

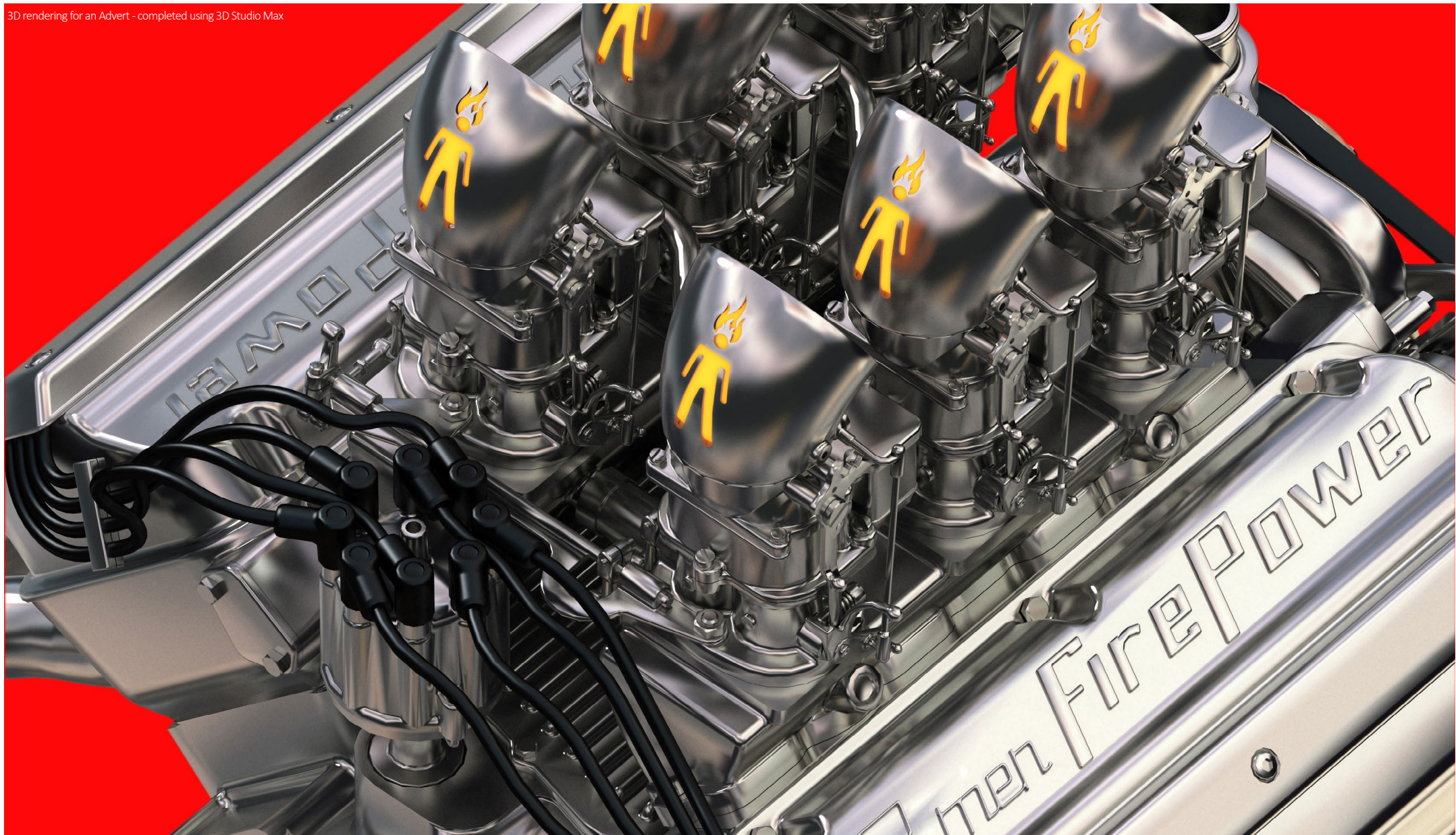
Luxury yacht cutaway showing Xylem® components - completed using 3D Studio Max, V-Ray & Photoshop



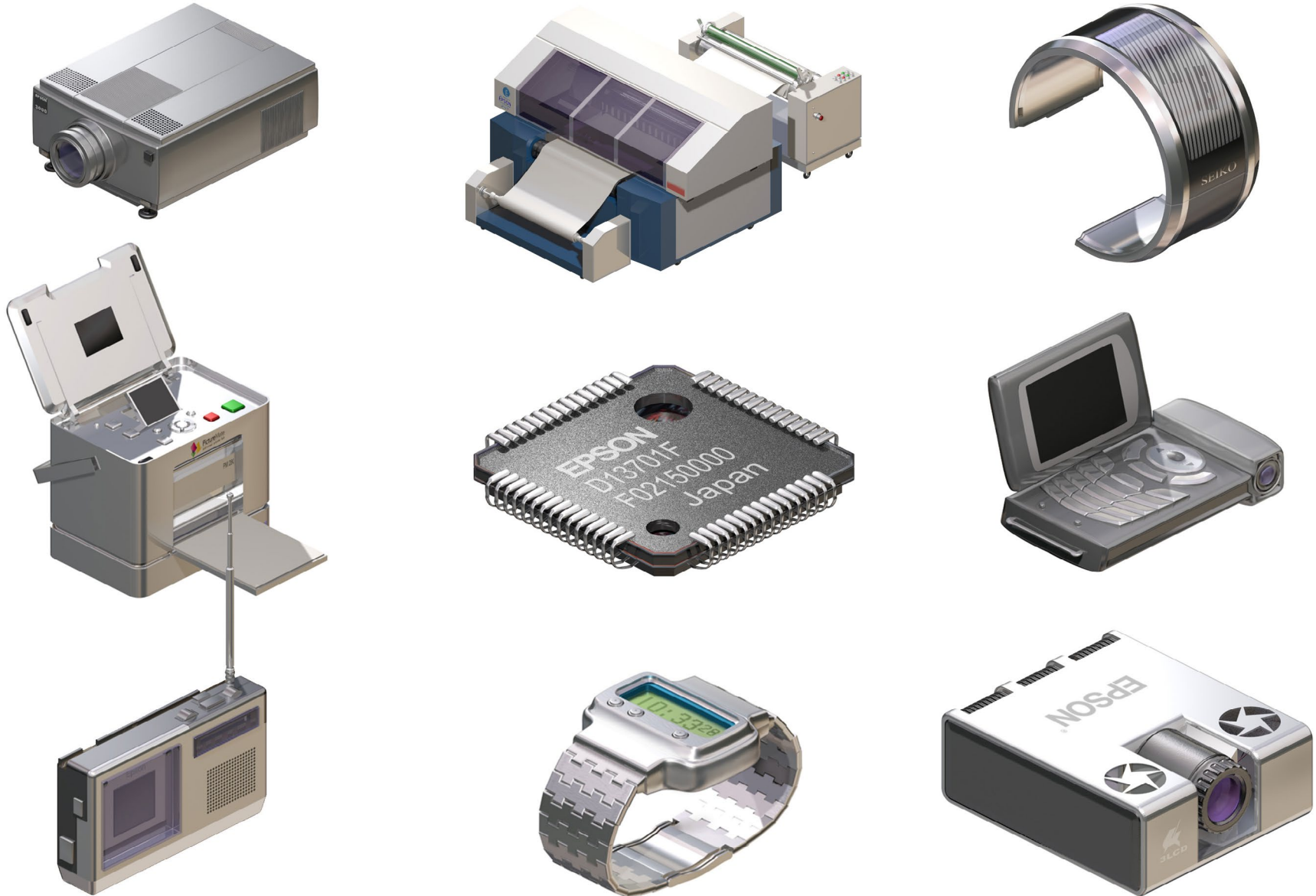
3D rendering for an Advert and website animation - completed using 3D Studio Max



3D rendering for an Advert - completed using 3D Studio Max



Epson retro products advert - completed using 3D Studio Max & Photoshop



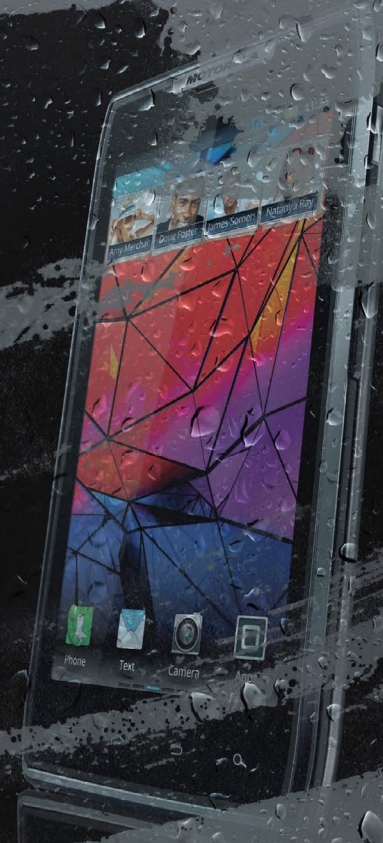
Exploded Tracer Watch- completed using 3D Studio Max & Photoshop



Motorola RAZR advert - completed using Photoshop only

GET YOUR  
HANDS  
ON ME

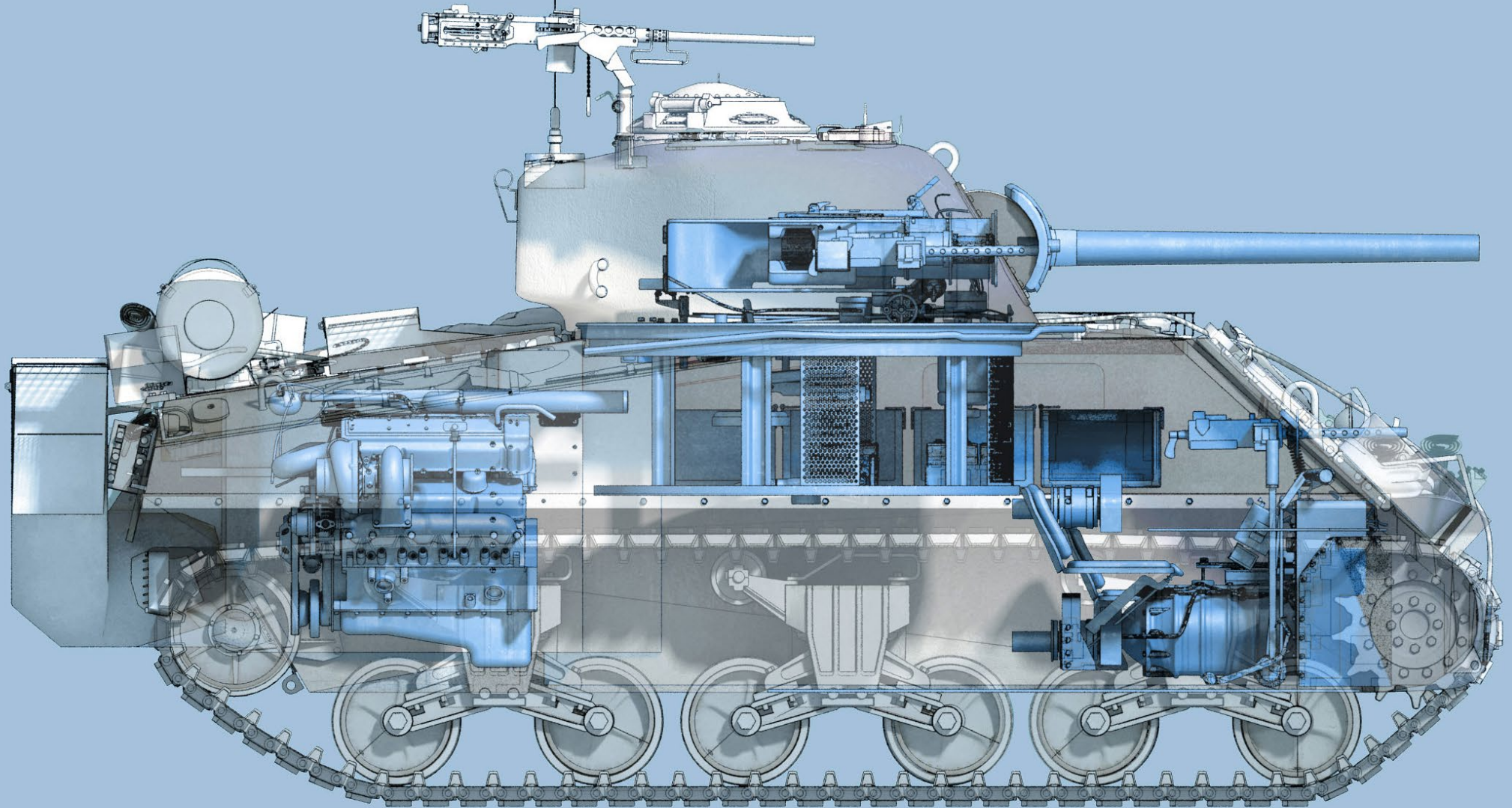
MOTOROLA  
RAZR™



Example of before & after retouching in Photoshop

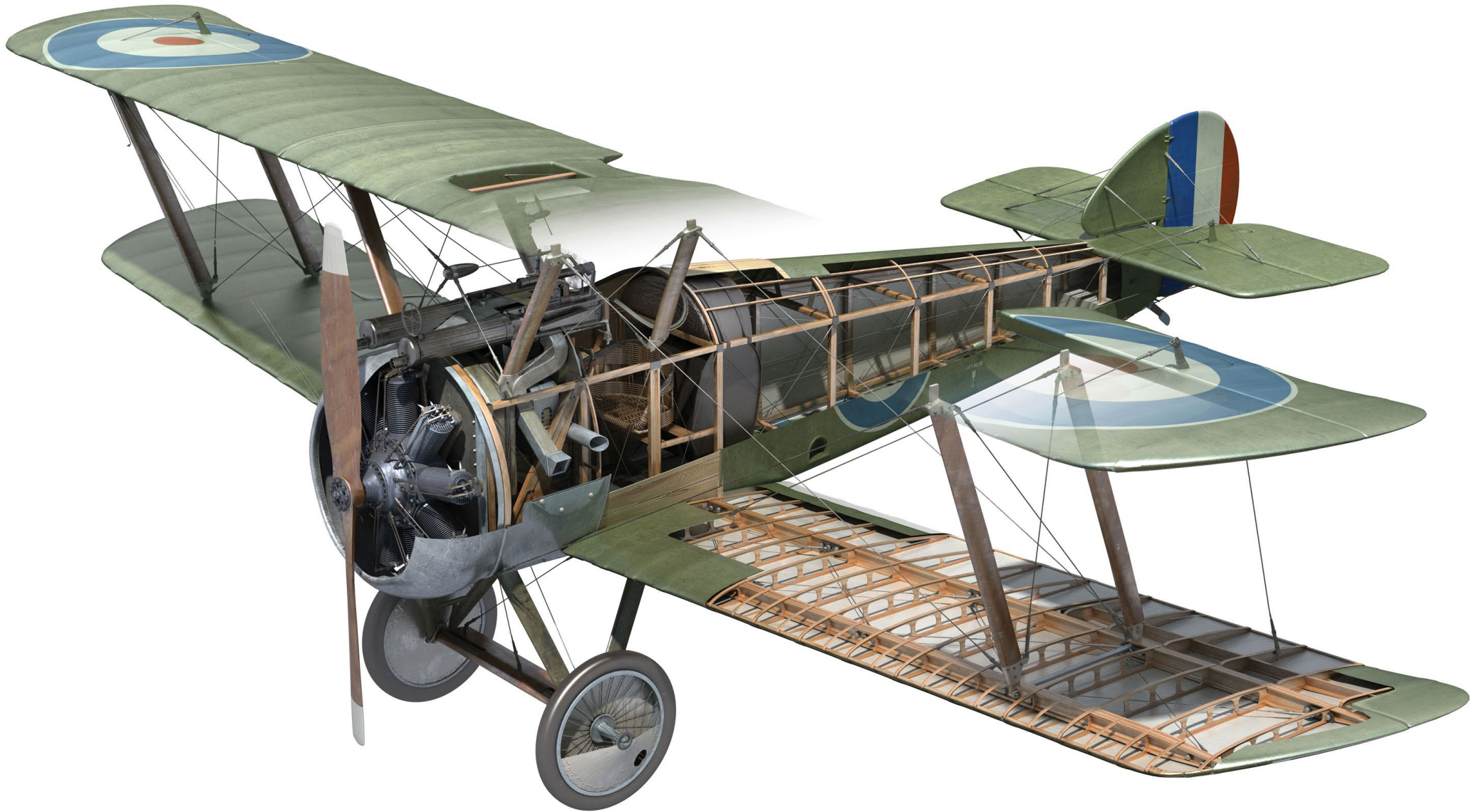


Line and colouring to illustrate the working internals of this M1 A1 Sherman tank - completed using 3D Studio Max, V-Ray & Photoshop





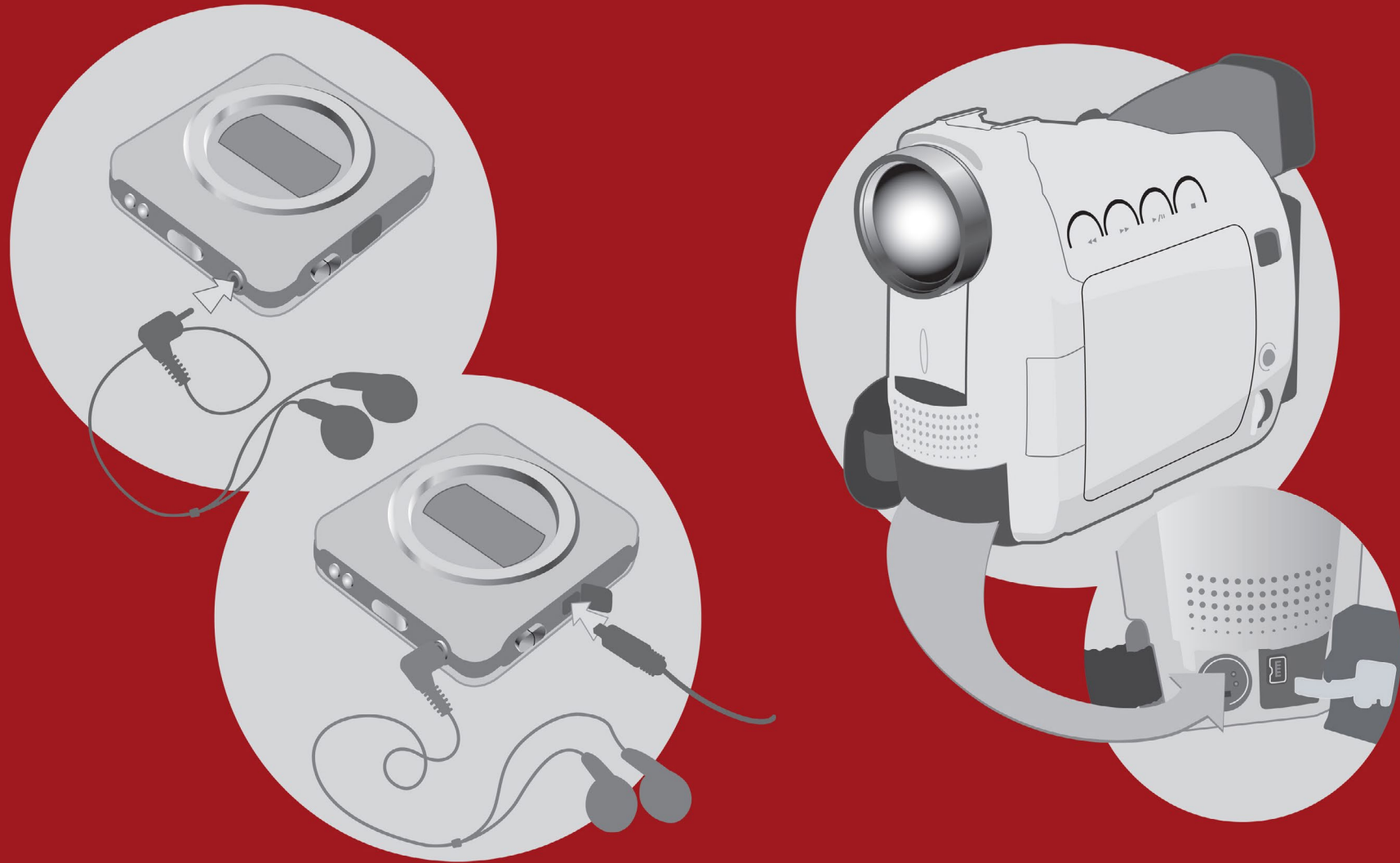
The classic WW1 British fighter "The Sopwith Camel" Osprey Publishing Dual Series of books.- completed using 3D Studio Max to model the fighter & V-Ray 3 to render



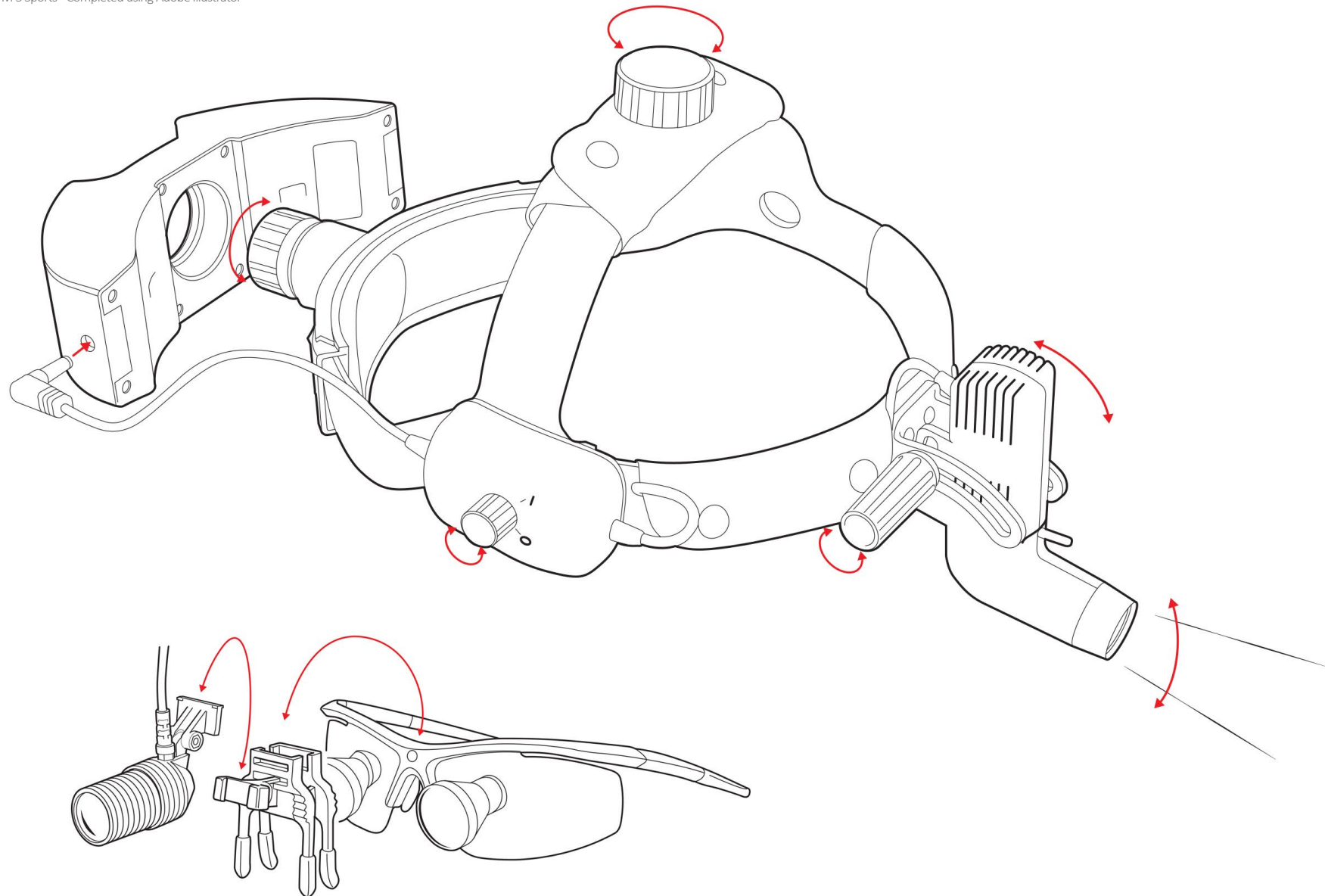
Italian M14/41 Medium Tank cutaway, Osprey Publishing - completed using 3D Studio Max, V-Ray & Photoshop

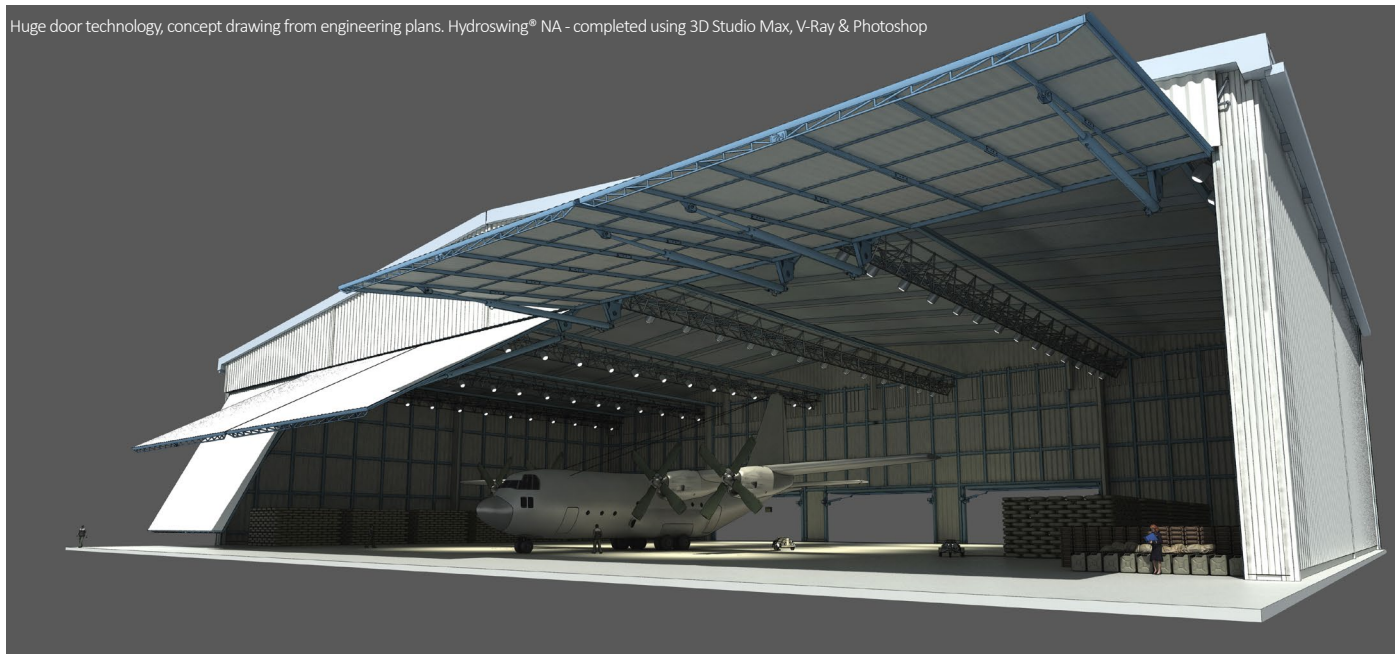


Cannon quick guide - Completed using Adobe Illustrator



Black & White line art for Opticlar VM 3 Sports - Completed using Adobe Illustrator





Conceptual hydraulic door design - completed in 3D

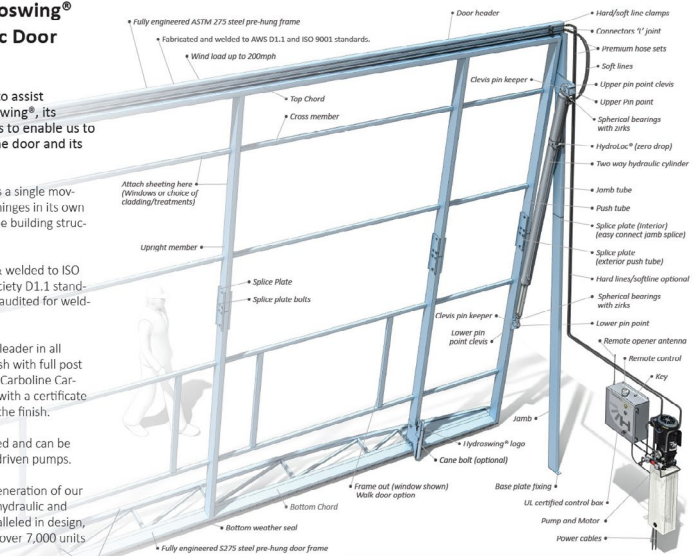
Concept art and design finishes for Ocean 398, we explored finishes and colours, this was my final version - completed using 3D Studio Max, V-Ray



### Anatomy of the Hydroswing® Single Panel Hydraulic Door System.

The purpose of this visual aid is to assist communication between Hydroswing®, its Suppliers and the Customer so as to enable us to talk together effectively about the door and its component parts.

- The Hydroswing® door system is a single moving panel which is pre-hung by hinges in its own frame which then attaches to the building structure.
- The Hydroswing® is fabricated & welded to ISO 9001 and American Welding Society D1.1 standards with each door stringently audited for welding and quality assurance.
- The Hydroswing® is an industry leader in all aspects, but especially in its finish with full post fabrication shot blast. We use a Carboline Carboguard 890 Epoxy paint finish with a certificate of conformance for integrity of the finish.
- Electrical controls are UL certified and can be single, three phase or even DC driven pumps.
- The Hydroswing® is the latest generation of our design incorporating the latest hydraulic and welded steel technology, unparalleled in design, strength and integrity, boasting over 7,000 units world wide.



**Note:** As a safety precaution, there is no automatic close; the buttons must be constantly pressed to move the door.

Operation

#### SAE 10 or ISO 32

used in the reservoir pump, use a 5/16" O.D. plug. (Hy-Power)

seal to the plug and

fluid (approximately ISO 32 or similar). If the door with a tractor, use the fluid.



Operation

#### Motors:



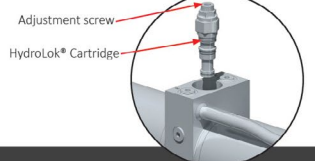
- Before servicing a motor and motor-operated equipment, disconnect the power supply from motors and accessories. Use safe working practices while servicing of the equipment.

- Clean motor surfaces and ventilation openings periodically, preferably with a vacuum cleaner. Heavy accumulations of dust and lint will result in overheating and premature motor failure.

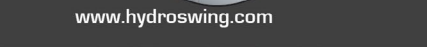
- 10 HP motors and smaller are usually lubricated at the factory and are designed to operate for long periods under normal service conditions without re-lubrication. Excessive or too frequent lubrication may damage the motor. Lubrication is normally only required every 5 years.



is no maintenance needed other than turning the screw clockwise to reduce setting and release load. Complete adjustment is 3 3/4 Turns.

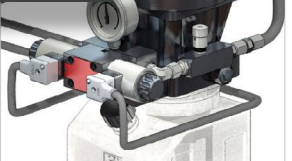


Dispose of the used hydraulic fluid in accordance with your local laws.



We recommend Rust-Oleum 214647 1600 ANSI 70 light Gray.

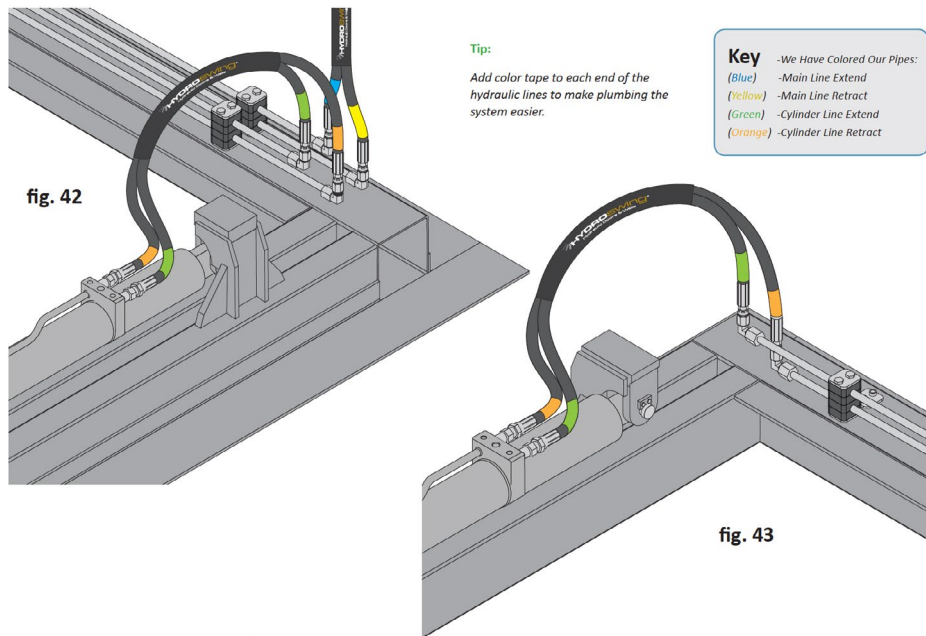
Retouch scratched or otherwise compromised primer with any commercial steel spray-primer to prevent rusting. Prepare the surface prior painting, remove debris and grease.



6



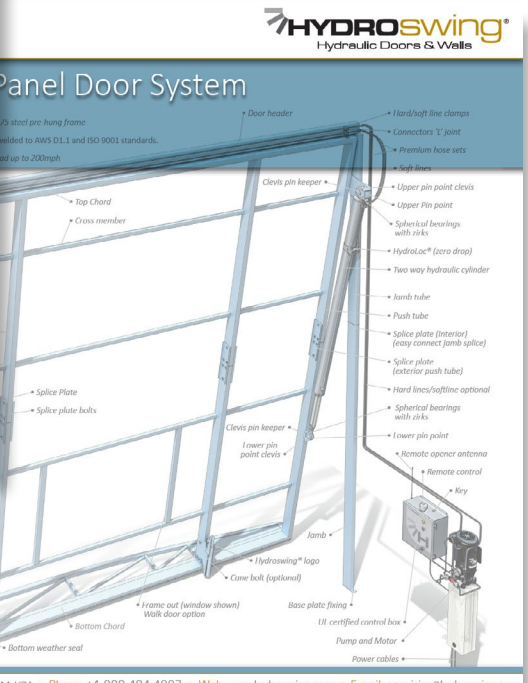
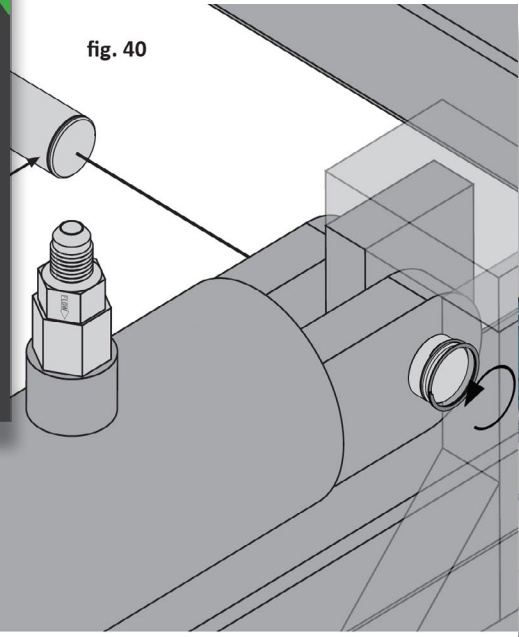
Call USA 1 800 404 4937 • UK 01772 563112 • Canada 1 647 534 3845



**Tip:**  
Add color tape to each end of the hydraulic lines to make plumbing the system easier.

**Key** -We Have Colored Our Pipes:  
(Blue) -Main Line Extend  
(Yellow) -Main Line Retract  
(Green) -Cylinder Line Extend  
(Orange) -Cylinder Line Retract

Hydraulics

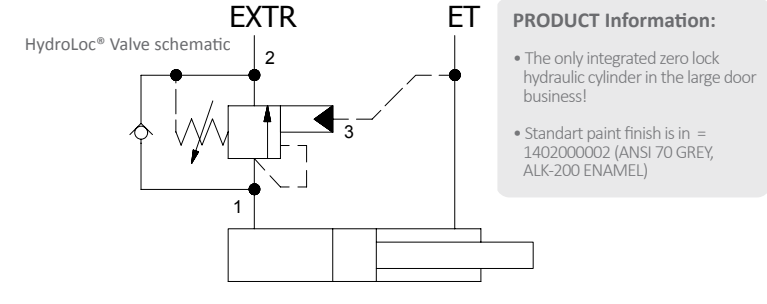




### Typical Hydraulic Cylinder schematic.

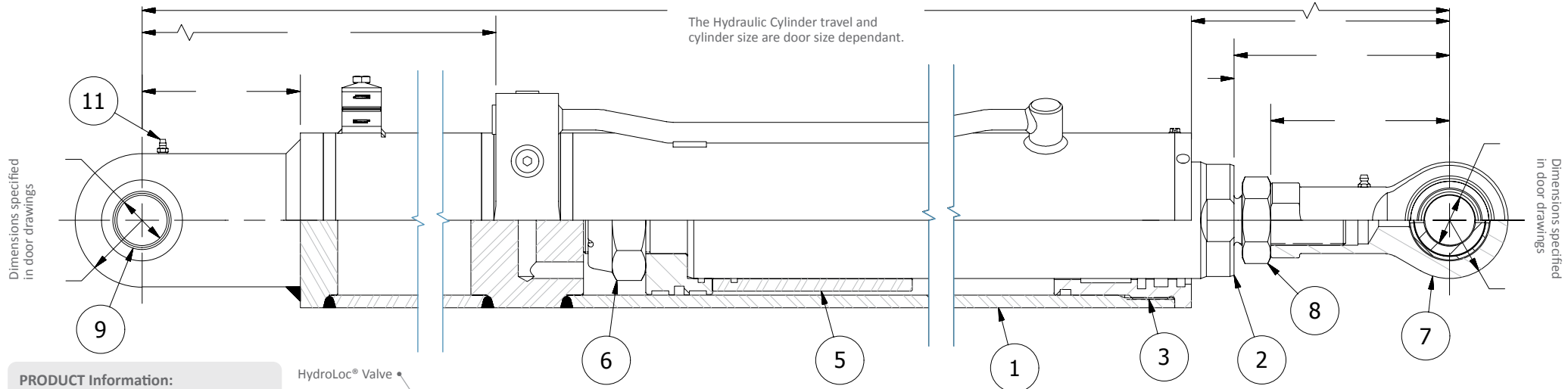
Feature	Benefit
1) Adjustable rod end	Perfectly adjust retracted length for installation
2) High strength threaded rod stud	Prevents any thread relief and corresponding stress risers
3) Counter balance load holding	Smoothness of operation verses check valve
4) Load holding valve in end cap	Safer and more sanitary verses externally plumbed
5) Hard line on retract port	Creates a safer, cleaner and more maintenance free package
6) High quality spherical bearing mounts	Provides for better alignments and quitter operation
7) Hose clamps on cylinder	Provides for a cleaner more finished look as well as for hose longevity
8) Dual hydraulic rod seal	Provides for dryer operation
9) Aggressive rod wiper seal	Prevents the ingestion of contaminants for long seal and rod longevity
10) Single bidirectional piston seal	Provides for additional wear surface as well as smooth and quiet operation

PARTS LIST	
	DESCRIPTION
1	CASE WELDMENT
2	ROD MACHINE
3	HEAD
5	STOP TUBE
6	NYLON LOCK NUT
7	FEMALE ROD END
8	JAM NUT
9	SPHERICAL BEARING
10	HydroLoc® COUNTERBALANCE VALVE
11	GREASE FITTING
12	O RING PLUG
13	O RING PLUG



**PRODUCT Information:**

- The only integrated zero lock hydraulic cylinder in the large door business!
- Standart paint finish is in = 1402000002 (ANSI 70 GREY, ALK-200 ENAMEL)

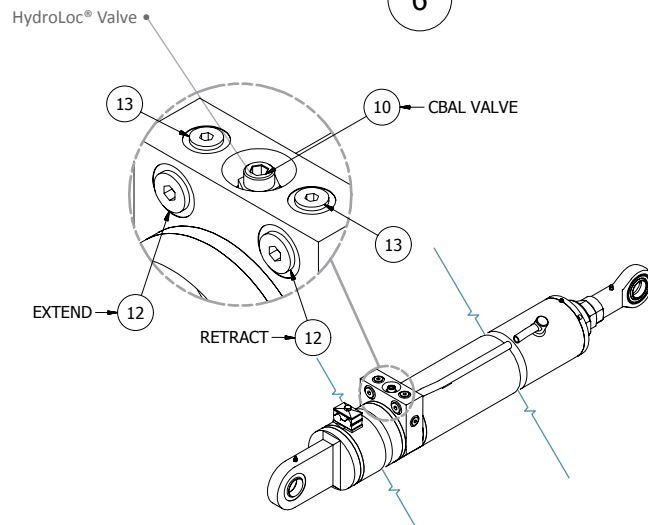


#### PRODUCT Information:

- Hydraulic Cylinders: (Size to be indicated, i.e. BB8, BB10 etc) Steel Hydraulic Double Acting C/W chromed rods.
- Hydraulic Cylinder Attach Clevises: Grease encapsulating spherical bearings with integral grease zirks.
- Safety HydroLoc®: Counterbalance valves to eliminate risk of any drop in the event of catastrophic loss of hydraulic pressure.

Here at Hydroswing® we also supply spares for Hydraulic Pump & Motor's, Pin Points, O-rings, and servicing kits and more.

Please call PARTS Store on +1 858 925 5935 or visit: PARTS Store [www.hydraulicdoorparts.com](http://www.hydraulicdoorparts.com)



### HydroLoc® Counterbalance Valve "Zero drop system"

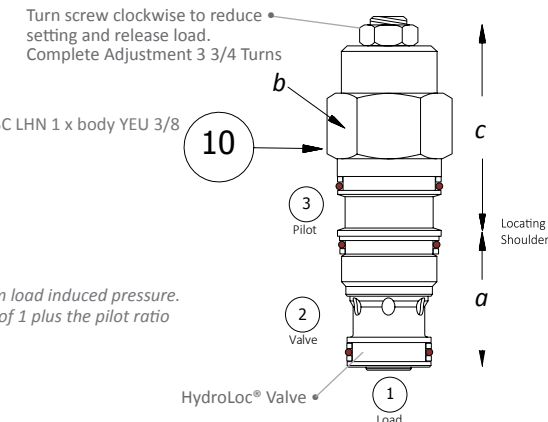
#### Safety non-drop valve fitted as standard.

Safety HydroLoc®: load control valves to stop door falling in the unlikely event of a hydraulic leak.

SEMI-RESTRICTIVE, 4000 PSI MAXIMUM SETTING 2 x cartridges CBBC LHN 1 x body YEU 3/8 bsp ported per ram

- Load holding to 3000 psi with 4000 psi valve setting
- Maximum valve leakage at reseal = 5 drops/min
- Reseat exceeds 85% of set pressure
- Factory pressure setting established at 2 in<sup>3</sup>/min

Counterbalance valves should be set at least 1.3 times the maximum load induced pressure. Back pressure at port 2 adds to the effective relief setting at a ratio of 1 plus the pilot ratio times the back pressure.



Battle scene recreated with authors brief. Completed for Osprey Vanguard Book - completed using 3D Studio Max, V-Ray & Photoshop



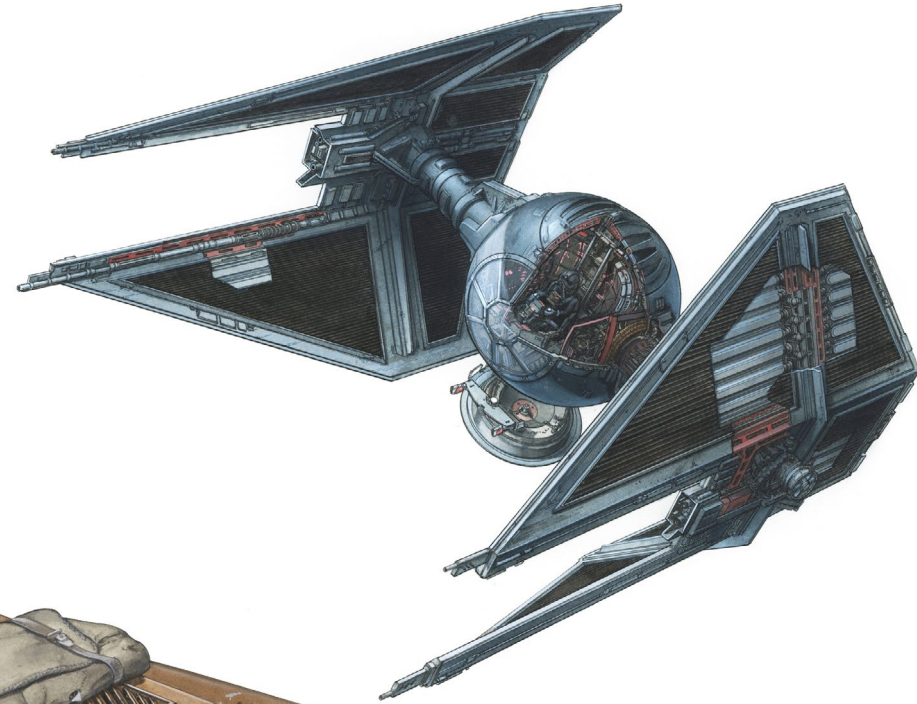
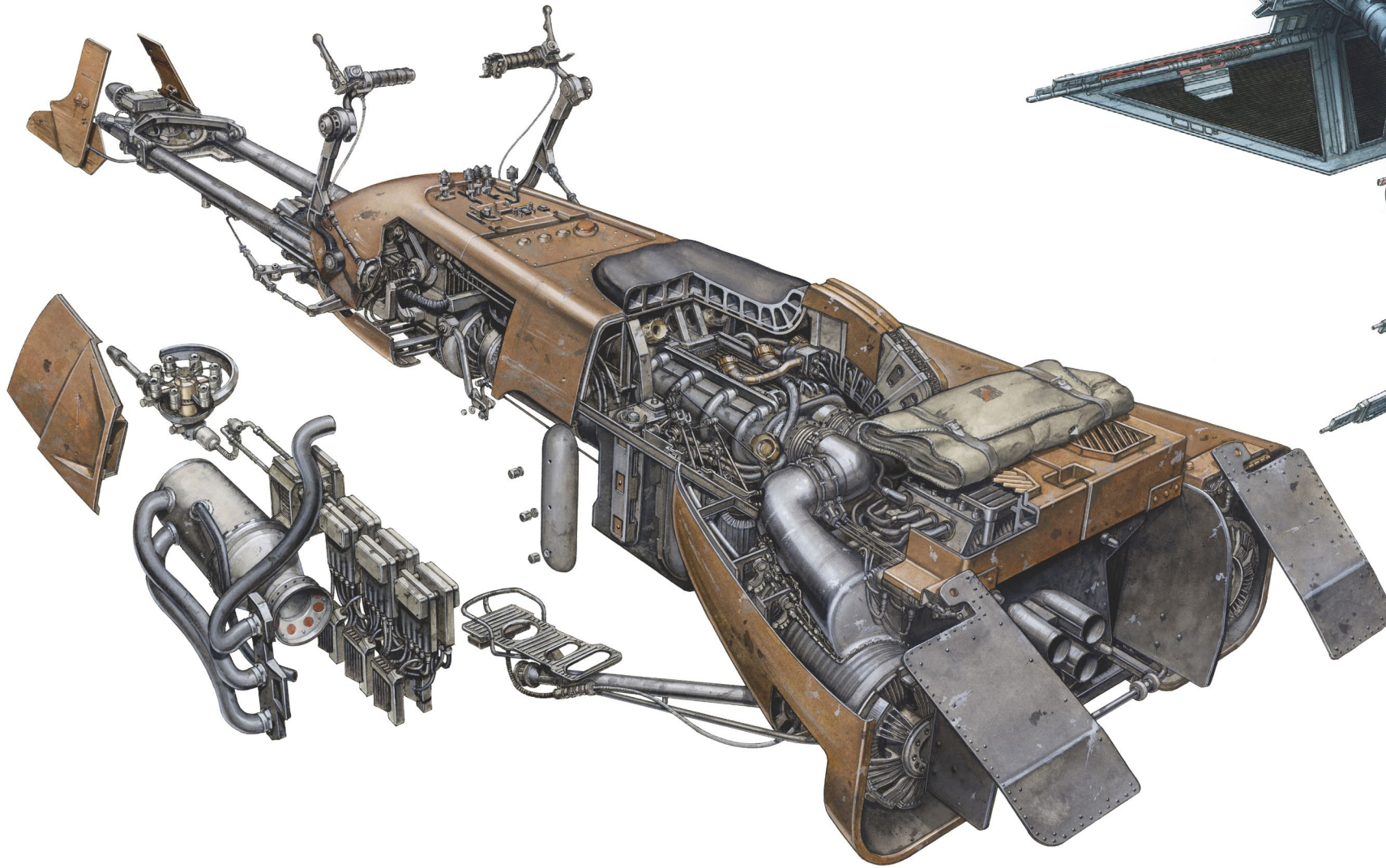
Star Trek Next Generation, NX-01 Bridge, Licensed Art completed for Haynes - completed using 3D Studio Max, V-Ray & Photoshop



1701 helm console, "Star Ship Enterprise"- completed using 3D Studio Max, V-Ray & Photoshop

Holo-Deck "Star Ship Enterprise"- completed using 3D Studio Max, V-Ray & Photoshop

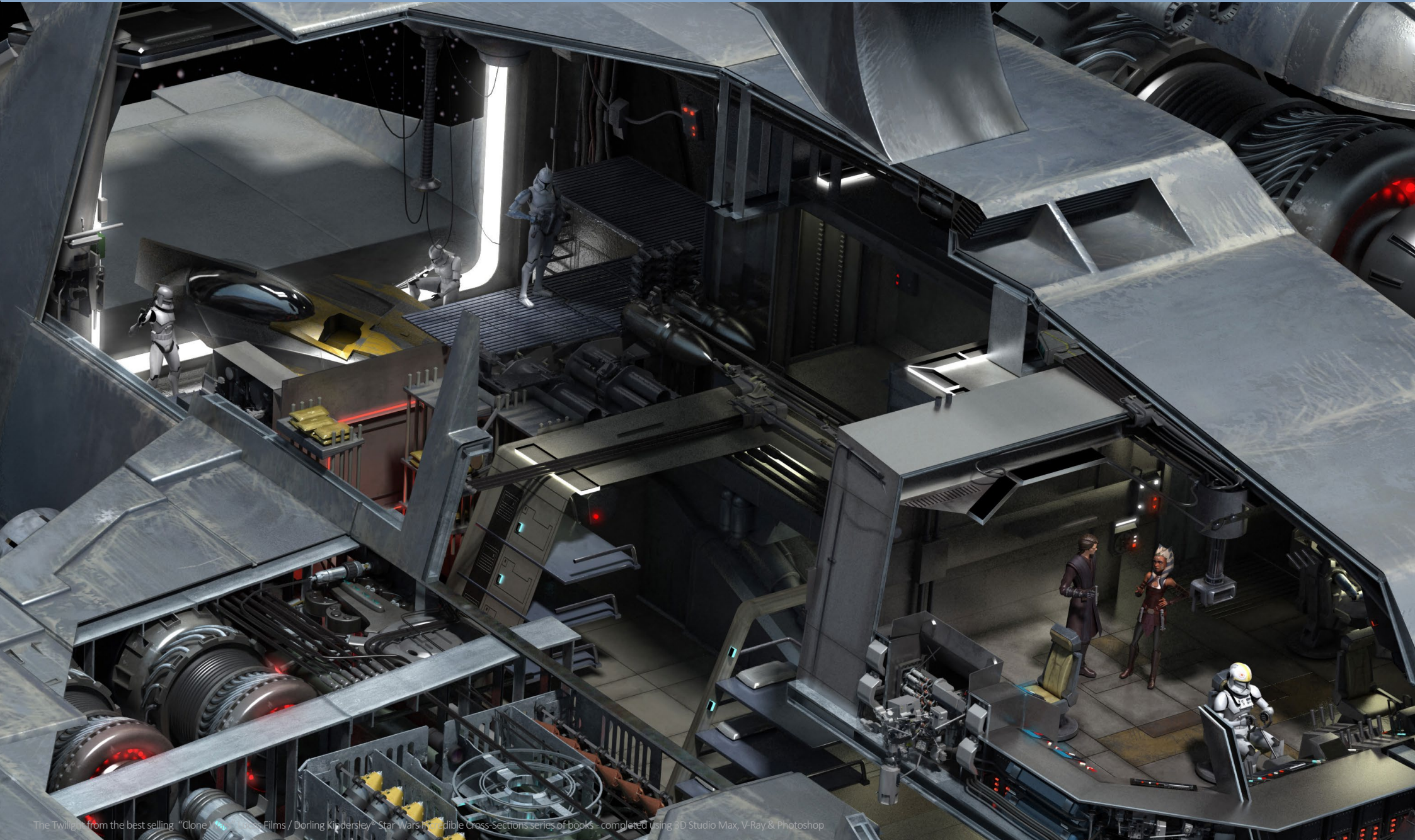
(Right) TIE/IN Star Fighter from the best selling Lucasfilm / Dorling Kindersley Star Wars Incredible Cross-Sections series of books - Ink line & gouache  
(Bottom) 74-Z speeder bike from the best selling Lucasfilm / Dorling Kindersley Star Wars Incredible Cross-Sections series of books - Ink line & gouache





Selection of book's that feature my work...

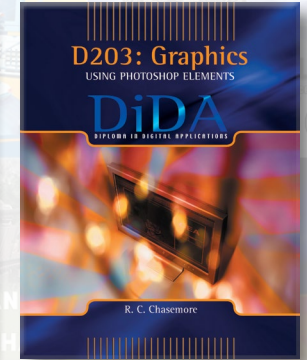
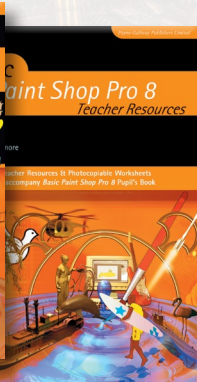
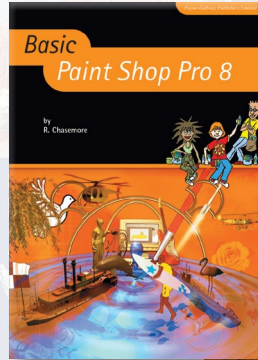
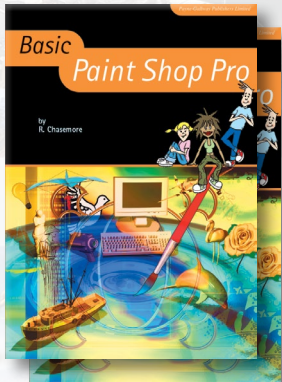
The Halo from the best selling "Clone Wars" Lucas Films / Dorling Kindersley® Star Wars Incredible Cross-Sections series of books - completed using 3D Studio Max, V-Ray & Photoshop



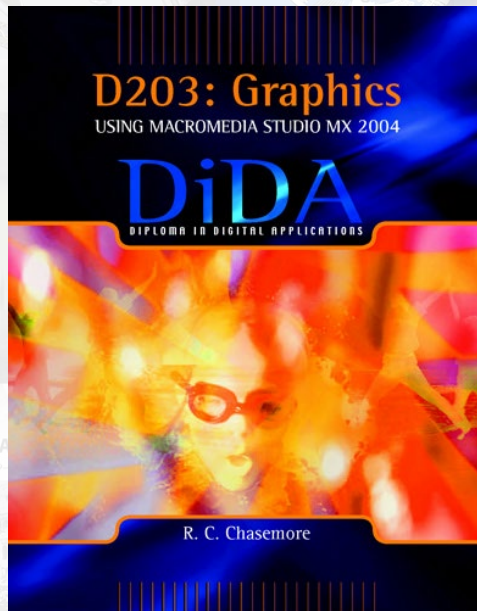
The Twilight from the best selling "Clone Wars" comic books / Dorling Kindersley "Star Wars Incredible Cross-Sections" series of books - completed using 3D Studio Max, V-Ray & Photoshop

Educational Books *Payne-Gallway Publishing*

Published between 1999 & 2007 for use in schools. I wrote seven computer graphics books on how to use Photoshop Elements, Paintshop Pro 7 & 8, chapters in Dreamweaver MX, Fireworks and a graphics module for DiDA. These were backed up with two teacher's resources books. I worked with the publisher to create a set of illustrated characters (complete with their own back stories) for use in a basic series of instructional books for younger students.



Paint Shop Pro 7 & 8 books featured teachers resources for further lessons and help



Sample pages from D203 : Graphics course

