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Hose Whip Restraint

Safety Restraining System for Pressure Hoses



ENGINEERING YOUR SUCCESS.

Hose Whip Restraint

Safety restraining system for pressure hoses

Parker's Hose Whip Restraint System is designed to prevent whipping of a pressurized hose in the event of the hose separating from its fitting. The Hose Whip Restraint System provides an additional level of safety and helps prevent damage to nearby equipment or injury to operators near the failed hose by limiting the whip or travel of the pressurized hose after it breaks free from its hose fitting. Serious damage or injury can occur from whipping hoses, especially at higher pressures.

The system is comprised of two parts – a hose collar (WRCxxxx) is selected based on the outside diameter of the hose, and the cable assembly is selected based on the type of hose connection. Two types of cable assemblies are available – one for flange-type connections (WRFxxx), and the other for port adapters (WRAxxx).

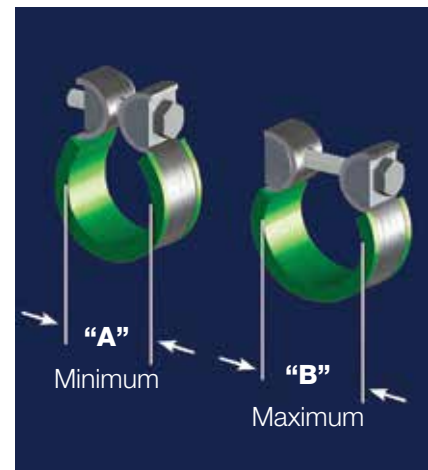
The Hose Whip Restraint is not to be used in place of proper hose crimping procedures as outlined in HPD Catalog 4400. Exceeding the maximum operating pressure of the hose jeopardizes the proper operation of the Hose Whip Restraint System.



Hose collars for Hose Whip Restraint System

Hose Bands for Hose Restraint System

HPD P/N	"A"		"B"		Hose Collar Bolt Size*
	mm	in	mm	in	
WRC1212	12	0.47	12.5	0.49	M6
WRC1313	13	0.51	13.5	0.53	M6
WRC1415	14	0.55	15.0	0.59	M6
WRC1718	17	0.67	18.0	0.71	M6
WRC1819	18	0.71	19.0	0.75	M6
WRC2021	20	0.79	21.0	0.83	M6
WRC2223	22	0.87	23.0	0.91	M6
WRC2425	24	0.95	25.0	0.98	M6
WRC2526	25	0.98	26.0	1.02	M6
WRC2728	27	1.06	28.0	1.10	M6
WRC2829	28	1.10	29.0	1.14	M6
WRC3031	30	1.18	31.0	1.22	M6
WRC3435	34	1.34	35.0	1.38	M6
WRC3637	36	1.42	37.0	1.46	M6
WRC3839	38	1.50	39.0	1.54	M6
WRC4445	44	1.73	45.0	1.77	M6
WRC4547	45	1.77	47.0	1.85	M8
WRC4850	48	1.89	50.0	1.97	M8
WRC5153	51	2.01	53.0	2.09	M8
WRC5456	54	2.13	56.0	2.21	M8
WRC6365	63	2.48	65.0	2.56	M8
WRC6971	69	2.72	71.0	2.78	M8



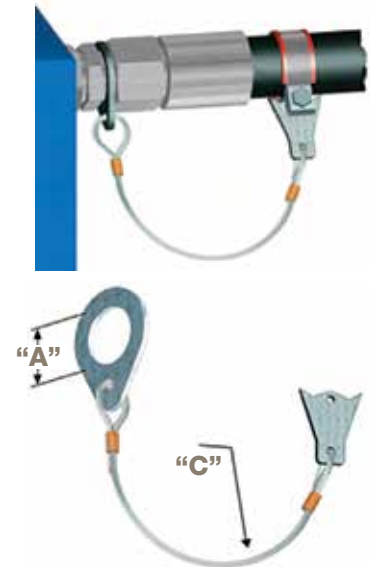
*Bolt size on collar must match the WRA or WRF bolt size

Hose Whip Restraint Cable Assemblies

for hoses attached with port adapters

Retaining system for hose fittings or adapters

HPD P/N	"A"		"C"		Grip Plate Bolt Size*
	mm	in	mm	in	
WRA145	14.5	0.57	300	11.81	M6
WRA170	17.0	0.67	300	11.81	M6
WRA185	18.5	0.73	300	11.81	M6
WRA205	20.5	0.81	300	11.81	M6
WRA225	22.5	0.89	300	11.81	M6
WRA245	24.5	0.96	300	11.81	M6
WRA265	26.5	1.04	300	11.81	M6
WRA305	30.5	1.20	300	11.81	M6
WRA340	34.0	1.34	450	17.72	M8
WRA365	36.5	1.44	450	17.72	M8
WRA425	42.5	1.67	450	17.72	M8
WRA455	45.5	1.79	450	17.72	M8
WRA490	49.0	1.93	450	17.72	M8
WRA525	52.5	2.07	450	17.72	M8
WRA600	60.0	2.36	450	17.72	M8

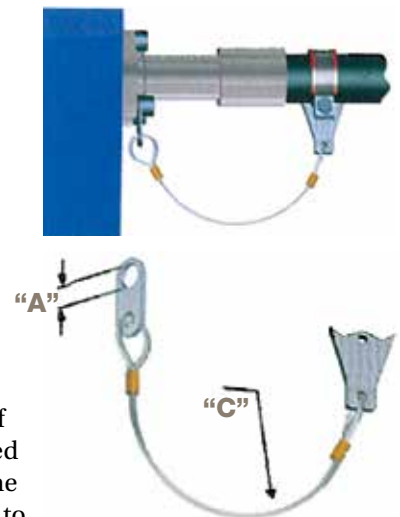


Hose Whip Restraint Cable Assemblies

for hoses using flange-style connections

Retaining system for Code 61 and Code 62 flanges

HPD P/N	"A"		"C"		Grip Plate Bolt Size*
	mm	in	mm	in	
WRF085	8.5	0.33	300	11.81	M6
WRF105	10.5	0.41	450	17.72	M8
WRF125	12.5	0.49	450	17.72	M8
WRF145	14.5	0.57	450	17.72	M8
WRF165	16.5	0.65	450	17.72	M8
WRF205	20.5	0.81	450	17.72	M8



*Bolt size on collar must match the WRA or WRF bolt size

The Hose Whip Restraint System has been tested to the operating pressures of the hoses listed in HPD Catalog 4400. The Hose Whip Restraint is not designed to increase the hose rated pressure or to add incremental pressure rating to the hose / fitting combination. Your hose / fitting / whip restraint system is rated to the pressure of the lowest rated component of the system.

⚠ WARNING

Failure or improper selection or improper use of hose, tubing, fittings, assemblies or related accessories ("Products") can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of these Products include but are not limited to:

- Fittings thrown off at high speed
- High velocity fluid discharge
- Explosion or burning of the conveyed fluid
- Electrocution from high voltage electric power lines
- Contact with suddenly moving or falling objects that are controlled by the conveyed fluid
- Injections by high-pressure fluid discharge
- Dangerously whipping Hose
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious
- Sparking or explosion caused by static electricity buildup or other sources of electricity
- Sparking or explosion while spraying paint or flammable liquids
- Injuries resulting from inhalation, ingestion or exposure to fluids

Before selecting or using any of these Products, it is important that you read and follow Parker Safety Guide for Selecting and Using Hose, Tubing, Fittings and Related Accessories (Parker Publication No. 4400-B.1- Revised November, 2007). Only Hose from Parker's Stratoflex Products Division is approved for in flight aerospace applications, and no other Hose can be used for such in flight applications.

Hose Whip Restraint Selection Guide

Collar	HPD P/N	"A"		"B"		201, 221FR, 206, 225, 244, 266	213, 285, 293	302, 301LT, 304, 341, 421WC, BXX	351TC/ST, 422, 424, 431, 436, 451TC/ST, 471TC/ST, 482TC/ST, 472TC/ST	601	692	701, 721, 721TC/ST, 772TC/ST, 772LT, 774	731, P35, 781, 782TC/ST, 791TC, 792TC/ST	F42	801, 804, 821, 821FR, 831, 836	811, 881, 811HT	787TC, 797TC
		mm	in	mm	in												
		WRC1212	12	0.47	12.5	0.492		-4				-3					-4
WRC1313	13	0.51	13.5	0.531	-4		-3	-4									
WRC1415	14	0.55	15	0.591	-5	-5, -6	-4	-5	-6	-6					-5, -6		
WRC1718	17	0.67	18	0.709	-6			-6		-5							
WRC1819	18	0.71	19	0.748	-8	-8	-6			-6			-4		-8		
WRC2021	20	0.79	21	0.827							-8	-6					-8
WRC2223	22	0.87	23	0.906	-10	-10	-8			-8	-10	-8	-6		-10		-10
WRC2425	24	0.95	25	0.984		-12		-10						-8			
WRC2526	25	0.98	26	1.024			-10			-10			-8		-12		
WRC2728	27	1.06	28	1.102	-12			-12				-10					-12
WRC2829	28	1.10	29	1.142			-12						-10				
WRC3031	30	1.18	31	1.220	-16	-16				-12		-12	-12	-12	-16	-12	
WRC3435	34	1.34	35	1.378				-16									-16
WRC3637	36	1.42	37	1.457		-20				-16		-16				-16	
WRC3839	38	1.50	39	1.535	-20		-16						-16	-16			
WRC4445	44	1.73	45	1.772	-24	-24				-20						-20	
WRC4547	45	1.77	47	1.850			-20	-20			-20						-20
WRC4850	48	1.89	50	1.969				-24				-20	-20	-20			
WRC5153	51	2.01	53	2.087								-24				-24	-24
WRC5456	54	2.13	56	2.205	-32	-32	-24						-24				
WRC6365	63	2.48	65	2.559				-32				-32			-32		
WRC6971	69	2.72	71	2.795									-32				-32

Adapter	HPD P/N	"A"		JIC 37° Fittings 103XX, 106XX, 137XX, 1L7XX, 139XX, 1L9XX, 141XX, 14VXX	Seal Lok (O-Ring Face Seal) 1JOXX, 1JBXX, 1JCXX, 1JSXX, 1J6XX, 1J7XX, 1J9XX, 1J5XX, 1J1XX	NPTF / NPSM 101XX, 113XX, 11LXX, 102XX, 1S2XX	BSP / BSP 1D9XX, 192XX, 1B1XX, 1B2XX, 1B4XX, 1B5XX, 1FUX, 1UTXX, 1GUX
		mm	in	Port End	Port End	Port End	Port End
		WRA145	14.5	0.57		-4	-4
WRA170	17	0.67				-6	
WRA185	18.5	0.73		-6	-6		
WRA205	20.5	0.81	-8				
WRA225	22.5	0.89	-10	-8	-8	-8	
WRA245	24.5	0.96				-10	
WRA265	26.5	1.04		-10			
WRA305	30.5	1.20	-12, -14	-12	-12	-12	
WRA340	34	1.34	-16		-16	-16	
WRA365	36.5	1.44					
WRA425	42.5	1.67	-20	-16	-20	-20	
WRA455	45.5	1.79		-20			
WRA490	49	1.93	-24		-24	-24	
WRA525	52.5	2.07		-24			
WRA600	60	2.36					

-4 and -6 JIC fittings not recommended for use with Hose Whip Restraint System. Contact HPD for other style fittings.

Flange	HPD P/N	"A"		5050HK	5151HK	HFHFHK	8FHFHK	M1M1HK	M2M2HK	FFK61	FFK62
		mm	in								
WRF085	8.5	0.33			-8						
WRF105	10.5	0.41			-12, -16	-12	-12	-8, -12, -16, -20	-8, -12	-12, -16	-12
WRF125	12.5	0.49		-20	-20	-16	-16	-24, -32, -40	-16, -20	-20	-16
WRF145	14.5	0.57		-24, -32	-24, -32, -40	-20				-24, -32	-20
WRF165	16.5	0.65			-48	-24			-24		-24
WRF205	20.5	0.81				-32			-32		-32

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