



WASHINGTON CHAIN RELEASE HOOKS



RELEASE HOOKS FROM

Our patented release hooks provide a safe, effective, and labor-saving method of ship mooring. Vessel tonnages and their relative distances from shore have increased dramatically over the years, but the Washington Chain release hook design handles virtually any situation. Whether it's a single- or multiple-hook model, each is designed to swing completely free up to 180° horizontally and 45° vertically to maintain a straight pull on the lines at all times.

BUILT TO STANDARDS YOU'D SET YOURSELF

Safety, reliability, strength, and efficiency are the standards we set for our release hooks. Manufactured by us since 1970, they consistently exceed every other manufacturer's specifications.

All working parts in Washington Chain release hooks are heat-treated, cast alloy metals. The units are suspended, with no wearplate to maintain and no dangerous sparks. Any motors required are explosion-proof and approved by Underwriters Laboratories (UL) and the Canadian Standards Association (CSA).

All models can release under full

load, unlike buoy hooks, which must have slack line to release. As an additional safety feature, we've made a safety latch standard, which prevents the hooks from opening accidentally. The latch can be operated manually or from a remote station, with either a pneumatically or electrically controlled hydraulic release.

MINIMUM MAINTENANCE

Knowing the demanding environments in which our release hooks will operate, we've made maintenance as easy as possible. All of them are hot-sprayed with zinc, then painted or galvanized. Grease fittings are recessed for both safety and ease of lubrication. Periodic maintenance is all that's required to maintain maximum efficiency.

WE TEST THEM BEFORE YOU DO

Before leaving our plant, each hook is thoroughly tested. Every one rated 100 tons or less is individually tested to 1.6 times its rated capacity. Larger hooks are tested to American Bureau of Shipping (ABS) standards of 1.3 times rated capacity.



WASHINGTON CHAIN

ity. Our test machines, which can provide up to 1,000 tons of pull, are recognized and certified by ABS, Lloyds Register of Shipping, the U.S. Department of Labor, and the Occupational Safety and Health Administration (OSHA).

INSTALLATION MADE EASY

Before any hooks are delivered to your location, we will have provided you with a bottom plate template, allowing you to set the anchor bolts into your structure as you're building, modifying, or repairing it. Then, when the units arrive, you merely bolt them down, and they're ready to operate. If you're replacing existing mooring equipment, we can tailor our bottom plate to fit your specifications, saving you substantial extra work.

OPTIONS TO MEET YOUR NEEDS

Our rotary-model release hooks are among our most popular styles. They offer the smoothest line release and lowest release shock, and allow for higher loads than our standard models.

An advisable option that's available with all release hook models is an integral capstan. When used in conjunction with the hooks, they can easily reduce crew needs from three or four people to one or two. They are available in versions that operate in one or two directions.

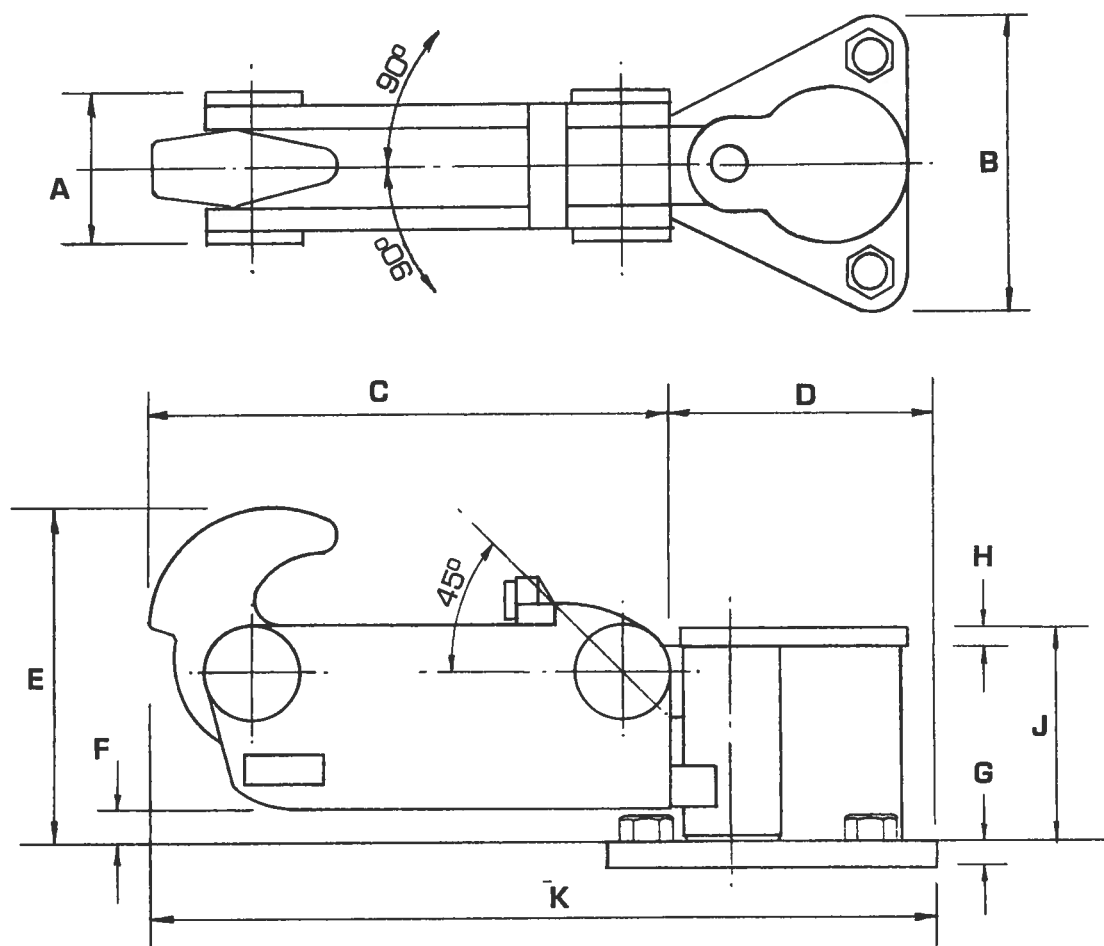
A load monitor/recorder and digital readout are also available, allowing for constant monitoring of mooring conditions.

Recognizing that operators' needs vary, we also offer a 25-ton "captive" release hook for light towing. This hook is designed to prevent the accidental release of the tow line should it go slack, and allows for rapid hookup and release of tug-and-barge combinations.

MEETING YOUR NEEDS

You'll probably find a Washington Chain release hook model to fit your needs on the following pages. But, if you have a special requirement that's not addressed in our standard versions, just give us a call. We'll be happy to discuss the situation and how we can provide modifications to accommodate your need.

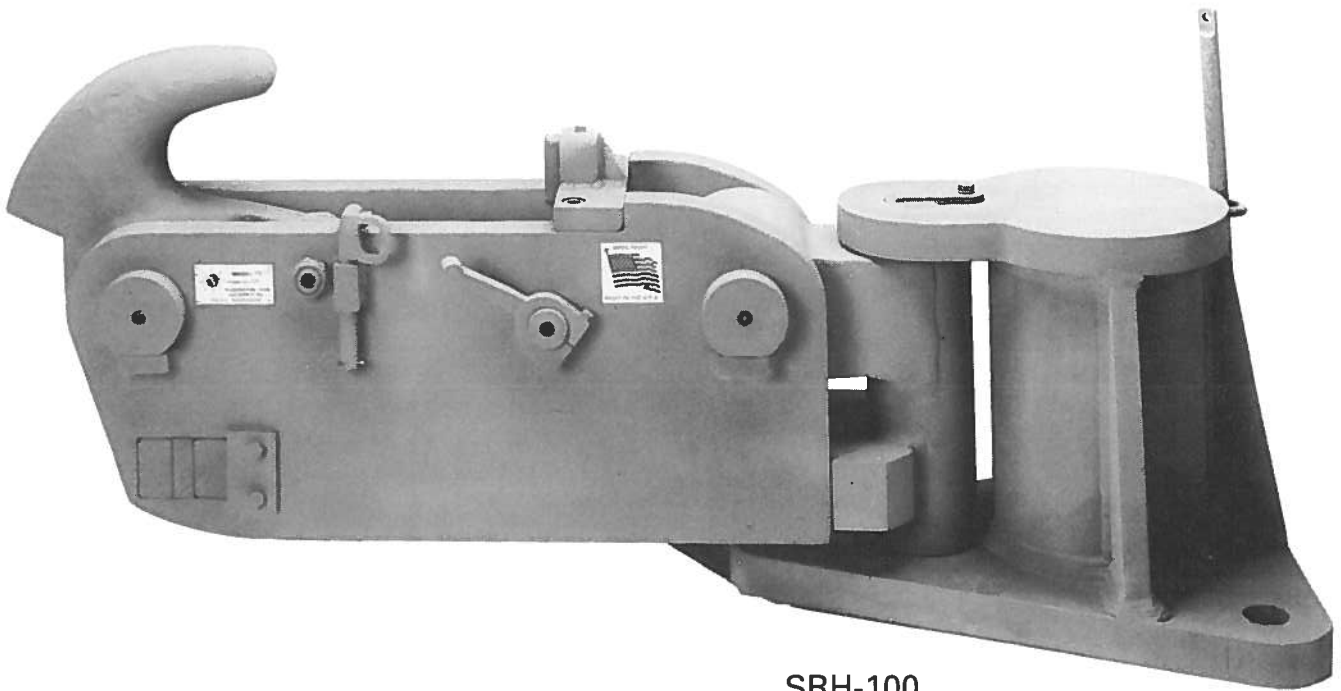




HOOK TYPE	LINE SIZE	NOMINAL LOAD PER HOOK			TOTAL LOAD PER UNIT			HOOK WEIGHT			WEIGHT HOOK(S) W/BASE	
SRH-50	3	50 TONS			50 TONS			450 LBS.			750 LBS.	
		A 6¼	B 19½	C 29¼	D 17¼	E 14¼	F 1½	G 2	H 1¾	J 13½	K 46½	
SRH-60	4	60 TONS			60 TONS			529 LBS.			839 LBS.	
		A 8	B 19½	C 34¾	D 17¼	E 22	F 2	G 2	H 1¾	J 14½	K 52	
SRH-80	4½	80 TONS			80 TONS			1200 LBS.			1300 LBS.	
		A 9¾	B 24	C 38¾	D 23	E 24¼	F 2⅞	G 2½	H 2¼	J 17¼	K 61¼	
SRH-100	5	100 TONS			100 TONS			1400 LBS.			2150 LBS.	
		A 10¾	B 24	C 42½	D 23	E 27	F 2⅞	G 2½	H 2¼	J 17¼	K 65½	
SRH-150	5½	150 TONS			150 TONS			2200 LBS.			3023 LBS.	
		A 11¼	B 25	C 49	D 21	E 28	F 3	G 3	H 2¼	J 18½	K 70	

NOTE: ALL DIMENSIONS IN INCHES

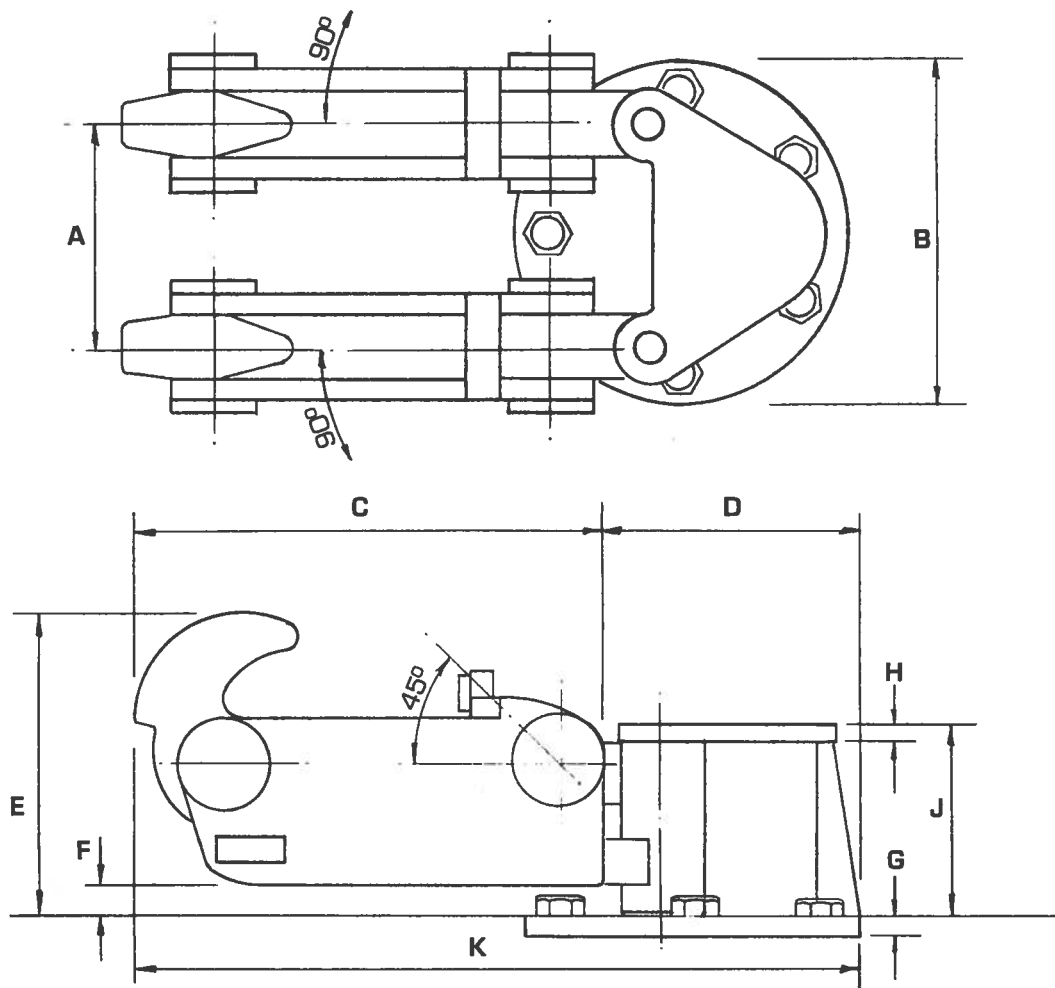
SINGLE RELEASE HOOKS



SRH-100

NOTE

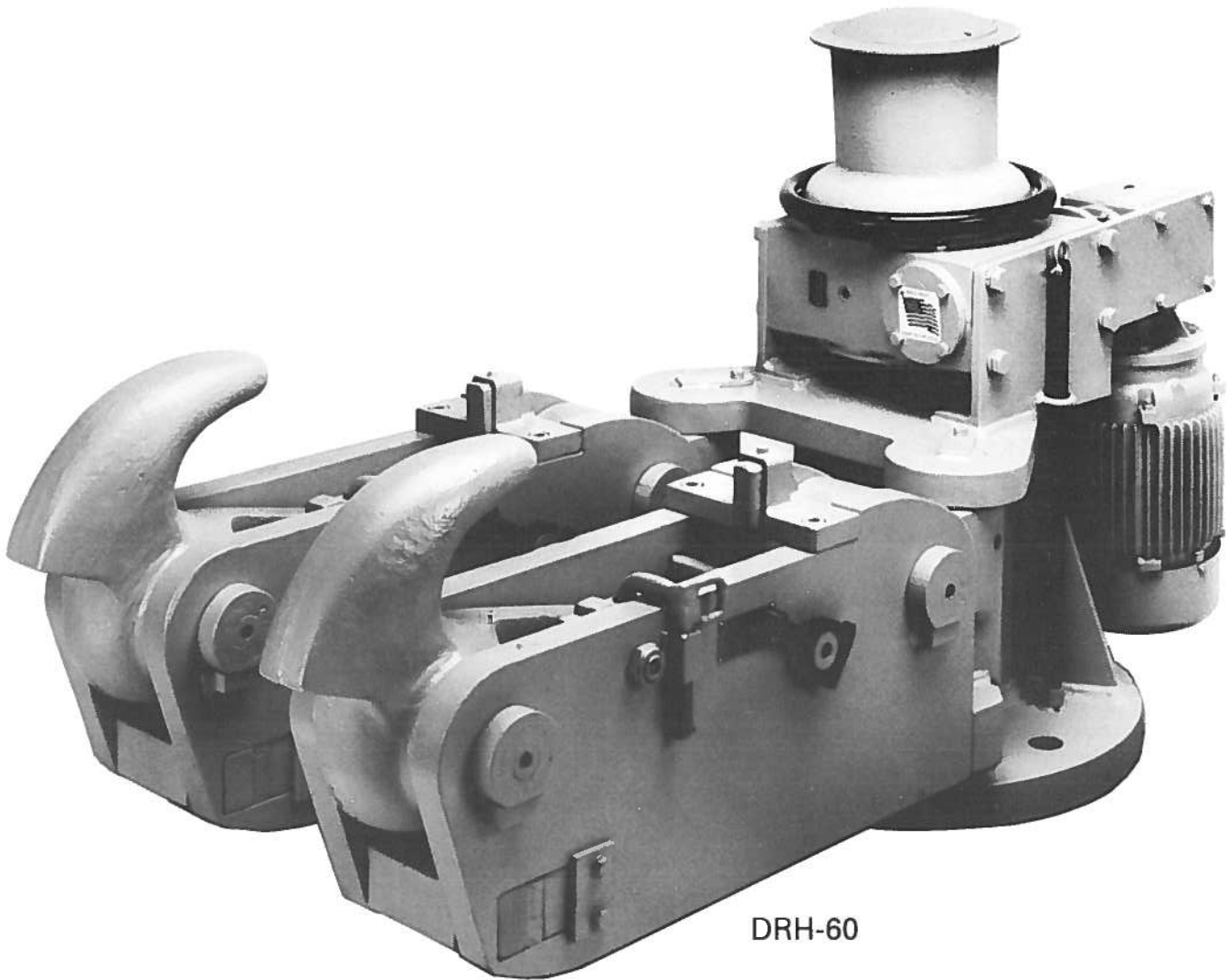
HOOK CAN SWING 180° HORIZONTALLY AND
CAN ELEVATE 45° VERTICALLY



HOOK TYPE	LINE SIZE	NOMINAL LOAD PER HOOK			TOTAL LOAD PER UNIT			HOOK WEIGHT			WEIGHT HOOK(S) W/BASE	
DRH-50	3	50 TONS			100 TONS			450 LBS.			1525 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		12½	24	29¼	20	14¼	1½	2¼	2	13½	49½	
DRH-60	4	60 TONS			120 TONS			529 LBS.			1695 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		15¾	24	34¾	20	22	2	2¼	2	14½	54¾	
DRH-80	4½	80 TONS			160 TONS			1200 LBS.			2400 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		18	31½	38¾	26½	24¼	2½	2½	2¼	17¼	64¾	
DRH-100	5	100 TONS			200 TONS			1400 LBS.			3750 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		20	31½	42½	26½	27	2⅞	2½	2¼	17¼	69	
DRH-150	5½	150 TONS			300 TONS			2200 LBS.			5600 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		24	34	49	29	28	3	3	2½	19½	78	

NOTE: ALL DIMENSIONS IN INCHES

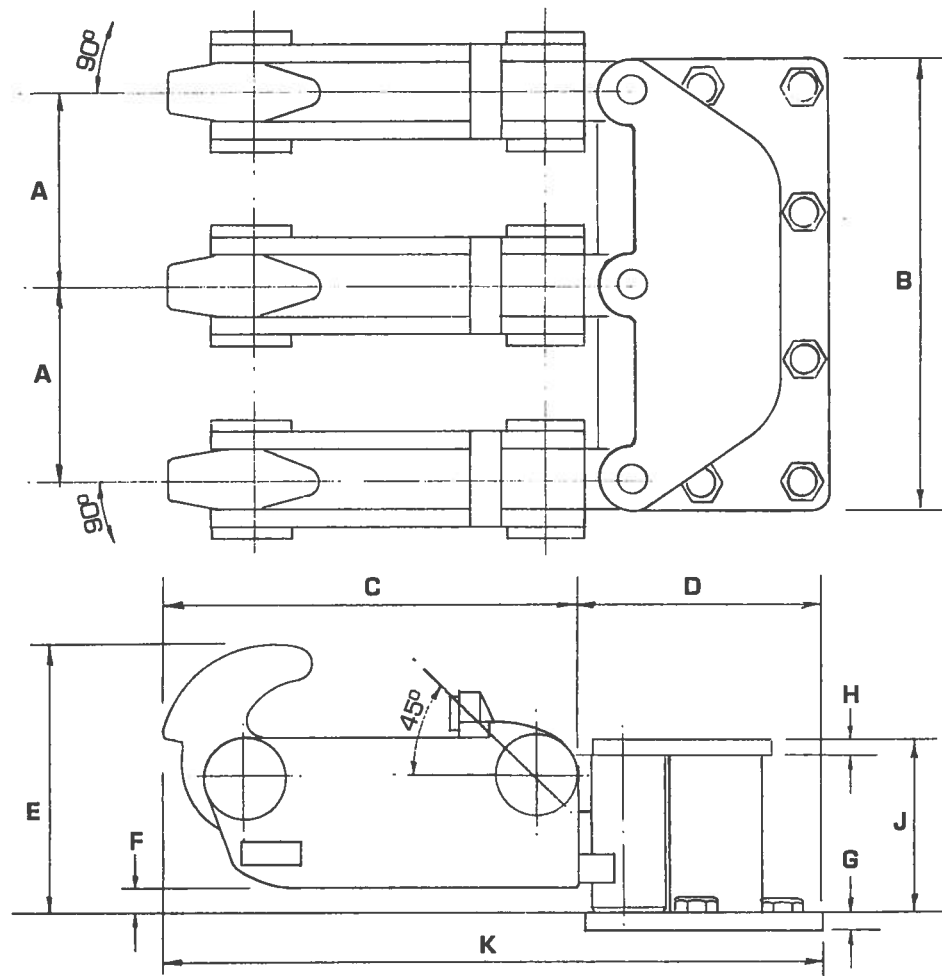
DOUBLE RELEASE HOOKS



DRH-60

NOTE

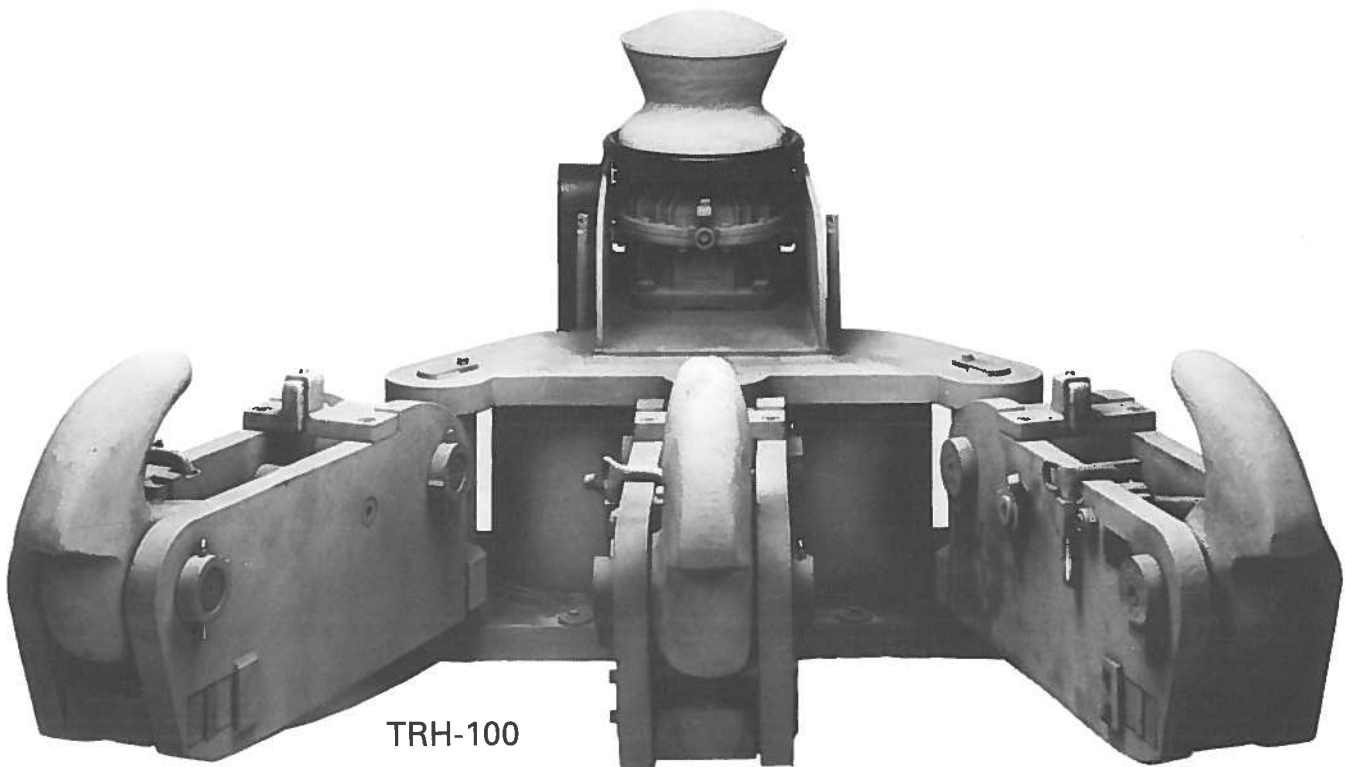
EACH HOOK CAN SWING 140° HORIZONTALLY
AND CAN ELEVATE 45° VERTICALLY



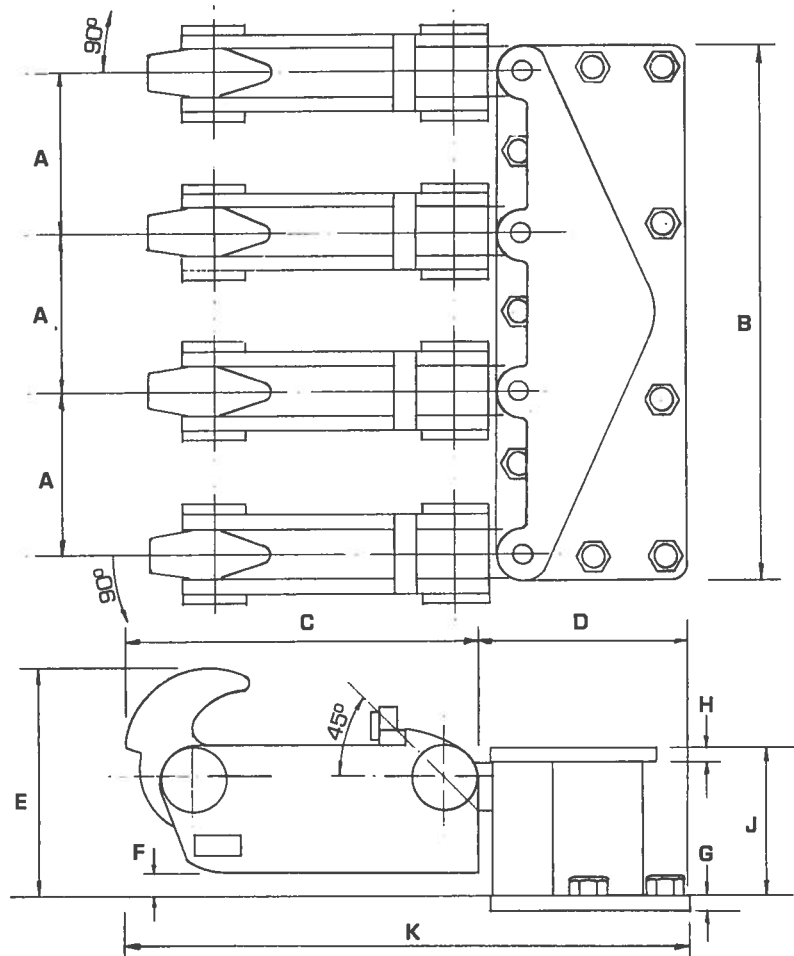
HOOK TYPE	LINE SIZE	NOMINAL LOAD PER HOOK			TOTAL LOAD PER UNIT			HOOK WEIGHT			WEIGHT HOOK(S) W/BASE	
TRH-50	3	50 TONS			150 TONS			450 LBS.			2280 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		15	36	29¼	19	14¼	1¾	2	1¾	13½	48¼	
TRH-60	4	60 TONS			180 TONS			529 LBS.			2529 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		15¾	36	34¾	19	22	2	2	1¾	14½	53¾	
TRH-80	4½	80 TONS			240 TONS			1200 LBS.			3500 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		18	49	38¾	24	24¼	2	2½	2¼	17¼	62¼	
TRH-100	5	100 TONS			100 TONS			1400 LBS.			5505 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		20	49	42½	24	27	2	2½	2¼	17¼	66½	
TRH-150	5½	150 TONS			450 TONS			2200 LBS.			8300 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		24	52½	49	24	28	3	3	2½	19½	73	

NOTE: ALL DIMENSIONS IN INCHES

TRIPLE RELEASE HOOKS

**NOTE**

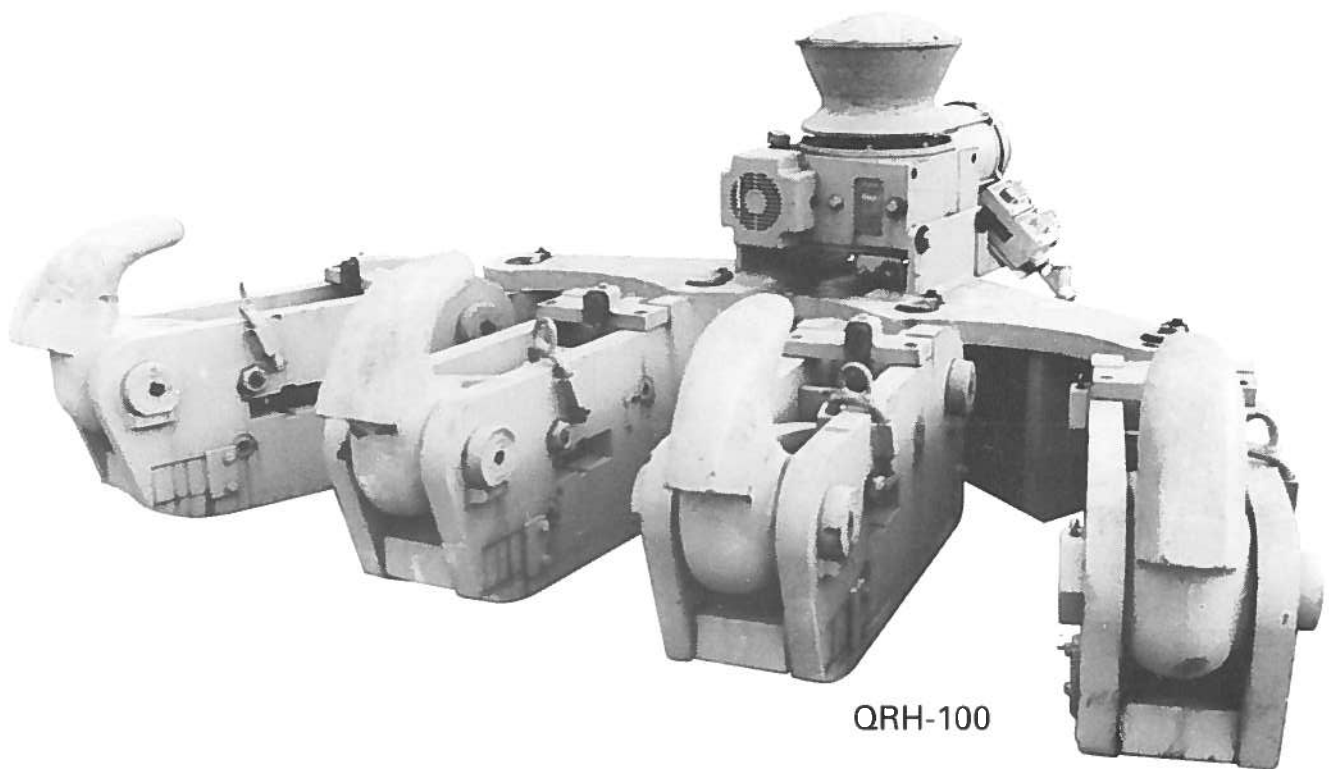
EACH HOOK CAN SWING 140° HORIZONTALLY
AND CAN ELEVATE 45° VERTICALLY



HOOK TYPE	LINE SIZE	NOMINAL LOAD PER HOOK			TOTAL LOAD PER UNIT			HOOK WEIGHT			WEIGHT HOOK(S) W/BASE	
QRH-50	3	50 TONS			200 TONS			450 LBS.			2900 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		15	51	27½	19	14¼	1¾	2¼	2	13½	46¼	
QRH-60	4	60 TONS			240 TONS			529 LBS.			3316 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		15¾	51	34¾	19	22	2	2¼	2	14½	53¾	
QRH-80	4½	80 TONS			320 TONS			1200 LBS.			4500 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		20½	69½	38¾	24	24¼	2	2½	2¼	17¼	62¼	
QRH-100	5	100 TONS			400 TONS			1400 LBS.			6610 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		20½	69½	42½	24	27	2	2½	2¼	17¼	66½	
QRH-150	5½	150 TONS			600 TONS			2200 LBS.			8300 LBS.	
		A	B	C	D	E	F	G	H	J	K	
		24	74½	49	24	28	3	3	2½	19½	73	

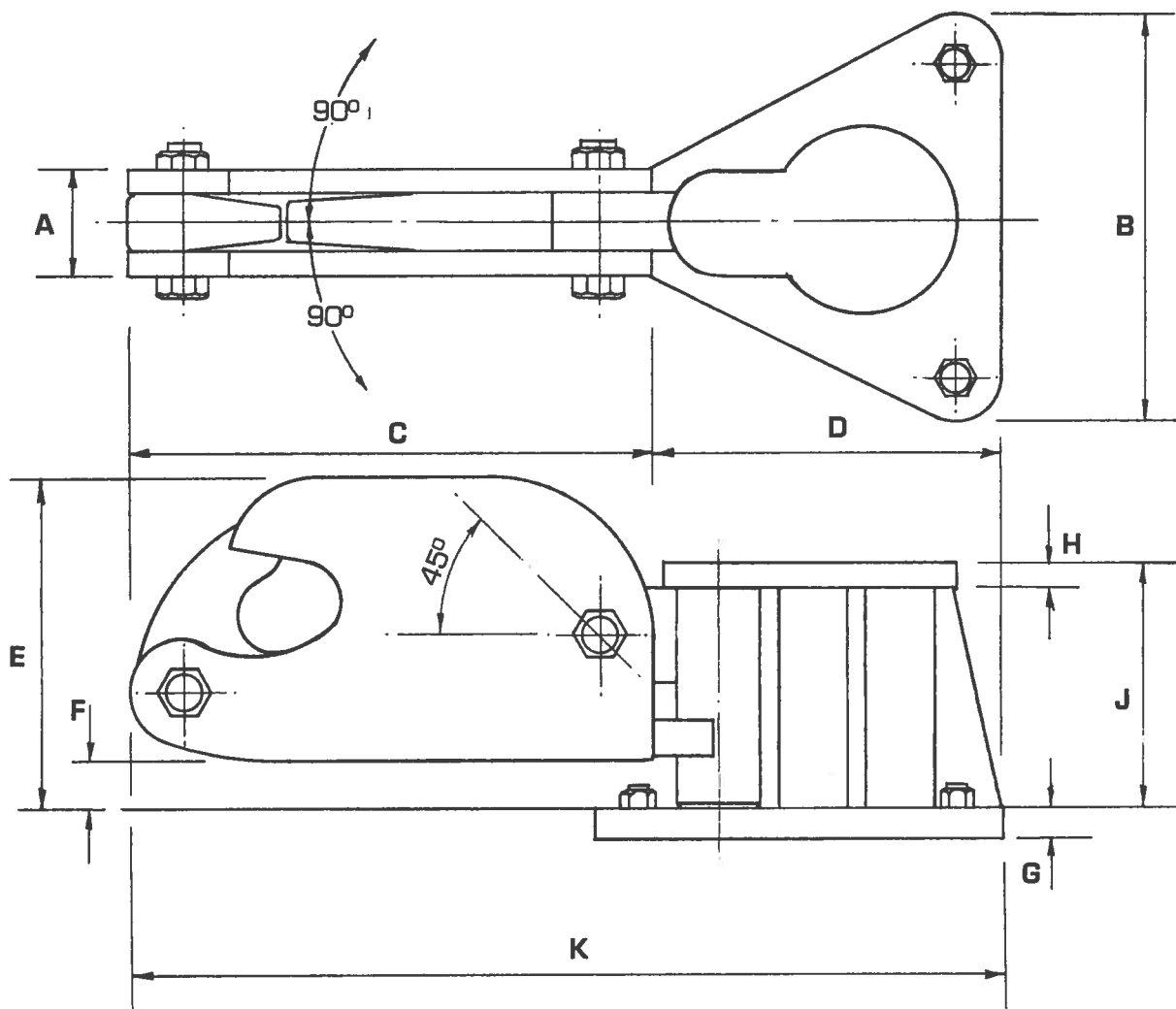
NOTE: ALL DIMENSIONS IN INCHES

QUAD RELEASE HOOKS



NOTE

EACH HOOK CAN SWING 140° HORIZONTALLY
AND CAN ELEVATE 45° VERTICALLY

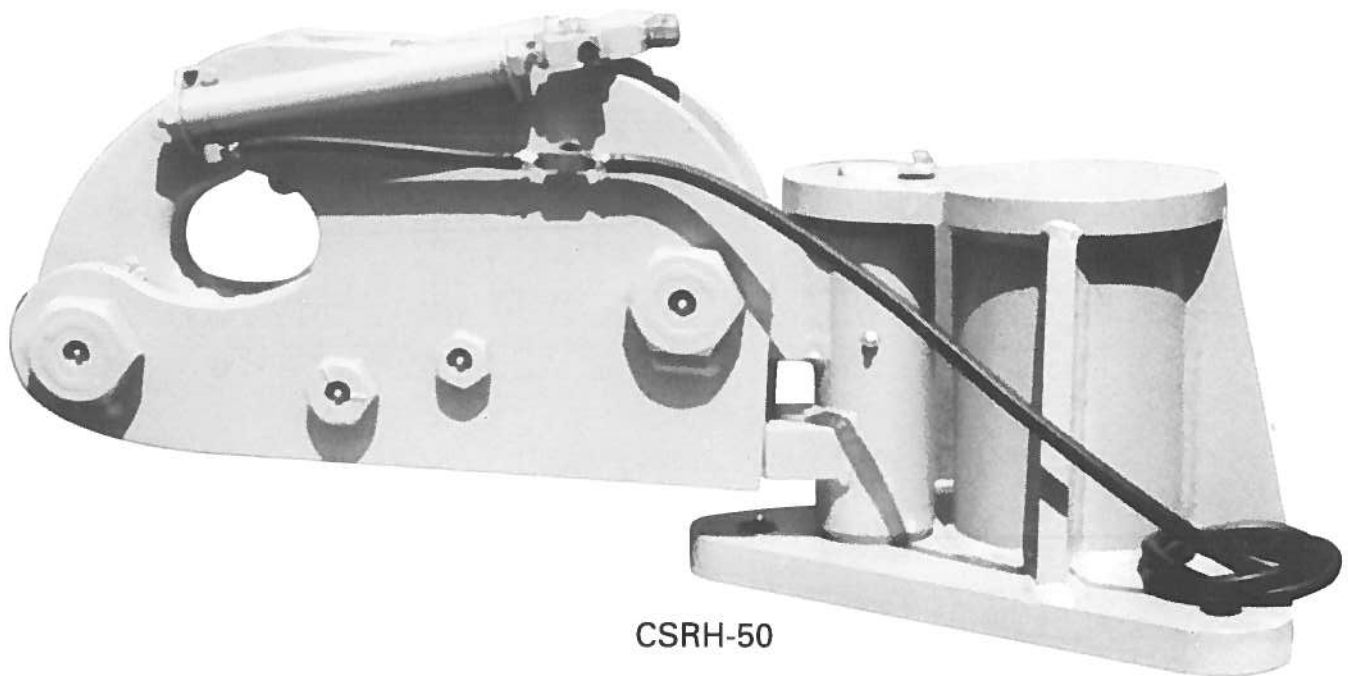


HOOK TYPE	LINE SIZE	NOMINAL LOAD PER HOOK			TOTAL LOAD PER UNIT			HOOK WEIGHT			WEIGHT HOOK(S) W/BASE	
CSRH-25	3	25 TONS			25 TONS			125 LBS.			263 LBS.	
		A 4	B 17½	C 22¾	D 15	E 14¾	F 2	G 1¼	H 1	J 10½	K 37¼	
CSRH-50	3	50 TONS			50 TONS			166 LBS.			304 LBS.	
		A 4½	B 17½	C 22¾	D 15	E 14¾	F 2	G 1¼	H 1	J 10½	K 37¼	

NOTE: ALL DIMENSIONS IN INCHES

CAPTIVE RELEASE HOOK

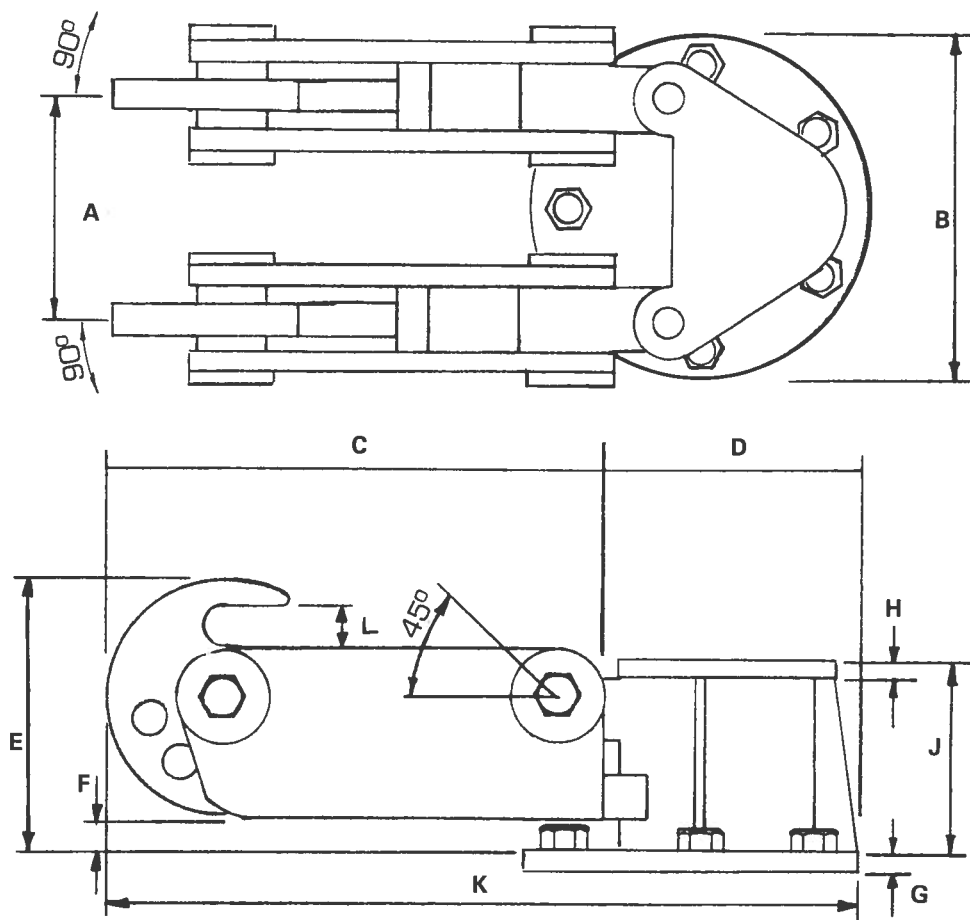
(LIGHT TOWING HOOK)



CSRH-50

NOTE

HOOK CAN SWING 180° HORIZONTALLY
AND CAN ELEVATE 45° VERTICALLY



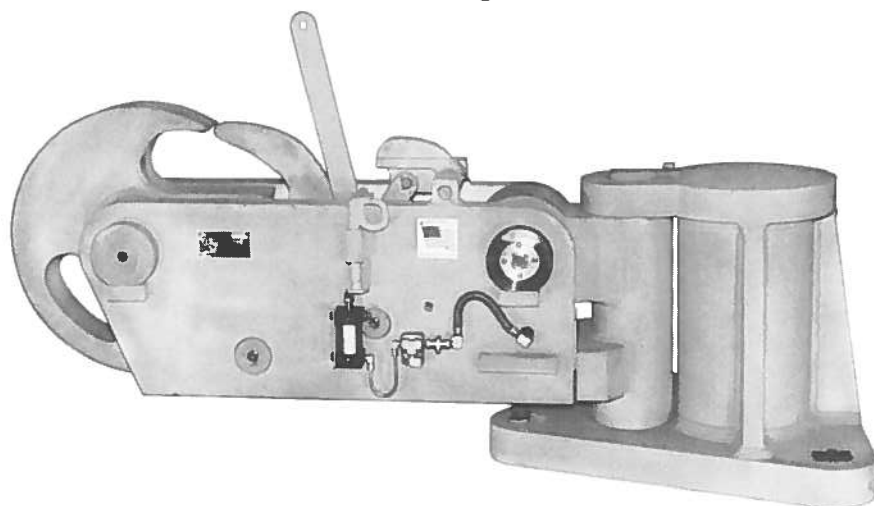
HOOK TYPE	LINE SIZE	NOMINAL LOAD PER HOOK			TOTAL LOAD PER UNIT			HOOK WEIGHT			WEIGHT HOOK(S) W/BASE		
RDRH-50/60	3	60 TONS			120 TONS			579 LBS.			1795 LBS.		
		A 16	B 24	C 30½	D 20	E 16½	F 1½	G 2¼	H 2	J 14½	K 50½	L 3	
RDRH-80	3½	80 TONS			160 TONS			1000 LBS.			2950 LBS.		
		A 18	B 28½	C 38¼	D 23¾	E 20½	F 2	G 2½	H 2¼	J 16	K 62	L 3½	
RDRH-100	3½	100 TONS			200 TONS			1450 LBS.			3850 LBS.		
		A 20	B 31½	C 42½	D 26½	E 23	F 2	G 2½	H 2¼	J 17½	K 69	L 4	
RDRH-150	5	150 TONS			300 TONS			2250 LBS.			5700 LBS.		
		A 24	B 34	C 52½	D 29	E 28	F 2	G 3	H 2½	J 19½	K 81½	L 5	
RDRH-200	5	200 TONS			400 TONS			2350 LBS.			5900 LBS.		
		A 24	B 34	C 52½	D 29	E 28	F 2	G 3	H 2½	J 19½	K 81½	L 5	

NOTE: ALL DIMENSIONS IN INCHES

ROTARY RELEASE HOOKS

All of our standard air- and hydraulic-release hooks provide good dampening against the sudden shock of line release under load. These rotary-release models, though, go a step further. By spinning freely, they remove the strain from the hook itself, rather than using a bumper pad to absorb recoil. This provides for smoother release and allows the hooks to handle higher loads.

In addition, the smoother release prolongs the life of both the hook itself and the mooring lines it handles. Of course, like our other models, rotary release hooks are made of heat-treated alloy steel, are hot-sprayed with zinc before finishing, and include the same safety features and ease of maintenance.

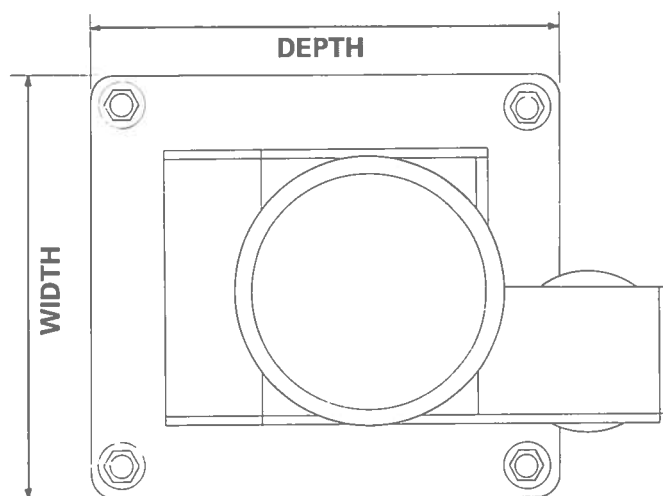
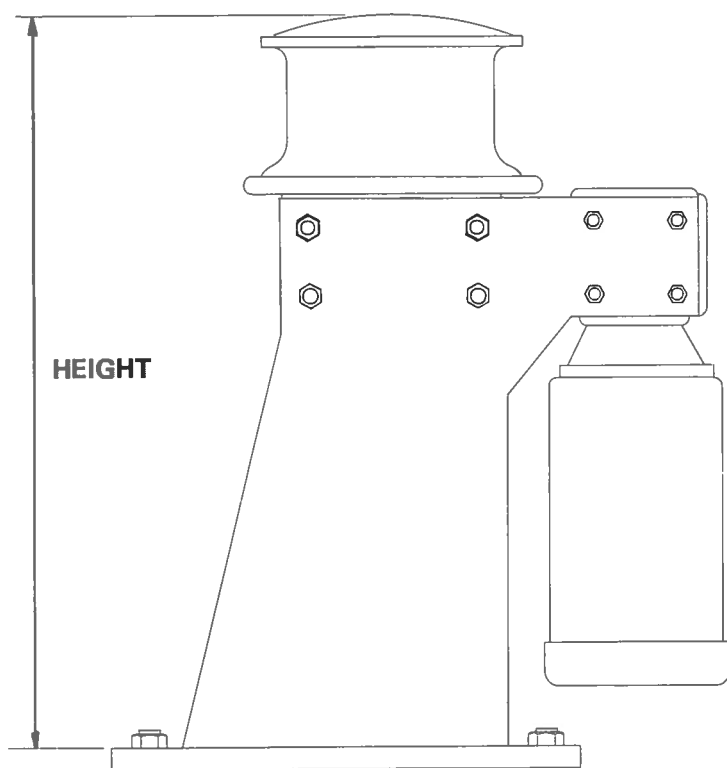


NOTE

HOOK IN SINGLE CONFIGURATION CAN SWING 180° HORIZONTALLY AND CAN ELEVATE 45° VERTICALLY. EACH HOOK IN A DOUBLE HOOK CONFIGURATION CAN SWING 140° HORIZONTALLY AND CAN ELEVATE 45° VERTICALLY

HOOK TYPE	LINE SIZE	NOMINAL LOAD PER HOOK			TOTAL LOAD PER UNIT			HOOK WEIGHT			WEIGHT HOOK(S) W/BASE	
RSRH-50/60	3	60 TONS			60 TONS			579 LBS.			889 LBS.	
		A 7½	B 19½	C 30½	D 17½	E 16½	F 1½	G 2	H 1¾	J 13½	K	
RSRH-80	3½	80 TONS			80 TONS			1000 LBS.			1800 LBS.	
		A 9½	B 24	C 38¾	D 23	E 20½	F 2	G 2½	H 2¾	J 17¼	K 61¼	
RSRH-100	3½	100 TONS			100 TONS			1450 LBS.			2200 LBS.	
		A 9	B 24	C 42½	D 23	E 23	F 2	G 2½	H 2¾	J 17¼	K 69	
RSRH-150	5	150 TONS			300 TONS			2250 LBS.			3073 LBS.	
		A 10½	B 25	C 52½	D 23	E 28	F 2	G 2½	H 2¾	J 17¼	K 75½	
RSRH-200	5	200 TONS			200 TONS			2350 LBS.			3200 LBS.	
		A 10½	B 25	C 52½	D 23	E 28	F 2	G 2½	H 2¾	J 17¼	K 75½	

NOTE: ALL DIMENSIONS IN INCHES



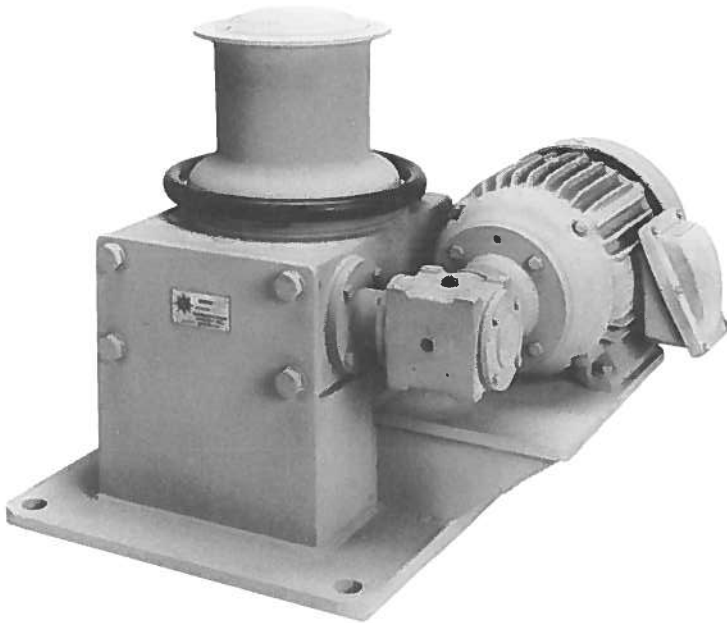
MODEL	HP	LINE SPEED (fpm)	LINE PULL (lbs.)	WEIGHT (approx.)	HEIGHT	WIDTH	DEPTH
FSC-5	5	75	1,700	900	44	22½	30
FSC-7.5	7.5	75	2,600	950	44	22½	32
FSC-10	10	75	3,000	1,050	44	22½	32
FSC-15	15	75	5,000	2,300	44	28	38

NOTE: ALL DIMENSIONS IN INCHES; OTHER LINE SPEED AND LINE PULL COMBINATIONS ARE AVAILABLE

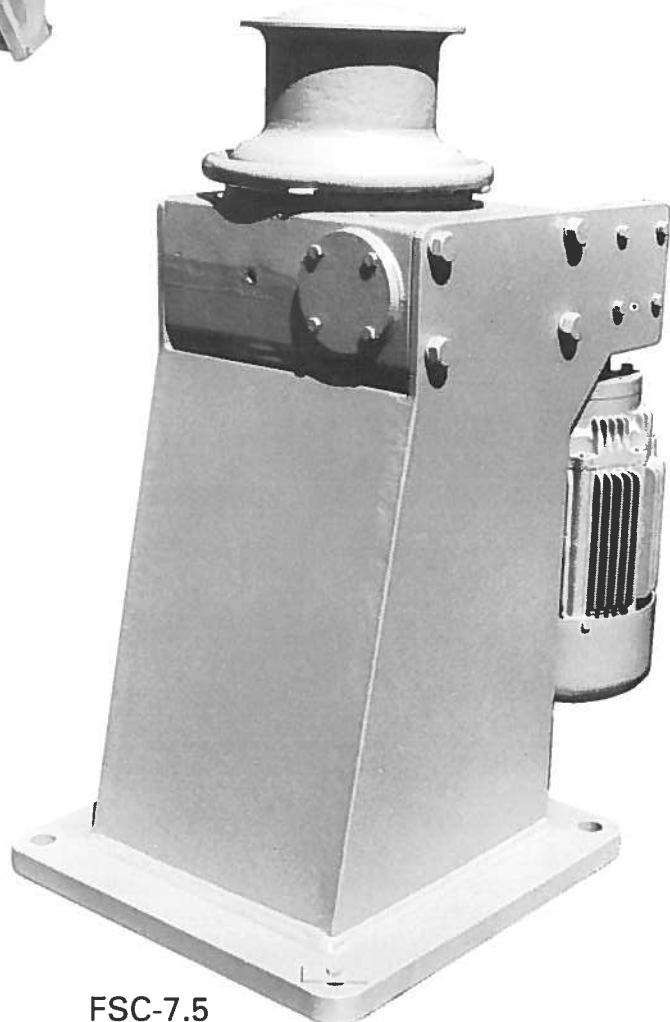
CAPSTANS

We manufacture a variety of capstans, both freestanding and as an integral part of another unit. Our standard models will meet the needs of almost any application, but custom fabrication is also available

to accommodate specific requirements. All models are available with either one- or two-way drive, and with a variety of capstan head sizes and styles to match your specifications.



LSC-10
"LOWBOY" MODEL



FSC-7.5

INSTALLATIONS

A partial list of Washington Chain release hook and capstan customers includes the following:

COUNTRIES

Canada
Chile
France
Indonesia
Kuwait
Mexico

Russia
Taiwan
Thailand
U.S.A.
Venezuela
West Indies

USERS

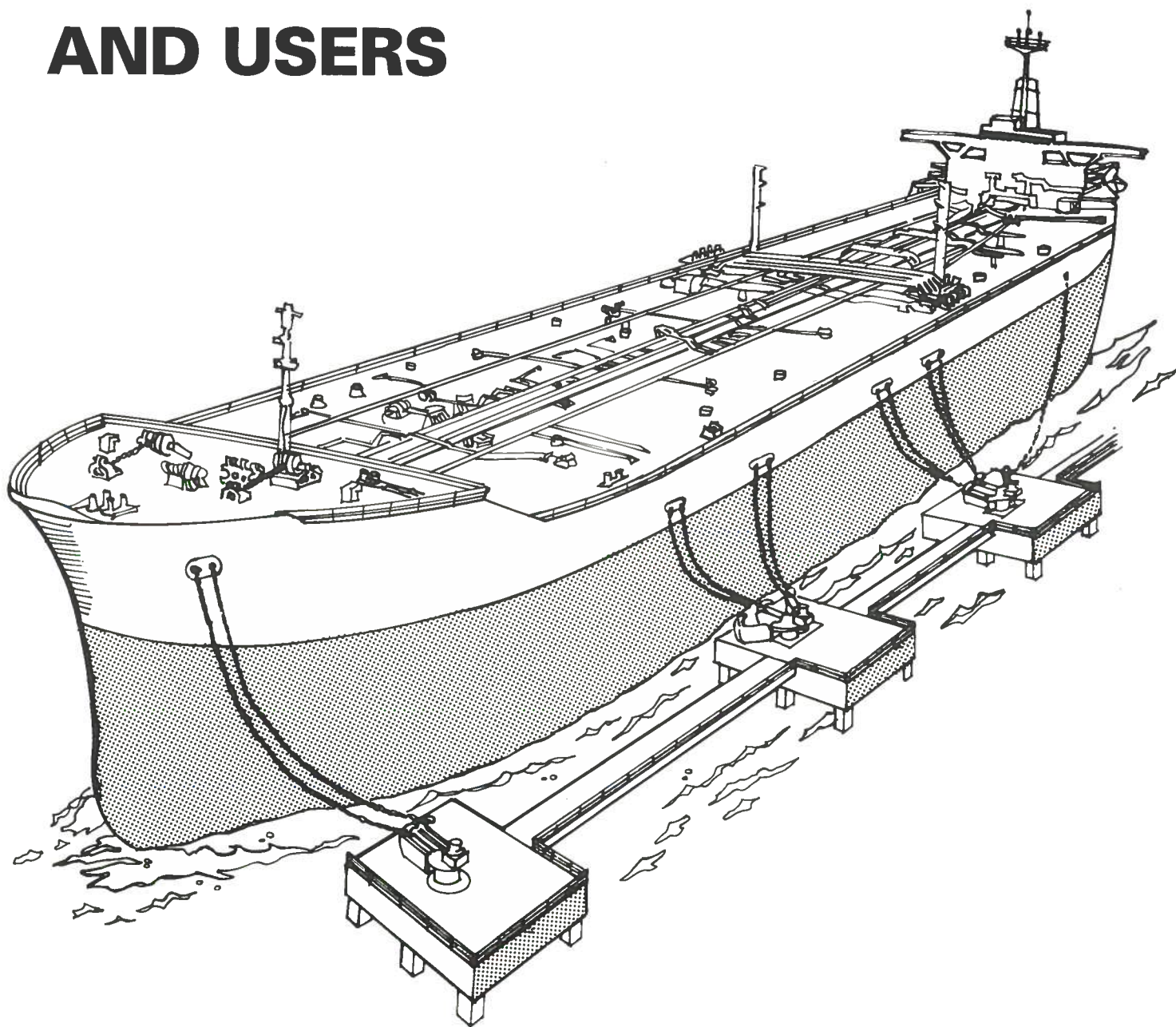
American Offshore
Guy F. Atkinson
ARCO
Baltimore Gas & Electric
Chevron
Citgo Oil
Conoco Oil Co.
Crowley
Exxon
Magna Copper
J.M. Martinac
McDermott

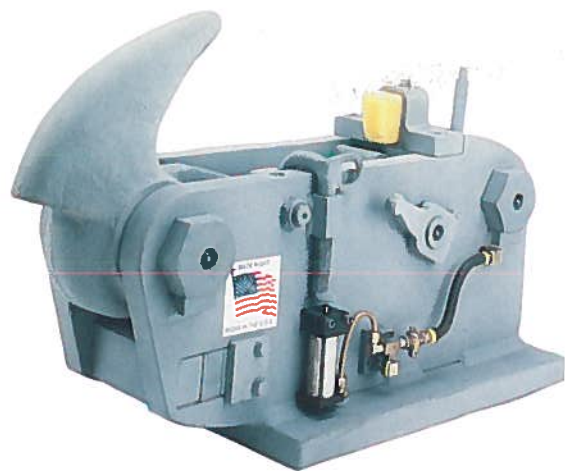
Mobil Oil
Murphy Oil
Penex Oil
Port of L.A.
Port of Tacoma
Rados International
Riedel International
SBM Systems
SeaLand Transportation
Shell Oil
Standard Oil

Henry Stuart Co.
Sunoco Oil
Texaco
Todd Shipyards
Transmountain
Union Carbide
Union Chemical
Union Oil
U.S. Army
U.S. Coast Guard
U.S. Navy
Westshore Terminals

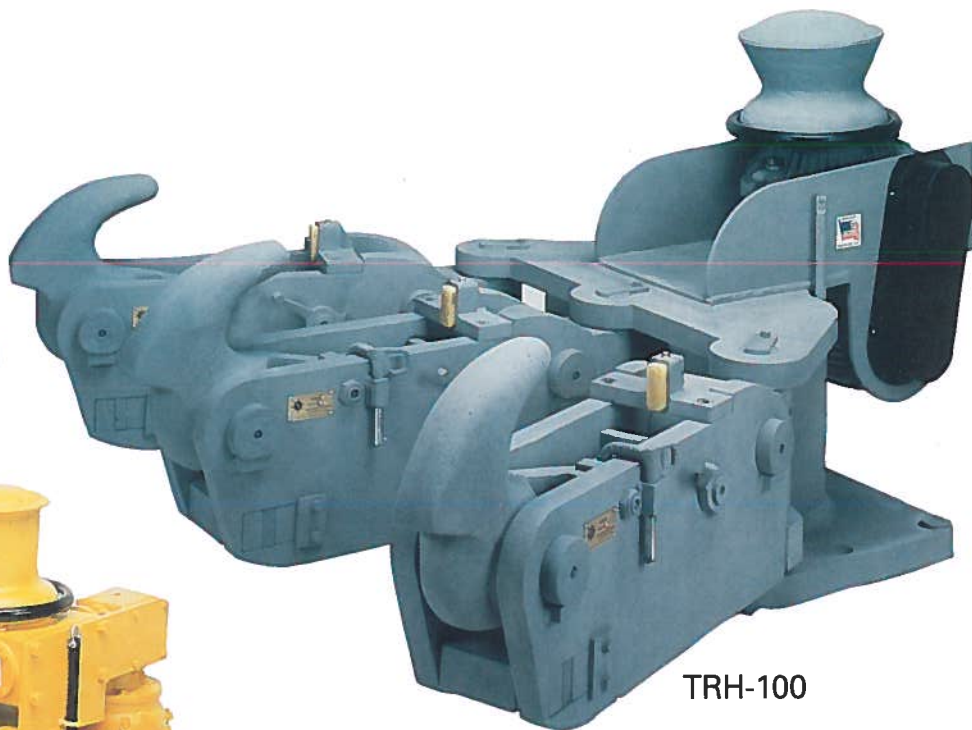


AND USERS





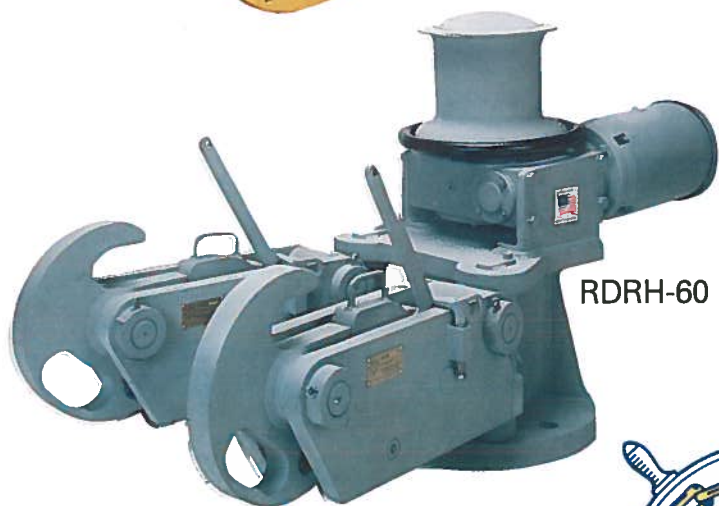
SRH-50



TRH-100



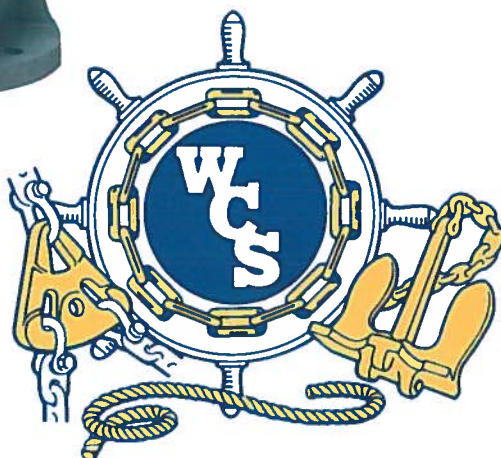
DRH-100



RDRH-60



FSC-15



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