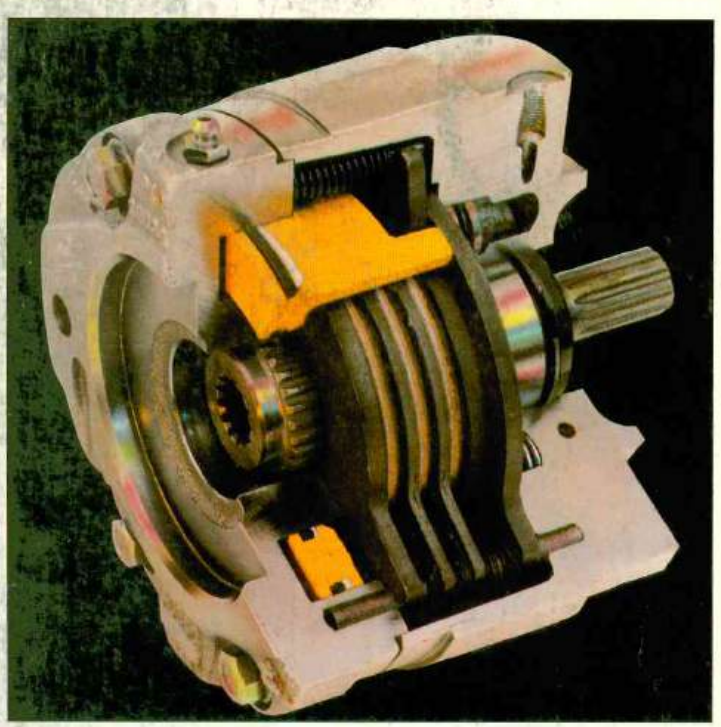
A Complete Guide To Selecting

Failsafe Brakes

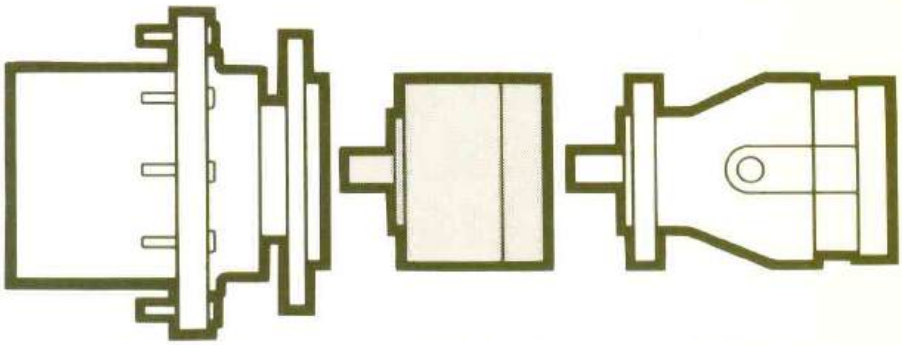


AUSCO

AUSCO FAILSAFE BRAKES FOR HYDROSTATIC DRIVES

Controlled Stopping and Positioning, and Positive Holding for:

Farm, Construction, Mining, Drilling, Marine, and other Off-Highway Machinery; Conveyors, Elevators, Hoists, and other Industrial Machinery



PLANETARY WHEEL | **FAILSAFE BRAKE** | HYDRAULIC MOTOR

Here is your current catalog of the full line of Ausco Failsafe Brake models. All models, it should be noted, fit directly into the powertrain as shown above. Failsafe Brakes are spring-applied and hydraulically released.

Ausco is the industry's preferred Failsafe line because our brakes are easily designed into power transmission systems and have many engineering features that translate into important user and specifier benefits. For example:

- More than 100 models are standard.
- All models have standard SAE J744 mounting flange dimensions.
- They operate on either charge pressure or system pressure up to 3000 PSI.
- Complete self-contained package - no extra brackets and no shimming required.
- Spring-loaded and hydraulically released.
- Most models have bearing-supported shafts.

Besides the standard Failsafe Brake models, (which are appropriate for most applications) Ausco has models available with additional capability, (See page 2 of this manual) including:

- Failsafe Brake with service brake for both parking and dynamic braking.
- Failsafe Brake with one-way clutch.
- Hydraulic hand pump for emergency failsafe brake release; See page 35.

Whether your application is drive wheels, track drives, swing booms, hoists, winches, conveyors - industrial, construction, agricultural and mining equipment, off-road vehicles or off-shore and marine applications, remember...

Ausco led in the development of the Failsafe Brake concept and has a proven, patented design. Ausco's Engineering, Design, Test & Development, and Production capabilities are among the best in the industry.

When you deal with Ausco, you deal with a company that's helped more clients find the right failsafe brake solutions, for more specialized applications, than anyone else.

AUSCO®
PRODUCTS, INC.

To get your project going...

All we need is information.

The very best way to get your project started is to send us a Design Data Sheet with as much information as possible. Then FAX it to the number shown on the bottom of the Data Sheet. (Two sheets are included, see page 39). One of our project engineers will review it, do all the appropriate preparation work and contact you. Our prep work is fast and free. If you'd like to continue, we'll provide the very best brake products for your system. If you have an immediate question, contact us or your local Ausco fluid power distributor today.

TABLE OF CONTENTS

FAILSAFE BRAKE NUMERICAL LIST

Brake No.	Page No.	Brake No.	Page No.	Brake No.	Page No.	Brake No.	Page No.	Brake No.	Page No.
28474	32	31575	23	37160	7	37305	9	37806	24
29697	26	31664	29	37165	9	37315	17	37845	8
29751	12	31843	30	37170	7	37325	13	37975	25
29752	12	32300	32	37175	6	37335	14	37980	25
29983	21	32750	31	37235	24	37340	13	38940	28
30040	31	33272	26	37236	24	37500	9	38941	28
30070	29	34800	11	37255	19	37650	15	38950	28
30080	29	36095	17	37260	7	37690	17	38951	28
30090	27	36715	17	37265	7	37700	16	39940	10
30100	22	36925	17	37270	7	37710	17		
30332	31	37000	9	37275	7	37735	18		
31276	29	37030	9	37280	7	37770	20		
31387	32	37090	16	37285	9	37780	6		
31509	29	37115	17	37300	7	37805	24		

PRIOR MODEL CROSS REFERENCE

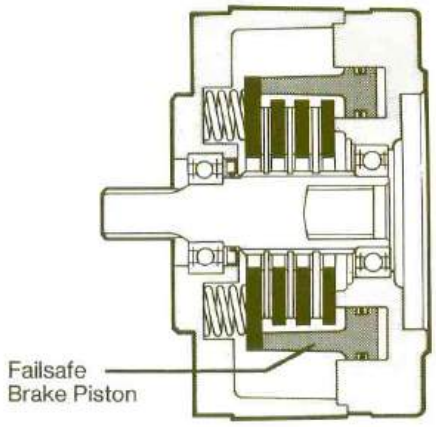
Prior models are no longer recommended for new applications, therefore only NEW models are shown in this technical bulletin. See Bulletin F31145 of June, 1984 or earlier for technical data on prior models.

Prior Brake No.	New* Brake No.	Page No.	Prior Brake No.	New* Brake No.	Page No.	Prior Brake No.	New* Brake No.	Page No.	Prior Brake No.	New* Brake No.	Page No.
27798	37285	9	29970	36715	17	31025	37170	7	34535	37285	9
27933	36715	17	30176	37315	17	31087	37260	7	34751	37265	7
28653	37265	7	30188	37305	9	31131	37165	9	34790	37500	9
28838	37325	13	30310	37710	17	31148	37300	7	34795	39940	10
28886	37280	7	30322	37255	19	31675	36095	17	35410	37285	9
28978	36095	17	30368	36095	17	32095	36095	17	35330	37265	7
29170	37255	19	30381	37690	17	32420	37285	9	35995	37710	17
29479	37845	8	30425	38950	28	32550	37000	9	36400	37305	9
29599	37235	24	30426	38951	28	32680	36925S/W	17	36415	37305	9
29600	37236	24	30469	37340	13	33795	37735	18	36965	37160	7
29701	37805	24	30473	37335	14	33856	37690	17	37765	37770	20
29702	37806	24	30853	36715	17	33925	37305	9			
29860	37175	6	30943	37325	13	34424	37500S/W	9			

* S - Horizontal Mount - Speed Sensor

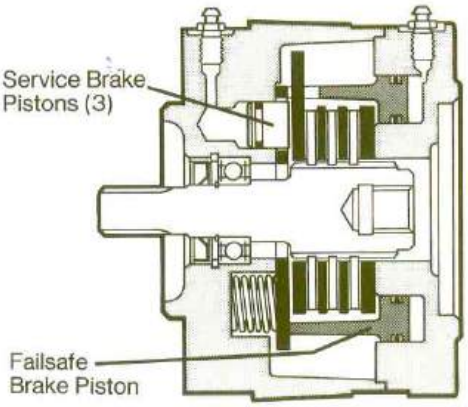
AUSCO FAILSAFE BRAKE

The Ausco Failsafe Brake is spring loaded to apply the brake and hydraulic pressure is required to release or "hold off" the brake. Normal operation is to have the brake pressurized in the released position with the vehicle hydraulic system running. Any function which reduces the hydraulic system pressure below the release pressure of the brake, will initiate a brake application.



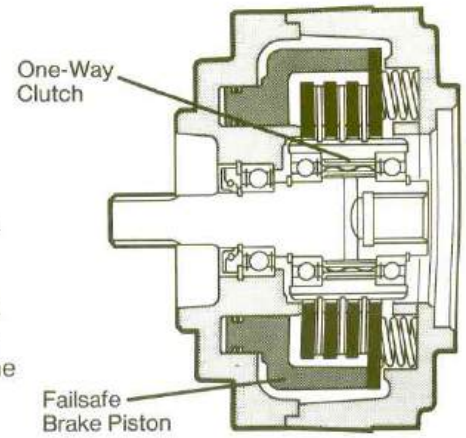
AUSCO FAILSAFE BRAKE WITH SERVICE BRAKE

This brake combines the features of the Ausco Failsafe Brake and a service brake. In normal operation, the failsafe piston is pressurized, releasing the brake. Pressure applied to the service pistons develops brake torque proportional to the applied pressure.



AUSCO FAILSAFE BRAKE WITH ONE-WAY CLUTCH

This brake combines the features of the Ausco Failsafe Brake with the capability of the brake shaft to freewheel in one direction, while the brake is applied. In winch applications, the one-way clutch allows rotation to raise the load, even though the brake is applied. When the load is stopped or if pressure is lost due to a failure in the hydraulic system, any reverse rotation engages the clutch and the load is held by the applied brake. No incremental dropping of the load is experienced. While lowering the load, the brake must be released and the control must be provided by a counterbalance valve or other suitable hydraulic control. The brake then assumes normal failsafe operation.



FAILSAFE BRAKE GENERAL INFORMATION

1. Mounting flange dimensions are per SAE J744 JUL88 unless otherwise specified.
2. Maximum pressure is 3000 PSI, including spikes or surges.
3. Gaskets for the hydraulic motor and gear reducer ends are recommended and accompany each brake.
4. Use only SAE grade 5 mounting bolts adequately torqued:

.38-16 UNC 2A,	31-38 lb. ft.
.44-14 UNC 2A,	50-60 lb. ft.
.50-13 UNC 2A,	75-85 lb. ft.
.62-11 UNC 2A,	135-165 lb. ft.
.75-10 UNC 2A,	240-285 lb. ft.
1.00-8 UNC 2A,	540-650 lb. ft.
M12 X 1.75-6g,	65-75 lb. ft.
M16 X 2-6g,	165-200 lb. ft.
M20 X 2.5-6g,	240-285 lb. ft.

5. O-Rings (Buna 'N' material) in the Failsafe piston are compatible with petroleum based fluid. Do not use non-petroleum based fluid. O-Ring materials that are compatible with fluids other than petroleum base are available.

   Petroleum = Normal hydraulic oils used in hydraulic pump and motor systems.

   Failsafe Brake with Service Brake can use separate fluid types. Contact Ausco for specific application. In every instance, seal material must be compatible with the specific hydraulic fluid.

6. All SAE 'B' and 'C' model Failsafe brakes (with the exception of Failsafe with One-Way Clutch) are provided with a case drain. Should oil leak into the brake housing (from either the motor, the gear reducer, or Failsafe piston), the case drain will open to let the oil escape. The oil leak source must then be found and corrected to permit brake to return to full torque.

7. Contact Ausco for Wet Brake application.
8. When emergency release of the Ausco Failsafe Brake is required, an Ausco Hydraulic Hand Pump #31090 (page 35) can be incorporated into the hydraulic system.

CAUTION NOTES:

A) Bench testing may cause distortion of components or bolt failure. Mounting bolts must be used for supplemental clamping. Tighten bolts to torque shown in note 4.

B) Surge pressure in excess of 3000 PSI generated by pump surge or rapid opening or closing of control valve will cause piston to fracture.

C) Limited side loads are permissible; See page 36. Use overhung load adaptors where the side load exceeds the permissible values shown.

EXPLANATION OF SPECIFICATION TABLES

1	**Brake Part No.***	**37770**
2	Rated Torque (lb. in.)	9000
3	Release Hyd. Pressure (PSI) Initial/Full	190/230
4	Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24
	External: Gear Reducer End	14T 12/24
	Major Dia.	1.224-1.250
5	Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/4.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

1. The 'S' suffix indicates the brake is specifically designed to accept a customer supplied speed sensor (a ported housing and a slotted rotating disc are incorporated in each disc to monitor RPM's). Listed brake models without suffix are available only with separator springs between the stationary discs, with the exception of failsafe brakes with one-way clutch (no separator springs).
2. Brake Torque: A) All torque values given are for DRY brakes with the exception of the Failsafe Brake with One-Way Clutch and wet operation Failsafe brakes where noted.
   B) Torque values are static load rated at zero PSI back pressure.
3. Initial Release Pressure: The pressure that just balances the spring load with the springs extended against the disc stack. There will be zero torque in the brake, but no running clearance. The brake must be at full release pressure (qv.) or above during operation.

   Full Release Pressure: The hydraulic pressure that compresses the springs all the way into the brake housing and allows full running clearance in the disc stack.
4. Brake shaft splines are flat root side fit, 30 degree pressure angle for SAE mountings with the exception of metric splines where noted.
5. Cubic inch displacement of the Failsafe piston includes a minimum value (to fully release the brake) and a maximum value (to allow for 40% lining wear).

FAILSAFE BRAKE SELECTION

STANDARD FAILSAFE BRAKE MODELS

INPUT Hydraulic Motor End			TORQUE	OUTPUT Gear Reducer End					
Pilot Dia. (in)	Mounting (SAE J744 OCT 80)	Shaft	(lb-in)	Pilot Dia. (in)	Mounting (SAE J744 OCT 80)	Shaft	Model No.**	Weight (lbs)	Page
3.25	Mod. 'A'	13T 16/32	1540	4.00	'B'	13T 16/32	37175	22	6
3.25	Mod. 'A'	SAE 6B	1540	4.00	'B'	13T 16/32	37780	22	6
3.25	Mod. 'A'	SAE 6B	1800	4.00	'B'	13T 16/32	37270	30	7
3.25	Mod. 'A'	24T 32/64	1800	4.00	'B'	13T 16/32	37280	30	7
3.25	Mod. 'A'	SAE 6B	2400	3.25	Mod. 'B'	1" Key	37300	30	7
3.25	Mod. 'A'	SAE 6B	2600	4.00	'B'	13T 16/32	37265	30	7
3.25	Mod. 'A'	SAE 6B	3200	4.00	'B'	13T 16/32	37275	30	7
3.25	Mod. 'A'	SAE 6B	3200	3.25	Mod. 'B'	SAE 6B	37260	30	7
3.25	Mod. 'A'	SAE 6B	3800	4.00	'B'	SAE 6B	37160	30	7
3.25	Mod. 'A'	SAE 6B	3800	4.00	'B'	13T 16/32	37170	30	7
4.00	'B'	13T 16/32	1540	4.00	'B'	13T 16/32	37845	16	8
4.00	'B'	13T 16/32	1800	4.00	'B'	13T 16/32	37305	28	9
4.00	'B'	13T 16/32	2600	4.00	'B'	13T 16/32	37285	28	9
4.00	'B'	13T 16/32	3200	4.00	'B'	13T 16/32	37030	28	9
4.00	'B-B'	15T 16/32	3200	4.00	'B'	13T 16/32	37500	28	9
4.00	'B-B'	15T 16/32	3200	4.00	'B-B'	15T 16/32	37165	28	9
4.00	'B'	13T 16/32	3800	4.00	'B'	13T 16/32	37000	28	9
2.50	Mod. 'B' (Nichols)	13T 16/32	5600	—	—	—	39940	27	10
3.25	Mod. 'A'	14T 12/24	9000	5.00	'C'	14T 12/24	37340	48	13
3.25	Mod. 'A'	SAE 6B	9000	5.00	'C'	14T 12/24	37325	48	13
4.00	'B'	13T 16/32	2200	5.00	'C'	14T 12/24	37650	38	15
4.00	Mod. 'B'	14T 12/24	9000	5.00	'C'	14T 12/24	37335	48	14
5.00	'C'	14T 12/24	2200	5.00	'C'	14T 12/24	37090	38	16
5.00	'C'	14T 12/24	3300	5.00	'C'	14T 12/24	37700	38	16
5.00	'C'	14T 12/24	4000	5.00	'C'	14T 12/24	37690	46	17
5.00	'C'	14T 12/24	5400	5.00	'C'	14T 12/24	36095	46	17
5.00	'C'	14T 12/24	7200	5.00	'C'	14T 12/24	36925	46	17
5.00	'C'	14T 12/24	9000	5.00	'C'	14T 12/24	36715	46	17
5.00	'C'	14T 12/24	9000	5.00	'C'	14T 12/24*	37735	48	18
5.00	2 Bolt 'C'	14T 12/24	9000	5.00	4 Bolt 'C'	14T 12/24	37770	46	20
5.00	2 Bolt 'C'	14T 12/24	9000	5.00	2 Bolt 'C'	14T 12/24	37255	46	19
5.00	Mod. 'C'	17T 12/24	9000	5.00	Mod. 'C'	17T 12/24	37315	46	17
5.00	Mod. 'C'	21T 16/32	6600	5.00	Mod. 'C'	21T 16/32	37115	46	17
5.00	Mod. 'C'	21T 16/32	9000	5.00	Mod 'C'	21T 16/32	37710	46	17
4.92	Metric Mtg.	20T A40 × 36	8400	5.00	'C'	14T 12/24	30100	58	22
5.00	'C'	14T 12/24	8400	6.00	'D'	13T 8/16	29983	54	21
6.00	'D'	13T 8/16	8000	5.00	'C'	21T 16/32	37975	56	25
6.00	'D'	13T 8/16	8000	5.00	'C'	23T 16/32	37980	56	25
6.00	'D'	13T 8/16	8400	6.00	'D'	13T 8/16	33272	86	26
6.00	'D'	13T 8/16	12,000	6.00	'D'	13T 8/16	29697	86	26
6.00	Mod.'D'	16T 10/20	20,000	6.00	'D'	13T 8/16	30090	130	27
6.50	'E'	13T 8/16	12,000	6.00	'D'	13T 8/16	31276	110	29
6.50	'E'	13T 8/16	20,000	6.00	'D'	13T 8/16	31509	130	29
6.00 or 6.50	'D' or 'E'	13T 8/16	8500 (wet)	6.00 or 6.50	'D' or 'E'	13T 8/16	31664	130	29
6.00 or 6.50	'D' or 'E'	13T 8/16	20,000	6.00 or 6.50	'D' or 'E'	13T 8/16	30070	130	29
6.00 or 6.50	'D' or 'E'	13T 8/16	30,000	6.00 or 6.50	'D' or 'E'	13T 8/16	30080	130	29
5.51	Metric Mtg.	22T A45×41	12,000	6.00	'D'	13T 8/16	30332	110	31
6.30	Metric Mtg.	24T A50×45	20,000	6.00	'D'	13T 8/16	30040	140	31
7.09	Metric Mtg.	21T N45 × 2 × 21 × 9H 24T	12,000	6.00 or 6.50	'D' or 'E'	13T 8/16	32750	110	31
7.00	'F'	15T 8/16	33,000	7.00	'F'	15T 8/16	32300	208	32
7.00	'F'	15T 8/16	40,000	7.00	'F'	15T 8/16	28474	208	32
7.00	'F'	—	18,000	7.00	'F'	22T 8/16*	31387	180	32

* For External Shaft Gear Reducer

** Add suffix 'S' if the brake should be able to accept a speed sensor.
Speed sensor option available for all Mod 'A', Mod 'B', 'B', Mod 'C' and 'C' Failsafe Brakes.

FAILSAFE BRAKE SELECTION

FAILSAFE BRAKE MODELS WITH SERVICE BRAKE

Because dynamic braking introduces new design considerations, always contact Ausco Engineering with pertinent information on maximum speed and torque, dynamic capacity, duty cycles, inherent energy, etc.

INPUT Hydraulic Motor End			TORQUE	OUTPUT Gear Reducer End					
Pilot Dia. (in)	Mounting (SAE J744 OCT 80)	Shaft	(lb-in)	Pilot Dia. (in)	Mounting (SAE J744 OCT 80)	Shaft	Model No.	Weight (lbs)	Page
4.00	'B'	13T 16/32	2400	4.00	'B'	13T 16/32	34800	39	11
5.00	'C'	14T 12/24	6200	5.00	'C'	14T 12/24	31575	56	23
6.00 or 6.50	'D' or 'E'	13T 8/16	15,000	6.00 or 6.50	'D' or 'E'	13T 8/16	31843	128	30

FAILSAFE BRAKE MODELS WITH ONE-WAY CLUTCH

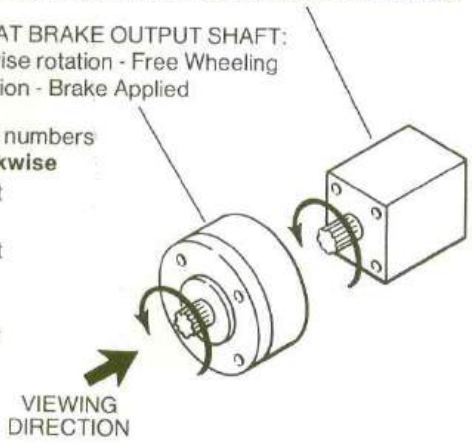
INPUT Hydraulic Motor End			TORQUE	OUTPUT Gear Reducer End					
Pilot Dia. (in)	Mounting (SAE J744 OCT 80)	Shaft	(lb-in)	Pilot Dia. (in)	Mounting (SAE J744 OCT 80)	Shaft	Model No.	Weight (lbs)	Page
4.00	'B'	13T 16/32	2400	4.00	'B'	13T 16/32	29751	49	12
4.00	'B'	13T 16/32	2400	4.00	'B'	13T 16/32	29752	49	12
5.00	'C'	14T 12/24	6200	5.00	'C'	14T 12/24	37805	66	24
5.00	'C'	14T 12/24	6200	5.00	'C'	14T 12/24	37806	66	24
5.00	'C'	14T 12/24	6200	5.00	'C'	14T 12/24*	37235	65	24
5.00	'C'	14T 12/24	6200	5.00	'C'	14T 12/24*	37236	65	24
6.00	'D'	13T 8/16	13,000	6.00	'D'	13T 8/16*	38950	130	28
6.00	'D'	13T 8/16	13,000	6.00	'D'	13T 8/16*	38951	130	28
6.00	'D'	13T 8/16	13,000	6.00	'D'	13T 8/16	38940	135	28
6.00	'D'	13T 8/16	13,000	6.00	'D'	13T 8/16	38941	135	28

* For External Shaft Gear Reducer

When hydraulic motor output shaft rotates **Counter Clockwise**

THIS HAPPENS AT BRAKE OUTPUT SHAFT:
Counter clockwise rotation - Free Wheeling
Clockwise rotation - Brake Applied

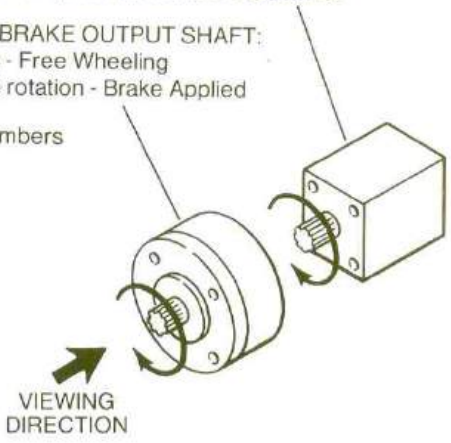
Applicable model numbers
Counter Clockwise
'B' Mount
29751
'C' Mount
37235
37805
'D' Mount
38940
38950



When hydraulic motor output shaft rotates **Clockwise**

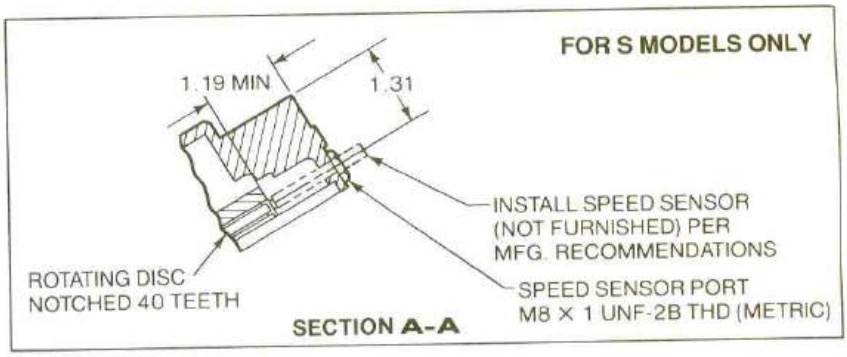
THIS HAPPENS AT BRAKE OUTPUT SHAFT:
Clockwise rotation - Free Wheeling
Counter clockwise rotation - Brake Applied

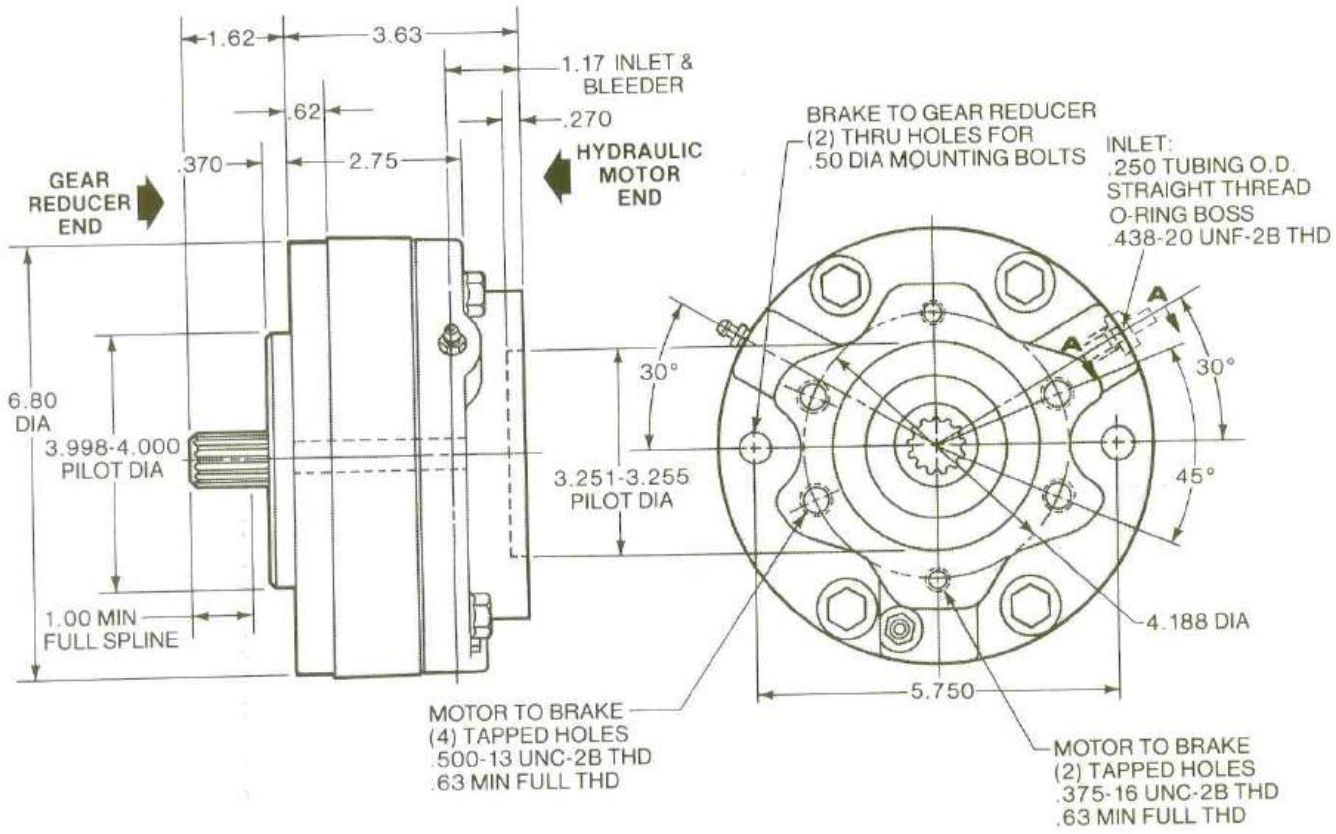
Applicable model numbers
Clockwise
'B' Mount
29752
'C' Mount
37236
37806
'D' Mount
38941
38951



CAUTION: One-Way Clutch Failsafe brakes are designed to be installed with their shafts in a horizontal position. If the brake must be vertically mounted, please contact Ausco Engineering for special modification instructions.

MODIFIED SAE 'A' TO SAE 'B' MOUNT NARROW



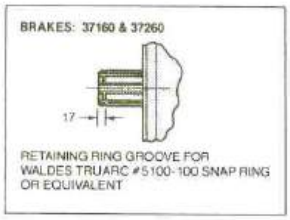


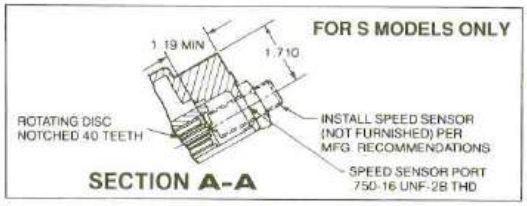
Brake Part No.*	**37175**	**37780**
Rated Torque (lb. in.)	1540	1540
Release Hyd. Pressure (PSI) Initial/Full	220/230	220/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	13T 16/32	SAE 6B (1.00 OD) Parallel Side
External: Gear Reducer End	13T 16/32	13T 16/32
Major Dia.	.853-.875	.853-.875
Release (Min.)/Worn (Max.) Displacement (cu. in.)	0.5/1.0	0.5/1.0

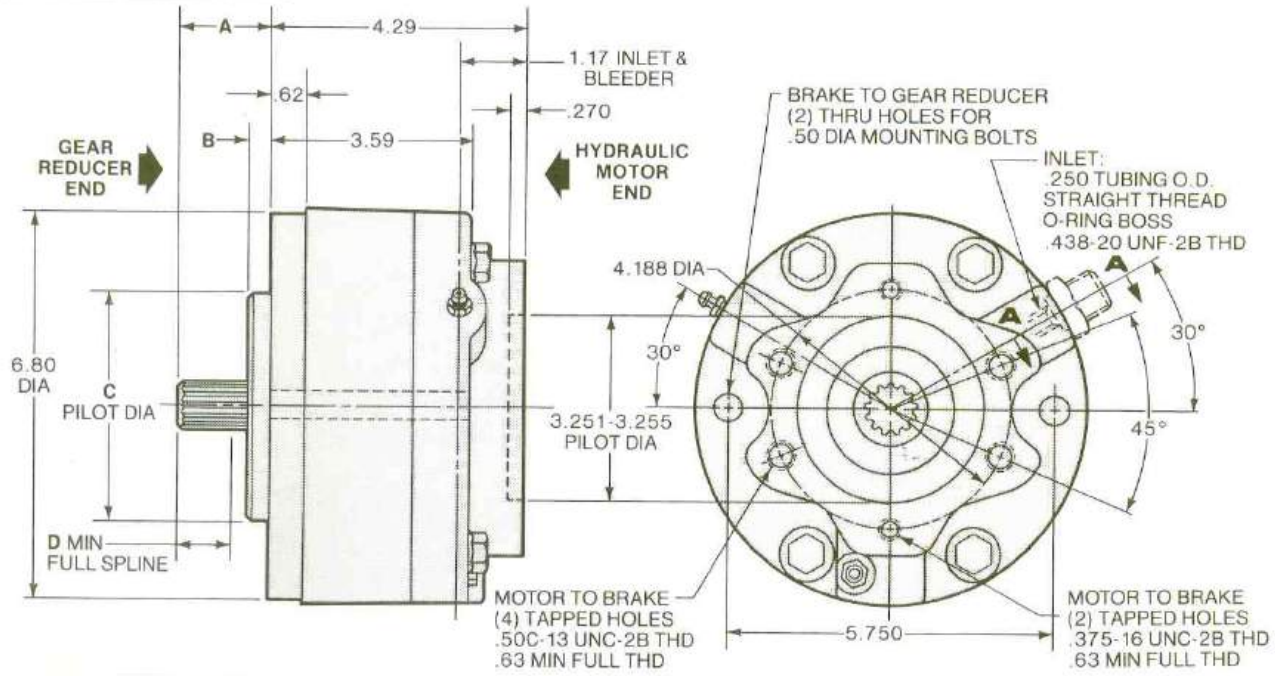
* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

MODIFIED SAE 'A' TO SAE 'B' MOUNT







Brake Part No.*	37270	37280	37300	37265
Rated Torque (lb. in.)	1800	1800	2400	2600
Release Hyd. Pressure (PSI) Initial/Full	110/130	110/130	130/160	140/165
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	SAE 6B (1.00 OD) Parallel Side	24T 32/64	SAE 6B (1.00 OD) Parallel Side	SAE 6B (1.00 OD) Parallel Side
External: Gear Reducer End	13T 16/32	13T 16/32	† .25 Sq. Key	13T 16/32
Major Dia.	.853-.875	.853-.875	.998-1.000	.853-.875
Release (Min.)/Worn (Max.) Displacement (cu. in.)	1.0/2.0	1.0/2.0	1.0/2.0	1.0/2.0
Dimension 'A'	1.62	1.62	2.61	1.62
Dimension 'B'	.370	.370	.250	.370
Dimension 'C'	3.998-4.000	3.998-4.000	3.248-3.250	3.998-4.000
Dimension 'D'	1.00	1.00	1.50	1.00

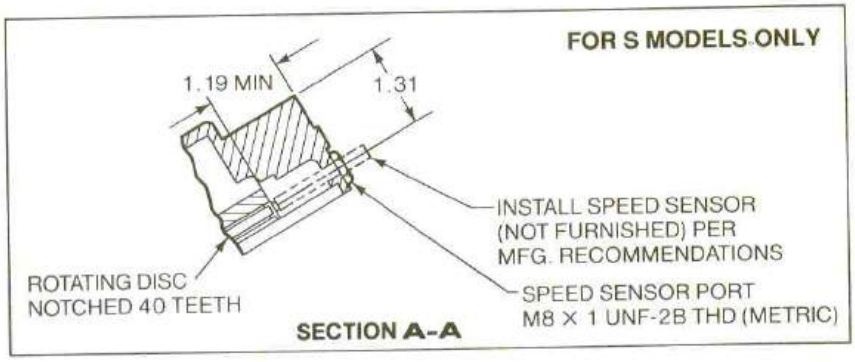
Brake Part No.*	37275	37260	37160	37170
Rated Torque (lb. in.)	3200	3200	3800	3800
Release Hyd. Pressure (PSI) Initial/Full	175/200	170/205	205/240	205/240
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	SAE 6B (1.00 OD) Parallel Side	SAE 6B (1.00 OD) Parallel Side	SAE 6B (1.00 OD) Parallel Side	SAE 6B (1.00 OD) Parallel Side
External: Gear Reducer End	13T 16/32	SAE 6B (1.00 OD)	SAE 6B (1.00 OD)	13T 16/32
Major Dia.	.853-.875	Parallel Side	Parallel Side	.853-.875
Release (Min.)/Worn (Max.) Displacement (cu. in.)	1.0/2.0	1.0/2.0	1.0/2.0	1.0/2.0
Dimension 'A'	1.62	1.82	1.82	1.62
Dimension 'B'	.370	.250	.370	.370
Dimension 'C'	3.998-4.000	3.248-3.250	3.998-4.000	3.998-4.000
Dimension 'D'	1.00	1.00	1.00	1.00

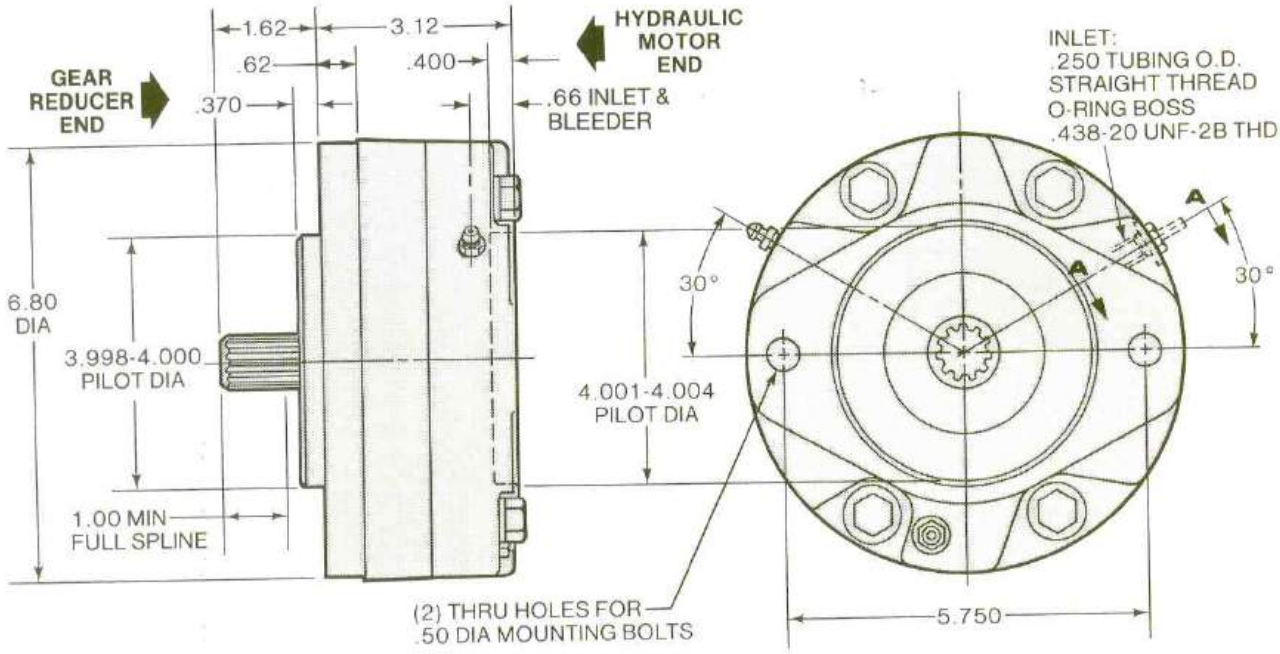
* Add suffix 'S' if the brake should be able to accept a speed sensor.

† .250-20 UNC Thread –.62 Min. Deep in External End of Shaft.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'B' MOUNT



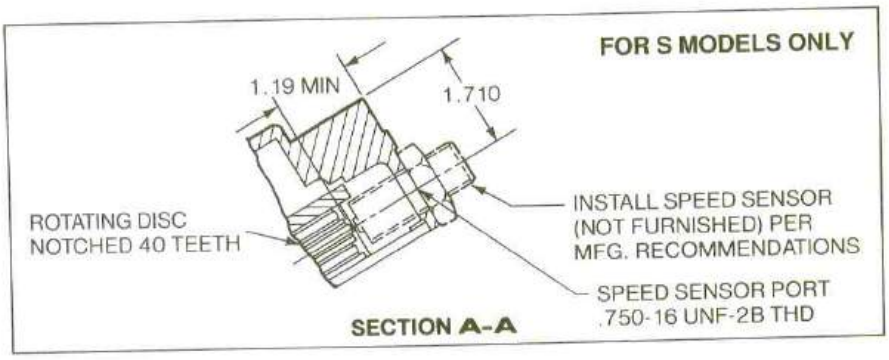


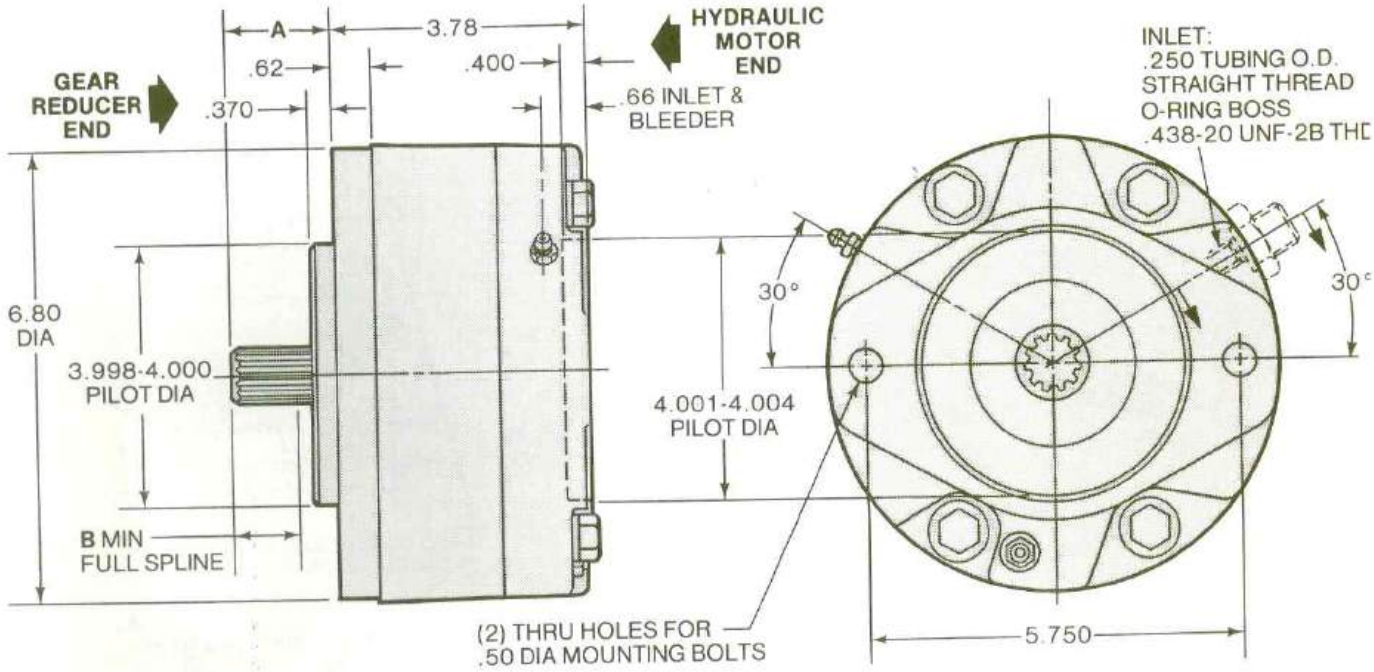
Brake Part No.*	**37845**
Rated Torque (lb. in.)	1540
Release Hyd. Pressure (PSI) Initial/Full	220/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	13T 16/32
External: Gear Reducer End	13T 16/32
Major Dia.	.853-.875
Release (Min.)/Worn (Max.) Displacement (cu. in.)	0.5/1.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'B' MOUNT



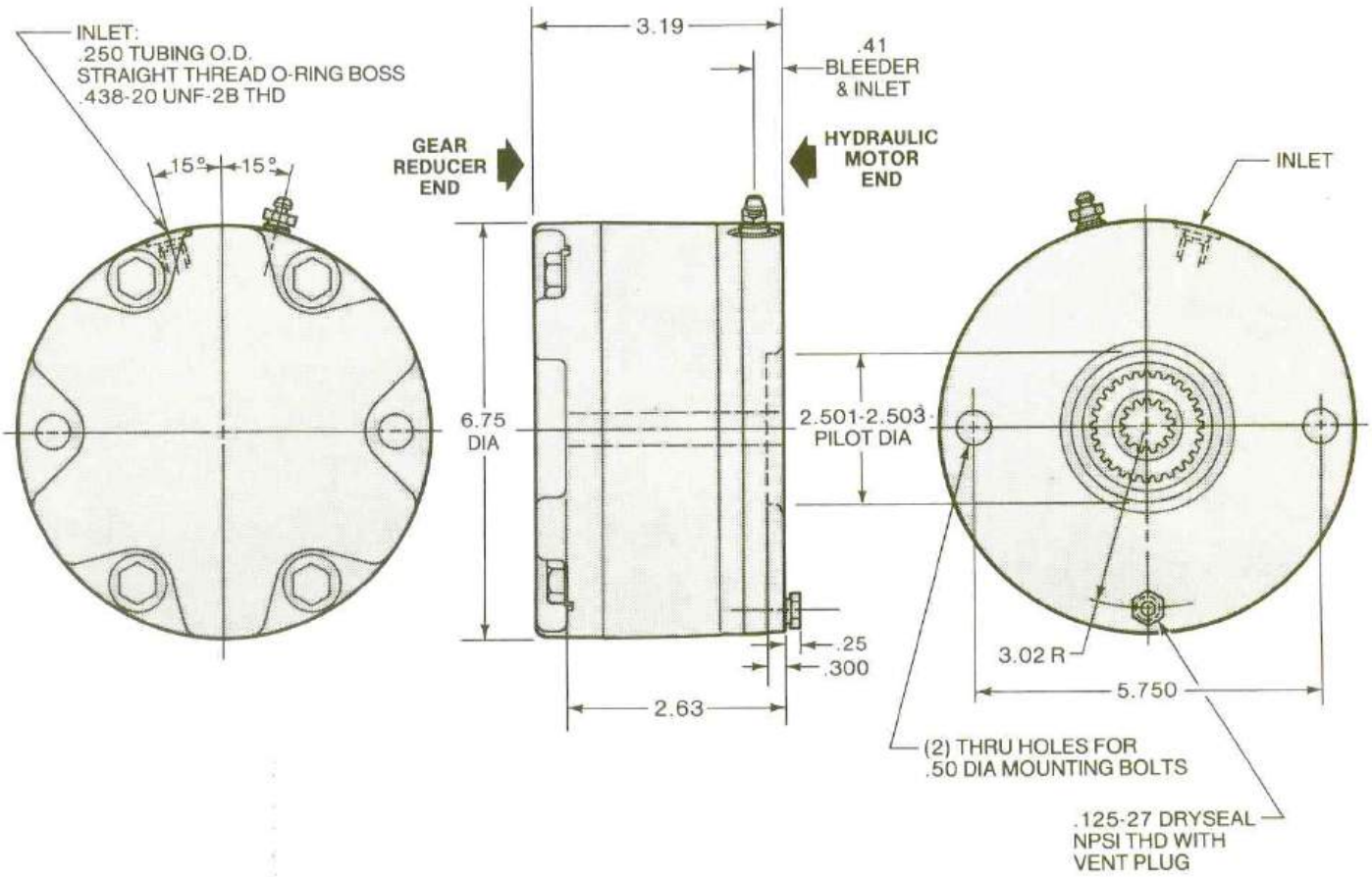


Brake Part No.*	37305	37285	37030	37500	37165	37000
Rated Torque (lb. in.)	1800	2600	3200	3200	3200	3800
Release Hyd. Pressure (PSI) Initial/Full	110/130	140/165	175/200	175/200	175/200	205/240
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	13T 16/32	13T 16/32	13T 16/32	15T 16/32	15T 16/32	13T 16/32
External: Gear Reducer End	13T 16/32	13T 16/32	13T 16/32	13T 16/32	15T 16/32	13T 16/32
Major Dia.	.853-.875	.853-.875	.853-.875	.853-.875	.978-1.000	.853-.875
Release (Min.)/Worn (Max.) Displacement (cu. in.)	1.0/2.0	1.0/2.0	1.0/2.0	1.0/2.0	1.0/2.0	1.0/2.0
Dimension 'A'	1.62	1.62	1.62	1.62	1.81	1.62
Dimension 'B'	1.00	1.00	1.00	1.00	1.25	1.00

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

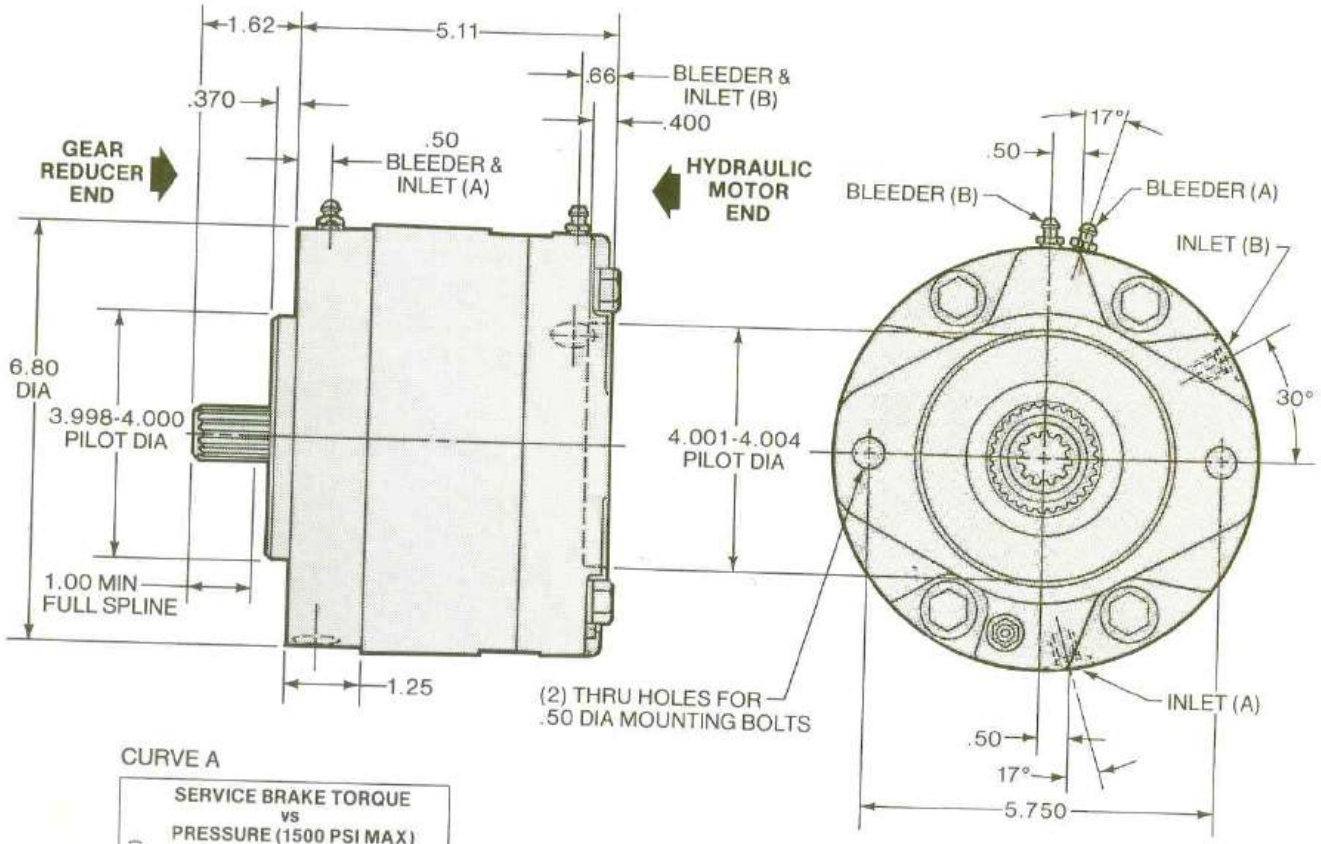
FOR NICHOLS 100 SERIES WHEEL MOTOR



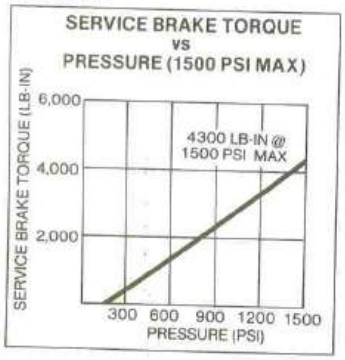
Brake Part No.	39940
Rated Torque (lb. in.)	5600
Release Hyd. Pressure (PSI) Initial/Full	140/160
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End Major Dia.	 13T 16/32 .901 Max.
Release (Min.)/Worn (Max.) Displacement (cu. in.)	1.0/2.5

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'B' MOUNT



CURVE A



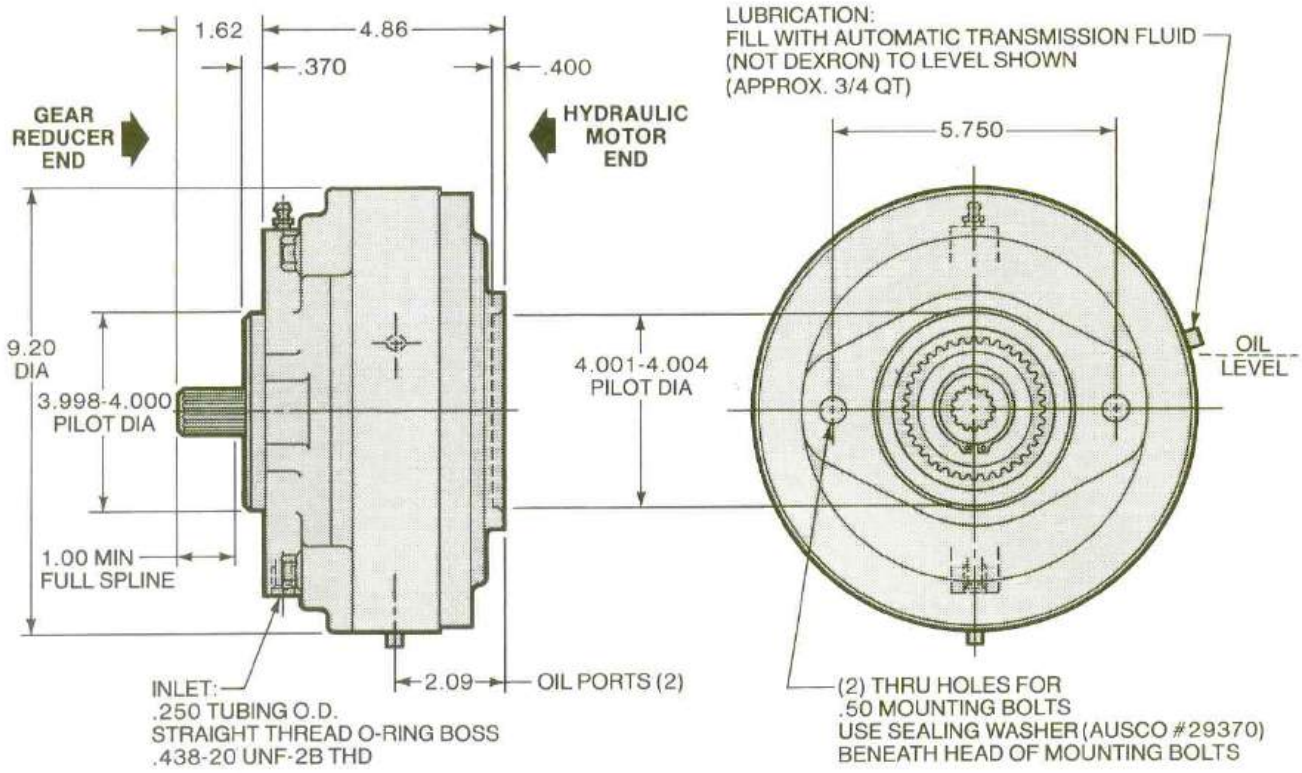
FITTING POSITION:
INLET & BLEEDER (A): SERVICE BRAKE
INLET & BLEEDER (B): FAILSAFE BRAKE

INLET SIZE:
.250 TUBING O.D.
STRAIGHT THREAD O-RING BOSS
.438-20 UNF-2B THD

Brake Part No.	34800	
Piston	Service	Failsafe
Rated Torque (lb. in.)	See Curve A	2400
Release Hyd. Pressure (PSI) Initial/Full		140/155
Maximum Recommended Working Pressure (PSI)	1500	3000
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.)		
Internal: Hyd. Motor End	13T 16/32	13T 16/32
External: Gear Reducer End	13T 16/32	13T 16/32
Major Dia.	.853-.875	.853-.875
Displacement (cu. in.)		
Release (Min.)/Worn (Max.)	—	1.5/3.0
Engagement (Min.)/Worn (Max.)	0.25/0.50	—
Operating Medium	Petroleum	Petroleum

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'B' MOUNT



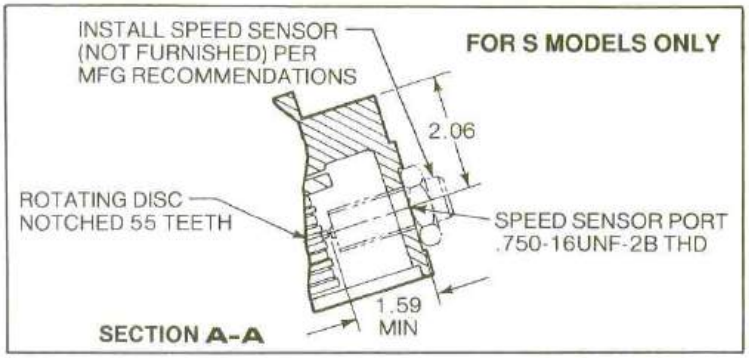
One-Way Clutch Failsafe brakes are designed to be installed with their shafts in a horizontal position. If the brake must be vertically mounted, please contact Ausco Engineering for special modification instructions.

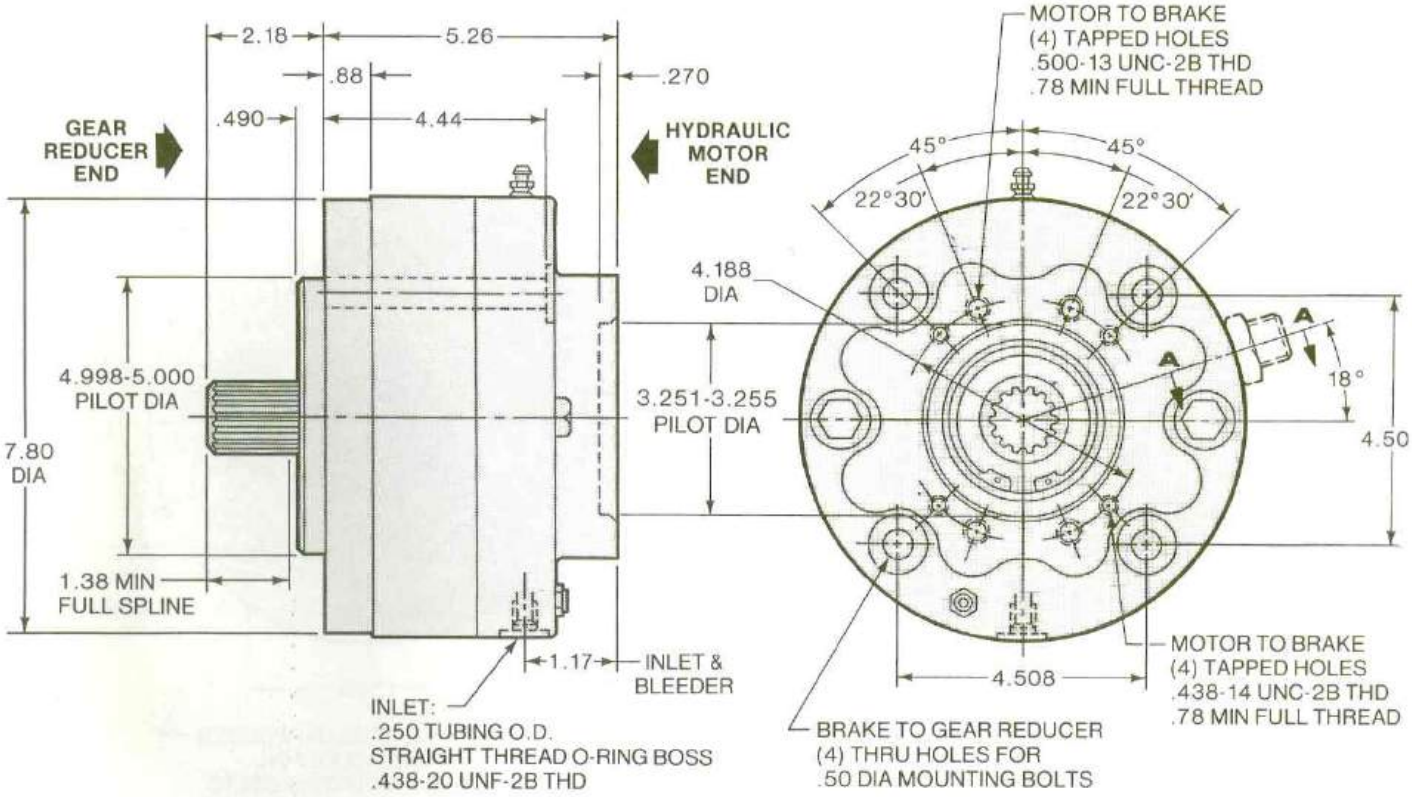
Brake Part No.	29751	29752
Rated Torque (lb. in.)	2400	2400
Release Hyd. Pressure (PSI) Initial/Full	245/290	245/290
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.)		
Internal: Hyd. Motor End	13T 16/32	13T 16/32
External: Gear Reducer End	13T 16/32	13T 16/32
Major Dia.	.853-.875	.853-.875
Release (Min.)/Worn (Max.) Displacement (cu. in.)	1.0/1.5	1.0/1.5
Free Wheeling Rotation* (Viewed from Gear Reducer End)	CCW	CW

*See Brake Selection Guide on Page 5 For Choosing Proper Shaft Rotation.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

MODIFIED SAE 'C' MOUNT



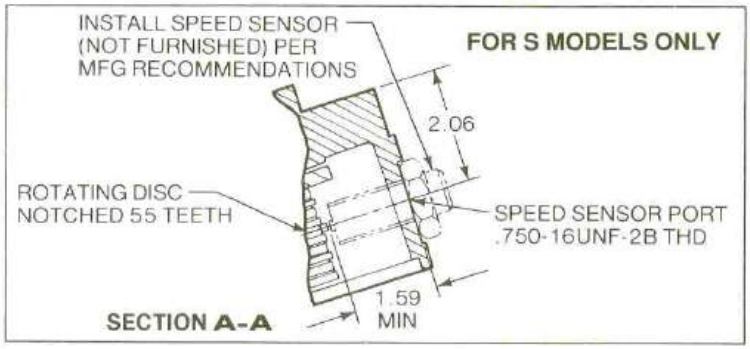


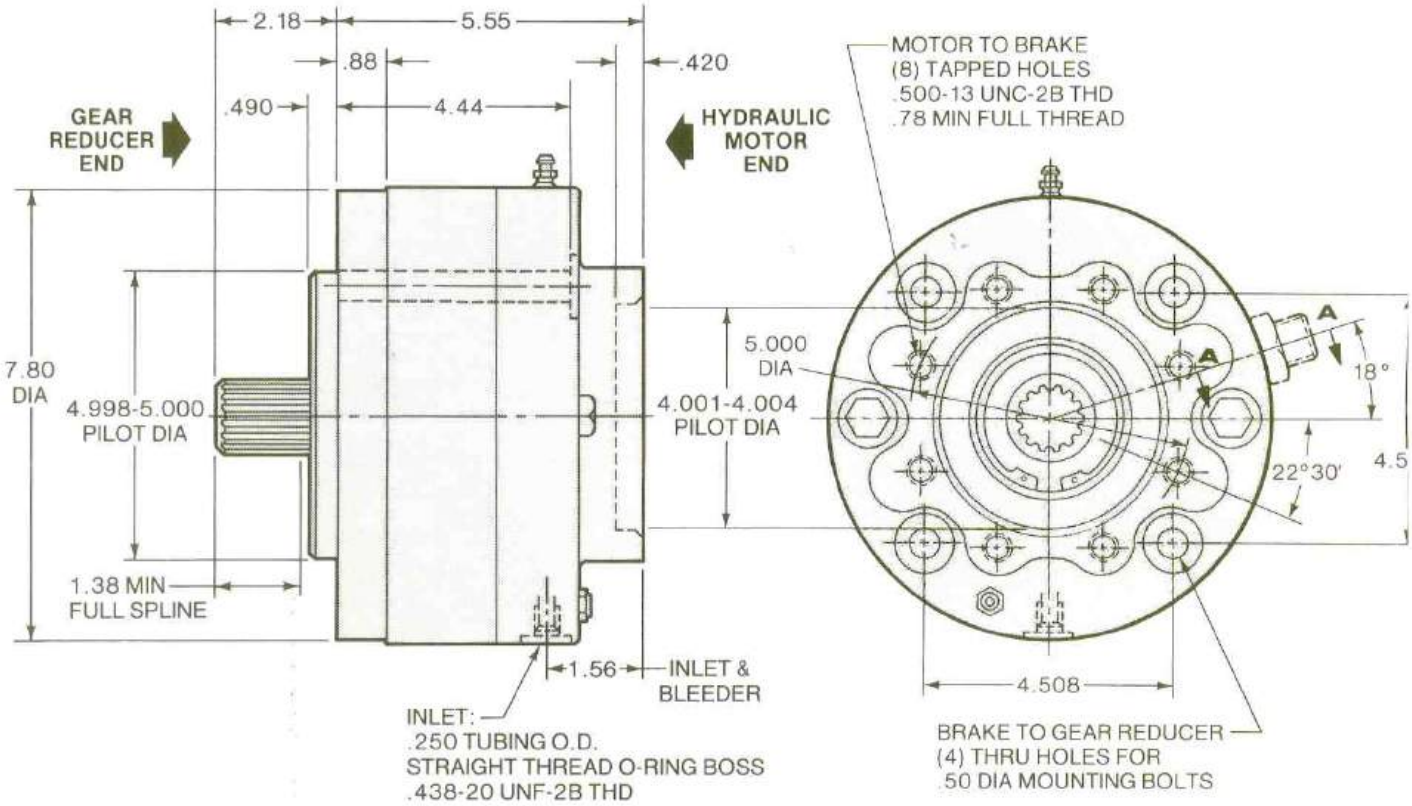
Brake Part No.*	37340	37325
Rated Torque (lb. in.)	9000	9000
Release Hyd. Pressure (PSI) Initial/Full	190/230	190/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24	SAE 6B (1.00 OD) Parallel Side
External: Gear Reducer End	14T 12/24	14T 12/24
Major Dia.	1.224-1.250	1.224-1.250
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/4.0	2.0/4.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

MODIFIED SAE 'C' MOUNT



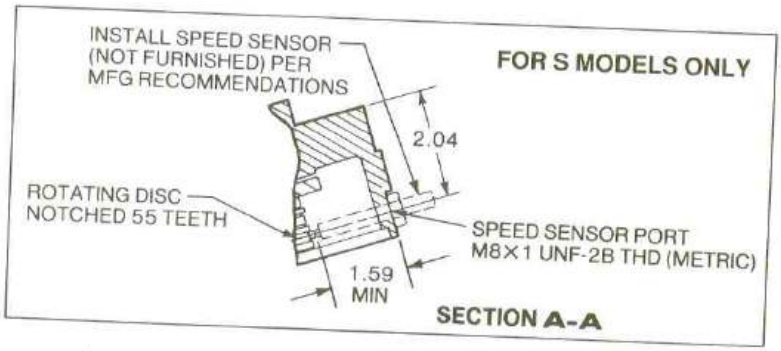


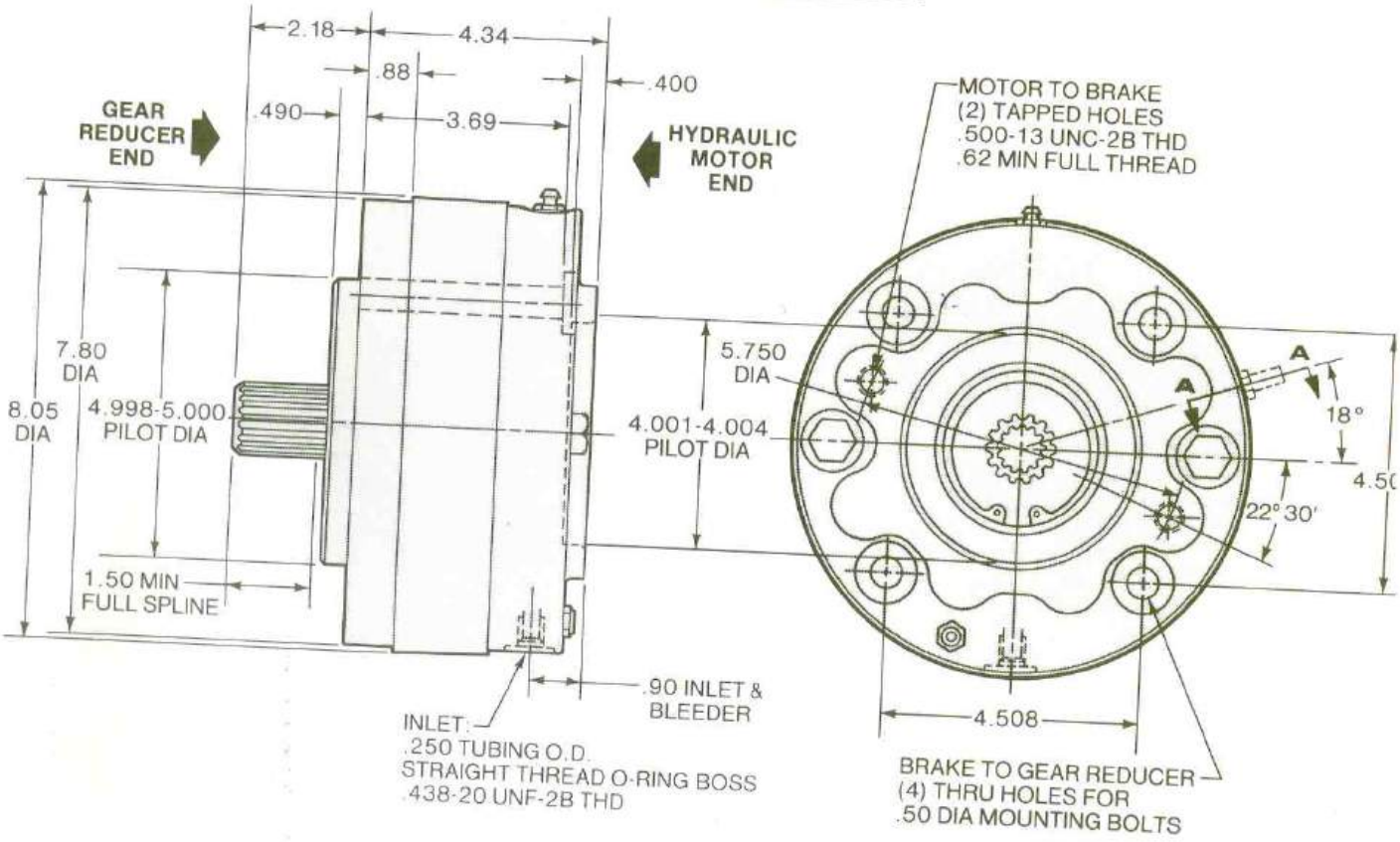
Brake Part No.*	37335
Rated Torque (lb. in.)	9000
Release Hyd. Pressure (PSI) Initial/Full	190/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24
External: Gear Reducer End	14T 12/24
Major Dia.	1.224-1.250
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/4.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'B' MOUI
TO SAE 'C' MOUI



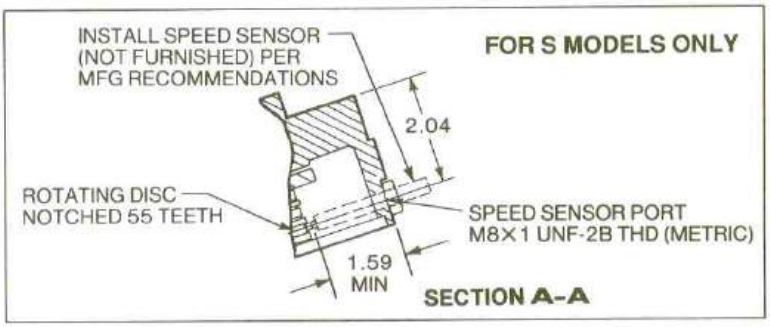


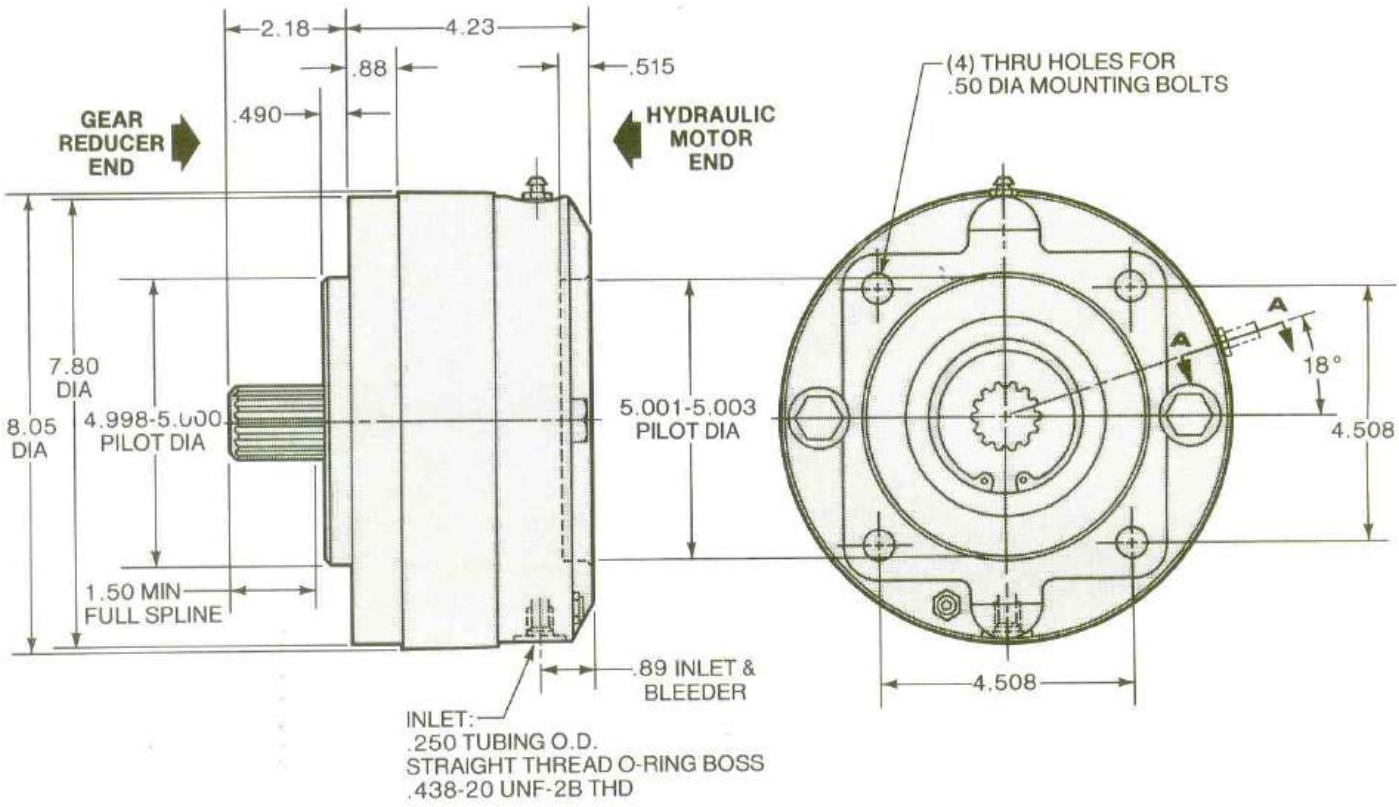
Brake Part No.*	37650
Rated Torque (lb. in.)	2200
Release Hyd. Pressure (PSI) Initial/Full	90/110
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	13T 16/32
External: Gear Reducer End	14T 12/24
Major Dia.	1.224-1.250
Release (Min.)/Worn (Max.) Displacement (cu. in.)	

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'C' MOUNT



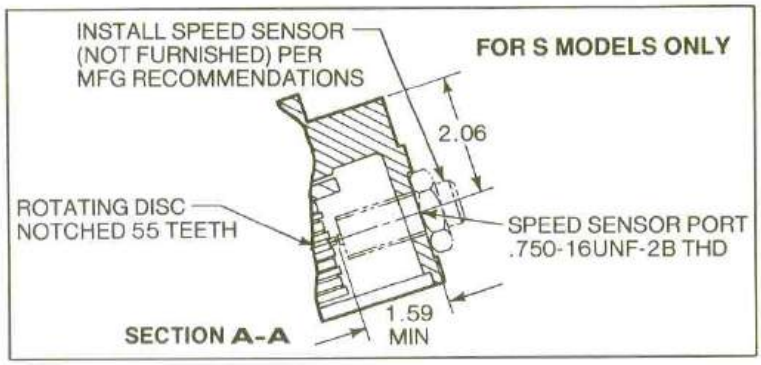


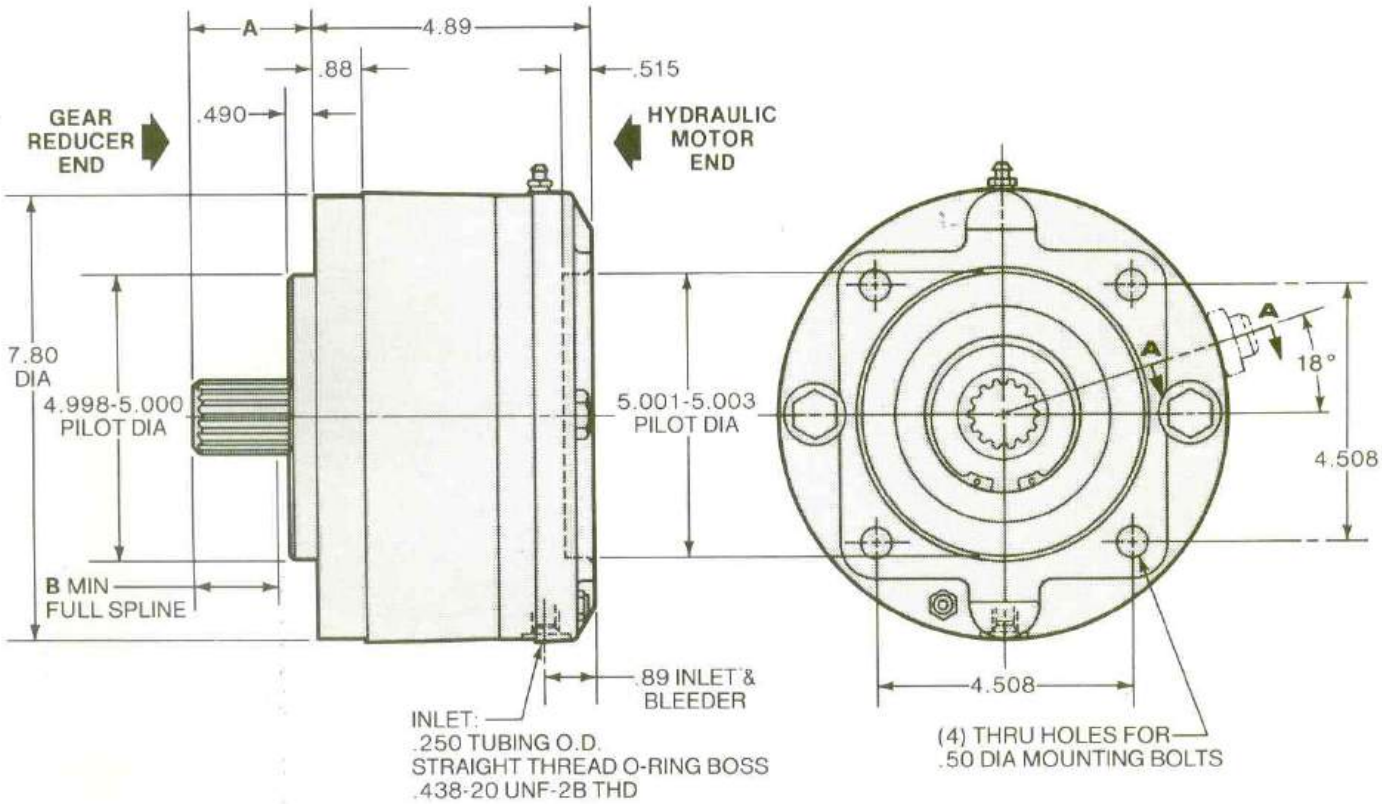
Brake Part No.*	37090	37700
Rated Torque (lb. in.)	2200	3300
Release Hyd. Pressure (PSI) Initial/Full	90/110	120/150
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.)		
Internal: Hyd. Motor End	14T 12/24	14T 12/24
External: Gear Reducer End	14T 12/24	14T 12/24
Major Dia.	1.224-1.250	1.224-1.250
Release (Min.)/Worn (Max.) Displacement (cu. in.)	1.5/3.0	1.5/3.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'C' MOUNT



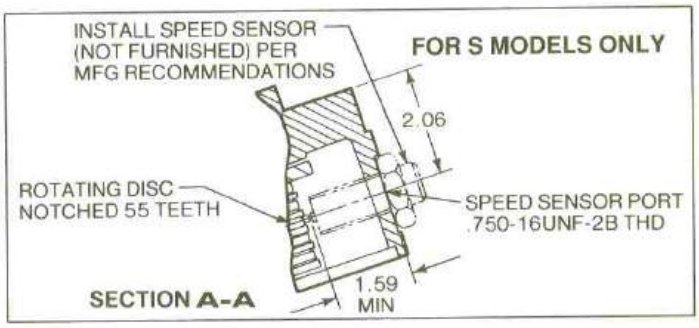


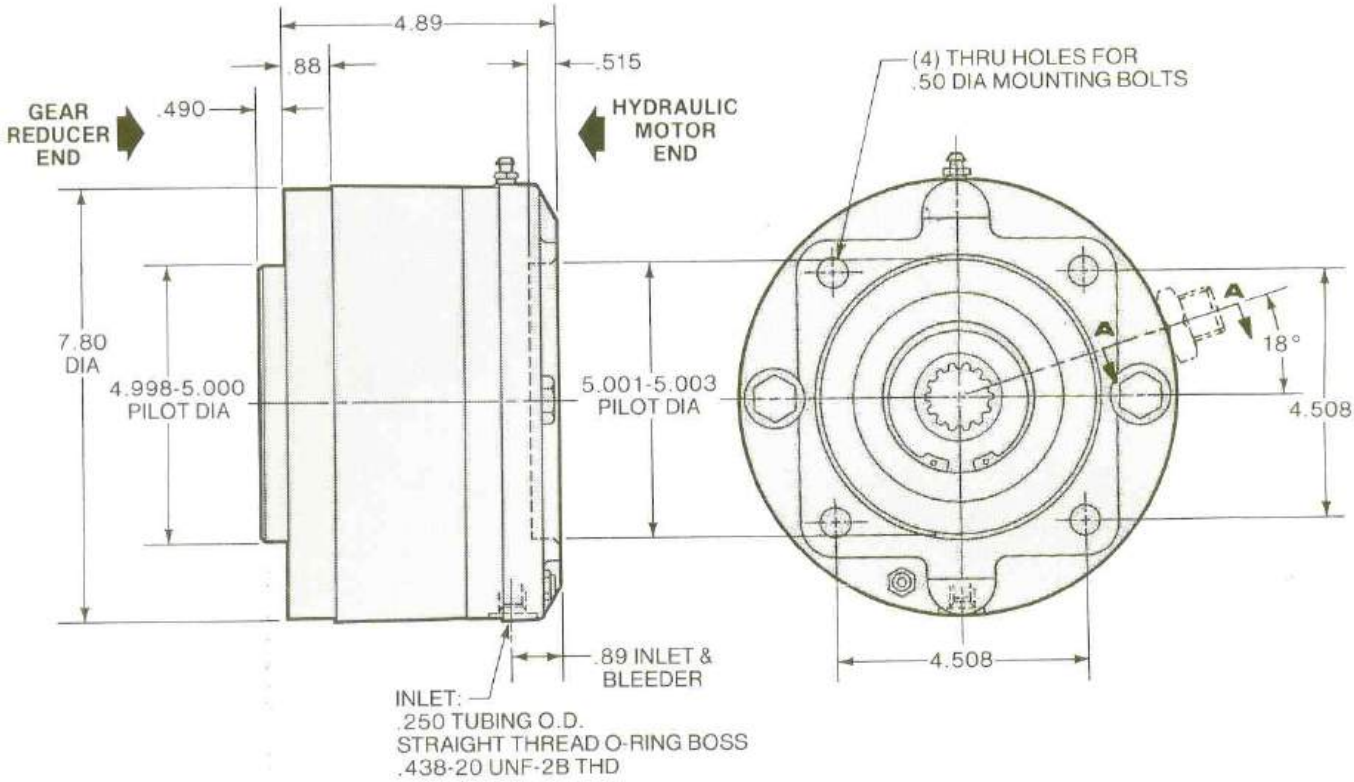
Brake Part No.*	37690	36095	37115	36925	36715	37315	37710
Rated Torque (lb. in.)	4000	5400	6600	7200	9000	9000	9000
Release Hyd. Pressure (PSI) Initial/Full	100/120	120/150	140/175	155/190	190/230	190/230	190/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24	14T 12/24	21T 16/32	14T 12/24	14T 12/24	17T 12/24	21T 16/32
External: Gear Reducer End	14T 12/24	14T 12/24	21T 16/32	14T 12/24	14T 12/24	17T 12/24	21T 16/32
Major Dia.	1.224-1.250	1.224-1.250	1.353-1.375	1.224-1.250	1.224-1.250	1.474-1.479	1.353-1.375
Release (Min.)/Worn (Max.) Displacement (Cu. in.)	2.0/4.0	2.0/4.0	2.0/4.0	2.0/4.0	2.0/4.0	2.0/4.0	2.0/4.0
Dimension 'A'	2.18	2.18	2.18	2.18	2.18	2.43	2.18
Dimension 'B'	1.50	1.50	1.50	1.50	1.50	1.60	1.50

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'C' MOUNT FOR GEAR REDUCER WITH EXTERNAL SHAFT



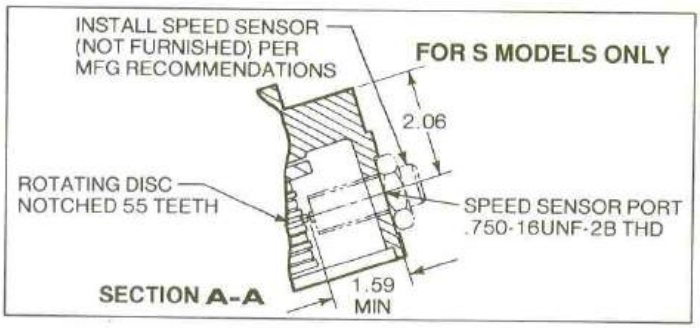


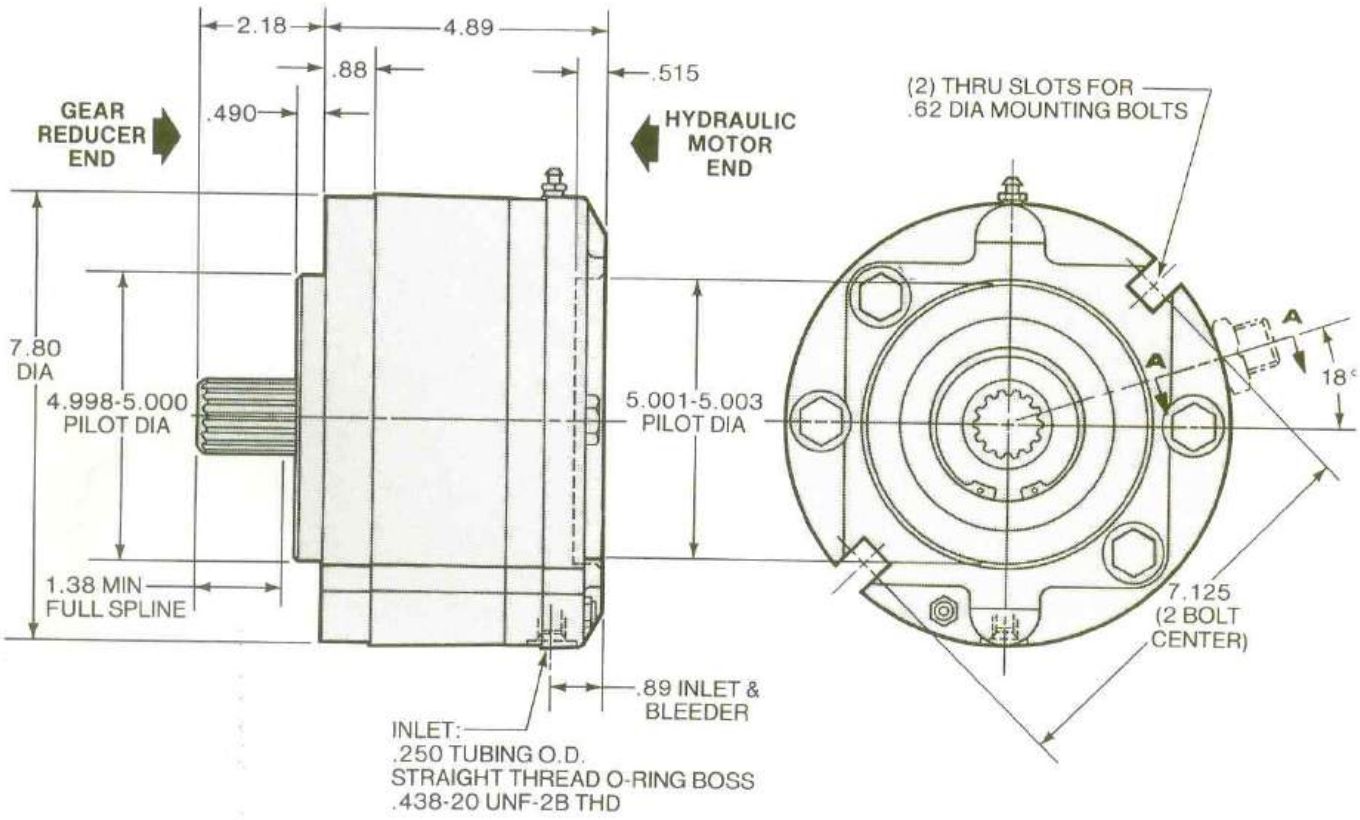
Brake Part No.*	37735
Rated Torque (lb. in.)	9000
Release Hyd. Pressure (PSI) Initial/Full	190/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24
Internal: Gear Reducer End	14T 12/24
Major Dia.	1.283 Max.
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/4.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'C' MOUN
2 BOI



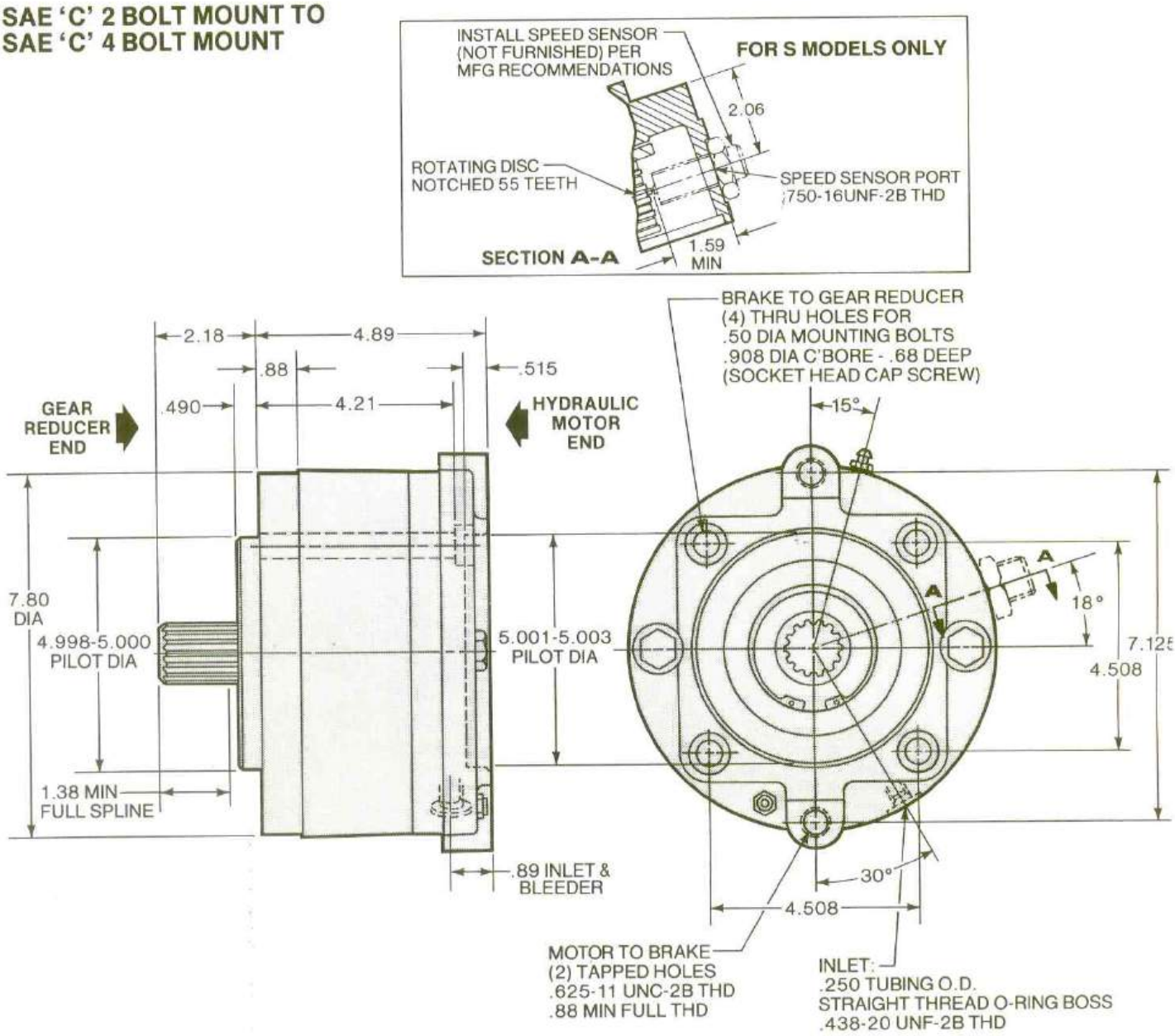


Brake Part No.*	37255
Rated Torque (lb. in.)	9000
Release Hyd. Pressure (PSI) Initial/Full	190/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24
External: Gear Reducer End	14T 12/24
Major Dia.	1.224-1.250
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/4.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'C' 2 BOLT MOUNT TO SAE 'C' 4 BOLT MOUNT

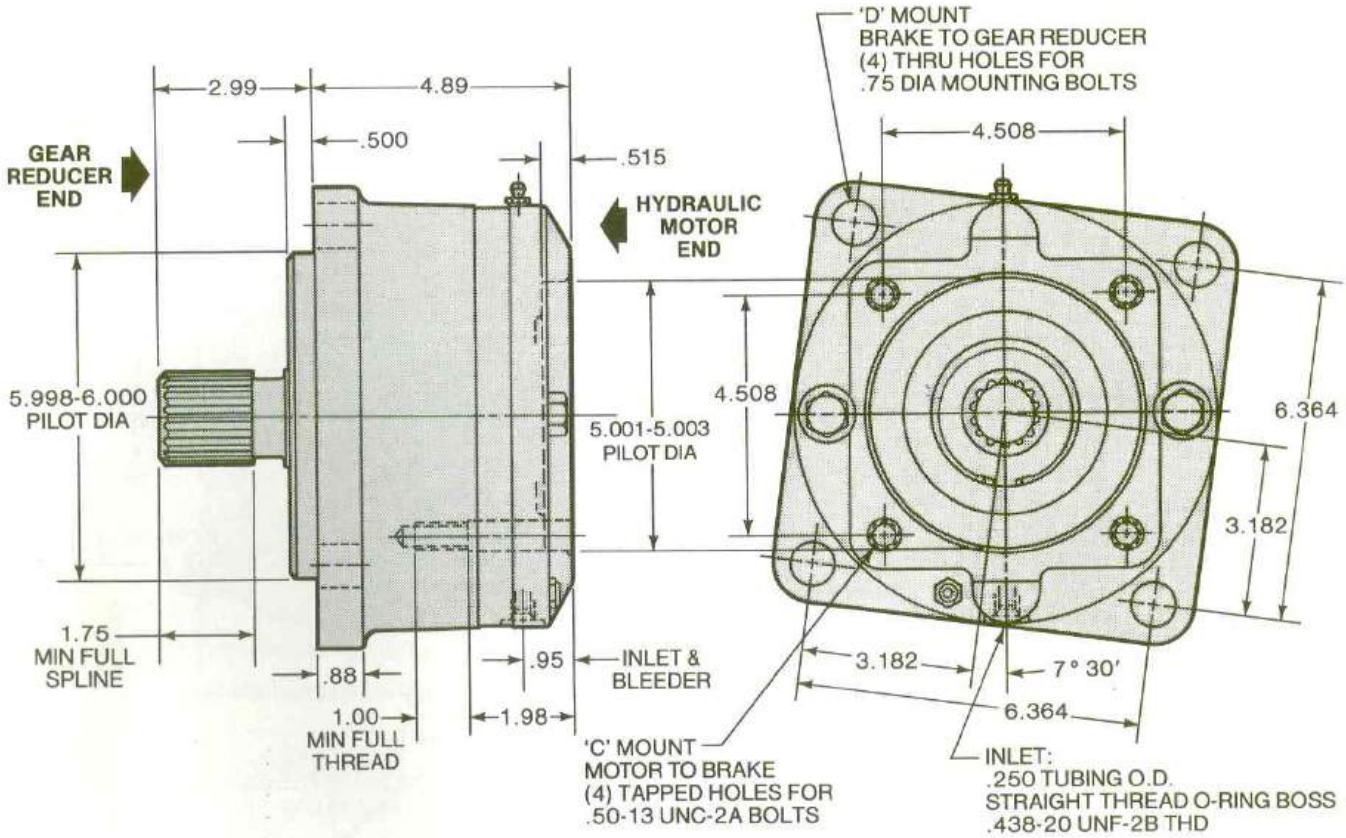


Brake Part No.*	37770
Rated Torque (lb. in.)	9000
Release Hyd. Pressure (PSI) Initial/Full	190/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24
External: Gear Reducer End	14T 12/24
Major Dia.	1.224-1.250
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/4.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

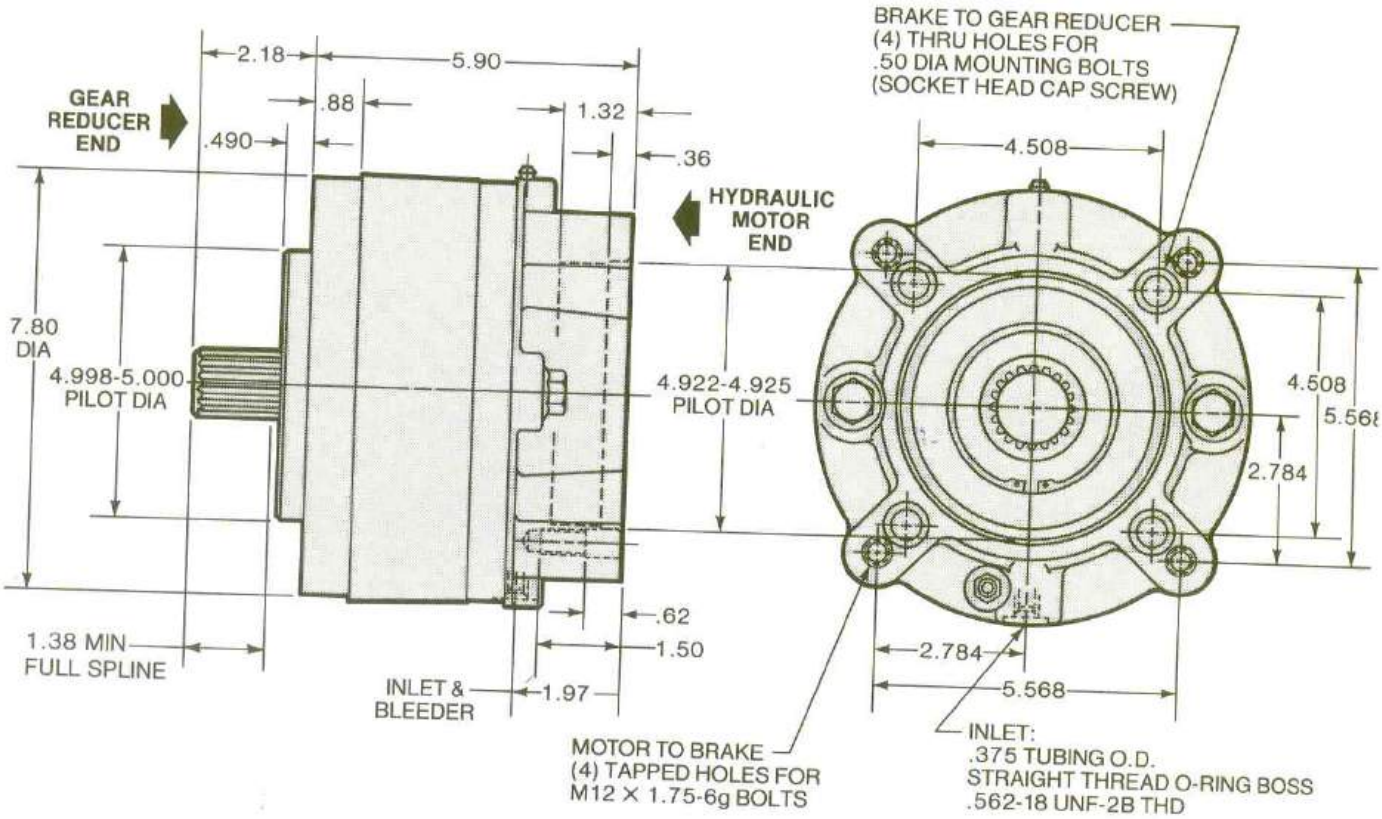
SAE 'C' TO SAE 'D' MOUNT



Brake Part No.	29983
Rated Torque (lb. in.)	8400
Release Hyd. Pressure (PSI) Initial/Full	165/230
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24
External: Gear Reducer End	13T 8/16
Major Dia.	1.715-1.750
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/3.5

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

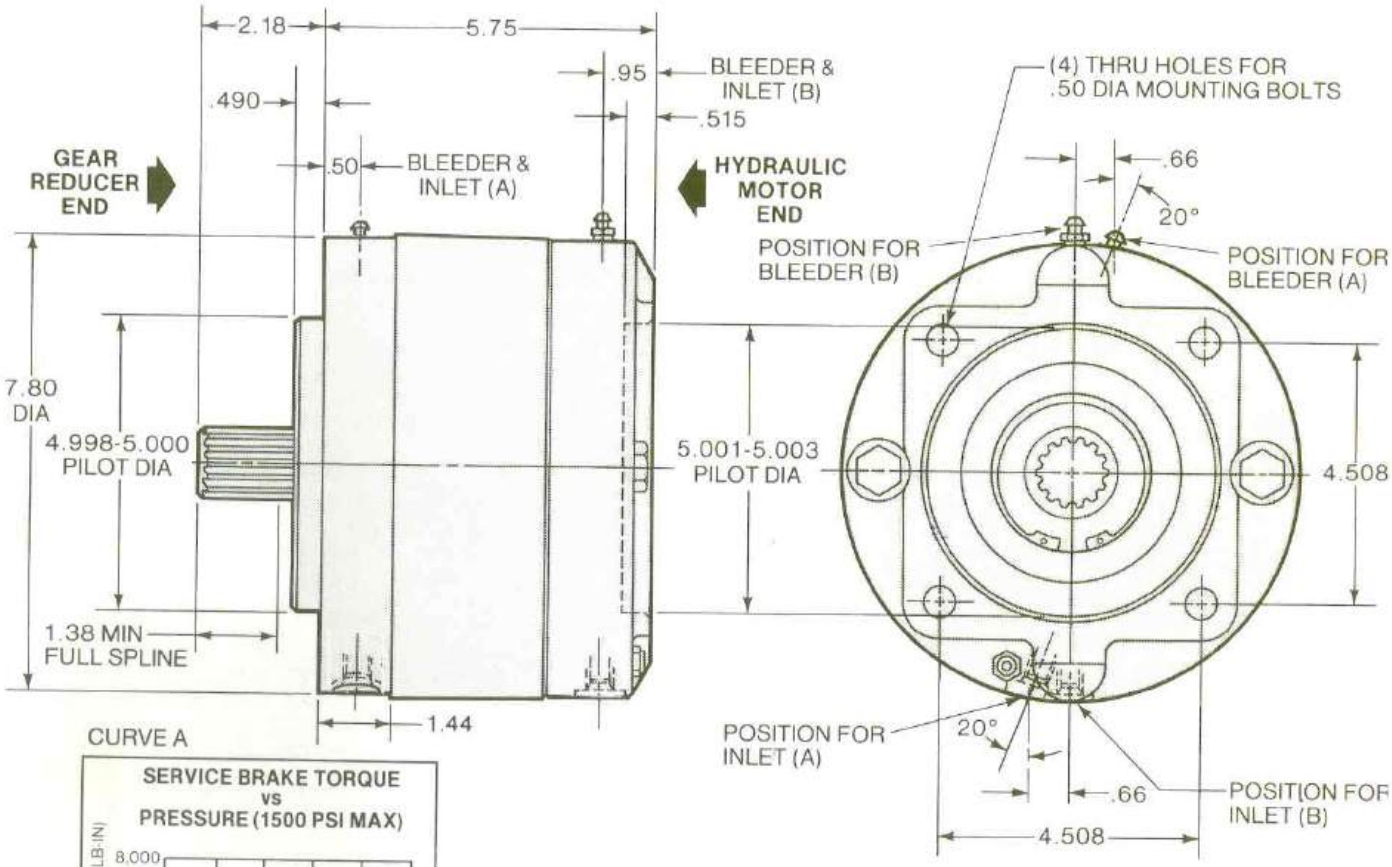
METRIC MOUNTING TO SAE 'C' MOUNT



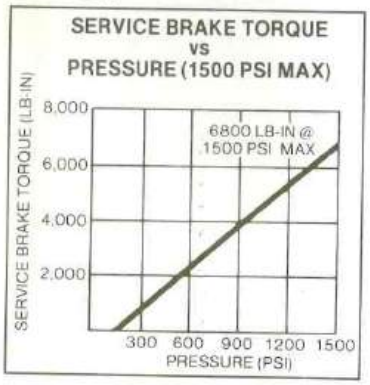
Brake Part No.	30100
Rated Torque (lb. in.)	8400
Release Hyd. Pressure (PSI) Initial/Full	160/230
Brake Shaft Spline Internal: Hyd. Motor End Metric Module 1.90	A40 X 36 DIN 5482 H11 & 12 (Ref. 20T)
External: Gear Reducer End (Flat Root Side Fit, 30° P.A.)	14T 12/24
Major Dia.	1.224-1.250
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/3.5

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'C' MOUN



CURVE A



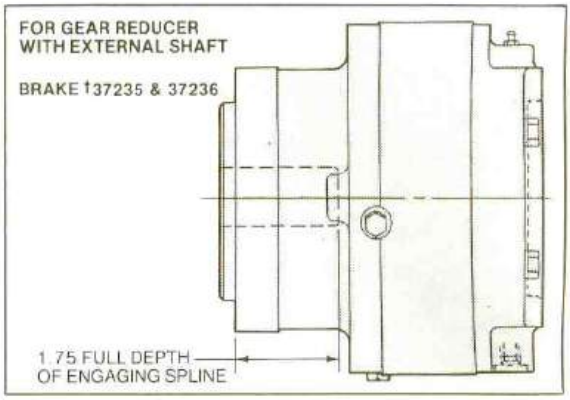
FITTING POSITION:
INLET & BLEEDER (A): SERVICE BRAKE
INLET & BLEEDER (B): FAILSAFE BRAKE

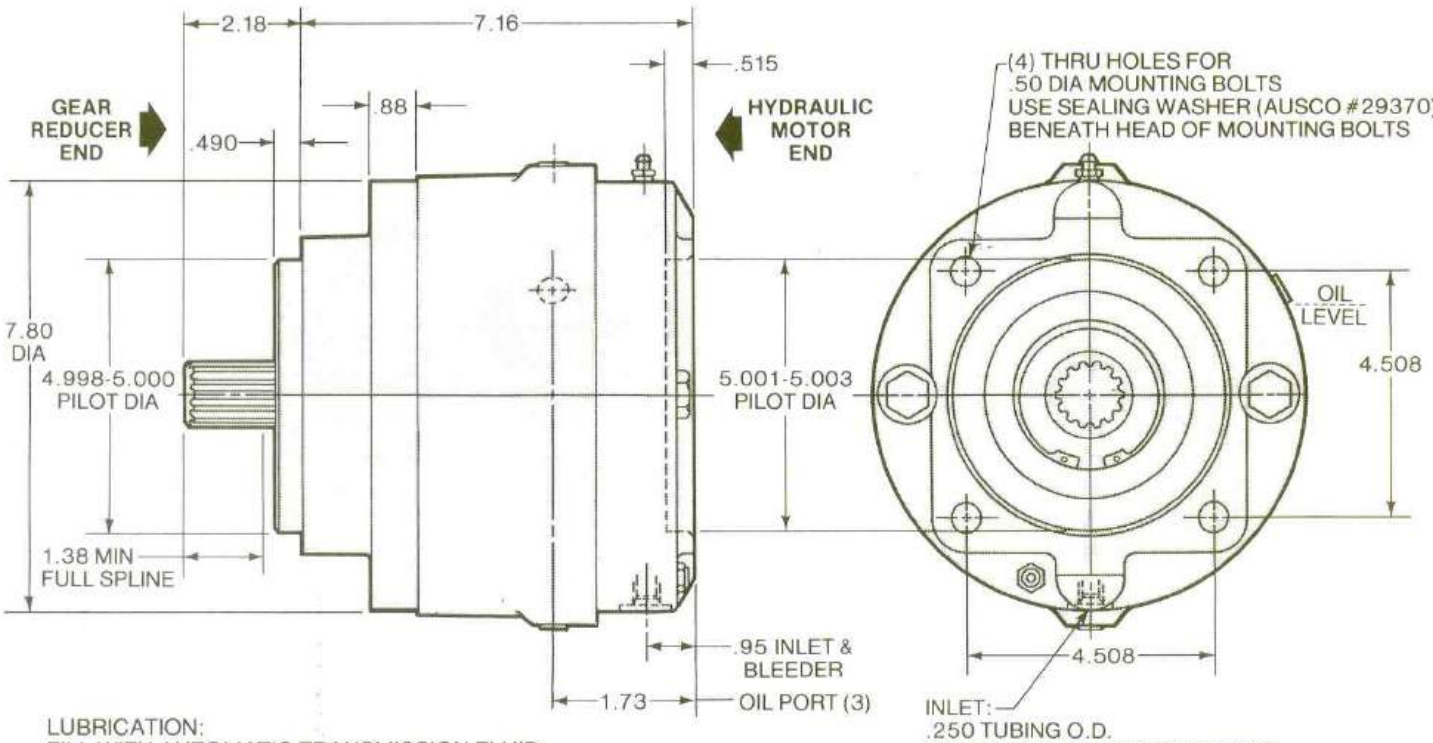
INLET SIZE:
.250 TUBING O.D.
STRAIGHT THREAD O-RING BOSS
.438-20 UNF-2B THD

Brake Part No.	31575	
Piston	Service	Failsafe
Rated Torque (lb. in.)	See Curve A	6200
Release Hyd. Pressure (PSI) Initial/Full		165/205
Maximum Recommended Working Pressure (PSI)	1500	3000
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.)		
Internal: Hyd. Motor End	14T 12/24	14T 12/24
External: Gear Reducer End	14T 12/24	14T 12/24
Major Dia.	1.224-1.250	1.224-1.250
Displacement (cu. in.)		
Release (Min.)/Worn (Max.)	—	2.0/3.0
Engagement (Min.)/Worn (Max.)	0.25/0.75	—
Operating Medium	Petroleum	Petroleum

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'C' MOUNT WITH EXTERNAL OUTPUT SHAFT OR FOR GEAR REDUCER WITH EXTERNAL SHAFT





LUBRICATION:
FILL WITH AUTOMATIC TRANSMISSION FLUID
(NOT DEXRON) TO LEVEL SHOWN (APPROX 1 QT)

One-Way Clutch Failsafe brakes are designed to be installed with their shafts in a horizontal position. If the brake must be vertically mounted, please contact Ausco Engineering for special modifications instructions.

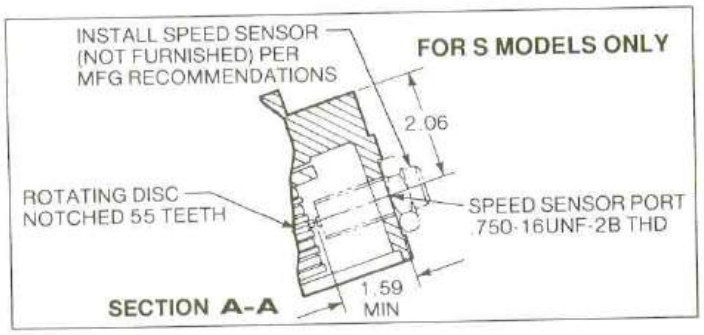
Brake Part No.	37805	37806	37235†	37236†
Rated Torque (lb. in.)	6200	6200	6200	6200
Release Hyd. Pressure (PSI) Initial/Full	320/370	320/370	320/370	320/370
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	14T 12/24	14T 12/24	14T 12/24	14T 12/24
External: Gear Reducer End	14T 12/24	14T 12/24	14T 12/24	14T 12/24
Major Dia.	1.224-1.250	1.224-1.250	1.283 Max.	1.283 Max.
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/5.0	2.0/5.0	2.0/5.0	2.0/5.0
Free Wheeling Rotation* (Viewed from Gear Reducer End)	CCW	CW	CCW	CW

*See Brake Selection Guide on Page 5 For Choosing Proper Shaft Rotation.

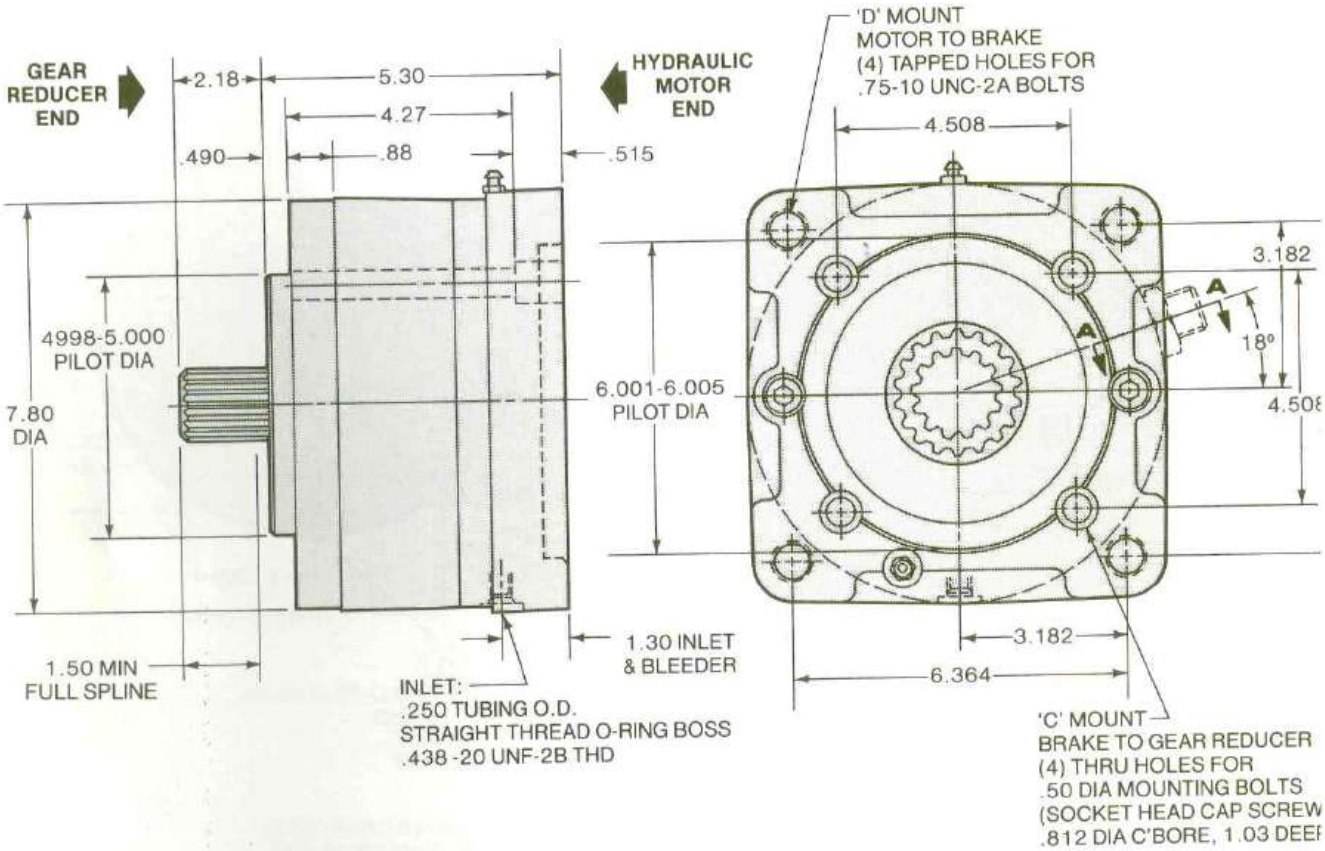
† For External Shaft Gear Reducer

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'D' MOU
TO SAE 'C' MOU



Note: Motor input to the brake assembly must not exceed 8000 lb-in torque. Some SAE 'D' mount motors may develo torques beyond 8000 lb-in that could damage the brake output shaft.

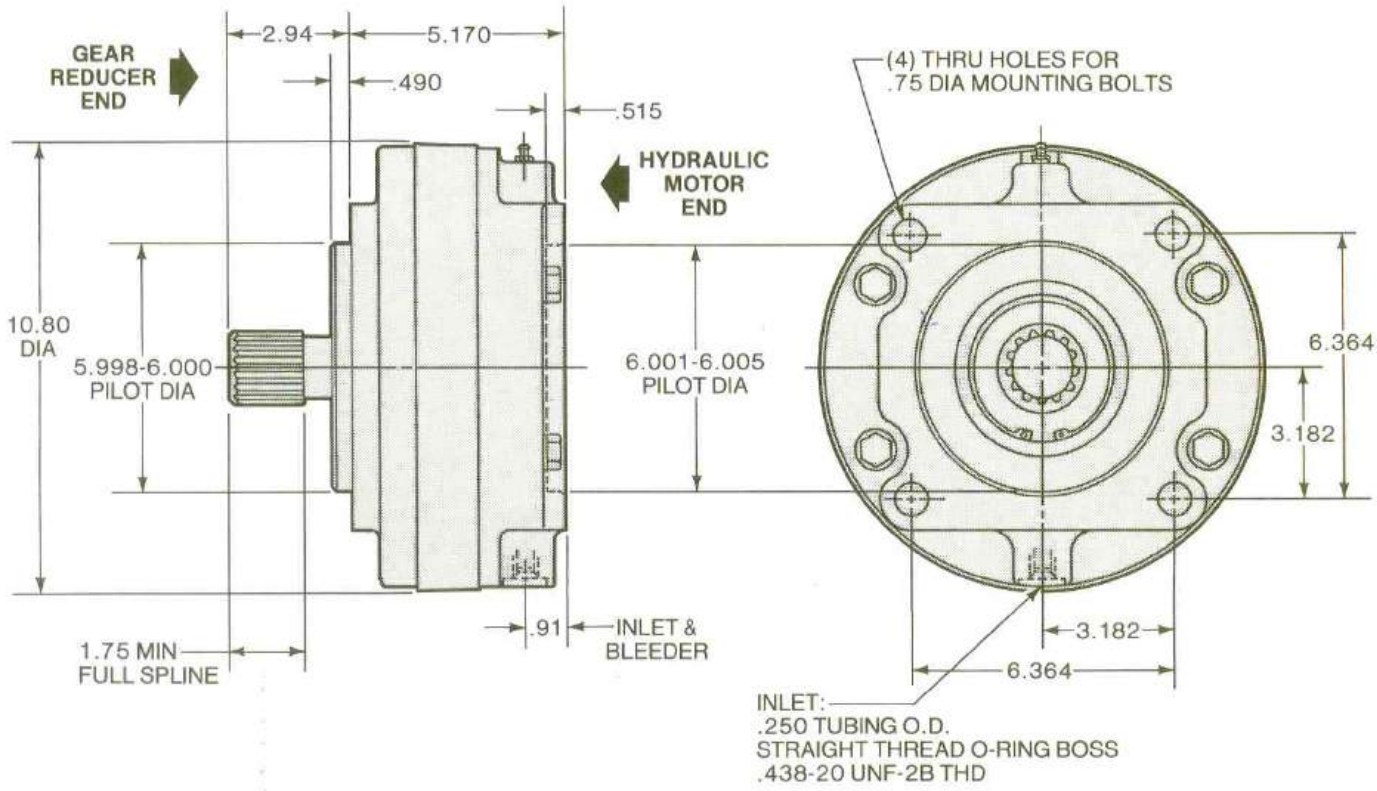


Brake Part No.*	37975	37980
Rated Torque (lb. in.)	8000	8,000
Release Hyd. Pressure (PSI) Initial/Full	175/210	175/210
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	13T 8/16	13T 8/16
External: Gear Reducer End	21T 16/32	23T 16/32
Major Dia.	1.353-1.375	1.478-1.500
Release (Min.)/Worn (Max.) Displacement (cu. in.)	2.0/4.0	2.0/4.0

* Add suffix 'S' if the brake should be able to accept a speed sensor.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'D' MOUNT

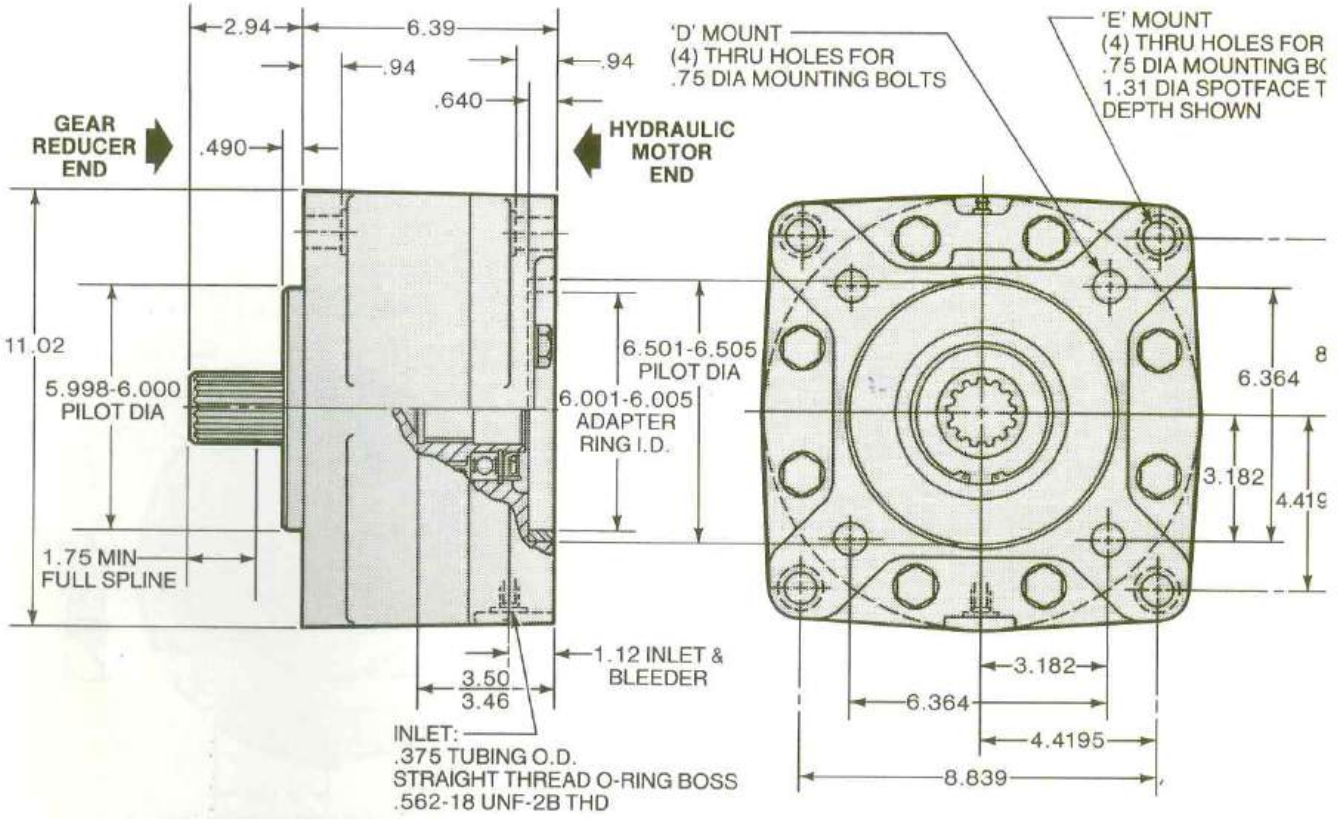


Brake Part No.	33272	29697
Rated Torque (lb. in.)	8400	12,000
Release Hyd. Pressure (PSI) Initial/Full	105/130	145/180
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.)		
Internal: Hyd. Motor End	13T 8/16	13T 8/16
External: Gear Reducer End	13T 8/16	13T 8/16
Major Dia.	1.715-1.750	1.715-1.750
Release (Min.)/Worn (Max.) Displacement (cu. in.)	3.0/5.5	3.0/5.5

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

MODIFI
SAE 'D' MOU

THIS BRAKE IS DESIGNED TO FIT A CHAR-LYNN 10,000 SERIES BEARINGLESS MOTOR AND A SAE 'D' MOUNT GEAR REDUCER



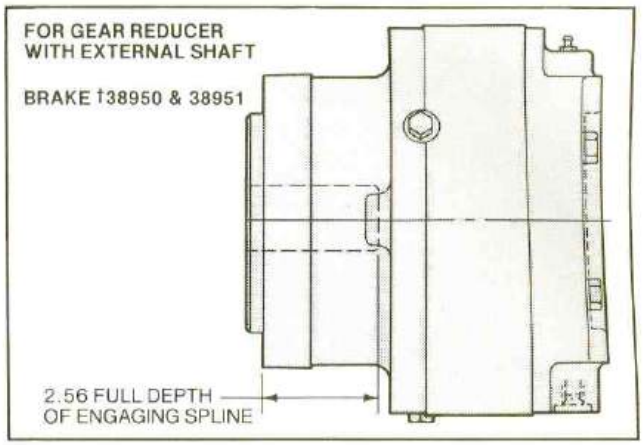
USE THE INTERNAL CHECK VALVE SYSTEM IN THE BEARINGLESS MOTOR TO PROVIDE FOR SPLINE LUBRICATION.

CAUTION: To prevent damage of brake input shaft seal, you must provide a fluid drain back through the motor directly to the resovoir. First remove the plug on the brake side of the motor and then provide a case drain from the side of the motor to a reservoir. Back pressure in this drain line must be less than 10 PSI or the pressure spikes could blow the shaft seals and perhaps the gear box seals, resulting in less brake torque due to oil leakage.

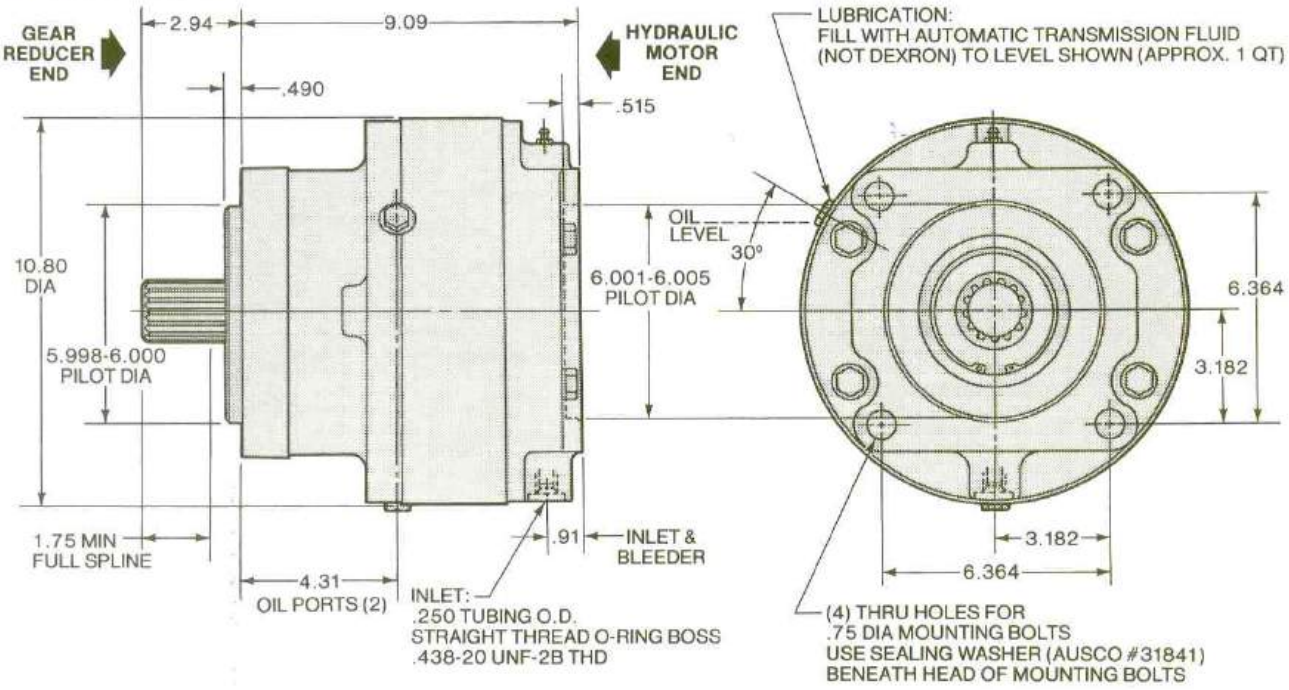
Brake Part No.	30090
Rated Torque (lb. in.)	20,000
Release Hyd. Pressure (PSI) Initial/Full	160/215
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	16T 10/20
External: Gear Reducer End	13T 8/16
Major Dia.	1.715-1.750
Release (Min.)/Worn (Max.) Displacement (cu. in.)	4.0/6.0

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'D' MOUNT WITH EXTERNAL OUTPUT SHAFT OR FOR GEAR REDUCER WITH EXTERNAL SHAFT



BRAKE 38940 & 38941



Brake Part No.	38940	38941	38950†	38951†
Rated Torque (lb. in.)	13,000	13,000	13,000	13,000
Release Hyd. Pressure (PSI) Initial/Full	205/265	205/265	205/265	205/265
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.)				
Internal: Hyd. Motor End	13T 8/16	13T 8/16	13T 8/16	13T 8/16
External: Gear Reducer End	13 8/16	13T 8/16	13T 8/16	13T 8/16
Major Dia.	1.715-1.750	1.715-1.750	1.798 Max	1.798 Max
Release (Min.) /Worn (Max.) Displacement (cu. in.)	4.0/6.0	4.0/6.0	4.0/6.0	4.0/6.0
Free Wheeling Rotation* (Viewed from Gear Reducer End)	CCW	CW	CCW	CW

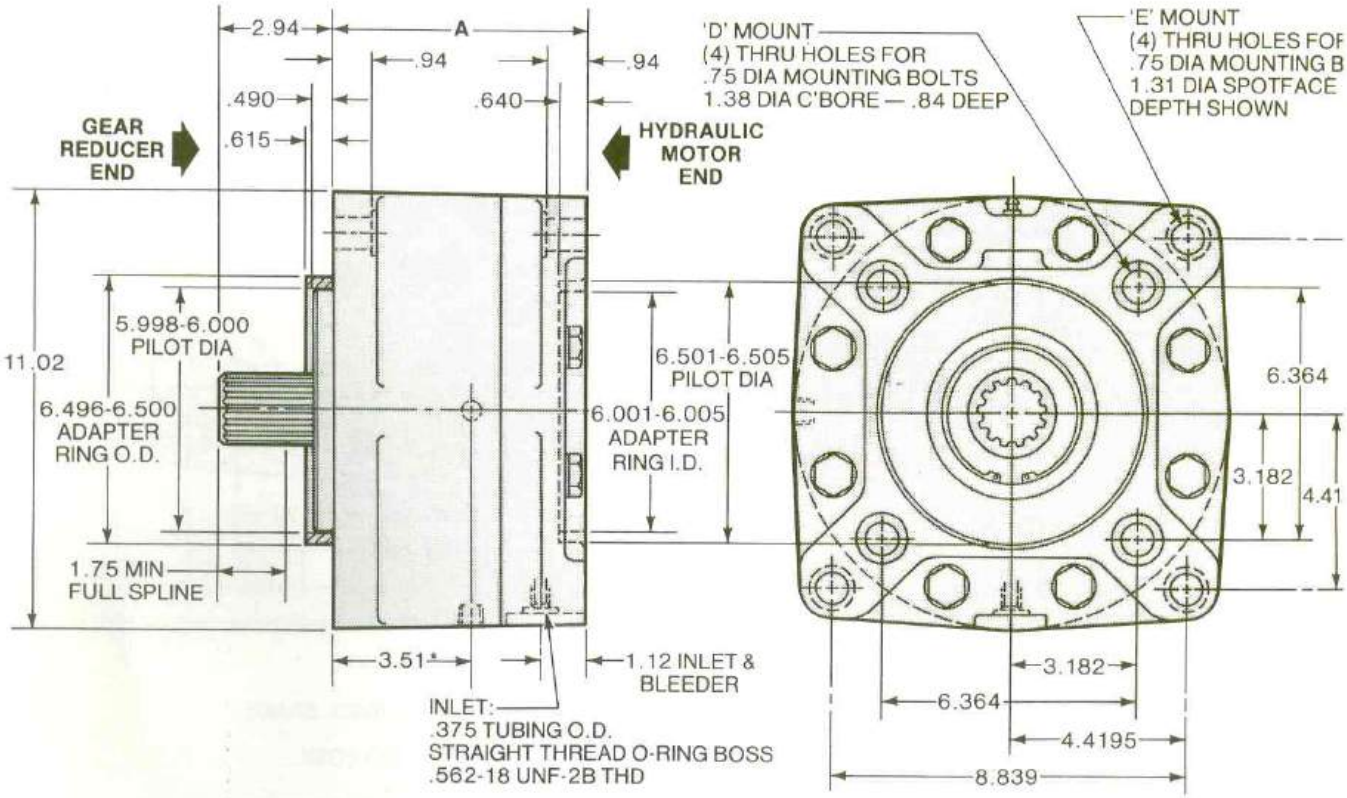
*See Brake Selection Guide on Page 5 For Choosing Proper Shaft Rotation.

†For External Shaft Gear Reducer

One-Way Clutch Failsafe brakes are designed to be installed with their shafts in a horizontal position. If the brake must be vertically mounted, please contact Ausco Engineering for special modification instructions.

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'D/E' MOU



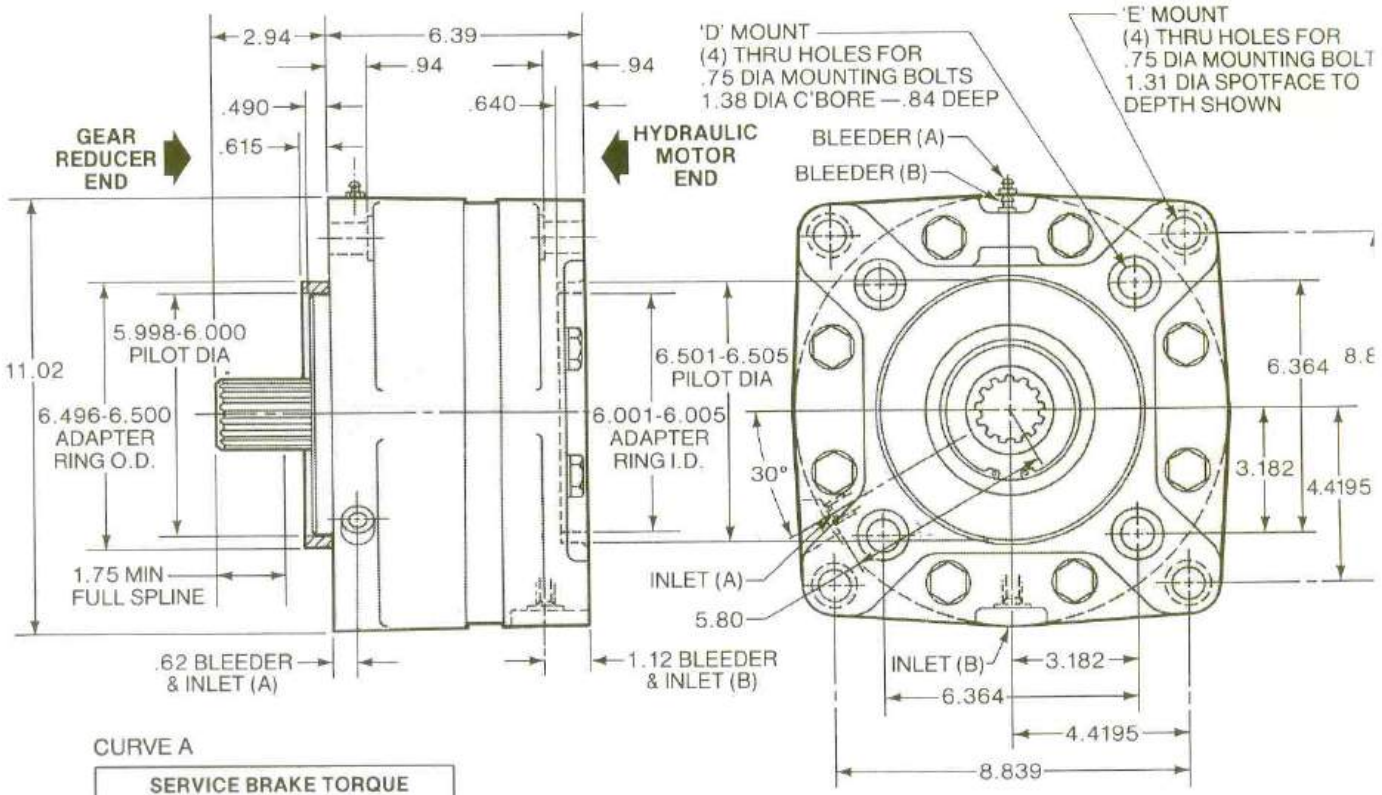
*(2) DRAIN HOLES FOR BRAKE 31664

Brake Part No.	31664‡	31276†	31509†	30070	30080
Rated Torque (lb. in.)	8500 (Wet)	12,000	20,000	20,000	30,000
Release Hyd. Pressure (PSI) Initial/Full	160/215	145/180	160/215	160/215	215/260
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	13T 8/16	13T 8/16	13T 8/16	13T 8/16	13T 8/16
External: Gear Reducer End	13T 8/16	13T 8/16	13T 8/16	13T 8/16	13T 8/16
Major Dia.	1.715-1.750	1.715-1.750	1.715-1.750	1.715-1.750	1.715-1.750
Release (Min.)/Worn (Max.) Displacement (cu.in.)	4.0/6.0	3.0/5.5	4.0/6.0	4.0/6.0	4.0/6.0
Dimension 'A'	6.39	5.30	6.39	6.39	6.39

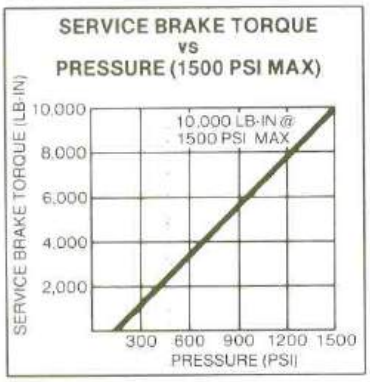
† Without Adaptor Ring
‡ With Drain holes

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'D/E' MOUNT



CURVE A



FITTING POSITION:
INLET & BLEEDER (A): SERVICE BRAKE
.250 TUBING O.D.
STRAIGHT THREAD O-RING BOSS
.438-20 UNF-2B THD

INLET & BLEEDER (B): FAILSAFE BRAKE
.375 TUBING O.D.
STRAIGHT THREAD O-RING BOSS
.562-18 UNF-2B THD

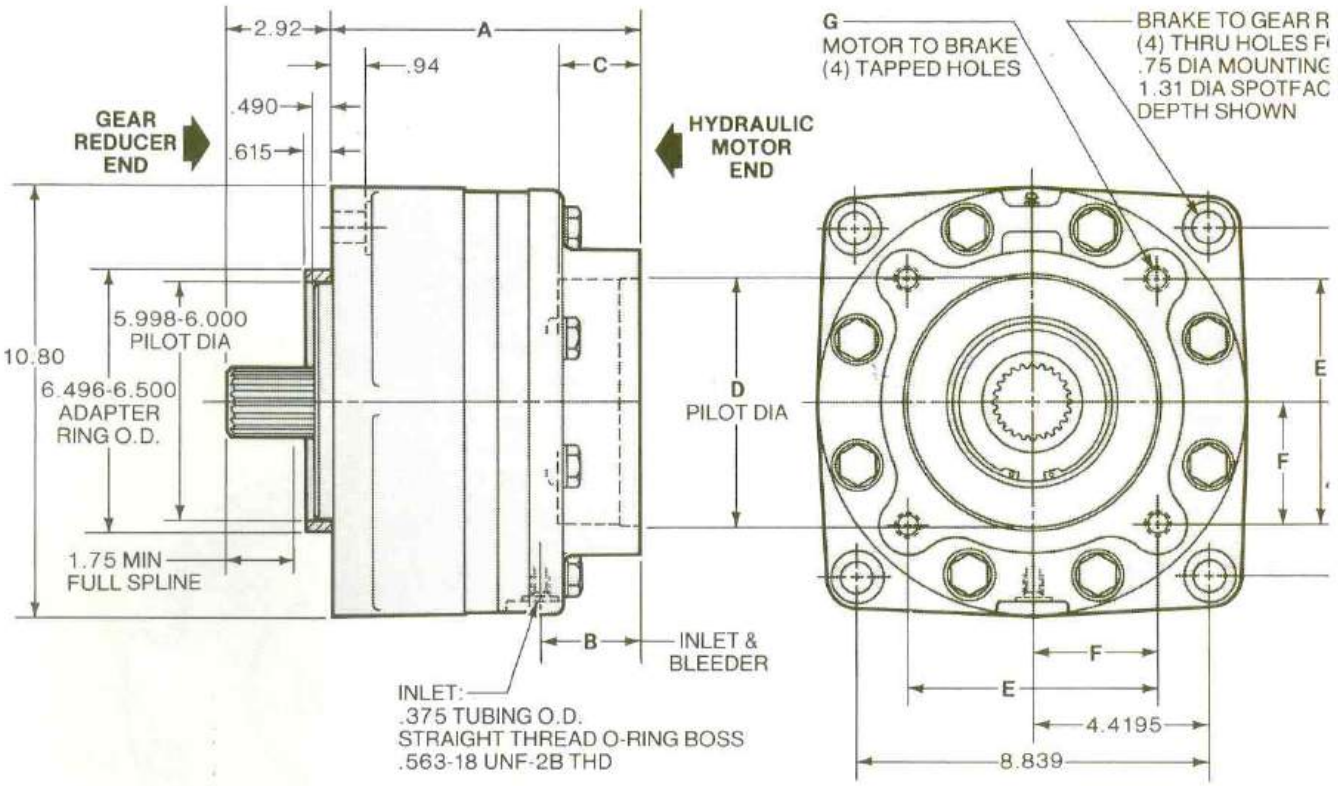
Brake Part No.	**31843**	
Piston	Service	Failsafe
Rated Torque (lb. in.)	See Curve A	15,000
Release Hyd. Pressure (PSI) Initial/Full		175/200
Maximum Recommended Working Pressure (PSI)	1500	3000
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	13T 8/16	13T 8/16
External: Gear Reducer End	13T 8/16	13T 8/16
Major Dia.	1.715-1.750	1.715-1.750
Displacement (cu. in.) Release (Min.)/Worn (Max.)	—	4.0/6.0
Engagement(Min.)/Worn (Max.)	0.25/0.75	—
Operating Medium	Petroleum	Petroleum

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

METRIC MOUNTI
TO SAE 'D/E' MOU

THESE BRAKES ARE DESIGNED TO FIT BETWEEN A SAE 'E' GEAR REDUCER AND THE FOLLOWING HYDRAULIC MOTORS:

LINDE MF 140 (Brake 30332)
LINDE MF 186 (Brake 30040)
REXROTH HYDROMATIK 160 (Brake 32750)

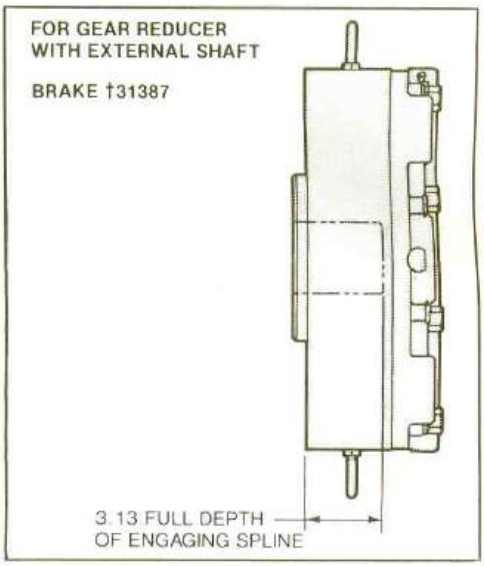


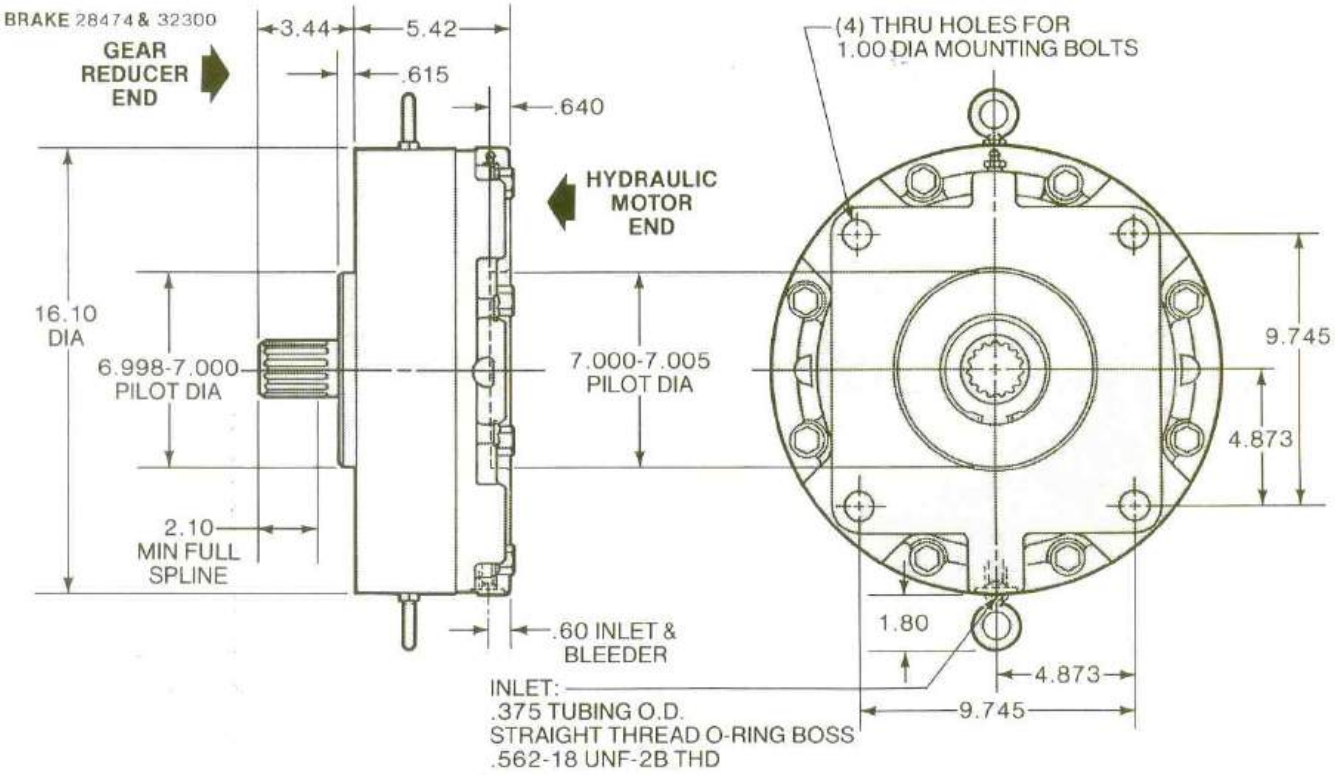
Brake Part No.	30332†	32750	30040†
Rated Torque (lb. in.)	12,000	12,000	20,000
Release Hyd. Pressure (PSI) Initial/Full	145/180	145/180	160/215
Brake Shaft Spline Internal: Hyd. Motor End Metric Module 2.00	A45 X 41 DIN 5482 H11 & 12 (Ref. 22T)	N45 X 2 X 21 X 9H DIN 5480 (Ref. 21 T)	A50 X 45 DIN 5482 H11 & 12 (Ref. 24T)
External: Gear Reducer End (Flat Root Side Fit, 30° P.A.)	13T 8/16	13T 8/16	13T 8/16
Major Dia.	1.715-1.750	1.715-1.750	1.715-1.750
Release (Min.)/Worn (Max.) Displacement (cu. in.)	3.0/5.5	3.0/5.5	4.0/6.0
Dimension 'A'	6.34	6.34	7.84
Dimension 'B'	2.15	2.15	2.55
Dimension 'C'	1.63	1.60	2.06
Dimension 'D'	5.513-5.517	7.087-7.091	6.300-6.304
Dimension 'E'	5.560	6.236	6.240
Dimension 'F'	2.780	3.118	3.120
Dimension 'G'	M16 X 2-6H 1.00 Min. Full Thd.	M16 X 2-6H 1.00 Min. Full Thd.	M16 X 2-6H 1.00 Min. Full Thd.

† Without Adapter Ring

REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

SAE 'F' MOUNT WITH EXTERNAL OUTPUT SHAFT OR FOR GEAR REDUCER WITH EXTERNAL SHAFT





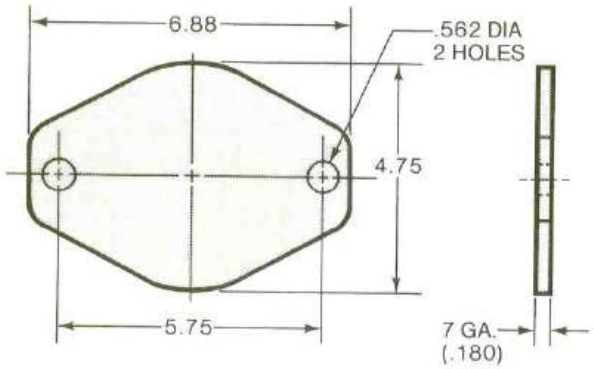
Brake Part No.	32300	28474	31387†
Rated Torque (lb. in.)	33,000	40,000	18,000
Release Hyd. Pressure (PSI) Initial/Full	125/140	145/170	70/80
Brake Shaft Spline (Flat Root Side Fit, 30° P.A.) Internal: Hyd. Motor End	15T 8/16	15T 8/16	22T 8/16*
External: Gear Reducer End	15T 8/16	15T 8/16	—
Major Dia.	1.965-2.000	1.965-2.000	2.999 Max.
Release (Min.)/Worn (Max.) Displacement (cu. in.)	6.0/14.5	6.0/14.5	6.0/14.5

* No Shaft Included - Disc Spline
†For External Shaft Gear Reducer

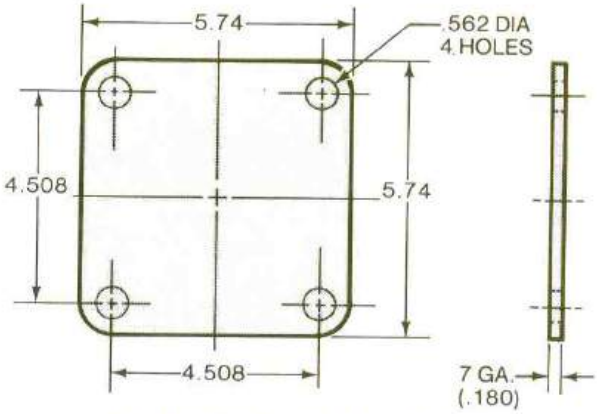
REFER TO PAGE 3 FOR ADDITIONAL INSTALLATION & OPERATING INFORMATION

BRAK
END PLATE

FOR CANTILEVERED BRAKE APPLICATION WITHOUT HYDRAULIC MOTOR.
Select bolt length (brake + end plate + lockwasher) to suit particular brake model thickness. Brake thicknesses are shown on installation data sheets in this booklet. Also refer to data sheets for bolt thread, SAE grade and torque.

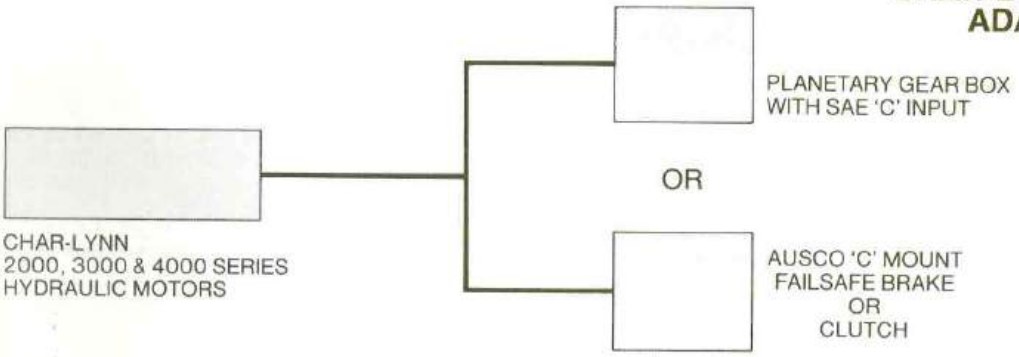


'B' MOUNT 37895 (Was 32956)

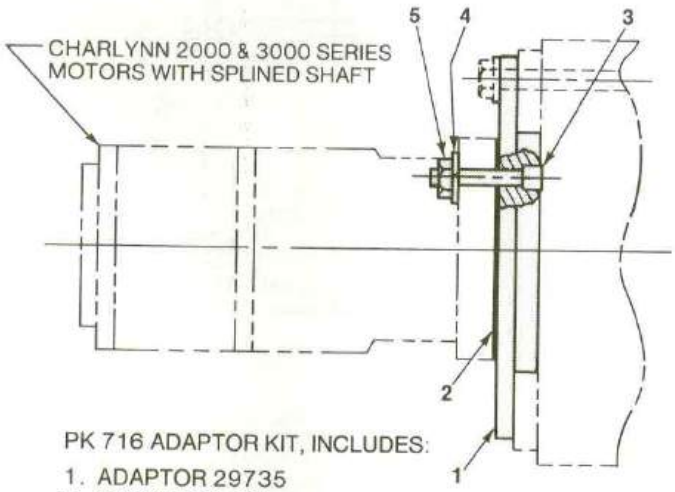


'C' MOUNT 37915 (Was 32230)

CHAR-LYNN MOTC
ADAPTOR KI



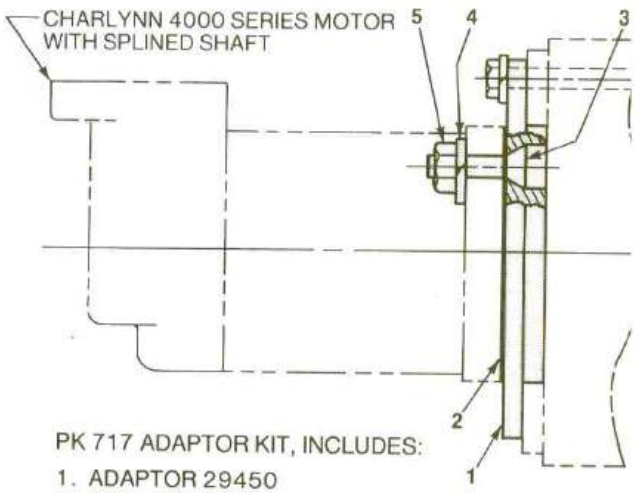
PK 716



PK 716 ADAPTOR KIT, INCLUDES:

1. ADAPTOR 29735
2. GASKET 30468
3. SOCKET HD CAP SCREW 32825 (4)
4. LOCKWASHER 27414 (4)
5. HEX NUT 32823 (4)

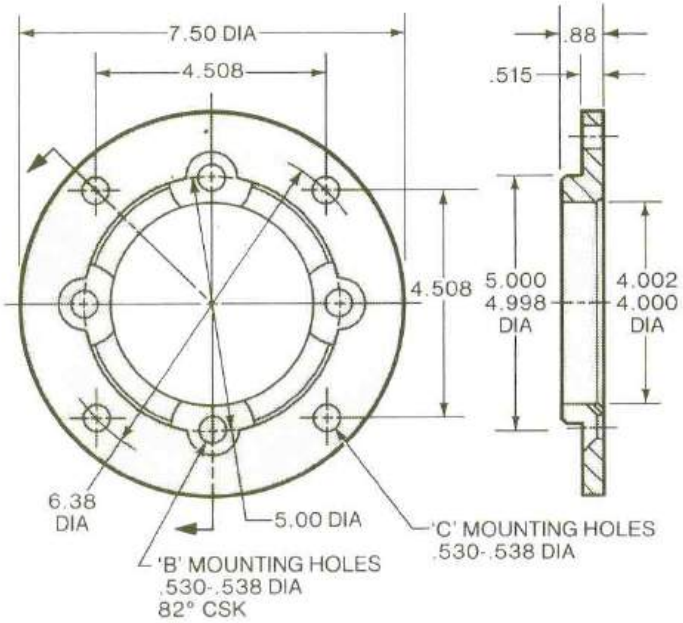
PK717



PK 717 ADAPTOR KIT, INCLUDES:

1. ADAPTOR 29450
2. GASKET 30472
3. C'SUNK HD CAP SCREW 32826 (4)
4. LOCKWASHER 28419 (4)
5. HEX NUT 32824 (4)

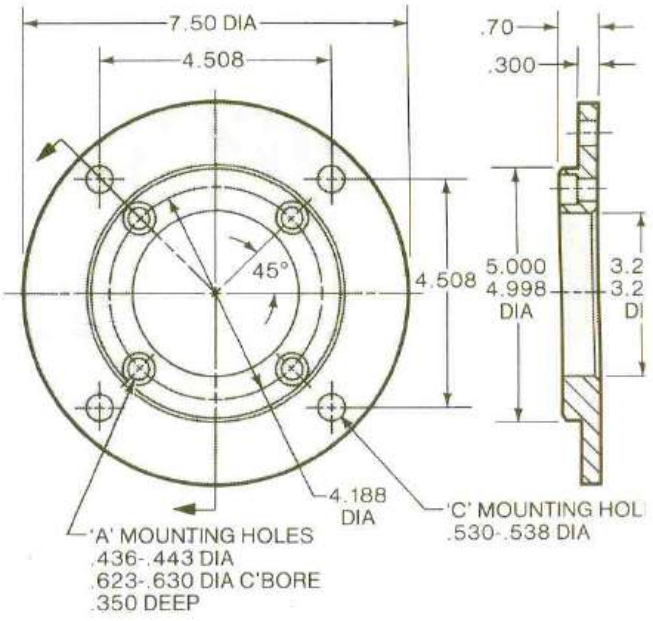
AVAILABLE ADAPTOR PLATES



NOTE: NOT APPLICABLE TO OIL FILLED BRAKES OR CLUTCHES.

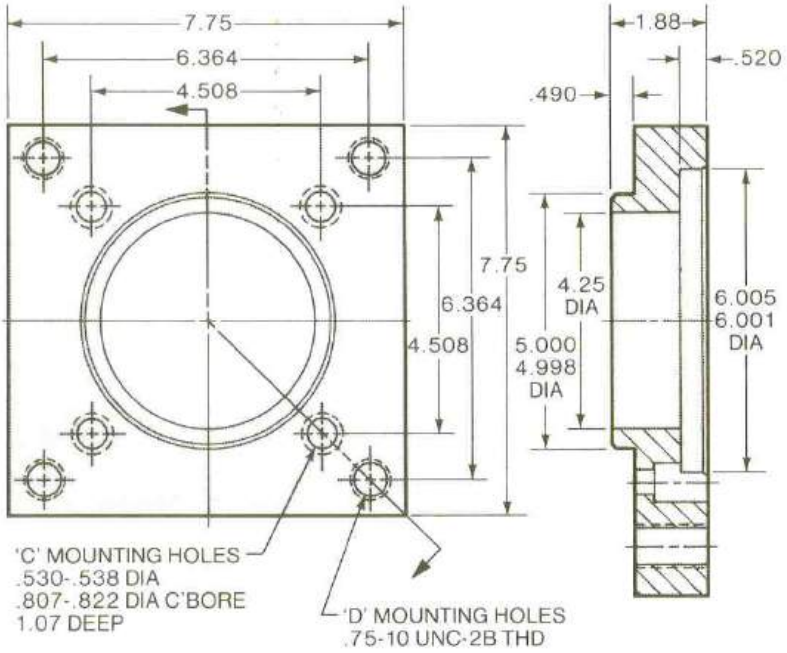
29450

CONVERTS MODIFIED SAE 'B' MOUNT, SUCH AS CHAR-LYNN 4000 SERIES (4.00 DIA PILOT AND 5.00 BOLT CIRCLE), TO SAE 'C'MOUNT (5.00 DIA PILOT AND 6.38 BOLT CIRCLE). SEE PAGE 38 FOR MOUNTING INSTALLATION.



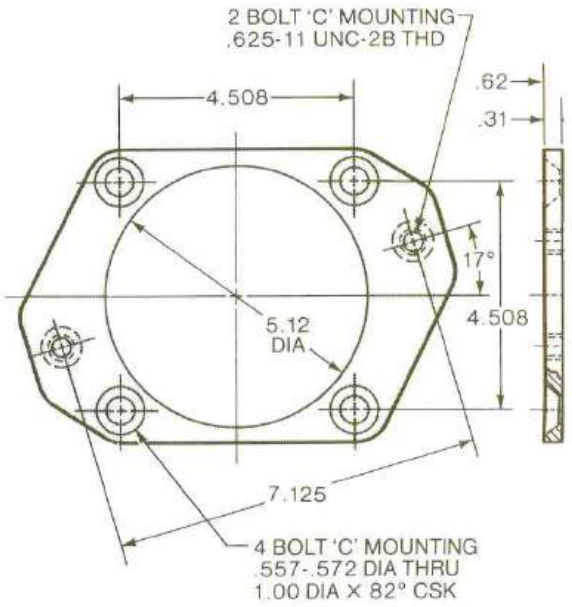
29735

CONVERTS SAE 'A' MOUNT (3.25 DIA PILOT) TO SAE 'C' MOUNT (5.00 DIA PILOT)



30062

CONVERTS SAE 'D' MOUNT (6.00 DIA PILOT) TO SAE 'C' MOUNT (5.00 DIA PILOT)



NOTE: NOT APPLICABLE TO OIL FILLED BRAKES OR CLUTCHES.

32482

CONVERTS (2) BOLT SAE 'C' MOUNT TO (4) BOLT SAE 'C' MOUNT

HYDRAUL
HAND PU
310

THIS HAND PUMP IS SPECIFICALLY DESIGNED FOR THE EMERGENCY RELEASE OF AUSCO FAILSAFE BRAKES.

HYDRAULIC BRAKE RELEASE IS AUTOMATICALLY RETURNED TO NORMAL FAILSAFE OPERATION WHEN SYSTEM IS PRESSURIZED.

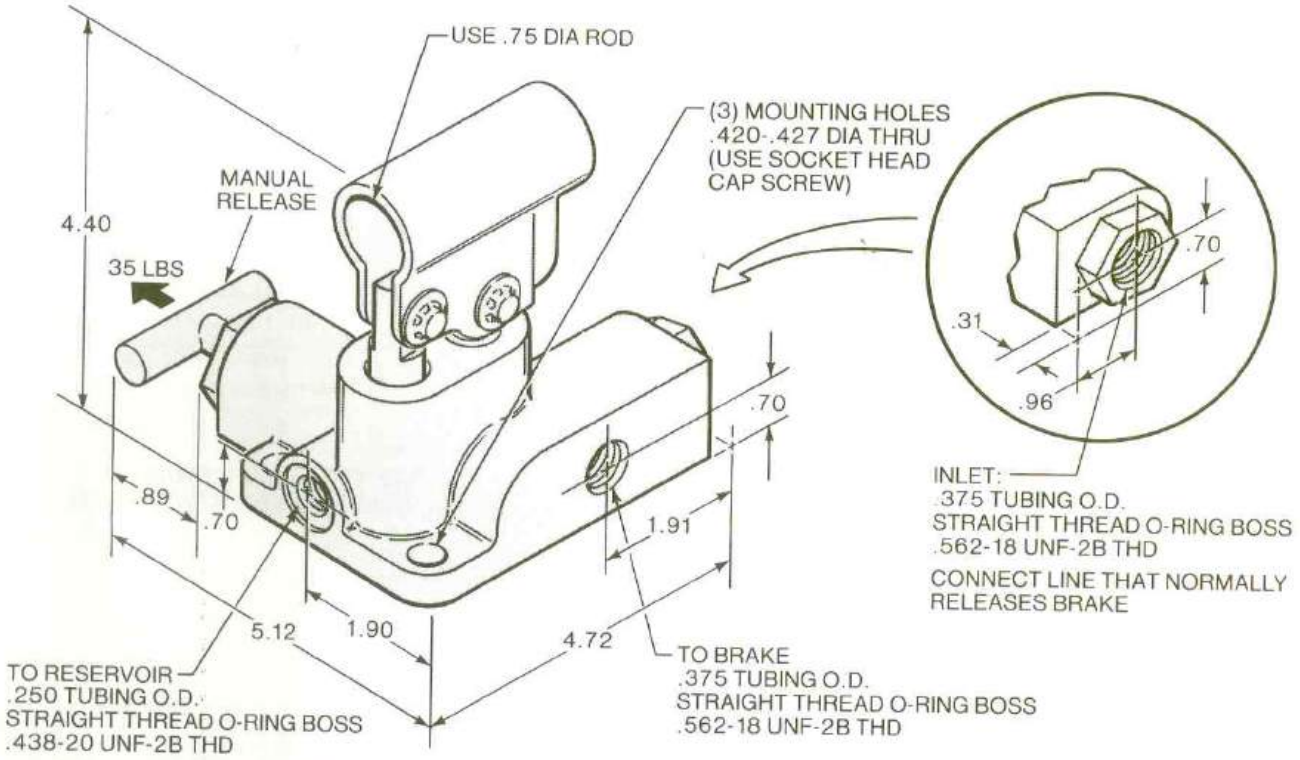
HAND PUMP CAN BE PORTABLE OR FIXED TO BRAKE

MAXIMUM SYSTEM PRESSURE, 3000 PSI

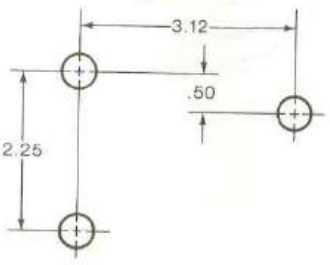
MAXIMUM PRESSURE TO BRAKE FROM PUMP, 750 PSI

0.15 CUBIC INCHES DISPLACEMENT PER STROKE

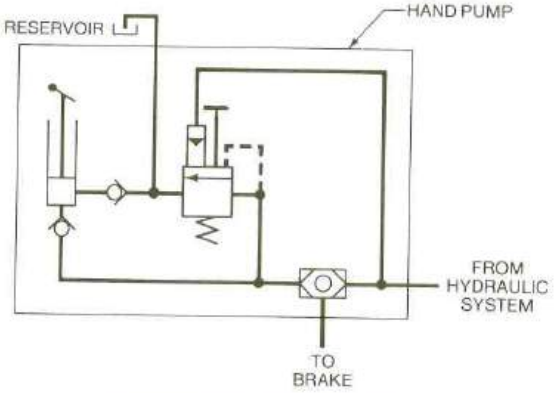
UTILIZES SOFT SEATS FOR LONG TIME PRESSURE RETENTION



MOUNT LOWER THAN SYSTEM RESERVOIR OR PROVIDE STAND PIPE (5 CU.IN.)



MOUNTING HOLE PATTERN
(VIEWED FROM TOP OF HAND PUMP)



HYDRAULIC SCHEMATIC

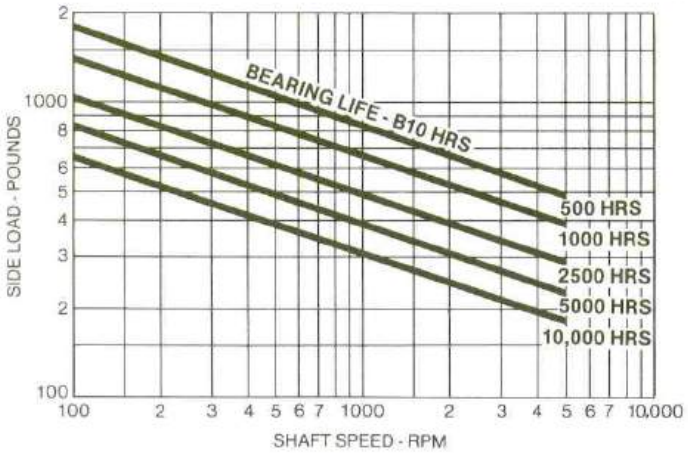
HAND PUMP SERVICE K

PK 836 - OVERHAUL KIT
INCLUDES:
ALL O-RINGS, BACK RINGS AND SEALS (EXCLUDING SHUTT VALVE)

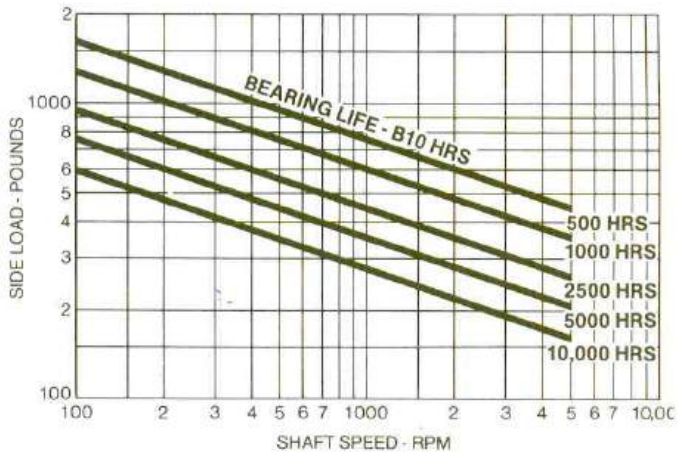
PK 837 - SHUTTLE VALVE KIT
INCLUDES:
1 SHUTTLE VALVE,
1 O-RING FOR INLET ADAPTOR AND 2 O-RINGS FOR FRON AND BACK OF SHUTTLE VALVE

SIDE LOAD CAPACITY

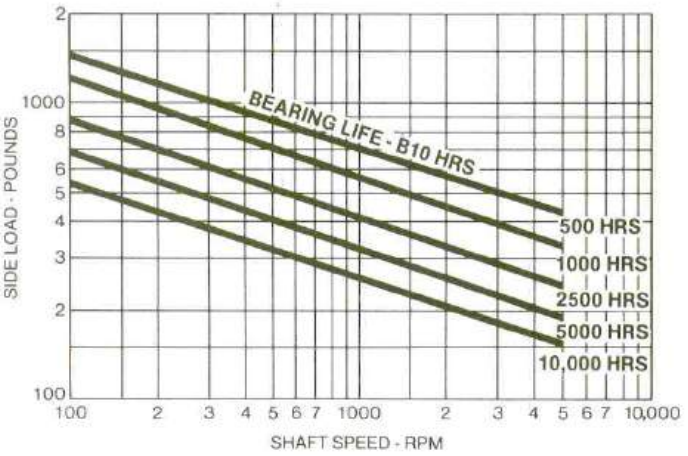
SHAFT SIDE LOAD*
vs
SPEED
vs
BEARING LIFE



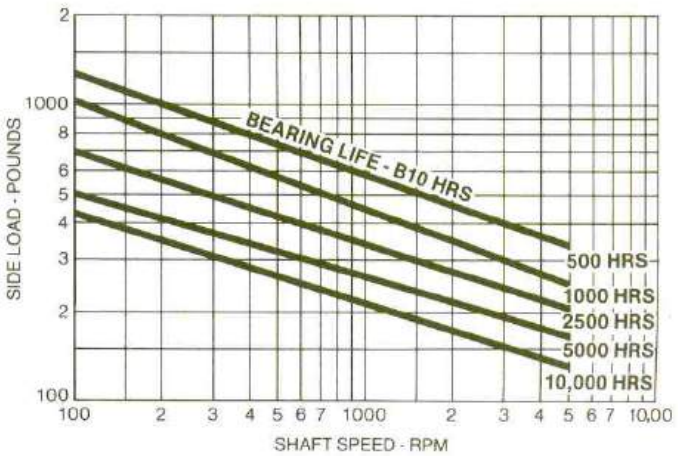
SAE 'C' FAILSAFE BRAKES



SAE 'B' FAILSAFE BRAKES
(EXCLUDING BRAKES 37260 & 37300)



SAE 'B'
37260 FAILSAFE BRAKE



MODIFIED SAE 'A' TO MODIFIED SAE 'B'
37300 FAILSAFE BRAKE

* Shaft side load based on load being applied on center of external shaft spline lengt

FAILSAFE BRAKE SERVICE KITS

Brake No.	Page No.	Brake Type	SAE J744 OCT 80 Mounting Designation Input (Hyd. Motor)	Output (Reducer)	Torque (lb. in.)	Release Pressure (PSI) Initial/Full	O-Ring (PK #)	Stack (PK #)	Bearing (PK #)	Gasket (PK #)
28474	32	F/S	F	F	40,000	145/170	720	721	722	723
29697	26	F/S	D	D	12,000	145/180	688	687	690	691
29751	12	F/S OWC	B	B	2400	245/290	857	858	859	860
29752	12	F/S OWC	B	B	2400	245/290	857	858	859	860
29807	26	F/S	D	D	12,000	145/180	688	687	N/A	691
29983	21	F/S	C	D	8400	165/230	665	676	700	691
30040	31	F/S	Metric	D	20,000	160/215	688	689	693	691
30070	29	F/S	D/E	D/E	20,000	160/215	688	689	690	691
30080	29	F/S	D/E	D/E	30,000	215/260	688	692	690	691
30090	27	F/S	Mod D	Mod D	20,000	160/215	688	689	712	691
30100	22	F/S	Metric	C	8400	160/230	665	686	699	795
30332	31	F/S	Metric	D	12,000	145/180	688	687	693	691
31276	29	F/S	E	D	12,000	145/180	688	707	690	691
31387	32	F/S	F	F	18,000	70/80	720	800	N/A	723
31509	29	F/S	E	D	20,000	160/215	688	689	690	691
31575	23	F/S SB	C	C	6200	155/195	665 & 713	714	677	679
31664	29	F/S	D/E	D/E	8500	160/215	688	689	690	691
31843	30	F/S SB	D/E	D/E	15,000	175/200	688 & 713	757	690	691
32300	32	F/S	F	F	33,000	125/140	720	721	722	723
32750	31	F/S	Metric	E	12,000	145/180	688	687	693	780
33272	26	F/S	D	D	8400	105/130	688	687	690	691
34800	11	F/S SB	B	B	2400	140/155	661 & 713	863	864	664
36095	17	F/S	C	C	5400	120/150	931	932	933	679
36715	17	F/S	C	C	9000	190/230	931	932	933	679
36925	17	F/S	C	C	7200	155/190	931	932	933	679
37000	9	F/S	B	B	3800	205/240	956	959	957	664
37030	9	F/S	B	B	3200	175/200	956	959	957	664
37090	16	F/S	C	C	2200	90/110	931	938	933	679
37115	17	F/S	Mod C	Mod C	6600	140/175	931	932	974	679
37160	7	F/S	Mod A	Mod B	3800	205/240	956	959	957	664
37165	9	F/S	B-B	B-B	3200	175/200	956	979	957	664
37170	7	F/S	Mod A	B	3800	205/240	956	959	957	664
37175	6	F/S	Mod A	B	1540	220/230	956	979	957	664
37235	24	F/S OWC	C	C	6200	320/370	1147	817	945	820
37236	24	F/S OWC	C	C	6200	320/370	1147	817	945	820
37255	19	F/S	2 Bolt C	2 Bolt C	9000	190/230	1127	932	933	977
37260	7	F/S	Mod A	Mod B	3200	170/205	956	978	980	664
37265	7	F/S	Mod A	B	2600	140/165	956	959	957	664
37270	7	F/S	Mod A	B	1800	110/130	956	959	957	664
37275	7	F/S	Mod A	B	3200	175/200	956	959	957	664
37280	7	F/S	Mod A	B	1800	110/130	956	959	957	664
37285	9	F/S	B	B	2600	140/165	956	959	957	664
37300	7	F/S	Mod A	Mod B	2400	130/160	956	978	980	664
37305	9	F/S	B	B	1800	110/130	956	959	957	664
37315	17	F/S	C-C	C-C	9000	190/230	931	932	933	679
37325	13	F/S	Mod A	C	9000	190/230	931	932	933	698
37335	14	F/S	Mod A	C	9000	190/230	931	932	933	698
37340	13	F/S	Mod A	C	9000	190/230	931	932	933	698
37500	9	F/S	B-B	B	3200	175/200	956	959	957	664
37650	15	F/S	B	C	2200	90/110	931	938	933	975
37690	17	F/S	C	C	4000	100/120	931	932	933	679
37700	16	F/S	C	C	3300	120/150	931	938	933	679
37710	17	F/S	Mod C	Mod C	9000	190/230	931	932	974	679
37735	18	F/S	C	C	9000	190/230	931	932	974	679
37770	20	F/S	2 Bolt C	4 Bolt C	9000	190/230	931	932	933	977
37780	6	F/S	Mod A	B	1540	220/230	956	979	957	664
37805	24	F/S OWC	C	C	6200	320/370	1147	817	945	820
37806	24	F/S OWC	C	C	6200	320/370	1147	817	945	820
37845	8	F/S	B	B	1540	220/230	956	979	957	664
37975	25	F/S	D	C	8000	175/210	931	932	974	691
37980	25	F/S	D	C	8000	175/210	931	932	974	691
38940	28	F/S OWC	D	D	13,000	205/265	826	827	1024	829
38941	28	F/S OWC	D	D	13,000	205/265	826	827	1024	829
38950	28	F/S OWC	D	D	13,000	205/265	826	827	1024	829
38951	28	F/S OWC	D	D	13,000	205/265	826	827	1024	829
39940	10	F/S	Mod B	—	5600	140/160	956	1140	N/A	815

F/S: Failsafe Brake
F/S SB: Failsafe Brake with Service Brake
F/S OWC: Failsafe Brake with One-Way Clutch

Typical Kit Contents:
- O-Ring Kit: O-Rings and Backup Rings
- *Stack Kit: Rotating, Stationary and Primary Discs (Secondary Discs when Applicable) Springs and Torque Pins
- Bearing Kit: Bearings, Retaining Rings and Oil Seals
- Gasket Kit: Gaskets (Motor and Reducer Ends)

Each Kit, Except Gasket Kit, Contains Installation Instructions.

*Speed Sensor Stack Kits for Failsafe Brakes

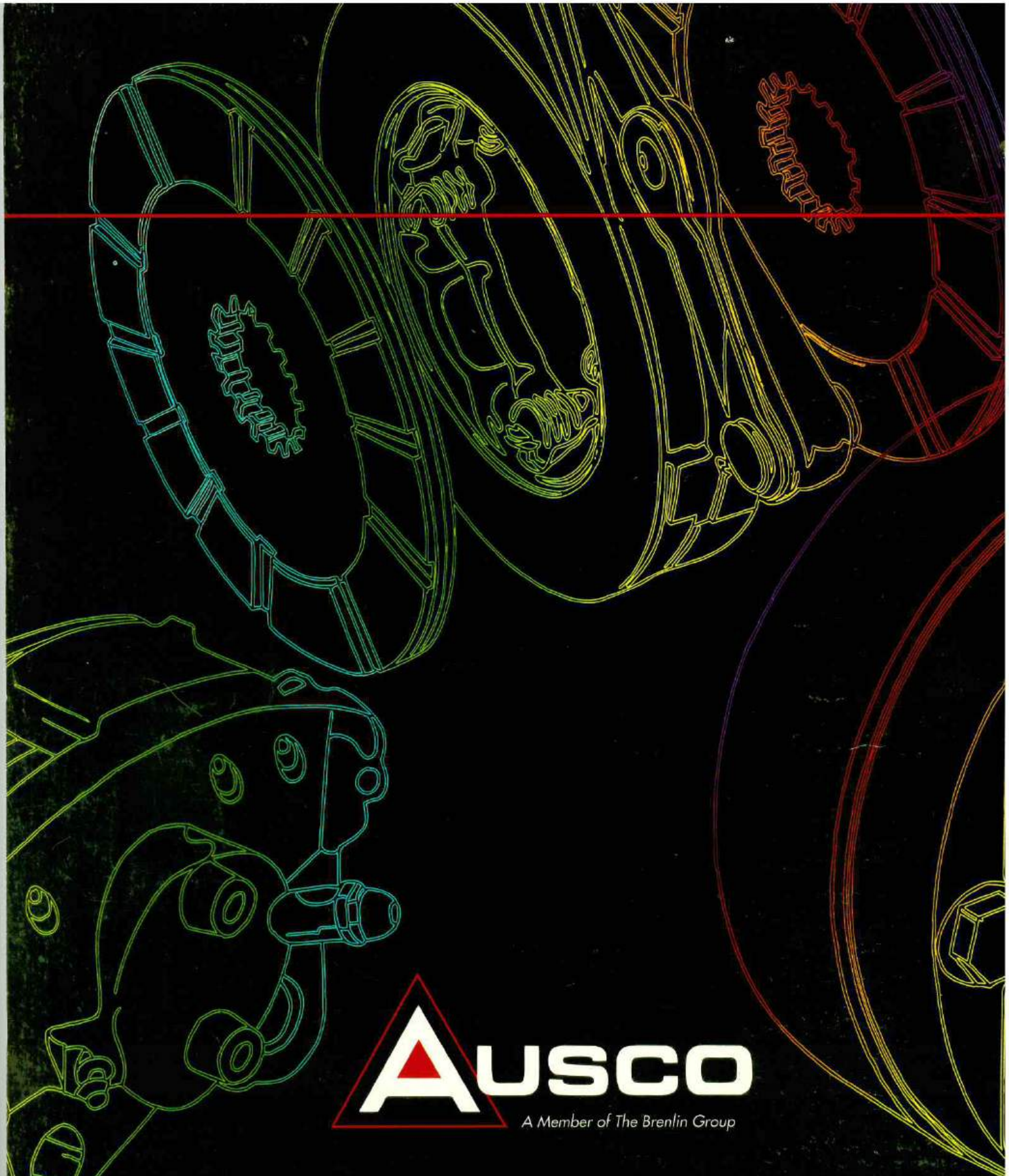
Mod 'A', Mod 'B' and 'B':	Mod 'C' and 'C':
PK 1022 for 1 Rotor Brake	PK 1023 for 3 Rotor Brake
PK 958 for 3 Rotor Brake	PK 942 for 5 Rotor Brake

FAILSAFE BRAKE SERVICE KITS* PRIOR MODELS

* Service Kits for older model Failsafe Brakes.
(These brakes are not recommended for new applications -
See cross-reference for replacement model numbers - page 1)

Brake No.	O-Ring (Pk. #)	Stack (Pk. #)	Bearing (Pk. #)	Gasket (Pk. #)
27798	661	662	663	664
27933	665	666	667	679
28653	661	662	663	664
28838	665	666	667	698
28886	661	662	663	664
28978	665	672	667	679
29170	665	676	677	679
29479	661	671	N/A	664
29599	816	817	819	820
29600	816	817	819	820
29701	816	817	819	820
29702	816	817	819	820
29860	661	671	N/A	664
29970	665	676	677	679
30063	688	687	690	691
30095	857	858	859	860
30096	857	858	859	860
30154	665	676	N/A	679
30176	665	676	678	679
30188	661	662	663	664
30278	816	817	819	820
30279	816	817	819	820
30310	665	686	699	679
30311	665	686	787	679
30322	665	666	667	679
30368	665	666	667	679
30381	665	666	667	679
30425	826	827	828	829
30426	826	827	828	829
30469	665	666	667	698
30473	665	666	667	698
30853	665	694	667	679
30936	661 & 704	662	705	664
30943	665	694	667	698
31006	665	676	677	679
31025	661	758	663	664
31087	661	758	727	664
31103	665 & 706	676	677	679
31131	661	735	947	664
31148	661	662	727	664
31237	661 & 704	662	705	664
31443	661 & 752	732	705	664
31470	665	703	677	679
31675	665	666	667	679
31810	665 & 713	714	677	679
31838	742	666	667	679
31849	665	676	700	691
31977	661	671	N/A	664
32040	729	662	663	664

Brake No.	O-Ring (Pk. #)	Stack (Pk. #)	Bearing (Pk. #)	Gasket (Pk. #)
32041	661 & 752	732	705	664
32095	665	676	677	679
32100	665	676	821	691
32184	688	687	690	691
32224	741	714	677	679
32240	665	676	677	679
32500	688	689	693	780
32265	665	686	726	698
32420	661	728	663	664
32550	661	758	663	664
32658	665	676	677	679
32680	665	746	677	679
33200	661	695	727	664
33474	661 & 704	728	705	664
33475	661 & 704	728	705	664
33564	661 & 752	728	705	664
33565	661 & 752	728	705	664
33587	665	676	781	679
33669	816	818	819	820
33670	816	818	819	820
33773	665	676	782	679
33795	665	676	677	679
33856	665	676	677	679
33860	665 & 713	714	677	679
33925	661	728	663	664
34064	661	728	663	664
34066	665	676	677	679
34347	816	817	819	820
34348	816	817	819	820
34424	661	811	812	664
34488	665	809	699	679
34495	796	797	667	679
34510	665	666	667	698
34535	661	662	798	664
34660	688	687	690	794
34751	661	728	663	664
34790	661	810	812	664
34795	813	814	N/A	815
34960	661 & 704	728	705	664
35035	661 & 752	728	705	664
35060	661 & 704	728	705	664
35330	661	662	798	664
35360	665	862	677	679
35410	661	728	798	664
35735	661 & 866	863	864	664
35995	873	875	877	679
36320	816	817	819	820
36321	816	817	819	220
36400	661	662	798	664
36415	661	728	798	664


AUSCO
A Member of The Brenlin Group