4	16001	FITTING-GREASE	8
5	36206 A	ROLLER ASSEMBLY-VERTICAL	2
	2570	BUSHING	2
6	33394	WASHER	2
7	92212 A	ROLLER ASSEMBLY-HORIZONTAL	2
	59419	BUSHING	2

REF. NO.	HYSTER PART NO.	NAME OF PART	QTY.
	1 2 3 4		
8	230336	BEARING-BALL, THRUST	2
9	93657	SHAFT-VERTICAL ROLLER	2
10	93658	SHAFT-HORIZONTAL ROLLER	2
	92720	WASHER	4
11	15571	CAPSCREW-1 NF X 2 3/4	4
	15166	LOCKWASHER-1	4
12	93985	SHIM-.134	AR
13	142808	BRACKET-L.H. MOUNTING	1
	142809	BRACKET R.H. MOUNTING	1
14	.....	ROD-TIE, SEE PAGE B1	1
	.....	COTTER-3/8 X 3, SEE PAGE B1	2

HYSTER COMPANY
PORTLAND, OREGON

Section Q

NUMERICAL

INDEX

USE HYSTER APPROVED PARTS... *it pays*

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
142	F6	15305	B2	18578	F8	76697	E1	95615	E1	96435	D5
159	E1	15306	F10	18586	E1	76699 A	E1	95636 W	E1	96436	D5
206	F7	15319	B2	18588	B2	76706 W	E2	95638	E1	96437 A	D5
2570	G1	15451	B4	18850	D5	76817	F8	95666 A	G1	96438	D5
6348	E1	15476	F10	18853	F1	77187 A	E2	95668	G1	96439	D5
6607	D5	15500	D5	18863	D5	77188	E2	95669	G1	96451	D1
6697	D5	15507	B2	18994	F9	78022	D5	95709	F6	96452	D1
9413	F7	15514	G1	19952	F6	78035 A	F7	95710	F9	96458	D2
9528	D1	15515	D4	19981	F6	79389	D1	95750	E2	96460	D3
9554	D1	15527	E1	21013	D2	79416	E2	95751	E2	96461	D3
9563	D1	15552	F5	21014	D2	79417	E2	95785 W	G1	96462	D3
12897	F5	15553	F5	21420	B2	79418	E2	95833	D3	96463	D3
12915	D3	15571	G1	27187	F9	79972	D3	95835	B3	96464	D3
12916	D1	15675	F5	27936	E1	79979	D4	95837	B3	96466	D3
12940	D3	15881	D5	30059	D3	86229	F1	95877 A	G1	96467	D3
12944	D1	15978	F10	30080	D3	86976	F3	95879 W	G1	96468	D3
14349	F1	16001	G1	30091	D1	87656	D3	95883 W	G1	96469 W	D2
14668	F1	16002	B2	33394	G1	88837	F9	95888 W	G1	96472	B2
14712	F5	16006	G1	33618	B2	89023	F2	95889	G1	96480	F1
14758	F1	16200	F9	33682	E1	89025	F1	95890	G1	96495 W	D2
14761	F1	16212	B2	33717	E1	89727	D3	95891	G1	96497 W	D2
14763	F1	16220	F5	33783	D4	89770	D3	95892	G1	96524	D1
15C01	F1	16445	F6	33785	D1	89771	D3	95893	F1	96725	E1
15C04	F10	16455	F1	33786	D1	89772	D3	95905	E2	96783	D2
15C05	F5	16458	F1	33787	B2	89773 A	D3	95944	D2	96784	D2
15C06	B4	16468	F1	35135	G1	89777	D3	95945	D2	96785	D3
15C08	E2	16484	F3	35159	D4	89781	F10	95946	D2	97553	D1
15C15	F10	16485	F1	35503	B2	9C267	E2	95948	B2	97843 A	E1
15C16	B3	16486	F1	35573	D1	91629	E1	95951	E1	97950 A	F10
15018	B3	16487	F1	36000	D4	92212 A	G1	95959	B2	97951 A	F7
15025	F5	16543	F9	36006	D4	92606	B2	95961	B2	97952	F10
15026	E2	16587	F1	36007	D4	92608	D5	95962	D2	97953	F10
15C28	F5	16588	F1	36206 A	G1	92620	D1	95963	D2	97954	F10
15030	E1	16589	F8	36240	B3	92621	D1	95964	D2	97955	F10
15054	F5	16634	F8	37562	F1	92623	B2	95969	D3	97956 A	F10
15057	F8	16645	G1	38760	F8	92649	D3	96020	D1	97958	F10
15C78	F10	16805	F8	44316	D2	92652	D3	96021	D2	97959	F10
15079	D4	16807	E2	44484	D5	92671	B2	96028	D2	97960	F10
15086	B2	16829	B2	45303	F10	92683	E2	96367	D1	97961	F10
15134	F5	16830	B2	46629	D5	92684	D4	96368	D1	97963	F10
15135	E1	16870	F8	53559	D5	92705	E1	96371	D2	97964	F10
15154	F5	16909	F1	54112	F9	92712	D5	96372	D2	98362	D1
15155	F5	16949	F9	55434	B3	92713	D5	96373	E1	104607	E1
15156	B2	16980	F9	58907	E2	92714	D5	96374	E1	104942	F1
15157	F8	16983	F9	58938	D2	92716 A	D4	96375	E1	109453	D1
15158	B2	1704C	F10	59370	D4	92720	G1	96413	D2	110934	B2
15160	D4	17118	D3	59397	D4	92867	D4	96414	D3	110935	B2
15166	B3	17161	D4	59419	G1	93166	G1	96415	D1	110936	B2
15168	B3	17309	F1	59425 A	D4	93657	G1	96416	D2	111330	F10
15211	F1	17315	F1	59432	D4	93658	G1	96417	D3	111331	F1
15212	D4	18000	B3	59802AB	E1	93771	B2	96418	D1	118389	F3
15213	F10	18001	B3	59927	D4	93985	G1	96420	D5	123043	F9
15223	E1	18004	B3	60016	F10	94369	B2	96423	B2	123704	F7
15226	E1	18005	B3	60836	F3	94381	E2	96424	B2	124240	F7
15240	B3	18202	B4	63085	E1	94601	D4	96425	B2	124241	F7
15272	B2	18451	E2	67432	F8	94655	E1	96426	B2	124242	F7
15273	B2	18460	F10	68964	F7	94891	E2	96430	D2	124245	F7
15295	B2	18467	F10	76227	F8	95486	F9	96431	D2	124247	F7
15302	F1	18542	F1	76695 A	E1	95499	D5	96432	D3	124248	F7
15304	B2	18551	F9	76696	E1	95581	D2	96433	B2	124249	F7

HYSTER COMPANY
PORTLAND, OREGON

NUMERICAL INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
126444	F7	134108	B2	159858	F3	168729	B2	184127	F7		
126445	F7	134109	B2	159859	F3	168730	F2	184128	F7		
127045	F1	134116	F2	160759	F7	168736	F1	184129	F7		
127657	F7	134118	B4	161848	E1	168737	F1	184130	F7		
127658	F7	134220	D4	161850	F2	168741	F4	184131	F7		
127659	F7	134821	B3	161857	F2	169268	E1	184132	F7		
127661	F7	135737	B5	163660	F3	169671	D1	184133	F7		
128391	E1	135738	B5	164655	F5	169782	F5	184134	F7		
129447	F7	136391	F9	164661	F10	170542	F2	184135	F7		
131976	F5	138542	F2	164679	F3	170543	F2	184136	F7		
131982	D5	138959	D4	164680	E1	170545	F2	184137	F7		
131998	E1	139725	F8	164682	B2	170719	F9	184138	F7		
132009	F1	140184	D4	164683	B2	170751	D4	184139	F7		
132044	F9	140741	E1	164684	B2	170981	F4	201776	F8		
132908	D1	141149	D5	164685	B2	170983	F4	230309	D1		
132909	D1	141325	D5	164686	B2	170984	F4	230310	D3		
132921	B4	141348	D3	164687	B2	170985	F4	230311	D3		
132922	B4	141357	D5	164691	B2	170986	F4	230336	G1		
132924	B4	141675	D5	164701	F5	170987	F4	230351	D2		
132927	B4	142735	B2	164702	F1	170988	F3	230405	D2		
132929	F10	142736	B2	164703	F1	170989	F3	230407	D2		
132930	F10	142758	F2	164704	F1	170993	F3	232460	F3		
132931	B4	142759	E1	164708	B2	170994	F3	233492	F3		
132933	F5	142760	B2	164713	E1	170995	F3	233495	F3		
132936	F2	142761	B2	165489	F8	170996	F3	233502	F3		
132939	F2	142781	F9	165490	F9	170997	F3	233503	F3		
133179	B3	142808	G1	165492	F5	172730	F6	233505	F3		
133529	B4	142809	G1	165493	B5	172732	F6	233506	F3		
133681	F9	142854	D5	165497	F1	172739	F6	233508	F3		
133683	F1	142872	B2	165504	F5	172744	F6	233693	F3		
133898	D1	142879	B2	165505	F5	172745	F6	233969	F4		
133911	B2	143056	B4	165510	F5	172747	F6	234823	F3		
133913	B2	143184	G1	165517	F5	172748	F6	235933	F7		
133914	B2	143362	F9	165634	F5	172751	F6				
133915	B2	145344	F7	165637	F5	172752	F6				
133917	D3	145347	F9	165638	E1	172755	F6				
133918	D3	145350	F9	165639	F5	172757	F6				
133925	D4	145351	F9	165640	F5	172759	F6				
133926	D4	145381	F7	165641	F5	172761	F6				
133927	D4	145382	F7	165643	F5	172762	F6				
133928	D4	145476	F9	165644	F5	173310	F6				
133929	D4	145477	F9	165645	F5	173604	D5				
133930	D4	145478	F9	165648	F5	173605	D5				
133931	D4	145479	F7	165659	F5	173606	D5				
133936	D4	146385	F9	165662	F1	174421	F6				
133937	D4	146896	F7	166903	F3	174422	F6				
133943	F1	147401	F7	166904	F3	174564	F6				
133968	F2	147461	F8	166905	F3	175167	F8				
134070	D5	147463	F8	166906	F3	175171	F6				
134071	D5	147965	F9	166909	F3	175180	F5				
134072	D5	148978	F8	166910	F3	177949	D5				
134074	B2	148980	F8	166911	F3	178921	F8				
134075	B2	149295	F8	166912	F3	181031	F2				
134076	B2	149296	F8	166913	F3	181032	F2				
134078	D1	149297	F8	166914	F3	181894	F7				
134079	D1	149298	F8	166916	F3	181895	F9				
134081	B2	151714	F8	166917	F3	184123	F7				
134082	B2	155112	F8	166920	F3	184124	F7				
134083	B2	155298	F10	166922	F3	184125	F7				
134107	B2	157593	F5	168728	B2	184126	F7				

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