

Note to this review:

The M1A2 SEP tank in this kit is identical to the already reviewed M1A2 SEP Main Battle Tank kit, so much of this review is the same. Those interested in just the Mine Clearing Blade system will find it detailed under Sprues P and Q along with the relevant instruction sheet. All the photos in this review are of the M1A2 SEP with Mine Clearing Blade System kit.

Background – the M1 Abrams:

The M1 tank is named for former Army Chief of Staff General Creighton Abrams, commander of the US military forces in Vietnam from 1968 to 1972. Designed as a replacement for the M60 Patton tank, the first prototypes were developed by Chrysler and General Motors in 1976. As the new tank was to be turbine powered, the Chrysler prototype was chosen for production to take advantage of the company's extensive experience with land based turbine powered vehicles.

The tank entered service with the US Army as the M1 Abrams in 1980, with a total of 3,200 vehicles produced from 1979 to 1985. The multi-fuel turbine engine can run on diesel, kerosene, any grade of gasoline, and JP-4 and JP-8 jet fuel. The vehicle features composite armour, protection from nuclear, chemical, and biological weapons, and carries its ammunition in a special blow-out compartment that

vents outboard to protect the crew. It is operated by a crew of four, weighs 68 tons, and can achieve 66 kmh. The main gun is the Royal Ordnance 105mm gun, produced under license. The vehicle can also be fitted with mine roller or mine plow attachments. The tank has been exported to Egypt, Kuwait, Saudi Arabia, Australia, and Iraq.

Beginning in 1986, the tank was up-gunned to the Rheinmetall 120mm, also produced under license. Known as the M1A1, more than 5,000 of this variant were completed from 1986 to 1992.

The M1A2 is an improved M1A1 and features a thermal viewer for the commander, GPS navigation equipment, digital controls and displays, and an improved fire control system. The M1A2 SEP (System Enhancement Package) variant added digital maps and the integrated Force Battle Command Brigade software system which allows the commander to track friendly and hostile forces in real time. Improved thermal imaging and night vision was provided via upgrades to the existing thermal viewers. The armour was upgraded to third generation depleted uranium with a graphite coating. All the new computer equipment generated considerable extra heat, so the cooling system was also upgraded.

Experience with friendly fire incidents during the Gulf War and in Iraq led to the installation of Combat Identification Panels on the vehicle. Those on the side armour and the rear of the turret carry large unit numbers, the panels on the front of the turret are painted with a four-cornered 'box' image. Some of the tanks were equipped with a secondary storage bin fitted to the back of the existing rack on the rear of the turret for supplies and personal belongings.

The Mine Clearing Blade System is fitted to the front of the tank and is designed to clear a lane through a minefield. Buried mines are plowed up and pushed outside the tank's path or are tipped over. Mines that are tipped over will vent their explosive force downwards if activated and will cause little or no damage to the tank.

The M1 in all its variations is expected to see front-line service until at least 2050.

The Kit:

In 1/72 scale, the kit features the M1A2 SEP version with the Combat Identification Panels and the optional secondary storage bin on the rear of the turret along with the Mine Clearing Blade system.

Packaging:

The kit comes in a very well-constructed box with a lift-off lid featuring a overhead painting of a buttoned up tank with the Mine Clearing Blade system raised.

The side of the lid contains specifications for the M1A2 SEP and notes regarding its main features; the inner box has views of other Flyhawk armour kits.

The kit comprises 192 parts on 21 sprues with a further 26 photo-etch parts. Twenty of the sprues are moulded in medium grey with one sprue in clear plastic. All the kit components are sealed in plastic bags, including the decals and the photo-etch sheet. The tracks, mantlet, hull top, hull bottom, turret top and turret bottom are the only parts on their respective sprues.





MIA2 SEP(システム・エンハンスメント・パッケージョ システム起送間)は、MIA2の健康様でアメリカ軍におけ 金融版的デジタル化された観視です。2 IU世によいては 電はイラの機等、アフガニスタン機等で扱られるように人 事と時間の構造となっています。MIAでは出路部機関連 場合と同じの構造となっています。MIAでは出路部機関連 事業組入員的定義を継続人、MIA2 SEP(文庫を設定したと 事業組入員的定義を継続人、MIA2 SEP(文庫を設定したと 交流を追加する。















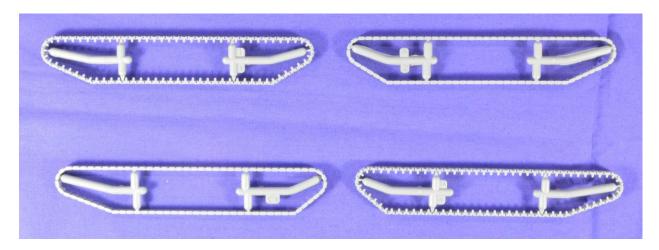
---- Box Art ----



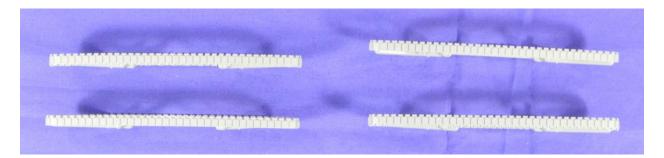
---- Box contents ----

Sprue A:

The M1A2 sports an inner and an outer track on each side of the hull and these are reproduced in the kit with four one piece tracks made from solid plastic; the inner set of tracks incorporating the 'teeth' that engage the drive sprockets. All four track pieces have very well defined track links.



---- Sprue A – inner tracks at top left and bottom right ----

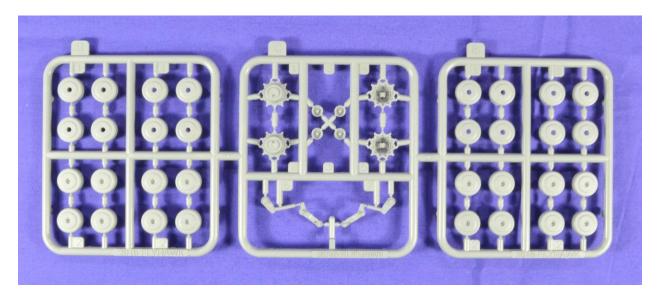


----- Sprue A – Overhead view showing the track links -----

Sprues B and C:

The road wheels are on sprue B. Each completed wheel is made up of inner and outer pieces which feature sharply defined lug nuts, bolts, and the rim of the rubber tire. There are two Sprue B's included.

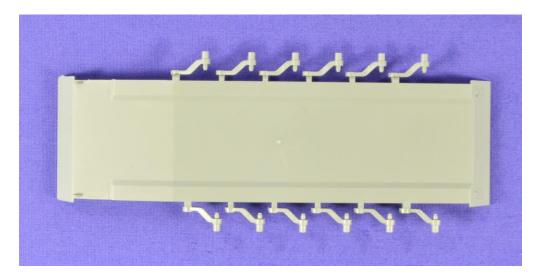
Sprue C has the rear drive sprockets, idler wheels, and front road wheel suspension. The drive sprockets have an inner and outer portion featuring lug nuts and sharply defined teeth to grasp the inner tank track. The complex shape of the front road wheel suspension is very well executed.



---- Sprues B and C ----

Sprue D:

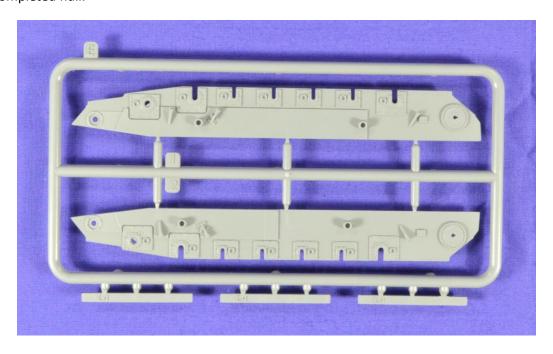
This is the single piece that forms the bottom of the tank hull with six of the road wheel axles attached.



---- Sprue D - Hull bottom ----

Sprue E:

The hull sides are on this sprue and feature plenty of raised detail in the form of bolts, plates, and suspension arms. There are also 3 cross beams which will connect the hull sides together when assembling them to the hull bottom. This is a very good feature which will provide plenty of rigidity to the completed hull.



---- Sprue E - Hull sides -----

Sprue F:

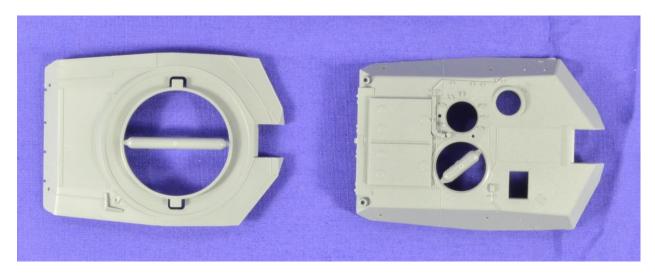
This is the single piece that forms the top of the hull and is an excellent example of the level of detail made possible with slide-mold technology. The top and sides are loaded with raised detail: hatches, raised and recessed hinges, raised and recessed panel lines, tie-downs, and raised plates are all crisply defined. The non-slip coating on most of the upper hull is also clearly evident. The complex shape of the upper hull with the distinctive step down forward of the turret and step up aft of the turret, and the sloping sides is well captured.



---- Sprue F - Hull top ----

Sprues G and H:

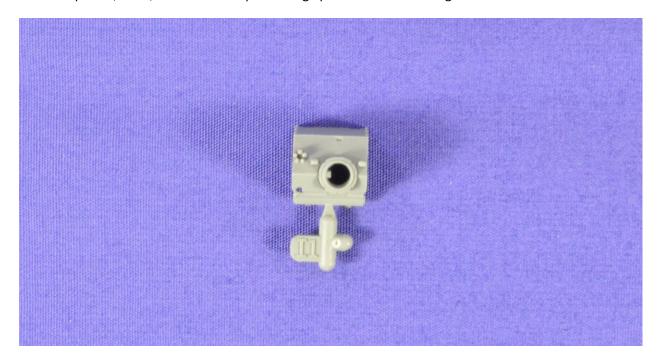
These are the two pieces that make up the turret, sprue G being the bottom and sprue H the top. Both pieces feature plenty of detail: raised panel lines, compartment covers, tie down straps, tubing, and attach points for gear. The non-slip coating is also present on the turret top.



---- Sprue G (left) and Sprue H (right) ----

Sprue I:

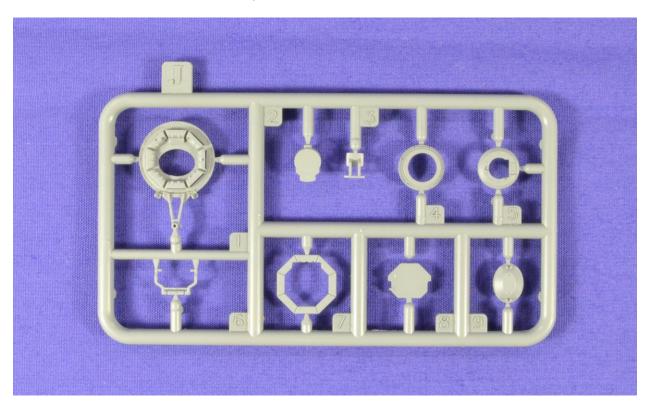
This is the single piece main gun mantlet. It is quite an incredible piece with a very complex shape, recessed panels, bolts, and the round protruding aperture for the main gun.



----- Sprue I – Main gun mantlet -----

Sprue J:

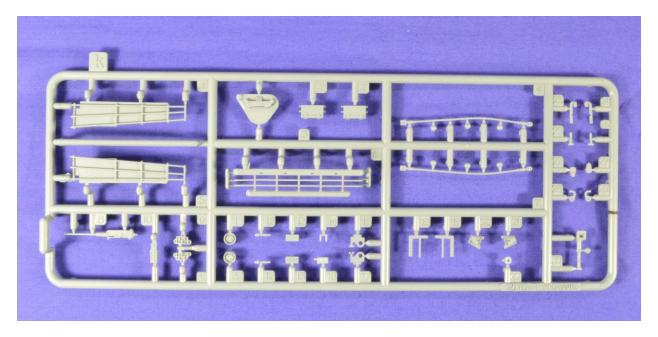
This sprue contains the pieces that make up the commander's and gunner's hatches on the top of the turret. Five of the pieces make up the commander's hatch; the gunner's hatch has four pieces. There is plenty of raised detail and the commander's hatch has the forward protruding machine gun mount. The commander's hatch can be assembled open or closed.



----- Sprue J – Turret hatch pieces -----

Sprue K:

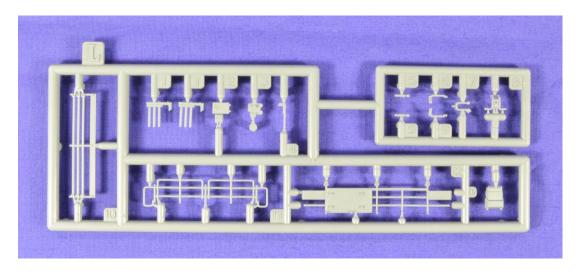
This sprue has miscellaneous fittings including tow cables, the commander's turret machine gun, hatch covers, smoke grenade launchers, and the cages that fit on the sides and back of the turret. The level of detail is quite incredible: the machine gun ammunition box is open showing the individual rounds, the machine gun has raised and recessed panel lines and the jacket cooling holes, the tow cables are detailed on every side, the very complex shape of the grenade launchers is evident, and the open grill work on the cages is shaped perfectly. All of the smaller fittings also feature raised or recessed detail as appropriate.



---- Sprue K -----

Sprue L:

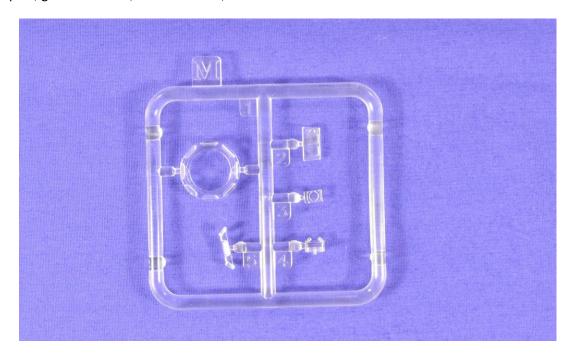
This sprue contains the parts that make up the optional second cage that fits behind the turret along with some smaller fittings. The pieces for the cage are quite exceptional, with smooth curves, raised uprights, and a well-defined grill on the underside of the floor.



---- Sprue L ----

Sprue M:

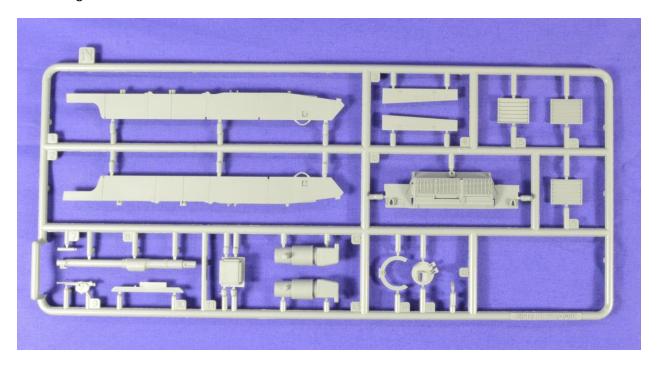
Made from clear plastic, this sprue has clear vision ports for the commander's hatch, commander's vision port, gunner's hatch, loader's hatch, and the driver's hatch.



---- Sprue M – Clear plastic vision ports ----

Sprue N:

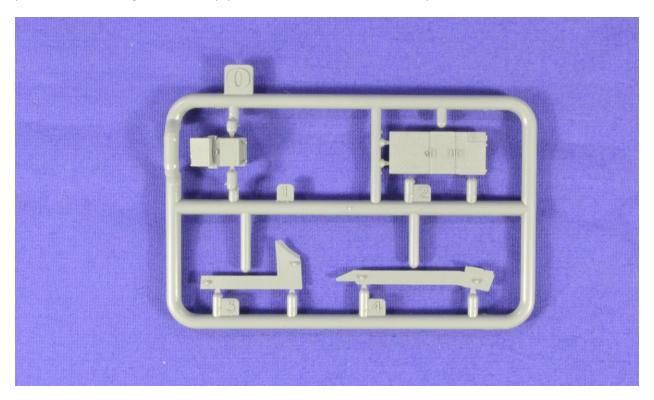
This sprue contains the side armour plates, rear hull plate, the 120mm main gun, the co-axial machine gun, the loader's hatch machine gun, and louvers for the external turret cages. The main gun is bored out and features raised rings and the characteristic 'hump' partway down the barrel, the side armour has recessed panel lines to delineate the individual plates, and the rear hull plate has raised grill work for the engine exhausts.



---- Sprue N -----

Sprue O:

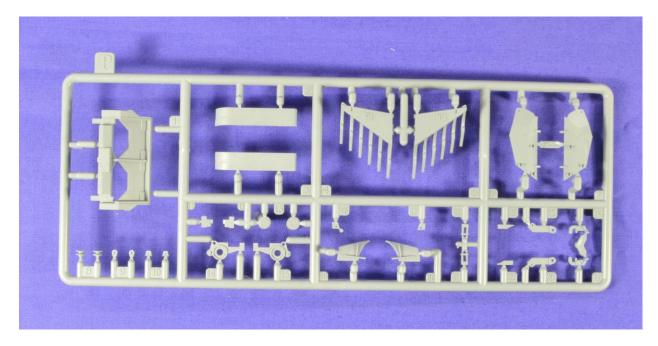
This sprue has panels and armour plate for the top of the hull. Each piece is very detailed, the cover panel for the stowage bin has crisply executed handles and recessed panel lines.



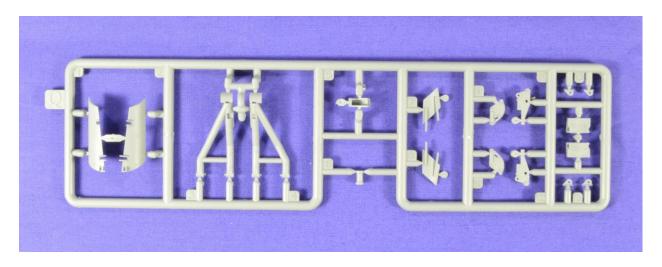
---- Sprue O ----

Sprues P and Q:

These sprues contain the 49 parts that make up the Mine Clearing System, many with raised detail and recessed panel lines; several parts have very complex curves. The blades of the plow accurately reflect the complicated shape of the real items.



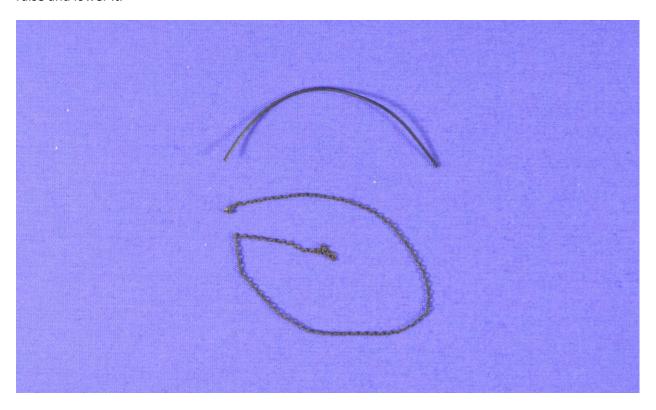
---- Sprue P -----



---- Sprue Q -----

Cable and Chain:

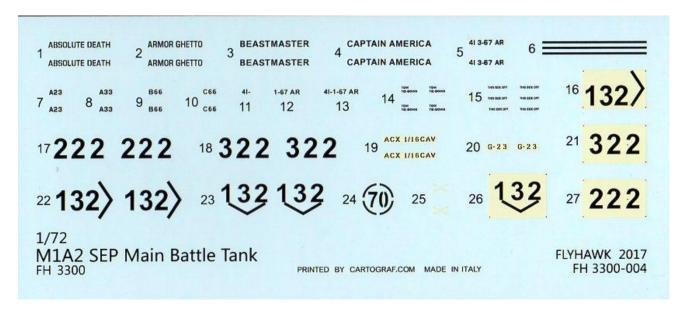
These parts represent the cable that supplies power to the Mind Clearing System and the chain used to raise and lower it.



---- Cable and Chain ----

Decals:

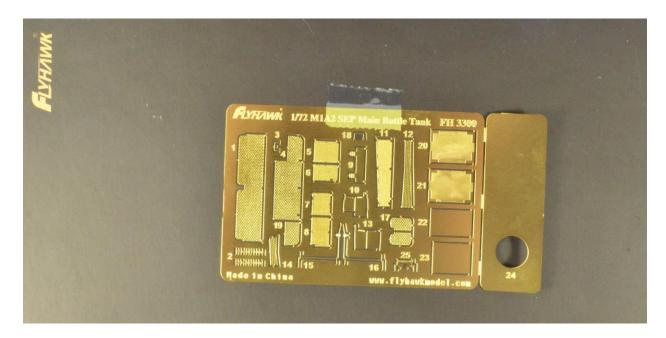
Produced by the well-known Italian firm of Cartograf, the extensive decal sheet has the markings for five different vehicles. Full instructions on where to place the decals is shown on the painting and marking diagrams.



---- Decals ----

Photo-Etch:

A very comprehensive photo-etch sheet is also included containing grillwork for the upper hull, external piping and handles for the front fenders, a top shield for the main gun, non-skid decking for the external turret cages, hatch handles, extensions for the turret viewing port, combat identification panels, and a small plate for the rear hull. There is also a set of numbers to be used for the individual tank number at the after end of the turret. As an aid for painting, an open circle that fits directly over the road wheel is also on the sheet, allowing the modeller to first paint the rubber tire, and then fit the circle over the wheel rim so that the wheel can be painted.



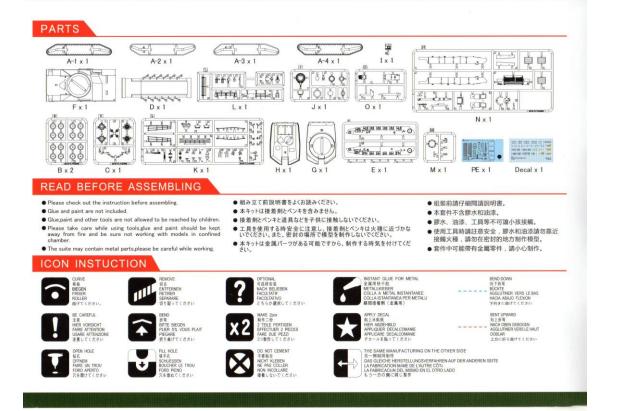
---- Photo-etch sheet ----

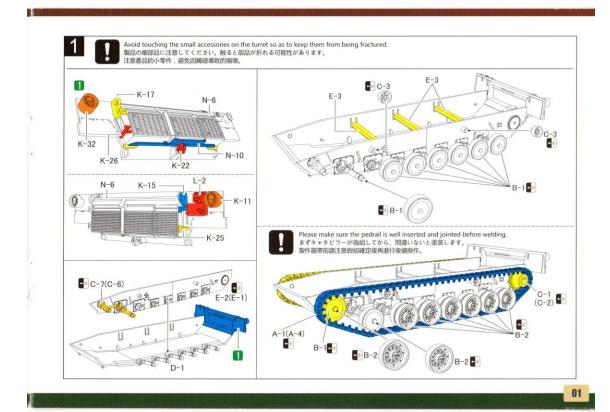
Instruction Booklet:

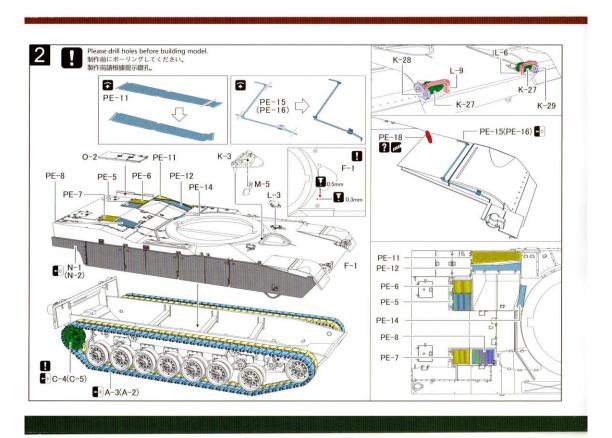
A twelve page full colour booklet is included that contains a drawing of all the sprues included in the kit along with the decal and photo-etch sheets, the instructions, a colour guide, a drawing of an M1A2 in full camouflage, and photos of a completed model.

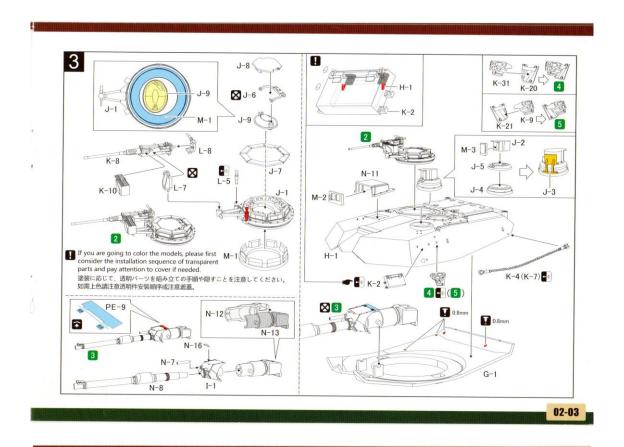
The instructions consist of six very clear and logical steps. Each step is well laid out with exploded views and sub-assemblies; modellers should have no problems understanding each step. Flyhawk uses colour coding to assist with placement of smaller parts and photo-etch; this is a very good feature which takes out a lot of guess work.

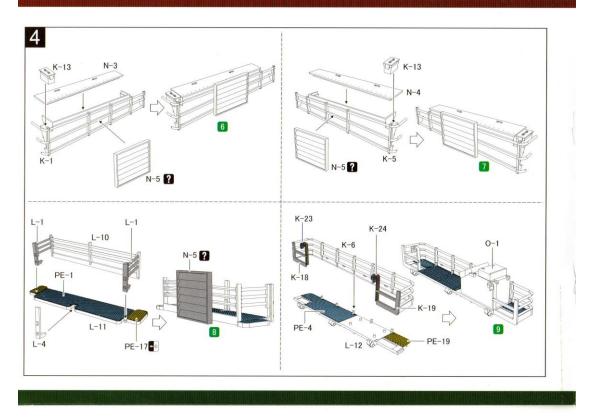


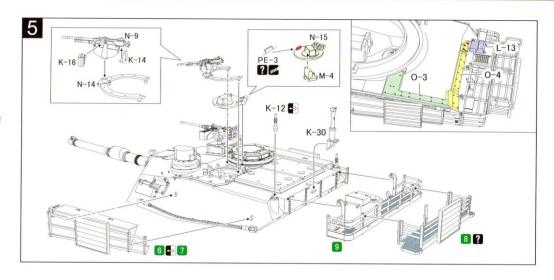






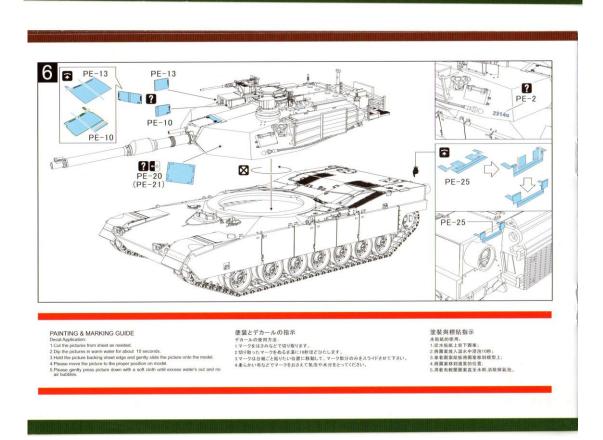






- Avoid touching the small accessories on the turret so as to keep them from being fractured. 製品の細部品に注意してください。触ると部品が折れる可能性があります。 注意產品的小零件,避免因觸碳導致的損壞。
- Please use primer first before coloring photo-etched sheets. エッチングパーツを塗装する前に特殊塗料を使ってください。 蝕刻片上色前請使用専用底漆。
- If you are going to color the models, please first consider the installation sequence of transparent parts and pay attention to cover if needed. 塗装に応じて、透明パーツを組み立ての手順や隠すことを注意してください。 如需上色満注意透明件安装順序或注意遮蓋。

04-05



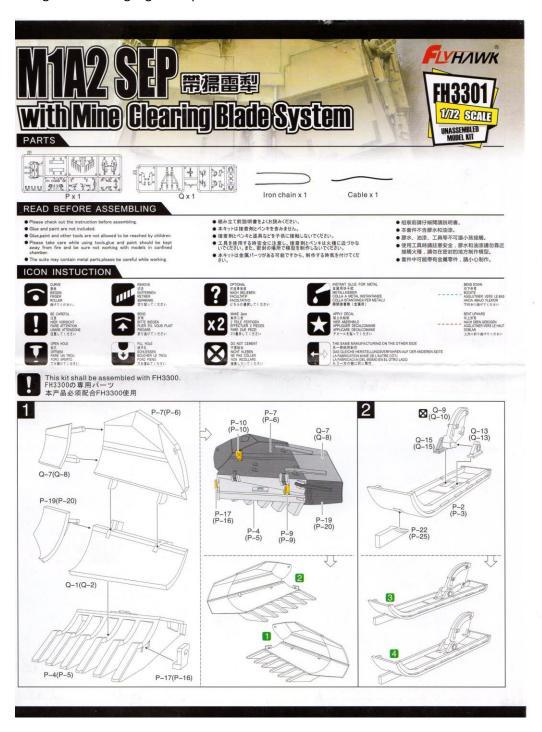


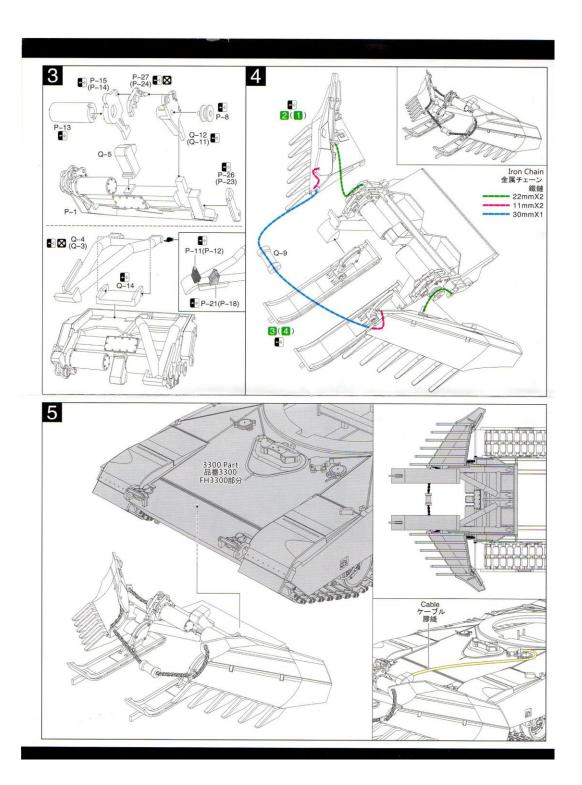


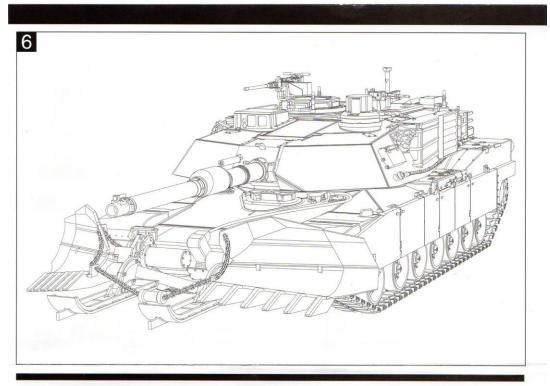
---- Instruction booklet -----

Mine Clearing Blade System Instructions:

The instructions for the Mine Clearing system come on two large double-sided full colour pages. They consist of a drawing of the components, six assembly steps, a painting guide with references to the AK Interactive, Mr. Hobby, and Tamiya ranges, and a drawing of an M1A1 fitted with the Mine Clearing system. The assembly steps are very clear and well laid out with exploded views and sub-assemblies. Colour coding is used to highlight the placement of the chains and cable.







PAINTING & MARKING GUIDE
Decal Application:

1.Cut the pictures from sheet as needed.

2.Dip the pictures in varim water for about 10 seconds.

3.Hold the picture backing sheet edge and gently slide the picture onto the model.

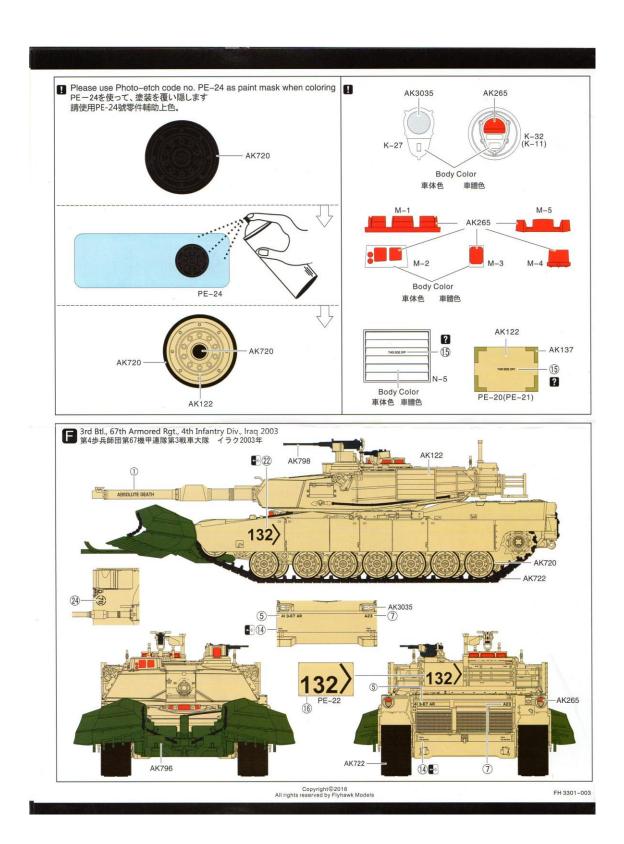
4.Please more the picture to the proper position on model.

5.Please gently press picture down with a soft cloth until excess water's out and no aff bubbles.

② 整とデカールの指示 デカールの使用方法: アカールの使用方法: 1マークをはるみなどで切り取ります。 2切り取ったマークをある毛黒にい砂ほどひたします。 3マーカは金板にお砂けたい塩配子を移して、マーク部分のみをスライドさせて下さい。 4素らかい布などでマークをおさえて気泡や水分をとってください。

塗裝與標點指示 水防底的使用: 1.從水防底上即下圖案: 2.灣區裏放入溫水中浸泡10秒; 3.拿看圖案板提用圖案移到模型上: 4.開圖案移到轉型上: 4.開圖案移到模型上: 5.用軟布輕壓圖案直至水幹,消除掉氦泡。

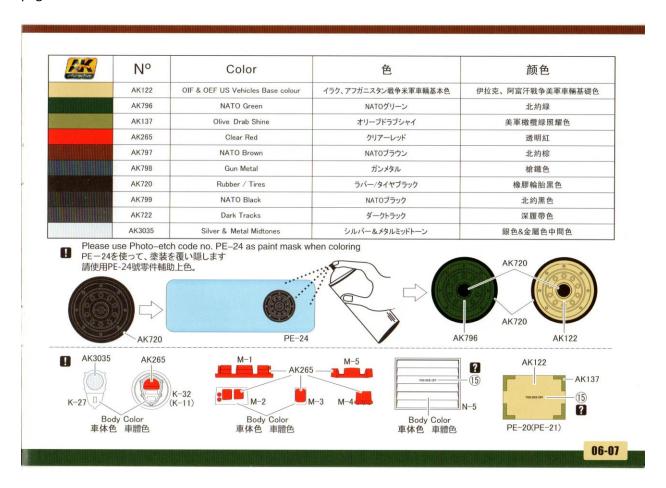
Color	色	颜色	restorated to the	Mr.Hobby	Tamiya
OIF & OEF US Vehicles Base colour	イラク、アフガニスタン戦争 米軍車輛基本色	伊拉克、阿富汗戰争 美軍車輛基礎色	AK122		
NATO Green	NATOグリーン	北約緑	AK796	TC10	XF-67
Clear Red	クリアーレッド	透明紅	AK265	H_90_47	×-27
Gun Metal	ガンメタル	槍鐵色	AK798	H 18 28	X-10
Rubber / Tires	ラバー/タイヤブラック	橡膠輪胎黑色	AK720	H 77 1137	XF-85
NATO Black	NATOブラック	北約黑色	AK799	TC12	XF-69
Dark Tracks	ダークトラック	深履帶色	AK722	H <u>421</u>	XF-51
Silver & Metal Midtones	シルバー&メタルミッドトーン	銀色&金屬色中間色	AK3035	H 8 8	X-11



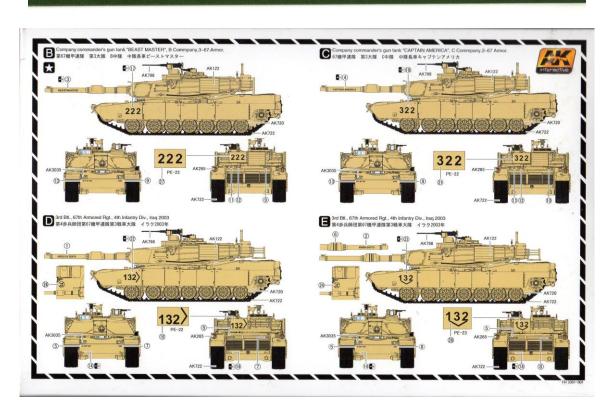
---- Mine Clearing Blade System Instructions ----

Colour scheme:

A colour guide is included in the instruction booklet with paint references for the AK Interactive range. The colours are clearly labelled which will allow the modeller to easily choose correct colours from a different range if necessary. Full colour painting and decal placement instructions are on the bottom of the box; as noted above there is a full colour camouflage scheme and decal placement drawing on one page of the instruction booklet.







---- Colour guide and colour schemes -----

Overall Impression:

This is quite an incredible kit, 160+ parts making up a model just 4" x 2", with another 51 for the Mine Clearing System. The level of cast-in detail is superb, with recessed and raised panel lines, handles, hinges, and bolts to name just a few. There is absolutely no flash on any of the pieces and none of those lines that result when two mould halves are used to make a single component.

The number of parts does not mean that the kit is 'over-engineered'. Many of the complex components are in one piece, such as the gun mantlet and the grenade launchers; the hull is made up of only four parts. The large part count is mainly due to the amazing level of detail found in the hatches, stowage bins, and the road wheels.

The fit on the parts that I dry-fitted was extremely precise, very little filling, if any, will be required to hide any seams. The plastic is also very robust; it bends easily rather than breaking. The large number of parts should not deter any modellers, the smallest pieces are substantial and the instructions are very easy to follow. The only things that could be added are the whip antennas at the rear of the turret; these can easily be made from stretched sprue and attached to the antenna bases which are present in the kit.

This is a highly recommended kit, especially with the Mine Clearing Blade system attached. It will make an eye-catching part of any collection, even for those used to building in larger scales. It really captures the hulking brute that is the M1A2 Abrams. The kit is an impressive addition to the Flyhawk 1/72 armour range, the addition of the Mine Clearing System makes it quite unique; I am looking forward to the next Flyhawk armour release!

Review kit courtesy of Flyhawk Models