







IVATT CLASS 2 TANK FOR TRAIN SIMULATOR

User Manual

Introduction:

The locomotive type affectionately nicknamed 'Mickey Mouse' was first introduced by the LMS in 1946. This was to address a need for a small class 2 tank engine to replace ageing locomotive types. They were designed by H.G. Ivatt. Unsurprisingly, these engines were based on Stanier and Fowler 2-6-2 tank engines that had come before. Ivatt was also inspired by the successful 2-6-2 Prairie tank of the Great Western Railway. The new class were also to be fitted with new labour-saving devices such as rocking grates and self-emptying ash pans. The first 10 locomotives were numbered 1200-1209. Construction of the class continued post-nationalisation, with another 120 being built. The majority were built at Crewe but the last 10 were constructed at Derby.

In service, most were allocated to the Midland Region. However, 30 Crewe-built engines were allocated to the Southern Region and were therefore fitted with the additional brackets on the smokebox and bunker for the SR use. These locos were numbered 41290-41319. A few examples were also allocated to the Western Region. Another variation was the fitting of push-pull equipment to around 20 examples.

Withdrawals occurred between 1962 and 1967. Sadly 126 of these fine locomotives were scrapped. What a waste! Thankfully, four did survive the cutters torch. 41241 was purchased directly from BR and arrived at the KWVR under its own steam for preservation. It has run several times during its preservation career running in a unique KWVR red livery and BR lined black. 41241 has a boiler ticket until 2027.

Both 41298 and 41313 have found themselves back on the Southern Region, but not where they ran in the steam days. Back in the 1960's, BR planned to send some similar BR Standard 2MT Tank locos over to the IOW to replace some of the Victorian Adams O2 tank engines. The plan was halted when the end of steam was brought forward by BR. With that history in mind, when the opportunity came for the IOWSR to purchase a pair of the Ivatt 2-6-2's, they naturally jumped at the chance. Both locos have now been returned to steam and been fitted with Westinghouse brake pumps to haul the IOW air-braked stock. 41298 has a boiler ticket until 2025 and 41313 until 2027.

41312 was withdrawn from service in 1967 and sold to Woodham Bros scrapyard. It was saved in 1974 but didn't arrive at its long-term base of the Mid-Hants Railway until 1995. It was restored to working order for the first time in 1999. During its first ticket it travelled far and wide, visiting other heritage railways and enjoyed a short stint on the main line as well! After a brief hiatus, the loco was returned to steam in 2016 and is now enjoying its 2nd period in traffic, starring at the Mid-Hants, and also enjoying holidays to heritage railways such as the West Somerset and Severn Valley Railway's. 41312's boiler ticket will expire in 2025.







Specifications:

Total Built: 130
Build Date: 1946-52
Designer: H.G. Ivatt

Wheel arrangement: 2-6-2 'Prairie'

Driving Wheel Diameter: 5ft

Weight: 63-65tLength: 38' 9 1/2"

Tractive Effort: 17,400lbf

Power Class: LMS 2P; BR 2MT;

BR(SR) 2

Preserved: 41241, 41298, 41312

& 41313

Features:

- Ivatt 2-6-2T Locomotive
- Majority of Possible Livery Variants
- Weathering Options
- VP Textures Option Included
- Realistic Fully Functioning Cab
- Simulation Created for Realistic Performance
- Numerous Cab Camera Views
- Customisable Details
- Dynamic Particles
- Lamps and Discs Fully Customisable
- Advanced & Simple Modes
- Carefully Crafted Soundset Recorded from Real Ivatt Class 2 Locos
- Quick Drive Ready
- Scenarios

Variants:

- LMS | Clean | No's 1200-1210
- LMS | Light Weathering | No's 1200-1210
- LMS Post-War | Clean | No's 1200-1210
- LMS Post-War | Light Weathering | No's 1200-1210
- BRITISH RAILWAYS | Clean | All Numbers | SR Fittings
- ❖ BRITISH RAILWAYS | Light Weathering | All Numbers | SR Fittings
- ❖ BRITISH RAILWAYS | Heavy Weathering | All Numbers | SR Fittings
- ❖ BR Early Crest | Clean | All Numbers | SR Fittings Option
- BR Early Crest | Light Weathering | All Numbers | SR Fittings Option
- BR Early Crest | Heavy Weathering | All Numbers | SR Fittings Option
- ❖ BR Late Crest | Clean | All Numbers | SR Fittings Option
- ❖ BR Late Crest | Light Weathering | All Numbers | SR Fittings Option
- BR Late Crest | Heavy Weathering | All Numbers | SR Fittings Option
- ❖ Preserved 41241 & 41312 | ex-Works | BR lined Black Early & Late Crest
- Preserved 41298 & 41313 | ex-Works | Westinghouse Brake Pump | BR lined Black Late Crest









Driving Controls:

Control Name	Key Commands	Additional Comment
Regulator	A + D	Steam chest simulation is included on this model. There is a slight delay in response to regulator movements.
Reverser	W + S	Changes direction + helps with efficient use of steam. Move reverser as speed increases.
Reverser Lock	E(hald)	Releases the lock so you can turn the reverser
Train Brake + and -	; and '	Basic train brake. 'increases brake application, whereas ; moves towards release
Ejector	P + Shift+P	With brake handle moved to running position, the ejector will release the brakes. Keep on when moving.
Main Whistle	Space	A random selection of long whistles ideal for when the train is in motion
Random Short Whistles	Ctrl+Space	Random shorter whistles ideal for moving off from stationary
Drain Cocks	С	Opens and closes the cylinder drain cocks. Use if you have been stationary for a while.
Sander	X + Shift+X	This will help you grip the rails when it is either raining or snowing.
Blower +/-	N/Shift+N	Increases air flow through the fire to increase steam production. Use when stationary or coasting.
Handbrake	/	Apply the handbrake when stationary. Remember to release to move off!
Set Lamps	Ctrl+1, 2, 3 & 4	Change what lamps show on the locomotive
Lamps or Discs to Rear	Н	Press H to switch the lamps or discs to the rear of the locomotive
Set Discs (SR ONLY)	Ctrl+1, 2, 3, 4, 5 & 6	Change what discs show on the loco
Switch Between Discs & Lamps (SR ONLY)	Н	SR locos carry discs by default but these can be changed to lamps for night running







Customization:

When you load an Ivatt Tank loco into the Train Simulator scenario editor, a random number will be chosen from the list appropriate to the loco chosen. Certain features are customizable using the loco number field. More so with the BR era variants. Here are the options:

LMS

Example Number: 12024#D or 120814B

Place a loco on the track and double-click on it to bring up the number field(right-hand flyout window)

4 Digit Loco Number = 1202

3 Digit Shed Code = 4#D(single number) or 14B(double number)

BR/BR(SR)

Example Number: 4132570D3PYNYN

5 Digit Loco Number = 41325

3 digit shed code = 70D

Era (1949-50 = 1, 1950-56 = 2, 1956 onwards = 3) = 3

Power class logo (2 or P) = P

Southern Region Brackets (Y or N) = Y

Overhead Warning Decals (Y or N) = N

Self-cleaning Smokebox SC (Y or N) = Y

Water treatment logo (Y or N) = N



How to Use the Locomotives in Train Simulator:

Getting Started

To find the locomotives in Train Simulator you will find scenarios and Quick Drive available featuring the locomotive in various forms. If you want to create your own scenarios, you will find them under SHG\lvatt2MTPack01 in the Provider\Product flyout. (NOTE: VP texture versions are available. VP is in the display name of those versions. E.G. Ivatt 2-6-2T VP – LMS.

L oco T ype	Display Name	Numbers
LMS Pre-war Lettering Clean	Ivatt 2-6-2T - LMS	10 (1200-1210)
LMS Pre-war Lettering Weathered	Ivatt 2-6-2T - LMS(W)	10 (1200-1210)
LMS Post-war Lettering Clean	Ivatt 2-6-2T - LMS Post-War	10 (1200-1210)
LMS Post-war Lettering Weathered	Ivatt 2-6-2T - LMS Post-War(W)	10 (1200-1210)
BR Gils Sans Clean	Ivatt 2-6-2T - BR (1948-50)	60 (41200-41259)
BR Gils Sans Lightly Weathered	Ivatt 2-6-2T - BR (1948-50) (W1)	60 (41200-41259)
BR Gils Sans Heavily Weathered	Ivatt 2-6-2T - BR (1950-56) (W2)	60 (41200-41259)
BR Early Crest Clean	Ivatt 2-6-2T - BR (1950-56)	130 (41200-41329)







Loco Туре	Display Name	Numbers
BR Early Crest Lightly Weathered	Ivatt 2-6-2T - BR (1950-56) (W1)	130 (41200-41329)
BR Early Crest Heavily Weathered	Ivatt 2-6-2T - BR (1950-56) (W2)	130 (41200-41329)
BR Late Crest Clean	Ivatt 2-6-2T - BR (1956-67)	130 (41200-41329)
BR Late Crest Lightly Weathered	Ivatt 2-6-2T - BR (1956-67) (W1)	130 (41200-41329)
BR Late Crest Heavily Weathered	Ivatt 2-6-2T - BR (1956-67) (W2)	130 (41200-41329)
BR Preserved Clean Early & Late	Ivatt 2-6-2T - Pres BR	2 (41241 + 41312)
BR Preserved IOW Clean Late	Ivatt 2-6-2T – BR Pres	2 (41298 + 41313)

Scenarios

Click on Drive > Standard. Type into the search box Ivatt 2MT. This will bring up the Ivatt loco options that have a Standard Scenario created for them.

NEW Each QD consist & scenario in the pack has a (VP) version, meaning the VP textures version of the lvatt tank has been used.



NEW Mid-Hants 'Over the Alps' Route (Download HERE)

[Ivatt Tank] Take Five

On a stormy autumn day, 41312 has been called on to replace Urie S15 506. The S15 was not cooperating this morning, so we'll have to trust our Ivatt on 5 coaches. Shouldn't be a problem. But you'll need your fireman to provide the steam you require, and you'll also have to handle the changeable weather!

- AP Mark One Pack Armstrong Powerhouse
- Class 50 Armstrong Powerhouse
- Bulleid Rebuilt Light Pacific Bossman Games
- Bulleid Rebuilt Merchant Navy Bossman Games
- British Railways Wagon Pack Digital Traction
- S15 Sound Pack (+ its requirements) Steam Sounds Supreme
- SR Vans Digital Traction
- Departmental Wagon Pack Steam Sounds Supreme
- Departmental Hoppers Pack Steam Sounds Supreme
- Standard 4 2-6-0 Just Trains
- Standard 5MT Just Trains
- BR Shocvan Wagon Pack Steam Sounds Supreme
- Doncaster Works Steam
- West Somerset Railway Steam







- GCR Demo Freight Steam Sounds Supreme
- European Assets Pack Steam
- AP Skies & Weather Enhancement Pack Armstrong Powerhouse

Note: The requirements in red are <u>critical</u>. The rest are for AI and extra siding-filler consists.

[Ivatt Tank] The Alresford Shuffle

It is pre-gala here at the Mid-Hants Railway and a lot of stock needs to be shunting around, not only here at Alresford but we also need to take empty stock to Alton and bring the vans train back up the bank to Medstead. Lots to do. Efficiency will be vital, so we don't delay the service trains!

Requirements:

- AP Mark One Pack Armstrong Powerhouse
- Class 50 Pack Armstrong Powerhouse
- Class 205 Pack Armstrong Powerhouse
- Queen Mary Brake Van Digital Traction
- SR Vans Digital Traction
- BMG Stanier Black 5 Pack Steam
- Bulleid Rebuilt Merchant Navy Bossman Games
- S15 Sound Pack (+ its requirements) Steam Sounds Supreme
- DT Bulleid Rebuilt Light Pacific Just Trains/Steam
- British Railways Wagon Pack Digital Traction
- Stainmore Route Steam Sounds Supreme
- Departmental Wagon Pack Steam Sounds Supreme
- Departmental Hoppers Pack Steam Sounds Supreme
- MT Bulleid Coach Set 1 Steam
- Standard 4 2-6-0 Just Trains
- Standard 5MT Just Trains
- BR Shocvan Wagon Pack Steam Sounds Supreme
- SDJR 7F Enhancement Pack Steam Sounds Supreme
- West Somerset Railway Steam
- GCR Demo Freight Steam Sounds Supreme
- KWVR Route Steam Sounds Supreme
- Stroudley Terrier Late Addon Steam Sounds Supreme
- Doncaster Works Steam
- European Assets Pack Steam
- AP Skies & Weather Enhancement Pack Armstrong Powerhouse

Note: The requirements in red are most important

[Ivatt Tank] The Watercress Belle Special

The Watercress Belle dining service returns. This evening, this 4-coach dining train will be hauled by our lvatt 2MT 41312. We will be doing a full round trip of the line as it starts getting dark. Should be an interesting evening!

- AP Mark Ones *Armstrong Powerhouse*
- Class 50 Pack Armstrong Powerhouse
- Class 205 Pack Armstrong Powerhouse
- S15 Sound Pack (+ its requirements) Steam Sounds Supreme
- Bulleid Light Pacific Preservation Edition Steam Sounds Supreme
- DT Bulleid Rebuilt Light Pacific Just Trains/Steam
- British Railways Wagon Pack Digital Traction
- Queen Mary Brake Digital Traction
- SR Vans Digital Traction







- Stainmore Route Steam Sounds Supreme
- South Western Mainline Steam
- Departmental Wagon Pack Steam Sounds Supreme
- Departmental Hoppers Pack Steam Sounds Supreme
- MT Bulleid Coach Set 1 Steam
- Standard 4 2-6-0 Just Trains
- BR Shocvan Wagon Pack Steam Sounds Supreme
- European Assets Pack Steam
- Mega Mark One Pack Vulcan Production
- Doncaster Works Steam
- West Somerset Railway Steam
- GCR Demo Freight Steam Sounds Supreme
- GWR Small Prairie Pack Steam
- AP Skies & Weather Enhancement Pack Armstrong Powerhouse

Note: The requirements in red are most important

NEW West Somerset Railway 'TO THE SEA' Route (Download HERE)

[Ivatt Tank] Norton Return

Ivatt Tank 41241 is visiting us from the KWVR. Now repainted from its KWVR red into BR lined black with early crest, the 2-6-2T is with us for our autumn gala weekend. Our final duty of the day is a Norton-Williton shuttle. Take the train from Williton to Norton and back to Bishops Lydeard to finish your duty.

Requirements:

- AP Mark Ones Armstrong Powerhouse
- AP Class 150 Pack Armstrong Powerhouse
- Bulleid Light Pacific Preservation Edition Steam Sounds Supreme
- Western Hydraulics Pack Steam
- Departmental Wagon Pack Steam Sounds Supreme
- Departmental Hoppers Pack Steam Sounds Supreme
- West Somerset Wagon Pack Steam Sounds Supreme
- Modified Halls Expansion Steam Sounds Supreme
- GWR Large Prairie Steam
- GWR Manor(Victory Works) Steam Sounds Supreme
- GWR Pannier Tanks Steam

Note: The requirements in red are most important

The Purbeck Line (Download HERE)

[Ivatt Tank] Pickup Goods

This scenario is set in 1964 and features an authentic pickup goods duty between Swanage and Wareham. Our loco is Ivatt 2MT 41310 and we start in the sidings at Swanage. We will be on a pickup goods as far as Wareham where we will shunt them into the correct siding ready for a mainline loco to take over.

- AP Mark Ones Armstrong Powerhouse
- Grouping Van Pack 1 Caledonia Works
- SR Luggage Van Pack 1 Caledonia Works
- Bulleid Light Pacific Preservation Edition Steam Sounds Supreme
- Bulleid Light Pacific Working Days Steam Sounds Supreme
- SR M7 Loco Digital Traction
- Stainmore Route Steam Sounds Supreme







- Riviera in the Fifties Steam
- MT Bulleid Set 1 Steam
- Wear Valley Steam

Note: The requirements in red are most important

West of England Mainline (Download HERE)

[Ivatt Tank] Parcel Drop

Set in 1960, drive Ivatt 2MT Tank on a stopping parcels service from Axminster to Exeter. Make sure you keep to time. You don't want to hold up other services on this busy stretch of line!

Requirements:

- AP Mark Ones Armstrong Powerhouse
- SR Luggage Van Pack 1 Caledonia Works
- Grouping Van Pack 1 Caledonia Works
- Bulleid Rebuilt Light Pacific Bossman Games
- Bulleid Rebuilt Merchant Navy Bossman Games
- S15 Pack 1 & 2 Steam
- LSWR T9 Caledonia Works
- BR Standard 4 2-6-4T Enhancement Pack Steam Sounds Supreme
- M7 Repaints Slow Line Simulations (LINK)
- Stainmore Route Steam Sounds Supreme
- Riviera in the Fifties Steam
- LNER V2 Just Trains
- West of Scotland Lines Steam
- MT Pullmans Set 1 Steam Sounds Supreme
- Wycombe Railway & Joint Line Steam Sounds Supreme

Note: The requirements in red are most important

Severn Valley Railway (Subscribe to our newsletter **HERE**)

The Severn Valley Railway don't usually do double-headers as a rule due to weight restrictions along the line, apart from when it is two small locos. However, our civil engineers team have approved the pairing of lvatt 2MT Tank 41241 and lvatt 4MT 43106. This pair will haul the 10 coach B&C set on the 1155 departure from Kidderminster to Bridgnorth. The highlight for many will likely be the climb of Eardington Bank!

- AP Mark Ones Armstrong Powerhouse
- AP Class 150 Pack Armstrong Powerhouse
- AP Class 50 Pack Armstrong Powerhouse
- Flat Wagon Pack 1 Caledonia Works
- Grouping Vans Pack 1 Caledonia Works
- Riviera in the Fifties Steam
- Western Hydraulics Pack Steam
- LMS P3 Sets 1 & 2 Steam
- GWR Colletts Set 1 Steam
- GWR Colletts HW Sets 1 & 2 Steam
- Gresley Teaks Sets 1, 2 & 3 Steam
- GWR Hawksworth Sets 1 & 2 Steam
- GWR Toplights Panel Set 3 Steam
- West Somerset Railway Steam







- GWR 2800 Pack Steam Sounds Supreme
- Stainmore Route Steam Sounds Supreme
- LNWR Coal Tank Caledonia Works
- GWR 14xx Sound Pack Steam Sounds Supreme
- Large Prairie Pack Steam
- GWR Manor(VW) Steam Sounds Supreme
- GWR Pannier Tanks Steam
- GWR Small Prairies Steam

Note: The requirements in red are most important

Stainmore, Shap & Eden Valley Route (Buy HERE)

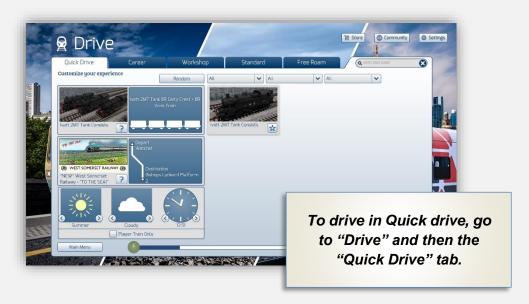
It is 1947. HG Ivatt's Class 2 tank and tender locomotives are being trialed on different parts of the network to assess their ability to replace ageing locomotive designs. The Ivatt 2MT 2-6-0 tender loco was tested successfully on the Stainmore line yesterday and the tank equivalent had a go this morning. Unfortunately, water capacity limitations will prevent the 2MT tank becoming a regular feature up here. But there is one final line that we've been asked to test out on. We'll be taking empty stock from Tebay to Oxenholme and then we will trial the service from there to Barrow, via Ulverstone. Enjoy this because I don't think these 2MT's will be coming up here again!

Requirements:

- Stainmore Route Steam Sounds Supreme
- LMS 8F Bossman Games
- LMS Black 5 Bossman Games(Available on Steam)
- LMS Jubilee Bossman Games
- LMS Rebuilt Royal Scot Bossman Games
- LMS Stanier Mogul Bossman Games
- LMS 4F & 7F Digital Traction
- LMS P3 Coach Set 1 Steam Marketplace LMS P3 Coach Set 2 Steam Marketplace
- Hunslet Fitzwilliam Steam Sounds Supreme
- LMS 3F Jinty Steam
- LNWR Coal Tank Caledonia Works

Quick Drive(QD)

The pack comes with a set of QD consists covering all eras.









Click on the locomotive image on the top-left of the screen. Then type 'Ivatt 2MT Tank' into the search field. Then click on Ivatt 2MT Tank Consists. Choose your consist, then the route and journey you wish to make

Select your time of day, season and weather and press start.

PLEASE NOTE: The QD consists use some DLC to provide realistic train formations. You will require at least one of the following DLC to use the QD provided

- Mk1 Pack Armstrong Powerhouse
- MT LMS Non-Corridor LMS Edition Steam Sounds Supreme
- LMS Period 2 LMS Late Steam
- LMS Period 3 Sets 1 & 2 Steam
- SECR 60ft Birdcage BR Crim Steam
- Maunsell Carriages BRBC & BRG Steam
- Luggage Van Pack Caledonia Works
- Shocvan Wagon Pack Steam Sounds Supreme
- GCR Demo Wagon Pack Steam Sounds Supreme
- GCR Windcutters Wagon Pack Steam Sounds Supreme

Make Your Own Scenario

Go to "Build", click on the Scenario tab. Find the route you wish to make a scenario for. Select the route then click on "New Scenario". Name the scenario > Choose the scenario type you want to create > Select your start point > Create.

To place an Ivatt 2MT Tank loco onto the track, enable the Provider/Product: **SHG\lvatt2MTPack01**.

Select the Locomotives tab. You will find all the locos listed under the prefix Ivatt.

When you place a loco on the track, use the information in the *Customization section* of this document to guide you in adding a locomotive number of your choosing.

Scenario creation is beyond the scope of this manual, but there are plenty of tutorials available – this one is a good starting point from Matt at DTG https://www.youtube.com/watch?v=-MIDHGyinKs







Usage and Distribution

- > This pack is for download exclusively from www.steamsoundssupreme.com. It must not be uploaded to any other site or re-distributed in any form.
- The pack is for your PERSONAL use ONLY
- The locomotive and all its parts have been created exclusively for Steam Sounds Supreme. It MUST NOT be uploaded to any file sharing site.
- The locomotive may be referenced in any freeware scenario the user creates. But they MUST NOT be included in any freeware route upload package. Creation of payware scenarios using these locos may only be done after receiving written permission from Steam Sounds Supreme
- Distributing repaints of these locomotives is STRICTLY PROHIBITED. Exceptions will only be granted when written permission is obtained from Steam Sounds Supreme
- All audio files are the property of Steam Sounds Supreme. Editing, or reverse engineering of them is strictly prohibited.
- Any modifications you make to the included files must be for YOUR PERSONAL USE ONLY
- The included scenarios are not to be re-distributed in any way. They may not be cloned and edited, except for your own PERSONAL USE.
- > The new shader is NOT to be included in any other package or uploaded to ANY website

Credits:

- Steam Sounds Supreme would like to personally thank all you who purchase this product and for reporting some issues that we have worked to resolve
- ➤ We also thank those who lovingly preserve all 4 of the Ivatt tank locos in preservation. This pack would not have been possible without these gems of preservation!
- We thank the following people for their valuable contributions to this project:
 - The Skyhook Games LTD Team
 - Pete Gillam(Victory Works)
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