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Naval Headquarters
Ministry of Defence
Directorate of Air Projects & Plans
New Delhi – 110023

AP/0192/MH60R INDG

13 May 24

To,

{All Indigenisation firms}

**REQUEST FOR INFORMATION (RFI) FOR
INDIGENISATION OF MH 60R CONSUMABLE SPARES**

1. Indian Navy intends to undertake Indigenisation of 274 by type consumable spares being utilised on MH60R helicopters towards providing life cycle support for the next 25 years through Indigenous sources.
2. The methodology planned to be adopted for this bulk indigenisation process is as appended below: -
 - (a) The NSN details of all items proposed for indigenisation with material reference are being provided to the vendors for examining capability to undertake the task.
 - (b) **Stage 1.** As part of the development process, the firm selected for progressing the Indigenisation task are required to procure samples (as required) from global market. Such samples procured with COC certificate for the indicated part number / NSN number to be submitted to Naval QA agency. FFFT (Form Fit Functional Trial) of these samples will be undertaken by the user unit and a confirmation for progressing indigenisation will be provided to the firm by the QA agency. Qty 01 sample of each item will be retained at the QA agency for final verification post indigenisation. Cost incurred towards procurement of such samples can be included as part of the development cost.
 - (c) **Stage 2.** Post receipt of confirmation from QA agency, the firm is to progress indigenisation task as per the extant procedure in vogue.
 - (d) Initial bulk order and inclusion of the firm as OEM for future procurement of items will be included as part of the contract for all items successfully indigenised.
 - (e) It is to be noted that, at no instance the firm is allowed to procure bulk quantity and supply the items in lieu of progressing indigenisation.
3. Detailed steps involved in Indigenous development of the spares including documentation requirement at each stage is placed at **Enclosure I** for reference.

4. The complete list of 274 by type items have been subdivided in to 95 by type Flight Critical (FC) spares and 179 by type Non-flight Critical (NFC) spares. These lists are further subdivided into groups containing items of similar category and material specification. The list of items have been subdivided into various groups to ensure economy of effort in progressing indigenisation of multiple items concurrently which fall under similar category and material specification. Details of FC and NFC items (subdivided into multiple groups) with reference material specification placed at **Enclosures II and III** respectively.

5. **Tendering guidelines.** Each group of item as indicated above will be considered as a line item for the purpose of tendering. Further, it is intended to tender the project on 2-bid system on OTE basis.

6. Firms interested in participating in the Indigenisation process as explained above are requested to submit **non-obligatory budgetary quotations** (BQ) in the format given below:-

				DEVELOPMENT COST			BULK ORDER COST	
FC / NFC SER	GROUP SER	DESCRIPTION	PART NO	NRE (SAMPLE COST + D&D COST) (A)	UNIT COST OF PROTOTYPE (B)	TOTAL DEV COST (C) = (A+B*PROTOTYPE QTY)	UNIT COST FOR BULK QTY (D)	TOTAL BULK QTY COST (E) = (D * BULK QTY)

7. Firms are also required to furnish company details, technical capacity, and related experience viz., details of completed / ongoing development orders placed by tri-services / aviation industry along with BQ for reference.

8. All documents as indicated above to be forwarded to the following address (preferably by e-mail) latest by **31 May 2024**:-

CDR(APP-MH60R)
 Directorate of Aircraft Project and Plans, D Block,
 Defence Offices Complex, Africa Avenue
 New Delhi – 110023

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-Sdxxx---
 (S Raghavendran)
 Commander
 CDR (APP)

INDIGENISATION OF MH60R CONSUMABLES

STEPS INVOLVED AND DOCUMENTATION REQUIREMENTS

1. **Methodology for Indigenisation.** Details of activities involved in each stage of the project are as appended below:-

(a) Stage 1 – **Procurement of sample obtained from Global market**

<u>Ser</u>	<u>Action</u>	<u>Responsibility</u>
(i)	Procure requisite nos of samples from global market.	Firm selected for indigenisation
(ii)	Submission of samples along with CoC indicating Part Number, NSN number to IN/ IIC(K) for onward submission to QA agency for verification	
(iii)	Retain at least 01 sample with QA agency for future reference.	NAQAS
(iv)	Balance Qty procured to be returned to firm to undertake all test requirements and mapping of physical/ chemical properties etc required to formulate raw material and manufacturing process	IN/ IIC(K)

(b) Stage 2 – **Indigenous Development of Prototype**

<u>Ser</u>	<u>Action</u>	<u>Responsibility</u>
(i)	Based on the OEM sample, prepare Engineering Drawings	Firm selected for indigenisation
(ii)	Obtain approval of Engineering Drawings from RCMA/ designated QA agency.	IN/ IIC(K)
(iii)	Undertake material analysis through NABL accredited labs	Firm selected for indigenisation.
(iv)	Undertake lab tests to determine material and performance characteristics of the OEM item.	
(v)	Preparation of Bill of Material and Manufacturing Process sheet	
(vi)	Obtain approval of the above from designated QA agency/ RCMA issued Letter of Technical Approval (LOTA)	IN / IIC(K) based on the documents received from firm
(vii)	Development of Prototype in accordance with approved Engineering Drawings, Bill of Materials and Manufacturing Process Sheet.	Firm selected for indigenisation

(viii)	Post development of Prototype, undertake lab tests through a NABL accredited lab and the parameters of the prototype item should be same/ superior to the OEM sample.	Firm selected for indigenisation
(ix)	Scrutinise the prototype documents submitted by the firm.	RCMA
(x)	Post approval, undertake prototype trials on aircraft.	IN Unit undertaking trials
(xi)	Issue of duly signed trials report and user acceptance certificate of prototype	Trial unit & Station QA of IN
(xii)	Undertake AHSP based on trials report, user acceptance and other relevant documents of the indigenous item so as to INCAT with indigenous Part number.	IN / IIC(K)

(c) Stage 3 – **Indigenous Development of Bulk**

<u>Ser</u>	<u>Action</u>	<u>Responsibility</u>
(i)	Development of Bulk quantity as per the approved Authority Holding Sealed Particulars (AHSP), Tech specs, Bill of Material and Process Sheet of approved Prototype item	Firm selected for indigenisation
(ii)	Issue of certificate of conformance for verification of compliance to the approved design and procedures for manufacture of item	
(iii)	Acceptance checks of bulk order post scrutiny and clearance of documents by QA agencies.	Unit receiving bulk supply i.a.w. approved ATP
(iv)	Issue of user acceptance certificate	Unit receiving bulk supply
(v)	Merge with IN inventory after logistics procedures	IN / IIC(K)

(d) **Designated QA Agency**

- (i) FC Items – RCMA (Helicopters), Bengaluru
- (ii) NFC Items – NAQAS, Kochi (Naval QA Agency)

LIST OF DOCUMENTS TO BE SUBMITTED

1. First Set of OEM Sample

Authenticated OEM COC with validity

2. On Supply the Indigenous Prototype

- (a) Certificate of Conformance certifying that the prototype has been developed in accordance with the approved Engineering Drawings and Bill of Materials approved by RCMA/ QA agency.
- (b) Copy of approved Engineering Drawings.
- (c) Copy of approved Bill of Material.
- (d) Original copy of all lab test reports.
- (e) Copy of QA clearance certificate by firm QA department
- (f) Copy of Letter of Technical Approval (LOTA) from RCMA/ QA agency to be obtained by IIC (Koc) based on the documents received from the L1 firm.
- (g) High quality color photograph of items in hard and soft copy.
- (h) Atleast one sample of each item for record keeping.
- (i) NCAGE details of the firm supplying the indigenous item.
- (j) Requisite data for undertaking the NSN codification.

3. On Supply of Bulk Order

- (a) Certificate of Conformance certifying that the bulk supply items have been developed in accordance with the approved Engineering Drawings and Bill of Materials approved by RCMA/ QA agency.
- (b) Dimension report pertaining to each lot.
- (c) Warranty certificate for manufacturing defects, faulty materials, workmanship etc for a period of 12 months from the date of acceptance of goods by IIC.
- (d) Copy of approved Engineering drawings and Bill of Material pertaining to each lot.
- (e) Copy of environment test report with each lot.

FLIGHT CRITICAL SPARES TO BE INDIGENISED - MH 60R - 95 BY TYPE ITEMS

RFI SER	GROUP SER	Description	Part No	NSN NUMBER	Material Specification	
<u>FC GROUP 1 - PACKING RUBBER - 05 BY TYPE; PROTOTYPE - 10; BULK - 90</u>						
(1)	1	PACKING	J221P110	5331-00-166-1058	RUBBER FLUOROCARBON CLASS FPM	
(2)	2	PACKING	S9413-113	5331-00-166-1062		
(3)	3	PACKING	M83248/1-227	5331-00-173-3023		
(4)	4	PACKING	M83248/1-222	5331-00-194-1675		
(5)	5	PACKING	M83248/1-226	5331-00-421-9387		
<u>FC GROUP 2 - PACKING RUBBER BUTADINE - 15 BY TYPE; PROTOTYPE - 10; BULK - 90</u>						
(6)	1	PACKING	MS29513-113	5331-00-166-5990	RUBBER BUTADIENE-ACRYLONITRILE CLASS NBR	
(7)	2	PACKING	MS29512-04	5331-00-166-5994		
(8)	3	PACKING	MS29513-012	5331-00-248-3836		
(9)	4	PACKING	MS29513-021	5331-00-250-0227		
(10)	5	PACKING	MS29513-215	5331-00-250-0235		
(11)	6	PACKING	MS29513-342	5331-00-251-9374		
(12)	7	PACKING	MS29513-260	5331-00-252-6041		
(13)	8	PACKING	MS29513-226	5331-00-263-5173		
(14)	9	PACKING	MS29513-243	5331-00-263-8013		
(15)	10	PACKING	MS29513-129	5331-00-265-1097		
(16)	11	PACKING	NAS617-6	5331-00-576-9925		
(17)	12	PACKING	MS29561-113	5331-00-585-1065		
(18)	13	PACKING	MS29513-222	5331-00-599-2766		
(19)	14	PACKING	MS29561-013	5331-00-809-4365		
(20)	15	PACKING	MS29513-281	5331-01-014-4296		
<u>FC GROUP 3 - PACKING RUBBER - 02 BY TYPE; PROTOTYPE - 10; BULK - 90</u>						
(21)	1	PACKING	S8990-043	5331-01-201-6452		RUBBER SILICONE CLASS Q
(22)	2	PACKING	M83461/1-111	5331-01-107-3121		RUBBER SYNTHETIC
<u>FC GROUP 4 - WASHER STEEL - 07 BY TYPE; PROTOTYPE - 10; BULK - 90</u>						
(23)	1	WASHER COUNTERSU NK	MS20002C12	5310-00-149-9119		STEEL COMP 1330 OVERALL OR STEEL COMP 4130
(24)	2	WASHER COUNTERSU NK	MS20002C14	5310-00-149-9120		
(25)	3	WASHER	MS20002-9	5310-00-149-9127		
(26)	4	WASHER	MS20002C6	5310-00-149-9146		
(27)	5	WASHER	MS9320-10	5310-00-194-0637		
(28)	6	WASHER	MS20002C5	5310-00-595-7078		
(29)	7	WASHER	SS4409-067	5310-01-279-8909		
<u>FC GROUP 5 - NUT STEEL - 10 BY TYPE; PROTOTYPE - 10; BULK - 90</u>						
(30)	1	NUT BARREL	RMLH2577-080	5310-00-105-7873	STEEL NUT	
(31)	2	NUT BARREL	RMLH2577-126	5310-01-107-3583	STEEL NUT	
(32)	3	NUT BARREL	RMLH2577-070	5310-00-809-7632	STEEL OVERALL	
(33)	4	NUT BARREL	RMLH2577-064	5310-00-820-1560	STEEL OVERALL	
(34)	5	NUT	MS35649-262	5310-00-934-9747	STEEL OVERALL	
(35)	6	LOCKNUT	90101A038	5310-01-508-5908	STEEL OVERALL	
(36)	7	JAMNUT	70101-08004-102	5310-01-102-6098	STEEL COMP E4340 OVERALL	
(37)	8	JAMNUT	70101-08004-103	5310-01-102-6098		
(38)	9	JAMNUT	70101-08004-104	5310-01-299-2911		
(39)	10	JAMNUT	70101-08004-101	5310-01-102-6103		

RFI SER	GROUP SER	Description	Part No	NSN NUMBER	Material Specification
<u>FC GROUP 6 - NUT IRON - 03 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(40)	1	NUT	MS21043-3	5310-00-844-3302	IRON ALLOY 660 OVERALL
(41)	2	NUT	MS21043-5	5310-00-881-0944	
(42)	3	NUT, SELF LOCKING	SS5086C06S	5310-01-093-2471	
<u>FC GROUP 7 - FASTNER - 05 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(43)	1	FASTENER	NAS517-3-1	5305-00-206-3702	STEEL COMP 8630
(44)	2	SCREW FLAT HEAD	1032F6CN	5305-01-138-2082	
(45)	3	SCREW, MOUNTING, MRB	NAS7203P5	5305-01-273-2269	IRON ALLOY 660 FASTENER WITH PLASTIC LOCKING FEATURE
(46)	4	SCREW MRB TIP CAP	NAS8403U8	5305-01-439-6682	STEEL OVERALL
(47)	5	SCREW MRB TIP CAP	H7883-P5	5305-01-445-3489	
<u>FC GROUP 08 - PIN - 02 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(48)	1	COTTER PIN	MS24665-155	5315-01-656-2877	STEEL CORROSION RESISTING OVERALL
(49)	2	ROLL PIN	094-0562LDP	5315-01-116-6281	STEEL COMP 302 OVERALL
<u>FC GROUP 09 - BUSH - 02 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(50)	1	BUSHING SHORT	70400-00513-101	3120-01-097-9511	COPPER ALLOY 642 OVERALL
(51)	2	BUSHING Long Flanged	NAS77A3	3120-01-114-3854	COPPER ALLOY 642 OVERALL
<u>FC GROUP 10 - GASKET - 13 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(52)	1	GASKET	MS27196-12	5330-00-944-5940	STEEL COMP 302 OVERALL AND RUBBER FLUOROCARBON CLASS FPM
(53)	2	GASKET	160365-1	5999-00-056-0881	
(54)	3	GASKET	AG433000-02	5999-01-507-8662	
(55)	4	GASKET	AG358000-02	5999-01-508-3339	
(56)	5	GASKET	AG477000-15	5999-01-535-8182	
(57)	6	GASKET	287526	5330-01-106-7399	
(58)	7	GASKET	287526-B	5330-01-106-7399	
(59)	8	GASKET	70108-28066-101	5330-01-162-6021	RUBBER SYNTHETIC SEALING ELEMENT
(60)	9	GASKET	SG787000-02	5330-01-528-9997	ELASTOMERIC SEALANT WITH FIBERGLASS CARRIER
(61)	10	GASKET	SG787000-07	5330-01-533-8324	
(62)	11	GASKET	SG787000-08	5330-01-618-2670	
(63)	12	GASKET	SG787000-12	5330-01-647-2887	
(64)	13	GASKET	287524	5340-01-143-1289	RUBBER SYNTHETIC
<u>FC GROUP 11 - BOLT - 05 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(65)	1	BOLT	70400-08159-101	5306-01-096-5592	
(66)	2	BOLT	70400-08159-105	5306-01-096-5597	
(67)	3	BOLT	70400-08159-106	5306-01-096-5598	
(68)	4	BOLT	70400-08159-108	5306-01-223-8019	
(69)	5	BOLT	SS5209-10-34	5306-01-250-5237	
<u>FC GROUP 12 - BOLT NI/ IRON- 04 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(70)	1	BOLT	MS9724-07	5306-01-108-0032	NICKEL ALLOY OVERALL
(71)	2	BOLT	80657-12H-12	5306-01-171-8071	NICKEL ALLOY 718 OVERALL

RFI SER	GROUP SER	Description	Part No	NSN NUMBER	Material Specification
(72)	3	BOLT, SHEAR	NAS1954C7H	5306-01-170-5557	IRON ALLOY 660 OVERALL
(73)	4	BOLT, SHEAR	NAS1954C6H	5306-01-170-5559	
<u>FC GROUP 13 - BOLT STEEL - 03 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(74)	1	BOLT JACKING	NAS565-35	5306-01-190-2175	STEEL COMP 4140 OVERALL OR STEEL COMP 8740
(75)	2	BOLT	MS21250-12064	5306-01-332-7197	
(76)	3	BOLT	NAS6203	5310-00-720-8078	
<u>FC GROUP 14 - BOLT COBALT - 04 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(77)	1	BOLT	70400-38159-106	5306-01-564-2132	COBALT COMP MP-35-N OVERALL
(78)	2	BOLT	70400-38159-105	5306-01-564-3360	
(79)	3	BOLT	70400-38159-101	5306-01-564-3366	
(80)	4	BOLT	70400-38159-108	5306-01-564-3371	
<u>FC GROUP 15 - SEAL STEEL - 03 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(81)	1	SEAL	70968-08200-101	5330-01-098-0638	STEEL CASE
(82)	2	SEAL	70968-08400-103	5330-01-364-9021	RUBBER SYNTHETIC SEALING
(83)	3	SEAL	70968-08400-104	5330-01-414-0690	ELEMENT
<u>FC GROUP 16 - VALVE CORE - 02 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(84)	1	VALVE CORE	402-AH-100-GOVT	2640-00-810-5861	STEEL, STAINLESS
(85)	2	VALVE CORE	TRC4	2640-01-4902-702	CUP MATERIAL IS SILICON-BARREL GASKET MATERIAL IS TRFLON
<u>FC GROUP 17 - FILTER - 04 BY TYPE; PROTOTYPE - 05; BULK - 20</u>					
(86)	1	FILTER, FUEL INLET	109208-1	2910-01-055-9439	
(87)	2	FILTER ELEMENT	1311024-254	1650-01-204-5359	
(88)	3	FILTER ELEMENT	169009-1	1650-01-371-0140	
(89)	4	FILTER ELEMENT SECOND STAGE	70351-38801-103	1650-01-266-9729	STEEL CORROSION RESISTING BODY GLASS FIBER FILTERING MEDIUM
<u>FC GROUP 18 - SLEEVE - 02 BY TYPE; PROTOTYPE - 05; BULK - 20</u>					
(90)	1	SLEEVE	70306-02115-102	4730-01-102-8804	
(91)	2	SLEEVE	70309-23903-105	4730-01-161-8651	
<u>FC GROUP 19 - GREASE FITTING - 01 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(92)	FC 19	GREASE FITTING	MS15002-1	4730-00-172-0010	STEEL OVERALL
<u>FC GROUP 20 - TIE DOWN STRAP - 01 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(93)	FC 20	TIE DOWN STRAP	MS3367-7-9	5975-00-570-9598	PLASTIC POLYAMIDE
<u>FC GROUP 21 - RETAINER - 01 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(94)	FC 21	RETAINER	6257312	5330-00-543-7090	PLASTIC POLY TETRAFLUOROETHYLENE OVERALL
<u>FC GROUP 22 - CLIP - 01 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(95)	FC 22	CLIP	70104-11110-104	5340-01-102-6047	

NON FLIGHT CRITICAL SPARES TO BE INDIGENISED - MH 60R - 179 BY TYPE ITEMS

RFI SER	GROUP SER	Description	Part No	NSN NUMBER	Material Specification
<u>NFC GROUP 1 - PACKING RUBBER FC - 53 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(1)	1	PACKING	M83248/1-912	5331-00-020-0064	RUBBER FLUOROCARBON CLASS FPM
(2)	2	PACKING	AS3208-06	5331-00-020-0186	
(3)	3	PACKING	NAS1595-6	5331-00-020-0186	
(4)	4	PACKING	AS3208-10	5331-00-103-2008	
(5)	5	PACKING	M83248/1-020	5331-00-111-0734	
(6)	6	PACKING	M83248/1-229	5331-00-165-1947	
(7)	7	PACKING	AS3209-238	5331-00-165-1956	
(8)	8	PACKING	M83248/1-240	5331-00-165-1958	
(9)	9	PACKING	M83248/1-241	5331-00-165-1959	
(10)	10	PACKING	M83248/1-902	5331-00-165-1971	
(11)	11	PACKING PERFORMED	AS3208-02	5331-00-165-1971	
(12)	12	PACKING	M83248/1-903	5331-00-165-1972	
(13)	13	PACKING	S9413-553	5331-00-165-1972	
(14)	14	PACKING	M83248/1-916	5331-00-165-4565	
(15)	15	PACKING	AS3209-011	5331-00-166-0975	
(16)	16	PACKING	AS3209-012	5331-00-166-0980	
(17)	17	PACKING	AS3209-12	5331-00-166-0980	
(18)	18	PACKING	M83248/1-012	5331-00-166-0980	
(19)	19	PACKING	AS3209-014	5331-00-166-0990	
(20)	20	PACKING	AS3209-016	5331-00-166-0992	
(21)	21	PACKING	AS3209-018	5331-00-166-0994	
(22)	22	PACKING	AS3209-021	5331-00-166-1010	
(23)	23	PACKING	AS3209-022	5331-00-166-1011	
(24)	24	PACKING	AS3209-023	5331-00-166-1017	
(25)	25	PACKING	M83248/1-024	5331-00-166-1020	
(26)	26	PACKING	M83248/1-025	5331-00-166-1022	
(27)	27	PACKING	J221P026	5331-00-166-1025	
(28)	28	PACKING	AS3209-026	5331-00-166-1025	
(29)	29	PACKING	J221P030	5331-00-166-8390	
(30)	30	PACKING	AS3209-031	5331-00-166-8391	
(31)	31	PACKING	M83248/1-130	5331-00-167-5118	
(32)	32	PACKING	M83248/1-136	5331-00-167-5123	
(33)	33	PACKING	AS3209-139	5331-00-167-5124	
(34)	34	PACKING	M83248/1-151	5331-00-167-5137	
(35)	35	PACKING	M83248/1-260	5331-00-167-5143	
(36)	36	PACKING	AS3209-262	5331-00-167-5145	
(37)	37	PACKING	AS3208-05	5331-00-167-5166	
(38)	38	PACKING	M83248/2-904	5331-00-167-5172	
(39)	39	PACKING	AS3581-908	5331-00-167-5173	
(40)	40	PACKING	M83248/2-916	5331-00-167-5176	
(41)	41	PACKING	AS3209-033	5331-00-194-1670	
(42)	42	PACKING	AS3209-141	5331-00-330-3307	
(43)	43	PACKING	AS3209-226	5331-00-421-9387	
(44)	44	PACKING	M83248/1-249	5331-00-537-3940	
(45)	45	PACKING	M83248/1-135	5331-01-005-0508	
(46)	46	PACKING	AS3209-137	5331-01-005-0509	
(47)	47	PACKING	M83248/1-263	5331-01-005-3702	
(48)	48	PACKING	AS3209-174	5331-01-007-4888	
(49)	49	PACKING	AS3209-045	5331-01-013-3718	

RFI SER	GROUP SER	Description	Part No	NSN NUMBER	Material Specification
(50)	50	PACKING	M83248/2-920	5331-01-024-2512	
(51)	51	PACKING	70351-08011-103	5331-01-102-8866	
(52)	52	PACKING	AS3208-08	5331-01-497-4130	
(53)	53	PACKING	70351-08011-106	5331-01-515-8368	
<u>NFC GROUP 2 - PACKING RUBBER BUTADINE - 12 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(54)	1	PACKING	MS28778-8	5331-00-006-2249	RUBBER BUTADIENE- ACRYLONITRILE CLASS NBR
(55)	2	PACKING	MS29561-026	5331-00-061-2209	
(56)	3	PACKING	MS29513-238	5331-00-291-3077	
(57)	4	PACKING	NAS617-8	5331-00-531-2068	
(58)	5	PACKING	MS29561-011	5331-00-542-1421	
(59)	6	PACKING	M83461/1-012	5331-00-579-6495	
(60)	7	PACKING	MS29561-112	5331-00-702-4712	
(61)	8	PACKING	MS28778-5	5331-00-833-7491	
(62)	9	PACKING	MS28778-3	5331-00-835-7485	
(63)	10	PACKING	MS29513-388	5331-01-028-9349	
(64)	11	PACKING	29579-2	5331-01-113-5749	RUBBER ISOBUTYLENE-ISOPRENE CLASS IIR
(65)	12	PACKING	M83461/1-014	5331-01-046-0629	RUBBER ETHYLENE-PROPYLENE- DIENE CLASS EPDM
<u>NFC GROUP 3 - PACKING RUBBER SYNTH - 07 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(66)	1	PACKING	69494K11	5331-00-449-2949	RUBBER
(67)	2	PACKING	69494J12	5331-00-470-3218	RUBBER
(68)	3	PACKING	AS3209-152	5331-00-103-1766	RUBBER SYNTHETIC
(69)	4	PACKING	MS35489-1	5325-00-286-6047	RUBBER SYNTHETIC
(70)	5	PACKING	M83461/1-010	5331-01-088-5363	RUBBER SYNTHETIC
(71)	6	PACKING	M83461/1-020	5331-01-107-4950	RUBBER SYNTHETIC
(72)	7	PACKING	70351-08011-104	5331-01-115-1967	RUBBER
<u>NFC GROUP 4 - PACKING RUBBER SILICONE - 02 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(73)	1	PACKING/O- RING	MS9068-018	5331-00-724-5541	RUBBER SILICONE CLASS Q
(74)	3	PACKING	69494J446	5331-01-233-2955	RUBBER SILICONE CLASS Q
<u>NFC GROUP 5 - PACKING PLASTIC - 03 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(75)	1	PACKING	MS28773-04	5330-00-246-6403	PLASTIC TETRAFLUOROETHYLENE OVERALL
(76)	2	PACKING	MS28773-06	5330-00-246-6404	
(77)	3	PACKING	MS28778-2	5331-00-931-6747	PLASTIC POLYTETRAFLUOROETHYLENE
<u>NFC GROUP 6 - WASHER STEEL - 21 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(78)	1	WASHER, COUNTERSU NK	MS21026C4		
(79)	2	WASHER	NAS1149C0563R	5310-00-167-0803	STEEL CORROSION RESISTING OVERALL OR STEEL COMP 321 OR STEEL COMP 347 OR STEEL COMP 348
(80)	3	WASHER	NAS1149C0663R	5310-00-167-0804	
(81)	4	WASHER	NAS1149C0863R	5310-00-167-0806	
(82)	5	WASHER	NAS1149C1290R	5310-00-167-0809	
(83)	6	WASHER	NAS1149C0532R	5310-00-167-0814	
(84)	7	WASHER	NAS1149F0332P	5310-00-167-0834	
(85)	8	WASHER	NAS1149F0432P	5310-00-167-0835	STEEL OVERALL
(86)	9	WASHER	NAS1149C0632R	5310-00-183-4355	STEEL CORROSION RESISTING OVERALL OR STEEL COMP 321 OR STEEL COMP 347

RFI SER	GROUP SER	Description	Part No	NSN NUMBER	Material Specification
(87)	10	WASHER, RECESSED	MS20002C4	5310-00-596-1766	STEEL COMP 1330 OVERALL OR STEEL COMP 4130
(88)	11	WASHER	MS9320-17	5310-00-953-8703	STEEL COMP 4130 OVERALL
(89)	12	WASHER	NAS1149C0432R	5310-01-352-9592	STEEL COMP 301 OVERALL OR STEEL COMP 302
(90)	13	WASHER	NAS1149C0463R	5310-01-352-9593	
(91)	14	WASHER	NAS1149FN816P	5310-01-388-9585	STEEL COMP 1020 OVERALL OR STEEL COMP 1025
(92)	15	WASHER	NAS1149F0532P	5310-01-396-0976	STEEL OVERALL
(93)	16	WASHER	NAS1149F0632P	5310-01-396-0977	STEEL OVERALL
(94)	17	WASHER	NAS1149C0832R	5310-01-396-1757	STEEL COMP 301 OVERALL OR STEEL COMP 302 OR STEEL COMP 304 OR STEEL COMP 316
(95)	18	WASHER	NAS1149C1032R	5310-01-423-7133	
(96)	19	WASHER	NAS1149C0732B	5310-01-434-3788	
(97)	20	WASHER	NAS1149C0816R	5310-01-442-1397	
(98)	21	WASHER	NAS1149C0963B	5310-01-465-7478	
<u>NFC GROUP 7 - WASHER ALUMINUM - 09 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(99)	1	WASHER	NAS1149DN816J	5310-01-125-1225	ALUMINUM ALLOY 2024 OVERALL AND ALUMINUM ALLOY 1230
(100)	2	WASHER	NAS1149D0463K	5310-01-352-9564	
(101)	3	WASHER	NAS1149D0316K	5310-01-352-9568	
(102)	4	WASHER	NAS1149D0332K	5310-01-352-9570	
(103)	5	WASHER	NAS1149DO316J	5310-01-385-4499	
(104)	6	WASHER	NAS1149D0363K	5310-01-385-4624	
(105)	7	WASHER	NAS1149D0416J	5310-01-386-1519	
(106)	8	WASHER	NAS1149DO416J	5310-01-386-1519	
(107)	9	WASHER	NAS1149D0463J	5310-01-395-8986	
<u>NFC GROUP 8 - SHIM STEEL - 15 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(108)	1	SHIM	70351-08076-101	1615-01-090-5944	
(109)	2	SHIM	70361-05009-108	5310-01-092-8149	
(110)	3	SHIM	70361-05009-106	5310-01-092-8150	
(111)	4	SHIM	70361-05009-107	5310-01-094-6763	
(112)	5	SHIM	70400-08119-111	5365-01-093-8127	
(113)	6	SHIM	70101-11123-103	5365-01-096-1505	STEEL
(114)	7	Shim B	70102-11109-101	5365-01-162-6081	STEEL COMP 302
(115)	8	SHIM	70105-28007-101	5365-01-162-9983	
(116)	9	SHIM	70102-11110-041	5365-01-172-3587	
(117)	10	SHIM	70101-11123-104	5365-01-560-9312	STEEL
(118)	11	SHIM	70101-11123-106	5365-01-561-3376	STEEL
(119)	12	SHIM	70101-11123-105	5365-01-561-3390	STEEL
(120)	13	SHIM WASHER	SS52A0516Z1000	5365-01-133-6183	STEEL COMP 302
(121)	14	SHIM	SS52F0550Z0875	5365-01-606-3173	
(122)	15	SHIM	SS52N0550Z0875	5365-01-606-3174	

RFI SER	GROUP SER	Description	Part No	NSN NUMBER	Material Specification
<u>NFC GROUP 9 - SHIM ALUMINUM - 10 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(123)	1	SHIM	70219-06000-103	5365-01-280-5860	ALUMINUM ALLOY 7075
(124)	2	SHIM	70219-06000-104	5365-01-280-5861	
(125)	3	SHIM	70219-06000-112	5365-01-280-5862	
(126)	4	SHIM	70219-06000-105	5365-01-280-5863	
(127)	5	SHIM	70219-06000-105	5365-01-280-5863	
(128)	6	SHIM	70219-06000-106	5365-01-280-5864	
(129)	7	SHIM	70219-06000-107	5365-01-280-5865	
(130)	8	SHIM	70219-06000-110	5365-01-280-5867	
(131)	9	SHIM	70219-06000-111	5365-01-280-5868	
(132)	10	SHIM	70219-06000-108	5365-01-282-3420	
<u>NFC GROUP 10 - NUT IRON - 02 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(133)	1	NUT	MS21043-08	5310-00-878-7196	IRON ALLOY 660 OVERALL
(134)	2	NUT	SS5086C05S	5310-01-125-1217	
<u>NFC GROUP 11 - FASTNER - 03 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(135)	1	FASTENER	NAS623-4-22	5305-00-832-4217	STEEL COMP 4140
(136)	2	FASTENER	NAS623-3	5305-01-520-8668	STEEL COMP 4140
(137)	3	FASTENER	NAS1303-4	5306-00-655-7232	STEEL COMP 4140 OVERALL
<u>NFC GROUP 12 - GROMMET - 05 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(138)	1	GROMMET	MS35489-48	5325-00-174-9332	RUBBER SYNTHETIC OVERALL
(139)	2	GROMMET	MS35489-40	5325-00-185-0004	
(140)	3	GROMMET	MS35489-11	5325-00-291-9366	
(141)	4	GROMMET	MS35489-43	5325-00-795-0719	
(142)	5	GROMMET	MS35489-17	5325-01-242-7083	
<u>NFC GROUP 13 - PIN - 03 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(143)	1	COTTER PIN	MS24665-372	5315-00-059-0491	STEEL COMP 302 OVERALL OR STEEL COMP 304
(144)	2	COTTER PIN	MS24665-448	5315-00-239-8031	STEEL COMP 302 OVERALL OR STEEL COMP 304
(145)	3	COTTER PIN	MS24665-172	5315-00-187-9370	COPPER ALLOY 260 OVERALL
<u>NFC GROUP 14 - SPACER - 03 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(146)	1	Spacer	70219-06000-101	5365-01-280-5858	ALUMINUM ALLOY 7075
(147)	2	Spacer	70219-06000-102	5365-01-280-5859	
(148)	3	Spacer	70219-06000-109	5365-01-280-5866	
<u>NFC GROUP 15 - TIE DOWN STRAP - 02 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(149)	1	TIE DOWN STRAP	MS3367-3-9	5975-00-451-5001	PLASTIC POLYAMIDE
(150)	2	TIE DOWN STRAP	MS3367-29-0	5975-01-607-1241	PLASTIC POLYAMIDE
<u>GROUP 16 - GASKET - 10 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(151)	1	GASKET	MS9135-01	5330-00-237-5653	ASBESTOS OVERALL AND RUBBER SYNTHETIC
(152)	2	GASKET	AG736000-01	5999-01-506-4338	
(153)	3	GASKET,	AG433000-03	5999-01-507-5162	
(154)	4	GASKET,	AG433000-03	5999-01-507-5162	
(155)	5	GASKET,	AG766000-01	5999-01-531-5747	
(156)	6	GASKET	753443-2	5330-01-298-8129	
(157)	7	GASKET,	AG723000-18	5330-01-531-6229	
(158)	8	GASKET,	AG728000-06	5330-01-534-2194	
(159)	9	GASKET,	AG843000-59	5330-01-534-2195	
(160)	10	GASKET,	AG843000-59	5330-01-534-2195	

RFI SER	GROUP SER	Description	Part No	NSN NUMBER	Material Specification
<u>NFC GROUP 17 - SEAL STEEL - 05 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(161)	1	SEAL	70968-06201-101	5330-01-096-9096	STEEL COMP 1010 CASE RUBBER SYNTHETIC SEALING ELEMENT
(162)	2	SEAL	70968-06201-102	5330-01-096-9096	
(163)	3	SEAL	70968-06203-101	5330-01-098-0637	
(164)	4	SEAL OUTPUT	70968-06205-103	5330-01-538-4769	STEEL CORROSION RESISTING CASE
(165)	5	SEAL	S-11065-23-5	5330-01-114-2174	
<u>NFC GROUP 18 - SEAL SILICONE - 04 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(166)	1	SEAL	71203-21001-106	1680-01-617-6620	SILICONE OVERALL
(167)	2	SEAL	71203-21001-104	1680-01-617-6627	
(168)	3	SEAL	71203-21001-105	5999-01-617-6373	
(169)	4	SEAL	71203-21001-107	5999-01-617-6395	
<u>NFC GROUP 19 - SEAL RUBBER - 03 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(170)	1	SEAL	752056-3	5330-01-259-0721	RUBBER SYNTHETIC OVERALL AND GLASS FIBER
(171)	2	SEAL	752056-1	5330-01-259-0722	
(172)	3	SEAL	752056-2	5330-01-263-1946	
<u>NFC GROUP 20 - SEAL ALUMINUM - 02 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(173)	1	SEAL	MS27194-32	5330-00-902-7950	ALUMINUM ALLOY 6061 OVERALL AND RUBBER BUTADIENE- ACRYLONITRILE CLASS NBR
(174)	2	SEAL	MS27195-40	5330-01-107-6633	ALUMINUM ALLOY A332.0 CORE RUBBER INSERT
<u>NFC GROUP 21 - BOLT - 02 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(175)	1	BOLT	70351-48700-101	5306-01-600-4439	
(176)	2	BOLT	NAS630-35	5306-00-003-9356	STEEL COMP 4140 OVERALL OR STEEL COMP E4340 OR STEEL COMP 6150 OR STEEL COMP 8735 OR STEEL COMP 8740
<u>NFC GROUP 22 - INSERT - 01 BY TYPE; PROTOTYPE - 10; BULK - 90</u>					
(177)	NFC 24	Insert	79698-1216	5325-01-163-6206	SILVER
<u>NFC GROUP 23 - GREASE FITTING - 01 BY TYPE; PROTOTYPE - 10; BULK - 40</u>					
(178)	NFC 23	GREASE FITTING	MS15003-1	4730-00-050-4208	STEEL OVERALL
<u>NFC GROUP 23 - FILTER - 01 BY TYPE; PROTOTYPE - 05; BULK - 20</u>					
(179)	NFC 22	FILTER ELEMENT FIRST STAGE	70351-38801-102	1650-01-266-9728	STEEL CORROSION RESISTING CONTAINER/CARTRIDGE GLASS FIBER FILTERING MEDIUM AND RESIN NATURAL