

Certificate of Acceptance

PA05/06821

Manufacturer:
Various

Issue : 1
Valid From : 12/06/19

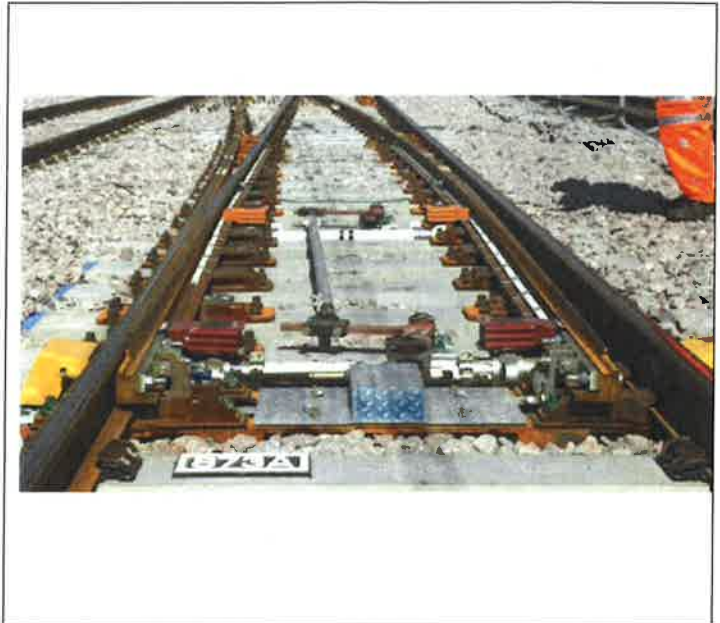
Tubular Supplementary Drive (SYSTEM)

Product Description

An evolution of historical mechanical supplementary drives using tubular crank rods and a simplified range of stretcher bar connecting rods.

The NR60 Mark 2 design is further developed through the use of a direct fix fastening arrangement for cranks.

Product Image



Scope of Acceptance

Full Acceptance

Approval of the design of the listed assemblies for use on the following designs of S&C:

- NR60 Mark 2 (C, D and E switch lengths only)
- NR56v (CVs, DVs, EVs, FVs, SGVs, GV switch lengths)

Approval for manufacture of the assemblies and components listed in this certificate is provided in separate, individual manufacturer certificates.

NR60 Mark 2 System review conducted under PA05/06818

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Steven Rennolds
Product Acceptance Coordinator

James Dzimba
Professional Head of Switches & Crossings

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Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section.

Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Manufacturer

- 1) Only manufacturers issued with their own certificate of acceptance against this system certificate shall be approved to supply the described assemblies
- 2) Adhere to the latest relevant standards/drawings are available and worked to, and that the product is compliant.
- 3) Notify Network Rail Acceptance Services:
 - Within 48 hours, of any deficiencies affecting the product quality, functionality and safety integrity of the product (including corrective action undertaken or proposed).
 - Of any intended change to the accepted product. Changes include:
 - a) a change to the product configuration (to the actual product or its application);
 - b) a variation to or addition of manufacturing locations or processes; and
 - c) a change in the name or ownership of the manufacturing company.
- 4) The manufacturer will offer support to installers where required.
Provide all documentation in the English (UK) language.
Provide operating and maintenance manuals to purchasers/users of the product.
- 5) Refer to General Terms and Conditions.

User

- 1) Equipment shall be installed, tested and maintained according to relevant Network Rail Standards, including SMS/SMTH documentation

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Product Configuration

See overleaf

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NR60 MARK 2 ASSEMBLIES		
Drawing No.	Description	Catalogue No.
BRS-SM 03442	NR60MKII B SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007076
BRS-SM 03443 / 03444	NR60MKII C or D SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007077
BRS-SM 03445	NR60MKII E SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007079
NR56V ASSEMBLIES		
Drawing No.	Description	Catalogue No.
BRS-SM 03400	NR56V BVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS	0086/007051
BRS-SM 03400	NR56V BVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007038
BRS-SM 03401	NR56V CVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS	0086/007052
BRS-SM 03401	NR56V CVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007039
BRS-SM 03402	NR56V DVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS	0086/007053
BRS-SM 03402	NR56V DVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007040
BRS-SM 03403	NR56V EVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007054
BRS-SM 03403	NR56V EVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007041
BRS-SM 03403	NR56V EVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007042
BRS-SM 03403	NR56V EVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007043
BRS-SM 03404	NR56V FVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007055

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BRS-SM 03404	NR56V FVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007044
BRS-SM 03404	NR56V FVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007045
BRS-SM 03404	NR56V FVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007078
BRS-SM 03405	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007056
BRS-SM 03405	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007301
BRS-SM 03405	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007302
BRS-SM 03405	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007303
BRS-SM 03406	NR56V GVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007057
BRS-SM 03406	NR56V GVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007304
BRS-SM 03406	NR56V GVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007305
BRS-SM 03406	NR56V GVS SWITCH WITH TUBULAR RODDING AND 4FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007306
BRS-SM 03407	NR56V BVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS	0086/007058
BRS-SM 03407	NR56V BVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007307
BRS-SM 03408	NR56V CVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS	0086/007059
BRS-SM 03408	NR56V CVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007308
BRS-SM 03409	NR56V DVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS	0086/007060
BRS-SM 03409	NR56V DVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS	0086/007309
BRS-SM 03410	NR56V EVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007061

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BRS-SM 03410	NR56V EVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007310
BRS-SM 03410	NR56V EVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007311
BRS-SM 03410	NR56V EVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007312
BRS-SM 03411	NR56V FVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE -KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007062
BRS-SM 03411	NR56V FVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE -KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007313
BRS-SM 03411	NR56V FVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE -KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007314
BRS-SM 03411	NR56V FVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE -KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007315
BRS-SM 03412	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007063
BRS-SM 03412	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007316
BRS-SM 03412	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007317
BRS-SM 03412	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007318
BRS-SM 03413	NR56V GVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007064
BRS-SM 03413	NR56V GVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007319
BRS-SM 03413	NR56V GVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007320
BRS-SM 03413	NR56V GVS SWITCH WITH TUBULAR RODDING AND 6FT MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007321
BRS-SM 03414	NR56V EVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007065
BRS-SM 03414	NR56V EVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007322
BRS-SM 03414	NR56V EVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007323

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BRS-SM 03414	NR56V EVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007324
BRS-SM 03415	NR56V FVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007066
BRS-SM 03415	NR56V FVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007325
BRS-SM 03415	NR56V FVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007326
BRS-SM 03415	NR56V FVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007327
BRS-SM 03416	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007067
BRS-SM 03416	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007328
BRS-SM 03416	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007329
BRS-SM 03416	NR56V SGVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007330
BRS-SM 03417	NR56V GVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (R/H)	0086/007068
BRS-SM 03417	NR56V GVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH RE/PW 824 STRETCHERS (L/H)	0086/007331
BRS-SM 03417	NR56V GVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (R/H)	0086/007332
BRS-SM 03417	NR56V GVS SWITCH WITH TUBULAR RODDING AND 6FT EXTENDED MOUNTED MECHANICAL BACKDRIVE - KIT FOR USE WITH TUBULAR STRETCHERS (L/H)	0086/007333

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COMPONENTS		
Drawing No.	Description	Catalogue No.
BRS-SM 03331/1	TUBULAR ROD ASSEMBLY LENGTH 1 FOR MECHANICAL BACKDRIVE (NR56V)	0086/007046
BRS-SM 03331/2	TUBULAR ROD ASSEMBLY LENGTH 2 FOR MECHANICAL BACKDRIVE (NR56V)	0086/007047
BRS-SM 03331/3	TUBULAR ROD ASSEMBLY LENGTH 3 FOR MECHANICAL BACKDRIVE (NR56V)	0086/007048
BRS-SM 03331/4	TUBULAR ROD ASSEMBLY LENGTH 4 FOR MECHANICAL BACKDRIVE (NR56V)	0086/007049
BRS-SM 03331/5	TUBULAR ROD ASSEMBLY LENGTH 5 FOR MECHANICAL BACKDRIVE (NR56V)	0086/007050
BRS-SM 03423/1	TUBULAR ROD ASSEMBLY LENGTH 1 FOR MECHANICAL BACKDRIVE (NR60MKII)	0086/007069
BRS-SM 03423/2	TUBULAR ROD ASSEMBLY LENGTH 2 FOR MECHANICAL BACKDRIVE (NR60MKII)	0086/007070
BRS-SM 03424	CRANK MOUNTING ASSEMBLY	0086/007071
BRS-SM 03432	CONNECTING ROD	0086/007072
BRS-SM 03433	FRONT CONNECTION ROD ASSEMBLY	0086/007073
BRS-SM 03434	MID/REAR CONNECTION ROD ASSEMBLY	0086/007074
BRS-SM 03435	FIXED CRANK ASSEMBLY	0086/007075
BRS-SM 03454/1	DIRECT FIX CRANK MOUNTING ASSEMBLY WITH ADJUSTABLE CRANK ARM	0086/007080
BRS-SM 03454/2	DIRECT FIX CRANK MOUNTING ASSEMBLY WITH FIXED CRANK ARM	0086/007334
BRS-SM 03458	JAW M30 ADJUSTING	0086/007081
BRS-SM 03463	FRONT DROP LUG WITH BUSHES	0086/007082
BRS-SM 03464	STRAIGHT DROP LUG WITH BUSHES	0086/007083
BRS-SM 03465/1	TUBULAR ROD LENGTH 1 FOR NR56V MECHANICAL BACKDRIVE (NR56V)	0086/007084
BRS-SM 03465/2	TUBULAR ROD LENGTH 2 FOR NR56V MECHANICAL BACKDRIVE (NR56V)	0086/007085
BRS-SM 03465/3	TUBULAR ROD LENGTH 3 FOR NR56V MECHANICAL BACKDRIVE (NR56V)	0086/007086

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BRS-SM 03465/4	TUBULAR ROD LENGTH 4 FOR NR56V MECHANICAL BACKDRIVE (NR56V)	0086/007087
BRS-SM 03465/5	TUBULAR ROD LENGTH 5 FOR NR56V MECHANICAL BACKDRIVE (NR56V)	0086/007088
BRS-SM 03476/1	TUBULAR ROD LENGTH 1 FOR NR60MKII MECHANICAL BACKDRIVE (NR60MKII)	0086/007089
BRS-SM 03476/2	TUBULAR ROD LENGTH 2 FOR NR60MKII MECHANICAL BACKDRIVE (NR60MKII)	0086/007090
BRS-SM 03487	CRANK MOUNTING CROSS	0086/007091
BRS-SM 03488/1	CRANK UPSTAND 1	0086/007092
BRS-SM 03488/2	CRANK UPSTAND 2	0086/007093
BRS-SM 03489	FIXED CLEVIS	0086/007094
BRS-SM 03490	CRANK BASE	0086/007095
BRS-SM 03491	CRANK PAD	0086/007096
BRS-SM 03496	TUBULAR RODDING THREADED END	0086/007097
BRS-SM 03497	CURVED WASHERS FOR TUBULAR RODDING	0086/007098
BRS-SM 03498	FIXED CRANK ARM	0086/007099
BRS-SM 03466	CRANK BASE PIN	0086/007100
BRS-SM 220/11	SLEEVE FOR ADJUSTABLE CRANKS	0086/064352
BRS-SM 405	HEADED PIN	-
BRS-SM 03467	5MM THK MOUNTING PADS	0086/007101
BRS-SM 03499/1	DETECTOR MOUNTING PLATE - LH MOUNT	0086/007102
-	EXCALIBUR STUDBOLT 20 x 196mm C/W WELDED NUT	0086/007103
BRS-SM 03436/1	DETECTOR MOUNTING ASSEMBLY - LH MOUNT	0086/007104
BRS-SM 03436/2	DETECTOR MOUNTING ASSEMBLY - RH MOUNT	0086/007105
BRS-SM 03494	M30 SLEEVE NUT	0086/007106

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BRS-SM 03456	M30 SLEEVE NUT ASSEMBLY	0086/007107
BRS-SM 03446	DROPSET FISHPLATE CONNECTION ROD ASSEMBLY	0086/007108
-	M30 HARDENED WASHER	0086/007122
-	M30 HARDLOCK NUT SET (PAIR) ZINC PLATED	0086/007123
-	M30 ISO METRIC HEX NUT	0086/007124
-	SPLIT COTTER PIN 5 X 40MM	0086/007125
-	SPLIT COTTER PIN 6.3 X 80MM	0086/007126
-	1/8" BSP TYPE 12 GREASE NIPPLE	0086/007127
-	M12 X 90 GRADE 8.8 BOLT	0086/007128
-	M12 TORQUE PREVAILING TURRET NUT	0086/007129
-	M16 FLAT WASHER	0086/007130
-	M16 TORQUE PREVAILING TURRET NUT	0086/007131
-	M30 FLANGED NUT	0086/007132
-	M16 X 80MM ZINC PLATED GRADE 8.8 HEX BOLT	0086/007133
-	M16 NORD-LOCK ORIGINAL STEEL WASHER (NL16SP). 30.7MM O/D	0086/007134
-	M20 VARGAL NUT - V20MY1	0086/007135
-	M20 HARDENED FLAT WASHER 44MM O/D	0086/007136

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Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.
TR424-00	Mechanical Analysis Report NR60Mk2 Backdrive	1	13/02/17
TR421-00	Backdrive FMEA	1	08/12/16
TR407	NR60 Mark 2 Backdrive Phase 1 Report, Crank Mounting Review	1	07/09/15
TR432-00	NR60 Mark 2 – Supplementary Detection Mounting Plate Conceptual Study	1	25/07/18
RT01533-15	NR60 Mark 2 Safety Case – Supplementary Drive	1.3	21/03/17
NR/STE/SC/SP/013	Tubular Supplementary Drive Product Acceptance Memo	1	06/03/19
D51909	Crank Fastening Cyclic Test	1	25/04/17
TRA044083CC01	Vibration Test Certificate – NR60 Mark 2 Supplementary Detection System	A	29/05/19
TRA-044083-21-CR-01A	Vibration Test Report – NR60 Mark 2 Supplementary Detection System	A	29/05/19

Certificate History

Issue	Date	Issue History
1	12/06/19	First accepted for use.

Contact Details

Manufacturer

Manufacturer is defined on manufacturer-specific child certificates.

Lead Reviewer

Andrew Turner
Senior Engineer [Switches & Crossings]
andrew.turner3@networkrail.co.uk

General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Technology Introduction Group. Any alterations made by a different person will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Technology Introduction Group:
 - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).

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b. Of any intended change to the accepted product; changes include:

- i. a change to the product configuration (to the actual product or its application);
- ii. a variation to or addition of manufacturing locations or processes;
- iii. a change in the name or ownership of the manufacturing company;

iv. any changes to the ability or intention to support with technical services, spares or repairs.

3) The Manufacturer shall provide Network Rail Technology Introduction Group at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to the Network Rail Technology Introduction Group.

4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).

5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.

6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.

7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.

8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.

9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Technology Introduction Group.

2) Check that the application of use complies with the relevant certificate's scope of acceptance.

3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Technology Introduction Group.

4) Inform Network Rail Technology Introduction Group in writing of a change to the product configuration (or to the actual product or its application).

5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.

6) Be appropriately trained and authorised for the installation, maintenance and use of the product.

7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.

8) Users are to be aware that Product Acceptance is not a substitute for design approval.

Certificate of Acceptance

PA05/06821

Manufacturer:

Various

Issue : 1

Valid From : 12/06/19

4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations

2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:

- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.

4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

5) Supply Chain Arrangements

1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.

2) Products may be purchased by Network Rail or its agents, suppliers or contractors.

3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other supplier