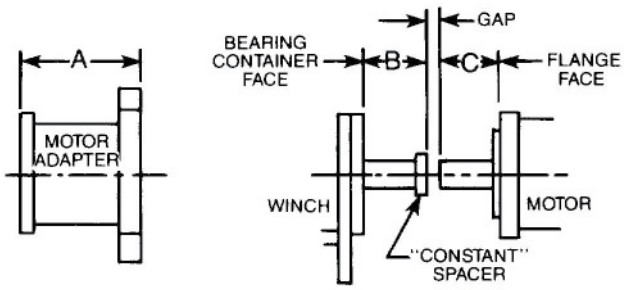
BRADEN WINCH HYDRAULIC MOTOR ADAPTER KITS

Using the chart at right, first check to be sure the kit you have is correct for your winch and motor. Some kits are supplied with capscrews of two different lengths to secure the motor adapter to the winch. This is due to a design revision of the bearing container. If the bearing container flange on your winch is ½ in. thick, use the shorter capscrews. If the bearing container flange is ¾ in. thick, use the longer capscrews.

Some kits are supplied with a motor adapter spacer. This spacer must be placed between the bearing container of the winch and the motor adapter.

Spacers are used to center the coupling assembly and limit its axial movement on the winch and motor shafts. All kits contain at least one spacer, referred to as the "constant" spacer. In addition, your kit may contain one or two "variable" spacers are either 1/8 in. or 7/32 in. thick.

PROCEDURE TO DETERMINE NUMBER AND POSITION OF VARIABLE AND SPRING SPACERS



Dim. A	
Dim. B + C	–
GAP = A – (B + C)	=

Take the following measurements and enter them into the tale above. Measure the length of the motor adapter and motor adapter spacer (if included in your kit). Add together and enter as dimension A.

Hold the "constant" spacer on the end of the winch input shaft and measure the distance from the bearing container face to the outside of the "constant" spacer. This is dimension B. Measure the distance from the motor flange mounting surface to the end of the motor shaft. This is dimension C. Add dimensions B and C and enter the sum into the chart. Determine the gap by subtracting (B + C) from A. Use this gap dimension to determine the variable spacers required from the following chart.

WINCH MODEL	KIT NO.	MOTOR FLANGE *	MOTOR SHAFT
OS4 MF6 AB	61343	SAE "A"	6B Spline
	61347	SAE "B"	1 in. Keyed
	61508	SAE "A"	1 in. Keyed
	61512	SAE "B"	14T Inv. Spline
AC12 ALU2 ALGU2	61333	SAE "A"	1 in. Keyed
	61334	SAE "A"	6B Spline
	61337	SAE "B"	14T Inv. Spline
	61348	SAE "B"	1 in. Keyed
AMS3 AMSU3	61332	SAE "A"	1 in. Keyed
	61343	SAE "A"	6B Spline
	61347	SAE "B"	1 in. Keyed
AMGU5 AMS7 AMS10 AMSU10	61339	SAE "B"	14T Inv. Spline
	61340	SAE "C"	17T Inv. Spline
	61341	SAE "C"	14T Inv. Spline
	61342	SAE "A"	6B Spline
	61507	SAE "A"	14T Inv. Spline
AMU7	61335	SAE "A"	6B Spline
	61344	SAE "B"	14T Inv. Spline
	61482	SAE "A"	1 in. Keyed
	61501	SAE "A"	14T Inv. Spline
	61551	SAE "A"	1-1/4 in. Keyed

* All adapters will accommodate both 2 and 4 bolt motors.

⚠ CAUTION ⚠

If dimension (B + C) is greater than dimension A, contact your local distributor of the Braden Service Department for assistance.

GAP (in.)	VARIABLE SPACER(S) AND/OR SPRING
1/8 or less	None
1/8 to 1/4	One 1/8 in. thick
1/4 to 3/8	Spring
3/8 to 1/2	One 1/8 in. thick + Spring
1/2 to 9/16	One 7/32 in. thick + Spring
9/16 or more	One 1/8 in. thick + One 7/32 in. thick - Spring

NOTE: *When only one 1/8 in. thick spacer is used, install it on the motor side of the "constant" spacer. In all other cases, variable spacers are installed on the winch side of the "constant" spacer. The spring is always installed on the motor side of the "constant" spacer.*

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INSTALLATION INSTRUCTIONS

⚠ CAUTION ⚠

Read and understand all instructions and information on both sides of this sheet before beginning to work on winch. Be sure power to winch is completely disengaged and the winch is **NOT** under load. DO NOT remove bearing container capscrews until ready to attach the adapter to the winch. (It is not necessary to remove the bearing container.)

1. Assemble coupling using both coupling halves (items 2 & 3), "constant" spacer (item 4) and roller chain (item 5).

2. Using the procedure on the other side of this sheet, determine the number and type of spacers required. Install the spacers into the coupling assembly.
   NOTE: *When only one 1/8 in. thick spacer is required, install it into the motor half of the coupling assembly. In all other cases, variable spacers are installed into the winch half of the coupling assembly. When required, the spring is always installed into the motor half of the coupling assembly.*

3. Install a new key on the winch worm shaft. Slide the coupling assembly onto the worm shaft until it seats firmly against the end of the shaft.

4. Remove bearing container capscrews. **NOTE:** *When capscrews are loosened, oil may leak around bearing container gasket.*

5. Position the motor adapter on the winch and install the proper length capscrews and lockwashers supplied with the kit. DO NOT torque capscrews at this time.

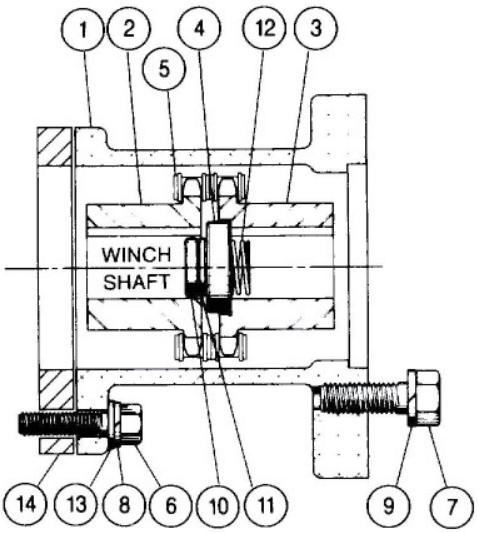
6. If the motor has a keyed shaft, install a new key and slide the motor shaft into the coupling assembly. **NOTE:** *The motor flange face MUST contact the motor adapter before the motor shaft bottoms against the spacers and worm shaft.*

7. Install capscrews and lockwashers securing the motor to the motor adapter.

8. Tighten capscrews securing motor adapter to winch and motor to motor adapter.

Recommended Torque	
3/8 in. capscrews	22 lb•ft
7/16 in. capscrews	32 lb•ft
1/2 in. capscrews	44 lb•ft

9. Make necessary hydraulic connections to the motor.



ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Motor Adapter	7	Capscrew
2	Coupling Half, Winch	8	Lockwasher
3	Coupling Half, Motor	9	Lockwasher
4	Spacer, Constant	10	Spacer
5	Roller Chain	11	Spacer
6	Capscrew	12	Spring
		13	Washer
		14	Spacer

NOTE: *All items not included in all kits.*

⚠ CAUTION ⚠

Before returning the winch to normal service, the winch, motor and coupling assembly should be checked for proper operation.

10. The winch should be operated in both directions, with NO LOAD on the cable drum. Check for hydraulic leaks, excessive vibration at the motor coupling or overheating of the motor. If any of these conditions are present, first check for loose capscrews. Slight misalignment between the motor and worm shaft can sometimes be cured by loosening the capscrews just enough to allow the motor adapter to "center" itself while running the motor at slow speed. Overheating of the motor is usually a result of excessive axial load on the motor shaft. Check the number and thickness of spacers used in the coupling. There must be slight clearance between the motor shaft, spacers and worm shaft.

    Tighten all capscrews to recommended torque before returning the winch to normal service.

If you have any questions regarding your Braden worm gear winch or these instructions, contact the Braden Service Department at 918-251-8511 between 8:00 a.m. and 4:30 p.m. CST.