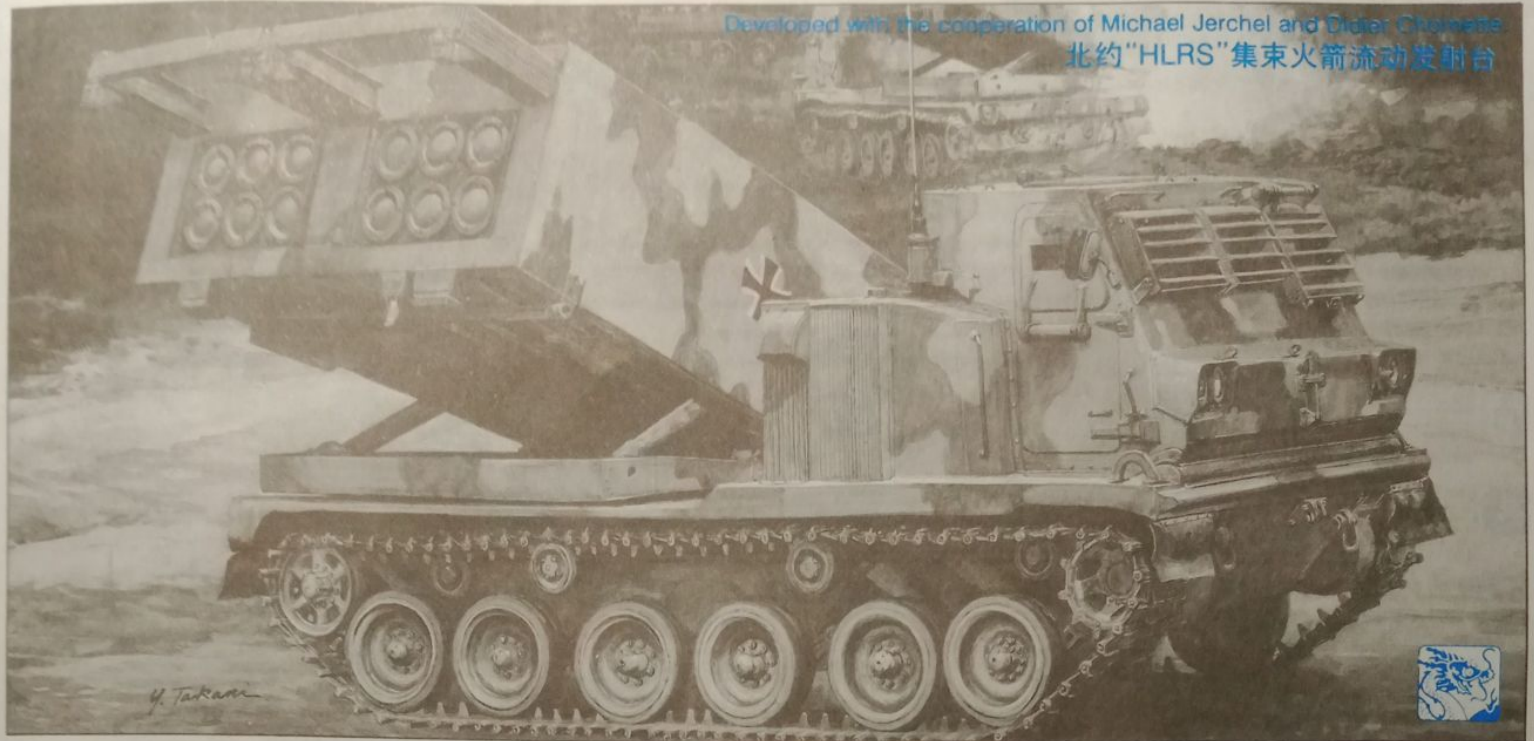


# NATO MLRS MULTIPLE LAUNCH ROCKET SYSTEM

## 1:35 MODERN AFV SERIES

KIT NO: 3522



Developed with the cooperation of Michael Jerchel and Didier Chenevise  
 北约“HLRS”集束火箭流动发射台

The MLRS consists of a self-loading rocket firing launcher mounted on an M987 FVS tracked carrier. The launcher can be elevated to 60° and traversed through 360°. It has two electrically-operated extendible booms and cable hoists to load the rocket pods into the launcher. The launcher carries two M26 rocket pods of 6 tubes each. The launcher can load fire twelve 227mm rockets in less than one minute with a high accuracy to ranges in excess of 30km aimed by an on-board fire control computer. The warheads can be either anti-material/anti-personnel or scatterable anti-tank mines.

The M987 Fighting Vehicle System (FVS) carrier is a highly mobile armored carrier based on an elongated version of the M2/M3 Bradley chassis. The armored cab seats three persons, a driver, a gunner and a section chief. It is protected against small-arms fire and shell fragments by aluminium armor and the windows are protected by louvers. An over-pressure ventilation system is fitted to prevent rocket fumes from entering the cab. The vehicle is also fitted with an NBC system. The rocket pods can be replaced in five minutes after the rockets have been fired. The resupply vehicle is usually a Heavy Expanded Mobility Tactical Truck (HEMTT).

Data:  
 Crew: 3  
 Combat weight: 25,191 kg  
 Performance: Maximum road speed 64km/hr  
 Engine: Cummins VTA-903 turbo-charged 8-cylinder diesel, 500 hp  
 Armament: 12 227mm rockets

Le MLRS consiste d'un lance-roquettes à rechargement automatique monté sur un transporteur à chenilles M987 FVS. Le lance-roquettes peut être élevé jusqu'à 60° et pivoté sur 360°. Il possède deux flèches extensibles opérées électriquement et des câbles de levage pour charger les pods de roquettes à l'intérieur des tubes du lance-roquettes qui contient deux pods de roquettes M26 comportant six tubes chacun. Le lance-roquettes peut tirer douze roquettes de 227mm en moins d'une minute sur des portées de plus de 30km avec une grande précision grâce à son ordinateur de conduite de tir. Les missiles à ogive peuvent être soit anti-matériel/anti-personnel ou pour l'éparpillement de mines antitank.

Le M987 Fighting Vehicle System (FVS) est un transporteur blindé extrêmement mobile basée sur une version allongée du chassis Bradley M2/M3. La cabine blindée peut asséoir trois personnes, un conducteur, un canonier et un chef de section. Il est protégé contre les armes légères et les fragments d'obus par un blindage en aluminium et des volets sur ses fenêtres. Un système de ventilation surpression a été installé pour empêcher, les gaz de roquettes de pénétrer à l'intérieur de la cabine.

Ce véhicule possède aussi un système NBC.

Les pods de roquettes peuvent être remplacés en cinq minutes après le tir. Le véhicule d'ammunitions est usuellement le "Heavy Expanded Mobility Tactical Truck (HEMTT).

Données: 3  
 Poids de combat: 23,191 kg  
 Vitesse: Vitesse de route maximale de 64km/hr  
 Moteur: Cummins VTA-903 diesel chargé turbo à 8 cylindres. 500hp  
 Armement: Douze roquettes de 227mm.

Das MLRS besitzt einen auf einer M987 FVS mobilen Abschussbasis montierten Raketenwerfer mit Selbstläder. Dieser Raketenwerfer kann bis zu 60° angehoben werden und ist um 360° schwenkbar. Es können zwölf, 227mm Raketen in weniger als einer Minute abgefeuert werden, wobei die hohe Treffsicherheit für Ziele in über 30km Entfernung durch einen eingebauten Feuerkontrollcomputer gewährleistet wird. Die Sprengköpfe können gegen Infrastrukturen, gegen Personen oder gegen Panzerabwehrminen gerichtet werden.

Der sehr wendige, gepanzerte M987 Fighting Vehicle System (FVS) Transporter basiert auf einer verlängerten Version des M2/M3 Bradley Chassis. Der gepanzerte Innenraum bietet Platz für drei Personen (Fahrer, Schütze und Kommandant). Er hat eine Aluminiumpanzerung zum Schutz vor Handfeuerwaffen und Granatsplittern. Ein Überdruck-Belüftungssystem verhindert das Eindringen von Raketengasen in den Innenraum. Weiters ist auch ein NBC System vorhanden.

Die Raketen Systeme können nach Abschuss der Raketen innerhalb von fünf Minuten ausgetauscht werden. Das Nachschubfahrzeug ist gewöhnlich ein HEMTT (Heavy Expanded Mobility Tactical Truck).

Technische Daten:  
 Besatzung: 3  
 Kampfgewicht: 25 191kg  
 Max. Straßengeschwindigkeit: 64km/h  
 Motor: 8 Zylinder Dieselmotor mit Turbolader vorn  
 Typ Cummins VTA-903, 500 PS  
 Bewaffnung: 12 227mm Raketen

Il MLRS consiste di un lanciamissile con un caricatore automatico montato su un veicolo M987 FVS. Il lanciatore può essere elevato di 60° ed è girevole di 360°. Il lanciatore è capace di lanciare 12 missili di 227mm in meno di un minuto con una grande esattezza di tiro con una gittata di più di 30 km, il che è garantito da un computer incorporato per il controllo del fuoco. La testate possono essere dirette contro attrezzature, contro persone o contro mine anticarr.

Il M987 Fighting Vehicle System (FVS) è un veicolo corazzato molto agile che si basa su una versione del M2/M3 Bradley chassis. Nella cabina corazzata stanno seduti un pilota, un cannoniere ed un comandante. E protetto contro fuoco da armi leggere e schegge di granate con una corazza d'alluminio. Un sistema di ventilazione a sovrappressione impedisce che il fumo provocato dai missili possa entrare nella cabina. Il veicolo dispone anche di un sistema NBC.

Dopo il lancio dei missili il sistema missilistico può essere sostituito entro cinque minuti. Di solito il veicolo di rifornimento è un HEMTT (Heavy Expanded mobility Tactical Truck).

Dati tecnici:  
 equipaggio: 3  
 peso da combattimento: 25.191 kg  
 velocità su strada max. 64km/h  
 motore: motore diesel di 8 cilindri  
 turboalimentato del tipo Cummins VTA-903 con 500 CV  
 armamento: 12 missili di 227mm

MLRS is M987 FVS automatic launcher mounted on a tracked carrier. The launcher is fully elevated to 60° and traversed through 360°. It has two electrically-operated extendible booms and cable hoists to load the rocket pods into the launcher. The launcher carries two M26 rocket pods of 6 tubes each. The launcher can load fire twelve 227mm rockets in less than one minute with a high accuracy to ranges in excess of 30km aimed by an on-board fire control computer. The warheads can be either anti-material/anti-personnel or scatterable anti-tank mines.

The M987 Fighting Vehicle System (FVS) carrier is a highly mobile armored carrier based on an elongated version of the M2/M3 Bradley chassis. The armored cab seats three persons, a driver, a gunner and a section chief. It is protected against small-arms fire and shell fragments by aluminium armor and the windows are protected by louvers. An over-pressure ventilation system is fitted to prevent rocket fumes from entering the cab. The vehicle is also fitted with an NBC system. The rocket pods can be replaced in five minutes after the rockets have been fired. The resupply vehicle is usually a Heavy Expanded Mobility Tactical Truck (HEMTT).

MLRS include a group automatic launcher mounted on a tracked carrier. The launcher can be elevated to 60° and traversed through 360°. It has two electrically-operated extendible booms and cable hoists to load the rocket pods into the launcher. The launcher carries two M26 rocket pods of 6 tubes each. The launcher can load fire twelve 227mm rockets in less than one minute with a high accuracy to ranges in excess of 30km aimed by an on-board fire control computer. The warheads can be either anti-material/anti-personnel or scatterable anti-tank mines.

The M987 Fighting Vehicle System (FVS) carrier is a highly mobile armored carrier based on an elongated version of the M2/M3 Bradley chassis. The armored cab seats three persons, a driver, a gunner and a section chief. It is protected against small-arms fire and shell fragments by aluminium armor and the windows are protected by louvers. An over-pressure ventilation system is fitted to prevent rocket fumes from entering the cab. The vehicle is also fitted with an NBC system. The rocket pods can be replaced in five minutes after the rockets have been fired. The resupply vehicle is usually a Heavy Expanded Mobility Tactical Truck (HEMTT).

(データ)  
 乗員 3名  
 戦闘重量 25,191kg  
 走行性能 路上最大速度64km/h  
 エンジン キューミンズVTA-903 ターボチャージャー付8気筒 ディーゼル、500馬力  
 武装 227mm ロケット 12発

乗員: 3名  
 戦力重量: 25,191kg  
 性能: 最大路上時速64km/h  
 引擎: 枯若VTA-903渦輪增壓8氣缸柴油式, 500馬力  
 武装: 12 x 227mm火箭

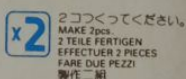
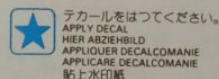
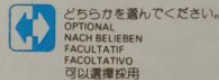
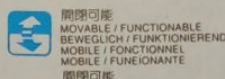
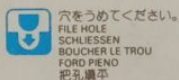
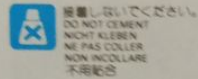


組立ての注意

- ・接着剤や塗料は火の近くで使わないでください。使う時はときどき窓を開けて換気に気をつけましょう。
- ・塗料指定の **1** はグンゼ産業・Mrカラーの番号です。接着剤や塗料は入っていませんので別にお買い求めください。
- ・部品をランナーから切り離す時は模型用ハサミ等を使い、余分な部分はカッターやヤスリ等で仕上げてください。
- ・組立図のサインマークは下の説明をごらんください。

(注意)

- ・勿於近火處使用膠水或油漆，並打開窗戶保持空氣流通。
- ・**1** 代表都是產業出品MR. COLOR的顏色編號。不包括膠水及油漆。
- ・自膠架中取出部件時，應用模型專用剪，並用利刀或小鏟除去多餘的膠料。
- ・各圖型的含意可參考本欄以下的說明。



ZUR BEACHTUNG

- ・Kleber und Farbe nicht nahe von offenem Feuer verwenden und das Fenster von Zeit zu Zeit zur Belüftung öffnen.
- ・Der **1** der Farbkennzeichnung bedeutet die Farbnummer von GUNZE SANGYO MR. COLOR. Kleber und Farbe sind nicht enthalten.
- ・Zum Abschneiden der Teile vom Verbundstück eine Modellierschere verwenden und die überstehenden Plastikteile mit einem Messer oder einer Feile beseitigen.
- ・Die Bedeutung der Symbols finden Sie unten in dieser Spalte.

CAUTION

- ・When you use glue or paint, do not use near open flame, and use in well ventilated room.
- ・**1** of color indication refers to the color number of GUNZE SANGYO MR. COLOR. Glue and paint are not included.
- ・When you take parts off from the runner frame, use a modeling scissors and trim excess plastic with a cutter or a file.
- ・See the bottom of this column for the meaning of symbols.

ATTENTION

- ・Ne pas utiliser de colle ou de peinture à proximité d'une flamme nue, et aérer la pièce de temps en temps.
- ・Le numéro **1** pour l'indication de couleurs correspond au numéro de couleur de GUNZE SANGYO MR. COLOR. La colle et la peinture ne sont pas comprises.
- ・Pour retirer les pièces hors du cadre, utiliser des ciseaux spéciaux pour maquette et retirer le plastique en excès avec un couteau ou une lime.
- ・Voir la fin de cette colonne pour la signification des symboles.

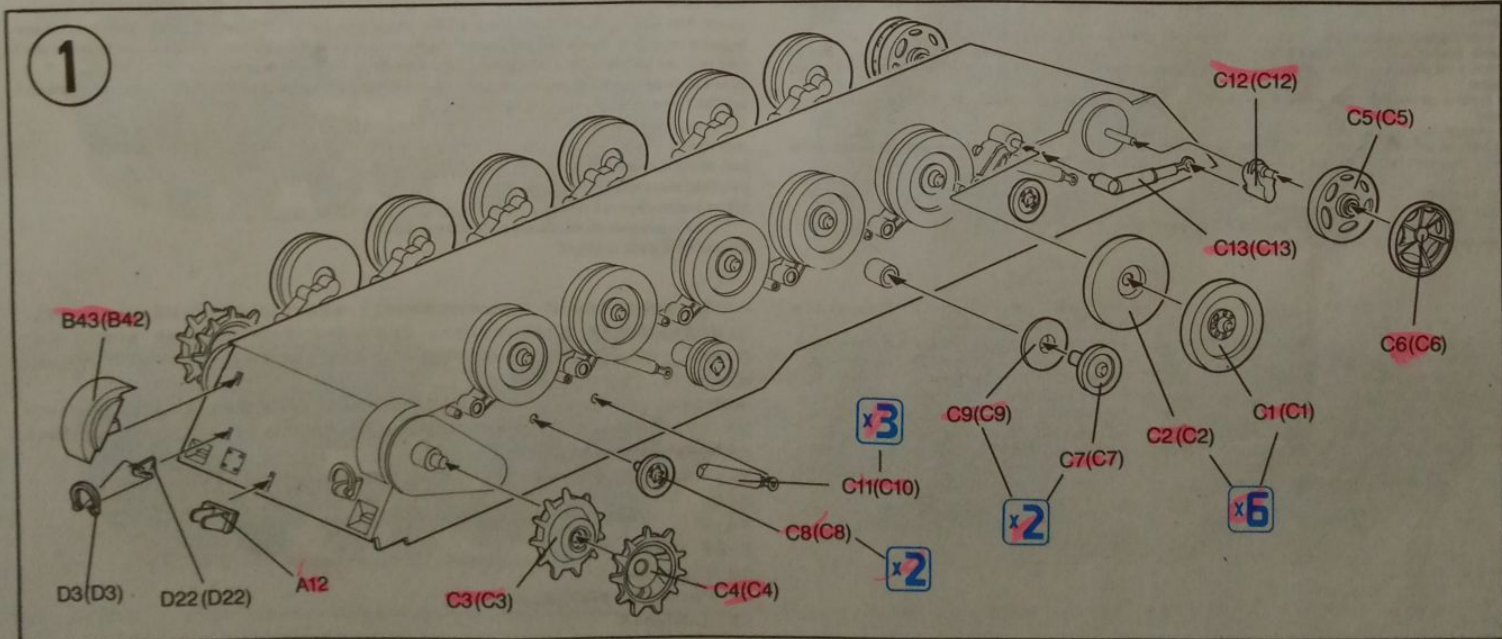
ATTENZIONE

- ・Non usare colla o vernice vicino a fiamme esposte, e aprire le finestre di tanto in tanto per cambiare l'aria.
- ・**1** delle indicazioni di colore si riferisce al numero di colore di GUNZE SANGYO MR. COLOR. Colla e vernice non sono incluse.
- ・Quando si staccano parti del carrello, usare forbici da modellismo e eliminare la plastica in eccesso con un coltello o una lima.
- ・Vedere in fondo a questa colonna per il significato dei simboli.

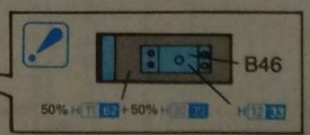
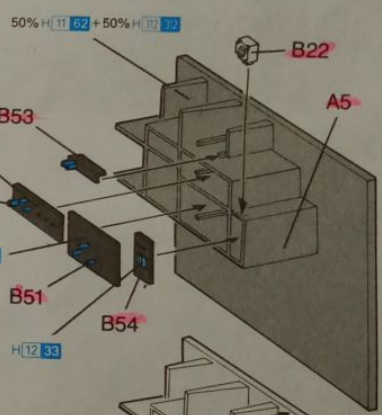
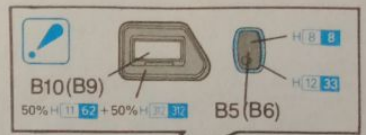
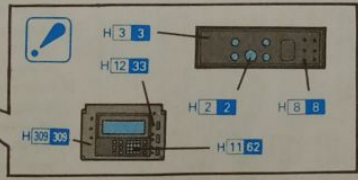
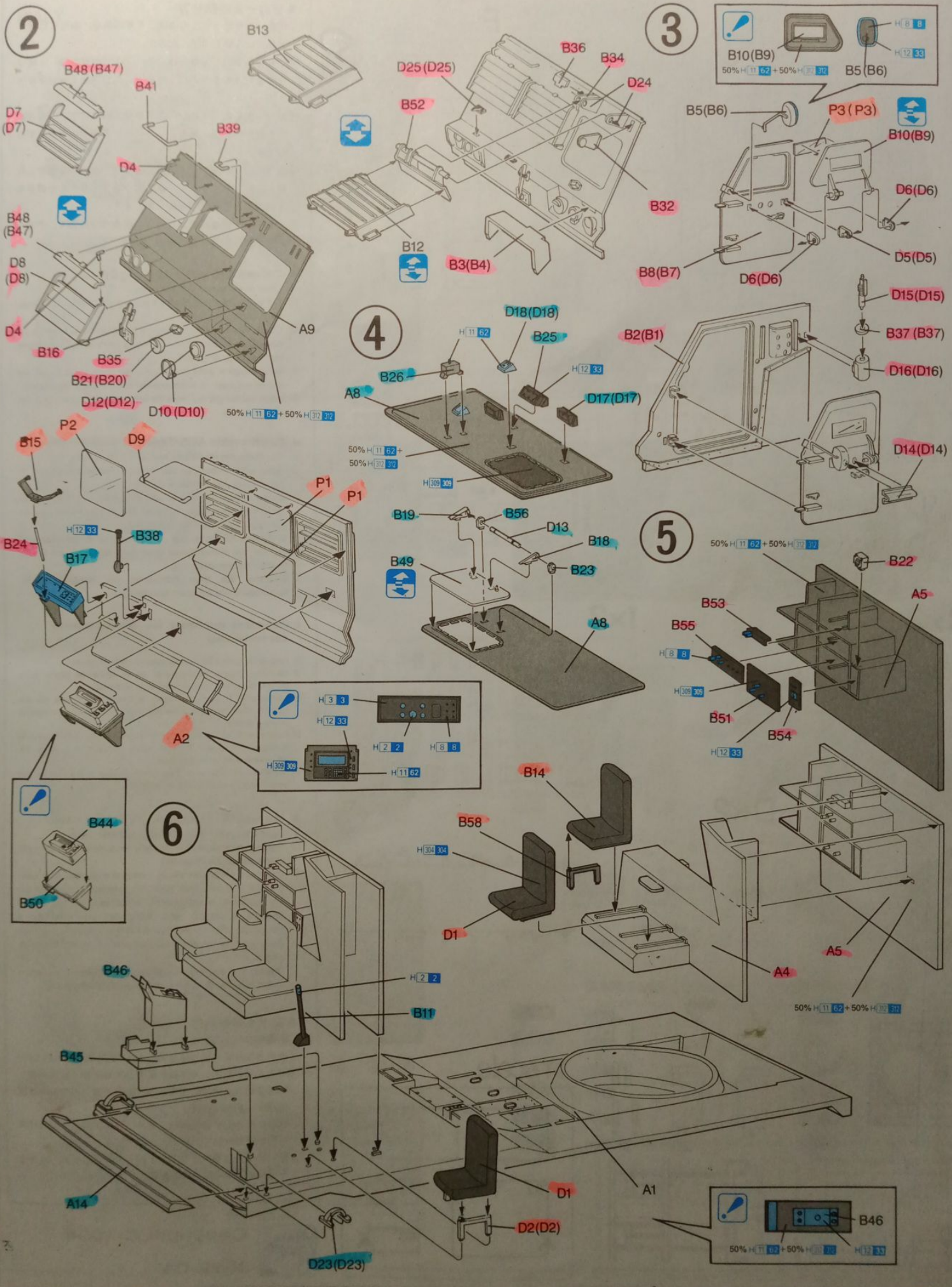
**H1** GUNZE SANGYO AQUEOUS HOBBY COLOUR ITALERI PAINT NO.

**1** GUNZE SANGYO MR. COLOUR

H2 2	ブラック	1747	BLACK	SCHWARZ	NOIR	NERO	黒色
H3 3	レッド	1503	RED	ROT	ROUGE	ROSSO	紅色
H8 8	シルバー	1546	SILVER	SILBER	ARGENT	ARGENTO	銀色
H11 62	つや消しホワイト	1768	FLAT WHITE	MATTWEISS	BLANC MAT	BLANCO OPACO	哑白色
H12 33	つや消しブラック	1749	FLAT BLACK	MATTSCHWARZ	NOIR MAT	NERO OPACO	哑黑色
H14 59	オレンジ		ORANGE	ORANGE	ORANGE	ARANCIO	橙色
H18 29	黒鉄色	1415	STEEL	STAHL	ACIER	ACCIAIO	煎銀色
H37 43	ウッドブラウン	1701	WOOD BROWN	HOLZBRAUN	BRUN BOIS	HARRONE LEGNO	木棕色
H70 60	RLM グレー02	1701	RLM GRAY 02	RLM GRAU 02	BLM GRIS 02	GRIGIO RLM 02	RLM 灰色 02
H90 47	クリアーレッド	1503	CLEAR RED	ROT, REIN	ROUGE CLAIR	ROSSO CHIARO	透明紅色
H92 49	クリアーオレンジ	1527	CLEAR ORANGE	ORANGE, REIN	ORANGE CLAIR	ARANCIO CHIARO	透明橙色
H100 303	グリーンFS 34102	1712	GREEN	GRÜN	VERT	VERDE	緑色
H100 504	オリーブドラブFS 34087	1711	OLIVE DRAB	OLIVE DRAB	OLIVE DRAB	OLIVA PALLIDC	橄欖綠色
H100 209	グリーンFS 34079	1710	DARK GREEN	DUNKEL GRÜN	VERT FONCE	VERDE SCURO	深綠色
H100 70	グリーンFS 34227	1716	LIGHT GREEN	HELLGRÜN	VERT CLAIR	VERDE CHIARO	淺綠色
H100 70	薄松葉色	1716	LIGHT GREEN	HELLGRÜN	VERT CLAIR	VERDE CHIARO	淺綠色
H100 20	黄土色		LIGHT BROWN	HELLBRAUN	MARRON CLAIR	MARRONE CHIARO	淺啡色
H100 25	ダークグリーンBS381C/641	1710	DARK GREEN	DUNKEL GRÜE	VERT FONCE	VERDE SCURO	深綠色

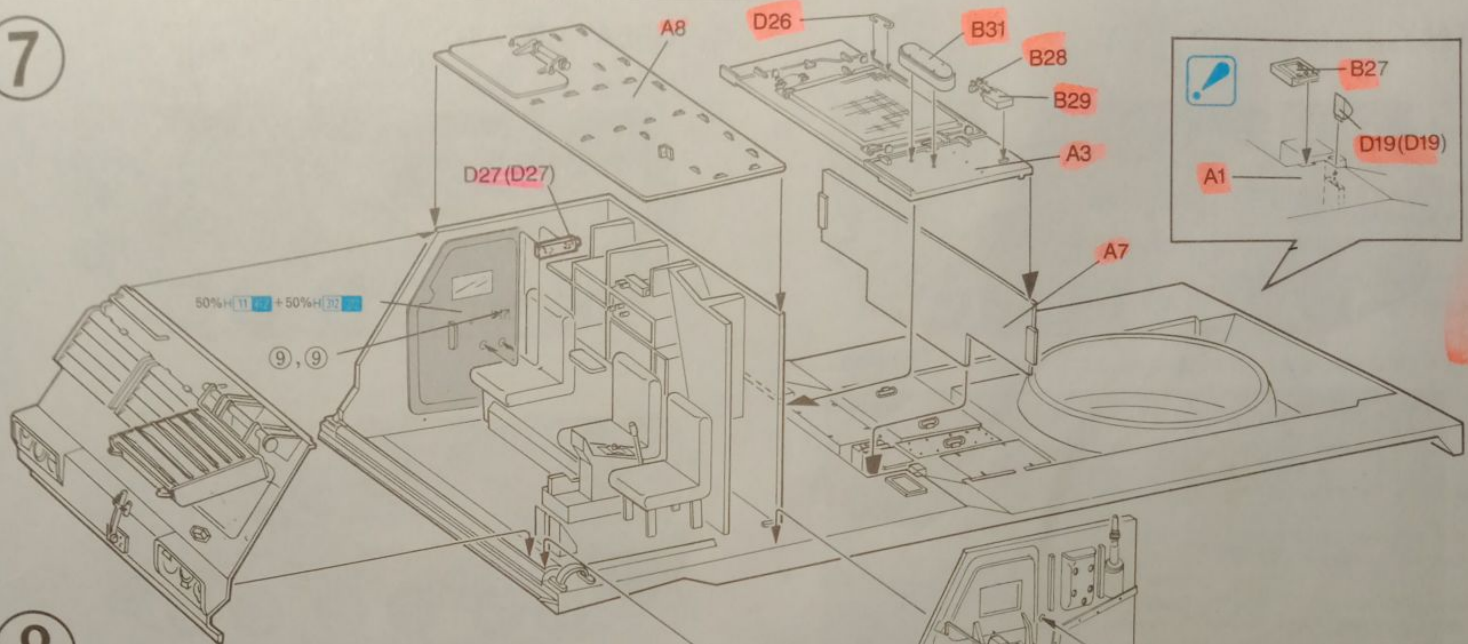




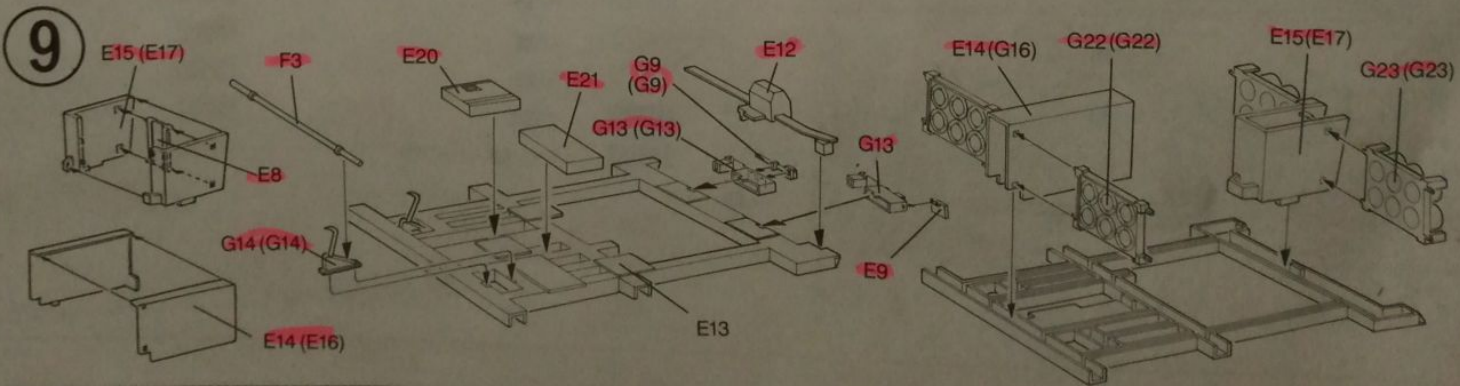
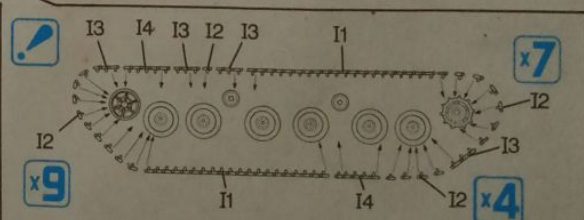
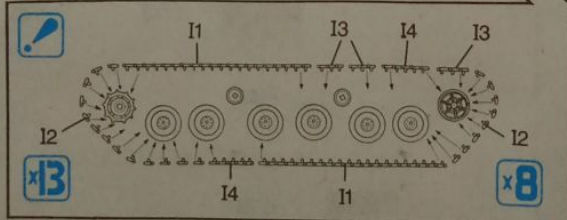
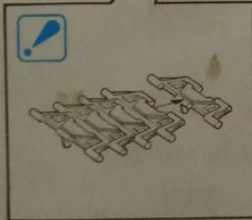
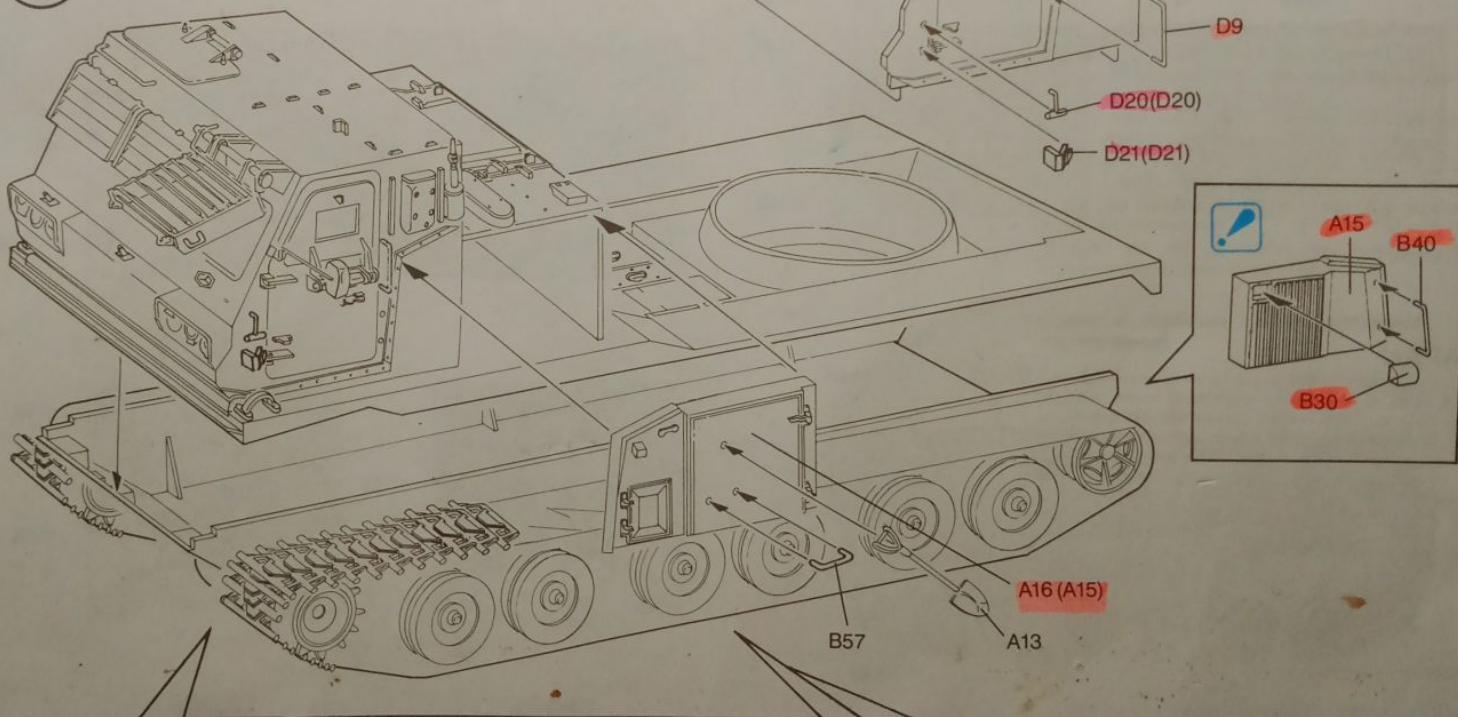




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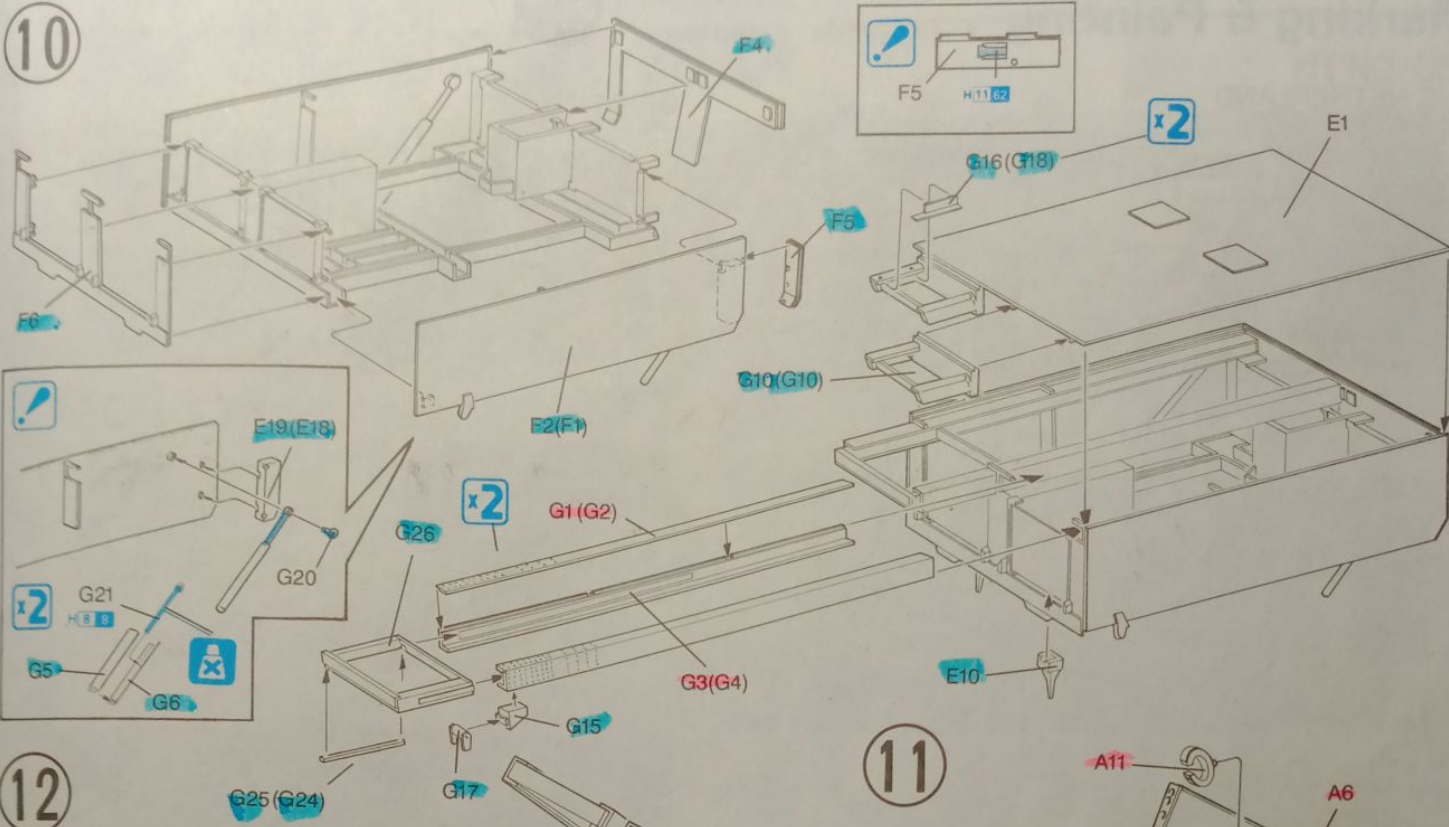


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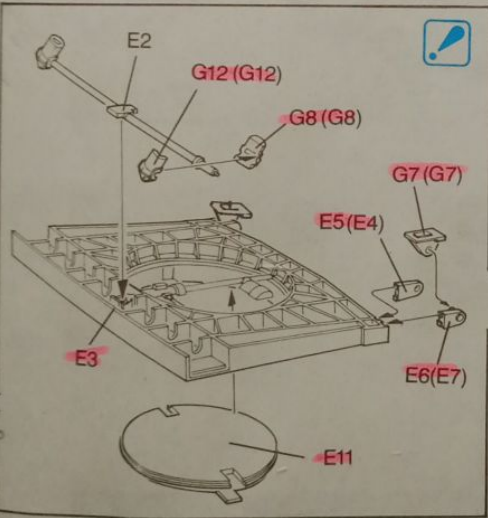




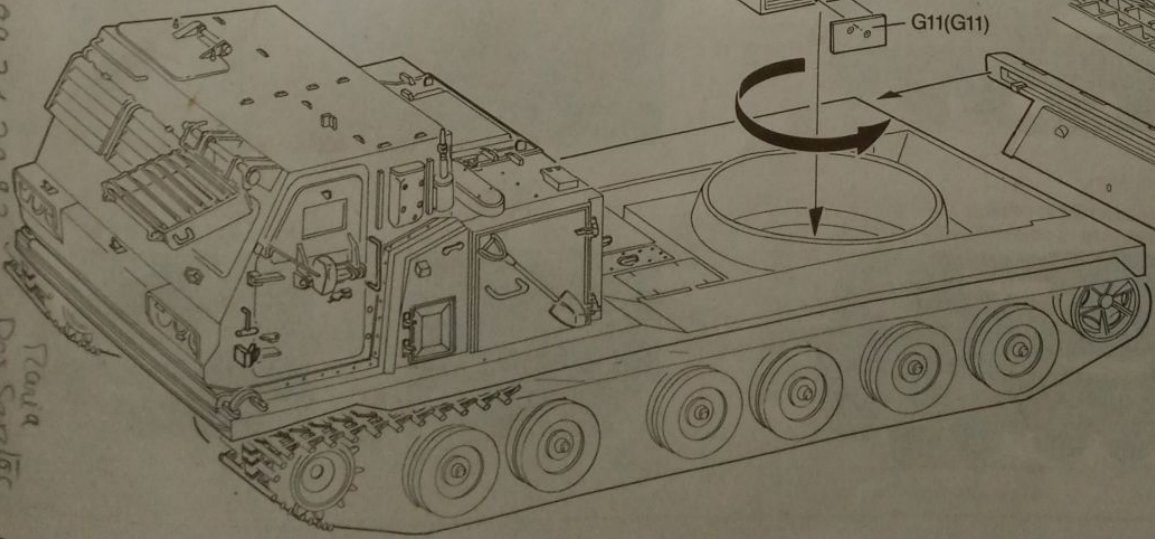
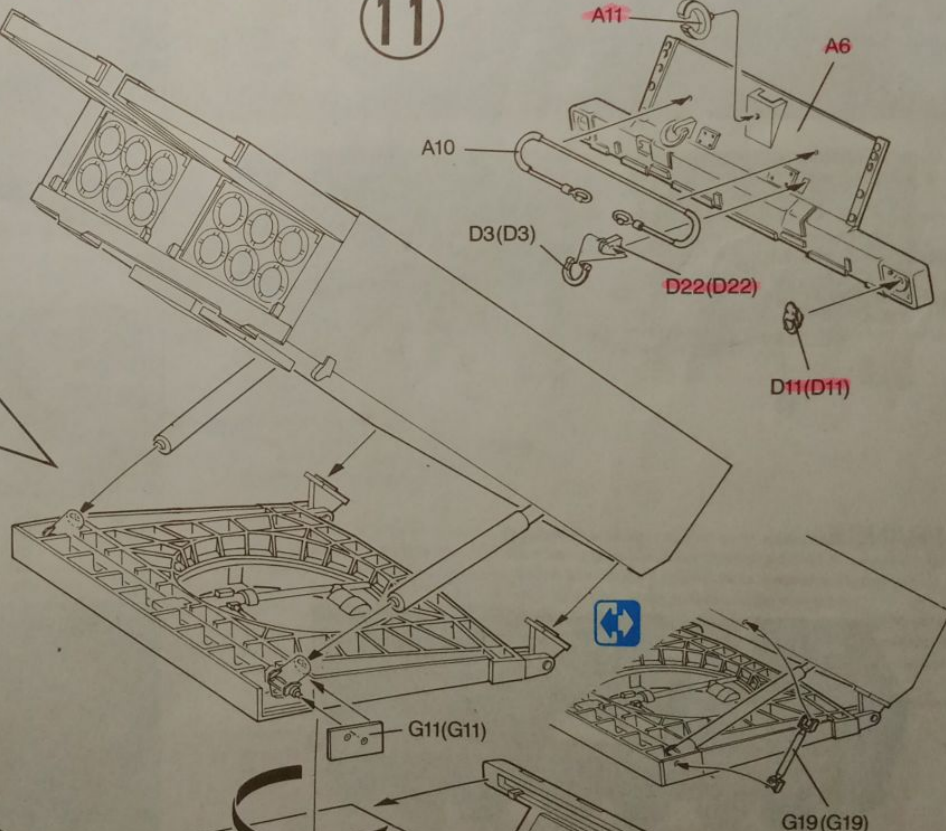
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12



11



03 89 24 30 92  
Trauer  
Das Sortiment

Vertrieb G-Technik



# Marking & Painting

マーキング及び塗装図

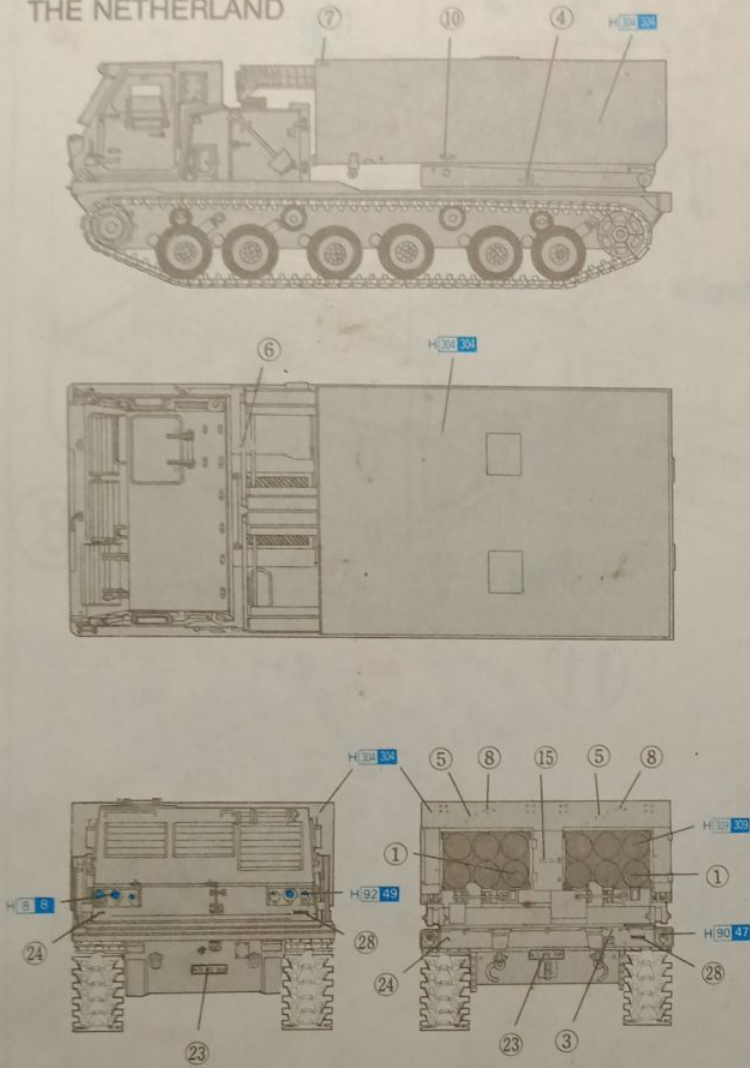
Markierungen und Bemalung

Decoration et Peinture

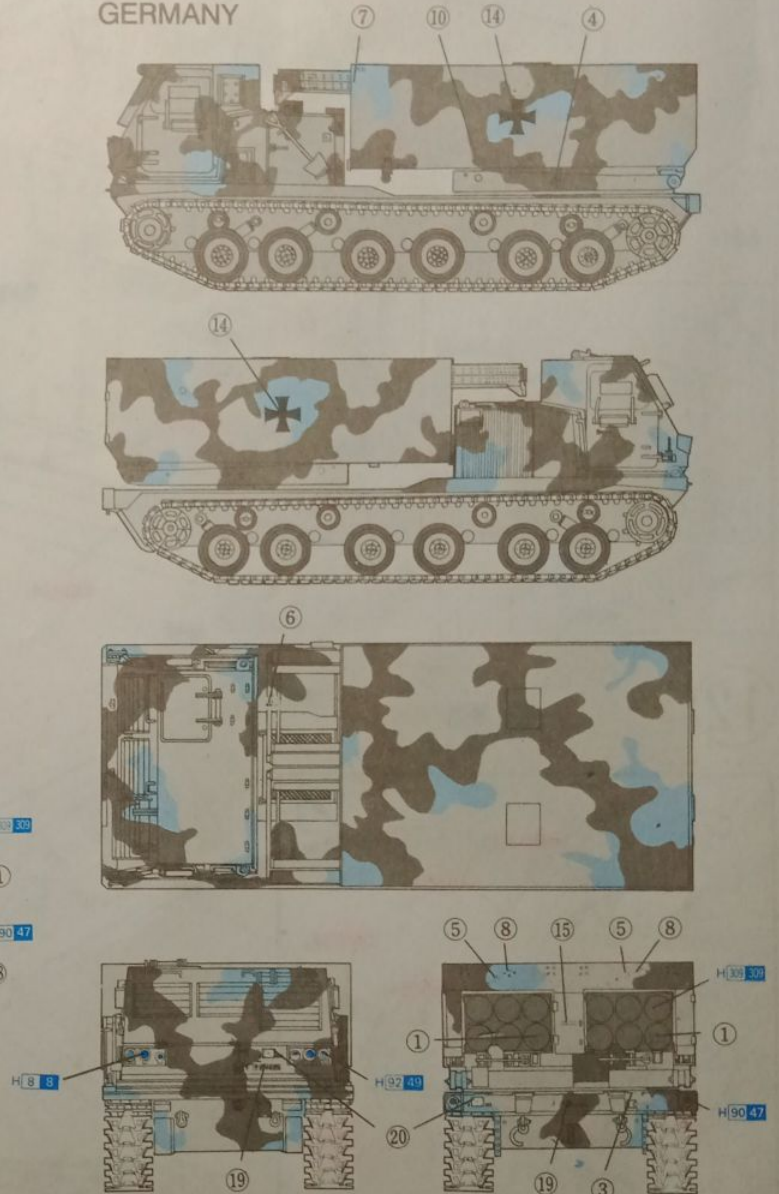
Marchio & Pittura

標貼及着色指示

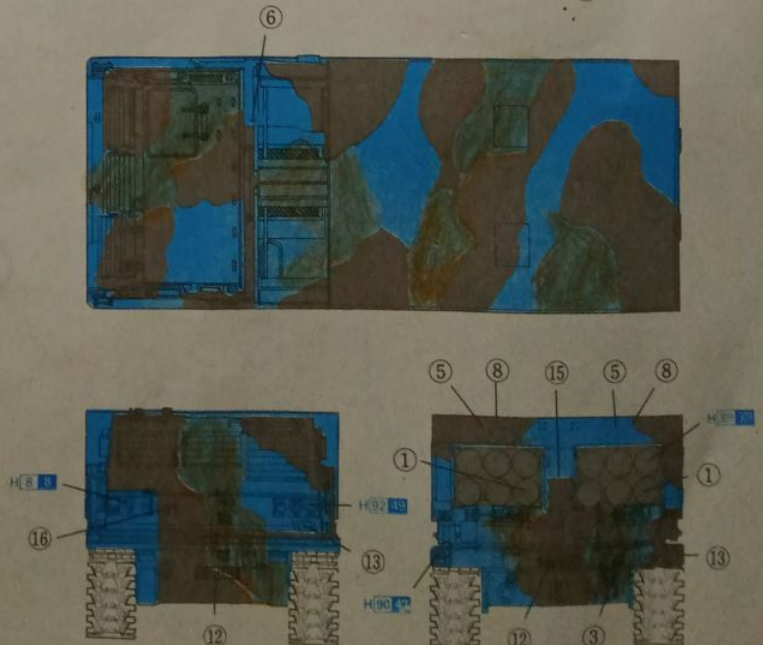
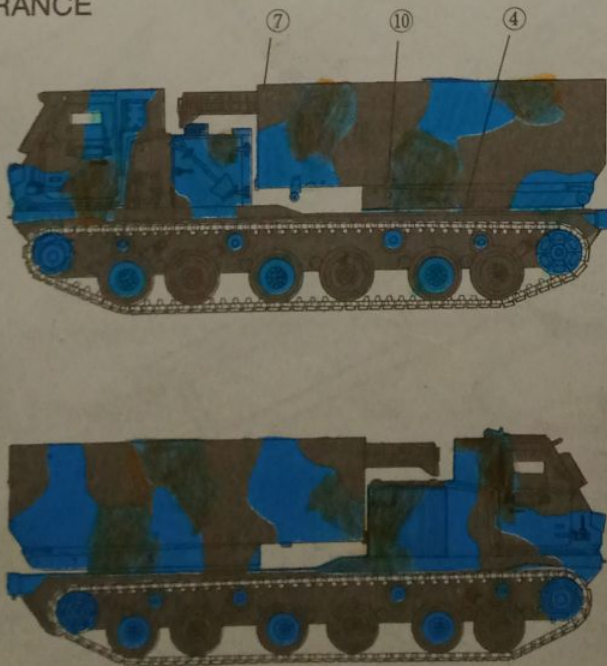
## THE NETHERLAND



## GERMANY

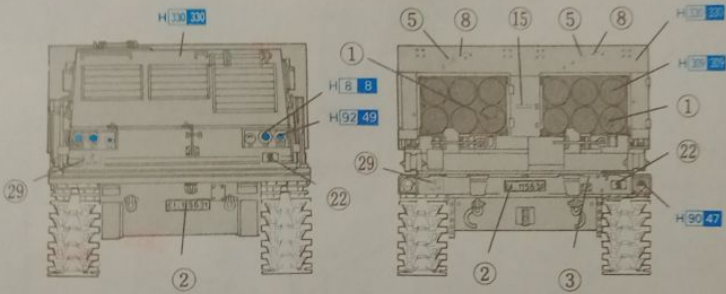
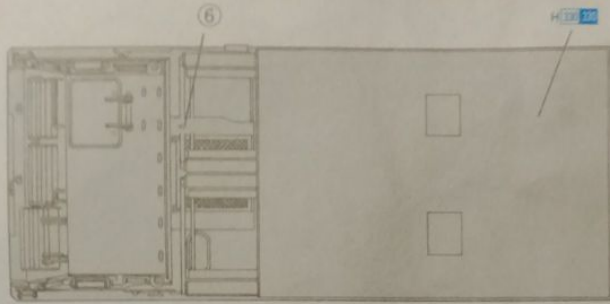
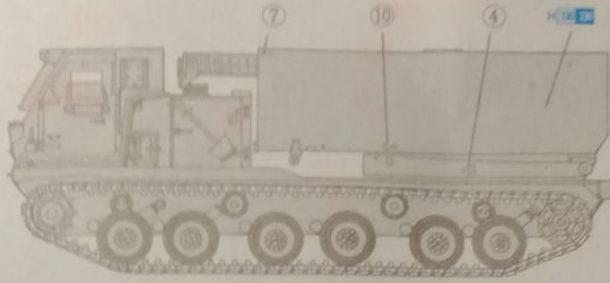


## FRANCE

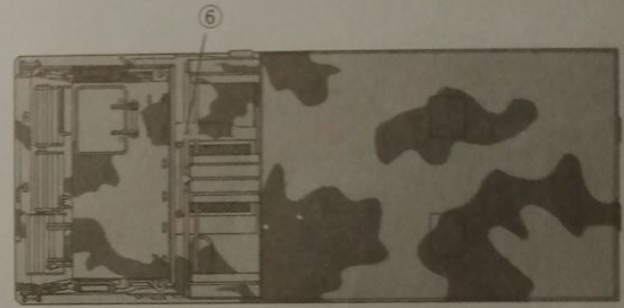
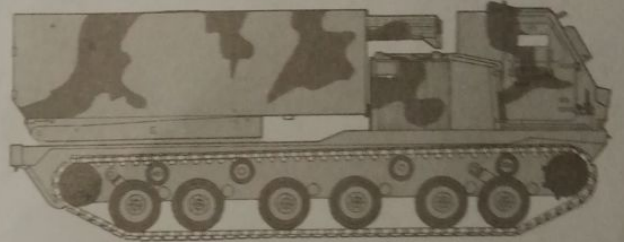
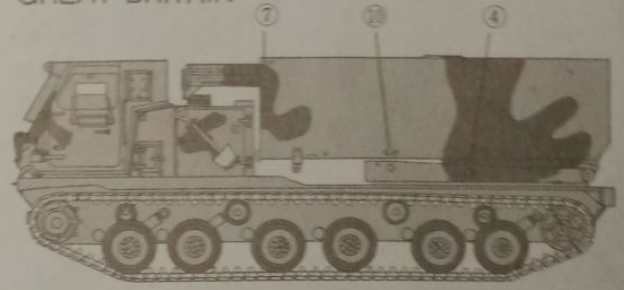




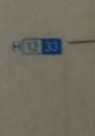
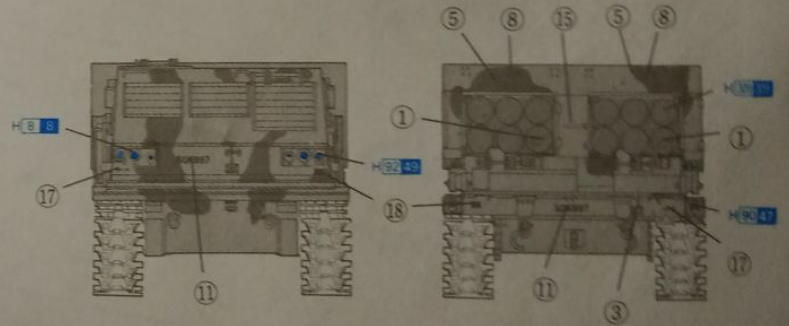
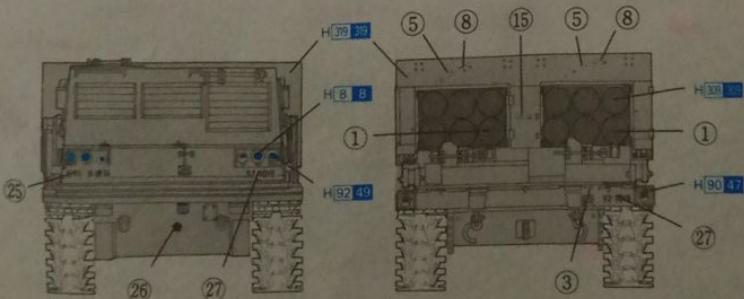
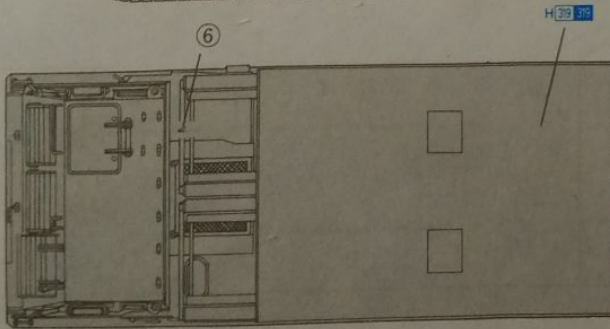
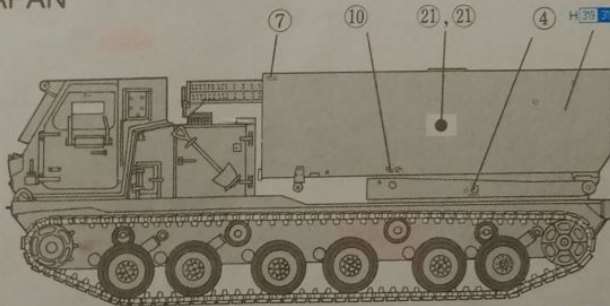
ITALY



GREAT BRITAIN

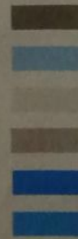


JAPAN



GUNZE SANGYO COLOUR

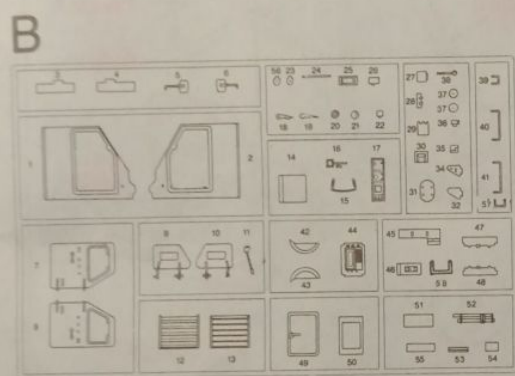
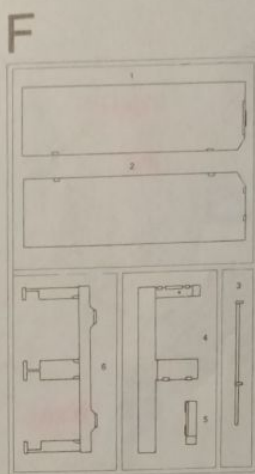
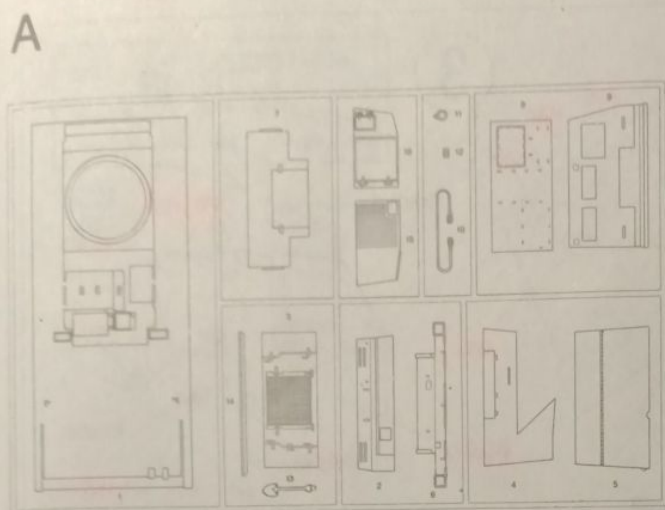
ITALERI PANT NO.



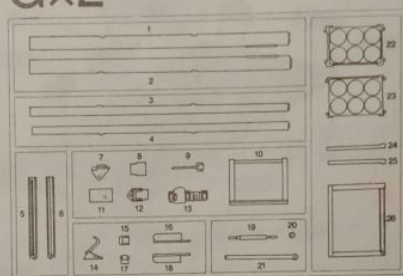
H 12 33  
H 37 43  
H 70 60  
H 80 33  
H 30 20  
70% H 30 33 + 30% H 14

1749  
1701  
1701  
1712  
1716  
1742

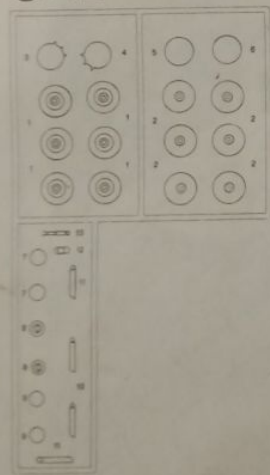




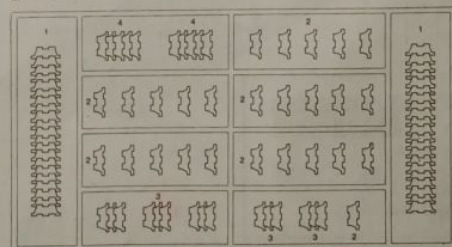
Gx2



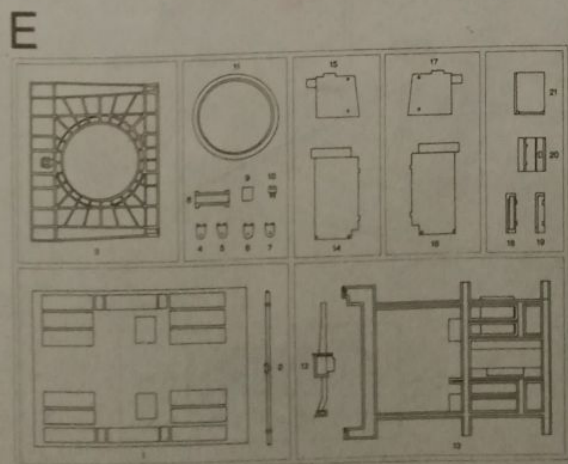
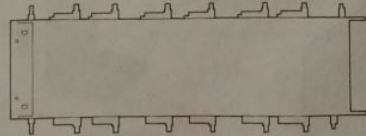
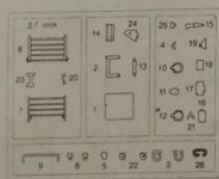
Cx2



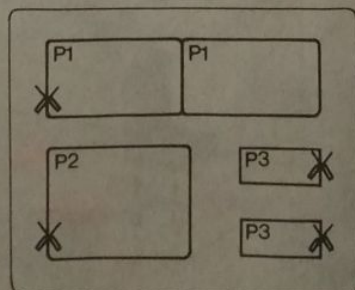
Ix2



Dx2



1:1 scale



■ デカールの貼り方

- ① デカールを貼るところのほこりや汚れを、ぬらした布できれいにふきとってください。
- ② 貼りたいデカールを台紙ごとハサミで切りとり、1枚ずつ水またはぬるま湯に台紙を下にして20秒くらい浮かべます。
- ③ 水から出したらタオルの上のせ、指先でデカールが動くか確かめた後、貼るところにおいて静かに台紙をずらします。
- ④ 指先に少し水をつけて正確な位置にデカールを動かした後で、やわらかく、よく水を吸う布でデカールを押さえて内側の水分や気泡を押し出します。
- ⑤ デカールが完全に乾いたら少し水をつけた布で、デカールのまわりのノリをふきとります。

■ Correct Method for Applying Decals

- ① Clean model surface with wet cloth.
- ② Cut each design out of decal sheet and dip them in warm water for 20 seconds.
- ③ Check with finger tip if design is loose on base paper. If so, place it on proper position on model and slide off base paper leaving design on model.
- ④ Move design to exact position with wet finger tip, and push out excess water and air bubbles under decal with soft cotton cloth.
- ⑤ When decals get dry, wipe off with wet cloth excess glue left around decals.

■ Das Korrekte Aufbringen der Abziehbilder

- ① Oberfläche des Modells mit lauchtem Tuch reinigen.
- ② Jedes Motiv einzeln aus dem Bogen herausschneiden und 20 Sekunden in warmes Wasser tauchen.
- ③ Mit dem Finger prüfen, ob sich das Motiv vom Trägerpapier gelöst hat. Wenn ja, so schleben Sie es vom Papier weg an seine genaue Position auf dem Modell.
- ④ Korrigieren Sie die exakte Lage mit nasser Fingerspitze und drücken Sie Wasserblasen unter dem Abziehbild mit einem weichen Baumwolltuch weg.
- ⑤ Entfarnen Sie beim Antrocknen der Abziehbilder die Klebmittelränder mit einem feuchten Tuch.

■ Comment appliquer les décalcomanies correctement

- ① Nettoyer la surface du modèle avec un chiffon humide.
- ② Découper chaque décalcomanie de sa feuille de papier et la plonger dans l'eau tiède pendant vingt secondes.
- ③ Vérifier avec le bout du doigt si le dessin se détache de son papier-support. Si oui, le positionner à l'endroit choisi sur le modèle et retirer doucement le papier-support.
- ④ Positionner la décalcomanie correctement avec un doigt humide et éponger tout restant d'eau et toutes bulles d'air sous la décalcomanie avec un chiffon doux.
- ⑤ Quand les décalcomanies sont sèche, détacher le colle autour des décalcomanies avec un chiffon humide.

■ Modo esat per applicare le decalcomanie

- ① Pulire la superficie del modello con un panno umido.
- ② Ritagliare ciascun disegno dal foglio decalcomanie e immergerli in acqua calda per 20 secondi.
- ③ Controllare col polpastrello se il disegno è allentato sulla base di carta. In questo caso, applicarlo nella esatta posizione sul modello facendolo scivolare delle base di carta.
- ④ Spostare il disegno nella esatte posizione mediante il polpastrello umido, quindi togliera l'acqua in eccesso e le bolle d'aria sotto la decalcomania mediante un panno soffice di cotone.
- ⑤ Quando le decalcomanie sono asciutte, togliere con un panno umido l'eccesso di colla intorno alla decalcomania stessa.

■ 貼上水印標貼的正確方法：

- ① 用濕布抹乾淨模型表面。
- ② 按照各標貼的形狀從標貼紙上切出，浸到溫水之中約20秒。
- ③ 用指尖試行觸摸以確定標貼是否已脫離底紙，如果屬實，則把標貼底紙放到模型表面的適當位置上，小心地將底紙移去，把標貼留在模型表面。
- ④ 以濕水的指尖把標貼移到正確的位置上，再用柔軟的綿質布料把標貼輕壓，以擠出標貼底下的氣泡和水份。
- ⑤ 標貼乾後，用濕布輕拭標貼及其附近的模型表面，以洗去可能殘留在標貼附近的多餘膠水，確保效果完美。



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