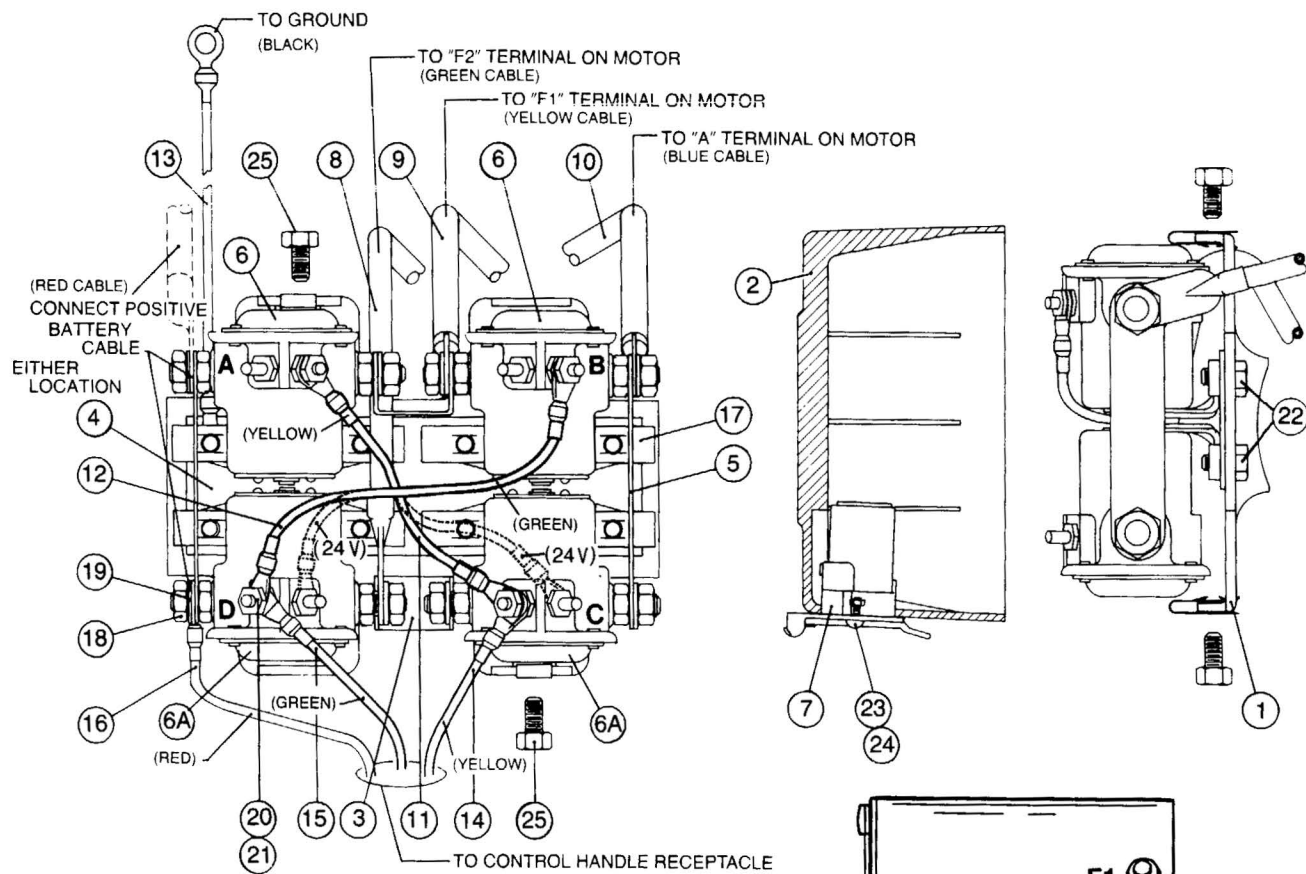
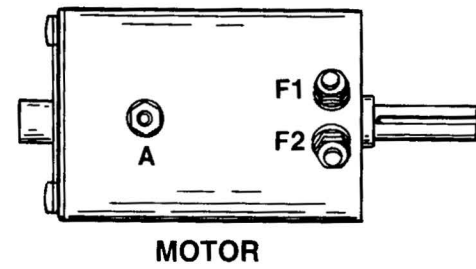


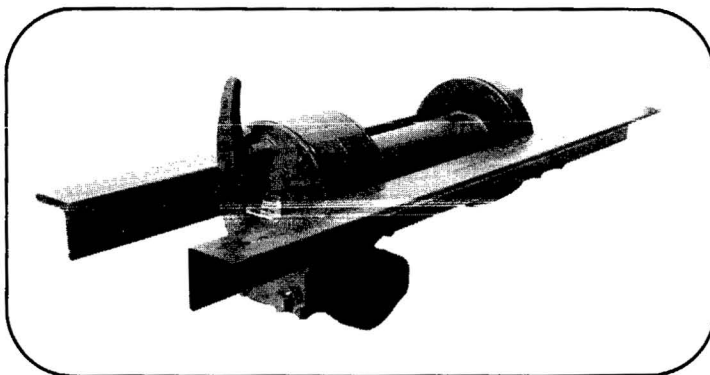
EU8A CONTROL BOX ASSEMBLY AND WIRING DIAGRAM



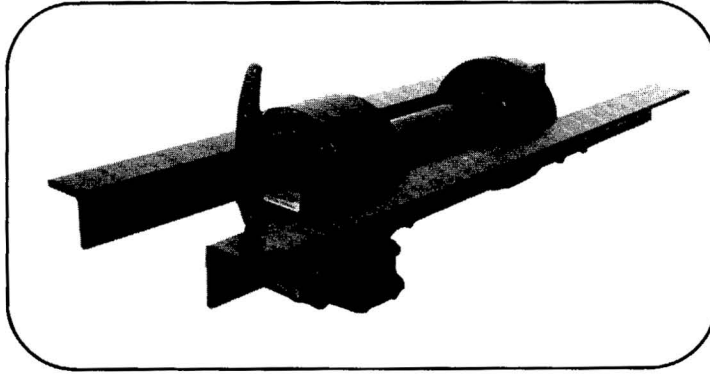
WIRE	ITEM NO.	CONNECTION
BLACK	13	GROUND
RED	16	BATTERY
BLUE	10	A
YELLOW	9, 11, 14	F1
GREEN	8, 12, 15	F2



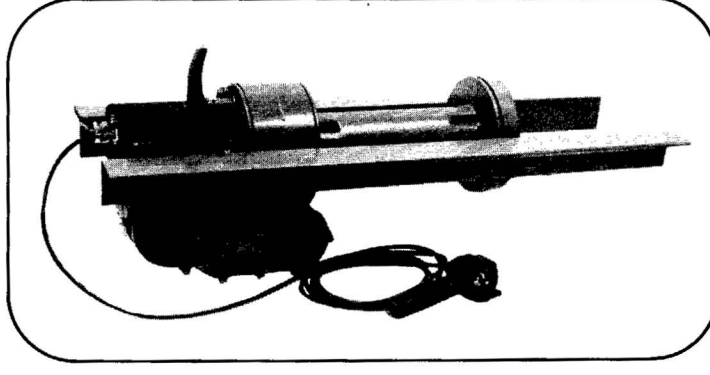
CONTROL BOX ASSEMBLY MATERIAL LIST							
ITEM	DESCRIPTION	12V UNIT MOUNT 81627		12V REMOTE MOUNT 81629		24V UNIT MOUNT 81637	
		PART NO.	QTY.	PART NO.	QTY.	PART NO.	QTY.
1	SOLENOID MOUNTING PLATE	24598	1	24598	1	24598	1
2	CONTROL BOX COVER	24611	1	24611	1	24611	1
3	BUSS BAR - SMALL	24621	2	24621	2	24621	2
4	GROUND PLATE	24735	1	24735	1	24735	1
5	BUSS BAR	24622	2	24622	2	24622	2
6	SOLENOID	24048	4	24048	4	24048	2
6A	SOLENOID	-	-	-	-	24836	2
7	RECEPTICLE	22482	1	25031	1	22482	1
8	CONNECTING CABLE - F2	24619	1	-	-	24619	1
9	CONNECTING CABLE - F1	24620	1	-	-	24620	1
10	CONNECTING CABLE - A	24618	1	-	-	24618	1
11	JUMPER WIRE - F1	24612	1	24612	1	24612	1
12	JUMPER WIRE - F2	24613	1	24613	1	24613	1
13	GROUND WIRE	24614	1	24614	1	24614	1
14	CONTROL WIRE - F1	24615	1	25194	1	24615	1
15	CONTROL WIRE - F2	24616	1	25195	1	24616	1
16	CONTROL WIRE - BATTERY	24617	1	25193	1	24617	1
17	SHEET METAL NUT	24632	10	24632	10	24632	10
18	HEX NUT (5/16 - 24)	24062	8	24062	8	24062	8
19	WASHER (5/16 External Tooth)	11011	8	11011	8	11011	8
20	HEX NUT (10-32)	24061	4	24061	4	24061	4
21	WASHER (3/16 or #10 External Tooth)	11009	4	11009	4	11009	4
22	CAPSCREW (1/4 - 20 x 3/4 G5)	23004	8	23004	8	23004	8
23	SCREW (10 - 24 x 3/8)	24052	2	24052	2	24052	2
24	LOCKNUT (10 - 24 Flanged)	24063	2	24063	2	24063	2
25	CAPSCREW (1/4 - 20 x 1/2)	22727	2	22727	2	22727	2



**BRADEN
HU8A
HYDRAULIC**



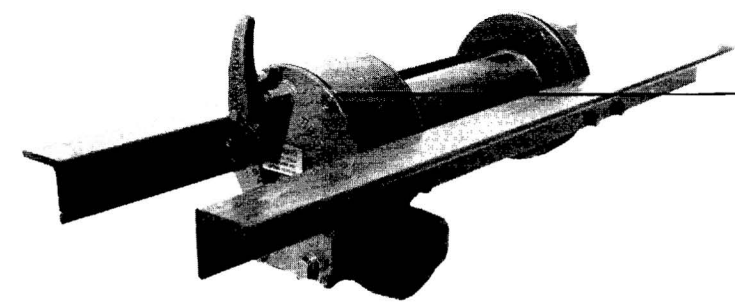
**BRADEN
MU8A
MECHANICAL**



**BRADEN
EU8A
ELECTRICAL**

MATERIAL LIST

TIPS ON ORDERING PARTS FOR YOUR BRADEN WINCH



WINCH MODEL NUMBER
WINCH SERIAL NUMBER

The model and serial numbers of the winch are stamped into the housing. Since both of these numbers are extremely important in the shipment of the proper replacement parts, your order should always reference these numbers.

FOR BEST RESULTS, USE ONLY FACTORY CERTIFIED REPLACEMENT PARTS!

TO ORDER --

- (1) List model and serial numbers of the winch.
- (2) Refer to exploded view and select the component(s) needed and note item number.
- (3) Find item number on material list, show part number, description and quantity required on your order.

OBSERVE ALL BASIC "RULES OF SAFETY" WHEN OPERATING YOUR WINCH

- (1) Be certain that the winch cable is securely anchored.
- (2) NEVER handle the winch cable when it is under load.
- (3) Always stand clear of the winch cable because a flying cable and hook can be extremely dangerous.
- (4) Keep hands clear of cable rollers, entry area, and the point where the cable rolls onto the cable drum.
- (5) NEVER use the winch for lifting or moving of persons.
- (6) Do not allow anyone . . . including the operator . . . to stand under a suspended load.

WINCH BREAK-IN

BEFORE running a new winch, or one that has been repaired, BE CERTAIN THAT:

- (1) The winch is secure in its mount. Check all capscrews holding the winch to the base angles as well as the capscrews holding the base angles to the mount. All capscrews should be of Grade 5, or better.
- (2) The winch is filled to the oil level plug with Braden approved worm gear oil.

THE WORM GEARSET SHOULD BE "BROKEN IN" WITH LIGHT LOADS FOR AT LEAST THREE OR FOUR WINCHING OPERATIONS. THIS SHOULD ALSO BE DONE IF YOU ARE REPLACING EITHER THE WORM OR THE WORM GEAR IN YOUR WINCH.

RECOMMENDED OIL:

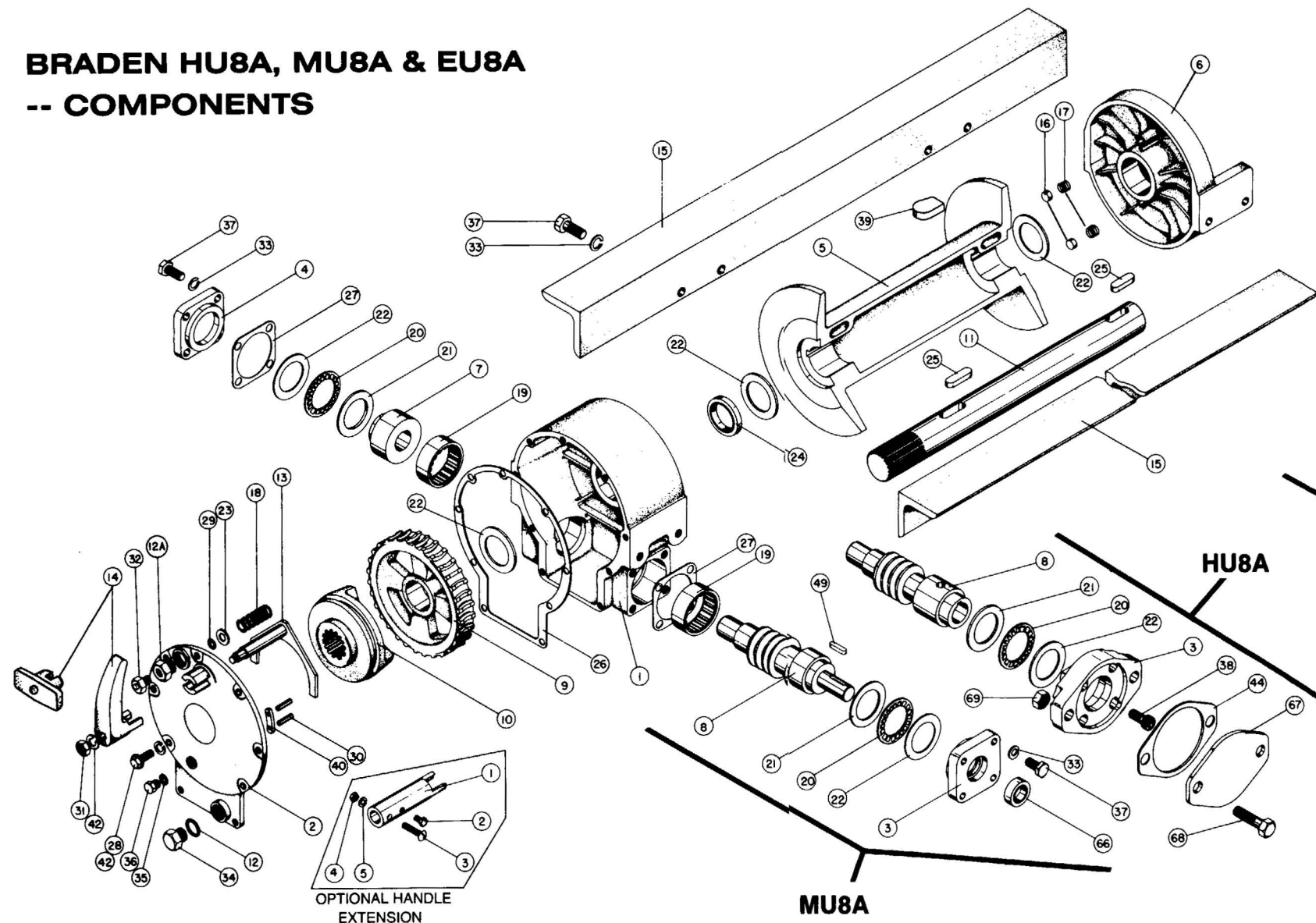
90 W MULTI PURPOSE E.P. GEAR OIL MEETING API CLASSIFICATION GL-5

Oil Capacity
Model HU8A 2 Pints
Model MU8A 2 Pints
Model EU8A including Spur Gear Box 2-1/2 Pints

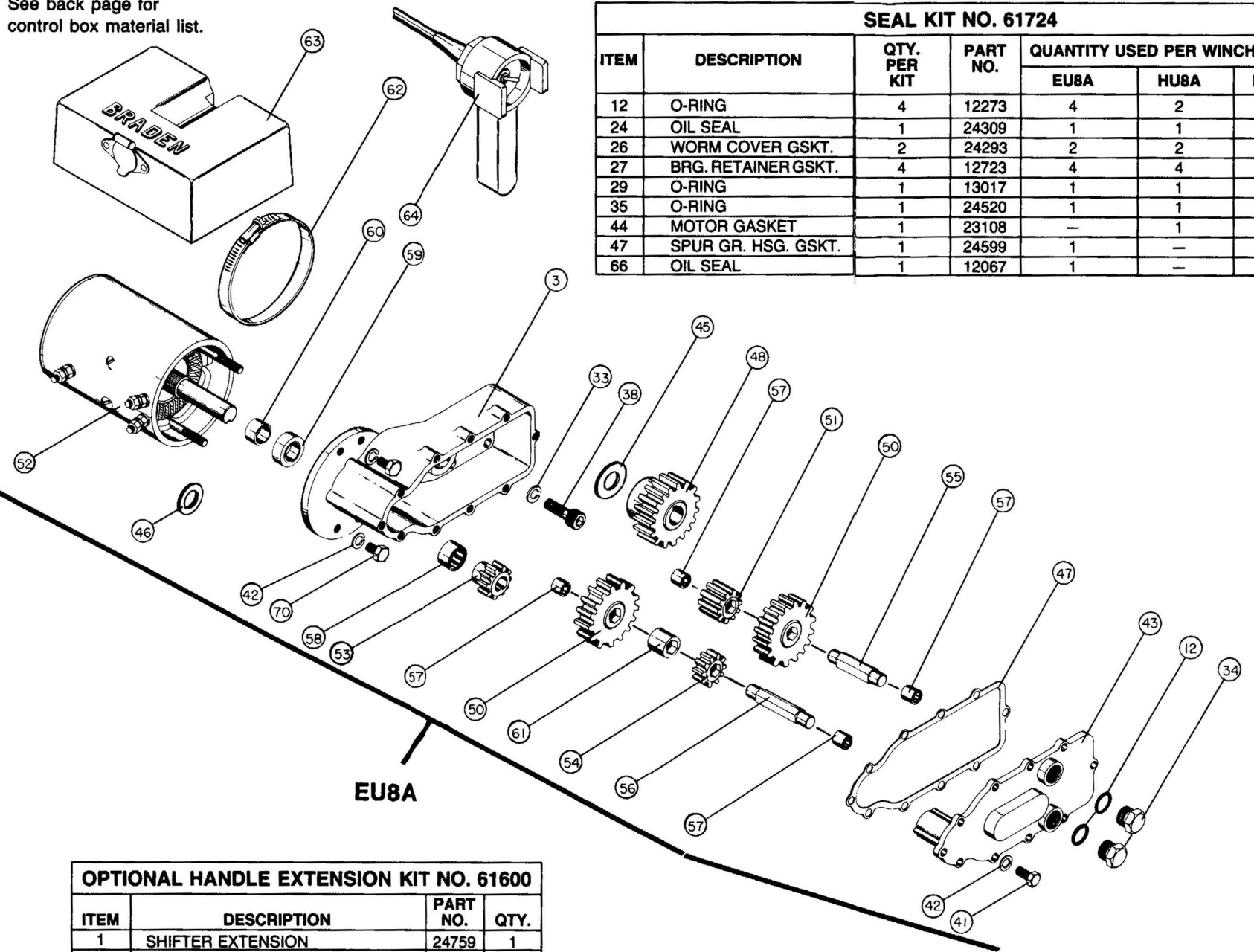
PACCAR WINCH DIVISIONS

BRADEN HU8A, MU8A & EU8A

-- COMPONENTS



See back page for control box material list.



SEAL KIT NO. 61724						
ITEM	DESCRIPTION	QTY. PER KIT	PART NO.	QUANTITY USED PER WINCH MODEL		
				EU8A	HU8A	MU8A
12	O-RING	4	12273	4	2	2
24	OIL SEAL	1	24309	1	1	1
26	WORM COVER GSKT.	2	24293	2	2	2
27	BRG. RETAINER GSKT.	4	12723	4	4	4
29	O-RING	1	13017	1	1	1
35	O-RING	1	24520	1	1	1
44	MOTOR GASKET	1	23108	—	1	—
47	SPUR GR. HSG. GSKT.	1	24599	1	—	—
66	OIL SEAL	1	12067	1	—	1

OPTIONAL HANDLE EXTENSION KIT NO. 61600			
ITEM	DESCRIPTION	PART NO.	QTY.
1	SHIFTER EXTENSION	24759	1
2	CAPSCREW	24760	1
3	CAPSCREW	24761	1
4	HEX-NUT	18089	1
5	LOCKWASHER	23625	2

BASIC MATERIAL LIST HU8A, MU8A, EU8A							
ITEM	DESCRIPTION	PART NO.	QTY.	ITEM	DESCRIPTION	PART NO.	QTY.
1	WORM HOUSING ASSEMBLY	24303	1	19	NEEDLE BEARING	24304	2
2	WORM COVER	24300	1	20	THRUST BEARING	24426	2
4	BEARING RETAINER	24362	1	21	THRUST RACE (1/8")	24427	2
5	CABLE DRUM 11" LONG	24298	1	22	THRUST RACE (1/16")	24307	5
6	CABLE DRUM 6" LONG	24731	1	23	THRUST RACE	24308	1
7	SUPPORT SHROUD ASSEMBLY	24301	1	24	OIL SEAL	24309	1
10	CLUTCH (2° DRAFT ANGLE) Note 1 & 2	24660	1	25	KEY	23367	2
11	CLUTCH (10° DRAFT ANGLE) Note 1 & 2	24299	1	26	WORM COVER GASKET	24293	2
12A	CABLE DRUM SHAFT (11" Drum)	24297	1	27	BEARING RETAINER GASKET	12723	4
13	CABLE DRUM SHAFT (6" Drum)	24725	1	28	CAPSCREW (1/4 - 20 x 3/4)	11758	9
14	REDUCER	26868	1	29	O-RING	13017	1
15	SHIFTER ASSEMBLY Note 3	24624	1	30	ROLL PIN	21049	8
16	CLUTCH HANDLE - L Note 3	24626	1	31	HEX NUT (1/4 - 20)	11761	1
17	CLUTCH HANDLE - T Note 3	25646	1	32	VENT	10074	1
18	BASE ANGLE (11" Drum)	24295	2	35	O-RING	24520	1
19	BASE ANGLE (6" Drum)	24726	2	36	OIL PLUG (includes item 35)	29999	1
20	DRAG BRAKE DISC	24289	2	39	CABLE ANCHOR (see note 7)	24315	1
21	DRAG BRAKE SPRING	24287	2	40	FRICITION PLATES	24538	4
22	CLUTCH SPRING	24288	1		WARNING PLATE (NOT SHOWN)	24330	1

MATERIAL LIST VARIABLES HU8A			
ITEM	DESCRIPTION	PART NO.	QTY.
3	MOTOR ADAPTER	24361	1
8	WORM	24296	1
9	WORM GEAR RT. THREAD 2° NOTE 1	24661	1
	WORM GEAR RT. THREAD 10° NOTE 1	24294	1
12	O-RING	12273	1
33	LOCKWASHER (3/8)	18003	12
34	DRAIN PLUG (includes item 12)	70117	1
37	CAPSCREW (3/8 - 16 x 1 G5)	21961	12
38	CAPSCREW S.H. (3/8-16 x 1 1/4)	13827	4
42	LOCKWASHER (1/4)	11015	10
44	MOTOR GASKET	23108	1
67	DUST SHIELD	21959	1
68	CAPSCREW (1/2 - 20 x 1 3/4 G8)	22698	2
69	JAM NUT (1/2 - 20)	18004	2

MATERIAL LIST VARIABLES MU8A			
ITEM	DESCRIPTION	PART NO.	QTY.
3	BEARING RETAINER	24414	1
8	WORM - RIGHT HAND	24415	1
	WORM - LEFT HAND	24518	1
9	WORM GEAR RT. THREAD 2° NOTE 2	24661	1
	WORM GEAR RT. THREAD 10° NOTE 2	24294	1
	WORM GEAR LFT. THREAD 2° NOTE 2	24662	1
	WORM GR. LFT. THREAD 10° NOTE 2	24519	1
12	O-RING	12273	1
33	LOCKWASHER (3/8)	18003	16
34	DRAIN PLUG (includes item 12)	70117	1
37	CAPSCREW (3/8 - 16 x 1 G5)	21961	16
42	LOCKWASHER	11015	10
49	KEY	22431	1
66	SEAL	12067	1

MATERIALS LIST VARIABLES EU8A							
ITEM	DESCRIPTION	PART NO.	QTY.	ITEM	DESCRIPTION	PART NO.	QTY.
3	SPUR GEAR HOUSING	24596	1	52	ELECTRIC MOTOR NOTE 4		
8	WORM	24415	1		12 VOLT KIT INCLUDES 46, 52 & 59	61675	1
9	WORM GEAR RT. THREAD 2° NOTE 1	24661	1		24 VOLT KIT INCLUDES 46, 52, 59 & 60	61725	1
	WORM GEAR RT. THREAD 10° NOTE 1	24294	1	53	INPUT PINION	24602	1
12	O-RING	12273	3	54	FIRST IDLER PINION	24609	1
33	LOCKWASHER	18003	4	55	SECOND IDLER SHAFT	24603	1
34	DRAIN PLUG (includes item 12)	70117	3	56	FIRST IDLER SHAFT	24604	1
37	CAPSCREW (3/8 - 16 x 1 G5)	21961	4	57	RADIAL BEARING	24629	4
38	CAPSCREW (3/8 - 16 x 1 G5)	21961	16	58	RADIAL BEARING	24630	1
41	CAPSCREW (1/4 - 20 x 3/4 G5 ROLLED)	23004	10	59	SEAL	12067	1
42	LOCKWASHER (1/4)	11015	22	60	MOTOR SHAFT SLEEVE NOTE 5	24606	1
43	SPUR GEAR HOUSING COVER	24597	1	61	SPACER	24608	1
45	BEARING - THRUST RACE	22960	1	62	HOSE CLAMP	24605	1
46	THRUST WASHER	25253	1	63	CONTROL BOX ASSEMBLY		
47	SPUR GEAR HOUSING GASKET	24599	1		UNIT MOUNT 12 VOLT	81627	1
48	OUTPUT GEAR	24601	1		REMOTE MOUNT 12 VOLT	81629	1
49	KEY	24774	1		UNIT MOUNT 24 VOLT	81637	1
50	IDLER GEAR	24600	2	64	CONTROL HANDLE ASSEMBLY 15'	81630	1
51	SECOND IDLER PINION	24610	1	70	CAPSCREW (1/4 - 20 x 1/2)	22727	2

SERVICE KITS

O-ring, seal and gasket kit No. 61724 will service all models EU8A, HU8A, MU8A.

To convert Model HU8A right thread to Model MU8A right thread, order kit No. 61580. Left thread kit not available.

To convert Model MU8A right thread to Model HU8A right thread, order kit no. 61581. Left thread kit not available.

SERVICE NOTES

1. Models HU8A, EU8A
Early assemblies with No. 24299 clutch and No. 24294 right thread worm gear have matched draft angles of 10°. Current assemblies with No. 24660 clutch and No. 24661 right thread worm gear have matched draft angles of 2°. When repairing, be certain that the clutch has jaws and the right thread worm gear has jaw slots with matching angles of draft.

2. Model MU8A
Early assemblies with No. 24299 clutch and No. 24294 right thread OR No. 24519 left thread worm gear have matched draft angles of 10°. Current assemblies with No. 24660 clutch and No. 24661 right thread OR No. 24662 left thread worm gear have matched draft angles of 2°. When repairing, be certain that the clutch has jaws and the right thread or left thread worm gear has jaw slots with matching angles of draft.

3. Models HU8A, EU8A, MU8A
Early assemblies were built with 24363 "T" shaped clutch handle and 24416 shifter assembly. For service replacement of either, order (per winch):

- 1 - No. 24626 clutch handle - L or No. 25646 clutch handle - T
- 1 - No. 24624 shifter assembly
- 1 - No. 11761 hex nut
- 1 - No. 11015 lockwasher



- 4. All early and current 12 volt motors serviced by 61675.
- 5. Motor shaft sleeve, 24606, used on early 12 volt motors 24628 and current 24 volt motors, 24789.
- 6. Winches built prior to First Quarter 1995 use vent plug (25153) and o-ring (12273), in the worm cover (item 2). These have been replaced by reducer (26868) and vent (10074).
- 7. Standard cable anchor (24315) is suitable for 1/4 to 3/8 in. diameter cable. For 7/16 in. diameter cable use optional anchor (part no. 29555).