

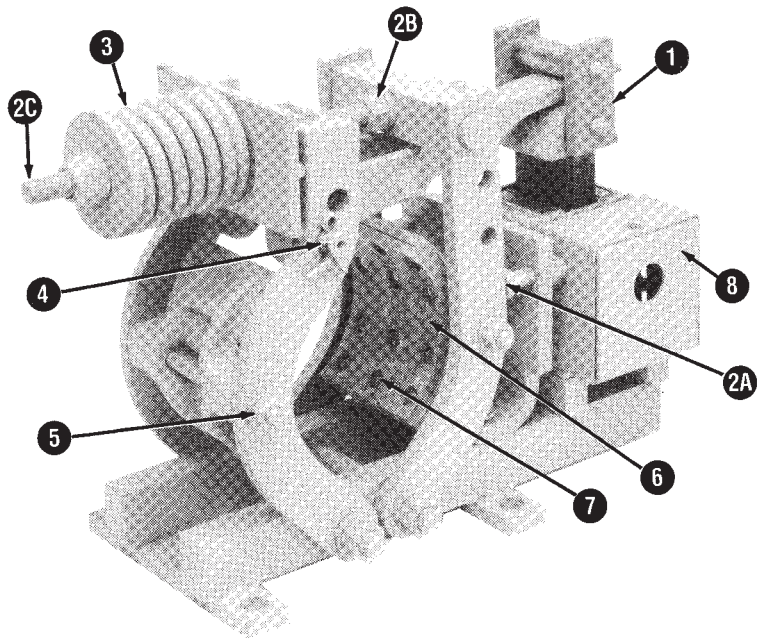


Fig. 16. IC9516 Solenoid Brake

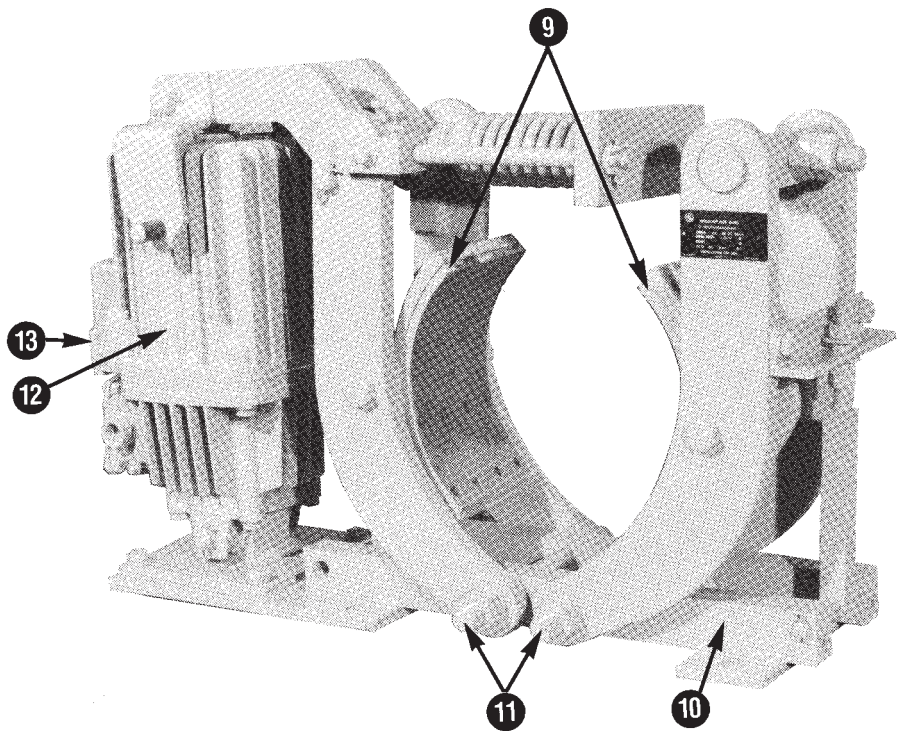


Fig. 17. IC9516 Thrustor Plus Brake

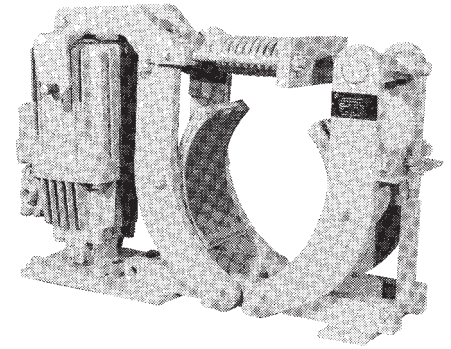
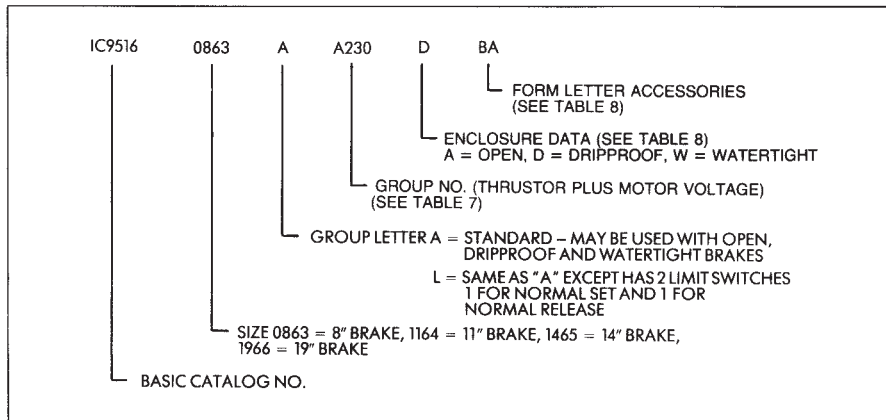


Fig. 18. IC9516 Thrustor Plus Brake

TABLE 7—IC9516 Ac Drum Brakes

Wheel Diam Inches	Torque In	Rating Lb.-Ft.	Open Brake Form** Non Corr Hdwe	Motor Voltage 3 Phase		Enclosure See Table 2 Below	Wheels	
	Cont.	60 Min.		230V	460V		Straight Bore	Tapered Bore
8	125	160	IC95160863A	A230	A460	---	See page 1-15	
11	325	400	IC95161164A	B230	B460	---		
14	600	800	IC95161465A	C230	C460	---		
19	1200	1600	IC95161966A	D230	D460	---		

** For Thrustor Plus Brakes with 2 limit switches (1 for normal set and 1 for normal release) use group "L" instead of "A".

Example IC95160863L.

* Cat number and price do not include wheel. See **HOW TO ORDER**, page 1-11.

NOTE—Thrustor Plus operating temperature range is -25°C to +50°C.

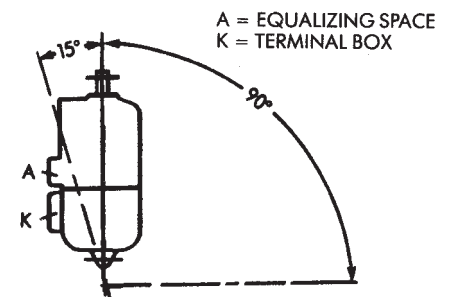


Fig. 19. Thrustors can be mounted vertically, at an angle and horizontally as shown above. Care must always be taken to ensure that the equalizing space "A" lies uppermost

TABLE 8—OPEN, DRIPPROOF ENCLOSURE OR WATERTIGHT ENCLOSURE, WITH MODIFICATIONS

Basic Cat. No.	Open No Modifications		Open w/Hand Release		Open w/Hand Release and Limit Switch		Dripproof Encl No Modifications		Dripproof Encl w/Hand Release		Dripproof Encl w/Hand Release and Limit Switch	
	Left Hand	Right Hand	Left Hand	Right Hand	Left Hand	Right Hand	Left Hand	Right Hand	Left Hand	Right Hand	Left Hand	Right Hand
0863A	AAA	AAB	ABA	ABB	ACA	ACB	DAA	DAB	DBA	DBB	DCA	DCB
1164A	AAA	AAB	ABA	ABB	ACA	ACB	DAA	DAB	DBA	DBB	DCA	DCB
1465A	AAA	AAB	ABA	ABB	ACA	ACB	DAA	DAB	DBA	DBB	DCA	DCB
1966A	AAA	AAB	ABA	ABB	ACA	ACB	DAA	DAB	DBA	DBB	DCA	DCB

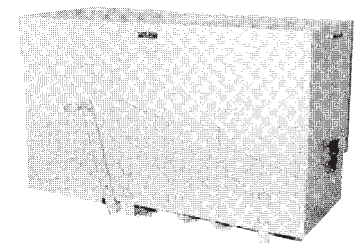


Fig. 20. IC9516 brake with GE Type 3 enclosure and optional hand release

TABLE 8A—MODIFICATIONS (cont.)

Basic Cat. No.	Watertight Encl † No Modifications	Watertight Encl † w/Hand Release	Watertight Encl † w/Hand Release and Limit Switch	Watertight Encl † and 1 Shaft Seal	Watertight Encl † w/Hand Release and 1 Shaft Seal	Watertight Encl † w/Hand Release, S Seal and Lm Sw
9516 Form	Suffix Letters	Suffix Letters	Suffix Letters	Suffix Letters	Suffix Letters	Suffix Letters
0863A	WA#	WB#	WC#	WM#	WD#	WF#
1164A	WA#	WB#	WC#	WM#	WD#	WF#
1465A	WA#	WB#	WC#	WM#	WD#	WF#
1966A	WA#	WB#	WC#	WM#	WD#	WF#

† End shield mated.

‡ Must specify left or right assembly and type of motor to be used with brake.

Third letter to be determined by GEDS.

For APPLICATION DATA, refer to page 1-12.

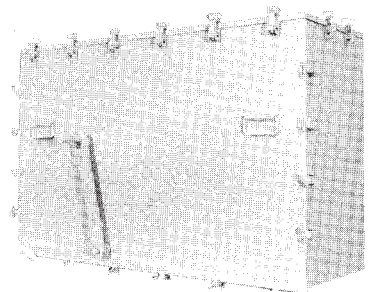


Fig. 21. IC9516 brake with GE Type 4 enclosure, and optional hand release

TABLE 9—AC SOLENOID OPERATED BRAKES

Wheel Diam in Inches	Torque Rating In Lb.-Ft.		Brake Nomenclature (IC9516 & Voltage Suffix) EXAMPLE IC9516460BB002AC015					
	Con- tinuous	60 Min.	Open Brake With Corrosion Resistant Fittings	Brake w/Type 3 Enclosure & Corrosion Resistant Fittings	Voltage Suffix			
					115V	230V	460V	575V
3 7/32 3 7/32	10 10	15 15	IC9516460BB002AA	IC9516460BB002AC	018 018	017 017	015 015	016 016
4 15/32 4 15/32	25 25	35 35	IC9516461H006AA	IC9516461H006AC	024 024	009 009	017 017	023 023
5 3/4 5 3/4	50 50	75 75	IC9516462U005AA	IC9516462U005AC	024 024	009 009	019 019	023 023
8 8	125 125	160 160	IC9516463J001AA	IC9516463J001AC	017 017	018 018	016 016	013 013
11 11	325 325	400 400	IC9516464V001AA	IC9516464V001AC	N/A N/A	017 017	015 015	014 014
14 14	600 600	600 600	IC9516465R001AA	IC9516465R001AC	N/A N/A	011 011	009 009	012 012

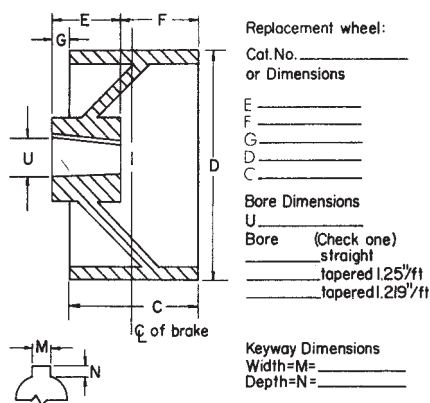


Fig. 22. If new application furnish motor outline and/or above dimensions

BRAKE SHOES AND LININGS

Brake Form	Brake shoes with Lining (Qty 2 per brake)	Lining only with Rivets (Qty 2 per brake)
IC9516-460 BB	2841029G4	NA
IC9516-461 H	2841055G4	NA
IC9516-462 U	2841048G18	NA
IC9516-463 J or 0863	2841048G6	21x465
IC9516-464 V or 1164	2841048G3	21x466
IC9516-465 R or 1465	2841066G2	21x467
IC9516-1966	2841066G1	21x468

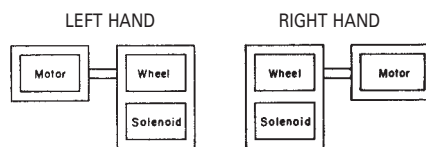


Fig. 25.

MOTOR CURRENTS			
IC9516 Form	Thruster Mechanism	Volts	Current (Amps)
0863	323A1056A230	230	0.95
	323A1056A460	460	0.49
1164	323A1056B230	230	0.94
	323A1056B460	460	0.47
1465	323A1056C230	230	2.30
	323A1056C460	460	1.40
1966	323A1056D230	230	2.60
	323A1056D460	460	1.30

Motor Voltage $\pm$ 5 Percent

Ac SOLENOID COIL BURDEN		
IC9516 Form	Inrush Volt/amp	Holding Volt/amp
460	1570	100
461	5450	390
462	5450	390
463	12600	715
464	31200	1760
465	31200	1760

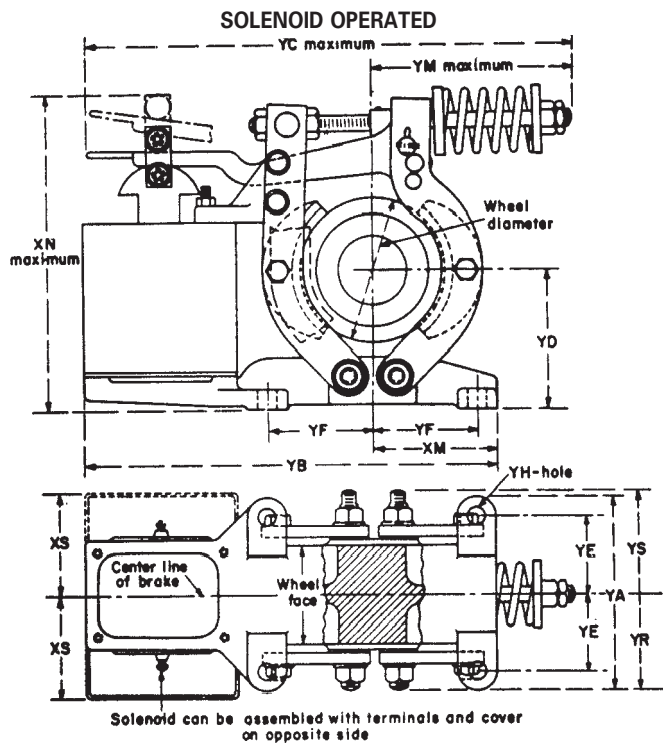


Fig. 26.

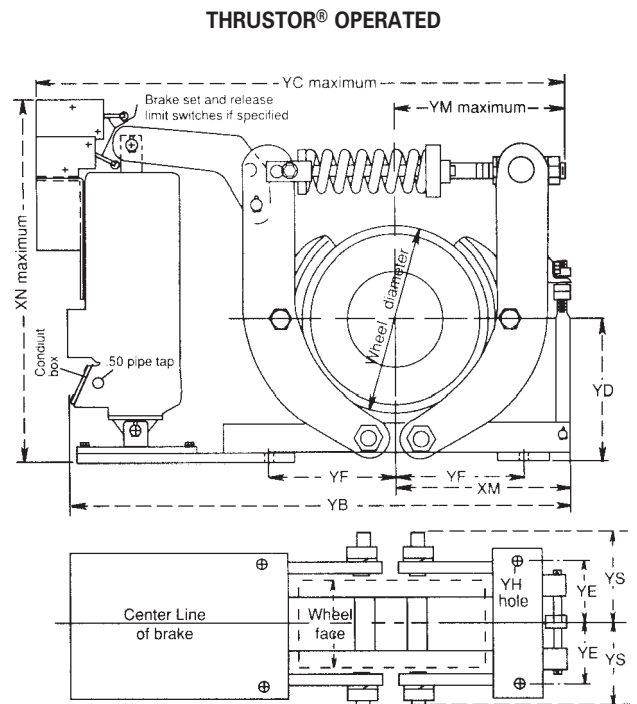


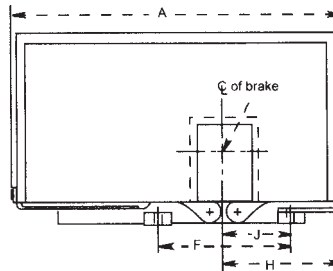
Fig. 27.

SOLENOID OPERATED

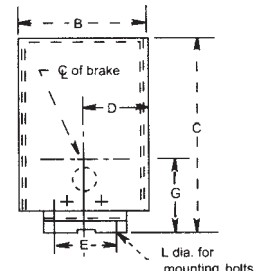
IC9516 Brake Form	Weight of Brake Incl Wheel, in Lb	Dimensions in Inches														
		Brake Wheel		XM	XN	XS	YA	YB	YC	YD	YE	YF	YH	YM	YR	YS
		Dia	Width (Face)													
161	72	4 15/32	3	3 7/8	9 11/16	4 7/16	6	13 9/16	15 13/16	4 1/4	2 3/8	3 1/4	9/16	6 1/8	3	3 5/16
460	17	3 7/32	1 3/4	2 5/8	7 5/16	2 7/8	3 1/4	9 1/8	10	3 1/8	1 1/4	2 1/4	11/32	4 1/4	1 11/16	1 13/16
461	43	4 15/32	3	3 7/8	9 11/16	3 5/32	6	12 13/16	14 1/4	4 1/4	2 3/8	3 1/4	9/16	6 7/16	2 15/16	3 5/16
462	72	5 3/4	3	4 3/4	12 3/8	3 5/32	6	16 1/2	17 1/2	5 1/4	2 3/8	4	9/16	6 15/32	3 3/16	3 5/8
463	135	8	3 1/2	6 3/8	13 1/4	3 7/8	7	21 1/4	21 5/8	6 1/8	2 5/8	5 3/4	11/16	7	3 5/8	4
464	300	11	5	8 3/8	18 3/4	4 13/16	8 3/4	28 7/16	32	8 1/4	3 1/2	7 1/2	11/16	11 3/4	4 3/8	5 1/8
465	423	14	6 1/2	10 3/4	22	5 11/16	11 1/2	33 7/16	36	10 1/2	4 1/2	9 1/2	13/16	13	5 3/4	6 9/16

THRUSTOR OPERATED

IC9516 Brake Form	Weight of Brake Incl Wheel in Lb	Dimensions in Inches												
		Brake Wheel		XM	XN	YB	YC	YD	YE	YF	YH	YM	YR	YS
		Dia	Width (Face)											
0863	101	8	3 ½	7 ⅞	15 ⅝	19	24 13⁄16	6 ⅛	2 ⅝	5 ¾	21⁄32	9 ¼	3 ⅝	4
1164	315	11	5	10 ¼	23 ⅛	29 ¼	34	8 ¼	3 ½	7 ½	21⁄32	11 ¾	4 ¾	5 ¼
1465	470	14	6 ½	12 ⅛	24 ⅝	35	38 ⅝	10 ½	4 ¼	9 ½	25⁄32	13	5 15⁄16	6 9⁄16
1966	730	19	8	14 ⅞	30	43	44 ⅞	12 ½	5 ⅜	11 ⅞	15⁄16	16	7 5⁄16	8



Side View

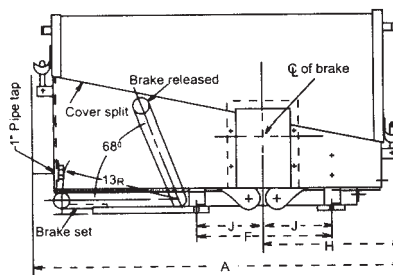


End View

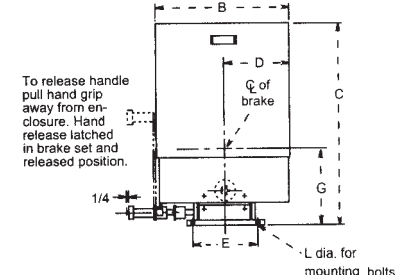
IC516 Solenoid	Drip Cover—Type 3									
	A	B	C	D	E	F	G	H	J	L
460	13.63	6.00	8.38	3.00	2.50	4.50	3.13	5.38	2.25	1 1/32
461	21.00	7.00	11.63	3.50	4.75	6.50	4.25	7.63	3.25	9/16
462	25.00	8.75	14.13	4.38	4.75	8.00	5.25	8.50	4.00	9/16
463	29.25	11.00	18.13	5.50	5.25	11.50	6.13	10.63	5.75	2 1/32
464	37.25	14.25	21.88	7.13	7.00	15.00	8.25	13.63	7.50	1 1/16
465	40.00	12.75	22.50	6.25	9.00	19.00	10.50	14.25	9.50	13/16

DRIP COVER—GE Type 3 Thruster Plus Brakes

Brakes may be furnished with limit switch for manual released or electrically operated or both when ordered.



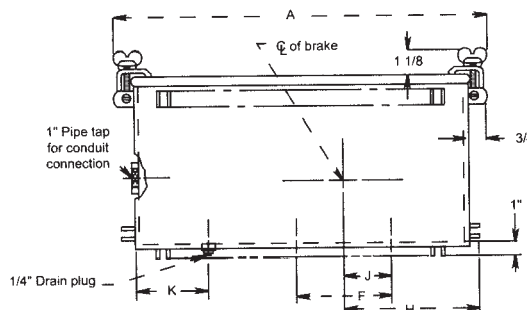
Side View



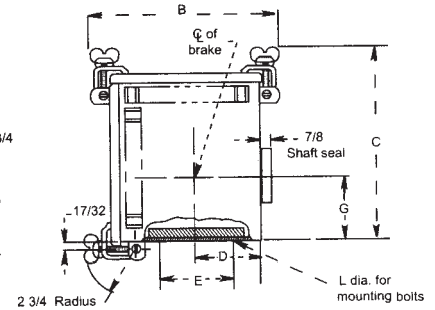
End View

IC9516 Thruster Plus	Drip Cover—Type 3									
	A	B	C	D	E	F	G	H	J	L
0863	31.25	10.75	18.13	5.38	5.25	11.50	6.13	10.63	5.75	2 1/32
1164	39.50	15.00	24.25	7.50	7.00	15.00	8.25	14.75	7.50	2 1/32
1465	45.75	16.00	28.38	8.00	9.00	19.00	10.50	16.38	9.50	25/32
1966	55.75	19.00	33.25	9.50	10.75	23.75	12.50	20.00	11.88	15/16

WATERTIGHT—GE Type 4 Thruster Plus & Dc Magnet Brakes



Side View



End View

IC9516 Thruster Plus	Watertight Enclosures—Type 4										
	A	B	C	D	E	F	G	H	J	K	L
0863	31.00	14.00	21.13	5.13	5.25	11.50	6.25	11.13	5.75	3.00	2 1/32
1164	40.00	16.00	26.13	6.88	7.00	15.00	8.38	14.13	7.50	3.00	2 1/32
1465	45.00	18.00	29.13	7.38	9.00	19.00	10.63	15.38	9.50	3.00	25/32
1966	53.00	20.00	36.13	8.88	10.75	23.75	12.63	19.13	11.88	3.00	15/16

IC9528 DC Magnet	Watertight Enclosures—Type 4										
	A	B	C	D	E	F	G	H	J	K	L
100	32.00	14.00	19.13	5.38	5.75	6.50	7.13	10.13	3.25	3.00	1 1/16
101	37.00	15.00	21.13	6.13	6.25	8.00	8.50	12.13	4.00	3.00	1 1/16
102	42.00	17.00	26.13	7.13	9.00	11.50	10.00	14.38	5.75	3.00	13/16
103	51.00	20.00	29.13	8.88	10.75	15.00	12.25	18.13	7.50	3.00	1 1/16
104	58.00	23.00	34.13	10.13	13.00	18.50	13.38	20.13	9.25	3.00	1 1/16
105	66.00	29.00	37.13	12.00	16.00	23.50	16.00	25.75	11.75	3.00	1 5/16

DIMENSIONS (For Estimating Only)

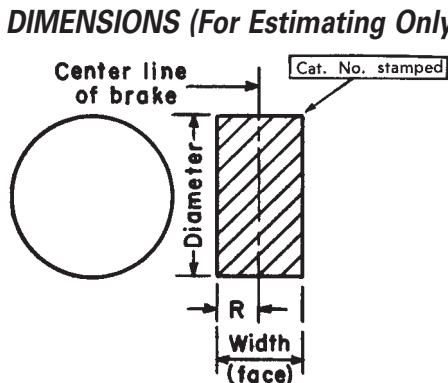


Fig. 28.

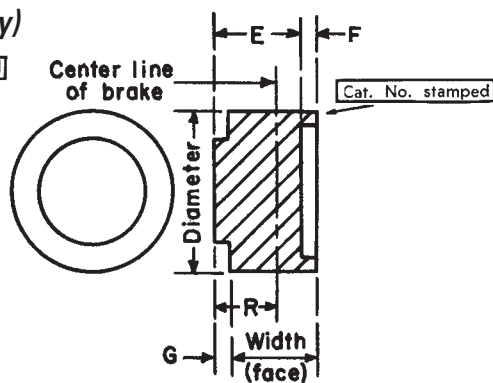


Fig. 29.

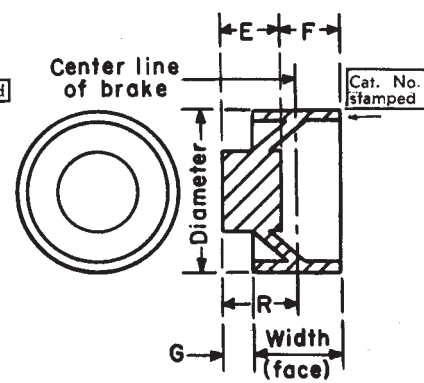


Fig. 30.

STANDARD BRAKE WHEELS WITH BLANK HUBS*

IC9516 Brake Form	Cat. No. Wheel without Bore and Keyway	Fig.	Approximate Wheel Dimensions in Inches							WK ² Lb-Ft ²	Weight in Lb
			Diameter	Width (Face)	E	F	G	R	Max Permissible Diameter of Straight Bore		
460	3860820XXPX	28	3 7/32	1 3/4	...	...	...	7/8	2	.037	3.0
161, 461	3860821XXPX	28	4 15/32	3	...	...	...	1 1/2	2 1/2	.237	10
161, 461	6960127XXPX	29	4 15/32	3	2 5/8	1	5/8	2 1/8	2	.237	10
462	3860822XXPX	29	5 3/4	3	3	3/4	3/4	2 1/4	2 1/2	.37	14
0863, 463	3860823XXPX	30	8	3 1/2	3 3/4	1/2	3/4	2 1/2	2 1/2	1.4	30
1164, 464	3860824XXPX	30	11	5	5	1 3/4	1 3/4	4 1/4	3 1/2	5.9	70
1164, 464	8077909XXPX	30	11	5	4	2 3/4	1 3/4	4 1/4	3	5.9	70
1465, 465	3860825XXPX	30	14	6 1/2	6	2	1 1/2	4 3/4	4 1/4	17.5	96
1966	3860826XXPX	30	19	8	6	4	2	6	5	62.0	220

*Blank hub brake wheels should be balanced, by customer, after boring prior to mounting on motor shaft.

NOMENCLATURE FOR BORE AND KEYWAY WHICH CAN BE FURNISHED ON ABOVE WHEELS

Add Bore Suffix to Blank Wheel Cat. No. ‡				Add Keyway Suffix to Blank Wheel Cat. No. and Bore Suffix‡					
Bore Dia. in Inchest	Suffix	Bore Dia. in Inchest	Suffix	Key Dimensions		Keyway Suffix	Keyway Dimensions		Keyway Suffix
				Width	Depth		Width	Depth	
1/2	YC	1 7/8	FF	3/16	3/32	P2	1/2	1/4	7
3/4	YG	2 1/8	HH	1/4	1/8	P3	5/8	5/16	9
7/8	YJ	2 3/8	KK	5/16	5/32	P4	3/4	3/8	10
1	YL	2 3/4	PP	3/8	3/16	P5	1	1/2	12
1 1/8	YP	3	SS						
1 1/4	YS	3 1/2	AB						
1 3/8	YV	3 3/4	AD						
1 1/2	AA	4	AF						
1 5/8	CC	4 1/4	AG						
1 3/4	EE	4 1/2	AH						

†Tolerances: Up to 3 inches (± 0.0005); 3 inches and over ($+ 0.000, -0.001$).

‡EXAMPLE: 3860820YCP2 = 3 7/32-inch wheel with 1 7/8-inch bore and 3/16 $\times$ 3/32-inch keyway.

WHEELS WITH STRAIGHT BORE AND KEYWAY

IC9516 Brake Form	Wheel Catalog Number	Fig.	Approximate Wheel Dimensions in Inches								
			Diameter	Width (Face)	E	F	G	R	Bore	Keyway	
										Width	Depth
460	8205518P12	29	3 7/32	1 3/4	1 1/2	7/8	5/8	1 1/2	3/4	3/16	3/32
460	8205518P20	29	3 7/32	1 3/4	1 3/8	7/8	1/2	1 3/8	7/8	3/16	3/32
160, 460	233B333P2	29	3 7/32	1 3/4	2	3/8	5/8	1 1/2	7/8	3/16	3/32
161, 461	8205519P16	29	4 15/32	3	2 1/4	1 1/4	1/2	2	1 1/8	1/4	1/8
161, 461	8205519P17	29	4 15/32	3	2 15/16	1/8	1/16	1 9/16	1 1/4	1/4	1/8
161, 461	8205519P29	29	4 15/32	3	2	1 1/2	1/2	2	7/8	3/16	3/32
161, 461	8205519P37	29	4 15/32	3	1 3/4	1 1/4	...	1 1/2	1 1/8	1/4	1/8
161, 461	8205519P40	29	4 15/32	3	2 1/8	7/8	...	1 1/2	1 3/8	5/16	5/32
462	394B420P10	29	5 3/4	3	2 3/4	1 3/4	1 1/2	3	1 3/8	5/16	5/32
462	394B420P11	29	5 3/4	3	2 1/2	1/2	...	1 1/2	1 5/8	3/8	3/16
0863, 463	8205520P20	29	8	3 1/2	3	1 3/4	1 1/4	3	1 5/8	3/8	3/16

IC NUMBER INDEX

IC/DS Numbers†	Description	Page	IC/DS Numbers†	Description	Page	IC/DS Numbers†	Description	Page
IC7483	Ac Rectifier Panel	1-3	IC9516463J	Ac Solenoid Brake	1-11	IC9528A103,	16" Dc Magnet Brake	1-3
IC9504	Thrustor	Refer to GE	IC9516464V	Ac Solenoid Brake	1-11	C103,D103,		
			1-11IC9516465R	Ac Solenoid Brake	1-11	E103		
IC95160863A	Ac Thrustor Plus Brake	1-10	IC9528A100,	8" Dc Magnet Brake	1-3	IC9528A104,	19" Dc Magnet Brake	1-3
IC95161164A	Ac Thrustor Plus Brake	1-10	C100,D100,			C104,D104,		
IC95161465A	Ac Thrustor Plus Brake	1-10	E100			E104		
IC95161966A	Ac Thrustor Plus Brake	1-10	IC9528A101,	10" Dc Magnet Brake	1-3	IC9528A105,	23" Dc Magnet Brake	1-3
IC9516161K	Dc Solenoid Brake	Refer to GE	C101,D101,			C105,D105,		
			E101			E105		
IC9516460BB	Ac Solenoid Brake	1-11	IC9528A102,	13" Dc Magnet Brake	1-3	IC9528A106	30" Dc Magnet Brake	1-3
IC9516461H	Ac Solenoid Brake	1-11	C102,D102,					
IC9516462U	Ac Solenoid Brake	1-11	E102					

† IC and DS numbers are synonymous.

CATALOG NUMBER INDEX

Catalog Numbers	Description	Page	Catalog Numbers	Description	Page	Catalog Numbers	Description	Page
118B8880	8" Wheel SB	1-7	171B3226	10" Wheel SB	1-7	277A8190	16" Wheel SB	1-7
118B8881	8" Wheel TB	1-7	171B3247	13" Wheel SB	1-7	277A8191	23" Wheel SB	1-7
118B8882	10" Wheel SB	1-7	171B3259	19" Wheel SB	1-7	277A8192	23" Wheel SB	1-7
118B8883	10" Wheel TB	1-7	171B3268	8" Wheel SB	1-7	284A450	Series Resistor 102 Brake	1-3
118B8884	13" Wheel SB	1-7	171B3280	13" Wheel SB	1-7	284A451	Series Resistor 102 Brake	1-3
118B8885	13" Wheel TB	1-7	171B3285	13" Wheel TB	1-7	284A456	Series Resistor 104 Brake	1-3
118B8886	16" Wheel SB	1-7	171B3288	10" Wheel SB	1-7	284A457	Series Resistor 104 Brake	1-3
118B8887	16" Wheel TB	1-7	171B3424	19" Wheel SB	1-7	284A460	Series Resistor 100 Brake	1-3
118B8888	19" Wheel SB	1-7	171B3425	23" Wheel SB	1-7	284A461	Series Resistor 100 Brake	1-3
118B8889	19" Wheel TB	1-7	171B3426	13" Wheel SB	1-7	284A464	Series Resistor 103 Brake	1-3
118B8890	23" Wheel SB	1-7	171B3447	23" Wheel TB	1-7	284A465	Series Resistor 103 Brake	1-3
118B8891	23" Wheel TB	1-7	171B3448	23" Wheel TB	1-7	284A468	Series Resistor 101 Brake	1-3
118B8902	13" Wheel TB	1-7	171B3449	19" Wheel TB	1-7	284A470	Series Resistor 101 Brake	1-3
118B8922	13" Wheel SB	1-7	171B3450	13" Wheel TB	1-7	285A791	Series Resistor 105 Brake	1-3
118B8926	13" Wheel TB	1-7	171B3451	13" Wheel TB	1-7	285A792	Series Resistor 105 Brake	1-3
119B1390	13" Wheel SB	1-7	171B3452	13" Wheel TB	1-7	305A1263	10" Wheel SB	1-7
129B5606	8" Wheel SB	1-7	171B3453	13" Wheel TB	1-7	305A1267	19" Wheel TB	1-7
129B5608	10" Wheel TB	1-7	171B3611	16" Wheel SB	1-7	323A1056	Thrustor Mechanism	1-12
129B5631	10" Wheel TB	1-7	174A6262	19" Wheel SB	1-7	3860820	3 7/32" Wheel SB	1-15
129B9459	19" Wheel SB	1-7	174A7348	19" Wheel SB	1-7	3860821	4 13/32" Wheel SB	1-15
139B7141	8" Wheel TB	1-7	174A7349	19" Wheel SB	1-7	3860822	5 3/4" Wheel SB	1-15
139B7155	16" Wheel SB	1-7	177B8721	19" Wheel TB	1-7	3860823	8" Wheel SB	1-15
139B7182	16" Wheel SB	1-7	177B8727	13" Wheel SB	1-7	3860824	11" Wheel SB	1-15
139B8184	30" Wheel TB	1-7	187B5620	19" Wheel SB	1-7	3860825	14" Wheel SB	1-15
149B2888	16" Wheel TB	1-7	233B333	3 7/32" Wheel SB	1-15	3869826	19" Wheel SB	1-15
157B2754	10" Wheel SB	1-7	273A2026	19" Wheel TB	1-7	394B420	5 3/4" Wheel SB	1-15
157B6814	23" Wheel SB	1-7	277A8176	19" Wheel SB	1-7	6960127	4 13/32" Wheel SB	1-15
157B6829	13" Wheel SB	1-7	277A8180	8" Wheel SB	1-7	8077909	11" Wheel SB	1-15
157B8694	30" Wheel SB	1-7	277A8181	8" Wheel SB	1-7	8205518	3 7/32" Wheel SB	1-15
158B2012	19" Wheel SB	1-7	277A8182	10" Wheel SB	1-7	8205519	4 13/32" Wheel SB	1-15
167A5656	10" Wheel SB	1-7	277A8183	10" Wheel SB	1-7	8205520	8" Wheel SB	1-15
167A8911	8" Wheel SB	1-7	277A8184	13" Wheel SB	1-7	96USB	Thrustor Brake	1-22
167A8980	16" Wheel SB	1-7	277A8185	13" Wheel SB	1-7	96SBM	Solenoid Brake	1-18
167A9997	16" Wheel SB	1-7	277A8188	19" Wheel SB	1-7	96USK	Solenoid Brake	1-20
168A1705	23" Wheel SB	1-7	277A8189	16" Wheel SB	1-7	96UN	Disc and Hub	1-20

Data subject to change without notice