



Jeff ShapiroPresident/CEO



DART Helicopter Services, LLC P.O. Box 430, Piney Flats, TN 37686

Sales Office 352 Main Street West Suite 103 Hawkesbury, ON K6A 2H8 1-800-556-4166 or 1-613-632-3336 Fax: 1-613-632-4443

Email: sales@darthelicopterservices.com

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:

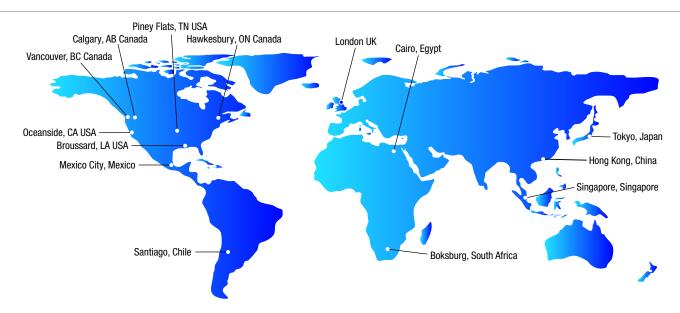
- The acquisition of Canam Aerospace and Cargo Net Innovations. This expands our portfolio of long line cargo hooks, bag automated transporters, primary hooks, carousels, long line nubbins, swivels, shock absorbers, logging grapples, synthetic long lines, and cargo nets for a variety of helicopter models.
- 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.

LOCATIONS



OUR TEAM HAS OVER 150 YEARS OF INDUSTRY EXPERIENCE



Peggy McDonald Director of World Wide Sales



Tham Wei MinSouth East Asia
Sales Representative



Roberto Sieveking Latin America Sales Representative



Heather MahonNorth America
Sales Manager



Robbin Fraser International Sales Associate



Jennifer RenwickMarketing Coordinator



Sam Summers New Business Liaison



Lucie Gaumond-Lamoureux Sales Associate



Shirley Hay Sales Associate



Carole O'Rourke Sales Associate



Carrie Pearson Sales Associate



Holly MenardMarketing Coordinator



Steve Joseph President of Geneva Aviation



Steve Cudnofskey Geneva Aviation Tech Support



Dan StowDART Aerospace
Tech Support



Lisa MansfieldApical Industries
Tech Support



Jean Kerr Sales Support



Linda Pilon Marketing Support

AGUSTAWESTLAND

Tooling AgustaWestland Tools Tri-Roller Staking Tools	. 49 . 51
A109	
Flotation Equipment	. 55
AW139	
Liferaft Kit	. 56
MME - Nose Landing Gear Doors Kit	. 57
A119	
Skidtubes and Wearplates	. 58
Flotation Equipment	
Access Steps	.63
Cargo Mirror	
Cargo Expansion	
Bearpaws	.66
Windows	. 67
MME - Inlet Barrier Filters	. 68



Introduction

AGUSTAWESTLAND

New and featured accessories for AgustaWestland Helicopters

- Tooling
- Float and Standard Round-I-Beam™ Skidtubes
- Emergency Float Systems with and without Liferafts
- Heli-Utility-Basket™
- Vertical Reference Bubble Window
- Nose Landing Gear Door for the AW139



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.DARThelicopterservices.com

Introduction

AGUSTAWESTLAND

Standard and custom tools for engine overhaul and aircraft maintenance for AgustaWestland helicopters









AgustaWestland Tools

MLG Jacking Adapter

Gives the correct interface between the L/G Single Axle Jack P/N 02-7861-9100 and the MLG.



RBW1691A0000-01

M/R PC Adj Tool

Used during the replacement of control link rod ends. The template allows the operator to measure the nominal length and the distance of centers.



RBW6205G00432

M/R Damper Rod End R&R Tool

Used to remove/install the rod end from the damper.



RBW6205G05951

FLT Control Rigging Tool Kit

Used to adjust the fixed flight controls.



RBW6705G00131

AGUSTAWESTLAND TOOLS						
Part Number	Part Number Product Description Special Comments Price (USD)					
RBW1691A0000-01	MLG Jacking Adapter	Gives the correct interface between the L/G Single Axle Jack P/N 02-7861-9100 and the MLG.	Contact Sales			
RBW6205G00432	M/R PC Adj Tool	Used during the replacement of control link rod ends. Contact The template allows the operator to measure the nominal length and the distance of centers.				
RBW6205G05951	M/R Damper Rod End R&R Tool	Used to remove/install the rod end from the damper.	Contact Sales			
RBW6705G00131	FLT Control Rigging Tool Kit	Used to adjust the fixed flight controls.	Contact Sales			

Tooling

AgustaWestland Tools

	1		
Part Number	Product Description	Special Comments	Price (USD
RBW1691A0000-01	MLG Jacking Adapter	Gives the correct interface between the L/G Single Axle Jack P/N 02-7861-9100 and the MLG.	Contact Sales
RBW7839	IGB and TGB Oil Draining Hose	Part of Helicopter Servicing Kit P/N 3G1205G00131. Used to drain the lubrication oil from the IGB and TGB.	Contact Sales
RBW1205G00231	M/R Damper Oil Filling Adapter	Part of Helicopter Servicing Kit P/N 3G1205G00131. Used in conjunction with a manual hydraulic oil pump to restore the hydraulic oil level into the M/R damper.	Contact Sales
RBW2805G00131	Boost Pump Cartridge Removal Tool	Used to remove the fuel boost pump cartridge.	Contact Sales
RBW6005G01431	Support, Dial Indicator M/R Damper	Used to inspect for play (axial) of the M/R damper spherical bearings (blade side), without removing the components from the aircraft.	Contact Sales
RBW6005G01531	Support, Dial Indicator M/R Damper	Used to inspect for play (axial) of the M/R damper spherical bearings (hub side), without removing the components from the aircraft.	Contact Sales
RBW6005G01631	Support, Dial Indicator S/P Scissors	Used to inspect for play of the M/R swash plate and the scissors assy, without remove the components from the aircraft.	Contact Sales
RBW6005G01831	Support, Dial Indicator T/R	Used to inspect for play (axial) of the T/R damper spherical bearings (TR blade side), without removing the components from the aircraft.	Contact Sales
RBW6205G00432	M/R PC ADJ Tool	Used during the replacement of control link rod ends. The template allows the operator to measure the nominal length and the distance of centers.	Contact Sales
RBW6205G03532	M/R Blade Trim Tab Tool	Used for main rotor blade trim tab bending	Contact Sales
RBW6205G05951	M/R Damper Rod End R&R Tool	Used to remove/install the rod end from the damper.	Contact Sales
RBW6205G12131	M/R Lever Tension Link Tool	Used to remove the M/R pitch link to CW play check (axial) of the upper and lower spherical bearings (off the aircraft).	Contact Sales
RBW6205G19231	M/R Scissor Bushing Replacement Kit	Used for removal and installation of the M/R upper scissor lever assy bushings.	Contact Sales
RBW6305G00132	Gimbal Bushing Kit	Used to repair the MGB gimbal assembly, replace bushings, without removing the component from the aircraft.	Contact Sales
RBW6705G00131	FLT Control Rigging Tool Kit	Used to adjust the fixed flight controls.	Contact Sales
RBW3205G00151	Main Landing Gear R&R Wrench	Used to torque and loosen the Main Landing Gear (MLG) retraction actuator attaching bolt.	Contact Sales
RBW6005G00331	M/R T/R Drive Seal R&R	Used to remove and install the lip seals from the main, tail and intermediate gearboxes. It must be used in conjunction with the puller and pusher to install/remove the lip seals into relevant housing without using a hand press.	Contact Sales
RBW6205G08931	M/R Scissor Coupling R&R Tool	Used to remove and install the coupling of the rotating scissors assembly.	Contact Sales
RBW6205G00331	M/R Blade Retention Bolt R&R Tool Kit	Used to remove and install the M/R blade bolts.	Contact Sales
RBW6205G04531	M/R Sliding Ring Centering Tool	Used to center the MRH sliding ring in order to adjust the flapping limiter stop.	Contact Sales
RBW6205G06232	M/R Flanged Bushing R&R Tool Kit	Used to pull out and push the flanged bushing on the MRH assy.	Contact Sales
RBW6205G11231	Swash Plate Assy Assembly Tool Kit	Used to replace the duplex ball bearing on the swash plate assy.	Contact Sales
RBW6305G01531	M/R Drive Seal Replacement Tool Kit	Used to repair the MGB by replacing the following Lip seals: Upper module assy, T/R drive quill assy, Fan drive quill assy, ECS and pump 1/2/3 drive quill assy.	Contact Sales
RBW6305G03531	Input Flange / Gimbal R&R Tool Kit	Used to replace the input flange and the gimbal input assembly on the MGB assembly.	Contact Sales
RBW6405G00332	T/R Pitch Control Link Adjust Tool	Used off A/C to adjust the tail-rotor pitch control link, length and setting position.	Contact Sales
RBW6405G07331	T/R Scissors Short Coupling Removal Tool	Used as an extractor during the removal procedures during the disassembly of the two half scissor P/N 3G6430A00331.	Contact Sales
RBW6405G07831	T/R Slider Bushing R&R Tool	Used to pull out and push the T/R slider bushing of the T/R spider and slider assy.	Contact Sales
RBW6405G08631	T/R Bushing Replacement Tool Kit	Used to replace the bushings in the following assemblies: Half Scissor, T/R Hub and the T/R Slider.	Contact Sales
RBW6505G00331	IGB TGB Blank Kit	Used to protect the IGB & TGB when during the repairing activities, the sub-assemblies or components are not immediately installed.	Contact Sales
RBW6505G00131	IGB Seal Replacement Tool Kit	Used for on aircraft replacement of IGB input & IGB output seals.	Contact Sales
RBW6505G00231	TGB Seal Replacement Tool Kit	Used for replacement of the TGB output and T/R servo actuator port seals.	Contact Sales
RBW6505G00331	Common Seal Replacement Tool Kit	Used for replacement of IGB input & TGB output seals w/o GB removal. With GB removed, used for replacement of IGB output & TGB input seals.	Contact Sales
RBW7105G00231	Engine Lifting Tool	Used to lift the engine assembly before putting it on the suitable trolley to do repair activity. It must be also used to move and support the engine during the maintenance activities.	Contact Sales
RBW7105G00132	Engine Transport Trolley	Used to transport, dress and undress the engine assembly. It must be also used to move and support the engine during the maintenance activities.	Contact Sales
RBW6005G00131	Multipurpose Trolley	Used to support and transport the following components: MRH, Swash plate assembly, TRH, IGB and TGB.	Contact Sales
RBW6205G09031	MRH Trolley Adapter	Used in conjunction with the multipurpose trolley to support the MRH assy during the repair activities.	Contact Sales
RBW6205G09131	Swash Plate Trolley Adapter	Used in conjunction with the multipurpose trolley to support the Swash Plate assy during the repair activities.	Contact Sales
RBW6405G05431	TRH Trolley Adapter	Used in conjunction with the multipurpose trolley to support the TRH assy during the repair activities.	Contact Sales
RBW6505G00731	IGB Trolley Adapter	Used in conjunction with the multipurpose trolley to support the IGB assy during the repair activities.	Contact Sales
RBW6505G00831	TGB Trolley Adapter	Used in conjunction with the multipurpose trolley to support the TGB assy during the repair activities.	Contact Sales
RBW6305G19833	MGB Build Up Trolley	Support equipment necessary for the MGB transportation and moreover to support the main gear box assy to do the dressing/undressing procedure before the installation on aircraft.	Contact Sales
RBW5305G00232	Tail Boom Transport Trolley	Used to transport the tail unit assembly during installation, removal or maintenance operations. The tool must be also used in conjunction with the tail section support sling.	Contact Sales

Tri-Roller Staking Tools

These tools use 3 rollers to stake the bearing with a superior finish. No more scuffing or tearing of the bearing lip and staking bearings is easier than ever. This tool line includes drill press swaging tools, install and removal aides, bearing cutters and portable systems used on aircraft. All portable units allow bearing replacement on aircraft in just a matter of minutes. These staking and cutting tools can be made for most bearings on almost any helicopter, let us know if there is one we can make for you!



- More stable than 2 roller design
- Portable designs allow for in situation removal and replacement without the use of power tools

TRI-ROLLER STAKING TOOLS					
Part Number	Product Description	Special Comments	Bearing Number	Price (USD)	
RBST1000	Drill Press Tri Roller		MS14101-3	\$1,087	
RBST1001	Drill Press Tri Roller		MS14103-3	\$1,087	
RBST1002	Drill Press Tri Roller	Also 214-011-811-103,222-312-751-1, ALK4-128-101 and TGA103A bearings	MS14103-4	\$1,087	
RBST1003	Drill Press Tri Roller	Also 205-001-048-1 & 209-001-051-1 bearings	MS14101-4	\$1,087	
RBST1004	Drill Press Tri Roller		MS14103-5	\$1,087	
RBST1005	Drill Press Tri Roller		MS14101-5	\$1,185	
RBST1006	Drill Press Tri Roller	Also MS14101-6 bearing	MS14103-6	\$1,185	
RBST1007	Drill Press Tri Roller	Also MS14103-7A, P213230 & VTB03490	MS14101-7	\$1,087	
RBST1008	Drill Press Tri Roller	Also 206-031-594 bearing	MS14103-7	\$1,087	
RBST1009	Drill Press Tri Roller	Also P21340 & VTB03500 Bearing	MS14101-8	\$1,087	
RBST1010	Drill Press Tri Roller		MS14103-8	\$1,087	
RBST1011	Drill Press Tri Roller		MS14101-9	\$1,087	
RBST1012	Drill Press Tri Roller		MS14103-9	\$1,087	
RBST1013	Drill Press Tri Roller		MS14101-10	\$1,087	
RBST1014	Drill Press Tri Roller		MS14103-10	\$1.087	
RBST1015	Drill Press Tri Roller		MS14103-12	\$1,087	
RBST1016	Drill Press Tri Roller	Also 206-031-590 & 209-031-351-1 Bearings	MS14101-12	\$1,087	
RBST1017	Drill Press Tri Roller	7.100 200 001 000 d 200 001 1 20d mig	MS14101-14	\$1,087	
RBST1018	Drill Press Tri Roller		MS14103-14	\$1,087	
RBST1019	Drill Press Tri Roller		MS14101-16	\$1,087	
RBST1020	Drill Press Tri Roller		MS14103-16	\$1,087	
RBST1034	Drill Press Tri Roller	Also 206-033-509-3, 222-330-619-101 & 222-330-625-1 bearings	206-033-509-003	\$1,085	
RBST2014	Drill Press Tri Roller	7100 200 000 003 0, 222 000 013 101 0 222 000 020 1 bouings	214-010-711-1	\$1,085	
RBST2015	Drill Press Tri Roller		214-010-711-1	\$1,085	
RBST2017	Drill Press Tri Roller		214-010-710-1	\$1,085	
RBST2058	Drill Press Tri Roller		222-312-752-1	\$1,085	
RBST2059	Drill Press Tri Roller	Also 222-312-750-1 bearing	222-312-732-1	\$1,005	
RBST2071	Drill Press Tri Roller	Also 222-312-750-1 bearing	222-312-702-105	\$1,185	
RBST2077	Drill Press Tri Roller			\$1,185	
RBST2089	Drill Press Tri Roller	Aloc 200 210 754 101 bearing	222-312-753-101 222-312-755-1	. ,	
		Also 222-312-754-101 bearing		\$1,185	
RBST2120	Drill Press Tri Roller		406-310-403-101	\$1,185	
RBST2128	Drill Press Tri Roller		412-010-427-101	\$1,185	
RBST2162	Drill Press Tri Roller		406-312-100-101	\$1,185	
RBST2417	Drill Press Tri Roller		230-330-509-101	\$1,185	
RBST3004	Drill Press Tri Roller		MS14103-5	\$1,185	
RBST3007	Drill Press Tri Roller		MS14101-7	\$1,185	
RBST3008	Portable Tri Roller	Also 206-031-594 & 206-031-591-1 &-3 bearings	MS14103-7	\$1,984	
RBST3009	Portable Tri Roller		MS14101-8	Contact Sales	
RBST3010	Portable Tri Roller		MS14103-8	Contact Sales	
RBST3016	Portable Tri Roller		MS14101-12	Contact Sales	

NOTES

Introduction

AGUSTAWESTLAND

New and featured accessories for A109, AW139 and A119 Helicopters

- A109 Emergency Float System with and without Liferaft
- AW139 Nose Landing Gear Door
- AW139 Liferaft Kit
- A119 Round-I-Beam™ Skidtubes
- A119 Heli-Utility-Basket™
- A119 Vertical Reference Bubble Window



Flotation Equipment

Cylindrical Emergency Float System with & without Rafts







The Apical AgustaWestland A109 Emergency Float and Emergency Float with Liferaft Kit consist of: Four emergency float (or emergency float with liferaft) installation assemblies attached to the OEM structural float provisions, and

electrical provisions for the floats (float arming switch, float deployment switch, liferaft deployment switch, and associated wiring). The kit also contains, at customer option, two 6-man liferafts which are packed on the Fwd floats and have their own electrical inflation system consisting of: One liferaft inflation reservoir, one capacitor box assembly, and two liferaft deployment switches, the primary installed on the center console, and the secondary attached to the overhead console between the crew and passenger compartments. All the associated plumbing, hardware, and electrical components to complete the installation of the kit are provided.

The emergency floats will allow the helicopter to land in water during an emergency ditching. The floats are inflated electrically when the float deployment switch on the collective is pushed. The Aft float is designed to reduce the chance of a tail rotor strike during autorotation water landing.

After a water landing, the two 6-man liferafts are electrically inflated by operating either the center console mounted guarded switch or the overhead mounted switch.

Only float system certified for the increased gross weight A109E/S.

Replacement: N/A

Floats (Number/Design): 4/(2 Fwd, 2 Aft) / Cylindrical Float

Float Inflation Reservoirs (Qty./Type/Gas): 4/Composite Wound/Helium (4400 psi (Fwd), 3800 psi (Aft) @ 70°F)

Inflation Mechanism: Electrical with collective mounted switch

Liferafts (Number/Design): 2/Six man with survival kits

Liferafts Inflation Reservoirs: 2/Composite Wound / Helium (3000 psi @ 70°F)

Liferafts Inflation Mechanism: Electrical from cockpit mounted switches

Special Design Features: Patented integrated Float / Liferaft (.4102). Utilizes pod mounted Floats, Liferafts & Reservoirs. Only Float System certified for the increased gross weight A109E/S.

Aircraft Limitations: Maximum altitude for float inflation is 5,000 AGL.

Max. Airspeed of Inflation:80 KIASMax. Airspeed Floats Inflated:80 KIASMax. Towing Speed:N/A

Maintenance / Overhaul: 18 mo. & 3 yrs. inspect and test / 18 mo. Liferafts & 3 yrs. Reservoirs, Valves

Exchange Program: Available for Floats, Liferafts & Reservoir Valve Assemblies & Reservoir Value Assembly

	CYLINDRICAL EMER	GENCY FLOAT SYSTEM WITH & WITI	HOUT RAFTS		
Approval	STC Number	A/C Approved	STC Description		
USA	SR01812LA	A109E/S	Cylindrical Emergency Flo	at System	
Brazil	ANAC 2008S08-04	A109E/S	Cylindrical Emergency Flo	at System	
Canada	RDMS 38668811v1	A109E	Cylindrical Emergency Flo	at System	
EASA	EASA.IM.R.S.01255	A109E/S	Cylindrical Emergency Flo	at System	
New approvals are conf	tinually being added; if you do not see your re	equired approval, contact your DART sales office to verify the status.			
Part Number	Product Description	Product Description		Installation Time	
634.4102	Emergency Float System with Rafts		240.00 lb / 109.09 kg	20 hrs	
634.4101	Emergency Float System		175.00 lb / 79.55 kg	20 hrs	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)	
634.4102	Emergency Float System with Rafts	Kit includes 2 Fwd & 2 Aft Cylindrical floats and rafts. Requires 0EM structural and electrical provisions Price is for complete float with rafts system	A109E	\$162,750	
634.4101	Emergency Float System	Kit includes 2 Fwd & 2 Aft Cylindrical floats. Requires OEM structural and electrical provisions Price is for complete float system	A109E	\$135,450	

Flotation Equipment

Liferaft Kit



The AW139 Liferaft Kit consists of two externally mounted Liferaft Pod Assemblies (LH and RH), a Liferaft inflation reservoir with a mechanical activation system,

as well as all of the plumbing, pull cables, and hardware required for installation. The Liferaft Pod Assemblies are comprised of an aluminum mounting structure, a fabric top cover, a carbon fiber bottom cover, a 10-Man Reversible Liferaft and an integrated composite Passenger Step.

The 10-man Reversible Liferafts are comprised of a twin tube design, a canopy, a survival kit and a fabric cover. The Liferafts have a 15-man overload capacity and meet all applicable TS0-C70a requirements.

One Liferaft reservoir assembly with hoses that lead to each chamber of the two Liferafts is included.

Also provided is a mechanical Liferaft inflation system with two cockpit mounted T-Handle levers mounted along the door frame on the pilot's and co-pilot's side, and one T-Handle mounted in the passenger compartment subfloor accessible through an access panel.

New Option: 12-Man Reversible Liferaft with 17-Man overload capability.





10-Man Reversible Liferaft

Liferafts Inflation Reservoirs: Liferafts Inflation Mechanism: Special Design Features: Aircraft Limitations: Maintenance / Overhaul: Exchange Program: 1 / Composite Wound/Helium or Nitrogen (4945 psi @ 70° F)

Mechanical from two cockpit-mounted T-Handles or cabin-mounted back-up T-Handles.

Significant weight (95 lb) & drag reduction over currently available system

No change

Annual & 3 yrs. Inspect and test / Annual Liferafts & 3 yrs. Reservoir

Available for Liferafts and Reservoir.

	LIFERAFT KIT					
Approval	STC Number	A/C Approved	STC Description			
USA	SR01949LA	AB139 & AW139	Liferaft Kit			
Canada	P-07-307	AB139 & AW139	Liferaft Kit			
EASA	EASA.IM.R.S.01308	AB139 & AW139	Liferaft Kit			
New approvals are contin	nually 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		
645.0901	Liferaft Kit	Liferaft Kit				
645.0902	Liferaft Kit (12-Man Liferaft)		TBD	30 hrs		
Part Number	Part Number Product Description Special Comments			Price (USD)		
645.0901	Liferaft Kit	Includes two Liferaft Pod Assemblies with Integrated Passenger Steps	AB139 & AW139	\$104,990		
645.0902	Liferaft Kit	With 12-Man Liferaft (STC amendment pending)	AB139 & AW139	Contact Sales		

Nose Landing Gear Doors Kit

The Nose Landing Gear Doors Kit is a complete bolt on solution to reduce drag and cabin noise associated with an open front wheelhouse. The doors are shipped primed and ready for paint, while the machined linkage components come anodized, primed, and painted to protect against corrosion. The kit installs in about a day, uses factory provisions found on all aircraft and requires no permanent modification to the airframe.

Lightweight Carbon fiber doors with closed cell foam cores. Billet Aluminum linkage, brackets, and hinges. Includes all hardware needed for complete installation.

Kit reduces drag and cabin noise. Can be installed as a stand alone kit or a replacement kit. No permanent alterations to airframe. Attaches to existing provisions on aircraft. Carbon fiber doors with closed cell foam cores impove service life and resist water absorption compared to the OEM doors.

- Reduce drag
- Reduce cabin noise
- Lightweight
- **Quick installation**







	NOSE LANDING GEAR DOORS KIT					
Approval STC Number A/C Approved STC Description						
USA	SR02108LA	108LA AB139 & AW139 Nose Landing Gear Doors Kit				
Canada	SH08-11	AB139 & AW139 Nose Landing Gear Doors Kit		Kit		
Part Number Product Description Kit Weight Installation				Installation Time		
645.8701	645.8701 Nose Landing Gear Doors Kit		29.0 lbs	10 hrs		
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)		
645.8701	Nose Landing Gear Doors Kit	Price is for complete kit	AB139 & AW139	\$29,400		

Skidtubes

Skidtube - Standard

DART believed that conventional skidtubes were under-designed for the types of landings most helicopters encounter. Conventional skidtubes are ill-equipped to face the critical loading conditions encountered when landing on uneven ground, rocks, tree roots, and other small objects. Under these conditions, simple round tubes tend to puncture, dent and bend because they cannot maintain their shape. DART's revolutionary patented Round-I-BeamTM technology combines the conventional round tube with the strength of the I-beam made from 6061-T6 aluminum. In DART skidtubes, the central I-beam web absorbs most of the impact on landing so the tube maintains its integrity. Even with the addition of a central web, the weight is comparable to that of conventional skidtubes. The DART Round-I-BeamTM Skidtube was designed to accommodate the extreme conditions involved in military use.

- Up to 10 times more resistant to damage
- Full length stainless steel wearplates with tungsten carbide welds and gaskets to prevent galvanic corrosion
- Manufactured from 6061-T6 aluminum that can be repaired by welding
- Reduce your inventory DART replacement skidtubes are LH/RH interchangeable





		SKIDTUBE		
Approval	STC Number	A/C Approved	STC Description	
Canada	Pending	A119/AW119MKII	Approved OEM Replacem	ent Skidtube
USA	Pending	A119/AW119MKII	Approved OEM Replacem	ent Skidtube
EASA	Pending	A119/AW119MKII	Approved 0EM Replacem	ent Skidtube
New approvals are con	tinually being added; if you do not see you	r required approval, contact your DART sales office to verify the status.		
Part Number	Product Description	Product Description		Installation Time
D119-646-011	Skidtube LH		Contact Tech Support	2 hrs
D119-646-012	Skidtube RH		Contact Tech Support	2 hrs
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
D119-646-011	Skidtube LH	Compatible on OEM crosstubes. Comes complete with saddles, full length stainless steel wearplates & gaskets.	A119 / AW119MKII	Contact Sales
D119-646-012	Skidtube RH	Compatible on OEM crosstubes. Comes complete with saddles, full length stainless steel wearplates & gaskets.	A119 / AW119MKII	Contact Sales
D119-646-041	Replacement Skidtube (Fits LH or RH)	Compatible on OEM crosstubes. Comes complete with saddles, full length stainless steel wearplates. Saddles & hardware not included.	A119 / AW119MKII	Contact Sales



D119-646-011/-012 Skidtube

Float Skidtubes

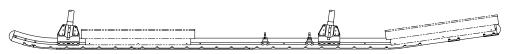
DART believed that conventional skidtubes were under-designed for the types of landings most helicopters encounter. Conventional skidtubes are ill-equipped to face the critical loading conditions encountered when landing on uneven ground, rocks, tree roots, and other small objects. Under these conditions, simple round tubes tend to puncture, dent and bend because they cannot maintain their shape. DART's revolutionary patented Round-I-Beam™ technology combines the conventional round tube with the strength of the I-beam made from 6061-T6 aluminum. In DART skidtubes, the central I-beam web absorbs most of the impact on landing so the tube maintains its integrity. Even with the addition of a central web, the weight is comparable to that of conventional skidtubes. The DART Round-I-Beam™ Skidtube was designed to accommodate the extreme conditions involved in military use. The DART Float Skidtube for the A119/AW119MKII is an integrated design that eliminates the need for any float extensions.

- Up to 10 times more resistant to damage
- Full length stainless steel wearplates with tungsten carbide welds and gaskets to prevent galvanic corrosion
- Extended skidtube length eliminates need for float extensions
- Manufactured from 6061-T6 aluminum that can be repaired by welding
- Reduce your inventory DART replacement skidtubes are LH/RH interchangeable



NEW!

		FLOAT SKIDTUBES		
Approval	STC Number	A/C Approved	STC Description	
Canada	Pending	A119/AW119MKII	Approved OEM Replacem	ent Float Skidtube
USA	Pending	A119/AW119MKII	Approved OEM Replacem	ent Float Skidtube
EASA	Pending	A119/AW119MKII	Approved OEM Replacem	ent Float Skidtube
New approvals are con	tinually being added; if you do not see your	required approval, contact your DART sales office to verify the status.		
Part Number	Product Description	Product Description		Installation Time
D119-646-013	Skidtube LH Apical Float Compatible		Contact Tech Support	2 hrs
D119-646-014	Skidtube RH Apical Float Compatible		Contact Tech Support	2 hrs
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)
D119-646-013	Skidtube LH Apical Float Compatible	Compatible on OEM crosstubes. Pre-drilled for Apical floats. Extended length skidtube eliminates need for extension. Comes complete with saddles, full length stainless steel wearplates & gaskets.	A119 / AW119MKII	Contact Sales
D119-646-014	Skidtube RH Apical Float Compatible	Compatible on OEM crosstubes. Pre-drilled for Apical floats. Extended length skidtube eliminates need for extension. Comes complete with saddles, full length stainless steel wearplates & gaskets.	A119 / AW119MKII	Contact Sales
D119-646-043	Replacement Float Skidtube (Fits LH or RH)	Compatible on OEM crosstubes. Pre-drilled for Apical floats. Extended length skidtube eliminates need for extension. Comes complete with full length stainless steel wearplates. Saddles & hardware not included.	A119 / AW119MKII	Contact Sales

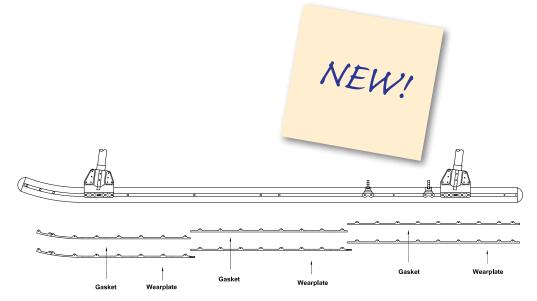


D119-646-013/-014 Skidtube

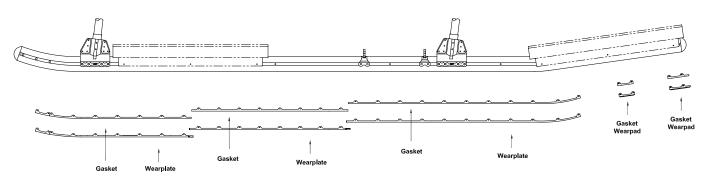
Skidtubes

DART Stainless Steel Wearplates & Wearpads

	WEARPLATES & WEARPADS						
Approval							
Please see associated New approvals are con	• • • • • • • • • • • • • • • • • • • •	required approval, contact your DART sales office to verify the status.					
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)			
D119-646-141	Wearplate Kit Standard Skidtube	Installs on D119-646-011/-012 standard skidtubes. Includes 3 full length stainless steel wearplates with tungsten carbide welds, corresponding gaskets, and hardware. Price is per skidtube	A119/AW119MKII	Contact Sales			
D119-646-143	Wearplate Kit Float Skidtube	Installs on D119-646-013/-014 float skidtubes. Includes 3 full length stainless steel wearplates & 2 stainless steel wearpads with tungsten carbide welds, corresponding gaskets, and hardware. Price is per skidtube	A119/AW119MKII	Contact Sales			



D119-646-011/-012 Skidtube (with D119-646-141 Wearplate Kit)



D119-646-013/-014 Skidtube (with D119-646-143 Wearplate Kit)

Stainless Steel hardware eases removal for inspection and replacement Gaskets eliminate the need for messy sealant

Run-on Landing Wearplates

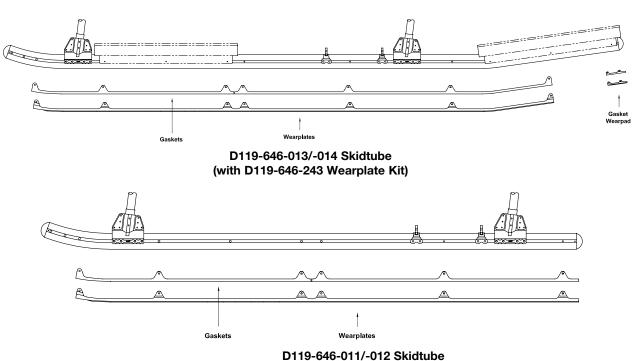
DART's traditional wearplates and wearpads are designed for durability under normal wear conditions. However, training and run-on landings present unique requirements for durability far in excess of normal operations. DART Run-on Landing Wearplates are specifically designed for the harsh use of training and run-on landings. DART Run-on Landing Wearplates feature an easy bolt on installation and gaskets (no sealant required).

- Improved wear resistance
- Quick & easy to install & remove
- Installs with gaskets (no messy sealant)
- Corrosion resistant





	RUN-ON LANDING WEARPLATES						
Approval							
Please see associated S		required approval, contact your DART sales office to verify the status.					
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)			
D119-646-241	Run-on Landing Wearplate Kit Standard	Installs on D119-646-011/-012 standard skidtubes. Includes stainless steel wearplates with heavy duty tungsten carbide training weld, corresponding gaskets, and associated hardware. Price is per aircraft	A119/AW119MKII	\$1,050			
D119-646-243	Run-on Landing Wearplate Kit Float	Installs on D119-646-013/-014 float skidtubes. Includes stainless steel wearplates with heavy duty tungsten carbide training weld, stainless steel wearpad, corresponding gaskets, and associated hardware. Price is net aircraft	A119/AW119MKII	\$1,250			



D119-646-011/-012 Skidtube (with D119-646-241 Wearplate Kit)

Flotation Equipment

Tri-Bag Emergency Float System with & without Rafts



The AgustaWestland A119 Emergency Float System is compatible with ground handling wheels and the float bags can be removed in a matter of

Also approved for AW119MKII

minutes. All hoses and fittings are stainless steel and an electrical solenoid valve with a mechanical backup is standard with the system. The cylinder valve assemblies, floats and liferafts are available as exchange items, thereby reducing maintenance and down time. All float chambers come standard with field replaceable topping/pressure relief valves. The float bags are on-condition do not have to be returned to the factory for recertification. Factory recertification of the system is available for customers who desire OEM services.

Replacement: N/A

Floats (Number/Design): 4 (2 Fwd, 2 Aft)/Tri-Bag

Float Inflation Reservoirs (Qty./Type/Gas): 2 (Single Assy)/Composite Wound/Helium (4800 psi @ 70°F) **Inflation Mechanism:**

Electrical with collective mounted switch and mechanical backup

(cockpit mounted T-handle or lever)

Liferafts (Number/Design): 2/Six man with survival kits

Liferafts Inflation Reservoirs: 1/Composite Wound/Nitrogen (2475 psi @ 70°F) **Liferafts Inflation Mechanism:** Mechanical from cockpit mounted T-handle

Special Design Features: Patented integrated Float/Liferaft (.0201). Utilizes skid extension for Aft floats

Aircraft Limitations: Maximum pressure altitude for float inflation is 5,500 ft.

Max. Airspeed of Inflation: 90 KIAS Max. Airspeed Floats Inflated: 90 KIAS Max. Towing Speed: 10 kts

Maintenance / Overhaul: Annual & 3 yrs. inspect and test /

Annual Liferafts & 3 yrs. Reservoirs

Exchange Program: Available for Floats, Liferafts & Reservoir Valve Assemblies.

TRI-BAG EMERGENCY FLOAT SYSTEM WITH & WITHOUT RAFTS					
Approval	STC Number	A/C Approved	STC Description		
USA	SR01392LA	A119/AW119MKII	Tri-Bag Emergency Float System		
Canada	P-06-0313	A119 (AW119MKII pending)	Tri-Bag Emergency Float	Tri-Bag Emergency Float System	
EASA	EASA.IM.R.S.01441	A119/AW119MKII	Tri-Bag 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	
604.0101	Emergency Float System		171.00 lb / 77.73 kg	40 hrs	
604.0102	Emergency Float System		183.00 lb / 83.18 kg	40 hrs	
604.0201	Emergency Float System with Rafts	Emergency Float System with Rafts		40 hrs	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)	
604.0101	Emergency Float System	Price is for complete float system	A119	\$116,025	
604.0102	Emergency Float System	Reservoir mounted in baggage compartment. Price is for complete float system	A119	\$125,685	
604.0201	Emergency Float System with Rafts	Price is for float with rafts system	A119	\$155,138	

Heli-Access-Step™

Like many of the step designs from DART, steps for the A119 and AW119 MKII aircraft feature a secure duplex clamping system that self-locks when weight is applied to prevent slippage down the crosstubes. DART steps install easily on the crosstubes and require no modification to the landing gear.

- Full length
- Replaces OEM short steps



HELI-ACCESS-STEP™						
Approval	STC Number	A/C Approved	STC Description			
Canada	LoA SA5010-A329/SA5012-12	A119 (AW119MKII pending)	Heli-Access-Step™			
USA	SR00948SE	A119/AW119MKII	Heli-Access-Step™			
EASA	EASA.IM.R.S.01458	A119/AW119MKII	Heli-Access-Step™			
New approvals are contin	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			
D119-675-011	Heli-Access-Step™ LH		11.50 lb / 5.20 kg	2 hrs		
D119-675-012	Heli-Access-Step™ RH	Heli-Access-Step™ RH		2 hrs		
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)		
D119-675-011	Heli-Access-Step™ LH	Clamps include bearings to prevent over stressing from landing gear displacements. Price is per side	A119 / AW119MKII	\$2,132		
D119-675-012	Heli-Access-Step™ RH	Clamps include bearings to prevent over stressing from landing gear displacements. Price is per side	A119 / AW119MKII	\$2,132		

Mirror

Cargo Mirror

The cargo mirror allows the pilot to clearly view the cargo hook for safer hookup and release. The installation is available also in a dual mirror configuration for pilot training. The cargo mirror attaches using existing fasteners. Although the mirror is stowed for cruise flight, the pilot can deploy the mirror at low speeds using the control cable inside the cabin.



CARGO MIRROR INSTALLATION						
Approval	STC Number	A/C Approved	STC Description			
Canada	LoA SA5010-A329/SA5012-12	A119 (AW119MKII pending)	Cargo Mirror Installation			
USA	SR01043SE	A119/AW119MKII	Cargo Mirror Installation			
Italy	N-CS-014	A119 (AW119MKII pending)	Cargo Mirror Installation			
New approvals are conti	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	art Number Product Description		Kit Weight	Installation Time		
D119-696-011	Single Cargo Mirror Installation	Single Cargo Mirror Installation		4 hrs		
D119-696-013	Dual Cargo Mirror Installation		3.00 lb / 1.36 kg	4 hrs		
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)		
D119-696-011	Single Mirror Installation	Provides view of cargo hook, 6" convex mirror, installs on nose of aircraft using existing fasteners. Mirror is stowed for cruise flight but can be deployed at low speed with a push-pull cable	A119 / AW119MKII	\$1,254		
D119-696-013	Dual Mirror Installation	Provides view of cargo hook, 6" convex mirrors, installs on nose of aircraft using existing fasteners. Mirror is stowed for cruise flight but can be deployed at low speed with a push-pull cable	A119 / AW119MKII	\$1,370		

Heli-Utility-Basket[™]

Constructed of stainless steel with a high-gloss, white scratch-resistant finish, the DART Heli-Utility-Basket™ is practical and looks great.

A self-locking handle keeps cargo secure during flight. The easy bolt-on installation and optional Pip Pin Kit allow you to install or remove the basket in minutes wherever you are.

- No VNE restriction with basket installed
- Approved for installation on either left or right side
- Ideal for transportation of skis, golf clubs, fire fighting equipment or tools

PRODUCT SPECIFICATIONS			
Part Number D119-756-041			
Aircraft	A119 / AW119MKII		
Length	102" / 2.55m		
Width	25" / 0.63m		
Depth 23.0" / 0.58m			
Load Capacity 220 lb / 100 kg 146 lb / 66 kg on MKII mod			
Weight 100 lb / 45.30 kg			





	HELI-UTILITY-BASKET™					
Approval	STC Number	A/C Approved	STC Description			
Canada	SH06-39	A119 (AW119MKII pending)	Heli-Utility-Basket™			
USA	SR02364NY	A119/AW119MKII	Heli-Utility-Basket™	-Utility-Basket™		
EASA	EASA.IM.R.S.01289	A119 (AW119MKII pending)	Heli-Utility-Basket™			
New approvals are conf	tinually 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		
D119-756-041	Heli-Utility-Basket™	Heli-Utility-Basket™		2 hrs		
D119-756-011	Clamp Kit	Clamp Kit		1 hr		
D119-756-013	Quick Release Pip Pin Kit	Quick Release Pip Pin Kit		0.5 hrs		
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)		
D119-756-041	Heli-Utility-Basket™ (Fits LH or RH)	Comes complete with struts, hardware and clamps. Compatible with D119-675 DART Heli-Access-Steps™. RH only installation on MKII model. Price is per side	A119 / AW119MKII	\$11,545		
D119-756-011	Clamp Kit	Additional clamp kit allows basket to be quickly moved to opposite side of aircraft or to another aircraft. Price is per side	A119 / AW119MKII	\$654		
D119-756-013	Quick Release Pip Pin Kit	Includes 4 pip pins, for D119-756-041 basket. Price is per basket	A119 / AW119MKII	\$424		

Bearpaws

Bearpaws

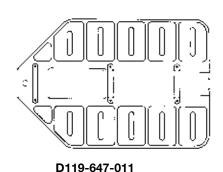
Secure Landings

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.

- Lightweight
- Easy to install
- High strength polymer with memory, deflects under critical point loading without failure and returns to original shape when unloaded
- Provides antislip and wear protection

BEARPAWS					
Approval	STC Number	A/C Approved	STC Description		
Canada	LoA SA5010-A329/SA5012-12	A119 (AW119MKII pending)	UHMW Polymer Bearpaw		
USA	SR00949SE	A119/AW119MKII	UHMW Polymer Bearpaw		
Austria	ACG.21NE.012	ACG.21NE.012 A119 (AW119MKII pending) UHMW Polymer Bearpaw			
Italy	N-CS-022 A119 (AW119MKII pending)		UHMW Polymer Bearpaw		
New approvals are contin	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		
D119-647-011	Bearpaw Kit		15.40 lb / 7.00 kg	2 hrs	
D119-647-021	Bearpaw Wearplate Kit		2.24 lb / 1.00 kg	1 hr	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)	
D119-647-011	Bearpaw Kit	For soft or uneven terrain landings.	A119 / AW119MKII	\$3,968	
		Price is per aircraft			





Vertical Reference Bubble Window, Replacement Crew Door Flat Window

Crew Door Window Kit

- Fits either LH or RH
- Installs with a locking seal
- Can be swapped in/out and replaced with either bubble window kit or OEM window

Vertical Reference Bubble Window

- Enhances viewing capability by adding approximately 11.0" of head-space
- Installs with a locking seal
- Can be swapped in/out and replaced with either DART or OEM crew window
- No VNE restriction with bubble window installed
- Installs RH only





BUBBLE WINDOW / CREW DOOR WINDOW KITS					
Approval	STC Number A/C Approved STC Description				
Canada	SH07-36	A119 (AW119MKII pending)	Replacement Window Kits		
USA	SR02508NY	A119/AW119MKII	Replacement Window Kit	S	
EASA	pending	A119 (AW119MKII pending)	Replacement Window Kits		
New approvals are con	tinually being added; if you do not see yo	our required approval, contact your DART sales office to verify the status.			
Part Number	Product Description		Kit Weight	Installation Time	
D119-755-011	Crew Door Window Kit		3.50 lb / 1.60 kg	1 hr	
D119-755-014	Bubble Window Kit RH	Bubble Window Kit RH		1 hr	
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)	
D119-755-011	Crew Door Window Kit (Fits LH & RH)	Kit consists of a replacement window & seal. Note that the window does not have a sliding/opening panel Price is per window	A119 / AW119MKII	\$688	
D119-755-014	Bubble Window Kit RH	For enhanced viewing capability, kit consists of bubble window & seal. Price is per window	A119 / AW119MKII	\$1,381	

Maintenance Made Easy

Inlet Barrier Filters - AFS

Product Description:

Introducing a new unique AgustaWestland A119 and AW119MKII Koala Inlet Barrier Filter (IBF) system featuring an innovative lightweight and simple to install option versus the significantly less capable Engine Air Particle Separator (EAPS) or FOD Screen. The IBF system literally slips into the current engine inlet fairing location with minor aircraft modification. The lightweight assembly with three flat conformal filters are designed to perform with ultimate efficiency in all flight regimes. The significant amount of filter area allows cleaning service cycles as long as 300 hours (service life is a function of the operating environment) and no performance restrictions using basic inlet charts. A self contained bypass system is provided with a cockpit annunciation and activation switch along with a Filter Maintenance Aid (FMA) for on condition monitoring of filter condition. An Aft facing bypass door ensures that dirt and snow do not enter the inlet and allows flight in all environment conditions without restrictions. Flat filter assemblies make servicing a snap, and the filters can be removed and replaced in 15 minutes. The design of the AFS AgustaWestland A119 system allows quick and simple installation in exactly the same location as the existing FOD screen. The AFS IBF system provides dust, sand, and dirt separation efficiencies exceeding 99% to insure your engine has the maximum protection possible. This IBF system is available as a factory direct option on the A119.

Features:

The system offers a significant improvement over the existing EAPS or FOD screens. The assembly is self contained and structurally integrated into the existing manufacturer's inlet plenum provisions. Original mount provisions for the FOD screen are used to support the IBF including its self contained bypass system. An Aft facing bypass door ensures that dirt and snow do not enter the inlet allowing operation in any environmental condition with no restrictions. The bypass system provides a new capability for the inlet not previously available with the EAPS. External horizontal and vertical mounting of three filter assemblies allow easy access for servicing; the dual flow path assures optimum performance in both hover and forward flight conditions. The three filter assemblies are reusable with 4,500 hour life based on 15 300-hr service cycle intervals. Cockpit annunciation of a bypass condition is provided in a self contained switch also used to activate the bypass actuator. An integral FMA allows on condition assessment of filter contamination level avoiding unnecessary servicing. Performance improvements in the aircraft yield up to 20 degrees more MGT margin compared to the EAPS, and a greater margin of safety when and where you need it. Access to IBF critical components (pressure sensor, FMA) is provided through a forward access door. A119 performance can be achieved utilizing the basic inlet charts, see approved FAA Flight Manual Supplement (FMS).



Benefits:

- Proven technology with over 1,000,000 flight hours
- Lowest life cycle costs over alternate systems / Up to 3 times the filter life
- Maximum engine protection with improved engine performance
- · Improved engine inlet plenum access
- Reduced engine maintenance
- Filter Maintenance Aid (FMA) for on-condition filter assessment
- Non-intrusive cockpit installation with minimal aircraft modifications
- Common components with other AFS certified systems
- Long lasting, flat filter assembly for easy cleaning
- Environmental cover included

		INLET BARRIER FILTER			
Approval	STC Number	A/C Approved STC Description			
USA	SR02338CH	A119, AW119 MKII	Inlet Barrier Filter		
USA	SR02338CH	A119, AW119 MKII	FOD Screen		
Canada	SH07-39	A119	Inlet Barrier Filter		
EASA	Pending	A119	Inlet Barrier Filter		
New approvals are con	tinually 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	
119000-101	AFS A119 Inlet Barrier Filter Kit (includes environmental cover)	21.90 lb (+3.90 lb installed)		40 hrs	
119000-103	AFS A119 FOD Screen Kit				
119300-101	Filter Assembly, Upper - Spare				
119350-101	Filter Assembly, Side - Spare				
Part Number	Product Description	Special Comments	Aircraft Model	Price (USD)	
119000-101	AFS A119 Inlet Barrier Filter Kit	Replaces Sand Filter, EAPS, or FOD Screen Filter.	A119	\$41,060	
119000-103	AFS A119 FOD Screen Kit		A119	Contact Sales	
119300-101	Filter Assembly, Upper - Spare		A119	\$2,970	
119350-101	Filter Assembly, Side - Spare	Filter Assembly, Side - Spare(2 required;Price/Each)	A119	\$1,850	
100800-101	Service Kit	Kit includes 1 gal AFS oil and cleaner, 16oz applicator bottle with spout, cleaner/degreaser sprayer, seamer pliers	All	\$530	



DART Helicopter Services, LLC

P.O. Box 430, Piney Flats, TN 37686

Sales Office

1-800-556-4166 or 1-613-632-3336

Fax: 1-613-632-4443

Email: sales@darthelicopterservices.com

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

