Section 5 MagnaShear Motor Brakes

The Problem and the Solution...

The Problem - Heat Buildup

Heat buildup, the mortal enemy of electric motors can destroy conventional motor brakes. Although heat is the natural product of the braking process, increased starts and stops of the electric motor create intense heat in conventional brake devices. Often heat buildup damages the brake as well as the electric motor - and frequently causes failure of the entire system. This can mean increased downtime - as well as higher maintenance costs.

The Solution - MagnaShear Motor Brakes

MagnaShear **Motor Brakes** combine oil shear durability with electric actuation, simple control logic and spring-set load holding. Easy to install, economical to operate, MagnaShear motor brakes run on 115 VAC, 50 or 60 Hz.. An optional Step Down Transformer is available for other voltages. They fit a wide range of motors, including NEMA U-frame, and T-frame motors.

MagnaShear **Oil Shear Brakes** are designed to dissipate the heat buildup that destroy conventional braking devices.

Conventional dry friction brake devices can take the heat from industrial motors, but they sacrifice friction material with each stop. They deteriorate with repeated use. Even though the motor is spared the stress of excessive braking heat, the brakes require routine maintenance such as coil and friction material replacement .

The result of heat buildup - Breakdowns. Dry brakes have a short life, suffer from increased wear and may cause downtime losses that come from frequent maintenance and replacement.

The ***MagnaShear*** absorbs the energy generated by the braking action and controls the heat buildup - thus providing greater reliability and repeatability, as well as heat dissipation.

Unlike conventional motor brakes, the ***MagnaShear*** is a multiple surface device that operates on a spring activated, pressure release system. Its' multiple disc stack and internal oil pump helps to eliminate the need to replace coils and friction material - and reduce the heat on any one friction surface.

Seven Models & Sizes To Fit Your Motor Brake Needs...

1. ***MSB2 "Quick Mount" MagnaShear*** has a non-piloted mounting flange for a 5-7/8" Dia. Mounting B.C. 5/8" Dia. and 7/8" Dia. Hub Bores are available. It has a Static Torque Range of 6 Lb. Ft. to 12 Lb. Ft. Used on 56C, 143TC and 145TC Frame Motors.
2. ***MSB4 "Quick Mount" MagnaShear*** has a non-piloted Universal Mounting Flange for a 5-7/8" Dia. or a 7-1/4" Dia. Mounting B.C. 7/8" Dia. and 1-1/8" Dia. Hub Bores are available. It has a Static Torque Range of 14 Lb. Ft. to 33 Lb. Ft. Used on 143TC, 145TC, 182TC and 184TC Frame Motors.
3. ***MSB6 "Quick Mount" MagnaShear*** has a non-piloted mounting flange for a 7-1/4" Dia. Mounting B.C. 7/8" Dia.,1-1/8" Dia., 1-3/8" Dia. and 1-5/8" Hub Bores are available. It has a Static Torque Range of 38 Lb. Ft. to 100Lb. Ft. Used on 213TC, 215TC, 254TC and 256TC Frame Motors.
4. ***MSB7 Magnashear*** has a piloted mounting flange for a 8-1/2" Dia. AK or 10-1/2" Dia. AK. 1-3/8" Dia. and1-5/8" Dia. Bores are available. It has a Static Torque Range of 95 Lb. Ft. to 170 Lb. Ft.
5. ***MSB8 Magnashear*** has a piloted mounting flange for a 8-1/2" Dia. AK or 10-1/2" Dia. AK. 1-3/8" Dia.,1-5/8" Dia. and 1-7/8" Dia. Bores are available. It has a Static Torque Range of 100 Lb. Ft. to 250 Lb. Ft.
6. ***MSB9 Magnashear*** has a piloted mounting flange for a 10-1/2" Dia. AK or 12-1/2" Dia. AK. 1-5/8" Dia.,1-7/8" Dia., 2-1/8" Dia. and 2-3/8" Dia. Bores are available. It has a Static Torque Range of 250 Lb. Ft. to 500 Lb. Ft.
7. ***MSB10 Magnashear*** has a piloted mounting flange for a 10-1/2" Dia. AK or 12-1/2" Dia. AK. 1-7/8" Dia., 2-1/8" Dia. and 2-3/8" Dia. Bores are available. It has a Static Torque Range of 600 Lb. Ft. to 900 Lb. Ft.
8. ***MSB12 Magnashear*** has a piloted mounting flange for a 16" Dia. AK. 1-7/8" Dia. up to 3-5/8" Dia. Bores are available. It has a Static Torque Range of 625 Lb. Ft. to 1250 Lb. Ft.

Description and Operation

Description

A spring set brake stack is released when 115 VAC power is supplied to the Brake Coil. ***Pulse Width Modulation (PWM) Contro***l is used to minimize heat buildup. Control logic is made simple by use of the motor starter auxiliary contactors. Back EMF effect from the motor windings is eliminated.

The units are ideal for a wide variety of applications including indexing tables, lifts, transfer conveyors, tap heads and other start/stop devices. Applications requiring the brake to be released on an average of more than 50% of the time or for long durations must be reviewed and approved by our Application Engineering Department.

Operation

The cross section below shows the MSB2 ***MagnaShear*** **Motor Brake** in the stopped position with the brake stack engaged. The ***MagnaShear*** **Motor Brake** will default to this position when all power is lost.

To run the Drive Motor the Brake Coil is energized, pulling the Armature Plate Assembly away from the Brake Stack which allows the splined hub and drive motor to rotate independently from the motor brake.

To stop the Drive Motor the Brake Coil is de-energized. This allows the brake springs to push the Armature Plate Assembly against the Brake Stack, clamping it and stopping the splined hub and drive motor.

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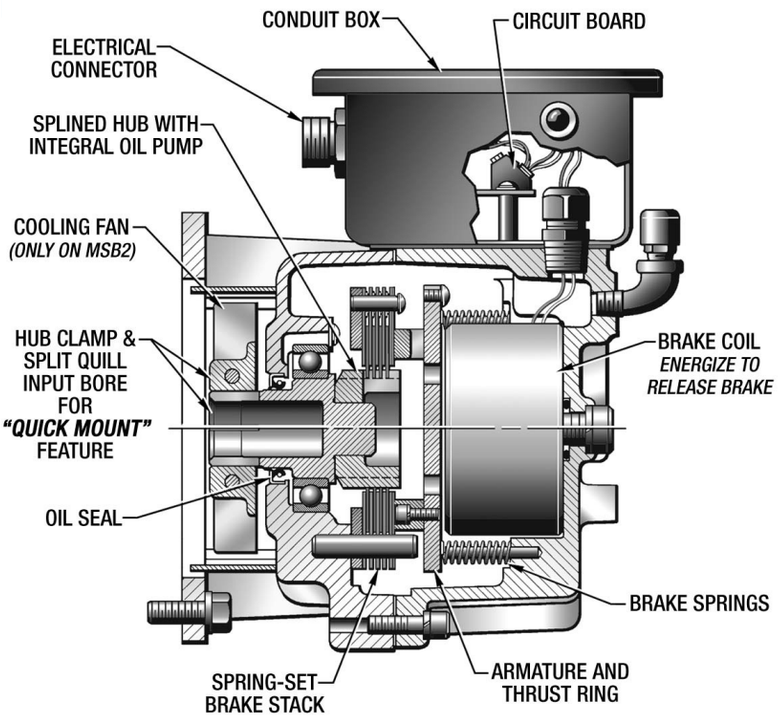
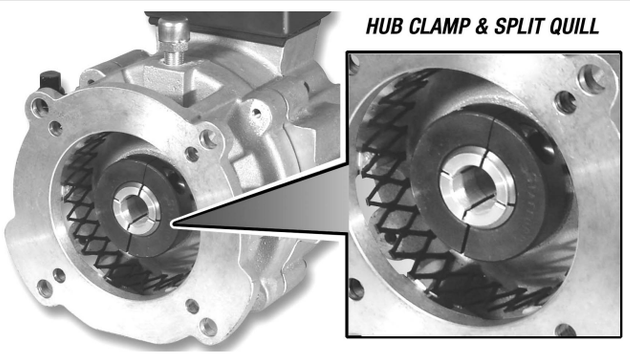
Features

- 115, 208, 230, 380, 460, 575 VAC electric actuating system.
- Oil Shear multiple-disc spring set braking.
- Spring-set Torque ratings from 6 to 1250 Ft. Lbs.
- Brake release by energizing the coil.
- Pulse Width Modulation (PWM) Control of the brake coil to minimize heat build-up.
- Smooth "cushioned" stops for reduced shock to the drive system.
- Superior heat dissipation.
- Seal integrity for harsh and washdown environments.
- Proven long-life friction material for repeatable positioning.
- The (3) smaller sizes uses a split-quill and hub clamp for quick & easy mounting to the motor face
- The (4) larger sizes have a Quick mount Bore & key shaft connection to the motor and standard mounting to NEMA motor frames or low inertia IEC frames.
- Modular design/assembly for ease of servicing and maintenance.
- Internal surge protection.
- Excellent service and engineering support.



SIMPLIFIED MOUNTING SYSTEM

The MSB2, MSB4 and the MSB6 *MagnaShear* Motor Brakes adds a new level of convenience with the mounting to the motor with the Universal Mounting Flange and Split-Quill design. The innovative Clamped-Split-Quill and a 360° Clamping Collar absolutely stops all play and movement between the Brake Hub and the Motor Shaft caused by high-torque and rapid-cycling applications.



MagnaShear Motor Brake Typical Applications

A major type of application for the ***MagnaShear*** **Motor Brakes** is one in which the motor reverses each cycle. The clutch/brake is not as practical in this case. A brake is needed to stop the motor before reversing. Also applications that operate at low cycle rates and start and stop each cycle.

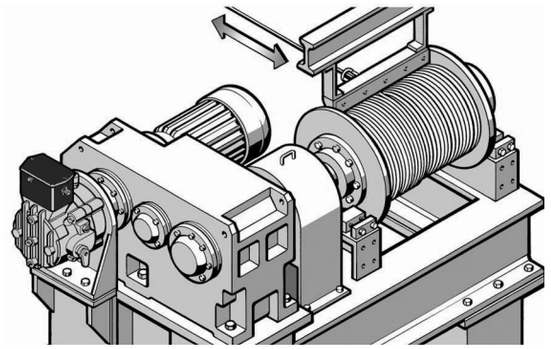
The ***MagnaShear*** **Motor Brakes** are typically used in dirty and wet environments where position is critical and productivity is a major concern. They are also used on many vertical or over hauling applications as the oil shear technology provides high heat dissipation capability. They can be sized to the correct torque independent of the motor frame size or horsepower.

The ***MagnaShear*** **Motor Brake** can be furnished three ways. (1) To fit a NEMA or IEC frame motor. (2) As a complete motor and brake assembly (EBM) (3) To mount on a machine frame or other special mounting configuration. A few typical applications are shown below.

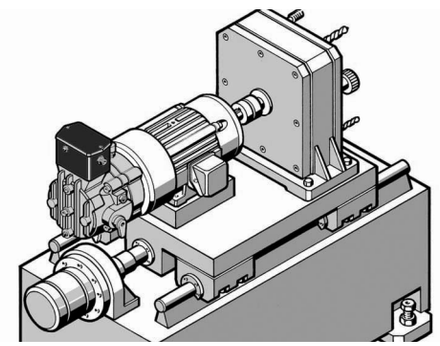
These ***MagnaShear*** **Electric** ***"Oil Shear"*** **Motor Brakes** are certified by the ***American Bureau of Shipping (ABS)*** under ABS Product Design Assessment (PDA) Certificate # 02-HS310430-PDA and Manufacturing Assessment # 02JE305084-X.

They are ideal for a wide variety of heavy-duty and high-torque applications, which are common in the Shipping Industry, such as **Winches, Windlasses, Cranes and Conveyors for Docks**

MagnaShear Electric Motor Brake

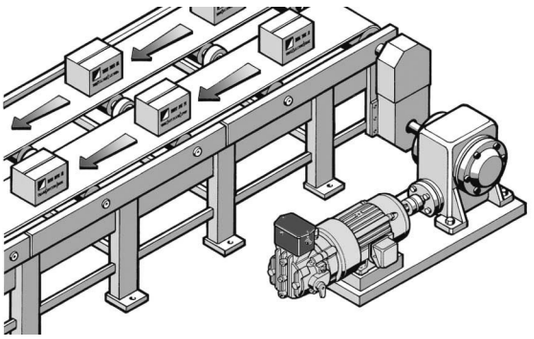


Tensioner Pulley for Coal Conveyor Belt

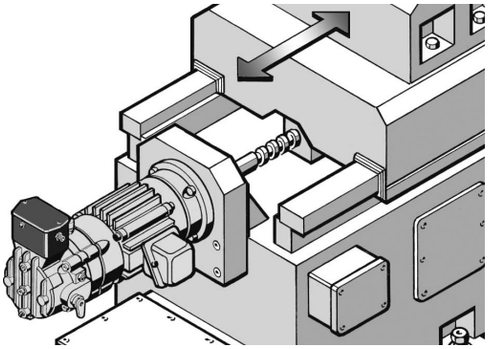


Tap Heads

MagnaShear Complete Electric Brake Motor (EBM) Assembly

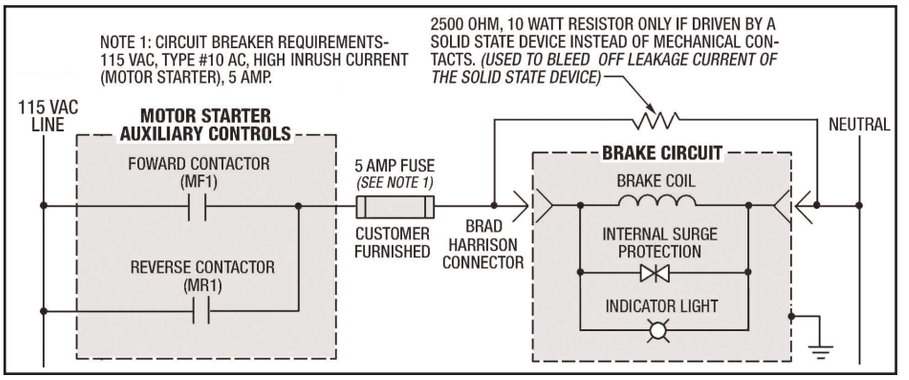


Product Conveyor



Ball Screw Drive

Economical and Reliable Electrical Design



Simple control logic uses motor starter auxiliary contactors, enabling the brake to run on the same standard 115 VAC power as the motor starter coil. Back EMF effect from the motor windings is eliminated.

FUNCTION	BRAKE COIL ENERGIZED
RELEASE	*ON*
BRAKING	*OFF*

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Step Down Transformer

All MagnaShear Brakes are designed to use 115 Volt AC input power. This typically would come from the main motor switch panel auxiliary contactor. Wiring any brake directly into the motor leads can cause problems such as premature coil failure and sluggish response due to back emf. However this is often done for convenience. To wire the MagnaShear Brake directly into the motor leads a step down transformer is required. This makes a single brake available for most standard voltages such as 230VAC 460 VAC, 575 VAC, 360VAC.

How to Order Your Step Down Transformer

Ordering System Chart

SDT – 1 – 2 – 3 – 4 – 5 – 6

Size (1)

A	= 750VA, MSB2-10
C	= 1KVA, MSB12

Voltage (2)

B	= 460VAC, 60Hz.
C	= 575VAC, 60Hz.
E	= 380VAC, 50Hz.
F	= 230VAC, 60Hz.
L	= 208VAC, 60Hz.

 # Cable Pins (3)

0	= No Cables
3	= 3-Pin Brad Harrison
5	= 5-Pin Brad Harrison
4	= 4-Pin 43650 DIN

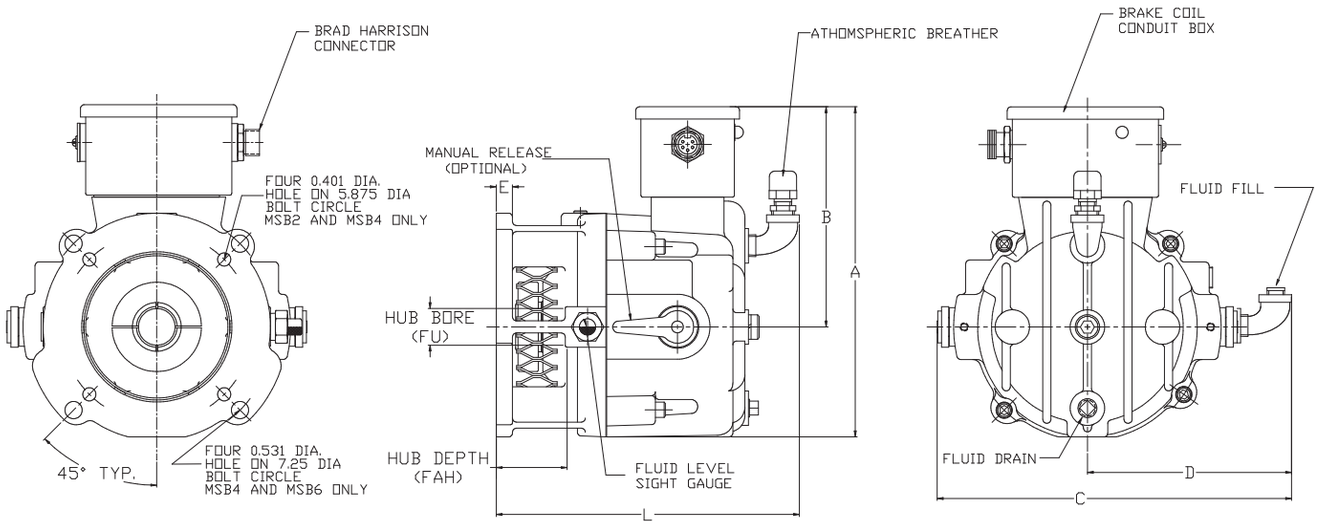
Cable Lengths (4, 5)

0 0	= No Cables
0 6	= 6 Ft.
1 2	= 12 Ft.

Package Type (6)

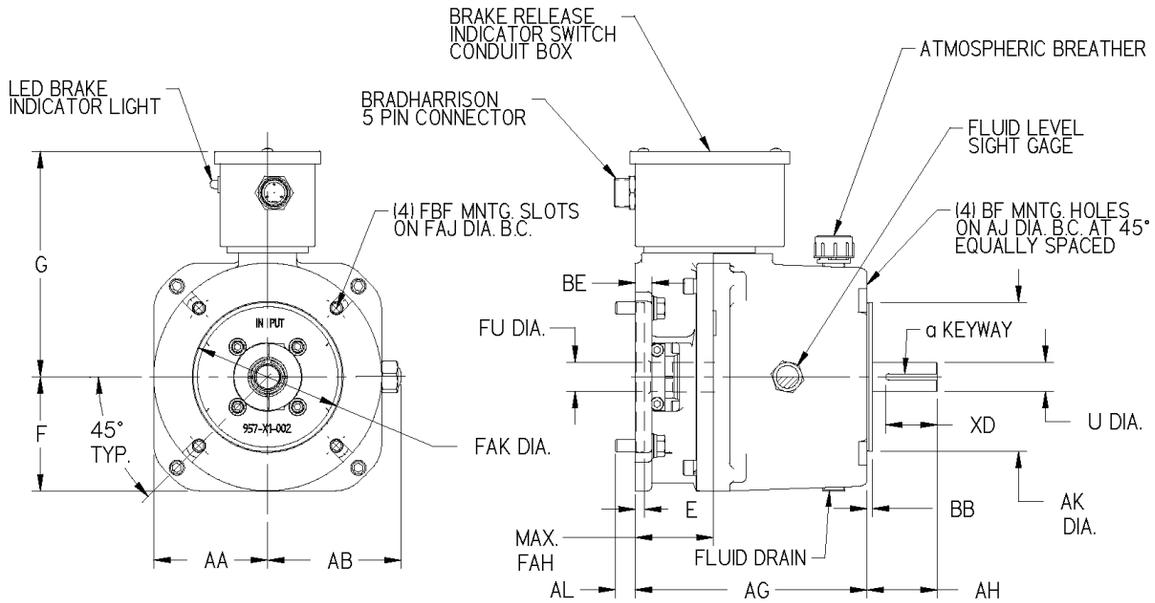
S	= Standard, NEMA 3R
W	= Washdown, NEMA 4
M	= Marine, NEMA 4X
R	= Washdown w/remote PWM; MSB2-8
T	= Washdown w/remote PWM; MSB9,10

MSB 2, MSB 4 and MSB6 Technical Specifications



BRAKE SIZE	DIMENSIONS *(Inches)*					
	A	B	C	D	E	L
MSB2	9.07	5.63	8.84	3.97	.50	7.96
MSB4	10.25	6.88	10.75	5.00	.50	9.18
MSB6	12.58	7.56	12.72	6.00	.44	11.08

MSB 2, MSB 4 and MSB6 Coupler Technical Specifications



BRAKE SIZE	DIMENSIONS *(Inches)*						
	U/FU	AK/FAK	AG	AA	AB	F	G
MSB2	.875	4.5	7.00	3.44	4.04	3.44	6.78
MSB4	Coming Soon						
MSB6	Coming Soon						

MSB 2, MSB 4 and MSB6 Technical Specifications (Continued)

BRAKE SIZE	BOLT CIRCLE *FAK* (Inches)	HUB BORE *FU* (Inches)	HUB DEPTH *FAH* (Min/Max)	STATIC TORQUE (Lb. Ft.)	DYNAMIC TORQUE (Lb. Ft.)	MAX. KE per ENGMT. (Ft. Lbs.)	INERTIA (Lb. Ft.^{2})	OIL* CAP. (Fl. Oz.)	INPUT VOLT-AGE (VAC)	INRUSH CURRENT (Amps)	INRUSH TIME (Sec.)	HOLDING CURRENT (Amps)
MSB2	5.875	.625 .875	1.00/2.19	6	5	7,975	0.011	28	115	2.5	.4	.8
				8	7							
				12	10							
MSB4	5.875 7.250	.875 1.125	1.37/2.89	14	12	22,000	0.024	40		5.5	.4	1.7
				21	18							
				33	28							
MSB6	7.250	.875 1.125 1.375 1.625	1.62/4.25	38	32	26,500	0.058	50		6	.4	1.8
				62	53							
				86	73							
				100	85							

How to Order Your MSB2, MSB4 & MSB6 Brake

Ordering System Chart

Example: *MSB-6-8-H-062-S-3-1*

MSB – 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9

Size (1)

- 2 = MSB2
- 4 = MSB4
- 6 = MSB6

Mounting Bolt Circle / Pilot (2)

- 4 = MSB2 *(5.875" Dia.)*
- 5 = MSB4 *(5.875" Dia. & 7.250" Dia.)*
- 8 = MSB6 *(7.250" Dia.)*
- C = *Coupler, MSB2 (4.5" Pilot Dia.)*
  MSB4 (8.5" Pilot Dia.)

Mounting Position (3)

- H = Horizontal
- U = Brake Up
- D = Brake Down

NOTES:
Maximum Torque of 62 lb ft with 0.625" and 0.875" shaft.

Static Torque (4, 5, 6)

Size MSB2

- 006 = 6 Ft. Lbs
- 008 = 8 Ft. Lbs.
- 012 = 12 Ft. Lbs.

Size MSB4

- 014 = 14 Ft. Lbs.
- 021 = 21 Ft. Lbs.
- 033 = 33 Ft. Lbs.

Size MSB6

- 038 = 38 Ft. Lbs.
- 062 = 62 Ft. Lbs.
- 086 = 86 Ft. Lbs.
- 100 = 100 Ft. Lbs.

Manual Release (7)

- S = Standard, None
- R = With Manual Release
  (Not Available on MSB2 or Coupler)

Bore Dia. (8)

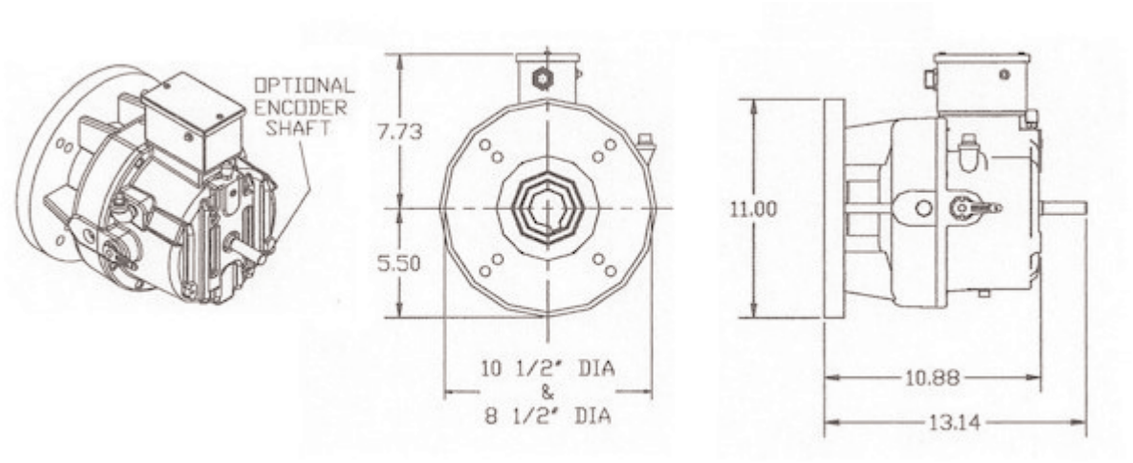
- A = .625"
- 0 = .875"
- 1 = 1.125"
- 2 = 1.250"
- 3 = 1.375"
- 5 = 1.625"
- V = .625" - .625" Coupler, MSB2
- W = .625" - .875" Coupler, MSB2
- Z = .875" - .875" Coupler, MSB2
- 1 = 1.250" - 1.250" Coupler, MSB4

Voltage (9)

- 1 = 115 VAC
- 2 = Other

Other requires Step Down Transformer - See Section 5.4

MSB7 Technical Specifications



BRAKE SIZE	PILOT DIA. *FAK* (Inches)	BORE DIA. *FU* (Inches)	BORE DEPTH *FAH* (Min/Max)	STATIC TORQUE (Lb. Ft.)	DYNAMIC TORQUE (Lb. Ft.)	MAX. KE per ENGMT. (Ft. Lbs.)	INERTIA (Lb. Ft.^{2})	OIL CAP. (Fl. Oz.)	INPUT VOLTAGE (VAC)	INRUSH CURRENT (Amps)	INRUSH TIME (Sec.)	HOLDING CURRENT (Amps)
MSB7	8.50 10.50	1.375 1.625	3.00/ 4.38	95	83	26,500	CF	CF	115	6	.4	1.8
				135	115							
				170	148							

How to Order Your MSB7 Brake

Ordering System Chart

Example: *MSB-7-Q-H-095-S-3-M*

MSB – 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9

Brake Size (1)

7 = MSB7

Pilot Diameter (FAK) (2)

Q = 8.500

R = 10.500

Mounting Position (3)

H = Horizontal, Standard

J = Horizontal, High Oil Level

Z = Horizontal, Marine Duty

Torque (4, 5, 6)

095 = 95 Ft. Lbs.

135 = 135 Ft. Lbs.

170 = 170 Ft. Lbs.

Manual Release (7)

S = Standard, None

R = Manual Release

A = Standard, None with Stub Shaft for Encoder

B = Manual Release with Stub Shaft for Encoder

Bore Dia. (8)

3 = 1.375"

5 = 1.625"

Voltage (9)

M = 115 VAC

N = Other

Other requires Step Down Transformer - See Section 5.4

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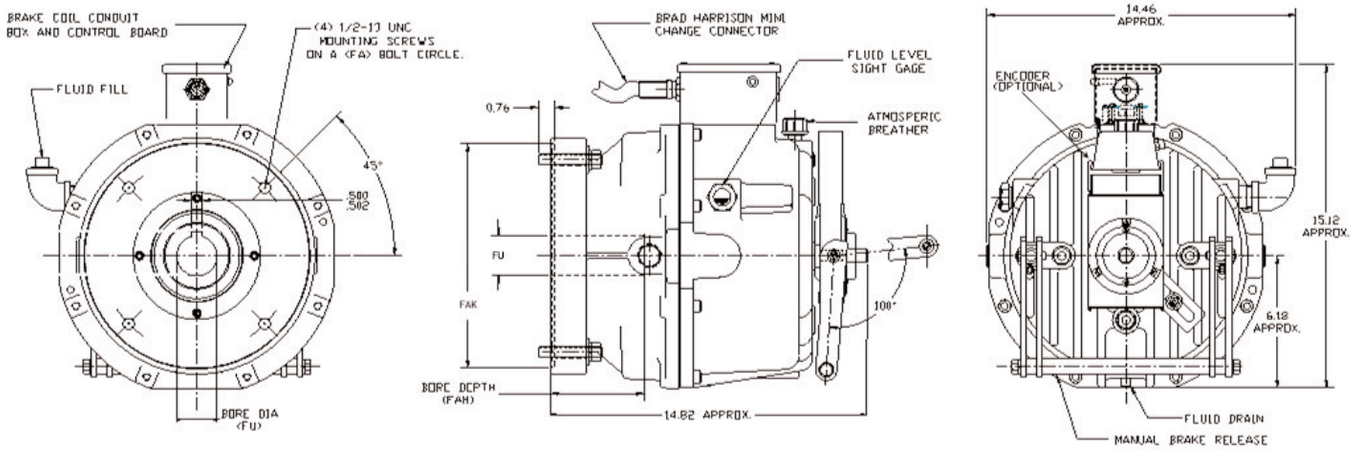
MSB8 Technical Specifications



BRAKE SIZE	PILOT DIA. *FAK* (Inches)	BORE DIA. *FU* (Inches)	BORE DEPTH *FAH* (Min/Max)	STATIC TORQUE (Lb. Ft.)	DYNAMIC TORQUE (Lb. Ft.)	MAX. KE per ENGMT. (Ft. Lbs.)	INERTIA (Lb. Ft.^{2})	OIL CAP. (Fl. Oz.)	INPUT VOLTAGE (VAC)	INRUSH CURRENT (Amps)	INRUSH TIME (Sec.)	HOLDING CURRENT (Amps)
MSB8	8.50 10.50	1.375 1.625 1.875	3.00/ 4.38	100	86	41,500	0.267	180	115	6	.4	1.8
				150	129							
				200	172							
				250	215							

How to Order Your MSB8 Brake

Ordering System Chart

Example: *MSB-8-8-H-150-S-5-1*

MSB – 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9

Brake Size (1)

8 = MSB8

Pilot Diameter (FAK) (2)

Q = 8.500

R = 10.500

Mounting Position (3)

H = Horizontal, Standard

J = Horizontal, High Oil Level

Z = Horizontal, Marine Duty

U = Vertical, Brake Up

D = Vertical, Brake Down

Manual Release (7)

R = Manual Release

B = Manual Release with Stub Shaft for Encoder

Torque (4, 5, 6)

100 = 100 Ft. Lbs.

150 = 150 Ft. Lbs.

200 = 200 Ft. Lbs.

250 = 250 Ft. Lbs.

Voltage (9)

M = 115 VAC

N = 230 VAC

Other requires Step Down Transformer - See Section 5.4

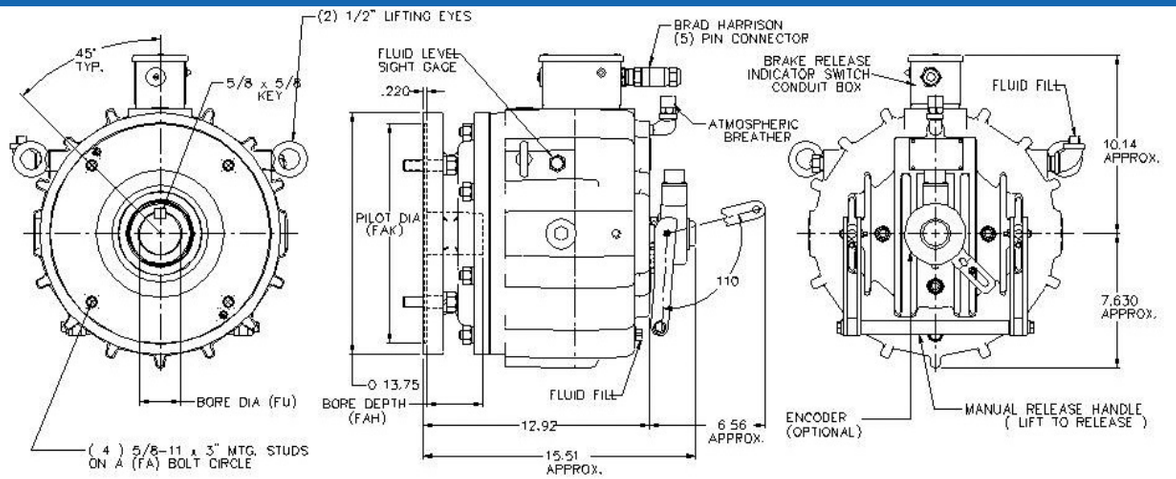
Bore Dia. (8)

3 = 1.375”

5 = 1.625”

7 = 1.875”

MSB 9 and MSB10 Technical Specifications



BRAKE SIZE	PILOT DIA. *FAK* (Inches)	BORE DIA. *FU* (Inches)	BORE DEPTH *FAH* (Min/Max)	STATIC TORQUE (Lb. Ft.)	DYNAMIC TORQUE (Lb. Ft.)	MAX. KE per ENGMT. (Ft. Lbs.)	INERTIA (Lb. Ft.^{2})	OIL CAP. (Fl. Oz.)	INPUT VOLTAGE (VAC)	INRUSH CURRENT (Amps)	INRUSH TIME (Sec.)	HOLDING CURRENT (Amps)
MSB9	10.50 12.50	1.625 1.875 2.000 2.125 2.250 2.375	2.75/ 4.62	250	215	48,000	0.962	192	115	6	1.4	1.8
				300	258							
				350	301							
				450	387							
				500	430							
MSB10	10.50 12.50			600	516	69,000	1.244	192		6	1.4	1.8
				650	559							
				750	645							
				900	774							

How to Order Your MSB9 & MSB10 Brake

MSB – 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8 – 9

Brake Size (1)

- 9 = MSB9
- A = MSB10

Pilot Diameter (FAK) (2)

- R = 10.500”
- S = 12.500”

Mounting Position (3)

- H = Horizontal, Standard
- J = Horizontal, High Oil Level
- Z = Horizontal, Marine Duty
- U = Vertical, Brake Up
- D = Vertical, Brake Down

Torque (4, 5, 6)

Size MSB9

- 250 = 250 Ft. Lbs.
- 300 = 300 Ft. Lbs.
- 350 = 350 Ft. Lbs.
- 450 = 450 Ft. Lbs.
- 500 = 500 Ft. Lbs.

Size MSB10

- 600 = 600 Ft. Lbs.
- 650 = 650 Ft. Lbs.
- 750 = 750 Ft. Lbs
- 900 = 900 Ft. Lbs

Manual Release (7)

- R = Manual Release
- B = Manual Release with Stub Shaft for Encoder

Voltage (9)

- M = 115 VAC
- N = Other

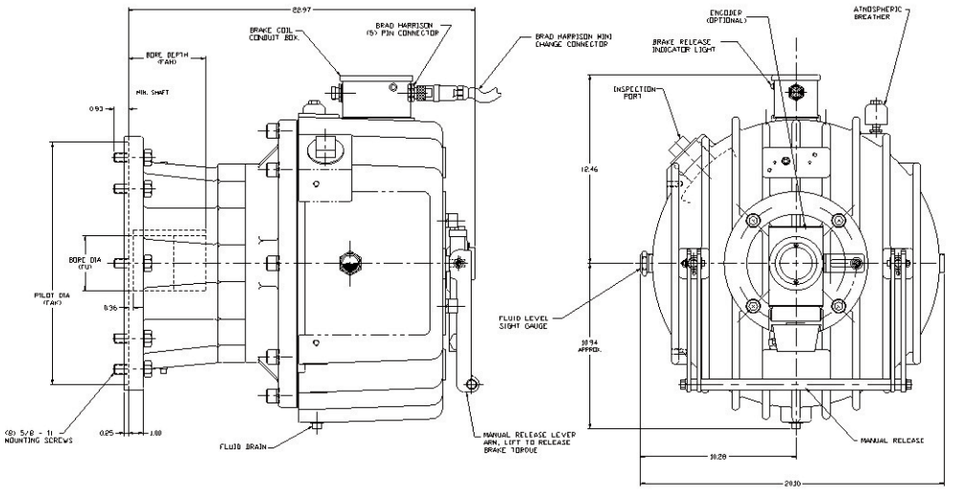
Bore Dia. (8)

- 5 = 1.625
- 7 = 1.875”
- B = 2.000”
- C = 2.125”
- D = 2.250”
- E = 2.375”

NOTES:

Maximum Torque of 350 lb ft with 1.625” shaft.; Maximum Torque of 750 lb ft with 1.875” shaft.
Other requires Step Down Transformer - See Section 5.4

MSB12 Technical Specifications



BRAKE SIZE	PILOT DIA. *FAK* (Inches)	BORE DIA. *FU* (Inches)	BORE DEPTH *FAH* (Min/Max)	STATIC TORQUE (Lb. Ft.)	DYNAMIC TORQUE (Lb. Ft.)	MAX. KE per ENGMT. (Ft. Lbs.)	INERTIA ($Lb.\ Ft.^2$)	OIL CAP. (Fl. Oz.)	INPUT VOLTAGE (VAC)	INRUSH CURRENT (Amps)	INRUSH TIME (Sec.)	HOLDING CURRENT (Amps)
MSB12	16.00	1.875 2.125 2.375 2.625 2.875 3.125 3.375 3.500 3.625	3.00/ 5.12	625	538	158,000	2.068	384	115	8	1.4	2.5
				950	817							
				1250	1075							

How to Order Your MSB12 Brake

MSB – 1 – 2 – 3 – 4 5 6 – 7 – 8 – 9

Brake Size (1)

C = MSB12

Pilot Diameter (FAK) (2)

T = 16.000”

Mounting Position (3)

H = Horizontal, Standard
J = Horizontal, High Oil Level
Z = Horizontal, Marine Duty

Torque (4, 5, 6)

625 = 625 Ft. Lbs.
950 = 950 Ft. Lbs.
125 = 1250 Ft. Lbs.

Manual Release (7)

R = Manual Release
B = Manual Release with Stub Shaft for Encoder

Voltage (9)

1 = 115 VAC
2 = Other
Other requires Step Down Transformer - See Section 5.4

Bore Dia. (8)

7 = 1.875”
C = 2.125”
E = 2.375”
G = 2.625”
J = 2.875”
K = 3.000”
N = 3.125”
P = 3.375”
Q = 3.500”
R = 3.625”

NOTES:
Maximum Torque of 625 lb ft with 1.875” shaft.
Maximum Torque of 950 lb ft with 2.125” & 2.375” shaft.

Thermal Horsepower Rating

MSB2 MagnaShear Motor Brake			
% DUTY	**CYCLE RATE** *(cpm)*	AMBIENT TEMP.	
		25° C	40° C
25%	2	0.45	0.17
	5	0.45	0.17
	10	0.44	0.16
50%	2	0.37	0.16
	5	0.36	0.15
	10	0.35	0.14
75%	2	0.28	0.13
	5	0.27	0.13
	10	0.26	0.12

MSB4 MagnaShear Motor Brake					
% DUTY	**CYCLE RATE** *(cpm)*	AMBIENT TEMPERATURE			
		TEFC Motor		TENV Motor	
		25° C	40° C	25° C	40° C
25%	2	0.43	0.28	0.41	0.27
	5	0.41	0.27	0.40	0.26
	10	0.39	0.25	0.38	0.24
50%	2	0.18	NR	0.15	NR
	5	0.17	NR	0.14	NR
	10	0.15	NR	0.12	NR
75%	2	NR	NR	NR	NR
	5	NR	NR	NR	NR
	10	NR	NR	NR	NR

MSB6 MagnaShear Motor Brake					
% DUTY	**CYCLE RATE** *(cpm)*	AMBIENT TEMPERATURE			
		TEFC Motor		TENV Motor	
		25° C	40° C	25° C	40° C
25%	2	0.18	0.12	0.14	0.09
	5	0.16	0.11	0.13	0.08
	10	0.14	0.08	0.11	0.06
50%	2	0.12	0.06	0.05	NR
	5	0.11	0.12	0.14	0.09
	10	0.09	NR	NR	NR
75%	2	0.07	NR	NR	NR
	5	0.06	NR	NR	NR
	10	NR	NR	NR	NR

MSB8 MagnaShear Motor Brake					
% DUTY	**CYCLE RATE** *(cpm)*	AMBIENT TEMPERATURE			
		TEFC Motor		TENV Motor	
		25° C	40° C	25° C	40° C
25%	2	0.43	0.28	0.41	0.27
	5	0.41	0.27	0.40	0.26
	10	0.39	0.25	0.38	0.24
50%	2	0.18	NR	0.15	NR
	5	0.17	NR	0.14	NR
	10	0.15	NR	0.12	NR
75%	2	NR	NR	NR	NR
	5	NR	NR	NR	NR
	10	NR	NR	NR	NR

NOTES:

Above ratings are based on 96° C maximum oil temperature and 1800 RPM motor.

NR - Not Recommended

% - Duty is percentage of time brake is released. *(Coil is Energized.)*

MagnaShear Electric Brake Motor (EBM)

The ***MagnaShear EBM*** consists of a motor with a ***MagnaShear Electric Motor Brake*** assembled and ready to use. The ***MagnaShear EBM*** is available in many sizes and torque ranges from 3 Ft. Lbs. up to 1250 Ft. Lbs. By ordering the ***MagnaShear EBM***, complete motor and brake assembly, installation time is reduced to mounting the motor and wiring in the electrical supply.

EBM units are pre-assembled to your specified torque ratings and configuration, filled with the proper amount of fluid and cycle tested ready for quick installation.

MagnaShear EBM Specifications

Motor HP	Motor RPM	Frame Size		Brake Size	Available Torques (Ft. Lbs)
		T	U		
1/4	1800	56	56	MSB2	6, 8, 12
1/4	1200	56	56	MSB2	6, 8, 12
1/3	1800	56	56	MSB2	6, 8, 12
1/3	1200	56	56	MSB2	6, 8, 12
1/2	1800	56	56	MSB2	6, 8, 12
1/2	1200	56	56	MSB2	6, 8, 12
3/4	1800	56	56	MSB2	6, 8, 12
3/4	1200	56	56	MSB2	6, 8, 12
1	1800	143T	184U	MSB2	6, 8, 12
1	1200	143T	184U	MSB2	6, 8, 12
1	1200	145T	184U	MSB2	6, 8, 12
1-1/2	1800	145T	184U	MSB2	6, 8, 12
1-1/2	1200	182T	184U	MSB2	6, 8, 12
2	1800	145T	184U	MSB2	6, 8, 12
2	1200	184T	213U	MSB4	14, 21, 33
3	1800	182T	213U	MSB4	14, 21, 33
3	1200	213T	215U	MSB4	14, 21, 33
5	1800	184T	215U	MSB4	14, 21, 33
5	1200	215T	254U	MSB4	14, 21, 33
7-1/2	1800	213T	254U	MSB4	14, 21, 33
7-1/2	1200	254T	256U	MSB6 | MSB7	38, 62, 86, 100 | 95, 130, 170
10	1800	215T	256U	MSB6 | MSB7	38, 62, 86, 100 | 95, 130, 170
10	1200	215T	256U	MSB6 | MSB7	38, 62, 86, 100 | 95, 130, 170
15	1800	254T	284U	MSB6 | MSB7	38, 62, 86, 100 | 95, 130, 170
15	1200	284T	324U	MSB8 | MSB7	100, 150, 200, 250 | 95, 130, 170
20	1800	256T	286U	MSB8 | MSB7	100, 150, 200, 250 | 95, 130, 170
20	1200	286T	326U	MSB8 | MSB7	100, 150, 200, 250 | 95, 130, 170
25	1800	284T	324U	MSB8 | MSB7	100, 150, 200, 250 | 95, 130, 170
25	1200	324T	364U	MSB8	100, 150, 200, 250
30	1800	286T	------	MSB8 | MSB7	100, 150, 200, 250 | 95, 130, 170
40	1800	324T	------	MSB9	250, 300, 350, 450, 500
50	1800	326T	------	MSB9	250, 300, 350, 450, 500
60	1800	364T	------	MSB9	250, 300, 350, 450, 500
75	1800	405T	------	MSB9	250, 300, 350, 450, 500
100	1800	444T	------	MSB10	600, 650, 750, 900
125	1800	445T	------	MSB10	600, 650, 750, 900
150	1800	444T	------	MSB12	625, 950, 1250
200	1800	455T	------	MSB12	625, 950, 1250