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WINDOWS  
SKIDTUB  
AVIONIC  
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HEATING  
AIR COND  
TOOLING  
ENGINE S  
GROUND  
FLOTATION



**ROBINSON**

**2009**

**ACCESSORIES CATALOG**



**Jeff Shapiro**  
President/CEO

## DART Helicopter Services: We Engineer Solutions

This 2009 catalog is our biggest ever – with more than 1,000 new solutions engineered to help meet your operational challenges.

There has never been a better time to be part of the most exciting industry in the world. Presented with extraordinary opportunities for growth and expansion, DART has strategically focused only on those that support our core mission — providing you with helicopter accessories that make your operation safer, more efficient, and more profitable. Some of these include:

- The acquisition of Canam Aerospace and Cargo Net Innovations. This expands our portfolio of long line cargo hooks, bag automated transporters, primary hooks, carousels, long line nubbins, swivels, shock absorbers, logging grapples, synthetic long lines, and cargo nets for a variety of helicopter models.
- Agreements to distribute a range of new products from AKV Inc., Red Barn Machine, and Spectrolab. Their respective products include turbine engine cycle counters, standard and custom tools for engine overhaul and repair, and searchlights, including the popular Nightsun® series.
- Agreements to distribute special ops equipment and ground support dollies for Tyler and Mainline.
- Establishment of a new warehouse/distribution center for helicopter accessories in Hong Kong.

This year's catalog includes more than 2,500 individual parts and accessories for your helicopters. That's a growth of more than 1,000 products since our last catalog was issued. As you review the product listings for your helicopter model, please note the special designations for MME or "Maintenance Made Easy" products. These accessories will streamline your maintenance efforts, so they are definitely worth a look.

What's ahead for 2009? More of the same. Great products. Great Service. Strategic Growth. All focused on you and your operational requirements.

My team and I appreciate your business and your support.



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# LOCATIONS



## OUR TEAM HAS OVER 150 YEARS OF INDUSTRY EXPERIENCE



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## **ROBINSON**

### **R22/R44**

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# ROBINSON R22/R44

## *New and featured accessories for Robinson Helicopters*

- **Cylindrical Emergency Floats for R44 and R44II**
- **Bearpaws for R44 and R22**
- **Side Video Gimbal Support Framework**
- **Replacement Windows**
- **Cabin Floor Protector**
- **Cold Weather Baffle Kit**



For more information or to place an order, contact:  
DART Helicopter Services at 1-800-556-4166 or 1-613-632-3336 or visit:  
[www.DARTheicopterservices.com](http://www.DARTheicopterservices.com)



## Cylindrical Emergency Float System



The Apical Emergency Float Kits are comprised of two Fwd floats and two Aft floats mounted on the skids, and an inflation system. The 644.7001 kit is the same as the 644.7002 kit except that the skid extensions are included for use with standard skid gear. The installation provides for over water emergency landing capability. Each float is constructed of lightweight urethane-coated nylon fabric. The floats include inlet check valves and combination manual topping/pressure relief valves. The float bags are on-condition and do not have to be returned to the factory for recertification. Factory recertification of the system is available for customers who desire OEM services.

<b>Replacement:</b>	N/A
<b>Floats (Number/Design):</b>	4/Cylindrical
<b>Float Inflation Reservoirs (Qty./Type/Gas):</b>	1/Composite Wound/Helium or Nitrogen(4950 psi @ 70°F)
<b>Inflation Mechanism:</b>	Mechanical with collective mounted lever
<b>Liferafts Inflation Reservoirs:</b>	N/A
<b>Liferafts Inflation Mechanism:</b>	N/A
<b>Special Design Features:</b>	Floats are easily removable. Utilizes skid extensions (.7001)
<b>Aircraft Limitations:</b>	Maximum altitude for float inflation is 5,500 ft above landing surface
<b>Max. Airspeed of Inflation:</b>	80 Kias
<b>Max. Airspeed Floats Inflated:</b>	80 Kias
<b>Max. Towing Speed:</b>	10 kts
<b>Maintenance / Overhaul:</b>	Annual & 3 yrs. inspect and test / 3 yrs. Reservoirs
<b>Exchange Program:</b>	Available for Floats & Reservoir Valve Assemblies

### R44 CYLINDRICAL EMERGENCY FLOAT SYSTEM

Approval	STC Number	A/C Approved	STC Description	
USA	SR02049LA	R44/R44II	Cylindrical Emergency Float System	
Canada	P-07-0306	R44/R44II	Cylindrical Emergency Float System	
EASA	EASA.IM.R.S.01334	R44/R44II	Cylindrical Emergency Float System	
New approvals are continually being added; if you do not see your required approval, contact your DART sales office to verify the status.				
Part Number	Product Description	Kit Weight	Installation Time	
644.7001	Emergency Float System with Extensions	51.00 lb / 23.10 kg	25 hrs	
644.7002	Emergency Float System	43.00 lb / 19.50 kg	20 hrs	
644.7003	Alternate Reservoir Location Kit	Contact Tech Support	Contact Tech Support	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
644.7001	Emergency Float System with Extensions	Kit includes 2 Fwd & 2 Aft cylindrical floats & 2 skid extensions. Price is for complete float system	R44/R44II	\$36,750
644.7002	Emergency Float System	Kit includes 2 Fwd & 2 Aft cylindrical floats. Price is for complete float system	R44/R44II	\$33,600
644.7003	Alternate Reservoir Location Kit	Kit includes cable and hardware to install the reservoir under the pilot seat	R44/R44II	Contact Sales

**Bearpaws**

**Bearpaws**

**Secure Landings**

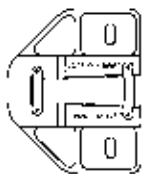
For as long as helicopters have been in operation, soft terrain landings have created problems for pilots. Without Bearpaws, you may have experienced balancing problems when landing or taking off in soft terrain such as tundra, snow, or sand.

DART Bearpaws are constructed of a high density polymer, not plywood, aluminum or composite. This polymer resists cracking, chipping and breaking. The one-piece machined construction ensures consistent and deliberate load transfer. The material is also flexible, so it can deflect under high-point contact loads when landing on rocks or roots, and DART Bearpaws have an inherent memory so they return to their original shape upon take off.

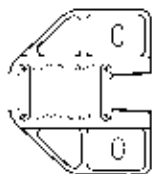
**Why purchase DART Bearpaws?**

- **Lightweight**
- **Easy to install**
- **High strength polymer with memory, deflects under critical point loading without failure and returns to original shape when unloaded**
- **Wearplates for anti-slip and wear protection**

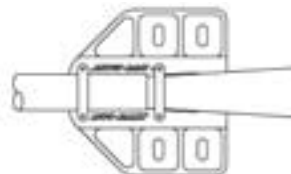
<b>BEARPAWS</b>				
<b>Approval</b>	<b>STC Number</b>	<b>A/C Approved</b>	<b>STC Description</b>	
Canada	SH02-9	R22 Alpha/Beta	UHMW Polymer Bearpaw	
USA	SR01493NY	R22 Alpha/Beta	UHMW Polymer Bearpaw	
Canada	SH02-8	R44/R44II	UHMW Polymer Bearpaw	
USA	SR01490NY	R44/R44II	UHMW Polymer Bearpaw	
EASA	EASA.IM.R.S.01335	R44/R44II	UHMW Polymer Bearpaw	
<i>New approvals are continually being added; if you do not see your required approval, contact your DART sales office to verify the status.</i>				
<b>Part Number</b>	<b>Product Description</b>	<b>Kit Weight</b>	<b>Installation Time</b>	
D022-661-011	Bearpaw Kit	4.60 lb / 2.10 kg	2 hrs	
D044-662-011	Bearpaw Kit	4.60 lb / 2.10 kg	2 hrs	
D044-662-013	Bearpaw Kit (Large)	6.20 lb / 2.81 kg	2 hrs	
D044-662-041	Bearpaw Wearplate Kit	1.60 lb / 0.73 kg	2 hrs	
<b>Part Number</b>	<b>Product Description</b>	<b>Special Comments</b>	<b>Aircraft Model</b>	<b>Price (USD)</b>
D022-661-011	Bearpaw Kit	For soft or uneven terrain landings. <i>Price is per aircraft</i>	R22	Contact Sales
D044-662-011	Bearpaw Kit	For soft or uneven terrain landings. Original design footprint. <i>Price is per aircraft</i>	R44	Contact Sales
D044-662-013	Bearpaw Kit (Large)	Larger R44 Bearpaw Kit. <i>Price is per aircraft</i>	R44	Contact Sales
D044-662-041	Bearpaw Wearplate Kit	For increased traction and wear protection. Features tungsten carbide welds. Installs on D044-662-011 and -013 Bearpaws. <i>Price is per aircraft</i>	R44	Contact Sales



**D022-661-011**



**D044-662-011**



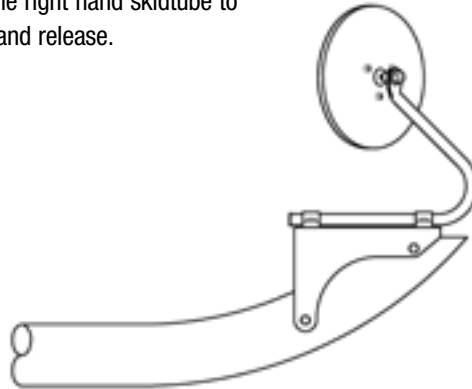
**D044-662-013**



**D044-662-041**

## Mirrors

The cargo mirror mounts easily to the fwd end of the right hand skidtube to provide better viewing of the cargo hook to pickup and release.



### CARGO MIRROR INSTALLATION

Approval	STC Number	A/C Approved	STC Description	
Canada	SH04-12	R22Alpha/R22Beta	Cargo Mirror Installation	
USA	SR01915NY	R22Alpha/R22Beta	Cargo Mirror Installation	
EASA	EASA.IM.R.S.01254	R22Alpha/R22Beta	Cargo Mirror Installation	
Canada	SH04-17	R44	Cargo Mirror Installation	
USA	SR01937NY	R44	Cargo Mirror Installation	
EASA	EASA.IM.R.S.01253	R44	Cargo Mirror Installation	
New approvals are continually being added; if you do not see your required approval, contact your DART sales office to verify the status.				
Part Number	Product Description	Kit Weight	Installation Time	
D022-716-011	Cargo Mirror Installation	1.2 lb / 0.54 kg	2 hrs	
D044-715-011	Cargo Mirror Installation	1.3 lb / 0.59 kg	2 hrs	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
D022-716-011	Cargo Mirror Installation	Provides view of cargo hook, 6" convex mirror, installs on Fwd end of RH skidtube	R22	\$746
D044-715-011	Cargo Mirror Installation	Provides view of cargo hook, 6" convex mirror, installs on Fwd end of RH skidtube	R44	\$746

## Windshields

### R22/R44 WINDSHIELDS

Part Number	Product Description	O.E.M. Part Number	Price (USD)	PMA Number
MN-A274-1	L/H windshield, clear	A274-1/-3	\$1,537	PQ0327SW
MN-A274-2	R/H windshield, clear	A274-2/-4	\$1,537	PQ0327SW
MN-A274-3	L/H windshield, tinted	A274-1/-3	\$1,537	PQ0327SW
MN-A274-4	R/H windshield, tinted	A274-2/-4	\$1,537	PQ0327SW

Does not include hardware. Replacement window only.

Windows

**Bubble Window Kit, Crew Door Window Kit  
Passenger Door Window Kit**

Save time and money by modifying your existing doors with DART's replacement window kits. The kits come complete with locking seals.



BUBBLE DOOR / CREW DOOR / PASSENGER DOOR WINDOW KITS			
Approval	STC Number	A/C Approved	STC Description
Canada	SH05-13	R44/R44II	Replacement Window Kit
USA	SR02088NY	R44/R44II	Replacement Window Kit
EASA	EASA.IM.R.S.01088	R44/R44II	Replacement Window Kit
Canada	SH05-14	R22 ALPHA/R22 BETA	Replacement Window Kit
USA	SR02089NY	R22 ALPHA/R22 BETA	Replacement Window Kit
EASA	EASA.IM.R.S.01087	R22 ALPHA/R22 BETA	Replacement Window Kit

New approvals are continually being added; if you do not see your required approval, contact your DART sales office to verify the status.

Part Number	Product Description	Kit Weight	Installation Time
D044-713-011	Crew Door Window Kit	1.50 lb / 0.68 kg	4 hrs
D044-713-013	Bubble Window Kit LH	2.50 lb / 1.10 kg	4 hrs
D044-713-014	Bubble Window Kit RH	2.50 lb / 1.10 kg	4 hrs
D044-713-015	Passenger Door Window Kit	1.20 lb / 0.54 kg	4 hrs
D022-714-011	Replacement Window Kit	1.30 lb / 0.59 kg	4 hrs
D022-714-014	Bubble Window Kit RH	3.00 lb / 1.36 kg	4 hrs

Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
D044-713-011	Crew Door Window Kit (Fits LH or RH)	Kit consists of replacement window, seals & cutting template. Price is per window	R44	\$1,132
D044-713-013	Bubble Window Kit LH VNE 100 KIAS	For enhanced viewing capability, kits consists of bubble window, seals & cutting template, may be swapped into doors previously modified with D044-713-011 Replacement Window Kit. Price is per window	R44	\$1,629
D044-713-014	Bubble Window Kit RH VNE 100 KIAS	For enhanced viewing capability, kits consists of bubble window, seals & cutting template, may be swapped into doors previously modified with D044-713-011 Replacement Window Kit. Price is per window	R44	\$1,629
D044-713-015	Passenger Door Window Kit (Fits LH or RH)	Kit consists of replacement window, seals & cutting template. Price is per window	R44	\$1,132
D022-714-011	Replacement Window Kit (Fits LH or RH)	Kit consists of replacement window, seals & cutting template. Price is per window	R22	\$1,132
D022-714-014	Bubble Window Kit RH VNE 92 KIAS	For enhanced viewing capability, kits consists of bubble window, seals & cutting template, may be swapped into doors previously modified with D022-714-011 Replacement Window Kit. Price is per window	R22	\$1,629

Does not include hardware. Replacement window only.

PLASTIC CLEANER				
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
FP006	NORDAM 210 Cleaner	Price is per 14 fl. Oz. Bottle. Sold in cases of 12 bottles.	ALL	Contact Sales

## Side Video Gimbal Support Framework

For over 40 years Tyler Camera Systems has been a leader in the design and manufacturing of equipment for aerial cinematography. Honored by the Motion Picture Industry 4 times with Academy Awards for Technical Achievement. Tyler has designed a line of frameworks to support popular video gimbal camera systems such as: Flir Ultramedia, Axsys / Cineflex V14, Polytech, Wescam. Tyler's R44 Video Gimbal Support system uses 4130 chrome molly steel for its framework and 7075-T6 aluminum for the clamping. Installation time, 30 to 60 minutes with no modifications to the ship. The Camera Support Framework can be mounted on either right or left side of the ship leaving all doors operational. The Tyler R44 framework system requires no counter balance weight.



- **No counterweight required**
- **Holds up to 105 lbs of equipment**
- **No ship modifications**

### SIDE VIDEO GIMBAL SUPPORT FRAMEWORK

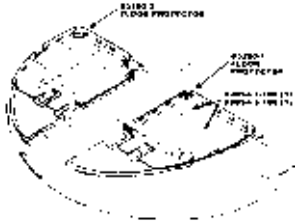
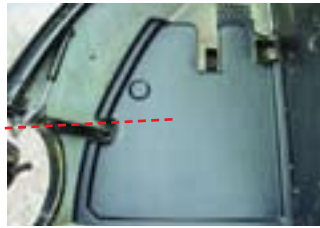
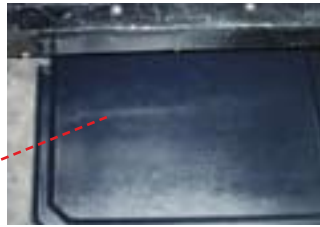
Approval	STC Number	A/C Approved	STC Description	
USA	SR 01272 LA	Robinson R44	Universal Mount for the Robinson R44 Helicopter	
EASA	EASA .IM.R.S.01298	Robinson R44	Universal Mount for the Robinson R44 Helicopter	
Canada	Pending	Robinson R44	Universal Mount for the Robinson R44 Helicopter	
New approvals are continually being added; if you do not see your required approval, contact your DART sales office to verify the status.				
Part Number	Product Description	Kit Weight	Installation Time	
R44 SVGF	Universal Mount for the Robinson R44 Helicopter	52.5 lbs	Under 1 hr	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
R44 SVGF	Universal Mount for the Robinson R44 Helicopter	Used Worldwide	R44	Contact Sales

**NEW!**

Maintenance Made Easy

Cabin Floor Protectors

Made of lightweight non-warping and durable plastic, this item will protect and save the life of your interior floor structure and carpet.



- Easy to install
- Easy to clean

CABIN FLOOR PROTECTORS				
Approval	STC Number	A/C Approved	STC Description	
Canada	SH04-30	R22 Alpha/R22 Beta	Cabin Floor Protector	
USA	SR02037NY	R22 Alpha/R22 Beta	Cabin Floor Protector	
EASA	EASA.IM.R.S.01074	R22 Alpha/R22 Beta	Cabin Floor Protector	
Canada	SH04-40	R44/R44II	Cabin Floor Protector	
USA	SR02051NY	R44/R44II	Cabin Floor Protector	
EASA	EASA.IM.R.S.01075	R44/R44II	Cabin Floor Protector	
New approvals are continually being added; if you do not see your required approval, contact your DART sales office to verify the status.				
Part Number	Product Description	Kit Weight	Installation Time	
D022-720-011	Cabin Floor Protectors	2.00 lb / 0.91 kg	0.5 hrs	
D044-719-011	Cabin Floor Protectors	3.90 lb / 1.8 kg	0.5 hrs	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
D022-720-011	Cabin Floor Protectors	Kit consists of two black plastic trays for the cabin floor, one kit completes one aircraft, solid color. Price is per aircraft	R22	\$486
D044-719-011	Cabin Floor Protectors	Kit consists of four black plastic trays for the cabin floor, one kit complete one aircraft, solid color. Price is per aircraft	R44	\$855

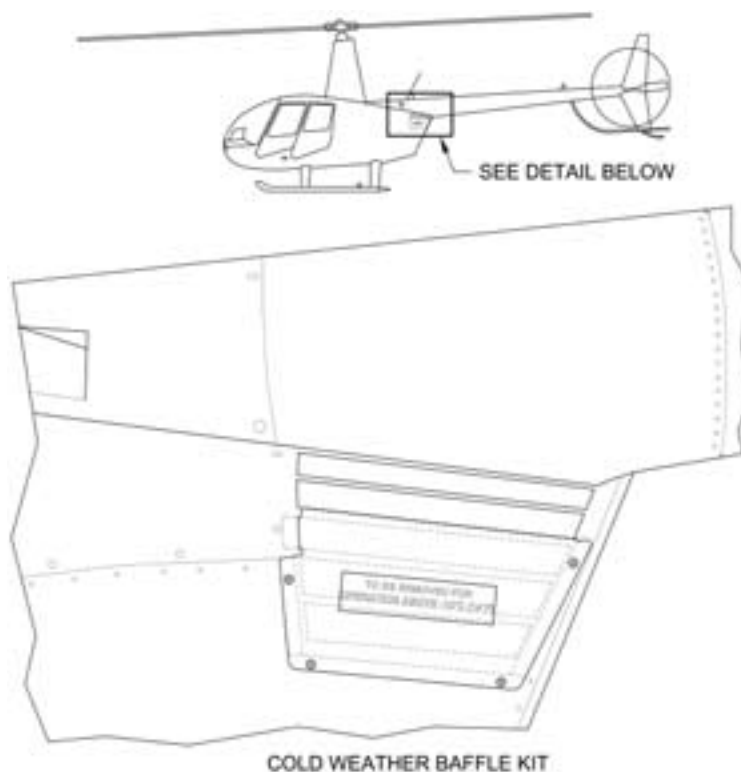
## Baffle Kit

Designed to restrict the amount of cold air that enters the engine cooling system affecting the engine oil temperature. The Baffle Kit will assist in maintaining engine oil temperature within its operational limits.

- Easy installation and removal
- Maintain engine oil temperature within its operational limits
- Ideal for cold weather operations



BAFFLE KIT				
Approval	STC Number	A/C Approved	STC Description	
Canada	SH05-7	R44/R44II	Cold Weather Baffle Kit	
USA	SR02148NY	R44/R44II	Cold Weather Baffle Kit	
EASA	EASA.IM.R.S.01076	R44/R44II	Cold Weather Baffle Kit	
New approvals are continually being added; if you do not see your required approval, contact your DART sales office to verify the status.				
Part Number	Product Description	Kit Weight	Installation Time	
D044-717-011	Cold Weather Baffle Kit	0.86 lb / 0.39 kg	Contact Technical Support	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
D044-717-011	Cold Weather Baffle Kit	Two baffles reduce the size of the inlets on the LH and RH side cooling ducts for improved operations in temperatures below -10°C/14°F	R44	\$1,379







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Prices shown in the catalog are in US dollars and are subject to change without notice.  
For more information on DART Helicopter Services and the most current pricing and product updates,  
please visit our website:

***[www.darthelicopterservices.com](http://www.darthelicopterservices.com)***



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