How do you improve on a great idea? With four significant changes over the FA2A, the FA2B takes a good idea and makes it even better.

Four changes for improved performance and reliability

- ***NEW MP150*** piston motor maintains the progressive scotch yoke and adds more horsepower (16 hp). Oil free design with fewer parts and reduced vibration means easier and less frequent service. Two other piston motor options are available.
- New self-cleaning K5C2 control valve improves flow and performance. It has a primary bushing for reduced maintenance cost, more stainless steel and polymer corrosion resistant parts for smoother, more responsive control and is totally interchangeable with previous designs. 100% natural gas/sour gas compatible.
- Modified gearbox design improves efficiency and durability.
- Redesigned disc brake lowers required release pressure to 25 psig for smoother performance and no drag when air supplies are borderline.

What else is new....

- Lifting lugs
- One size fastener on the entire motor.
- Slide lift column on throttle prevents accidental movement.

Options:

- Band brakes – manual and automatic
- Drum guards
- Remote full flow and pilot controls
- Free spool clutches
- CE packages
- Grooved drums
- Divider flanges

-E = Compliance with the European Machinery Directive. Includes as standard on utility rated winches:

1 Main air supply shutoff
2 Overload device
3 Drum guard
4 Muffler
5 CE documentation

FA2B-SXK1R

- Tensioning manifolds
- Natural gas compatible; Option ***R***
- HU40A (11 hp) or AMP94A (9.4 hp) motor/valve combinations
- Construction cages and open frame configurations
- Material Traceability and Type Approval Certification
- Low temperature versions
- FE2B electric and FH2B hydraulic units

Why the FA2B is such good value...

- Corrosion resistant marine grade coating system: Sandblast to white metal finish and carbozinc primer with a Marine 812 finish.
- Meets ANSI / ASME B30.16, B30.7 and has been design reviewed and approved by Det Norske Veritas. Meets European CE standards.
- Internal disc brake is oil cooled. They run and last longer. Band brakes use the latest Scanpac brake material.
- Wedge type, self tightening rope anchor provides 80% of rope breaking strength
- It is designed and built to survive some of the harshest conditions on the planet — the offshore drilling environment.

Specifications: performance is based on 90 psi (6.3 bar) air inlet pressure with motor running

Model number	Lift rating (1) per ANSI / ASME B30.16 at 5:1 first		mid		top		Pull rating (1) ANSI / ASME B30.7 at 3.5:1 first		mid		top		Stall lbs	Stall kg	Average air cons	Recom. Ingersoll Comp.	Mtr hp	Pipe size NPT in.	Rec'd rope size in. (1)
FA2B Air Powered																			
Capacity lbs (kg)	5000	(2268)	4000	(1818)	3200	(1451)	5000	(2313)	4000	(1818)	3200	(1451)	6800	3084	350	P185-P375	16	1 ¼	½
Speed fpm (mpm)	79	(24)	96	(29)	122	(37)	79	(24)	96	(29)	122	(37)							
HU40A Air Powered																			
Capacity lbs (kg)	5000	(2273)	4000	(1818)	3260	(1482)	7140	(3245)	5700	(2585)	4600	(2091)	11600	5273	270	P185-P375	11	1	½
Speed fpm (mpm)	54	(16.4)	70	(21.3)	86	(26.2)	40	(12)	49	(14.9)	60	(18.3)							
AM94A Air Powered																			
Capacity lbs (kg)	5000	(2273)	4000	(1818)	3260	(1482)	5000	(2273)	4000	(1818)	3260	(1482)	5500	2500	320	P185-P250	9.4	1	½
Speed fpm (mpm)	36	(10.0)	46	(14.0)	56	(17.1)	15	(4.6)	19	(5.8)	24	(7.3)							
FH2B Hydraulic Powered (2)																			
Capacity lbs (kg)	5000	(2273)	4000	(1818)	3260	(1482)	7140	(3245)	5700	(2585)	4600	(2091)	9560	4345	gpm (3)	psig (4)	17	(7)	½
Speed fpm (mpm)	93	(28.3)	112	(34.1)	138	(42.1)	93	(28.3)	112	(34.1)	138	(42.1)							
FE2B Electric Powered																			
Capacity lbs (kg)	5000	(2273)	4000	(1818)	3260	(1482)	5000	(2273)	4000	(1818)	3260	(1482)	11000	5000	amps (5)	amps (6)	15	NA	½
Speed fpm (mpm)	77	(23.5)	100	(30.5)	123	(37.5)	77	(23.5)	100	(30.5)	123	(37.5)							

(1) IR rates to both ANSI / ASME B30.16 (overhead hoists) and ANSI / ASME B30.7 (base mounted drum hoists). Always refer to these (or applicable) standards for details. We recommend ½ inch (13 mm) dia. 6 x 19 Extra Improved Plow Steel IWRC wire rope.

(2) Hydraulic winch performance is directly proportional to pressure and flow. An increase/decrease in pressure (psig) and flow (gpm) results in an increase/decrease in capacity and speed. FH2B performance has been set within ANSI / ASME B30.16/B30.7 design criteria. This rating may be different from other hydraulic winch manufacturers. Please contact technical sales with application/performance requirements.

(3) Flow (25 gpm).

(4) Pressure (psig), 1850 lifting, 2350 pulling.

(5) Full load current, 19 amps @ 460V.

(6) Max current draw (locked rotor), 110 amps @ 460V.

(7) SAE-12 JIC

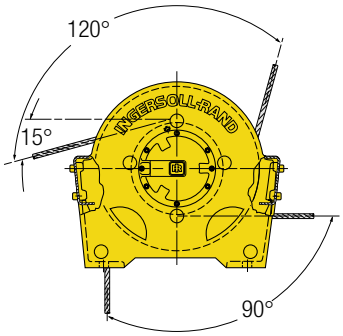
Rope storage capacities (1) (all versions)

Drum capacities represent tightly spooled wire rope. Recommended drum working capacity is 80% of values shown.

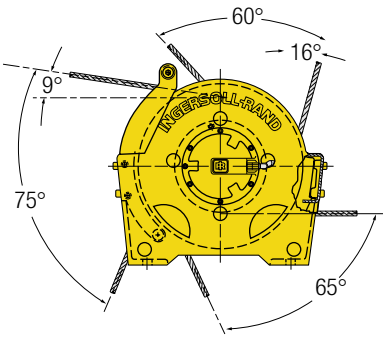
Drum length		*Full drum less ½" (13 mm)* (2) Wire rope diameter								*Full drum storage* Wire rope diameter							
		⅜" (10 mm)		7/16" (11 mm)		½" (13 mm)		⅝" (16 mm)		⅜" (10 mm)		7/16" (11 mm)		½" (13 mm)		⅝" (16 mm)	
in.	mm	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m	ft	m
7	178	519	158	396	120	300	91	164	50	593	180	460	140	356	108	206	62
13 ½	343	1029	314	788	240	600	183	330	100	1176	358	915	279	712	217	416	126
20	508	1538	468	1180	360	900	274	497	151	1758	535	1371	417	1068	325	625	190
24	610	1852	564	1421	433	1085	331	600	183	2116	645	1651	503	1287	392	754	230

(1) For allowable rope takeoff angles. See illustrations below.
(2) Per ANSI / ASME B30.7

Typical allowable wire rope takeoff angle: Shaded areas represent the allowable angle of rope takeoff without interference with the winch's structural supports.



Standard Configuraton

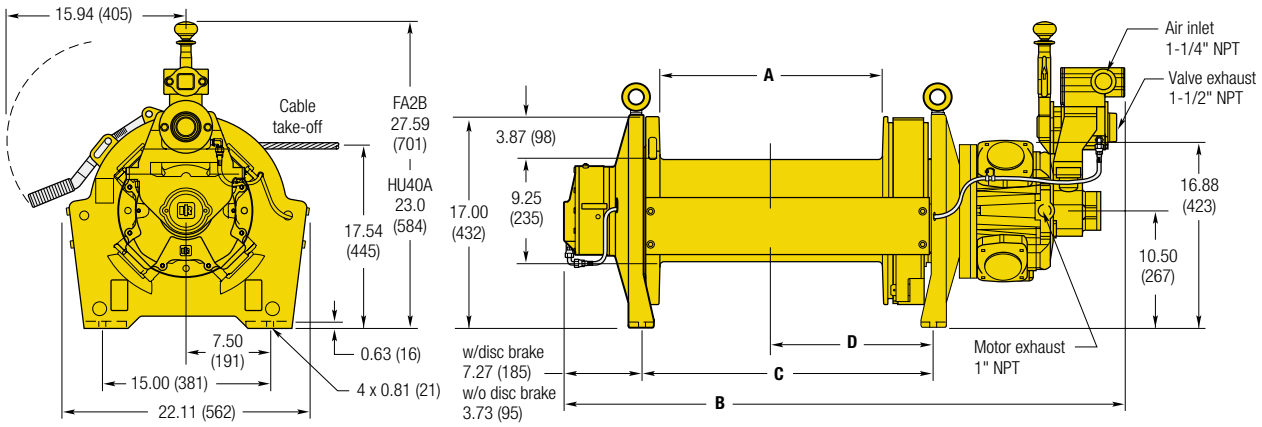


Open Front Configuraton (Option H)

Dimensions

Model number	Type of drum brk.	Auto disc brk.	A		FA2B only B		HU40A only B		C		D	
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
FA2B- / HU40A- SXK1	None	Yes	7.0	178	34.7	881	33.8	859	9.6	244	4.8	122
FA2B- / HU40A- MXK1	None	Yes	13.5	343	41.2	1046	40.3	1024	16.1	409	8.0	203
FA2B- / HU40A- LXK1	None	Yes	20.0	508	47.7	1212	46.8	1189	22.6	574	11.3	287
FA2B- / HU40A- RXK1	None	Yes	24.0	610	51.7	1313	50.8	1290	26.6	676	13.3	338
FA2B- / HU40A- SMK1 (SAK1)	Manual (automatic)	Yes	7.0	178	37.4	950	36.5	927	12.3	312	7.5	191
FA2B- / HU40A- MMK1 (MAK1)	Manual (automatic)	Yes	13.5	343	43.9	1115	43.0	1092	18.8	478	10.8	274
FA2B- / HU40A- LMK1 (LAK1)	Manual (automatic)	Yes	20.0	508	50.4	1280	59.5	1257	25.3	643	14.0	356
FA2B- / HU40A- RMK1 (RAK1)	Manual (automatic)	Yes	24.0	610	54.4	1382	53.5	1359	29.3	744	16.0	406
FA2B- / HU40A- SMX1 (SAX1)	Manual (automatic)	No	7.0	178	34.1	866	33.2	843	12.3	312	7.5	191
FA2B- / HU40A- MMX1 (MAX1)	Manual (automatic)	No	13.5	343	40.6	1031	39.7	1008	18.8	478	10.8	274
FA2B- / HU40A- LMX1 (LAX1)	Manual (automatic)	No	20.0	508	47.1	1196	46.2	1173	25.3	643	14.0	356
FA2B- / HU40A- RMX1 (RAX1)	Manual (automatic)	No	24.0	610	51.1	1298	50.2	1275	29.3	744	16.0	406

FA2B / HU40A in inches (mm)



Dimensions are subject to change. Contact factory for certified prints

How to Order:

Specify by complete model code as illustrated. **Example:** ***FA2B-LXK1G*** = 4000 lb (1818 kg) capacity, long drum, auto disc brake, winch mounted lever control, and drum guard.

Series	*Capacity*	*Generation*	-	*Drum length*	*Drum brake*	*Disc brake*	*Control*	*Options*
FA	***2***	***B***	-	***L***	***X***	***K***	***1***	***G***
	2 = 2 ton (4000 lbs)	***B*** = Third generation		S = Short M = Medium ***L*** = Long R = Extra long Note: See drum length matrix below	A = Auto drum brake M = Manual drum brake ***X*** = No drum brake	X = No auto disc brake ***K*** = Auto disc brake	***1*** = Standard winch mounted throttle 2XX = Remote full flow lever throttle (max 20 ft/6 m) 3XX = Remote pilot pendent throttle (std = 6 ft/1.8 m; max 66 ft/20 m) (1) 4XX = Remote pilot lever throttle (max 66 ft/20 m) (1) 5XX = Remote electric over air throttle XX = Specify hose length or pendent cord in feet	7 = Drum grooving (specify rope size in sixteenths, e.g. 7 = 7/16") B = Press roller (specify takeoff angles) C = Low temperature; please specify in text: -10° C or -20° C D = Drum divider flange and additional cable anchor E = Construction cage F = Free spool clutch (2) ***G*** = Drum guard H = Open frame for horizontal pulling M1 = Per DIN 50049/En10204 Para 2.2 "Typicals" (3) M2 = Per DIN 50049/En10204 Para 3.1b actual per product as purchased (3) M3 = Per DIN 50049/En10204 Para 3.1b actual per product as delivered in final condition (3) N = Type approval; please specify in text DNV, ABS or Lloyds P = Marine 812 finish Q = Special paint; please specify R = Suitable for operation with natural gas with up to 4 percent sulphur content T = Tension manifold U = Underwound (available only with auto disc brake ***XK***) W = Witness; please specify X = Testing; please specify Z = Sandblast and carbozinc primer only -E = Compliance w/European Machinery Directive

FA = Air powered
HU40A*
AMP94A*
* = Substitute for FA2B
FE = Electric powered
FH = Hydraulic powered

(1) With remote pilot control option, line speeds will decrease.
(2) Only available with manual drum brake.
(3) Documentation, witness testing and material traceability available; must be requested at time of order. Specify options or contact factory or your nearest Ingersoll-Rand distributor for information.
M1 Material traceability certificates according to EN 10204 (Ex DIN 50049) 2.2 on load bearing parts. This conformity document affirms (by the manufacturer) that parts are in compliance with the requirements of the order based on non-specific inspection and testing (i.e. results are typical material properties for these parts.)
M2 Material traceability certificates according to EN 10204 (Ex DIN 50049) 3.1b on load bearing parts. These documents affirm (by a department independent of the manufacturing department) that the actual parts used in the product are in compliance with the order based on specific inspection and testing (i.e. results are actual material properties for those parts.)
M3 Material traceability certificates according to EN 10204 (Ex DIN 50049) 3.1b on load bearing parts. These documents affirm (by a department independent of the manufacturing department) that the actual parts used in the product are in compliance with the order based on specific inspection and testing (i.e. results are actual material properties for those parts in a finished, as delivered condition.)

"Third Generation" Air Winch Series

FA2.5A/FA5A: 5000 to 10000 lb (2273 to 4545 kg) capacity

The Third Generation Force 5 Series is designed for world-wide standards, meeting or exceeding North American ANSI / ASME B30.7 winch standards, CE requirements for Europe and third party Type Approval. The Third Generation offers standard features with reduced maintenance for safety, durability, reliability, enhanced control, and superior performance.

Standard features:

- Automatic disc brake or manual band brake
- Corrosion resistant, marine duty "Blue" fasteners
- New self-cleaning K5C2 control valve improves flow and performance, has more stainless steel and polymer corrosion resistant parts, and is totally interchangeable with previous designs. 100% natural gas/sour gas compatible.
- Easy to install wedge type self-tightening rope anchor
- Powerful 5 piston air motor.

Safety is Built In:

- Meets ASME B30.7 safety standards
- "Lift and shift" throttle lever prevents accidental throttle movement
- Throttle lever returns to OFF position and locks when released
- Disc brake is fully automatic and self-adjusting
- Wedge type, self tightening-rope anchor provides 80% of rope breaking strength

Reliability

- Maximum external corrosion protection against marine and other environments is provided as standard.
- Automatic oil bath disc brake has high thermal duty. Suitable for demanding applications.
- Marine grade alloys and stainless steel components make the valve chest corrosion resistant and maintenance free.

Performance

- Superior load spotting control
- Positive braking action with automatic disc brake

FA5A-LXK1

Construction

- Designed to meet the space and performance requirements of the Classic winches

Options

- Corrosion resistant marine grade coating system: Sandblast to white metal finish and carbozinc primer with a Marine 812 finsih
- Band brakes – manual and automatic
- Remote controls
- Construction cages
- Open frame configurations
- Foot print base with K6U and K6UL bolt pattern for FA5A
- Free spool clutch
- Tensioning manifold
- Drum guard
- Underwound configuration
- CE package

-E = Compliance with the European Machinery Directive. Includes as standard on utility rated winches:

1 Main air supply shutoff
2 Overload device
3 Drum guard
4 Muffler
5 CE documentation

*Specifications**

Description	FA2.5A		FA5A	
Rated mid layer line pull, 5:1 DF	5000 lbs	2273 kg	10000 lbs	4545 kg
Rated mid layer line speed	114 fpm	35 m/min	32 fpm	10 m/min
Top (6th) layer line pull, 5:1 DF	4100 lbs	1860 kg	8000 lbs	3629 kg
Top (6th) layer line speed	141 fpm	43 m/min	43 fpm	13 m/min
Max. stall at first layer	10400 lbs	4727 kg	17000 lbs	7727 kg
Drum root diameter	9.25 in.	235 mm	12.75 in.	324 mm
Motor horsepower	25 hp		25 hp	
Avg air consumption	700 scfm	20 m^3/min	700 scfm	20 m^3/min
Air inlet, NPT size	1 1/4 in.	32 mm	1 1/4 in.	32 mm
Recommended rope diameter	5/8 in.	16 mm	3/4 in.	19 mm
Weight	818 lbs	372 kg	1251 lbs	569 kg

* Performance is based on 90 psi (6.3 bar) air inlet pressure with the motor running.

Wire rope storage capacity

		Length of drum in. (mm)							
		S		M		L		R	
Rope dia		7 (178)		13½ (343)		20 (508)		24 (610)	
in.	mm	ft	m	ft	m	ft	m	ft	m
FA2.5A full drum storage									
3/8	9	593	181	1176	359	1758	536	2116	645
7/16	11	460	140	915	279	1371	418	1651	503
1/2	13	356	109	712	217	1068	326	1287	392
5/8	16	206	63	416	127	625	191	754	230
		Short drum				Long drum			
		12 (305) (1)		15 (381) (2)		24 (610) (1)		27 (686) (2)	
FA5A full drum storage									
5/8	16	777	236	982	299	1597	486	1802	549
3/4	19	581	177	736	224	1200	366	1355	413

(1) With band brake
(2) Without band brake
Recommended drum working capacity is 80% of values shown.

Dimensions: FA2.5A

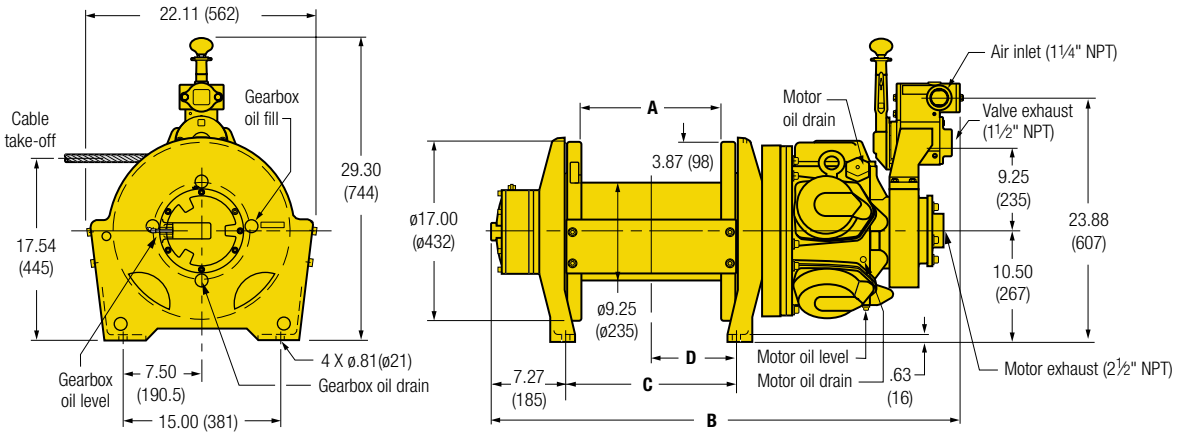
Model	Drum length A		w/disc brake only B		C		D		w/manual drum brake only B		C		D		w/manual and disc brake B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
FA2.5A-S	7	178	38.44	976	9.55	243	4.78	121	37.64	956	12.31	313	7.5	191	41.19	1046	12.31	313	7.5	191
FA2.5A-M	13.5	343	44.94	1141	16.05	408	8.03	204	44.14	1121	18.81	478	10.8	274	47.69	1211	18.81	478	10.8	274
FA2.5A-L	20	508	51.44	1306	22.55	573	11.28	286	50.64	1286	25.31	643	14	356	54.19	1376	25.31	643	14	356
FA2.5A-R	24	610	55.44	1408	26.55	674	13.28	337	54.64	1388	29.31	744	16	406	58.19	1478	29.31	744	16	406

Dimensions: FA5A

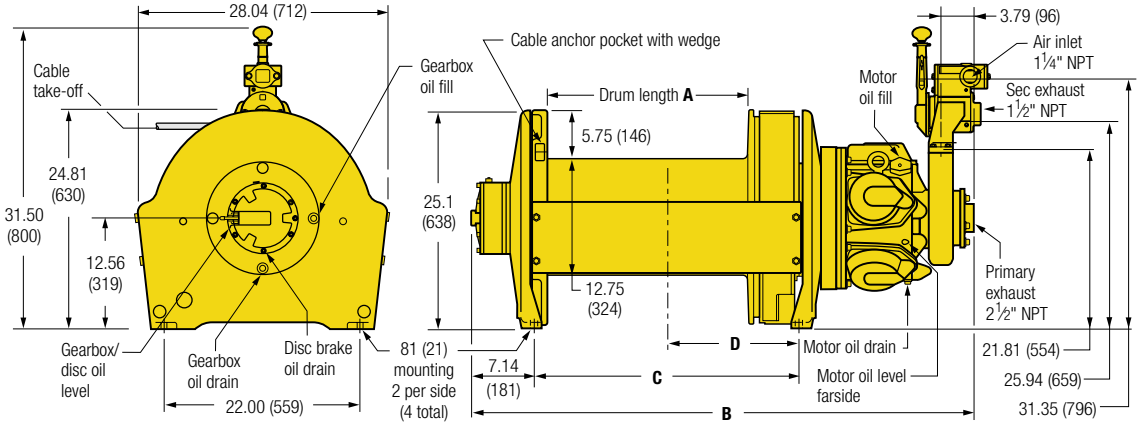
FA5A-SX	15	381	46.50	1181	17.89	454	8.94	227	43	1092	17.89	454	10.5	266	46.5	1181	17.89	454	10.5	266
FA5A-LX	27	686	58.50	1486	29.89	759	14.94	379	55	1397	29.89	759	16.5	419	58.5	1486	29.89	759	16.5	419

Note: Drum lengths for the FA5A-SM = 12 in. (305), and FA5A-LM = 24 in. (610 mm).

FA2.5A in inches (mm)



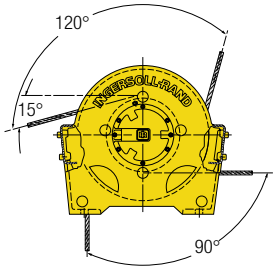
FA5A in inches (mm)



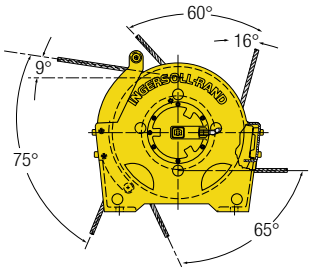
Dimensions are subject to change. Contact factory for certified prints

Typical allowable wire rope takeoff angle: Shaded areas represent allowable angle of rope takeoff without interference with winch structural supports.

for FA2.5A

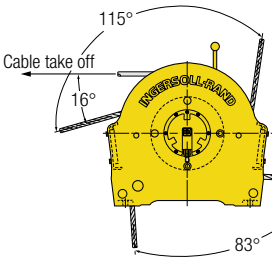


Standard Configuraton

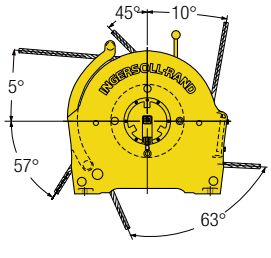


Open Front Configuraton (Option H)

for FA5A



Standard Configuraton



Open Front Configuraton (Option H)

How to Order:

Specify winch by complete model code as shown.
Example: ***FA5A-LXK1G*** = 10000 lb (4545 kg) capacity, 27" (686 mm) drum, auto disc brake, throttle-control and drum guard.

Series	Capacity	Generation	-	Drum length	Drum brake	Disc brake	Control	Options
FA	***5***	***A***	-	***L***	***X***	***K***	***1***	***G***

Series

FA = Air powered

Capacity

2.5 = 2.5 ton (5000 lbs)
5 = 5 ton (10000 lbs)

Generation

A = Third generation

Drum length

S = Short
M = Medium
L = Long
R = Extra long
Note: See drum length matrix below

FA2.5A Drum length				
Length of drum	**Drum brake**			
	without		**with**	
	in.	**mm**	**in.**	**mm**
S	7	178	7	178
M	13 ½	343	13 ½	343
L	20	508	20	508
R	24	610	24	610
FA5A Drum length				
S	15	381	12	305
L	27	686	24	610

Drum brake

A = Auto drum brake
M = Manual drum brake
X = No drum brake

Disc brake

X = No auto disc brake
K = Auto disc brake

Control

1 = Standard winch mounted throttle
2XX = Remote full flow lever throttle (max 20 ft/6 m)
3XX = Remote pilot pendent throttle (std = 6 ft/1.8 m; max 66 ft/20 m) (1)
4XX = Remote pilot lever throttle (max 66 ft/20 m) (1)
5XX = Remote electric over air throttle
XX = Specify hose length or pendent cord in feet

Options

7 = Drum grooving (specify rope size in sixteenths, e.g. 7 = 7/16")
C = Low temperature; please specify in text: -10° C or -20° C
D = Drum divider flange and additional cable anchor
E = Construction cage
F = Free spool clutch (2)
G = Drum guard
H = Open frame for horizontal pulling
K = K6 footprint base for FA5A
M1 = Per DIN 50049/En10204 Para 2.2 "Typicals" (3)
M2 = Per DIN 50049/En10204 Para 3.1b actual per product as purchased (3)
M3 = Per DIN 50049/En10204 Para 3.1b actual per product as delivered in final condition (3)
N = Type approval; please specify in text DNV, ABS or Lloyds
P = Marine 812 finish
Q = Special paint; please specify
T = Tension manifold
U = Underwound (available only with auto disc brake ***XK***)
V = Press roller (specify takeoff angles)
W = Witness; please specify
X = Testing; please specify
Z = Sandblast and carbozinc primer only
-E = Compliance with the European Machinery Directive

(1) With remote pilot control option, line speeds will decrease.
(2) Only available with manual drum brake.
(3) Documentation, witness testing and material traceability available; must be requested at time of order. Specify options or contact factory or your nearest Ingersoll-Rand distributor for information.
M1 Material traceability certificates according to EN 10204 (Ex DIN 50049) 2.2 on load bearing parts. This conformity document affirms (by the manufacturer) that parts are in compliance with the requirements of the order based on non-specific inspection and testing (i.e. results are typical material properties for these parts.)
M2 Material traceability certificates according to EN 10204 (Ex DIN 50049) 3.1b on load bearing parts. These documents affirm (by a department independent of the manufacturing department) that the actual parts used in the product are in compliance with the order based on specific inspection and testing (i.e. results are actual material properties for those parts.)
M3 Material traceability certificates according to EN 10204 (Ex DIN 50049) 3.1b on load bearing parts. These documents affirm (by a department independent of the manufacturing department) that the actual parts used in the product are in compliance with the order based on specific inspection and testing (i.e. results are actual material properties for those parts in a finished, as delivered condition.)