THE ASSESSMENT AND IDENTIFICATION OF WAGONS, COACHES, LOCOMOTIVES AND TENDERS WHICH MERIT HERITAGE STATUS ACCORDING TO SAHRA CRITERIA AND MUST BE PRESERVED FOR FUTURE GENERATIONS

The process included the involvement of a number of steam locomotive enthusiasts from various organisations as well as international experts

Introduction

The introduction of railways in South Africa in 1860 and their rapid extension into the hinterland spurred both industrial development and the opening up of access to large areas of the Country. The mobility that this encouraged changed the way of life of all South Africans as it did in many other countries in the nineteenth century.

It is obvious that the development of railways, initially served the interests of European settlers and their business interests whilst causing many impacts for the existing population. However, as elsewhere in the world, despite the skewed political development of South Africa, the railways drove the development of the Country, and today provide benefits for all South Africans as the backbone of the national transport infrastructure and a strategic part of modern 21st Century South Africa.

It is important that the history of railway development be presented in an appropriate manner. One way to bring the history alive is through museums, tourist operations and artefacts – from items as small as tickets to those as large as locomotives. The challenge is how to choose an inclusive collection that represents the wide ranging role of the railways (both good and bad) in a way that will be relevant for future generations.

A good example of a National Railway Museum that does this extremely well is the National Railway Museum at York in the UK.

http://www.nrm.org.uk/

As at York, such a collection should include representation of;

Rolling Stock	Locomotives, carriages, wagons, service vehicles
Infrastructure	Stations, structures (bridges etc), track and signalling, passenger and freight facilities, workshops
People	Those who built and worked on the railway and their families, passengers
Services	e.g.: Uniforms, Tickets, catering, signage
Role	What the railways did, key traffic flows

Archives and archival research also form a significant part of York's activities.

In South Africa the existing Outeniqua Railway Museum in George has collections of some aspects of the railways but the selection of rolling stock is not very representative (in particular because it is not possible for the larger heavy main line rolling stock to reach George due to the axle-load restrictions and sharply curved nature of the secondary railway lines to the town).

Whilst there is a need for a fully inclusive collection that adequately represents the role of the railways for all South Africans, **there is a need to focus initially on rolling stock, especially locomotives**. The reasons for this are that there are a large number of locomotives in various categories and conditions around the Country that Transnet wish to dispose of or which are in imminent danger from scrap thieves. These Transnet assets also take storage space and provision of security is costly. Amongst these are some of high historical importance and the intent of this list is to identify those which meet SAHRA criteria as heritage items.

One theme that comes through strongly from an overseas perspective is that a model whereby Heritage items are vested in a Trust of some form works well. In the UK we have had a Railway Heritage Committee which is a statutory body responsible for identifying significant railway records and artefacts, and ensuring their preservation for the nation. Unfortunately, this has fallen victim to budget cuts brought on by the financial crisis but it has in fact worked extremely well for many years. Note that the terms of reference for the RHC were somewhat broader than SAHRA's as it included structures and archives.

http://www.brbr.co.uk/railwayheritage

In South Africa the Lease-Lend concept has worked well and there are a number of locomotives which were on a list submitted by HRASA in 2007 for Lease-Lend status. Transnet did not respond to this request but it is recommended that they reconsider as these locomotives could then find safe homes.

Clearly, Transnet will have to decide what to do with the items identified, we have three suggestions which could be the start of a dialogue;

1. A low cost open-air museum at Millsite which has adequate security. This has the added benefit that it could be integrated with apprentice training at the adjacent Transnet Repair Shops
2. Development of the Johannesburg (Park Station) site in Newtown. This structure which is the historic original Johannesburg ZASM station (and should itself receive Heritage Status) was re-erected about 20 years ago but has stood as an empty shell ever since. The regeneration of this part of downtown Johannesburg provides an opportunity to develop it as a Museum which could incorporate both the equipment from Millsite plus exhibitions showing a more inclusive approach to the role of the railways in mobility as discussed in the Museums forum in October 2010.
3. Rail Tourism Action Group's vision to utilize steam locomotives listed below to preserve and promote these for tourism and thereby contribute to job creation. However, this vision is still in the making and requires public/private engagement and involvement.

Transnet Locomotive Assets

We would emphasise that the attached lists **do not list all Transnet owned locomotive assets**. Omitted are items in George Museum, Lease-Lend items and items plinthed on Transnet property. It is assumed these are safe for the time being but at some point a decision needs to be made on how they can be taken off Transnet's books and placed in a Trust. Several items in George Museum represent classes not in the A List attached but which meet SAHRA criteria for listing. However, some others on plinths could probably (if they are not being maintained) be offered for sale.

Transnet owned locomotives in South Africa can be broadly placed into a number of categories;

1. Locomotives on "Lease-Lend" to accredited clubs, several have been restored and are in operating condition
2. Locomotives preserved in George Railway Museum and on plinths, station platforms etc
3. Locomotives operated in recent years by Transnet Heritage on tours and on the Outeniqua "Tjoe-Choo", most standing at Transnet Depots such as (Voorbaai, Bloemfontein and Cape Town) in relatively good condition
4. Locomotives stored in derelict condition
5. Modern Traction (diesel and electric locomotives)

It is assumed for the purposes of this document that locomotives in categories 1 and 2 are "safe" and are therefore excluded from consideration for the time being **(Note: Locomotives that are in the care of Clubs but which we think have not formally been given Lease-Lend Status are included in the lists below)**. The locomotives in categories 3, 4 and 5 have been split into two broad lists – A and C;

List A. Locomotives **which meet** SAHRA criteria for designation as a "Heritage Object"
List C. Locomotives **which do not meet** SAHRA criteria or merit retention (however, many of these locos have very useful spare parts which should be removed to enable the restoration of List A and B locos)

ABBREVIATIONS USED

NOTE: The Abbreviations used are as found in RAILWAYS OF SOUTHERN AFRICA – Locomotive Guide by John Middleton, published in the USA, 2002.

Railway Companies

NGR - Natal Government Railway	ZASM - Zuid Afrikaanse Spoorweg Mij
CGR - Cape Government Railway	CSAR - Central South African Railways
OVGS - Orange Free State Railway	IMR - Imperial Military Railway

Locomotive Builders

ALCO	American Locomotive Co, USA & Canada
BLW	Baldwin Locomotive Works, Philadelphia, PA, USA
BM	Berliner Maschinenbau A.G.,Berlin, Germany (Form. L. Schwartzkopff)
Bor	A. Borsig Gmbh, Berlin-Tegel, Germany
BP	Beyer, Peacock & Co Ltd, Manchester, England
Bre	Breda, Italy
D	Dubs & Co, Glasgow, Scotland (Later part of NBL)
EE	English Electric Co Ltd, Preston, England
FB	Societe Franco-Belge, La Croyere, Belgium
Essl	Maschinen Fabrik Esslingen A.G. Esslingen, Germany (Form. E. Kessler)
GE	General Electric Co, Erie, PA, USA.
GM	General Motors Electro-Motive-Division, La Grange, Illinois, USA
GM(SA)	GM loco built under licence by GM South Africa, Port Elizabeth, Cape.
Hano	Hannoverische Maschinenbau A.G., Hannover-Linden, Germany
Hartmann	Richard Hartmann AG, Chemnitz, Germany (later Sachsische Maschinenfabrik)
Hen	Henschel & Sohn Gmbh, Kassel, Germany
HE	Hunslet Engine Co Ltd, Leeds, England
Hohen	Hohenzollern AG, Germany
HSP	Haine St Pierre, Belgium
HT	Hunslet Taylor Consolidated (Pty) Ltd, Johannesburg, Transvaal
K	Kitson & Co, Leeds, England
Kru	Friedrich Krupp Maschinenfabriken, Essen, Germany
KS	Kerr, Stuart & Co Ltd, California Works, Stoke-on-Trent, England
LH	Linke Hoffmann A.G., Germany
Maf	Maffei A.G., Munich, Germany (later part of Kr-M)
MLW	Montreal Locomotive Works, Montreal, Canada
MV	Metropolitan-Vickers Electrical Co Ltd, Manchester, England
MW	Manning, Wardle & Co Ltd, Leeds, England
NB	North British Locomotive Co Ltd, Glasgow, Scotland
N	Neilson & Co, Glasgow, Scotland (later NR)
NR	Neilson, Reid & Co Ltd, Glasgow, Scotland
O&K	Orenstein & Koppel A.G., Berlin, Germany
P	Peckett & Sons Ltd, Bristol, England
RS	Robert Stephenson & Co Ltd, Newcastle-on-Tyne, England
RSH	Robert Stephenson & Hawthorns Ltd, Newcastle-on-Tyne and Darlington, England.
Salt River	South African Railways, Salt River Workshops
Schw	L. Schwartkopff, Berlin, Germany (later BM)
Sko	Skoda Werke, Plzen, Czechoslovakia
SLM	Schweizerische Lokomotiv und Maschinenfabrik, Winterthur, Switzerland.
SS	Sharp, Stewart & Co Ltd, Glasgow, Scotland
UCW	Union Carriage and Wagon Co (Pty) Ltd,, Nigel, Transvaal
VF	Vulcan Foundry Ltd, Newton-le-Willows, England
Werk	Ned. Fab. van Werktuigen & Spoorwegmaterieel (Werkspoor), Utrecht, Holland

Category A Locomotives (Locomotives recommended for SAHRA Heritage Status)

The role of the "A List" locomotives in the development of South Africa

The first railways in South Africa in Durban and Cape Town both opened in 1860. These short lines followed largely British practice and were built to the British "standard gauge" of 4' 8 ½". Pioneering locomotives from both lines have survived, one preserved at Durban Station and one at Cape Town Station and were both National Monuments. These early lines were funded by private interests but by the early 1870's it was realized that strategic direction was needed and the Government took over the railways in the Cape in 1872 and in Natal in 1875. From that time until the present day national railway development in South Africa has been State owned and operated.

Another important decision at the same time was that all railway development would be to the narrower gauge of 3'6". This was to facilitate development of lines into the interior, the logic being that the difficult terrain encountered beyond the coastal plains would require many tunnels, bridges and other earthworks and the narrower gauge would be cheaper to build. This decision has impacted railway development in South Africa ever since. Some would argue it was restrictive and in some ways (eg: limits to high speed travel) it was. However, the railways rose to the technological challenge and today operate the longest and heaviest trains anywhere in the world on narrower than Standard gauge track (eg: 35 000 tonne ore trains on Orelink). The 3'6" gauge has become known worldwide as the "Cape Gauge".

In the nineteenth Century the economy of the Country was predominantly agricultural and driven by European settlers. This changed with the discovery of diamonds in the Northern Cape and gold in what is now Gauteng. These discoveries drove the development of railways to serve the mining areas which in turn opened up huge swathes of the Country. By 1900 most major towns had a railway and by the 1920s lines served all population centres. In the skewed political environment of South Africa, of course, most of the benefits of this development went to European settlers. However, the employment opportunities in the newly industrialized centres drove urbanization and the need to move large numbers of people from rural areas to the cities as well as within cities. The railways provided the transport needed and ultimately provided economic opportunities for many people.

The legacy of the use of 3'6" gauge has meant that railways in South Africa were always relatively slow speed with a maximum for most trains of 90 km/h. This meant that faster road and air travel has taken most passenger traffic over the years with Transnet today primarily focused on freight haulage. However, although higher speeds are technically perfectly feasible on 3'6" gauge (in 1978 245 km/h was achieved on test and in 1982 Johannesburg-Pretoria was upgraded to 160 km/h), the fact remains that such speeds are inefficient in that they disrupt the bulk of the traffic which is slower speed freight.

Up until 1935 dedicated express passenger and freight types were built but after the Class 16E until the present day, all locomotives have been "mixed-traffic" in that they can cover all duties.

Prior to Union each Colonial Government developed railways in their own style. While locomotives were designed to meet specific service needs, the role of the Chief Mechanical Engineer (or Locomotive Superintendent) was paramount. In the early years, many types were built in small numbers for specific tasks. From the 1930s onwards, standardization was important with large numbers of similar locomotives being built which were suitable for all types of train.

The Cape Provinces (Western Cape, Eastern Cape and Northern Cape)
The Cape Government Railways (CGR) developed as three isolated systems based on Cape Town, Port Elizabeth and East London which were only finally connected in 18xx. However, they used standardized designs but unfortunately none of the first generation locomotives have survived. By 1890 the Locomotive Superintendent of the CGR was H. M. Beatty and in that year he went to Durban to study the new A class locomotives. He decided that an 8-coupled design was needed for freight trains and this resulted in the 7 Class 4-8-0 built between 1892 and 1902. They were designed for light track and eventually worked until the 1970s in most Countries across Southern Africa. TF has two good examples in working order in George Musuem **7A Class 1009 and 7B Class 1056**. Because of these two, none has been included on the A List but TF does own the very first built **7 Class 950** which is plinthed at Upington Station.

Beatty's next design was the versatile 6 Class 4-6-0 passenger loco. So advanced was the design that they could haul a passenger train between Cape Town and Johannesburg in 48 hours. The class is represented by Class **6A 462 (stored-Millsite)** built in 1897 which hauled C. J. Rhodes funeral train. In that same year the CGR ordered six locomotives from the USA (the Cape 4th Class – all scrapped) and these were to influence all future designs under Beatty. In 1901 the first of a new 4-8-0 appeared the 8th class. These had many American design features such as bar frames. None have been put in the A list as there are several in private preservation.

In 1903 Beatty designed the Class 5A and 5B "Karoo" type at Salt River, these were 4-6-2 "Pacific" type intended for the increasing weight of passenger trains over the steep gradients between Beaufort West and De Aar. **Class 5B 723 (stored-Millsite)** was the first 5B and the last survivor of the six built.

The Central and Northern Provinces (Gauteng, Free State, North West, Limpopo and Mpumalanga)
The railways of the old Transvaal Republic (NZASM) which opened in 1889 with the "Rand Tram" were rather enigmatic and backward technologically compared with the other lines. They relied exclusively on tank locomotives of continental design which were not particularly advanced. The railways developed rapidly though, driven by the Witwatersrand goldfields and were connected to Natal in 1896 and with Lourenco Marques (now Maputo) in 1895. Only a handful of NZASM locomotives survive, NZASM No. 1 of 1889 is in George Museum but the mainstay of services was known as the "46-tonner" type (later SAR Class B) of which 175 were built in Germany and Holland between 1892 and 1900. TF has one in George Museum **(61)** plus one on the A list – **230 (Waterval Boven)**, both were in working order until relatively recently.

The Anglo-Boer wars caused great disruption of the railway system and control of the ZASM and Free State Railways was taken over by the Imperial Military Railways in 1899 (the CGR and NGR remained in civil control). Once peace was declared in 1902, control of the IMR passed to a new organization – the Central South African Railways (CSAR). P A Hyde was the Chief Locomotive Superintendent. In 1902 the locomotive stock was a mixture of Cape and NZASM designs. Hyde set about standardizing designs and produced the 10th Class 4-6-2 for passenger trains and the 11th Class 2-8-2 for freights. These had many parts in common and thus set a trend for reducing costs by using common components which continues to the present day. Very few genuine CSAR locomotives have survived. TF does own 11 Class locos but they have been left off the A list as better examples survive in private preservation.

Kwa Zulu Natal
Railway development from 1875 was inland to Pietermaritzburg as well as north and south of Durban along the coast, opening up these agricultural areas. In due course, the prime reason for extending further inland was to reach coal reserves in the Dundee – Newcastle area so that this coal could be used for ships bunkering in Durban. Only one locomotive from this early era has survived – **1879 built SAR C Class "KITTY"** now preserved by ESCOM, this was made a National Monument some years ago. The mountainous terrain encountered as the NGR pushed inland meant trains were slow and the NGR relied exclusively on tank locomotives for almost 44 years. The first engineer for the NGR was W. Milne and in 1887 he designed a large tank locomotive with the 4-8-2 wheel arrangement. These were the first locomotives worldwide with this wheel arrangement, 100 were built of which **A Class 103 (stored Millsite)** was the 6th built and oldest surviving. They hauled all the most important trains in the period 1890-1900. The railway reached the coalfields in 1898 and larger locomotives were needed. G.W. Reid had taken over as chief engineer in 1896 and designed the **SAR H Class** 4-10-2T known as the "Reid Ten-Wheeler". Of 102 built only one survives in original condition, preserved by SANRASM. However, most were later rebuilt as 4-8-2T's and re-classified H2, TF have one **(330)** in George Museum. In 1905 D. A Hendrie from Scotland became NGR chief engineer. Hendrie had considerable experience having been Locomotive Superintendent of the Highland Railway and before that Leading Draughtsman with Sharp Stewart in Glasgow. Sharp Stewart supplied many locomotives to South Africa and later became part of the famous North British Locomotive Company which produced over 28000 locomotives, of which over 2000 were supplied to South Africa. Hendrie went on to become one of the most influential locomotive engineers in South Africa as he later became engineer of SAR until 1922.

Hendrie's first design was an improvement of the A class, 25 were built and later became the SAR G class. **G 221 (stored Witbank)** is the last survivor. By this time the NGR traffic had increased so rapidly that even triple-headed tank locomotives were being used on trains. Hendrie was asked to prepare a much more powerful design which became the famous 1 Class of which 77 were built between 1904-1909. These had wide fireboxes fitted with dry combustion chambers. This form of combuston chamber was highly advanced and pre-dated the "Gaines" type by 4 years when it was introduced in the USA in 1908 after which it was widely used on American locomotives. The 1 Class were used on all important trains on the NGR until Union. The oldest survivor and 3rd built is **1 Class 1247 (stored Millsite).** These most reliable of locomotives outlived many more modern types and the last in commercial service at a Witbank Colliery lasted until 1995.

South African Railways (SAR)
Hendrie of the NGR was appointed Chief Mechanical Advisor in 1910, the name changing to Chief Mechanical Engineer (CME) in 1911. It is interesting that Hendrie was appointed as his designs although robust were rather conservative in using British design philosophy which included plate frames. In many ways, the CGR Locomotive Superintendent Beatty was more advanced with his American inspired bar framed designs. However, Hendrie remained in charge until 1922 and the first period of SAR's existence was known as the "Hendrie Era". However, the CGR, CSAR and NGR had all prepared designs before Union and these were all built after SAR came into existence. The CGR ones were quite significant and included the "Enlarged Karoo" Class 5 of which four were built in 1912 for main line passenger trains between Cape Town and Touws River. Only one survives **5R 781 (stored Millsite).** The final CGR design was Beatty's 4A of which 10 were built in 1913 represented by **4AR 1555 (stored Millsite)**

From the CSAR drawing office came the 10C Class which were used on mail trains between Kimberley and Klerksdorp. Since so few genuine CSAR locomotives have survived **10C Class 772** (stored Millsite) built in 1910 is important as a representative of Hyde's designs.

The final NGR design had been the "Hendrie D" 4-8-2 of which 5 had been built been in 1909. They had the largest boiler of any locomotive in South Africa at the time. A further 25 were built after the formation of SAR and only one survives – **3R Class 1474 (stored Millsite)** built in 1911.

Hendrie had visited the USA in 1909 and studied Mallet articulated designs which were gaining in popularity there. Hendrie went on to oversee the ordering of some 80 Mallet's for SAR, many built in the USA, sadly none have survived (the last being scrapped in 1961) but two of identical design to the **SAR MA** Class survive derelict at Moatize in Mozambique and should be preserved. Hendrie continued with both designs influenced by Britain and the US. In 1910 designs were commenced for a heavy 4-8-2 for handling the heavy Witbank-Germiston coal traffic. The first of this class entered service in 1912 and were the famous 12 Class. At the time these were the largest non-articulated narrow gauge engines in the world. They could haul loads of 1400 tons and could complete a round trip in one day. They were very modern with piston valves, super heaters and had some cast steel frame parts – a great technical innovation for 1912. These locomotives and the improved 12A Class can be considered the peak of British influenced design in South Africa and are represented by the last survivor of the **12A Class 2111 (stored Millsite)**.

To handle heavy goods and passenger traffic in the Orange Free State a large mixed-traffic design was prepared in 1913 which became the 15A Class. These were considered one of Hendrie's finest designs and ended up working in all parts of the Country. In 1925 the final 15A built was the last locomotive following British practice of plate frames built for SAR, from that time all locomotives followed US practice (although most were built in the UK). Because of their significance two 15th's are on the A List **15A 1791 (stored Millsite)** which is in original condition and re-boilered **15AR 1850 (stored Bloemfontein)**.

In a radical departure, in 1918 Hendrie drew up specifications for a mixed-traffic 4-8-2 which were designed in Canada by the Montreal Locomotive Company. These were the 14C Class which became a very useful type. Very few survive and **14CRB 2010** (Plinthed-Ashton) built in 1919 is the best preserved and is included on the A List.

On retirement of Hendrie in 1922, the Chief Mechanical Engineer for the next 7 years became F.R. Collins. Collins was a great advocate of the Garratt articulated design. However, unlike his predecessors Collins did not design locomotives, preferring to prepare specifications and allow the builders to prepare the designs. This had various downfalls, one being lack of standardization. However, Collins oversaw a period of great change and in 1924 he prepared specifications for a heavy freight Garratt, this became the GE Class of which only one survives **GE 2260 (stored Millsite)** `.

1925 can be considered the single most significant for locomotive development in South Africa. That year saw the first electrified section as well as the introduction of two large new steam designs for passenger and freight service which were to influence all subsequent designs. The steam locomotives embodied many aspects of American locomotive practice and introduced many new features such as boiler top-feeds, self cleaning smoke boxes, drifting valves and grease lubrication. The fireboxes had siphon tubes to improve combustion. These were the **16D 860** and **15CB 2060** (both stored Millsite). The 15CB were later supplemented by the almost identical 15CA of which **15CA Class 2803 (stored Millsite)** is represented as it was one of only 10 Italian built steam locomotives in South Africa (Breda) but was also the very last steam locomotive in normal commercial service with SAR, at Germiston on 10 February 1992.

The challenges of working the Natal main line had led Hendrie to start investigating electrification prior to World War I, however, it took until 1925 under Collins for the first section between Ladysmith and Colenso to be inaugurated. The first locomotives were built by Metropolitan Vickers in the UK and were Class 1E represented by the pioneer locomotive **E1 (stored Millsite)**. A second 1E remains stored at Ladysmith (E25).

Collins liking of Garratts saw a range of types introduced, the oldest surviving of which is the branch line GCA type represented by **GCA 2199 (stored Millsite)**. One of these Garratt types – the GL – were the largest steam locomotives in South Africa (represented by GL 2351 in George Museum).

In 1928 oversaw the introduction of a class of branch line 4-8-2's that would have a profound effect across the Country. These were the 19 Class of which 4 were ordered. From this small order developed a range of modified types – the 19A, 19B, 19C and 19D of which in total over 300 were constructed and saw service in every corner of South Africa. In 2011 the very last steam locomotives in commercial service are three 19D's at a SAPPI pulp mill in Kwa-Zulu Natal where they are still well liked and operate on a 24 hour / 7 day per week schedule. These classes are represented by pioneer **19 Class 1366** (stored Millsite), **19B Class 1412** (stored Voorbaai) and **19D Class 3323** (stored George), the latter two being in working order.

Until the 1920's old main line locomotives had been used for shunting but in 1928 Collins designed a new heavy shunting locomotive – the S Class. The last survivor is the class pioneer **S Class 360 (stored Millsite).**

Collins inability to actually design a successful locomotive led to his resignation in 1929 and he was superceded as Chief Mechanical Engineer by A. G. Watson. With him came many changes and many contributions to the advancement of mechanical engineering. He disliked Garratts and claimed conventional locomotives could be built to cope with the traffic. No Garratts were introduced during his tenure. One of the most far reaching policies was one of standardization as at the time of his appointment there were some 83 types of locomotive in service. As a result he introduced a range of 7 standard boilers and a number of other measures designed to reduce costs and improve safety. A large number of cases were fitted with these new boilers and can be recognized by the "R" added after the Class type (eg: 15AR). His first two new designs were the 19B (see above) and 16DA. On both types he introduced new features. On the 16DA it was a wide firebox of the "Wooten" type with a large grate area. The steaming ability of these locomotives was described as phenomenal and it became standard on all future SAR locomotives. These types are represented by **19B 1412 (working order Voorbaai)** and **16DA 876 (stored almost operational at Bloemfontein)**.

Watson also experimented with increasing efficiency and adopted RC (rotary cam) valvegear on the 19C Class (the only survivor 2439 is in George Museum). This proved so free running that Watson included it on all his future designs which included in 1935 the express passenger 16E 4-6-2 for the most important Johannesburg-Cape Town trains (represented by **16E Class 857 and 15E Class 4-8-2 No. 2878 (both stored almost operational Bloemfontein, the 15E being the sole survivor of its type)**.

In 1936 Watson was succeeded by W.A.J. Day who only lasted until 1939 but in those three years some iconic designs emerged. In 1937 the first 19D 4-8-2 was ordered, essentially the same as the 19C but with standard Walschaerts valve gear. In 1938 rapidly increasing traffic on the Johannesburg – Mafikeng line saw a new Garratt design of which 16 were built – the GM Class represented by **GM Class 2292 (stored Millsite).** To keep within permitted axle loadings these were permanently coupled to a 6750 gallon water tank car. This concept was continued with the Class GMA Garratts in the 1950s (represented by 4070 in George Museum).

The next new design was the 15F, similar to the 15E but as with the 19D it had conventional Walschaerts valve gear. Eventually 255 were built making them the most numerous type on SAR. They worked every type of train on SAR and lasted to the end of steam, the pioneer loco is **15F Class 2902 (stored Millsite).** Day also prepared a design for an enlarged 15F with larger wheels and higher boiler pressure. 116 of these were built of which **Class 23 3300 (stored almost operational at Bloemfontein)** is the last TF survivor.

Dr M. M. Loubser took over as CME in 1939 and his tenure lasted through the difficult WW 2 years until 1949. Because of the post war difficulty in obtaining locomotives from overseas, in 1947 Loubser designed a brand new and large shunting locomotive, the S1 class. These were wholly built at Salt River Workshops and became the first fully designed and built locomotives in South Africa. The last survivor is **S1 Class 375 (stored Millsite).**

In 1948, Loubser drew up designs for a light branch line locomotive to replace the 6, 7 and 8 classes. 100 were built by the North British Company and became Class 24. Of these **3675 (stored Voorbaai)** is significant as it was the 2000 th locomotive built by North British and its constituent companies over a period of some 75 years.

The final steam era CME for SAR was L. C. Grubb who oversaw the iconic Class 25 4-8-4's. Again US practice was followed and after a visit to the Norfolk & Western Railroad, Grubb adopted ultra modern features such as cylinders and frame as a single cast steel piece and extensive use of roller bearings. The locomotives were built in the UK and Germany but were more modern than locomotives being built in those Countries for their own railways ! They were so free running that a story exists of one in Cape Town that started moving on its own as a result of high winds blowing it along. The first 90 had condensing tenders, designed to save 85-90 % water on the long Karoo sections (represented by **25 Class 3511 (stored Kimberley)**). The other 50 built were conventional locomotives represented by **Class 25 NC 3410 (NC=Non Condenser) (stored almost operational at Bloemfontein).**

The last 3'6" gauge steam locomotive (a Class GMA Garratt) entered service in 1958, the year rapid dieselization and electrification started.

However, the steam story had an unexpected twist. In the late 1970's the oil crisis and South Africa's reliance on imported oil prompted a re-think on steam traction. A young engineer called David Wardale who was an assistant engineer in the CME's office had been following the work of Argentinean engineer L.D. Porta who had demonstrated dramatic improvements in steam locomotive efficiency by incorporating many simple improvements brought about by computer aided design to optimize both combustion and moving parts. Wardale first experimented with 19D 2644 (privately preserved by SANRASM) but having proved the principles, SAR consented to the rebuild of a Class 25NC. This was radically rebuilt to become the **Class 26 No. 3450 (stored Cape Town)**, painted bright red it became known as the "Red Devil". The locomotive was thoroughly tested and proved both dramatic increases in power (about 40 % to over 3000 kW) coupled with significant savings in coal and water consumption. This superb locomotive was more powerful and had lower costs than the Class 34 diesels then being introduced.

However, it was still a steam locomotive and with the easing of the oil crisis, the operational convenience of diesels was the deciding factor and no further locomotives were rebuilt. Wardale left the service of SAR but another young engineer B.I. Ebing decided to incorporate some of the lower cost features of the Class 26 into a standard 25NC and the resulting rebuild was **3454 (stored Bloemfontein)**. This very efficient locomotive being the final development of South African steam technology.

The Diesel Era

SAR experimentally ordered three diesel locomotives in 1938 from Germany for tests on the desert sections between De Aar and Namibia. They were not very successful and were not pursued. In 1958, SAR decided that no further steam would be built and after a tendering exercise chose General Electric (GE) of the USA to supply 45 of the "Universal" series type U12B with relatively slow running 4-stroke engines, to SAR, becoming the 31 Class. These hugely successful locomotives influenced all future diesels to the present day. Testament to their sturdyness is that the original locomotive 31.001 is still in commercial service with SHELTAM, some 53 years after its introduction. The class is represented by **31.009 (stored Waterval Boven)** but TF also has two at Belville (31.007/28) which were used on special trains until recently.

The next challenge was to dieselise Namibia where water supplies were a huge problem for steam, the result was the 32 Class, also from GE. 115 were built between 1959-61. The last three were used on the Outeniqua Choo-Tjoe on fire-risk days. The oldest 32.029 survivor built 1959 (stored Voorbaai) is the chosen representative, but the two others survive (32.042/47) at Voorbaai.

The first main line diesel was again a GE "Universal" series loco – the 2000 HP U20C or Class 33 built from 1965-1970, many of which remain in service although the bulk of the class were sold to Namibia where they are still hard at work. 33.401 of 1969 was the first diesel built in South Africa by Dorman Long when they were given the GE licence to build locos. GE in South Africa went on to build many more Class 34, 35 and 36 Class locos.

In 1966 it was decided to also try General Motors of the USA and 20 class 33.200 were ordered. Several remain in service with SHELTAM. GM went on supply many Class 34, 35, 36 and 37 class locos and from 1975 these were built by a local licensee in Port Elizabeth.

In 1984 enough diesels had been built to replace steam and no new locomotives would be ordered for 25 years. By 2009 many locomotives were becoming worn out and Transnet decided to completely rebuild some Class 34's. Five were rebuilt but the costs were high and eventually it was decided to build completely new locomotives but using many reconditioned components. These became the Class 39.200 and 50 were built in 2009-2010.

In 2011 the wheel turned full circle with the first of 100 brand new Class 43 high efficiency diesels from GE, built in the same plant as the Class 31's of 1958.

Electrification

Main line electrification developed rapidly using the 3000 v DC system until most main lines were electrified by the mid 1970s. At that time, experiments were undertaken with single phase AC electrification using the European standard 25000 V system and all major electrification schemes since 1978 used this system except the ORELINK line which uses the ultra high voltage of 50000 v AC.

On the 3 kV system, the 1E Class hauled all trains until 1948 when the first new express passenger electric arrived. These are represented by Class **3 E E201 (stored Bellville)** which were used in Natal and from Johannesburg. For the Cape Town – Touws River electrification in 1954 very large locos (equivalent to two 15F) was introduced – the **4E (represented by E258 stored Bellville).**

In 1954, a new design was introduced which would be produced in various forms until 1985. This was the 5E from English Electric in the UK. The pioneer locomotive was **E259 (stored Bellville).** The 5E1 had various improvements and one of these was the first electric locomotive built in South Africa, in 1963 at the newly opened Union Carriage and Wagon Plant. Unfortunately the historic first loco has been scrapped, but the oldest survivor is **5E1 class E613 (stored Bellville).** The same basic body shape was used for the Class 6E and 6E1 locomotives of which **E1525 (Transwerk Koedoespoort Test Loco – still in use)** holds the world narrow gauge speed record of 245 kmh established in 1978.

Many 6E1 have been completely rebuilt as Class 18E and this design will be around for many more years.

The first class of electric shunting locomotives is represented by **Class ES E511 (stored Millsite)**

Other 3 kv types include the 8E (shunting), 10E, 10E1, 10E2 and 12E.

The 25000 v locos are represented by Classes 7E, 7E1, 7E2, 7E3, 7E4 and 11E. The 50000 v locos by Classes 9E and 15E.

Transnet owns a few dual voltage locomotives for working throughout between Johannesburg and Cape Town as this includes sections at both 3 kv and 25 kv. These are the 14E, only 13 have been built. The new Class 19E are also dual-voltage.

Steam Locomotives

Special Note on the locomotives at Bloemfontein. These are in a secure area which is maintained by Sandstone Estates. As large main line locomotives their use is restricted but the most logical solution would be to place them in the care of Reefsteamers possibly as a Bloemfontein "out-station" of that group.

Column 1 Locomotive Class
Column 2 Locomotive Number
Column 3 Locomotive Builder (see Abbreviations)
Column 4 Locomotive Builders Serial Number / Year Built
Column 5 Locomotive Location and (ownership)

CLASS A — 4-8-2T (ex NGR)

A	**103**	D	2499/1889	Krugersdorp: Millsite Shed (THF)

122 Years Old. Whilst there are 4 other A class in existence, 103 is the **oldest.** This type had a huge impact on the development of Natal and was the standard NGR main line locomotive in the 1890's. 150 (Category C) was in working order until the 1990's and may be in better condition than 103. It would most likely have been a A class that hauled Gandhi on his journey to Pietermaritzburg that is widely considered to have started his path to passive resistance after he was thrown from a First Class compartment for racist reasons. A class locomotives were used to haul armoured trains during the Anglo-Boer wars.

CLASS B — 0-6-4T (ex ZASM)

B	**230**	Essl	2945/1898	Waterval Boven: Shed (THF)

The B Class was the mainstay of the ZASM railway in the period 1893-1902 and therefore is important as **representing that railway**. This locomotive is 113 years old and is restored carrying its ZASM number (this locomotive never carried an SAR number). Was in the care of the Oosterlijn Club (defunct) and in secure (but deteriorating) storage. Was in working order when Club ceased functioning.

CLASS G — 4-8-2T (ex NGR)

G	**221**	NB	16084/1904	Witbank: Loco Shed (THF)

This type was the **first designed by Scottish born D.A Hendrie**, the engineer who had the greatest influence on SAR design philosophy from 1904-1925. Designed for passenger trains from Durban the type was soon superceded by the Class 1. This locomotive is the **Last Survivor** of the G type. **221** is unrestored and painted in the livery of its las operator Consolidated Main Reef Mines & Estates No. 7 from where it was withdrawn from service as long ago as 1965

CLASS S — 0-8-0

S	**360**	Hen	21071/1928	Krugersdorp: Millsite Shed (THF)

This locomotive represents a very important development as it was the **very first purpose built shunting loco** (until 1928 the railways had used redundant main line locos for shunting). It is also the **last survivor** of the S type.

CLASS S1 — 0-8-0

S1	**375**	Salt River	1947	Krugersdorp: Millsite Shed (THF)

This type was **first design of locomotive built entirely in South Africa.** It was designed in South Africa due to an urgent need for shunting locomotives and the impossibility of obtaining from traditional suppliers due to WW2. Designed by MM Loubser. It is also the **last survivor** of the S1 type. Note the S1 is a significantly different design to the S above.

CLASS 6A — 4-6-0 (ex CGR)

6A	**462**	D	3443/1897	Krugersdorp: Millsite Shed (THF)

There are 17 Class 6 locomotives surviving. However, 462 is in **completely original condition** and is a **last survivor of an original condition CGR locomotive.** It is 114 years old. It has been requested by the Kimberley Museum since the locomotive hauled Cecil J Rhodes funeral train. It stands at Millsite with a very old CGR Inspection Coach which should be listed along with the locomotive.

CLASS 5B/5R — 4-6-2 (ex CGR)

5B	**723**	BP	4567/1904	Krugersdorp: Millsite Shed (THF)
5R	**781**	VF	2775/1912	Krugersdorp: Millsite Shed (THF)

These two locomotives are considered **internationally** to be the two most important relics which warrant SAHRA heritage status. The 5B is the **only surviving** CGR express passenger locomotive and one of the first class of "Pacifics" (4-6-2) wheel arrangement in South Africa. As such it represents a **technological leap forward** and was **very advanced** for its day. Few railways overseas had started using the Pacific arrangement as early as 1904. A true pioneer. The 5B is the **last survivor** of its type.

The 5R locomotive is considered by many to be the **most aesthetically pleasing locomotive** in South Africa. It carries a standard SAR Watson designed boiler, it was rebuilt in the 1930s from a Class 5 express locomotive from the earliest years of SAR and was a development of the CGR designs. Together with the 5B it demonstrates how SAR adapted over the years with new technologies and rebuilt old locomotives with modern features, much as Class 6E1 electrics are rebuilt as Class 18E today by Transwerk. The 5R is the **last survivor** of its type.

CLASS 10C — 4-6-2 (ex CSAR)

10C	**776**	NB	19204/1910	Krugersdorp: Millsite Shed (THF)

The 10A and 10B type of Pacifics were built for the CSAR just before Union and was the **final express passenger design built for the CSAR**. They were a highly advanced design with the highest boiler line to date of any SAR locomotive. They were also specifically built for heavy 80 lb rail. The 10C was a slightly lighter development, all but two of the class were rebuilt with standard boilers but these two remain in original condition and justify the retention of one on the SAHRA list. A technical assessment is required to judge which is in best condition but it is thought to be 776 (see List C). Assuming only one survives, it will be the **last survivor** of its type.

CLASS 16D/16DA (* wide firebox) — 4-6-2

16D	**860**	BLW	58309/1925	Cape Town: Epping (THF) **(STORED ALMOST OPERATIONAL)**
16DA	**876***	Hen	21751/1930	Bloemfontein: Shed (THF) **(STORED ALMOST OPERATIONAL)**

The original 16D is hugely important as it was the **first application of large American locomotive design** in South Africa, it had many new features such as bar frames and a large boiler with a wide round top firebox and was nicknamed **BIG BERTHA**. These American designs (the other was the 15CB – see below) replaced their European built predecessors such as the 16C and 15A. 860 was the **pioneer locomotive with this new technology** and is the **last survivor** of the 16D design. In August 1925, 860 worked the Union Limited throughout from Johannesburg to Cape Town in a record 29 hours . This was a world record for narrow gauge and size of locomotive. The final batch of modified 16DA Class had experimentally much wider fireboxes to improve combustion and these were subsequently used on all SAR locomotives after this date. The technological innovation of the 16DA (wide firebox) is why it is justified for retention. These locomotives were the main express passenger locomotives from 1925-1935 when larger locomotives superceded them.

860 and 876 were operational until relatively recently and are good condition in secure storage, 860 in the care of the Cape Western Preservation Trust, 876 has been requested by Reefsteamers.

CLASS 16E — 4-6-2

16E	**857**	Hen	22586/1935	Bloemfontein: Shed (THF) **(STORED ALMOST OPERATIONAL)**

The 16E was arguably the most glamorous locomotive in South Africa, they were technically very advanced machines with rotary-cam valvegear and had **driving wheels of 6 foot diameter**, the largest of any narrow-gauge locomotive worldwide. They were the **last express passenger** locomotives built for South Africa and could run at speeds up to 130 KPH although railway speed limits restricted this to 90 KPH in normal operation. They represented the peak of German engineering capability in the 1930's. 857 was restored to operating condition in the 1980's and is in good condition having been stored securely. One other 16E survives - 858 which is already in the care of Steamnet 2000 in Kimberley..

CLASS 1 — 4-8-0 (ex NGR)

1	**1247**	NB	16372/1904	Krugersdorp: Millsite Shed THF

The 1 class represented a **great technological leap forward** as DA Hendrie's first tender engine design for the NGR which had hitherto only used tank locos – Classes A – G – H2. Although there are 5 locos of the 1 / 1A / 1B family remaining, 1247 is the only THF owned one and none of the others is considered completely safe. Two Class 1's were scrapped in 2010 and of the 4 others remaining, two have been donated to a Society in the UK and will be exported whilst Steam Clubs have the other two.

CLASS 19/ 19A / 19B / 19C / 19D — 4-8-2

19	**1366**	BM	9279/1928	Krugersdorp: Millsite Shed (THF)

19B	**1412**	BM	9838/1930	Voorbaai: Shed (THF) **(STORED - OPERATIONAL)**
19D	**3323***	NB	26043/1948	George: Shed (THF) **– OPERATIONAL**

The Class 19 is very simply the most important design of steam locomotive in South Africa, built in a number of varieties from 19 through 19A, 19B, 19C and 19D, over 300 were constructed in total and were described by Sir Nigel Gresley, the Chief Mechanical Engineer of the London and North Eastern Railway in the UK as the "finest all round design he has ever seen". 19 Class 1366 was the **very first built**. The 19B was a development with several technology improvements and 1412 was until recently operational on the Outeniqua Choo-Tjoe.

As the 19D is regarded as the most important SAR designs, one should be given SAHRA status – the locomotive chosen above (3323) is operational and was one of the last two locomotives to be used by Transnet on the Tjoe-Choo tourist train.. It could be regarded as the last steam locomotive to be used by Transnet, although 15CA 2803 (see below) has greater status as the last in normal commercial service..

Note the **last surviving** 19C (2439) is in George Museum so falls outside the remit for this list.

CLASS 3R — 4-8-2 (ex NGR)

3R	**1474**	NB	19240/1911	Krugersdorp: Millsite Shed (THF)

The 3R in original condition were **the first 4-8-2's** in South Africa and thus formed the basis for virtually all future steam locomotives in South Africa. It was a technological advancement by the NGR Chief Engineer Hendrie to add the trailing bogie and as a pioneer it should meet SAHRA criteria. This is the **last survivor.**

CLASS 12A — 4-8-2

12A	**2111**	NB	22751/1921	Krugersdorp: Millsite Shed (THF)

Another **hugely important design**, the **final development** of the Hendrie Belpaire firebox 4-8-2 freight loco which started with the 1 class in 1904. Only 1 other 12A survives in private ownership but it is derelict at De Aar and highly likely to be scrapped, therefore 2111 should be considered the **last survivor.** 2111 was partially overhauled by Bloemfontein Workshops in 1990 but the work was never completed.

CLASS 4AR — 4-8-2

4AR	**1555**	NB	20230/1913	Krugersdorp: Millsite Shed (THF)

The 4A was an **American influenced design** (although built in Scotland) and the **oldest locos of such influence to survive**. It is very important as a technological link between the old 6, 7 and 8 classes and the Hendrie inspired 12, 14, 15 and 16 Class family - which had design similarities. There is also one 4AR on the "C List" at Queenstown but if that was scrapped, 1555 would be the **last survivor.**

CLASS 14CRB — 4-8-2

14CRB	**2010**	MLW	60565/1919	Ashton: Plinthed in Main street (Donated by THF to Ashton Municipality)

The first large scale production of locomotives from North America, these were the **first Canadian built** locomotives. In South Africa. They are very capable and VERY useful for tourist type operations. Only 3 survive but the only THF owned example 1778 (at Queenstown in storage) is in poor condition as the left hand cylinder was damaged beyond repair in a shunting accident some years ago. However, a 14CRB is justifiably required for listing with SAHRA status. Of the other two 1771 is in storage on THF property at Krugersdorp: Millsite Shed but privately owned (it is likely to be moved to the Cape), whilst 2010 (the best example) is plinthed in Ashton in the Cape. The **international recommendation** is to afford SAHRA status to 2010 and swop it for 1778 (or another locomotive) which could be cosmetically restored for Ashton Municipality.

CLASS 15A/15AR — 4-8-2

15A	**1791**	NB	21056/1919	Krugersdorp: Millsite Shed (THF)
15AR	**1850**	BP	5966/1920	Bloemfontein : Loco Shed (THF) – **STORED ALMOST OPERATIONAL**

This is a very important class being the last British inspired mixed-traffic locomotives of which 2100 (List B) was the very last built (although actually constructed in Germany). After this type, from 1925 locomotives followed US design practice. 1791 is on the list as it is in original unrebuilt condition, 1850 represents the final (reboilered) condition and has been operated relatively recently and is in good condition in secure storage . 1850 has been requested by Reefsteamers on Lease-Lend.

CLASS 15CB / 15CA — 4-8-2

15CB	**2060**	BLW	58307/1925	Krugersdorp: Millsite Shed (THF)
15CA	**2803**	Breda	2238/1929	Krugersdorp: Millsite Shed (THF)

A very significant locomotive, this was the 4-8-2 mixed traffic design from the USA evaluated alongside the 16D (see above) to replace European based designs such as the 15A. The 15CB was designed for mixed use on passenger and freight trains, 2060 was the pioneer and was nicknamed **BIG BILL**. The 15CA was a development of the 15CB.

15CA 2803 is significant as it was the **VERY LAST STEAM LOCOMOTIVE IN COMMERCIAL SERVICE WITH TRANSNET**. Although tourist operations survived longer at Kimberley and George, the end of regular commercial steam usage was 10 February 1992 at Germiston depot and 2803 was the last locomotive to return to the depot that day. 2803 also represents the only batch of Italian built locomotives in South Africa.

CLASS GCA — 2-6-2 + 2-6-2 Garratt

GCA	**2199**	Krupp	979/1927	Krugersdorp: Millsite Shed (THF)

The GCA was the **first Garratt produced in large numbers**, they were for branch line use and their success led to further designs of Garratt which were ideally suited to South Africa. Only one other GCA survives – 2621.

CLASS GE — 2-8-2 + 2-8-2 Garratt

GE	**2260**	BP	6193/1924	Krugersdorp: Millsite Shed (THF)

Very important as the last of the original large freight Garratts, it's the **last of its class and the last of several classes of the same basic premise**, (GA, GC, GD, GE).

CLASS GM — 4-8-2 + 2-8-4 Garratt

GM	**2292**	BP	6884/1938	Krugersdorp: Millsite Shed (THF)

The first of the modern secondary line Garratts designed for operation on 60 lb rail. As with the later GMAM, to achieve this they were designed to operate with a water tank permanently attached and such a water tank should be also listed along with the locomotive. One other locomotive of the GM type is on the C list and spares should be kept.

CLASS GMAM — 4-8-2+2-4 Garrat

GMAM	**4122**	**BP**	7837/1958	Voorbaai Shed (THF)

The most successful modern mountain railway locomotive on the SAR. Could be converted to work on 60lb rail as well as mainline. No. 4122 was recently operational and is in good condition.

CLASS 15E — 4-8-2

15E	**2878**	Hen	23000/1935	Bloemfontein: Loco Shed (THF) – **STORED ALMOST OPERATIONAL**

The **last survivor of its type**, a development of the 15C but with bigger boiler and smoke deflectors. Technologically advanced **in having Rotary Cam valve gear** in common with other types 16E and 19C produced in the 1930's..

CLASS 15F — 4-8-2

15F	**2902**	BM	10820/38	Krugersdorp: Millsite Shed (THF)

Thne 15F Class was the largest steam type numerically in South Africa with 255 examples, they hauled virtually all important main line trains in the 1945-1955 period including the Blue Train. Significantly the very last steam locomotives in commercial service with Transnet in 1992 included Class 15F locos at Germiston. **2902 was the first built of this famous class.**

CLASS 23 — 4-8-2

23	**3300**	BM	10999/1939	Bloemfontein: Shed (THF) – **STORED ALMOST OPERATIONAL**

Very important **last survivor,** enlarged version of 15F with 5'3" wheels and a large 12 wheel tender. 3300 was serviceable relatively recently and is in secure storage.

CLASS 25, 25NC, 26 — 4-8-4

3401-50 Built as 25NC (locos marked * are fitted with rebuilt Condenser tenders), 3450 rebuilt as Class 26 "Red Devil"
3451-3540 Built as 25 Condenser, all except 3451, 3511/40 rebuilt to 25NC (Locos marked + are fitted with original 25NC tenders from 3401-50 batch). 3454 modified along Wardale/Porta principles (twin chimneys)

25NC	**3410**	NB	27296/1953	Bloemfontein: Shed (THF)
26	**3450**	Hen	28769/1953	Cape Town (THF) (red livery)
25NC	**3454**	NB	27314/1953	Bloemfontein: Shed (THF)
25	**3511**	NB	27371/1954	Kimberley: Beaconsfield Shed (THF)

The 25NC class was the final main line steam design for South Africa. 50 of this type were built plus 90 with condensing tenders which were used on sections through the Karoo where water supplies were scarce. Whilst the Condenser variety (Class 25) were successful, these sections of line were among the first to be electrified in South Africa. As the Class 25 were relatively new, most were rebuilt as conventional 25NC locomotives although retaining the distinctively long framed tenders. These were the **only really successful main line steam condensing locomotives** anywhere worldwide. It was a Class 25NC chosen for rebuilding

in 1980 by engineer David Wardale following the principles of Argentinian LD Porta to increase steam efficiency. The result was the Class 26 - the **ultimate in steam development and most modern steam locomotive** worldwide. This locomotive was able to produce over 3000 kW power which was significantly greater than contemporary Class 34 diesel or Class 6E1 electric locomotives. The locomotive was painted bright red and was nicknamed the "RED DEVIL". Subsequent to the building of the Class 26 some of the principles were incorporated in a lower cost rebuild to Class 25NC 3454. The four locomotives listed all meet SAHRA criteria, with 3410 in original condition 25NC, 3511 as an original condition condenser (and the **last survivor** if 3451 on List B is disposed of), 3450 as the Class 26 and 3454 as a the final development of steam technology. All four locomotives above are in good condition in secure storage and were operational on tourist trains until relatively recently. 3450 is in the care of Atlantic Rail and has been requested by them for Lease Lend. 3511 is in the care of Steamnet 2000 at Kimberley.

CLASS 24 **2-8-4**

24 **3675** NB 26387/1949 Voorbaai: Shed (THF) – **OPERATIONAL -STORED INSIDE 15M WORKSHOP**

This loco is important as it was the 2000th locomotive built by North British and its constituents for South Africa. This company was by far the biggest supplier of steam locomotives to South Africa. Another of the 24 Class (3668) has been placed in George Museum, but our recommendation is that 3675 really should be the one given SAHRA status. This locomotive was named "Bartholamew Diaz".

Diesel Locomotives

One of each type should be designated as having SAHRA status. In line with practice overseas it is also recommended that such status is also given to locomotives still in service with Transnet so that they may be protected with Heritage Status when eventually withdrawn from service.

CLASS 31

31.007 GE 1958 Bellville: Shed

This was the first SAR diesel type and thus hugely important in showing how technology advanced as the railways started to replace steam. It was built in the USA and continued the trend started in 1925 when steam locomotives in South Africa moved from following British design philosophy to US design philosophy. However, at the time South Africa decided to dieselise it is noteworthy that the GE won the tender as it started a trend that continues to the present day with Transnets new Class 43, just being delivered from the USA. Note that the very first of this class **31.001** is still in existence – although not now in original condition it was **the first SAR modern era diesel**. It is still in service with commercial operator SHELTAM. It could easily be restored in original condition and may merit SAHRA consideration.

THF own 31.028 stored at Bellville Depot and should be retained as a spare (retain for tourist operations).

CLASS 32

32.029 GE 1959 Stored operational at Voorbaai Depot

Three Class 32 survive in THF ownership at Voorbaai – the others being 32.042/047. 32.029 is recommended for SAHRA status as the oldest, the others should be retained on List B (for Tourist Operations). These unusual locomotives were designed for the specially light track in Namibia which was the first area of Southern Africa to be completely dieselised. Note: The Trans-Namib Museum in Windhoek has preserved locomotive 32.002.

OTHER CLASSES

It is recommended that one each of Classes 33, 34 (GE), 34 (GM), 35 (GE), 35 (GM), 36 (GE), 36 (GM), 37 and 91 all be earmarked for future SAHRA status. It is recommended that agreement is reached with Transnet that an example of modern types such as 38, 39 and 43 can also be earmarked in due course. Specific examples can be defined as appropriate.

Note: The very first South African built diesel loco was 33.401 – this was sold to Namibia and later exported to BRAZIL many years ago without its significance being appreciated.

Note: The following have historical relevance: 34.004 (the first South African built 34), 35.051 (the first South African built 35), otherwise the first of each class would be relevant.

Electric Locomotives

CLASS 1E

E1 MV 1923 Krugersdorp: Millsite Shed

The 1E Class were the first electric locomotives in South Africa and introduced electric haulage on the Natal Main Line. E1 as the pioneer should have SAHRA status. E25 also survives in poor condition at Ladysmith and could potentially be used for spare parts.

CLASS 3E

E201 MV 1945 Bellville Depot

The Class 3E were the first electric locomotives for electrification on the Reef primarily intended for the Johannesburg – Welverdiend route. E 201 is the only survivor and was restored to working condition, it is stored in good condition, it was the last built

CLASS 4E

E258	NBL	1954	Bellville Depot

Known as "Green Mambas" these huge locomotives were designed for the Western cape electrification. Only two survive, E258 was restored to working condition and is stored in good condition. The other survivor E219 at Millsite should be used for spare parts.

CLASS 5E

E259	EE	1954	Bellville Depot

The 5E is hugely significant as the basic outline was built over a period from 1954-1985 as classes 5E, 5E1, 6E, 6E1 and 12E. Modified, later locos of Class 6E1 operate as Class 18E. E 259 was the very first built. Some other 5E survive which should be kept for Tourist Trains or for spare parts, these are E262/263 (Bellville) and E563 (Metro Salt River). Note E262/263 are not original numbers, they were renumbered from E 293 and E564 respectively.

CLASS 5E1

E613	UCW	1963	Bellville Depot

The Class 5E1 was the first electric locomotive class built in South Africa. The first batches were built in England but all have been scrapped. South African production started in 1963 at the Union Carriage & Wagon Plant in Nigel which represented the first privately owned manufacturing facility in South Africa supplying the railways. Finance and much of the technology came from Australia through Commonwealth Engineering. The locomotive listed is the oldest surviving South African example and was restored by Transnet for tourist train operation, it is stored in good condition. There is also a second 5E1 there similarly restored – E615 which should probably be retained for tourist trains.

CLASS ES

E511	Werk	1937	Krugersdorp: Millsite Shed

The ES was a significant design being the first purpose built electric shunting locomotive. There are only 2 survivors, the other being E518 at Ladysmith, this could be used for spare parts.

CLASS 6E1

E1525	UCW	1975	Transwerk – Still in use as a test loco based at Koedoespoort

This loco is specifically recommended for SAHRA listing not only as a representative of Class 6E1 – the most numerous class built for South Africa and one with significant technological advances to boost power to 3300 HP which is remarkable for a 4-axle locomotive on 3'6" gauge due to size constraints on traction motors. This locomotive also holds the World Speed Record for rail in South Africa and worldwide on 3'6" gauge – 245 km/h), it is listed in the Guinness Book of Records.

OTHER CLASSES

It is also recommended that examples of classes 6E, 7E, 7E1, 7E2, 7E3, 8E, 9E, 10E, 10E1, 10E2, 11E, 12E, 14E all be given SAHRA status although specific locomotives can be defined in due course.
Also more modern types 15E , 18E and 19E should be earmarked for SAHRA status in due course.

Category B Locomotives

The following locomotives meet the SAHRA criteria but also merit retention for other reasons (eg: important historic items, in operable or near-operable condition and therefore with revenue generating potential for tourist trains. The recommendation is for most if not all of these to be made available for sale or on Lease-Lend to Clubs.

CLASS A **4-8-2T (ex NGR)**

A	**150**	D	3480/1897	Witbank: Loco Shed (THF)

See notes on A 103 above, 150 is 114 years old and should really also be saved under a heritage programme but if the SAHRA criteria are applied strictly it is excluded. Should be offered to Preservation Groups or spare parts removed. This locomotive was in working order when stored in 1994.

CLASS 10C — 4-6-2 (ex CSAR)

10C	**772**	NB	19200/1910	Krugersdorp: Millsite Shed (THF)

This type of light Pacifics was built for the CSAR just before Union and was the **final express passenger design built for the CSAR**. All but two of the class were rebuilt with standard boilers but 772 and 776 remain in original condition. 776 has been put on the A List as 772 had non-standard boiler cladding fitted while in industrial service with SAPPI..

CLASS 16E — 4-6-2

16E	**858**	Hen	22587/1935	Kimberley: Beaconsfield Shed (THF)

858 which is complete condition and operational until the 1990s is in the care of Steamnet 2000 in Kimberley and has been requested on Lease-Lend.

CLASS 16DA — 4-6-2

16DA	**870**	Hoh	4655/1928	Krugersdorp: Millsite Shed (THF)
	879	Hen	21754/1930	Cape Town: Epping (THF) **(STORED ALMOST OPERATIONAL)**

879 is in good, almost operational condition, in the care of the Cape Western Preservation Trust and is recommended for Lease Lend. Requested on lease/lend by Atlantic Rail

CLASS 11 — 2-8-2 (ex CSAR)

11	**926**	NB	16263/1904	Bloemfontein: Loco Shed (THF)
	932	NB	16269/1904	Bloemfontein: Loco Shed (THF)

926 - unrestored – in livery of last operator FREEGOLD North (FSG) No. 5
932 - unrestored – in livery of last operator FREEGOLD North (FSG) No. 7

Special Note: These locomotives are incorrectly marked at Bloemfontein, 926 has had numerals “928” erroneously applied and 932 has had erroneous numerals “933” applied. This happened as the old THF became confused over their former identities, this was corrected from boiler records but the painted numbers were never changed.

Designed for CSAR, these were **technically advanced** for 1904 and the **only 2-8-2 arrangement locomotives on SAR**. They were highly regarded as fine engines, so much so that after withdrawal from service in the 1970’s quite a few saw further service on gold and coal mines. The two above were acquired by Transnet from Anglo American in the late 1980s, Anglo American may have a view on their future..

CLASS 15A — 4-8-2

15A	**1970**	BP	5987/1921	Cape Town: Epping **(STORED ALMOST OPERATIONAL)**

1970 is in the care of the Cape Western Preservation Trust and is in good condition having been used for railtours until relatively recently.

CLASS 19D — 4-8-2

Tenders are type MP1 except as follows;
* Fitted with type MX ‘Vanderbilt’ tender (originally fitted to 3321-70 batch)
$ Fitted with type MT high-sided tender

+ Fitted with domeless boiler (originally fitted to 2506-45 batch)

19D	**2526**	Bor	14643/1937	Waterval Boven: Shed **NOT OWNED BY TRANSNET – see Note below)**
	2640*	Sko	935/1938	Voorbaai: Shed (THF) **– PARTLY OVERHAULED, SECURE IN 15M WORKSHOP**
	2649*	Kru	1829/1939	George: Shed (THF) - **OPERATIONAL**
	2683*	Bor	14734/1938	Voorbaai: Shed (THF) **– RECENTLY OPERATIONAL**
	2698*	Bor	14749/1938	Voorbaai: Shed (THF) **– RECENTLY OPERATIONAL**
	2749*	RSH	7262/1946	Voorbaai: Shed (THF) **– RECENTLY OPERATIONAL**
	3321	NB	26041/1948	Voorbaai: Shed (THF) **– RECENTLY OPERATIONAL**
	3322$	NB	26042/1948	Voorbaai: Shed (THF) (oil burner) – **RECENTLY OPERATIONAL**
	3324*	NB	26044/1948	Voorbaai: Shed (THF) – **RECENTLY OPERATIONAL**
	3334*	NB	26054/1948	Voorbaai: Shed (THF) **– RECENTLY OPERATIONAL**

Note: 2526 is privately owned

The loco at George was last used on the Outeniqua TJOE-CHOO. All the locos listed are in good complete condition. Locos 2649 & 3321 have been requested om lease/lend by Atlantic Rail

CLASS GCA — 2-6-2 + 2-6-2 Garratt

GCA	**2621**	Krupp	1064/1928	Waterval Boven: Shed (THF)

This locomotive was in the care of the defunct Oosterlijn Club. It is one of only two surviving GCA Class.

CLASS 15F — 4-8-2

* Fitted with type EW 12-wheel tender (originally fitted to Class 23 locomotives)

15F	**2909**	Hen	23932/1938	Waterval Boven: Shed (THF)
	2916	Hen	23939/1938	Cape Town Monument Station (THF) – **STORED ALMOST OPERATIONAL**
	2928*	NB	24468/1939	Bloemfontein: Shed (THF) (green livery)
	2985	BP	7100/1944	Waterval Boven: Shed (THF) **– RECENTLY OPERATIONAL**
	3040*	NB	25579/1944	Bloemfontein: Shed (THF) – **STORED ALMOST OPERATIONAL**
	3135	NB	26019/1946	Germiston: Shed (THF)
	3153*	NB	26037/1946	Cape Town Epping (THF)- **STORED ALMOST OPERATIONAL**

2909 and 2985 were in the care of the defunct Oosterlijn Club at Waterval Boven, in 2007 both appeared on a list supplied to Transnet requesting Lease-Lend status. 2985 was in OPERATING condition at this time.

2928 condition not known but was relatively recently serviceable and is in secure storage. 3040 was serviceable relatively recently and is in secure storage. 2916 in good condition in the care of Atlantic Rail and requested on Lease-Lend. 3153 is in the care of the Cape Western Preservation Trust. 3153 has been requested on lease/lend by Bay Steamers

3135 was moved to Germiston from Springs in 2009 and is in the care of Reefsteamers who covered the costs of its movement, it is recommended for Lease-Lend.

CLASS 25, 25NC, 26 — 4-8-4

3401-50 Built as 25NC (locos marked * are fitted with rebuilt Condenser tenders),
3451-3540 Built as 25 Condenser, all except 3451, 3511/40 rebuilt to 25NC (Locos marked + are fitted with original 25NC tenders from 3401-50 batch).

25NC	**3407***	NB	27293/1953	Worcester: (THF) (green livery)
	3422	Hen	28741/1952	Cape Town Monument Station (THF) (oil burner) – **STORED ALMOST OPERATIONAL**
25	**3451**	Hen	28730/1953	Krugersdorp: Millsite Shed (THF)
25NC	**3476**	NB	27336/1953	Waterval Boven: Shed (THF) **– RECENTLY OPERATIONAL**
	3496	NB	27356/1953	Komandonek: (THF)
	3536	NB	27396/1954	Komandonek (THF)

3476 was in the care of the defunct Oosterlijn Club at Waterval Boven, in 2007 it appeared on a list supplied to Transnet requesting Lease-Lend status. 3476 was in OPERATING condition at this time.

Both 3407 and 3422 worked relatively recently. The condition of 3407 is unknown, 3422 is in good condition in the care of Atlantic Rail and was requested for Lease-Lend in 2007. 3407 has been requested on lease/lend by Hexpas ecotek.

Note: 3451 has been requested by a German Museum and it is recommended it be made available to them, it should not be scrapped as one of only two surviving Condenser locomotives.

3496 and 3536 are in the care of Sandstone Estates and are recommended for formal Lease-Lend.

CLASS 24 — 2-8-4

24	**3654**	NB	26366/1949	Kimberley: Beaconsfield Shed (THF)
	3688	NB	26400/1949	Bloemfontein: Shed (THF) – **STORED ALMOST OPERATIONAL**
	3689	NB	26401/1949	Voorbaai: Shed (THF)

3654/88 in good condition, 3654 has been requested by Steamnet-2000. 3688 is in secure storage in good condition. 3689 has been requested on Lease-Lend by Atlantic Rail.

CLASS GMAM 4-8-2+2-8-4 Garratt

GMAM 4056	Hen	28685/1953	Waterval Boven: Shed (Ownership unclear)
4128	BP	7843/1958	Voorbaai: Shed (THF) **– RECENTLY OPERATIONAL**

4056 – was in care of defunct Oosterlijn Club. Ownership unclear as Oosterlijn acquired it from Malelane Municipality to whom it had been donated by Transnet.
4128 has seen recent operational use and is in good condition

Category C Locomotives (For Disposal)

Locomotives which do not meet SAHRA criteria or merit retention (however, many of these locos have very useful spare parts which should be removed to enable the restoration of Criteria A and B locos). It should be noted that some are old and historic locos and may be of interest to specific groups.

CLASS H2 — 4-8-2T (ex NGR)

H2	**249**	D	4056/1901	Witbank: Loco Shed (THF)

249 is unrestored and painted in the colours of Tavistock Colliery No. 1, its last operator. Although it is 110 years old, there are 4 Class H2 in existence including one (330) in George Musuem – if 249 is disposed of, it should be offered to Preservation Groups, or spare parts removed.

CLASS 6B — 4-6-0 (ex CGR)

6B	**524**	D	3474/1897	Bloemfontein Shed: (THF)

There are 17 Class 6 locomotives surviving, 524 has been stripped and is in poor condition, however, useful spares could be taken from it.

CLASS 19A/19AR — 4-8-2

19A	**679**	SLM	3304/1929	Witbank: Loco Shed (THF)
	685	SLM	3310/1929	Queenstown: Shed (THF)
19AR	**693**	SLM	3318/1929	Krugersdorp: Millsite Shed (THF)

Note: 685 and 693 carry incorrect numbers, the loco at Queenstown has been wrongly marked as 693 and that at Millsite wrongly marked as 685.

The 19A is an interesting class as the only Swiss built steam locomotives on SAR however 7 still exist and the criteria for keeping one on the SAHRA list do not seem strong enough, could be offered to Preservation Groups or for spares.

CLASS 16R/16CR — 4-6-2

16R	**794**	NB	20434/1914	Krugersdorp: Millsite Shed (THF)
16CR	**809**	NB	21499/1917	Queenstown: Shed (THF)
	840	NB	22734/1921	Krugersdorp: Millsite Shed (THF)

The standard SAR Pacific of the 1920s – 6 survive in total including ones in better condition than these 3, a restored example is in private ownership in Heidelburg (816) and another was restored to original condition and is in George Museum (805). These could be offered to preservation groups or for spare parts.

CLASS 7/7A — 4-8-0 (ex CGR)

7	**981**	N	4458/1892	Bloemfontein: Loco Shed (THF) (green livery)
7A	**1019**	D	3644/1898	Witbank Shed: THF

Although these are very old and historic locomotives, there are 13 Class 7's surviving in South Africa (plus former SAR 7 Class locos overseas: one in the UK, one in Namibia and 7 in Zambia). THF has two in George Museum in nominally operable condition and therefore the above two could be offered to Preservation Groups, although as 110 year plus year old machines it would be sad to see them scrapped. Both the above are in poor condition.

CLASS 8DW — 4-8-0 (ex CSAR)

8DW	**1197**	NR	6330/1903	Krugersdorp: Millsite Shed (THF)

1197 – unrestored in livery of last operator SAICCOR, Umkomaas No. 4

As with the 7's, there are 14 Class 8's surviving in South Africa and there are other identical locos to 1197 already preserved such as 1200 at Transwerk, Salt River Workshops. This loco could be offered to Preservation Groups.

CLASS 4AR — 4-8-2

4AR	**1560**	NB	20234/1913	Queenstown: Loco Shed (THF)

Note that 1555 of this class is on the A List

CLASS 14R — 4-8-2

14R	**1718**	RS	3560/1914	Bloemfontein: Loco Shed (THF)
	1733	RS	3632/1914	Krugersdorp: Millsite Shed (THF)
	1759	BP	5890/1914	Krugersdorp: Millsite Shed (THF)

11 locos of type 14R survive with better examples already preserved which is why one is not listed in the A List.

CLASS 15AR — 4-8-2

15AR	**1798**	NB	21963/1915	Queenstown: Loco Shed (THF)
	1820	NB	21729/1920	Krugersdorp: Millsite Shed (THF)
	1966	BP	5983/1921	Queenstown: Loco Shed (THF)
	2012	NB	22737/1921	Queenstown: Loco Shed (THF)
	2093	Maf	5638/1925	Queenstown: Loco Shed (THF)
	2100	Maf	5645/1925	Queenstown: Loco Shed (THF)

CLASS 15BR — 4-8-2

15BR	**1832**	MLW	58443/1918	Queenstown: Loco Shed (THF)
	1979	MLW	61432/1920	Krugersdorp: Millsite Shed (THF)

CLASS 15CA — 4-8-2

15CA	**2039**	Alco	66986/1926	Krugersdorp: Millsite Shed (THF)
	2040	Alco	66987/1926	Krugersdorp: Millsite Shed (THF)
	2041	Alco	66988/1926	Krugersdorp: Millsite Shed (THF)
	2077	BLW	60831/1929	Krugersdorp: Millsite Shed (THF)
	2816	NB	23779/1929	Krugersdorp: Millsite Shed (THF)
	2820	NB	23783/1929	Krugersdorp: Millsite Shed (THF)
	2825	NB	23788/1929	Krugersdorp: Millsite Shed (THF)
	2833	NB	23796/1929	Krugersdorp: Millsite Shed (THF)
	2836	NB	23799/1929	Krugersdorp: Millsite Shed (THF)
	2853	NB	24021/1930	Krugersdorp: Millsite Shed (THF)

CLASS GM — 4-8-2 + 2-8-4 Garratt

GM	**2304**	BP	6896/1938	Witbank: Shed (THF)

2292 is on the A List – spares should be retained from 2304.

CLASS 19D — 4-8-2

Tenders are type MP1 except as follows;
* Fitted with type MX 'Vanderbilt' tender (originally fitted to 3321-70 batch)
$ Fitted with type MT high-sided tender

\+ Fitted with domeless boiler (originally fitted to 2506-45 batch)

19D	**2540**	Bor	14657/1937	Krugersdorp: Millsite Shed (THF)
	2626	Sko	921/1938	Jan Kempdorp: Army Depot (THF)
	2666*	Kru	1846/1939	Queenstown: Shed (THF)
	2678	Kru	1858/1939	Jan Kempdorp: Army Depot (THF)
	2680*+	Kru	1860/1939	Jan Kempdorp: Army Depot (THF)

	2689*	Bor	14740/1938	Jan Kempdorp: Army Depot (THF)
	2709+	Bor	14760/1938	Krugersdorp: Millsite Shed (THF)
	2714	Bor	14765/1938	Queenstown: Shed (THF)
	2742	RSH	7255/1946	Jan Kempdorp: Army Depot (THF)
	3325	NB	26045/1948	Queenstown: Shed (THF)
	3327	NB	26047/1948	Bloemfontein : Shed (THF)
	3330	NB	26050/1948	Queenstown: Shed (THF)
	3337	NB	26057/1948	Queenstown: Shed (THF)
	3348	NB	26068/1948	Queenstown: Shed (THF)
	3361*	NB	26081/1948	Queenstown: Shed (THF)
	3364*	NB	26084/1948	Queenstown: Shed (THF)

CLASS 15F — 4-8-2

* Fitted with type EW 12-wheel tender (originally fitted to Class 23 locomotives)

	2908	BM	10826/1938	Krugersdorp: Millsite Shed (THF)
	2913	Hen	23936/1938	Krugersdorp: Millsite Shed (THF)
	2919	Hen	23942/1938	Germiston: Shed (THF) (frame and wheels only - no cab/boiler)
	2929	NB	24469/1939	Krugersdorp: Millsite Shed (THF)
	2934	NB	24474/1939	Krugersdorp: Millsite Shed (THF)
	2936	NB	24476/1939	Krugersdorp: Millsite Shed (THF) (no cab)
	2940*	NB	24480/1939	Krugersdorp: Millsite Shed (THF)
	2996*	BP	7111/1944	Kroonstad: Shed (THF)
	3001	NB	25540/1944	Krugersdorp: Millsite Shed (THF)
	3042*	NB	25581/1944	Germiston: Shed (THF)
	3075*	NB	25959/1946	Krugersdorp: Millsite Shed (THF)
	3079	NB	25963/1946	Krugersdorp: Millsite Shed (THF)
	3087*	NB	25971/1946	Kroonstad: Shed (THF)
	3098*	NB	25982/1946	Krugersdorp: Millsite Shed (THF)
	3103	NB	25987/1946	Krugersdorp: Millsite Shed (THF)
	3130	NB	26014/1946	Jan Kempdorp: Army Depot (THF)
	3156*	NB	26040/1946	Worcester: (THF)

CLASS 25, 25NC, 26 — 4-8-4

3401-50 Built as 25NC (locos marked * are fitted with rebuilt Condenser tenders)
3451-3540 Built as 25 Condenser, all except 3451, 3511/40 rebuilt to 25NC (Locos marked + arefitted with original 25NC tenders from 3401-50 batch).

25NC	**3409***	NB	27295/1953	Jan Kempdorp: Army Depot (THF)
	3417	Hen	28736/1952	Worcester: (THF) (maroon livery) (no cab)
	3438*	Hen	28757/1953	Jan Kempdorp: Army Depot (THF)
	3453	Hen	27313/1953	Jan Kempdorp Army Depot (THF)
	3479	NB	27339/1953	Bloemfontein: Shed (THF)
	3494	NB	27354/1953	Jan Kempdorp: Army Depot (THF)
	3498	NB	27358/1954	Jan Kempdorp: Army Depot (THF)
	3501	NB	27361/1954	Kimberley: Beaconsfield Shed (THF) (oil burner)
	3528+	NB	27388/1954	Jan Kempdorp: Army Depot (THF)

CLASS 24 — 2-8-4

24	**3606**	NB	26318/1948	Voorbaai: Shed (THF)
	3632	NB	26344/1949	Voorbaai: Shed (THF)
	3635	NB	26347/1949	Voorbaai: Shed (THF)
	3645	NB	26357/1949	Krugersdorp: Millsite Shed (THF
	3667	NB	26379/1949	Queenstown: Shed (THF)
	3693	NB	26405/1949	Voorbaai: Shed (THF)

CLASS S2 **0-8-0**

S2	**3765**	Kru	3030/1952	Krugersdorp: Millsite Shed (THF)

CLASS GEA **4-8-2+2-8-4 Garratt**

GEA	**4003**	BP	7170/1945	Witbank: Shed (THF)
	4022	BP	7189/1945	Krugersdorp: Millsite Shed (THF)
	4043	BP	7210/1945	Waterval Boven: Shed (THF)

Notes: **4043** centre unit (partially scrapped) only survives - dumped in shed yard – may be useful for spare parts

CLASS GMAM **4-8-2+2-8-4 Garratt**

GMAM	**4090**	BP	7756/1956	Bloemfontein: Shed (THF)	
	4129	BP	7844/1958	Bloemfontein: Shed (THF)	
	4136	BP	7851/1958*	Bloemfontein: Shed (THF) * 4136 built under sub-contract by NB	27788/1958

These locomotives may be very useful for spare parts

Ex RR/NRZ Locomotives

14A	**508**	BP	7581/1953	Voorbaai: Shed (THF)
16A	**615**	BP	7526/1953	Voorbaai: Shed (THF)

Note: **508/615** Purchased by THF from National Railways of Zimbabwe in 1997

LOCOMOTIVE LIST (2'0" gauge)

CLASS NG15 **2-8-2**

NG132	FB	2682/1952	Port Elizabeth: Humewood Diesel Depot (THF)
NG144	Hen	29585/1957	Port Elizabeth: Humewood Diesel Depot (THF)
NG145	Hen	29586/1957	Port Elizabeth: Humewood Diesel Depot (THF)
NG148	Hen	29589/1957	Port Elizabeth: Humewood Diesel Depot (THF)

CLASS NGG13 **2-6-2+2-6-2 Garratt**

NG79	Han	10631/1928	Port Elizabeth: Humewood Diesel Depot (THF)

CLASS NGG16 **2-6-2+2-6-2 Garratt**

NG114	BP	6924/1939	Paddock: ACR (THF)
NG125	BP	7426/1950	Paddock: ACR (THF)
NG126	BP	7427/1950	Paddock: ACR (THF)
NG154	HT	3899/1968	Port Elizabeth: Humewood Diesel Depot (THF)

NOTE: It is thought that ALL of the 2'0" gauge locomotives may be of interest to possible overseas purchasers – it is recommended that if sold they are placed on a separate tender which is specifically targeted at overseas organisations that may be interested. Lists of possible purchasers and advertising channels can be provided.

Authors: John Middleton and Dick Manton
Contributors: Ian Pretorius and Regina Isaacs
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